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Creator (Creation Date):	mike@atlassian.com (Dec 17, 2003)
Last Modifier (Mod. Date):	vidya (Dec 14, 2005)

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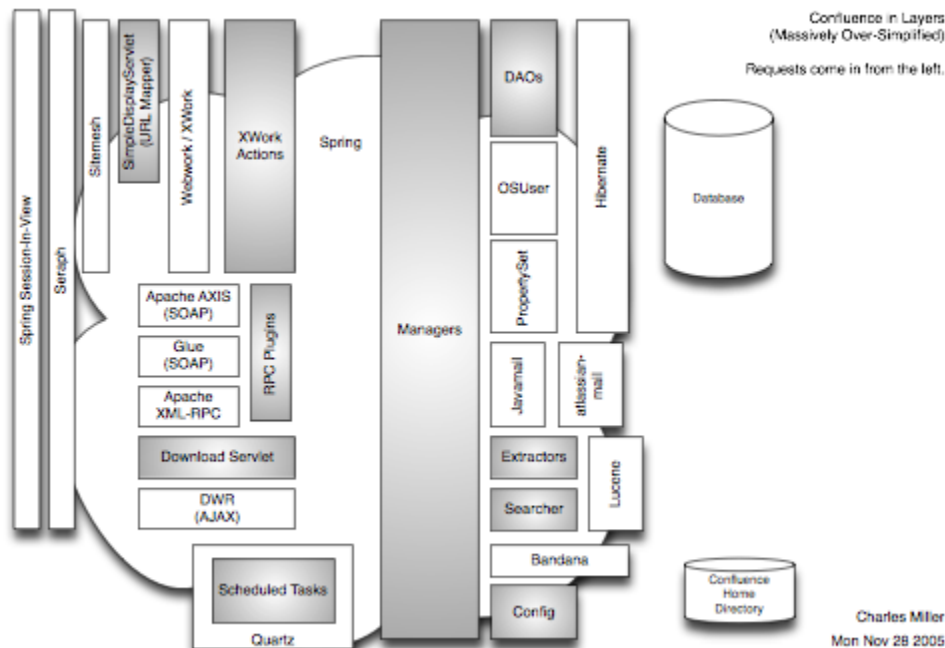
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Confluence Development Hub

This page last changed on Apr 09, 2007 by [jnolen](#).



Getting Started With Plugins

This is a quick guide to getting off the ground when starting a new plugin for Confluence.

[The Guide](#)

Building and Deploying Confluence has been broken into a series of steps.

1. [Initial development environment setup](#)
2. [Building and Deploying Confluence in IDEA](#)
 - [Setup Confluence Source Code For Development](#)
 - [Creating an IDEA project with a Confluence distribution](#)
3. [Building and Deploying Plugins in IDEA](#)
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4. [Packaging and releasing a plugin](#)

Extra Information

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- [Userinfo Plugin Tutorial](#)
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- [Single Sign-on](#)
- [Writing Confluence Plugins](#)
 - [Accessing Confluence Components From Plugin Modules](#)
 - [Confluence Plugin Module Types](#)
 - [Code Formatting Plugins](#) — Code formatting plugin modules allow you to add new languages to the {code} macro.
 - [Component Plugins](#)
 - [Downloadable Plugin Resources](#)
 - [Event Listener Plugins](#)
 - [Extractor Plugins](#) — Extractor plugins allow you to hook into the mechanism by which Confluence populates its search index.
 - [Job Plugins](#)
 - [Language Pack Plugins](#)
 - [Lifecycle Plugins](#) — Lifecycle plugins allow you to perform tasks on application startup and shutdown
 - [Macro Plugins](#)
 - [RPC Plugins](#)
 - [Servlet Plugins](#)
 - [Spring Component Plugins](#)
 - [StateAware](#)
 - [Theme Plugins](#)
 - [Trigger Plugins](#)
 - [User Macro Plugins](#)
 - [Velocity Context Plugins](#)
 - [Web UI Plugins](#) — Web UI plugin modules allow you to insert links, tabs and sections of links into the Confluence web interface
 - [Workflow Plugins](#)
 - [XWork-WebWork Plugins](#)
 - [Plugin Self-Configuration](#)

Customise Confluence Page Exports

Modify the style or content of the following page exports:

- [Customise Adobe PDF Exports](#)
- [Customise MS Word Exports](#)

Remote API

- [Remote API Specification](#)

Resources

- [Confluence Developer Forum](#)
- [Current Confluence API Documentation](#)
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The Confluence [Confluence Developer FAQ](#)

[How do I associate my own properties with a ContentEntityObject?](#) (Confluence)
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[What's the easiest way to render a velocity template from Java code?](#) (Confluence)
[Within a Confluence macro, how do I retrieve the current ContentEntityObject?](#) (Confluence)

Confluence Developer FAQ

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

This is a constantly updated FAQ listing questions and answers asked by people developing Confluence plugins and working with the Confluence code base in general. For general questions, check [Confluence Main FAQ](#).



If you have a question, please ask it as a comment and someone from Atlassian will reply. Comment threads will gradually be merged back into this FAQ as needed. Please try to be as specific as possible with your questions.

Questions

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[What's the easiest way to render a velocity template from Java code?](#)
[Within a Confluence macro, how do I retrieve the current ContentEntityObject?](#)

Encrypting error messages in Sybase

This page last changed on Aug 21, 2006 by ivan@atlassian.com.

[Adaptive server messages](#)

http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.help.ase_12.5.svrtsg/html/svrtsg/svrtsg284.htm

How do I associate my own properties with a ContentEntityObject?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I associate my own properties with a ContentEntityObject?

You will need the [ContentEntityManager](#) (see [how to retrieve it](#)). This manager allows you to store and retrieve arbitrary String values associated with a ContentEntityObject.

Properties are stored as simple key/value pairs. We recommend that anyone writing a third-party plugin use the standard Java "reverse domain name" syntax to ensure their keys are unique. Keys may be no longer than 200 characters.

```
// Set the property
contentPropertyManager.setText(page, "com.example.myProperty", "This is the value")
// Retrieve it
String myProperty = contentPropertyManager.getText(page, "com.example.myProperty")
```

getText and setText can store strings of arbitrary length (up to the size-limit for CLOBs in your database). There is also a getString and setString which is slightly more efficient, but limited to 255 characters per value.

How do I autowire a component?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I autowire a component?

Most of the time, you don't have to. All plugins will have their 'primary' objects (The macro in a macro plugin, the XWork actions in an XWork plugin, the RPC handler in an RPC plugin and so on...) autowired.

If you want to write an arbitrary object that is autowired, but that is not any particular plugin type itself, write a [Component Plugin Module](#). The added advantage of this is that Confluence will then autowire other plugins with the component you have just written.

If, however, you find you need to autowire an arbitrary object with Spring components, use `bucket.util.ContainerManager`

```
bucket.container.ContainerManager.autowireComponent(myObject);
```

Where `myObject` is the object instance that you wish to be autowired.

How do I change the default polling time for email in Confluence?

This page last changed on Jul 20, 2006 by ivan@atlassian.com.

Modify the `cronExpression` property of the `mailPollTrigger` bean in `schedulingSubsystemContext.xml` file.

```
\etc\java\schedulingSubsystemContext.xml
```

For example, the expression below will fire at 12pm (noon) every day:

```
<property name="cronExpression">
  <value>0 0 12 * * ?</value>
</property>
```



Cron expression

You may also like to view an information on how to create Cron expressions to provide the ability to specify complex time combination.

<http://quartz.sourceforge.net/javadoc/org/quartz/CronTrigger.html>

How do I configure Confluence to use GMail as the mail server

This page last changed on Apr 18, 2007 by [dchui](#).

To configure Confluence to use Gmail to send emails, you will need to create a JNDI mail session and then have Confluence use it as per this document.

Please see [Setup a mail session in standalone version](#) for some guidelines.

```
<Resource name="mail/Session"
  auth="Container"
  type="javax.mail.Session"
  mail.smtp.host="smtp.gmail.com"
  mail.smtp.port="465"
  mail.smtp.auth="true"
  mail.smtp.user="nobody@gmail.com"
  password="foobar"
  mail.smtp.starttls.enable="true"
  mail.smtp.socketFactory.class="javax.net.ssl.SSLSocketFactory"
/>
```

Note: You may optionally add `mail.debug=true` into the `<Resource>` to see logs generated by JavaMail.

How do I convert wiki text to HTML?

This page last changed on Mar 16, 2006 by [mryall](#).

Cannot resolve external resource into attachment. How do I convert wiki text to HTML?

This depends on where you want to do it:

In a macro...

You will need the [SubRenderer](#) (see [how to retrieve it](#)).

The SubRenderer has two render methods: one that allows you to specify a specific [RenderMode](#) for the rendered content, and another that uses the current RenderMode from the [RenderContext](#).



If you just want the body of your macro rendered, you can have this done for you by the macro subsystem by having your macro's `getBodyRenderMode` method return the appropriate `RenderMode`.

In some other component...

You will need the [WikiStyleRenderer](#) (see [how to retrieve a component](#)).

The WikiStyleRenderer has a `convertWikiToHtml` method that takes the wiki text you wish to convert, and a [RenderContext](#). If you are converting the text in the context of some `ContentEntityObject` (for example within a page or blog post), then you can call `contentEntityObject.toPageContext()` to retrieve its `RenderContext`. Otherwise pass in a new `PageContext()`.

How do I find information about lost attachments?

This page last changed on Jan 02, 2007 by ivan@atlassian.com.

You may like to use the [findattachments.jsp](#) which should detect missing attachments.

Simply copy it to `confluence/admin/findattachments.jsp` and access it at
`<confluence_base_url>/admin/findattachments.jsp`

Below is an example of the result generated by `http://<confluence_base_url>/admin/findattachments.jsp`

Beginning search...

Missing attachment: `<path>/attachments/3477/279/1`, filename: `Final-OdysseyCodingConventions.doc`,
filetype: Word Document

As you can see in the above example, the script will report:

Location of the attachment missing

Full Name of the attachment

File type recognised :

- PDF Document
- Image
- XML File
- HTML Document
- Text File
- Word Document
- Excel Spreadsheet
- PowerPoint Presentation
- Java Source File
- Zip Archive

How do I find the logged in user?

This page last changed on Feb 25, 2006 by dhardiker@adaptavist.com.

Cannot resolve external resource into attachment. How do I find the logged in user?

This can be retrieved easily from the `com.atlassian.confluence.user.AuthenticatedUserThreadLocal` class which will give you the current logged in user as a `com.atlassian.user.User` object.

```
User user = AuthenticatedUserThreadLocal.getUser();
```

Should the user not be logged in the user object will be null.

How do I get a reference to a component?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I get a reference to a component?

Confluence's component system is powered by Spring, but we've done a lot of nice things to make it easier for developers to get their hands on a component at any time.

Autowired Objects

If your object is being autowired (for example another plugin module or an XWork action), the easiest way to access a component is to add a basic Java setter method.

For example, if you need a [SpaceManager](#) simply add the following setter method. This setter will be called when the object is created.

```
public void setSpaceManager(SpaceManager spaceManager)
{
    this.spaceManager = spaceManager;
}
```



You can also write your own components which are automatically injected into your plugins in the same way. See [Component Plugins](#) for more detail

Non-autowired Objects

If your object is not being autowired, you may need to retrieve the component explicitly. This is done via the ContainerManager like so:

```
SpaceManager spaceManager = (SpaceManager) ContainerManager.getComponent("spaceManager");
```

How do I get hold of the HttpServletRequest?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I get hold of the HttpServletRequest?

```
HttpServletRequest request = ServletActionContext.getRequest();
if (request != null)
{
    // do something here
}
```

You should always assume that `ServletActionContext.getRequest()` will return null. `ServletActionContext` is only populated if the request comes in through WebWork. There are a number of circumstances in which it will not be populated, either because a web request has come in through some other path, or because there was no web request in the first place:

- AJAX requests that come in via the DWR servlet
- SOAP/XML-RPC requests
- Scheduled tasks, including the sending of email notifications

Treat `ServletActionContext` as a bonus. If it's populated you can do neat things with it, but don't rely on it.

How do I get the base URL and ContextPath of a Confluence installation?

This page last changed on Apr 26, 2006 by [cmiller](#).

Cannot resolve external resource into attachment. How do I get the base URL of a Confluence installation?

What are the base URL and context path?

The base URL is the URL for the root of your Confluence site. For example, the base URL for this site is <http://confluence.atlassian.com>. If you have installed Confluence somewhere other than the root directory of the webserver, for example <http://www.example.com/confluence>, then your base URL would be <http://www.example.com/confluence>.

Confluence attempts to guess the correct base URL for the site during setup. You can change it in the site's General Configuration.

The context path is the path to Confluence relative to the root directory of the webserver. For example, the context path for this site is an empty string, because it is deployed at the root. The context path for a Confluence instance deployed at <http://www.example.com/confluence> would be /confluence.

How do I determine the base URL and context path?

First you need the [BootstrapManager](#) (see [how to retrieve it](#)) then simply call the following method:

```
String baseUrl = bootstrapManager.getBaseUrl();
```



In Confluence 2.0 and earlier the method was called `bootstrapManager.getDomain()`. The `getDomain()` method was deprecated in favour of `getBaseUrl()` in Confluence 2.1, because the latter name better describes the information it returns.

To get the context path, use

```
String contextPath = bootstrapManager.getWebAppContextPath()
```

How do I get the information about Confluence such as version number, build number, build date?

This page last changed on Jul 20, 2006 by ivan@atlassian.com.

Information about Confluence, such as the version number, build number and build date, can be retrieved from the [GeneralUtil](#) object.

You can use GeneralUtils public accessors to retrieve public static variables:

- `versionNumber`
- `buildDate`
- `buildNumber`

In Java

```
String versionNumber = GeneralUtil.getVersionNumber();

String buildNumber = GeneralUtil.getBuildNumber();

String buildDate = GeneralUtil.getBuildDateString();
```

or

```
Date buildDate = GeneralUtil.getBuildDate();
```

In Velocity

```
$generalUtil.versionNumber
$generalUtil.buildNumber
$generalUtil.buildDateString
```

For instance, part of the Confluence footer is generated in the footer.vm file:

```
(Version: $generalUtil.versionNumber Build:#$generalUtil.buildNumber
$generalUtil.buildDateString)
```

In Wiki markup

[User Macros](#) can include the Velocity markup given above. For example, create a macro called 'version' with no body and the contents:

```
$generalUtil.versionNumber
```

You can use this user macro in a page like this:

Congratulation, you're running Confluence version {version}!

How do I get the location of the confluence.home directory?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I get the location of the confluence.home directory?

First you need the [BootstrapManager](#) (see [how to retrieve it](#)) then simply call the following method:

```
String confluenceHome = bootstrapManager.getConfluenceHome();
```



The BootstrapManager also has a `getConfiguredConfluenceHome` method. This method is used during system startup to determine the location of `confluence.home` from first principles. There is no reason for you to call this method: `getConfluenceHome` should be sufficient.

How do I load a resource from a plugin?

This page last changed on Dec 04, 2006 by [jnolen](#).

The recommended way to get resources from the classpath in Confluence is:

```
InputStream in = com.atlassian.core.util.ClassLoaderUtils.getResourceAsStream(filename, this);
```

ClassLoaderUtils tries a couple of different classloaders, something we've occasionally found necessary in some application servers.

How do I make my attachments open in a new window or a tab?

This page last changed on Apr 19, 2007 by ivan@atlassian.com.

Cannot resolve external resource into attachment. How do I make my attachments open in a new window/tab?

You need to add a TARGET = "_blank" to the <a href> HTML tag.

The A element used in HTML denotes an anchor which is a hypertext link.

The HREF attribute specifies a hypertext link to another resource, such as an HTML document or a JPEG image.

The TARGET attribute is used with frames to specify the frame in which the link should be rendered. If no frame with such a name exists, the link is rendered in a new window unless overridden by the user.

Special frame names begin with

an underscore. The frame used in this document is the _blank which renders the link in a new, unnamed window.

<Source: <http://www.w3.org/TR/html401/struct/links.html> >

For example, by using the HTML code below, clicking on the link "a new window" will open the "newwindow.html" page in a new window:

```
<A href="newwindow.html" _TARGET="_blank">a new window</A>
```

Open attachments listed for a Space

To open the attachments listed from the Browse Space->Attachments tab, in a new window, the `..\confluence\src\webapp\pages\listattachmentsforspace.vm` file under your <Confluence-install> directory has to be modified. Below are the listed steps:

1. Locate the following block of code in the listattachmentsforspace.vm file:

```
foreach ($attachment in $pagedAttachments)
    <tr #alternateRowColors() id="attachment_$attachment.id">
        <td width="1%" nowrap valign="top"><a
name="$generalUtil.urlEncode($attachment.content.realTitle)-attachment-$generalUtil.urlEncode($attachment.fileName)"
("/pages/includes/attachment_icon.vm")></a> <a
href="$req.contextPath$attachment.downloadPathWithoutVersion"
>$attachment.fileName</a></td>
        <td width="1%" nowrap valign="top">$attachment.niceFileSize</td>
        <td width="1%" nowrap
        valign="top">#usernameLink($attachment.creatorName) #if
($attachment.creatorName!=$attachment.lastModifierName) ($saction.getText('last.modified.by'))
#usernameLink($attachment.lastModifierName)) #end</td>
        <td width="1%" nowrap
        valign="top">$dateFormatter.format($attachment.lastModificationDate)</td>
        <td>#contentLink2 ($attachment.getContent() true false)</td>
    </tr>
#end
```

2. In the line below:


```
<td width="1%" nowrap valign="top"><a
name="$generalUtil.urlEncode($attachment.content.realTitle)-attachment-$generalUtil.urlEncode($attachment.fileName)
#parse ("/pages/includes/attachment_icon.vm")</a> <a
href="$req.contextPath$attachment.downloadPathWithoutVersion"
>$attachment.fileName</a></td>
```

add the parameter TARGET = "_blank" to the <a href> HTML tag, which will cause the URL specified in the href parameter to open in a new window or a new tag depending upon the option set in the browser. So the line above will be modified to:

```
<td width="1%" nowrap valign="top"><a
name="$generalUtil.urlEncode($attachment.content.realTitle)-attachment-$generalUtil.urlEncode($attachment.fileName)
#parse ("/pages/includes/attachment_icon.vm")</a> <a
href="$req.contextPath$attachment.downloadPathWithoutVersion"          *TARGET =
"_blank">$attachment.fileName</a></td>
```

Open attachments listed for a Page

To open the page attachments listed from the Page's Attachment(s) tab, in a new window, the `..\confluence\src\webapp\pages\viewattachments.vm` file under your <Confluence-install> directory has to be modified. Below are the listed steps:

1. Locate the following block of code in the viewattachments.vm file:

```
<td nowrap valign="top"><a
name="$generalUtil.htmlEncode($generalUtil.urlEncode($page.title))-attachment-$generalUtil.htmlEncode($generalUtil.urlEncode($attachment.fileName))
("/pages/includes/attachment_icon.vm")</a> <a href="$generalUtil.htmlEncode("
${req.contextPath}${attachment.downloadPathWithoutVersion}")"TARGET =
"_blank">$generalUtil.htmlEncode($attachment.fileName)</a></td>
```

2. In the line below:

```
<a
name="$generalUtil.htmlEncode($generalUtil.urlEncode($page.title))-attachment-$generalUtil.htmlEncode($generalUtil.urlEncode($attachment.fileName))
#parse ("/pages/includes/attachment_icon.vm")</a> <a href="$generalUtil.htmlEncode("
${req.contextPath}${attachment.downloadPathWithoutVersion}")">$generalUtil.htmlEncode($attachment.fileName)</a>
```

add the parameter TARGET = "_blank" to the <a> HTML tag, which will cause the URL specified in the href parameter to open in a new window or a new tag depending upon the option set in the browser. So the line above will be modified to:

```
<a
name="$generalUtil.htmlEncode($generalUtil.urlEncode($page.title))-attachment-$generalUtil.htmlEncode($generalUtil.urlEncode($attachment.fileName))
#parse ("/pages/includes/attachment_icon.vm")</a> <a href="$generalUtil.htmlEncode("
${req.contextPath}${attachment.downloadPathWithoutVersion}")" TARGET =
"_blank">$generalUtil.htmlEncode($attachment.fileName)</a>
```

How do I prevent my rendered wiki text from being surrounded by paragraph tags?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. How do I prevent my rendered wiki text from being surrounded by <p> tags?

When wiki text is converted to HTML, the level of conversion is determined by the [RenderMode](#) set within the [RenderContext](#). Understanding RenderMode is quite important, so you should familiarise yourself with the documentation linked above.

There are two render modes that are useful if you want to avoid the output being placed inside paragraph tags:

`RenderMode.INLINE` will suppress the rendering of all block-level HTML elements, including paragraphs, blockquotes, tables and lists. Inline elements such as text decorations, links and images will still be rendered.

`RenderMode.suppress( RenderMode.F_FIRST_PARA )` will render block-level elements as usual, but if the first such element is a paragraph, no paragraph tags will be drawn around it. This is useful if you're placing your output inside a `<div>`.

If you are writing a macro, you will also need to return `true` from your macro's `isInline` method.

How do I tell if a user has permission to...?

This page last changed on Oct 29, 2006 by ivan@atlassian.com.

Cannot resolve external resource into attachment. How do I tell if a user has permission to...?

When you're writing a Confluence plugin, it's important to check that the user has permission to do the operations your plugin is performing. Confluence does not enforce security for you, it's up to your code to perform these checks.

There are two places you might want to check permissions:

- [In Java Code](#)
- [In Velocity Templates](#)

In Java Code:

You will need:

1. the User object of the user whose permissions you want to check ([How do I find the logged in user?](#))
2. the permissionManager component from Spring ([How do I get a reference to a component?](#))

The PermissionManager has quite a few methods ([Javadoc](#)), but the most important are:

```
/**
 * Determine whether a user has a particular permission against a given target.
 *
 * @param user the user seeking permission, or null if the anonymous user is being checked
 * against
 * @param permission the permission to check
 * @param target the object that the permission is being checked against. If this object is
 * null, the method
 *      will return false
 * @return true if the user has this permission, false otherwise
 * @throws IllegalStateException if the permission being checked against does not apply to
 * the target
 */
boolean hasPermission(User user, Permission permission, Object target);

/**
 * Determine whether a user has permission to create an entity of a particular type within
 * a given container.
 *
 * <p>The container is the natural container of the object being created. For example, a
 * comment is contained
 * in a page, which is contained within TARGET_APPLICATION.
 *
 * @param user the user seeking permission, or null if the anonymous user is being checked
 * against
 * @param container the target that the object is being created within. If this object is
 * null, the method
 *      will return false
 * @param typeToCreate the type of object being created (see above)
 * @return true if the user has permission, false otherwise
 * @see com.atlassian.confluence.core.ContentEntityObject#getType()
 * @throws IllegalStateException if the permission being checked against does not apply to
```

```
the target
*/
boolean hasCreatePermission(User user, Object container, Class typeToCreate);
```

Simple Permissions

Generally you're going to be asking the question: "Does some user have permission to do something to some target?" For example: "Does BOB have permission to VIEW this PAGE?", "Does JANE have permission to REMOVE this ATTACHMENT?" These questions map to the `hasPermission()` method above.

The various values of "something" are all constants of the `Permission` class listed in [this Javadoc](#). At the time this document was written, the permission 'verbs' are:

```
Permission.VIEW
Permission.EDIT
Permission.EXPORT
Permission.REMOVE
Permission.SET_PERMISSIONS
Permission.ADMINISTER
```

So to check if your user has permission to edit a particular page, the call is:

```
permissionManager.hasPermission(myUser, Permission.EDIT, thePage)
```

For global permissions, the 'target object' is considered to be the Confluence application itself. There is a special target, `TARGET_APPLICATION` that represents the application as a whole. So to check if someone is a global administrator, call:

```
permissionManager.hasPermission(myUser, Permission.ADMINISTER,
PermissionManager.TARGET_APPLICATION)
```

Create Permissions

Checking if someone has the ability to create an object (page, blogpost, space, etc) is a little more complicated. Every object is created inside some other object. Comments and Attachments are created inside Pages or BlogPosts. Pages are created inside Spaces. And Spaces are created inside `TARGET_APPLICATION`.

So to check if someone can create something, the question is: "Does this user have permission to create this KIND OF OBJECT, in this CONTAINER?" In Java, kinds of objects are represented by their class, so to see if a user can create a comment inside a particular page, you'd call:

```
permissionManager.hasCreatePermission(myUser, containingPage, Comment.class)
```

And to check if the user has permission to create spaces globally:

```
permissionManager.asCreatePermission(myUser, PermissionManager.TARGET_APPLICATION, Space.class)
```

In Velocity Templates

While all of the above is very powerful, it's a bit complicated to deal with in a Velocity file. There is an object in the default velocity context called `$permissionHelper` which has a bunch of useful methods on it. All the methods do pretty much what you'd expect them to do, so I'll just link to the Javadoc:

<http://www.atlassian.com/software/confluence/docs/api/latest/com/atlassian/confluence/security/PermissionHelper.html>

And give a simple example:

```
#if ($permissionHelper.canEdit($remoteUser, $action.page))
    <b>You have Edit Permission for this Page</b>
#end
```

How does RENDERMODE work?

This page last changed on Mar 07, 2006 by [jnolen](#).

Speaking generally, macros will want to do one of three things with their body:

1. Pass the body through wiki->html conversion, then do something to it like stick some more HTML around it. (i.e. {panel})
2. Do something to the body, then pass it through wiki->html conversion (I don't really have an example of this)
3. Treat the body as data, not as wiki text. (i.e. {tasklist})

`getBodyRenderMode()` makes the first case above really easy, because the macro renderer will convert your body from wiki text to HTML before it's passed to your macro's `execute()` method. That way your macro has ready-made HTML delivered to it, and you don't need to do anything.

If you return `RenderMode.ALL` from `getBodyRenderMode()`, then the body is rendered the same as a Confluence page. You can, however, return different values to only have a subset of renderings applied to your macro body: `RenderMode.INLINE`, for example, will ignore things like paragraphs, headers or blockquotes.

So, for example, the `{color}` macro returns `RenderMode.INLINE`, since you can only really use `{color}` inside a paragraph.

If you are doing macros of type 2 or 3, you'll need to return `RenderMode.NO_RENDER`, which means the raw body is passed into your macro with no pre-processing. You can then do whatever you want with it (including grabbing the `SubRenderer` component and converting it to wiki text yourself).

Here's the relevant portion of the `MacroRendererComponent`, which does all the work, if Java code is more your thing:

```
private void processMacro(String command, Macro macro, String body,
                        Map params, RenderContext context,
                        StringBuffer buffer)
{
    String renderedBody = body;
    try
    {
        if (TextUtils.stringSet(body) && macro.getBodyRenderMode() != null
            && !macro.getBodyRenderMode().renderNothing())
        {
            renderedBody = subRenderer.render(body, context, macro.getBodyRenderMode());
        }

        String macroResult = macro.execute(params, renderedBody, context);

        if (macro.getBodyRenderMode() == null)
        {
            buffer.append(macroResult);
        }
        else if (macro.isInline())
        {
            buffer.append(context.getRenderedContentStore().addInline(macroResult));
        }
        else
        {
            buffer.append(context.addRenderedContent(macroResult));
        }
    }
}
```

```
    }  
    catch (MacroException e)  
    {  
        log.info("Error formatting macro: " + command + ": " + e, e);  
        buffer.append(makeMacroError(context, command + ": " + e.getMessage(), body));  
    }  
    catch (Throwable t)  
    {  
        log.error("Unexpected error formatting macro: " + command, t);  
        buffer.append(makeMacroError(context, "Error formatting macro: " + command + ": " +  
t.toString(), body));  
    }  
}
```

HTTP Response Code Definitions

This page last changed on Apr 19, 2007 by [ktran](#).

HTTP Response Codes

Below is a list of HTTP Response codes and their meaning.

This information was obtained from:

[HTTP Response Code Definitions](#)

Code	Meaning
100	Continue
101	Switching Protocols
200	OK
201	Created
202	Accepted
203	Non-Authoritative Information
204	No Content
205	Reset Content
206	Partial Content
300	Multiple Choices
301	Moved Permanently
302	Found
303	See Other
304	Not Modified
305	Use Proxy
307	Temporary Redirect
400	Bad Request
401	Unauthorized
402	Payment Required
403	Forbidden
404	Not Found
405	Method Not Allowed
406	Not Acceptable
407	Proxy Authentication Required
408	Request Time-out
409	Conflict

410	Gone
411	Length Required
412	Precondition Failed
413	Request Entity Too Large
414	Request-URI Too Large
415	Unsupported Media Type
416	Requested range not satisfiable
417	Expectation Failed
500	Internal Server Error
501	Not Implemented
502	Bad Gateway
503	Service Unavailable
504	Gateway Time-out
505	HTTP Version not supported

Live HTTP Headers

It would be useful to obtain information on HTTP response headers. If you are using Mozilla Firefox, you can download an 'add-ons' (extension) called [LiveHTTPHeaders](#) which will allow you to capture this information.

Installation Instructions

1. [Download](#) and install the Plugin
2. Restart Firefox
3. Go to Tools in the menu bar and click on Live HTTP Headers. This will trigger the functionality.

Now try accessing the Confluence main page and all HTTP request headers, cookies descriptions (such as the seraph authentication 'seraph.os.cookie') will be logged in the pop-up window. Please save this information in a text file, use the 'Save All' option.

[Download Live HTTP Headers add-on](#)

I am trying to compile a plugin, but get an error about the target release

This page last changed on Feb 02, 2006 by david.soul@atlassian.com.

I am trying to compile a plugin, but get an error about the "target release"

When compiling plugins and using version 1.5 of the JDK, the following error may appear:

```
javac: target release 1.3 conflicts with default source release 1.5
```

SOLUTION

The solution is essentially to tell your compiler to target Java 1.3. How to do this will differ depending on what compiler you are using, but generally, something like this will work:

```
javac -target 1.3 <other options here>
```

If you are using Maven to build your project, try adding the following to your `project.properties` or `build.properties` file:

```
# Set the javac target to 1.3
maven.compile.target=1.3
maven.compile.source=1.3
```

RELATED TOPICS

[Confluence Plugin Guide](#)

[FAQ Home](#)

I have checked out the source, and use IntelliJ IDEA. Where do I go from here?

This page last changed on Mar 28, 2007 by [jnolen](#).

Cannot resolve external resource into attachment. I have checked out the source, and use IntelliJ IDEA. Where do I go from here?

See [Build and Deploy Confluence and Confluence Plugins](#).

What class should my macro extend?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. What class should my macro extend?

It should extend [com.atlassian.rendererv2.macro.BaseMacro](#), not [com.atlassian.rendererv2.macro.BaseMacro](#).

What class should my XWork action plugin extend?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. What class should my XWork action plugin extend?

WebWork actions must implement `com.opensymphony.xwork.Action`. However, we recommend you make your action extend [ConfluenceActionSupport](#), which provides a number of helper methods and components that are useful when writing an Action that works within Confluence.

Other action base-classes can be found within Confluence, but we recommend you don't use them - the hierarchy of action classes in Confluence is over-complicated, and likely to be simplified in the future in a way that will break your plugins.

What is Bandana? One form of Confluence Persistence

This page last changed on Dec 01, 2006 by [jnolen](#).

Bandana is Atlassian's hierarchical data storage mechanism, it breaks objects into XML and stores them, to be retrieved later... uses xstream and a little hierarchical magic under the covers and has another strange Atlassian codename. It is one way to persist data inside your plugin. It is good for global config types of data.

It uses XStream to serialize Java strings (and objects?) to and from XML.

Examples:

The BandanaManager can be acquired via Confluence's (Spring's) dependency injection.

Data in this case is written to: confluence-data-dir/config/confluence-global.bandana.xml

Writing data:

```
bandanaManager.setValue(new ConfluenceBandanaContext(), GmapsManager.GOOGLE_MAPS_API_KEY,
updateApiKey);
```

Retrieving data:

```
public String getGoogleApiKey()
{
    return (String) bandanaManager.getValue(new ConfluenceBandanaContext(),
GmapsManager.GOOGLE_MAPS_API_KEY);
}
```

See also: [Persistence in Confluence](#)

What's the easiest way to render a velocity template from Java code?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. What's the easiest way to render a velocity template from Java code?

Use [VelocityUtils](#). You will need to provide VelocityUtils with the name of the template you want to render, and a map of parameters that will be made available within the template as \$variables in velocity.

Confluence has a default set of objects for Confluence velocity templates. These are required for most Confluence velocity macros to work properly. To obtain this context, you should call [MacroUtils.defaultVelocityContext\(\)](#);

```
// Create the Velocity Context
HashMap context = MacroUtils.defaultVelocityContext();
context.put("myCustomVar", customVar);
context.put("otherCustomVar", otherCustomVar);
// Render the Template
String result = VelocityUtils.getRenderedTemplate("/com/myplugin/templates/macro.vm", context);
```

Within a Confluence macro, how do I retrieve the current ContentEntityObject?

This page last changed on Jan 24, 2006 by [jnolen](#).

Cannot resolve external resource into attachment. Within a Confluence macro, how do I retrieve the current ContentEntityObject?

You can retrieve the current [ContentEntityObject](#) (ie the content object this macro is a part of), as follows:

```
public String execute(Map parameters, String body, RenderContext renderContext) throws
MacroException {
    // retrieve a reference to the body object this macro is in
    if (!(renderContext instanceof PageContext))
    {
        throw new MacroException("This macro can only be used in a page");
    }
    ContentEntityObject contentObject = ((PageContext)renderContext).getEntity();
    ...
}
```

Note that this method might return null if there is no current content object (for example if you are previewing a page that has not been added yet, or if a remote user is rendering a fragment of notation).

Confluence Developer Forum

This page last changed on Nov 19, 2006 by [cmiller](#).

The Confluence Developer Forum is a place for the discussion of extending and customising Confluence. There are two ways to join the discussion:

- [Read the web-based forum](#)
- [Join the mailing-list](#)

Forum Guidelines

The developer forum is set up for the discussion of:

- Confluence development: Plugins, themes or Confluence source customisation
- Confluence's internal and remote APIs
- Automation of tasks in Confluence
- Announcement of new Confluence developer releases
- Announcement of new plugin releases
- Requests for plugins or customisation services
- Complaints that Atlassian have broken the plugin APIs again

The following are discouraged:

- Requests for support setting up or running Confluence should be directed to <http://support.atlassian.com>
- Bug-reports should be submitted to <http://jira.atlassian.com> (If the bug is specific to plugin development or Confluence's internal APIs, you can discuss it on the developer forum, but PLEASE submit a bug as well!)
- Questions about using, running or administering Confluence should be directed to [The general Confluence forum](#)
- It's OK to respond to requests for professional services on the forum, or to plug your business in plugin announcements or your signature, but please don't just post advertisements.

The Developer FAQ

Some questions come up on the forum a lot. Make sure you've checked the [Confluence Developer FAQ](#) first.

About the Participants

When taking part in the forum, please keep in mind that Confluence licenses do not include a guaranteed level of developer support. The Confluence development team follows and contributes to the forum because it's important to us to have a healthy ecosystem of third-party developers, and because we love seeing the cool stuff that our customers and partners come up with. That said, we can't respond to every request, and developers are also expected to help themselves by reading the available documentation, the API, and occasionally even looking at the Confluence source-code.

Also keep in mind that a lot of the people on the list don't work for Atlassian at all, and are answering questions because they're nice people.

Confluence Internals

This page last changed on Nov 20, 2006 by [mryall](#).

Confluence is a large and complex application. This area documents some of the more complicated aspects of its design. For a complete reference, please refer to the source code which is available for download with all commercial licenses.

- [Bandana caching](#)
- [Character encodings in Confluence](#)
- [Clustering in Confluence](#)
- [Confluence rendering pipeline](#)
- [Date formatting with time zones](#)
- [HTTP authentication with Seraph](#)
- [Persistence in Confluence](#)
- [Spring IoC in Confluence](#)
- [Velocity Template Overview](#)
 - [Basic Introduction to Velocity](#)
 - [Confluence Objects Accessible From Velocity](#)

Bandana caching

This page last changed on Nov 21, 2006 by [mryall](#).

Introduction



This is a technical description of Confluence's Bandana caching mechanism. It is primarily designed for Confluence developers, but published here because it might prove useful to some plugin developers.

For an overview of all of Confluence's persistence mechanisms, see [Persistence in Confluence](#).

Confluence's Bandana subsystem is used for persisting configuration settings for Confluence and its plugins. Any persistence mechanism requires careful thought with regard to updates. Transactions are the main mechanism for controlled updates to shared data, and it's important that transactions are treated consistently across all the subsystems involved.

Confluence 2.3 has moved Bandana data to the database in order for it to be shared among [clustered nodes](#). Using Hibernate meant that the updates done to the database were immediately transactional, but the Bandana caching layer still needed to be updated to be transaction-aware.

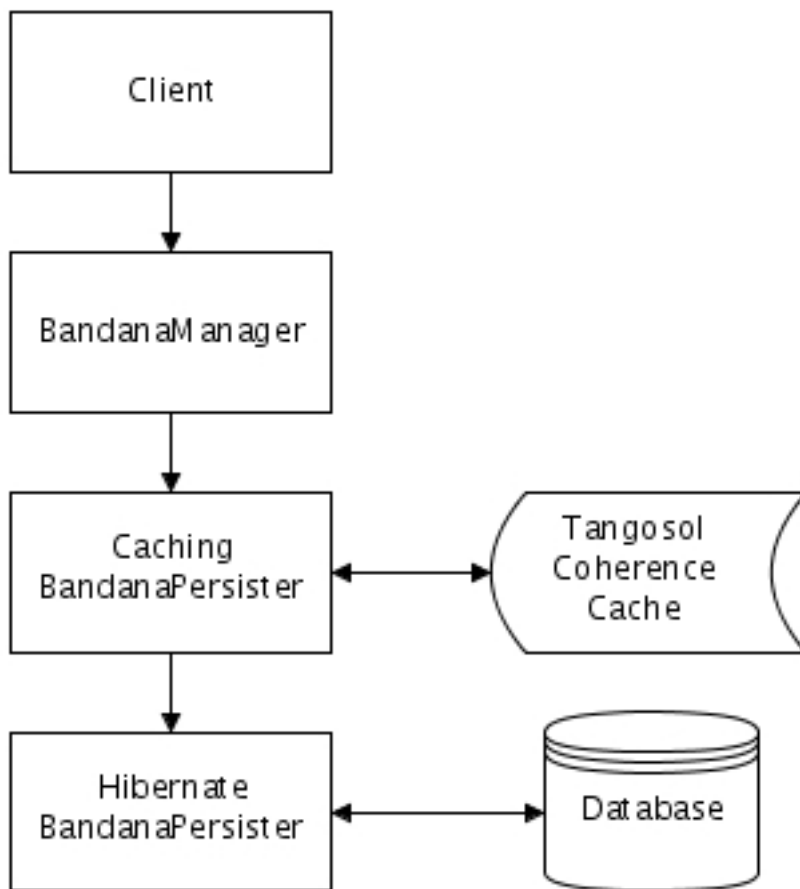
This document describes the caching system used by Bandana in Confluence 2.3 which allows it to deal correctly with transactional updates. The caching system may be used more extensively for other areas in Confluence going forward.

Caching layer

The caching layer for Bandana is necessary because all the data is persisted as XML. When configuration objects are retrieved from the data store, they are deserialized back into Java objects via [XStream](#). This deserialization occurs after the XML has been retrieved by Hibernate, and is a time-consuming process. Because Bandana objects are used so frequently (at least one per request), a cache of configuration objects, independent of the Hibernate cache of XML, is required.

The interaction between the key components in the Bandana caching system is shown in the flowchart below.

Bandana caching flowchart



As you can see from the diagram, the `CachingBandanaPersister` is solely responsible for reading and updating the cache, only delegating queries to the `HibernateBandanaPersister` when the required data is not already in the case.

Problems to overcome

Having a cache separate to your transactional data store (Hibernate) presents a few tricky problems:

- A cache update is visible to other clients immediately; a database update is only visible to other clients once the transaction commits.
- A cache update can never be rolled back; if the associated database update gets rolled back, the cache is now inconsistent with the data.
- Two concurrent transactions which update multiple caches could interleave their changes, so that neither operation is completed in its entirety. This is one type of 'lost update' problem.
- Read-through cache updates (where a cache is empty and to be populated with data read from the database) should not result in an inconsistent cache when updates occur concurrently. This is another type of 'lost update' problem and was a serious bug in Confluence 2.2.

None of these problems is insurmountable, but the solution is fairly complex. The Bandana caching in Confluence 2.3 will have the following features:

1. Cache updates (except read-throughs) will be enacted on the Coherence cache only after the related database transaction has been completed successfully.
2. Read-through cache updates will be enacted immediately.
3. All cache updates will use locking when they are processed to prevent lost updates.
4. All cache updates will be visible when reading from the same cache during the same transaction, prior to commit.

These features are provided by a Confluence transactional cache, which is described in detail below.

Transactional cache

The transactional cache makes a best attempt at synchronising the data in the cache and the database when a transaction commits. A transactional cache consists of two components:

1. Deferred operations cache, which keeps track of update operations to an underlying cache but doesn't actually perform them.
2. Deferred cache transaction synchronization, which performs the deferred updates on the cache once it gets notified of a successful transaction completion.

These two components collaborate with Spring for transaction management, and the locking and caching subsystems in Confluence.

Character encodings in Confluence

This page last changed on May 18, 2006 by [mryall](#).

Where character encoding is used

There are three places that character encoding matters to Confluence:

1. Database encoding - usually the most important; it is where almost all user data is stored.
2. Filesystem encoding - important for attachment storage (pre-2.2), reading Velocity templates and writing exported files.
3. HTTP request and response encoding - important for form parsing, correct rendering by the browser and browser interpretation of encoded URLs.

Problems generally arise when Confluence thinks one of the above encoding is different to what it actually is. For example, Confluence might believe the database is using ISO-8859-1 encoding, when in fact it is UTF-8 encoded.

Java character encoding

Java always uses the double-byte UCS-2 character encoding for all `char` and `String` data. This means that each of the encodings above defines how, at that particular point, characters are converted to and from Java's native UCS-2 format into some other format that the browser, filesystem or database might understand.

So when a request comes in to Confluence, we convert it from the request encoding to UCS-2. Then we store that data into the database, converting from UCS-2 to the database's encoding. Retrieving information from the database and sending it back to the browser is the same process in the opposite direction.

Problems with character encodings

If Confluence has the wrong idea about encoding for one of the above, it manifests itself in different ways:

1. Incorrect database encoding - user data is corrupted between saving and restoring from the database. This often happens after a delay, as we cache data as it is written to the database and only later retrieve the corrupted copy from the database.
2. Incorrect/non-Unicode filesystem encoding - international filenames break attachment download/upload/removal (pre-2.2); exports break with international content or attachments.
3. Incorrect HTTP encoding - incorrect encoding selected by browser, resulting in incorrect rendering of characters. Changing browser encoding causes page to render properly. Broken URLs when linking to pages or attachments with non-ASCII characters.

Configuration of character encodings

The Confluence character encoding is a configuration setting found in Administration > General Configuration, and at runtime available in `Settings.defaultEncoding`. It is subsequently used in the following parts of the system:

- `ConfluenceWebWorkConfiguration` sets `webwork.i18n.encoding` to the this encoding, which WebWork uses in the response Content-Type header.
- `AbstractEncodingFilter` sets the HTTP request encoding to this encoding. This seems unnecessary, since the Content-Type header from the client should include the encoding used. This affects form submissions and file uploads.
- `VelocityUtils` reads in Velocity templates using this encoding when reading templates from disk.
- `AbstractXmlExporter` creates its output using this encoding.
- `GeneralUtil` uses this encoding when doing `URLEncode` and `URLDecode`. Different browsers have different support for character sets in URLs, so it's uncertain how much benefit this provides.

In summary, changing the Confluence character encoding will change your HTTP request and response encoding and your Filesystem encoding as used by exports and velocity templates.

The database encoding is the responsibility of your JDBC drivers. The drivers are responsible for reading and writing from the database in its native encoding and translating this data to and from Java Strings (which are UCS-2). For some drivers, such as [MySQL](#), you must set Unicode encoding explicitly in the JDBC URL. For others, the driver is smart enough to determine the database encoding automatically.

Ideally, your database itself should be in a Unicode encoding (and we recommend [doing this](#) for the simplest configuration), but that is not necessary as long as:

- the database encoding supports all the characters you want to store in Confluence
- your JDBC drivers can properly convert from the database encoding to UCS-2 and vice-versa.

The filesystem encoding is mostly ignored by Confluence, except for the cases where the above configuration setting above plays a part (exports, velocity). When attachments are uploaded, they are written as a stream of bytes directly to the filesystem. It is the same when they are downloaded: the bytes from the file `InputStream` are written directly to the HTTP response.

In some places in Confluence, we use the default filesystem encoding as determined by the JVM and stored in the `file.encoding` system property (it can be overridden by setting this property at startup). This encoding is used by the Java `InputStreamReader` and `OutputStreamWriter` classes by default. This encoding should probably never be used; for consistent results across all filesystem access we should be using the encoding set in the General Configuration.

In certain cases we explicitly hard-code the encoding used to read or write data to the filesystem. Two important examples are:

- importing Mbox mailboxes which are known to be ISO-8859-1
- Confluence Bandana config files are always stored as UTF-8.

Some application servers, Tomcat for example, have an encoding setting that modifies Confluence URLs before they reach the application. This can prevent access to international pages and attachments (really anything with international characters in the URL). See [configuring your Application Server URL encoding](#).

Advice

In general, always set all character encodings to UTF-8. That includes database, JDBC drivers, application server, filesystem and Confluence.

In certain isolated cases (e.g. Microsoft Windows), it might not be possible to use a fully Unicode filesystem (that is, a default Windows install doesn't support Unicode filenames properly). If so, stick with UTF-8 for the other two and be aware that your operating system might have limitations around international attachments (pre-2.2), backup and restore of international data, etc.

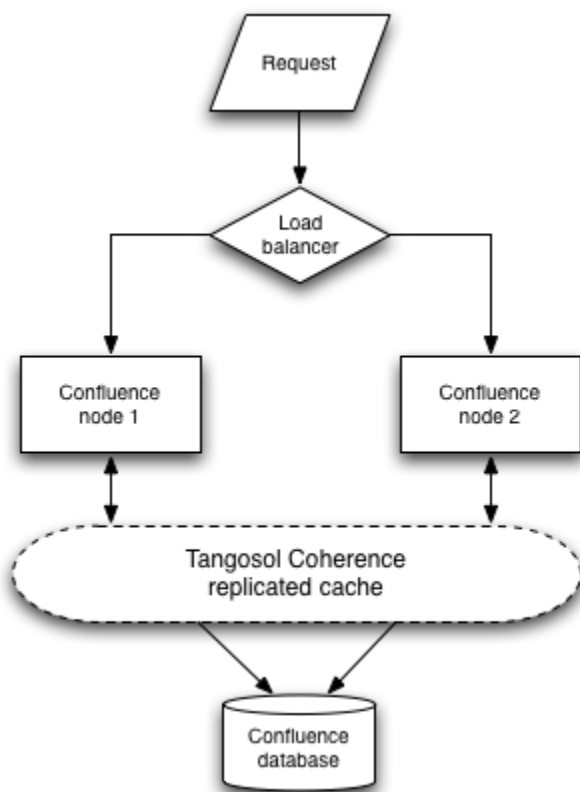
Clustering in Confluence

This page last changed on Apr 26, 2007 by david.soul@atlassian.com.

Introduction

A new feature in Confluence 2.3 is the ability to configure run multiple copies of Confluence in a cluster, so that clients can connect to any copy and see the same information. While we have tried to make clustering Confluence as easy and administrator-friendly as possible, it is a major architectural change and requires extra planning for deployment and upgrades.

This document will give a technical overview of clustering in Confluence 2.3, primarily for those users and developers who will be installing and configuring Confluence in a cluster. A separate overview is available for Confluence plugin developers.



Confluence cluster topology (simplified)

Cluster topology

A simple description of the cluster topology for Confluence would be multiple applications, shared data source. A cluster of Confluence consists of:

- multiple homogenous installations of Confluence (called nodes below)
 - a Confluence home directory for each installation.
- a distributed Tangosol Coherence cache, which all nodes use via a multicast group (see [networking](#))

[summary](#) below)

- a single database, which all nodes connect to

The user is responsible for configuring an appropriate HTTP load balancer in front of the clustered installations. Typically this means using mod_jk or another application server load-balancing technology. The load balancer must be configured to support session affinity.

Communication between clustered nodes is minimised by using a distributed cache which propagates updates to all other nodes automatically. Where necessary, Coherence provides a locking mechanism for synchronising jobs and a RMI interface for more complex communication.

LAN Clustering Only

Atlassian only supports clustering over a local area network. While it is theoretically possible to configure Massive to cluster across a WAN, the latency involved is likely to kill performance of the cluster. We can't stop you trying, of course, but you're going to have to work out how to configure Coherence yourself, and we're not going to support the resulting mess.

Homogenous Confluence installations

All the Confluence installations must be running exactly the same application, down to the lowest level. Items that must be the same include:

- Confluence version
- Application server version
- JDK version
- Libraries and plugins in the Confluence classpath, WEB-INF/lib
- Libraries in the application server classpath

The [installation section](#) has more information how to ensure homogenous node installations.

Creating a Confluence cluster

To get Confluence running in a cluster, you must do the following:

1. Obtain a clustered licence key from Atlassian for each node
2. Upgrade a single node to the clustered licence
3. Start the cluster from that node's administration menu, specifying a name and optionally a preferred network interface
4. Restart the single node and test it
5. Copy the Confluence application and Confluence home directory to the second node
6. Bring up the second node and it will automatically join the cluster.

Copying the Confluence application and home directory helps ensure that the installations are homogenous.

An alternative to this method is to copy the Confluence web application, but not the Confluence home

directory. In this case, the installation wizard will require your cluster name to connect to the other nodes, and it will automatically configure itself. You will need to rebuild the index manually after this installation, however.

There is now full documentation for a [Confluence cluster installation](#).

Upgrade process

Another consequence of the homogenous requirement is that upgrades must be done by following a strict process.

1. All cluster nodes are brought down
2. Upgrade a single node to the latest Confluence version
3. Start the single node so it can upgrade the database
4. Upgrade subsequent nodes and start them one-by-one.

This is the only safe method of upgrading a Confluence cluster.

Single database

The Confluence database in a cluster is shared by all nodes. This means that the database must be able to scale to service all the Confluence nodes, which will probably mean implementing some kind of database cluster and JDBC-level load balancing. We can not offer support with scaling or tuning your database, you will need to talk to your DBA or database vendor.

For obvious reasons, you must have an external database to run Massive - you can not cluster Confluence when using the embedded HSQL database.

The most important requirement for the cluster database is that it have sufficient connections available to support the expected number of application nodes. For example, if each Confluence instance has a connection pool of 20 connections and you expect to run a cluster with four nodes, your database server must allow at least 80 connections to the Confluence database. In practice, you may require more than the minimum for debugging or administrative purposes.

In a cluster, attachments must be stored in the database. Configuring a cluster in an existing installation will automatically migrate your attachments to the database. Non-clustered installations still have the option of using the Confluence home directory for storing attachments.

While attachments are stored in the database, they are temporarily written to the cluster node's local filesystem when being streamed to users (so Confluence doesn't have to hold open database connections unnecessarily). For this reason, Confluence will still need enough temporary disk space to hold any attachments currently in transit.

Distributed cache

In a normal configuration, Confluence uses many caches to reduce the number of database queries

required for common operations. Viewing a page might require dozens of permissions checks, and it would be very slow if Confluence queried the database for this information with every page view. However, caches must be carefully maintained so they are consistent with the application data. If the page permissions change, the old invalid data needs to be removed from the cache so it can be replaced with a fresh correct copy.

To preserve consistent caches across a cluster, Confluence uses a distributed cache called [Tangosol Coherence](#), which manages replicating cache updates transparently across all nodes. The network requirements of the distributed cache are quite simple, but must be preserved if the cluster is to work properly.

To discover other nodes in the cluster, Confluence broadcasts a join request on a multicast network address. Confluence must be able to open a UDP port on this multicast address, or it will not be able to find the other cluster nodes.

Once the nodes are discovered, each responds with a unicast (normal) IP address and port where it can be contacted for cache updates. Confluence must be able to open a UDP port for regular communication with the other nodes.

Because the Coherence network requirements are different to those required by the Confluence database connection, the situation can arise where Confluence can use the database but not talk to the other nodes in the cluster via Coherence. When Confluence detects this, it will shut itself down in a [cluster panic](#).

For more details on the network configuration of the distributed cache, see the [networking summary](#)

Home directory

Confluence's home directory has a much-reduced role in a cluster. Because the application data must be shared between all nodes for consistency, the only information stored in the Confluence home directory is either node-specific, or needed to start Confluence. This includes information related to:

- database connection
- license
- cluster connection

The only application data stored in the Confluence home directory is the Lucene search index. Confluence synchronises this data itself by keep track of indexing tasks in the database.

This is also why we recommend copying the Confluence home directory from the first node when setting up subsequent nodes. If you did not copy the Confluence home directory, you would need to rebuild the search index from scratch on the subsequent nodes after installation.

Event handling

Broadcasting events to all nodes in a cluster is supported in Confluence, but not recommended. The cluster topology uses a shared data store so that application state does not need to be synchronised by events.

The event broadcasting is done only for certain events, like installing a plugin. When a plugin is installed in one node, Confluence puts the plugin data in the database, and notifies the other nodes that they need to load the plugin into memory.

Indexing

Confluence maintains a copy of its Lucene search index on each node of the cluster. This index is used for many things beside full-text searches, including RSS feeds and lists of recently updated content. If a node is disconnected from the cluster for a short amount of time (less than three hours), it will be able to bring its copy of the index up-to-date when it rejoins the cluster. If the node is down for longer than that, it will be forced to completely rebuild its search index from scratch.

If a node is down for a long amount of time and its lucene index has become stale as a result, you may want to avoid the expensive operation of rebuilding the index. To do that, you must copy a "live" version of the Lucene index from an active node. Simply replace the contents of the `confluence_home/index` directory with those from an active node before bringing the stale node back up.

Job synchronisation

For tasks such as sending the daily report emails, it is important that only one node in the cluster does this. Otherwise you would get multiple emails from Confluence every day.

Confluence uses locks in the Coherence distributed cache to ensure only one node can be running certain jobs at a time. This ensures email notifications will only be sent once.

Activity tracking

[Activity tracking](#) does not work in a cluster, and will be disabled for clustered deployments. We're working on making the activity tracker clusterable in a future release. You can follow this issue in JIRA: [CONF-7520](#)

Cluster panic

In some situations, there can be a network issue or firewall that prevents the distributed cache from communicating but still allows Confluence to update the database. This is a dangerous situation because when the caches on the detached nodes become inconsistent, users on different nodes will see different information and updates can be lost.

Confluence can detect this problem by checking a database value against a cached value, and if they differ, all the clustered nodes will be shut down with a 'Cluster panic' message. This is considered a fatal error because the consequences can cause damage to your data. For those administrators that like to live on the edge, there is a system property to prevent cluster panic and allow data corruption.

If a cluster panic does occur, you need to ensure proper network connectivity between the clustered nodes. Most likely multicast traffic is being blocked or not routed correctly. See the [networking summary](#) below.

Summary of network requirements

In addition to normal connectivity with its database, all clustered Confluence instances require access to a multicast group and the ability to open a UDP unicast port.

By default, the multicast address is automatically generated from the cluster name you provide when starting the cluster and the multicast port is fixed. During cluster setup, Confluence will prompt for the unicast IP address to use if the server has multiple network interfaces, and by default the unicast port is fixed. The cluster multicast group will be joined on the same network interface as the bound unicast IP address.

For any settings which are not configurable through the Confluence web interface, they can be configured via an XML file in the Confluence home directory for more exotic networking requirements.

Scaling Confluence On A Single Server

Since the maximum addressable memory on a 32 bit JVM is 4GB, some large servers may scale Java applications by running JVM instances concurrently. This would be implemented as separate, clustered Confluence nodes running on a single server and communicating internally. Because each JVM replicates the cache entirely, it may be useful to test a single, massive instance running a 64 bit JVM as an alternative. This configuration may result in superior performance than an internal cluster.

Geographically Distributed Clusters

Co-locating nodes is inadvisable as high latency may unacceptably degrade cache replication. Cluster nodes will provide the best performance if servers are physically adjacent. However, as long as all nodes share a LAN, users may wish to test alternative configurations to see how performance is affected.

Related Pages

[Server Hardware Requirements Guide](#)

Confluence rendering pipeline

This page last changed on Jan 16, 2007 by [mryall](#).

Rendering frameworks

There are two frameworks that do the template rendering in Confluence: Webwork and Sitemesh. The confusing bit is that both of them use Velocity as their templating engine. We try to distinguish them by using *.vm for templates processed by Webwork, and *.vmd for those processed by Sitemesh.

Rendering contexts

There are four different Velocity contexts used in Confluence:

- templates processed by Webwork use the context defined in ConfluenceVelocityContext
- templates processed by Sitemesh as a result of the `#applyDecorator()` directive use the context defined in ApplyDecoratorDirective
- templates processed by Sitemesh as a result of the URL mapping in decorators.xml use the context defined in ProfilingPageFilter
- templates processed by the notification queue use the context defined in VelocityRenderedQueueItem.

The two Sitemesh contexts are pretty much the same, but the Webwork velocity context contains a lot more stuff than either of the Sitemesh ones.

Rendering pipeline

So the general flow of control goes:

- Webwork gets request, maps request URL to action using xwork.xml
- Webwork maps response of action to a Velocity template using xwork.xml
- Webwork launches Velocity handler on template (*.vm) with context defined in ConfluenceVelocityContext
- Velocity process content in *.vm file
- Within an `#applyDecorator()` directive:
 - Velocity calls the ApplyDecoratorDirective class with the parameters and body content of the directive
 - Any `#decoratorParam()` directives are processed by the ParamDirective class, which pushes bits of the current Velocity context into the ApplyDecoratorDirective parameters
 - ApplyDecoratorDirective matches the name parameter of the directive with a *.vmd file from decorators.xml
 - ApplyDecoratorDirective launches Sitemesh on a decorator template (*.vmd) with context defined in ApplyDecoratorDirective
 - Sitemesh returns decorated content
- Velocity template finished processing rest of *.vm file, returns to Webwork
- Web.xml servlet filter 'sitemesh' maps to ProfilingPageFilter, a Sitemesh page filter
- Sitemesh uses the request URL mapping in decorators.xml to launch a decorator template (*.vmd) with context defined in ProfilingPageFilter

- Sitemesh returns decorated content as response.

You can find out which beans are in which context by looking in the classes above. A full list would be too long to include here. Note that even though the `ApplyDecoratorDirective` launches a Sitemesh decorator template, the Sitemesh template doesn't get automatic access to the Velocity context. The only bits that are passed through are done with the `#decoratorParam()` directive.

Wow, pretty complicated. But it lets us do cool stuff like implement custom themes, apply layouts and more.

Date formatting with time zones

This page last changed on Jan 16, 2007 by [mryall](#).

Introduction

Confluence 2.3 supports a time zone preference for a user. This means all dates in the system must be formatted using the same process to appear in the user's time zone correctly. This document describes how dates are formatted in Confluence. It may be useful to plugin developers who need to format dates in a special way inside Confluence.

DateFormatter

The new class introduced in Confluence 2.3, [DateFormatter](#), allows formatting in the user's timezone. See the full javadoc for details, but methods include:

- `String format(Date date)` – Formats the date and returns it as a string, using the date formatting pattern.
- `String formatDateTime(Date date)` – Formats the date and returns it as a string, using the date-time formatting pattern.
- `String formatServerDate(Date date)` – Same as `format(Date)`, but doesn't perform time zone conversion.

Most methods format the time in the user's time zone. The 'server' methods format the time in the server's time zone.

Accessing the DateFormatter in Velocity

In Velocity, using the `DateFormatter` is easy because it is in the Velocity context. In a normal Velocity template (*.vm), such as an action result, you might use it like this:

```
$dateFormatter.format($action.myBirthdayDate)
```

If you want to use the `DateFormatter` in a Velocity decorator (*.vmd), such as a custom layout or theme, you need to access it via its getter on the action:

```
$action.dateFormatter.format( $page.lastModificationDate )
```

Accessing the DateFormatter in code

The `DateFormatter` is constructed by the `ConfluenceUserPreferences` object, which can be obtained from the `UserAccessor`. The code below gives a demonstration:

```
ConfluenceUserPreferences preferences = userAccessor.getConfluenceUserPreferences(user);
```

```
DateFormatter dateFormatter = preferences.getDateFormatter(formatSettingsManager);  
System.out.println(dateFormatter.formatDateTime(date));
```

The `userAccessor` and `formatSettingsManager` are Spring beans which can be [injected into your object](#). You can usually get the user from the context of your macro or plugin, or using [AuthenticatedUserThreadLocal.getUser\(\)](#).

HTTP authentication with Seraph

This page last changed on Apr 30, 2007 by [mryall](#).

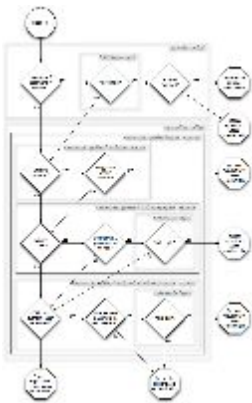
Introduction

This document describes how the default security system in Confluence works, using the [Seraph](#) library for HTTP authentication.

Extending the security system by subclassing Seraph's authenticator and configuring the `seraph-config.xml` file is outside the scope of this document.

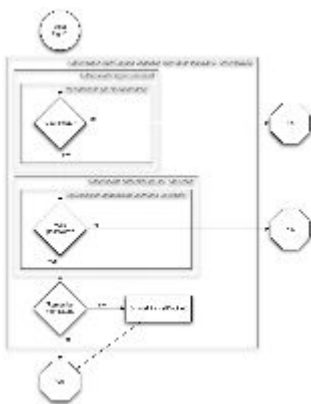
Flowchart diagrams

The easiest way to understand Confluence's authentication process is with the following diagrams.



Authentication flowchart

Because the `Authenticator.login(request, response, username, password, rememberMe)` method occurs three times, and is slightly complex, it has been broken into its own sub-flowchart.



Login method flowchart

Supported authentication methods

The default Seraph authenticator supports four methods of authentication, as can be seen in the flowchart:

- request parameters: os_username and os_password
- session attribute storing the logged-in user
- cookie storing username and password ('remember me' login)
- HTTP basic authentication via standard headers.

Each method is tried in the order above. A successful login at an earlier method continues without checking the later methods. Failure at one method means continuing with the later methods until all are exhausted. At this point, the user is considered an anonymous user, and treated according to the permissions of an anonymous user in Confluence.

Looking through the source code will show that Seraph supports role-based authentication, but this is only used in Confluence for the /admin/ URL restriction.

Related pages

[Understanding User Management in Confluence](#)
[Confluence Internals](#)

Persistence in Confluence

This page last changed on Dec 07, 2006 by [mryall](#).

There are three main persistence APIs which are used in Confluence:

1. Hibernate - database persistence, difficult to extend.
2. Bandana - XML persistence, easy to use in plugins. Stored in database in Confluence 2.3+, or in Confluence home directory in 2.2.x and earlier.
3. Content properties - database persistence for properties associated with a piece of Confluence content.

Because Bandana is the primary persistence API used by plugin developers, it will be covered in more detail below.

Hibernate

Confluence uses the open source persistence framework [Hibernate](#). Confluence 2.2.x uses Hibernate version 2.1.8.

Each object to be persisted has a *.hbm.xml file which sits in the same directory as the associated class in the Confluence web application. For example, `Label.class` has an associated `Label.hbm.xml` which describes how label objects will be persisted. The particular details vary from class to class, but typically include:

- the database table used to hold the data (Confluence bootstrap creates these tables if they do not exist)
- the column names and mappings to class attributes
- any special queries used for functionality in Confluence (for example, to retrieve a list of personal labels)

All this data is expressed in the [standard Hibernate mapping format](#). In some cases, there is a single mapping file for all subclasses of a particular class. For example, `ContentEntityObject.hbm.xml` includes mappings for pages, news, mail and space descriptions.

The Hibernate mapping files are listed in `mappingResources` bean in `applicationContext.xml`.

Although it might be possible to extend Confluence's database through Hibernate, this is not recommended. There are a few downfalls with extending our Hibernate configuration:

1. You need to maintain your forked copy of the hibernate mappings file against each new version of Confluence
2. Your new hibernate objects will not be protected from (or necessarily upgraded to) any changes we make in the schema in future versions
3. Unless you really understand our code, something weird will happen.

Avoid using Confluence's database to store custom data – use content properties or Bandana instead.

Bandana

Bandana is an Atlassian framework for persistence which uses [XStream](#) to convert arbitrary Java objects into XML for storage. The concepts used in Bandana are very simple:

- Bandana stores data in contexts. In Confluence, there is one global context, and one context per space. The relevant class is [ConfluenceBandanaContext](#).
- Each context stores key-value pairs. The key is a String and the value can be any Object (it should typically implement Serializable).

Based on this design, the BandanaManager has methods for storing and retrieving values from a context by key:

- `void setValue(BandanaContext context, String key, Object value)` - store a value against a key in the Bandana context.
- `Object getValue(BandanaContext context, String key)` - get a key's value from the Bandana context. Returns null if no matching context and key exists.
- `Object getValue(BandanaContext context, String key, boolean lookUp)` - same as above, except if lookUp is true and the context is a space context, this method will also check the global context if no matching key is found in the space context.

For plugins, it is recommended to use a key for your Bandana values that includes the full package name of your plugin. For example, a theme plugin might use a key like `org.acme.confluence.mytheme.importantPreference`.

Prior to Confluence 2.3, this XML was written to the filesystem in the Confluence home directory. The file `config/confluence-global.bandana.xml` stores the global context, and there is a file `config/spaceKey/confluence-space.bandana.xml` with the configuration for each space. In Confluence 2.3 and above, Bandana data is written to the BANDANA table in the database, with three columns for context, key and an XML-serialized value.

To get access to the BandanaManager from your plugin code, normally you only need to include a private BandanaManager field with an associated setter method. Spring will automatically call the setter method before the first time your plugin is called.

```
public class MyMacro extends BaseMacro {
    private BandanaManager bandanaManager;

    // setter called by Spring
    public void setBandanaManager(BandanaManager bandanaManager) {
        this.bandanaManager = bandanaManager;
    }

    // main method of macro
    public String execute(...) {
        // do stuff with bandanaManager
        return "...";
    }
}
```

Content properties

Another form of persistence, content properties are key-value pairs associated with a ContentEntityObject and stored in the database.

Spring IoC in Confluence

This page last changed on Mar 05, 2007 by [jnolen](#).

Introduction

The Spring Framework provides an inversion of control (IoC) container that Confluence uses for managing objects at runtime. This document provides an overview of how this relates to Confluence, specifically focused at the needs of plugin developers and those extending Confluence.

If you're looking for the quick overview on how to access Confluence managers from your plugin, check out [Accessing Confluence Components From Plugin Modules](#).

The purpose of an IoC container is to manage dependencies between objects. When you go to use an object in Confluence it will have all its dependencies ready and available to use. For example, calling a method on a `PageManager` will typically require a `PageDao` to work correctly. Spring ensures that these dependencies are available when they are needed, with a little bit of guidance from us.

Spring contexts

Confluence uses a number of Spring contexts to separate our objects into discrete subsystems. The contexts are declared as servlet context parameters in `confluence/WEB-INF/web.xml`. The snippet below shows the Spring contexts listed in `web.xml` for Confluence 2.3:

```
<context-param>
  <param-name>contextConfigLocation</param-name>
  <param-value>
    classpath:/applicationContext.xml,
    classpath:/securityContext.xml,
    classpath:/databaseSubsystemContext.xml,
    classpath:/indexingSubsystemContext.xml,
    classpath:/eventSubsystemContext.xml,
    classpath:/rpcSubsystemContext.xml,
    classpath:/upgradeSubsystemContext.xml,
    classpath:/wikiSubsystemContext.xml,
    classpath:/wikiFiltersSubsystemContext.xml,
    classpath:/importExportSubsystemContext.xml,
    classpath:/schedulingSubsystemContext.xml,
    classpath:/pluginSubsystemContext.xml,
    classpath:/atlassianUserContext.xml
  </param-value>
</context-param>
```

What this means is there are 13 context XML files in the Confluence classpath which specify the objects in Confluence which are managed by Spring. When I say 'in the Confluence classpath', in practice I mean they live in `confluence/WEB-INF/classes/`. The biggest and most important is `applicationContext.xml`, which we'll have a look at now.

Bean declarations

Around line 100 in the Confluence 2.3 `applicationContext.xml`, you'll find the `schemaHelper` bean as a good example:

```
<bean id="schemaHelper" class="bucket.core.persistence.hibernate.schema.SchemaHelper">
  <property name="mappingResources">
    <ref local="mappingResources"/>
  </property>
  <property name="hibernateConfig">
    <ref bean="hibernateConfig"/>
  </property>
</bean>
```

The bean has an ID for Spring to reference it ('schemaHelper'), a class name which will be used to automatically create the bean ('bucket.core.persistence.hibernate.schema.SchemaHelper'), and a number of properties. In this case, the properties are references to other beans in the current context, mappingResources and hibernateConfig.

Because we use the setter injection method in Confluence, this declaration means two things about the SchemaHelper Java class:

- it must have a public no-args constructor
- it must have two public methods: setMappingResources() and setHibernateConfig(). Both these must take one argument which is an interface implemented by the appropriate bean.

Other than these two requirements, the SchemaHelper class can be any normal Java class. It can have other constructors, other public methods, and can implement or extend any interface or class that you like.

The purpose of registering a bean in Spring is two-fold:

1. When you access the SchemaHelper bean through Spring, it will have its mappingResources and hibernateConfig dependencies injected before you use it.
2. You use the bean as a dependency elsewhere, to automatically get it injected into your own class (more on this below).



Only Confluence beans are registered in Spring via an XML context. [Spring Component Plugins](#) are registered at runtime when the plugin is enabled. Other plugin classes such as [actions](#) are autowired without registration with Spring.

Autowiring

In the bean declaration for schemaHelper bean above, each property has the same name as the Spring bean which is used to satisfy it. For example, the 'mappingResources' property uses the mappingResources bean, which is set by the setMappingResources() method on the schemaHelper. Spring provides a shortcut for leaving these declarations out, called autowiring.

For example, the declaration for themeManager bean is marked as autowire 'byName' (near line 1000):

```
<bean id="themeManager" class="com.atlassian.confluence.themes.DefaultThemeManager"
autowire="byName" />
```

Looking at the [DefaultThemeManager](#) class, we see it has four setter methods:

1. `public void setBandanaManager(BandanaManager)`
2. `public void setEventManager(EventManager)`
3. `public void setGlobalTheme(String)`
4. `public void setPluginManager(PluginManager)`

Spring looks at the names of the four methods, tries to find beans with IDs of 'bandanaManager', 'eventManager', 'globalTheme', and 'pluginManager'. If they exist, it calls the setter method with the relevant bean as an argument.

In this case, methods 1, 2 and 4 will be called by Spring to inject dependencies. Method 3 (setGlobalTheme) is just a setter used for something else, not called by Spring. This is the drawback of autowiring: it is slow and can waste time trying to find dependencies uselessly.

Using autowiring reduces the need for writing a lot of XML, and also provides a method of dependency injection for objects which aren't registered in the Spring context XML files like plugin modules.

Plugin dependency injection

Almost all [Confluence plugin types](#) are autowired. What this means, is if your [macro plugin](#) needs to access a Confluence page, it can simply do so like this:

```
public class MyMacro extends BaseMacro
{
    private PageManager pageManager;

    public String execute(Map parameters, String body, RenderContext renderContext)
    {
        // ...

        Page page = pageManager.getPage(spaceKey, pageTitle);

        // ...
    }

    // ... implement other methods ...

    /**
     * Called by Spring to inject pageManager
     */
    public void setPageManager(PageManager pageManager)
    {
        this.pageManager = pageManager;
    }
}
```

Autowired components must use the interfaces used by the manager to work with different versions of Confluence. The implementing class used for various managers may change over time, but the bean ID and interface will be preserved.

Internally, the way the components are autowired is via Confluence's [ContainerManager](#). You can also do this with your own objects if required:

```
ContainerManager.autowireComponent(object);
```

Accessing Spring beans directly

If you need access to Confluence managers or other Spring beans without autowiring your class, you can use the [ContainerManager](#) directly. For example, to get the pageManager bean:

```
PageManager pageManager = ContainerManager.getComponent("pageManager");
```

You should always use autowiring in preference to this method because it makes your code easier to change and easier to test. Inside Confluence this method is sometimes required to break circular dependencies.

Transaction proxy beans

Confluence uses Spring's transaction handling by wrapping some objects in transaction proxy beans.

Velocity Template Overview

This page last changed on Dec 18, 2006 by david.soul@atlassian.com.

[Velocity](#) is a server-side template language used by Confluence to render page content and permits Java objects to be called alongside standard HTML. Users who are writing [user macros](#), [plugins](#) or [custom PDF export output](#) may need to modify Velocity content. General information is available from the [Velocity Usage Guide](#).

Useful Resources

[Basic Introduction to Velocity](#)

[Confluence Objects Accessible From Velocity](#)

[Confluence rendering pipeline](#)

[Customising Layouts](#)

[Disable Velocity Caching](#)

[What's the easiest way to render a velocity template from Java code?](#)

[Working With Decorator Macros](#)

Basic Introduction to Velocity

This page last changed on Apr 22, 2007 by david.soul@atlassian.com.

Example Usage

A variable in velocity looks like this:

```
$foo
```

To set a variable:

```
#set ($message = "Hello")
```

A basic if statement:

```
#if ($message == "Hello")  
    Message received and is "Hello"  
#end
```



A velocity variable which evaluates to null will simply render as the variable name. See the [Velocity User's Guide](#)

Related Content

[Basic Introduction to Velocity](#) (Confluence) Labels: [velocity-related](#)
[Confluence Objects Accessible From Velocity](#) (Confluence) Labels: [velocity-related](#)
[Confluence rendering pipeline](#) (Confluence) Labels: [velocity-related](#)
[Customising Layouts](#) (Confluence) Labels: [velocity-related](#), [customising-looknfeel](#)
[Disable Velocity Caching](#) (Confluence) Labels: [velocity-related](#)

Confluence Objects Accessible From Velocity

This page last changed on Dec 11, 2006 by david.soul@atlassian.com.

The complete list of objects available for use are:

Name	Description	Doc Reference
\$body	The body of the macro (if the macro has a body)	
\$param0-n	The parameters passed to your macro (as available)	
\$config	The BootstrapManager object, useful for retrieving Confluence properties	BootstrapManager
\$content	The current ContentEntity object that this macro is a included in (if available)	ContentEntityObject
\$space	The Space object that this content object is located in (if relevant)	Space
\$generalUtil	A GeneralUtil object, with useful utility methods for URL encoding etc	GeneralUtil
\$action	A blank ConfluenceActionSupport object, useful for retrieving i18n text if needed	ConfluenceActionSupport
\$webwork	A VelocityWebWorkUtil object, for it's htmlEncode() method	VelocityWebWorkUtil
\$req	The current HttpServletRequest object (if the page is rendered as a result of an HTTP request)	
\$res	The corresponding HttpServletResponse object (not recommended to be played with)	
\$userAccessor	For retrieving users, groups and checking membership	UserAccessor

Confluence Plugin Guide

This page last changed on Mar 04, 2007 by [jnolen](#).

Confluence's plugin system allows users and developers to customise and extend Confluence.



Looking for existing plugins? See the existing plugins and extensions written by the community in the [Confluence Extensions](#) space.

A plugin is a bundle of code, resources and a special configuration file that can be dropped into a Confluence server to add new functionality, or change the behaviour of existing features.

- Administrators can drop plugins into their Confluence server to add new functionality to the system.
- Developers can write plugins for their own Confluence server, or share plugins with other Confluence users.

Some parts of Confluence are implemented entirely as plugins - for example all macros in Confluence 1.3 and later, even those included with the system, are written as plugins.

Confluence Plugin Guide Contents

- [Installing and Configuring Plugins manually](#)
- [Installing and Configuring Plugins using the Plugin Repository](#)
- [Installing plugins overview](#)
- [Single Sign-on](#)
- [Writing Confluence Plugins](#)
 - [Accessing Confluence Components From Plugin Modules](#)
 - [Confluence Plugin Module Types](#)
 - [Code Formatting Plugins](#)
 - [Component Plugins](#)
 - [Downloadable Plugin Resources](#)
 - [Event Listener Plugins](#)
 - [Extractor Plugins](#)
 - [Job Plugins](#)
 - [Language Pack Plugins](#)
 - [Lifecycle Plugins](#)
 - [Macro Plugins](#)
 - [RPC Plugins](#)
 - [Servlet Plugins](#)
 - [Spring Component Plugins](#)
 - [StateAware](#)
 - [Theme Plugins](#)
 - [Trigger Plugins](#)
 - [User Macro Plugins](#)
 - [Velocity Context Plugins](#)
 - [Web UI Plugins](#)
 - [Workflow Plugins](#)
 - [XWork-WebWork Plugins](#)
 - [Plugin Self-Configuration](#)

Plugins and Plugin Modules

Every plugin is made up of one or more plugin modules. A single plugin may do many things: a plugin module represents a single function of the plugin.

For example, a theme plugin will consist of a colour-scheme module to define the theme's colours, a number of layout modules to define the site's page layouts, and a theme module to combine those pieces together into a single theme.

Some plugins, such as the macro packs that come with Confluence, are just a collection of unrelated modules that just happen to be packaged together. Other plugins, such as theme plugins, have modules that work together to provide some orchestrated functionality.

Installing and Configuring Plugins manually

This page last changed on Jan 31, 2007 by [jnolen](#).

This document is for Confluence administrators who wish to manage plugins installed in their Confluence server, or install new plugins. Confluence plugins were introduced in Confluence 1.3: for an overview of how plugins work in Confluence, read [Confluence Plugin Guide](#).



Looking for existing plugins? See the existing plugins and extensions written by the community in the [Confluence Extensions](#) space.



Confluence versions 1.4. provide the ability for Confluence administrators to upload plugins from their browsers.

Confluence versions 2.0 and later support the [Plugin Repository](#), which provides an alternative way to install and configure plugins with just a few mouse-clicks.

Installing Plugins manually

Plugins are distributed as a jar file. To install a plugin,

1. Locate the `confluence/WEB-INF/lib` directory in your Confluence installation. (This is inside the Confluence installation itself, not your configured `ConfluenceHome` directory).
2. Remove any previous version of the plugin you may have installed
3. Copy your plugin jar file into the directory
4. Restart Confluence
5. Check the Plugin Administration screen to see if the plugin is available
6. Enable the plugin if necessary

When you install a Confluence plugin, you should consider:

- When you upgrade or re-install Confluence, the `WEB-INF/lib` directory will be overwritten. You should keep a copy of all your installed plugins somewhere outside Confluence, so that you can copy them back in after an upgrade.
- If you install a Confluence plugin, and Confluence fails to restart (or does not behave correctly after the restart), you can uninstall the plugin by deleting it from the `WEB-INF/lib` directory.



Plugin Safety

Plugins are very powerful: they can change the behaviour of almost any part of the Confluence server. This makes it very important that you trust a plugin before you install it. Always be aware of where (and who) a plugin comes from.

Some plugins will be enabled by default when they are installed. Others will have to be manually enabled from the Plugin Administration screen.

Enabling and Disabling Plugins

Plugin Manager

Control which of the installed plugins are active for this Confluence installation.

Plugins	JIRA Macros								
Task List Macros All modules enabled.	Vendor: Atlassian Software Systems Plugin Version: 1.4								
JIRA Macros 1 of 2 modules enabled	Macros to retrieve information from JIRA.								
Basic Macros All modules enabled.	☐ Disable plugin								
Layout Macros All modules enabled.	<table><tbody><tr><td>jiraissues</td><td>Disable</td></tr><tr><td colspan="2">Retrieve a feed of JIRA issues and summarise them in the page</td></tr><tr><td>jiraportlet</td><td>Enable</td></tr><tr><td colspan="2">Displays a JIRA portlet - requires JIRA 3</td></tr></tbody></table>	jiraissues	Disable	Retrieve a feed of JIRA issues and summarise them in the page		jiraportlet	Enable	Displays a JIRA portlet - requires JIRA 3	
jiraissues	Disable								
Retrieve a feed of JIRA issues and summarise them in the page									
jiraportlet	Enable								
Displays a JIRA portlet - requires JIRA 3									
Core Listeners All modules enabled.									
Advanced Macros All modules enabled.									
User List Macros All modules enabled.									
HTML Macros Plugin disabled.									
Information Macros All modules enabled.									
Compatibility Macros All modules enabled.									

Plugins (and their constituent plugin modules) may be enabled and disabled by the site administrator. You can do this from the Plugins section of the global administration screen. All plugins installed in the Confluence server are listed on the left hand side. To enable or disable a plugin (or its modules) click on the plugin name.

On the right-hand side, a description of the plugin is shown, including its component plugin modules. You can enable or disable the whole plugin:

[Enable plugin](#)

NOTE: This plugin is disabled. You must enable it to enable or disable individual modules.

html	
Use HTML code within a Confluence page	
html-include	
Retrieve an external HTML file and include it in the page	

Or each module individually:

[Disable plugin](#)

jiraissues	Disable
Retrieve a feed of JIRA Issues and summarise them in the page	
jiraportlet	Enable
Displays a JIRA portlet - requires JIRA 3	



Disabling a plugin module may cause other modules in the same plugin to cease to function correctly. When in doubt, make sure you disable or enable the entire plugin.

Removing Plugins that prevent Confluence Running

Confluence goes to some lengths to prevent itself being unusable due to a problematic plugin. However, sometimes a plugin will manage to do this anyway.

To remove a plugin from Confluence when Confluence is not running:

Prior to Confluence v2.3

- Remove the jar file from the <Confluence Home>/plugins directory.
- Restart Confluence.

In Confluence v2.3 and later

- Connect to the confluence database.
- Remove the appropriate row from the PLUGINDATA table.
Eg suppose the google maps plugin was not working, you would run:

```
delete from plugindata where pluginkey = 'com.atlassian.confluence.ext.gmaps'
```
- Restart Confluence.

Installing and Configuring Plugins using the Plugin Repository

This page last changed on Jan 17, 2007 by rosie@atlassian.com.

The Plugin Repository provides an easy way to install and configure [plugins](#). If you are using Confluence version 2.3 or later, the Plugin Repository is included as part of Confluence. If you are using Confluence 2.0 - 2.2.10, you can use the Plugin Repository after you install the [Confluence Repository Client](#). Confluence versions prior to 2.0 cannot use the Plugin Repository, so you will need to install and configure plugins [manually](#) instead.

When you install a Confluence plugin, you should consider:

- Installed Confluence plugins are located in your `confluence/WEB-INF/lib` directory (this is inside the Confluence installation itself, not your configured ConfluenceHome directory). When you upgrade or re-install Confluence, the WEB-INF/lib directory will be overwritten. You should keep a copy of all your installed plugins somewhere outside Confluence, so that you can copy them back in after an upgrade.
- If you install a Confluence plugin, and Confluence fails to restart (or does not behave correctly after the restart), you can uninstall the plugin by deleting it from the WEB-INF/lib directory.



Plugin Safety

Plugins are very powerful: they can change the behaviour of almost any part of the Confluence server. This makes it very important that you trust a plugin before you install it. Always be aware of where (and who) a plugin comes from.

Using the Plugin Repository

Go to the 'Administration Console' and click on 'Plugin Repository' in the left panel. The following will be displayed:

Available Plugins						Upload	Preferences	Admin
All Plugins		<enter search terms here>				All Categories		
Plugin Name	Payment	Status	Install	Enabled	Configure			
AJAX PageTree — Zohar Melamed	Free	Installed	Uninstall	☒	Configure			
Admin Sections — Atlassian Software Systems	Unknown	Non-repository	System Plugin	☒	Configure			
Advanced Macros — Atlassian Software Systems	Unknown	Non-repository	Static Plugin	☒	Configure			
Advanced Search — Adaptavist.com Ltd	Donate	Available	Install	☐	Configure			
Latest Version: 1.0.2 - Stable License: BSD (donate) This plugin provides a dynamic AJAX interface to the confluence search engine. The plugin also allows for specific (so called advanced search) fields to be placed down creating a customisable search interface. Useful if you want to provide a simple user interface for filtering blog posts / pages by a certain label or metadata value. See the metadata plugin for more information on using metadata.								
Archive Extractor Plugin — Atlassian Software Systems Pty Ltd	Free	Available	Install	☐	Configure			
Atlassian Plugin Repository — Adaptavist.com Ltd	Free	Installed	Uninstall	☒	Configure			
Attachment Extractors — Atlassian Software Systems	Unknown	Non-repository	Static Plugin	☒	Configure			
Attachments Macros — Atlassian Software Systems	Unknown	Non-repository	Static Plugin	☒	Configure			

Along the top of the page, you'll see three items (from left to right):

- Status filter (defaults to "All Plugins"):
 - Set to "Installed Plugins" to list plugins which have been installed
 - Set to "Outdated Plugins" to list installed plugins for which updates are available
 - Set to "Available Plugins" to list plugins which are available, but have not yet been installed
- Search - quickly find what you're looking for:
 - Quickly locate plugins by searching on their title, description, vendor and other details. Just type what you are looking for and let Confluence do the rest
 - The search results are filtered by the status filter (as discussed above), so if you want to see all installed plugins from Adaptavist.com, for example, set the filter to "Installed Plugins", enter "Adaptavist.com" in to the search box and click the search button.
- Categories list - filter by category:
 - Simply choose the desired category from the list and only plugins relating to that category will be displayed.
 - Note that plugins can exist in more than one category to make them easier to find

Under the filter options, the list of plugins matching the current filter settings is shown in a table:

- Plugin Name
 - Displays the name of the plugin (linked to the detailed information page), the plugin vendor (linked to their website if applicable)
 - Click the "+" icon to expand the information display showing plugin description; click the "-" icon to hide it again.
- Payment - can be one of the following:
 - Free (self explanatory)
 - Donate (it's free, but you should consider donating to keep it that way)
 - Buy (it's commercial - click the link to show a price list and purchase online)
- Status - shows the current status of this plugin in respect to your Confluence installation:
 - Installed - installed and up-to-date
 - Outdated - installed, but there are new versions available
 - Available - not installed yet
 - Non Repository - a version is installed which is not in the repository
- Install - Install, upgrade or uninstall a plugin
 - Install, upgrade, uninstall
 - When installing or upgrading, everything is automatic (ie. it downloads and installs for you, etc). Although the client (since 1.0.2) warns you of dependancies and (since 1.0.3) will do its best to check what has been downloaded is what you asked for - Confluence may break as if you had uploaded the plugins to the Plugin Manger yourself. Where it can, the client will error constructively allowing you to choose the best course of action for yourself. In general, things usually work - and if they don't its a bug with the client or the metadata.
 - If the Confluence Repository Client encounters a password request when downloading the plugin (usually case with Commercial plugins), you will be prompted for a username and password.
 - If the plugin is installed into WEB-INF (or otherwise uninstalleable) it will display "Manually Installed" where the actions would be.
- Enabled - if the box is ticked, the plugin is enabled, otherwise it's either disabled or partially disabled. You can enable or disable individual modules within the plugin from the plugin details screen (see later)

Note: You can click the table headings to sort the table. Click a second time to reverse the sort.

Viewing Plugin Modules and Versions

When you click the name of a plugin on the [Plugin List](#), you'll be taken to the detailed view for that plugin.

General information and plugin module details are shown at the top of the display and from here you can disable or enable individual modules.



Disabling a plugin module may cause other modules in the same plugin to cease to function correctly. When in doubt, make sure you disable or enable the entire plugin.

Near the bottom of the display a table clearly outlines all versions and shows which you have installed. Just like the plugins list, you can click the "+" to expand the details shown for a specific version. This screen also allows you to quickly install, upgrade, downgrade and uninstall any version of the plugin.

Configuring a Plugin

There are various settings on the "Configure" tab.

The most important of these is the "Repository Path URL" setting - without this, you'll see no plugins in the list and will get a fair amount of errors.

The "Earliest Development State" allows you to filter the plugin list to versions at or above a specific state: Alpha, Beta, Prerelease, Stable. By default "Prerelease" versions are shown. If you are running in a production environment, you will usually want to set this setting to "Prerelease" or "Stable".

The "Only Show Plugins Confirmed as Working" setting allows you to restrict the list to only show plugin versions that are specifically known to work with your version of Confluence. It's important to note that in many cases, plugins will work with your version of Confluence but they might be marked as "unknown" compatibility if the plugin author hasn't been able to test with that specific Confluence version. As such, it's extremely useful if you find an "unknown" version of a plugin to work (or not work) with your Confluence that you let us know (by any means possible) so that we can update the repository to reflect this.

The "Hide Empty Categories" setting allows you to trim down the categories list by hiding categories that don't contain a plugin yet.

The "Automatically Refresh Cached Data" setting allows you select the interval at which the cached repository data will be looked up again. This defaults to 1 hour but is selectable from 5 minutes to Never (the latter which is what versions prior to 1.1 will be fixed to).

Uploading a plugin that is not listed in the Plugin Repository

There are several plugins that are not currently listed by the Plugin Repository which need to be manually uploaded either as a file or from a remote server URL.

1. Click the "Upload" tab
2. Enter either the file name or the URL of the remote server URL
3. Click the "Install" button.

Debugging a Plugin

If you are having problems with the repository which appears to be down to proxy issues, click the "Debug" tab. This allows you to test the downloading of a file and will output the relevant log information inline on the page. No more digging through server log files!

Installing plugins overview

This page last changed on Mar 13, 2007 by [jnolen](#).

Use the plugin repository

If the plugin you wish to install is listed in the Confluence Plugin Repository, you can use the [Confluence Repository Client](#) to install it. Just find the plugin in the list and click the "install" link.

Install plugin manually

If the plugin you wish to install is not listed in the Confluence Plugin Repository, you can still install it by [uploading it to Confluence](#).

1. In the 'Administration' section of Confluence, click the Plugin Repository link.
2. Click on the 'Upload' tab.
3. Use the 'Browse' button to find the plugin jar you wish to install on your harddrive.
4. Select the jar file and click 'Open'.
5. The plugin will be uploaded from your machine to Confluence, and will be automatically installed.

Single Sign-on

This page last changed on May 19, 2006 by donna@atlassian.com.

[Single Sign-on Information](#)

Writing Confluence Plugins

This page last changed on Apr 24, 2007 by [mryall](#).

Confluence plugins provide a standard mechanism for extending Confluence. By adding plugins to Confluence you will be able to customise the site's look and feel, add new macros, event listeners, periodic tasks, and even introduce whole new features.



Looking for existing plugins? See the existing plugins and extensions written by the community in the [Confluence Extensions](#) space.

You can read [Confluence Plugin Guide](#) for an overview of what plugins are. This document introduces Confluence plugins to the developer who may want to write their own.

While Confluence plugins use the same plugin management code as [JIRA 3.0 plugins](#), it's very unlikely that a JIRA plugin will work in Confluence or vice versa.

Anatomy of a Plugin

A plugin is a single jar file that can be dropped into Confluence's classpath. It consists of

- A plugin descriptor
- (Optional) Java classes
- (Optional) Resources

Plugins are composed of a series of modules, each of which defines a point at which the plugin interfaces with Confluence.

Creating a new plugin

See [Creating a new plugin](#).

Confluence Plugin Module Types

The following types of plugin modules are supported by Confluence

Module Type	Since version...	Documentation	Description
codeformatter	2.2	Code Formatting Plugins	Adds new languages to the {code} macro
colour-scheme	1.3	Theme Plugins	A colour-scheme for a theme
component	1.4	Component Plugins	Allows developers to add components to Confluence's component system

decorator	2.5	Decorator Plugins	Adds decorators without using a Theme Plugin
extractor	1.4	Extractor Plugins	Adds information to the Confluence search index
editor	2.5	Editor Plugins	Adds a Wysiwyg editor to the Confluence edit page
job	2.2	Job Plugins	Adds repeatable jobs to Confluence
language	2.2	Language Pack Plugins	Adds language translations to Confluence
layout	1.3	Theme Plugins	A layout (decorator) definition for a theme
lifecycle	2.3	Lifecycle Plugins	Schedule tasks to be run on application startup and shutdown
listener	1.4	Event Listener Plugins	A component that can respond to events occurring in the Confluence server
macro	1.3	Macro Plugins	A macro used in wiki to HTML conversions (e.g {color}). Outputs HTML that can be embedded in a page or layout. Can retrieve user, page and space info, or external content (eg RSS)
rpc-soap	1.4	RPC Plugins	Deploys a SOAP service within Confluence
rpc-xmlrpc	1.4	RPC Plugins	Deploys an XML-RPC service within Confluence
servlet	1.4	Servlet Plugins	A standard Java servlet deployed within a Confluence plugin
spring	2.2	Spring Component Plugins	Add a Spring component. Unlike component plugins these allow the use of full Spring configuration XML
theme	1.3	Theme Plugins	A custom look-and-feel for a Confluence site or space
trigger	2.2	Trigger Plugins	Adds triggers which

			schedule jobs
usermacro	2.3	User Macro Plugins	Allows a simple macro to be created in the plugin XML file, with no Java coding necessary
velocity-context-item	1.4	Velocity Context Plugins	Adds helper objects to Confluence's Velocity context
web-item	2.2	Web UI Plugins	Adds links or tabs to the Confluence UI
web-section	2.2	Web UI Plugins	Adds sections of links to the Confluence UI
xwork	1.4	XWork-WebWork Plugins	XWork/Webwork actions and views bundled with a plugin, enabling user interaction

The Plugin Descriptor

The Plugin descriptor is an XML file that tells Confluence all about the plugin, and the modules contained within it. The descriptor must be a single file named `atlassian-plugin.xml` and must be located at the root of the jar file. Here's a sample plugin descriptor:

```
<!-- Every plugin must have a key, which identifies the plugin uniquely to the system -->
<!-- and a name, which is used to display the plugin in menus. -->
<atlassian-plugin key="com.atlassian.confluence.plugins.example"
name="Example Plugin">

  <!-- The plugin info block allows you to provide more information about your plugin -->
  <plugin-info>
    <description>
      A sample plugin for demonstrating the file format.
    </description>
    <version>1.0</version>
    <!-- the versions of the application this plugin is for (both min and max are mandatory) -->
    <application-version min="1.3" max="1.3"/>
    <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/">
  </plugin-info>

  <!-- Here is where you define your modules. The code you use -->
  <!-- to define a module depends on the module itself. This is just -->
  <!-- a sample, which will not load if installed into Confluence -->

  <!-- Modules must have a key that is unique within the plugin, a name -->
  <!-- and an implementing class. -->
  <example key="module1" name="Example Module"
class="com.atlassian.confluence.plugins.example.ExampleModule">
    <!-- All modules can optionally have a description -->
    <description>An example module</description>
  </example>
</atlassian-plugin>
```

Each plugin has a plugin key which must be unique to the plugin. We suggest using the Java convention of reversing your domain name in order to ensure your key is unique. Each module has a module key which need only be unique within the plugin it is defined.



The plugin key has to be defined in lower-case in the plugin descriptor.

When you call the plugin in wiki markup you can use any capitalization (eg. {module1} or {Module1})

Sometimes you will need to uniquely identify a module - you do this with the module complete key. A module with key fred in a plugin keyed as com.example.modules will have a complete key of com.example.modules:fred

All plugin modules have a class attribute, which tells the plugin manager which Java class it should instantiate when loading the module. What class you should provide depends on the module type. For example, theme, layout and colour-scheme modules can use classes already provided in Confluence (so you can write a theme pack without any Java code), but for macro and listener modules you need to write your own implementing class and include it in your plugin.

Java Classes

Because the plugin is a JAR that is dropped into the Confluence classpath, all Java classes contained within the JAR become a part of the Confluence application. You can include as many classes as you like, and have them interact with each other. Obviously, it's important to follow the Java package naming conventions to ensure your plugin's classes do not conflict with Confluence classes, or other plugins.

If you are writing a Java implementation of a plugin module (see the description of the module's class attribute above), you will be interested in [Accessing Confluence Components From Plugin Modules](#).

You might also want to see the [Confluence Developer FAQ](#), which answers particular questions that have come up from users regarding coding within Confluence.

Plugin and Module Resources

Resources are non-Java files that a plugin may need in order to operate. Examples of possible resources might be:

- A velocity file used to generate HTML for a macro or layout plugin module
- A CSS file required by a theme layout plugin module
- An image referenced from within a layout plugin module
- A macro help file
- A localisation property file

Resource definitions look like this. They can be either a part of the plugin, or part of a particular plugin module:

```
<!-- A resource has a type, a name and a location. The resource definition maps -->
<!-- some arbitrary resource name to where that resource would be located in -->
<!-- the server's classpath -->
<resource type="velocity" name="template" location="com/example/plugin/template.vm"/>

<!-- For the localisation property file below, it must be named exampleplugin.properties -->
<!-- located under the resources folder -->
<resource type="i18n" name="i18n" location="resources/exampleplugin" />
```

```
<!-- Resources may contain arbitrary key/value pairs -->
<resource type="download" name="style.css" location="com/example/plugin/style.css">
  <property key="content-type" value="text/css"/>
</resource>
```

The name of the resource defines how the plugin module can locate a particular resource. The type of a resource tells the module how that resource can be used. A module can look for resources of a certain type or name: for example the layout plugin required that its help file is a file of type velocity and name help.

The location of a resource tells the plugin where the resource can be found in the jar file (resources are loaded by Java's classpath resource-loader). The full path to the file - without a leading slash - is required.

The simplest kind of resource, supported with all plugin module types, is of type download, which makes a resource available for download from the Confluence server at a particular URL. See: [Downloadable Plugin Resources](#).

Plugin Self-Configuration



Plugin configuration is available in Confluence 2.2 and later. Versions of Confluence before 2.1 will simply ignore any of these parameters

Plugins can specify internal links within Confluence to configure themselves. This is useful where your plugin requires any configuration or user specific settings to work. For example, the [Google Maps plugin](#) requires a Google API Key from Google (which needs to be configured on each server) before it will work properly.

- Configuration links will most often point to [XWork plugin modules](#) within the plugin itself
- Configuration links can be provided for a whole plugin and/or for any module within a plugin
- Configuration links are relative to the Confluence application

Plugin configuration - to add a configuration link for the whole plugin, place a single param element with the name `configure.url` within the `plugin-info` element at the top of the plugin descriptor:

```
<plugin-info>
  <description>A macro which displays Google maps within a Confluence page.</description>
  <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/" />
  <version>0.1</version>
  <param name="configure.url">/admin/plugins/gmaps/configurePlugin.action</param>
</plugin-info>
```

Plugin module configuration - to add a configuration link for a single module, place the same param element with the name `configure.url` within the descriptor element for that module:

```
<macro name="gmap" class="com.atlassian.confluence.ext.gmaps.GmapsMacro" key="gmap">
  <description>The individual map macro.</description>
  <param name="configure.url">/admin/plugins/gmaps/configureMacro.action</param>
</macro>
```

Here is an image showing where the Configure links appear for both a plugin and an individual module:

Plugins	Google Maps						
Advanced Macros All modules enabled.	Vendor: Atlassian Software Systems Pty Ltd Plugin Version: 0.1						
Attachment Extractors All modules enabled.	A macro which displays Google maps within a Confluence page.						
Basic Macros All modules enabled.	☐ Configure plugin ☐ Disable plugin						
Compatibility Macros All modules enabled.							
Dashboard Macros All modules enabled.							
Google Maps All modules enabled.	<table><tbody><tr><td>gmap The individual map macro.</td><td>Configure Disable</td></tr><tr><td>Configure GMaps</td><td>Disable</td></tr><tr><td>gmapsManager</td><td>Disable</td></tr></tbody></table>	gmap The individual map macro.	Configure Disable	Configure GMaps	Disable	gmapsManager	Disable
gmap The individual map macro.	Configure Disable						
Configure GMaps	Disable						
gmapsManager	Disable						

Accessing Confluence Components From Plugin Modules

This page last changed on Jan 24, 2006 by [jnolen](#).

Confluence is built around [Spring](#), an open-source component framework for for Java.

If you are familiar with Spring, then you may only wish to know that Confluence plugin modules (and their implementing classes) are autowired by name. Thus, if you want to access a Confluence component from your plugin, just include the appropriate setter method in your implementing class.

If you want to write Confluence plugins but are unfamiliar with Spring, the rest of this page should give you more than enough information on how to have your plugin interact with Confluence.

Interacting with Confluence

When you are writing anything but the simplest Confluence plugin, you will need to interact with the Confluence application itself in order to retrieve, change or store information. This document describes how this can be done.

Manager Objects

At the core of Confluence is a group of "Manager" objects. For example, the `pageManager` is in charge of Confluence pages, the `spaceManager` of spaces, the `attachmentManager` of attachments, and so on.

Dependency Injection

Traditionally, in a component-based system, components are retrieved from some kind of central repository. For example, in an EJB-based system, you would retrieve the bean from the application server's JNDI repository.

Confluence works the other way round. When a plugin module is instantiated, Confluence determines which components the module needs, and delivers them to it.

Confluence determines which components a module needs by reflecting on the module's methods. Any method with a signature that matches a standard JavaBeans-style setter of the same name as a Confluence component will have that component passed to it when the module is initialised.

So, if your plugin module needs to access the `pageManager`, all you need to do is put the following setter method on your module's implementing class:

```
public void setPageManager(PageManager pageManager)
{
    this.pageManager = pageManager;
}
```

More Information

- The [Confluence API documentation](#) is available online.
- If you have any questions about the Confluence API, or which manager object you will need to look for to perform a particular function, or if this Dependency Injection thing just confuses you, you're best off asking on the [confluence-user mailing-list](#), where the Confluence development team are happy to answer technical questions.
- You might also want to see the [Confluence Developer FAQ](#), which answers particular questions that have come up from users regarding coding within Confluence. You can also ask questions using the comments there.

Confluence Plugin Module Types

This page last changed on Mar 18, 2007 by tom@atlassian.com.

The following types of plugin modules are supported by Confluence

Module Type	Since version...	Documentation	Description
codeformatter	2.2	Code Formatting Plugins	Adds new languages to the {code} macro
colour-scheme	1.3	Theme Plugins	A colour-scheme for a theme
component	1.4	Component Plugins	Allows developers to add components to Confluence's component system
decorator	2.5	Decorator Plugins	Adds decorators without using a Theme Plugin
extractor	1.4	Extractor Plugins	Adds information to the Confluence search index
editor	2.5	Editor Plugins	Adds a Wysiwyg editor to the Confluence edit page
job	2.2	Job Plugins	Adds repeatable jobs to Confluence
language	2.2	Language Pack Plugins	Adds language translations to Confluence
layout	1.3	Theme Plugins	A layout (decorator) definition for a theme
lifecycle	2.3	Lifecycle Plugins	Schedule tasks to be run on application startup and shutdown
listener	1.4	Event Listener Plugins	A component that can respond to events occurring in the Confluence server
macro	1.3	Macro Plugins	A macro used in wiki to HTML conversions (e.g {color}). Outputs HTML that can be embedded in a page or layout. Can retrieve user, page and space info, or external content (eg RSS)
rpc-soap	1.4	RPC Plugins	Deploys a SOAP service within Confluence

rpc-xmlrpc	1.4	RPC Plugins	Deploys an XML-RPC service within Confluence
servlet	1.4	Servlet Plugins	A standard Java servlet deployed within a Confluence plugin
spring	2.2	Spring Component Plugins	Add a Spring component. Unlike component plugins these allow the use of full Spring configuration XML
theme	1.3	Theme Plugins	A custom look-and-feel for a Confluence site or space
trigger	2.2	Trigger Plugins	Adds triggers which schedule jobs
usermacro	2.3	User Macro Plugins	Allows a simple macro to be created in the plugin XML file, with no Java coding necessary
velocity-context-item	1.4	Velocity Context Plugins	Adds helper objects to Confluence's Velocity context
web-item	2.2	Web UI Plugins	Adds links or tabs to the Confluence UI
web-section	2.2	Web UI Plugins	Adds sections of links to the Confluence UI
xwork	1.4	XWork-WebWork Plugins	XWork/Webwork actions and views bundled with a plugin, enabling user interaction

Code Formatting Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Code Formatting plugin modules are available in Confluence 2.2 and later versions

Code formatting plugin modules allow you to add new languages to the `{code}` macro. Whenever the code macro is invoked, the macro checks the 'language' parameter against the languages supported by the available formatting plugins, and uses that plugin to format the source code.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Code Formatting Plugins

Here is an example `atlassian-plugin.xml` file containing a single code formatter:

```
<atlassian-plugin name="My Formatter" key="confluence.extra.formatters">
  ...
  <codeformatter name="ruby" key="ruby"
class="com.example.confluence.formatters.RubyFormatter">
    <description>Code formatter for the Ruby programming language</description>
  </codeformatter>
  ...
</atlassian-plugin>
```

- the class attribute defines the class that will be added to the available formatters. This class must implement `com.atlassian.renderer.v2.macro.code.SourceCodeFormatter`

The SourceCodeFormatter Interface

All code formatters must implement the following simple interface:

```
package com.atlassian.renderer.v2.macro.code;

/**
 * Strategy for converting a block of source code into pretty-printed HTML.
 * SourceCodeFormatters MUST be forgiving:
 * * they will be dealing with user-supplied input, so they can't afford to blow up on bad data.
 */
public interface SourceCodeFormatter
{
    /**
     * Inform the CodeMacro which languages this formatter supports. So if someone writes
     * {code:java}, then only
     * * the formatter that returns "java" from this method will be used to format it.
     *
     * @return an array of languages that this formatter supports
     */
    String[] getSupportedLanguages();
}
```

```
* Convert source code into HTML.  
*  
* @param code the source code as a string  
* @param language the programming language that it is believed this code is written in  
* @return the source code formatted as HTML  
*/  
String format(String code, String language);  
}
```

Formatter Priority

There is no concept of priority for formatters. If two formatters are installed and both return the same value from `getSupportedLanguages()`, one will be selected pretty much at random. If you want to avoid this behaviour, deactivate formatters that you no longer want to use.

Component Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Component plugin modules are available in Confluence 1.4 and later

Component plugin modules enable you to add components to Confluence's internal component system (powered by [Spring](#)).

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Component Plugin Module

Each component module adds a single object to Confluence's component management system.

Other plugins and objects within Confluence can then be autowired with your component. This is very useful for having a single component that is automatically passed to all of your other plugin modules (ie a Manager object).

Here is an example `atlassian-plugin.xml` file containing a single component module:

```
<atlassian-plugin name="Sample Component" key="confluence.extra.component">
  ...
  <component name="Keyed Test Component"
    key="testComponent"
    alias="bogusComponent"
    class="com.atlassian.confluence.plugin.descriptor.BogusComponent" />
  ...
</atlassian-plugin>
```

- the name attribute represents how this component will be referred to in the interface.
- the key attribute represents the internal, system name for your component.
- the class attribute represents the class of the component to be created
- the alias attribute represents the alias this component will be stored with. This element is optional, if not specified the module key will be used instead.

Accessing Your Components

Accessing your components is extremely simple.

Autowired Objects

If your object is being autowired (for example another plugin module or an XWork action), the easiest way to access a component is to add a basic Java setter method.

For example, if you use the above BogusComponent module your object would retrieve the component as follows:

```
public void setBogusComponent(BogusComponent bogusComponent)
{
    this.bogusComponent = bogusComponent;
}
```

Non-autowired Objects

If your object is not being autowired, you may need to retrieve the component explicitly. This is done via the ContainerManager like so:

```
BogusComponent bc = (BogusComponent) ContainerManager.getComponent("bogusComponent");
```

Notes

Some issues to be aware of when developing a component:

- One component module can depend on another component module but be careful of circular references (ie A requires B, B requires A).
- The component "namespace" is flat at the moment, so choose a sensible alias for your component.

Downloadable Plugin Resources

This page last changed on Jan 19, 2006 by [jnolen](#).

Confluence plugins may define downloadable resources. If your plugin requires Confluence serve additional static files such as images, Javascript or CSS, you will need to use downloadable plugin resources to make them available.

 Due to a bug in Confluence versions 1.4 through 1.4.2, downloadable plugin resources only function for plugins that have been deployed by copying them into `confluence/WEB-INF/lib`. Plugins that have been uploaded dynamically through the web interface, or copied into `confluence.home/plugins` will not be able to serve resources. This bug is fixed for Confluence 1.4.3.

Defining a Single Downloadable Resource

Downloadable resources are configured to map a name of some downloadable file to its location within the plugin jar-file.

```
<atlassian-plugin name='IM Presence Macros' key='confluence.extra.impresence'>
  <plugin-info>
    <description>Macros to show online status for popular Instant Messaging
    services.</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>0.1</version>
  </plugin-info>
  <macro name='aim' class='com.atlassian.confluence.extra.impresence.AIMPresenceMacro'
  key='aim'>
    <description>Displays an AIM status graphic.</description>
    <resource type="download" name="aimon.gif"
    location="templates/extra/impresence/aimon.gif">
      <param name="content-type" value="image/gif"/>
    </resource>
  </macro>

  <resource type="download" name="aimoff.gif"
  location="templates/extra/impresence/aimoff.gif"/>
</atlassian-plugin>
```

- Resources can be downloaded either within a plugin module, or as a resource of the entire plugin.
 - Resources are always looked up relative to a plugin module (see [below](#)). If a resource can not be found in the plugin module, it will then be looked for in the plugin itself.
- Each resource must be of type="download"
- The name of the resource is how it will be referenced from within the application
- The location of the resource is where it appears within the plugin itself
- An optional content-type parameter can be used to supply the file's MIME type
 - In the absence of a content-type, the application will attempt to guess the file's type from its file extension. For common file extensions, an explicit content-type is not necessary.

Defining a Directory of Downloadable Resources

If your plugin requires a lot of resources, you may wish to expose a directory of files as resources, rather than writing definitions for each individual file.

```
<resource type="download" name="icons/" location="templates/extra/impresence/icons/" />
```

- The name and location must both have trailing slashes
- Subdirectories are also exposed, so in the example above, icons/small/mail.gif will be mapped to the resource templates/extra/impresence/icons/small/mail.gif

Referring to Downloadable Resources

The URL for a downloadable resource is as follows:

```
{server root}/download/resources/{plugin key}:{module key}/{resource name}
```

For example:

<http://confluence.example.com/download/resources/confluence.extra.impresence:aim/aimon.gif>

In a velocity template, you should use the `$req.contextPath` property to ensure that your resources are always relative to the URL of the Confluence server:

```
$req.contextPath/download/resources/confluence.extra.impresence:aim/aimon.gif
```

Event Listener Plugins

This page last changed on Apr 24, 2007 by david@randombits.org.



Availability

Listener plugins are available in Confluence 1.4 and later.

Every time something important happens within Confluence (a page is added or modified, the configuration is changed, etc.), an 'event' is triggered. Listeners allow you to extend Confluence by installing code that responds to those events.



Plugin Events

It is possible to listen for plugin install/uninstall/enable/disable events, however this will be unreliable when trying to listen for events about your own plugin. You will not receive a `PluginDisableEvent` or `PluginUninstallEvent` for the plugin itself. To trigger actions for these events, one (or more) of your modules (macro, event listener, etc.) should implement the [StateAware](#) interface instead.



Synchronous Events

Confluence events are currently processed synchronously - that is, Confluence will wait for your event to finish processing before returning from the method that was the source of the event. This makes it very important that any event listener you write completes as quickly as possible.

Asynchronous events will be forthcoming in a future Developer Release.

Adding a listener plugin

Listeners are a kind of Confluence plugin module.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

The Listener Plugin Module

Each listener is a plugin module of type "listener", packaged with whatever Java classes and other resources that the listener requires in order to run. Here is an example `atlassian-plugin.xml` file containing a single listener:

```
<atlassian-plugin name='Optional Listeners' key='confluence.extra.auditor'>
  <plugin-info>
    <description>Audit Logging</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.0</version>
  </plugin-info>
</atlassian-plugin>
```

```

</plugin-info>

<listener name='Audit Log Listener' class='com.example.listener.AuditListener'
    key='auditListener'>
    <description>Provides an audit log for each event within Confluence.</description>
</listener>
</atlassian-plugin>

```

The listener module definition has no configuration requirements beyond any other module: just give it a name, a key, and provide the name of the class that implements the listener.

The Listener Class

The class attribute of the listener module definition must refer to a Java class that implements the `com.atlassian.confluence.event.EventListener` interface. This is the interface:

```

package com.atlassian.confluence.event;

import com.atlassian.confluence.event.events.ConfluenceEvent;

/**
 * Defines a listener for Confluence events.
 */
public interface EventListener
{
    /**
     * Perform some action as a response to a Confluence event. The EventManager will
     * ensure that this is only called if the class of the event matches one of the
     * classes returned by getHandledEventClasses
     *
     * @param event some event triggered within Confluence
     */
    void handleEvent(ConfluenceEvent event);

    /**
     * Determine which event classes this listener is interested in.
     *
     * The EventManager performs rudimentary filtering of events by their class. If
     * you want to receive only a subset of events passing through the system, return
     * an array of the Classes you wish to listen for from this method.
     *
     * For the sake of efficiency, only exact class matches are performed. Sub/superclassing
     * is not taken into account.
     *
     * Returning an empty array will allow you to receive every event.
     *
     * @return An array of the event classes that this event listener is interested in,
     *         or an empty array if the listener should receive all events. <b>Must not</b>
     *         return null.
     */
    Class[] getHandledEventClasses();
}

```

Events and Event Types

All events within Confluence extend from `com.atlassian.confluence.event.events.ConfluenceEvent`. In general, we use the following convention for naming each type of `ConfluenceEvent`:

<Object><Operation>Event

For example, we have the following event types relating to space events: SpaceCreateEvent, SpaceUpdateEvent, SpaceRemoveEvent. In the above description space would correspond to <Object> and create, update, or remove would correspond to <Operation>.

Occasionally, an operation is so singular that its meaning will be obvious without use of this naming convention; for example a LoginEvent or ConfigurationEvent.

A full catalogue of the events available within Confluence will be forthcoming before the 1.4 final release.

Limitations of Events

- Events are a notification that something has occurred. The event system is not designed to allow a listener to veto the action that caused the event.
- There is no loop-detection. If you write a listener for the SpaceModifiedEvent that itself causes a SpaceModifiedEvent to be generated, you are responsible for preventing the ensuing infinite loop.

Example Code

A more detailed example, with sample code, can be found in [Writing an Event Listener Plugin Module](#).

Writing an Event Listener Plugin Module

This page last changed on Feb 15, 2006 by dhardiker@adaptavist.com.

Overview

For an introduction to event listener plugin modules, please read [Event Listener Plugins](#).

Writing an Event Listener as a plugin module within Confluence

Writing an event listener is a four-step process:

1. Identify the events you wish to listen for
2. Create the EventListener Java class
 - a. Implement `getHandledEventClasses()`
 - b. Implement `handleEvent()`
3. Add the listener module to your `atlassian-plugin.xml` file

Identify the events you wish to listen for

The easiest thing here is to consult the [latest API](#), in the package `com.atlassian.confluence.event.events`. When you implement an EventListener you will provide an array of Class objects which represent the events you wish to handle.

The naming of most events are self explanatory (`GlobalSettingsChangedEvent` or `ReindexStartedEvent` for example), however there are some which need further clarification:

Event Class	Published
LabelCreateEvent	On the creation of the first label to the target Content Entity Object.
LabelRemoveEvent	On the removal of the last label from the target Content Entity Object.
LabelAddEvent	On the addition of any label to the target Content Entity Object.
LabelDeleteEvent	On the deletion of any label from the target Content Entity Object.

Create the EventListener

The EventListener interface defines two methods which must be implemented: `getHandledEventClasses()` and `handleEvent()`.

Implement `getHandledEventClasses()`

The `getHandledEventClasses()` method holds an array of class objects representing the events you wish to listen for.

- Your listener will only receive events of the types specified in `getHandledEventClasses()`
- You must specify all the event types you need - specifying a superclass will not include its subclasses
- Returning an empty array will cause your listener to receive every event Confluence produces

So, if you want your listener to receive only `SpaceCreatedEvent` and `SpaceRemovedEvent`

```
private static final Class[] HANDLED_EVENTS = new Class[] {
    SpaceCreateEvent.class, SpaceRemovedEvent.class
};

public Class[] getHandledEventClasses()
{
    return HANDLED_EVENTS;
}
```

Alternatively, to receive all possible events:

```
/**
 * Returns an empty array, thereby handling every ConfluenceEvent
 * @return
 */
public Class[] getHandledEventClasses()
{
    return new Class[0];
}
```

Implement `handleEvent()`

The implementation below simply relies upon the `toString()` implementation of the event and logs it to a `log4j` appender.

```
public void handleEvent(ConfluenceEvent event)
{
    if (!initialized)
        initializeLogger();

    log.info(event);
}
```

Most often, a `handleEvent(..)` method will type check each event sent through it and execute some conditional logic.

```
public void handleEvent(ConfluenceEvent event)
{
    if (event instanceof LoginEvent)
    {
        LoginEvent loginEvent = (LoginEvent) event;
        // ... logic associated with the LoginEvent
    }
    else if (event instanceof LogoutEvent)
    {
        LogoutEvent logoutEvent = (LogoutEvent) event;
        // ... logic associated with the LogoutEvent
    }
}
```

```
}  
}
```

A full example of an `EventListener` class that listens for login and logout events can be found in [EventListener Example](#).

Add the `EventListener` as a module to your plugin by creating an `atlassian-plugin.xml`

The `atlassian-plugin.xml` file has been described [elsewhere](#) in detail. This is an example of a listener plugin module included in an `atlassian-plugin.xml` file.

```
<atlassian-plugin name='Optional Listeners' key='confluence.extra.auditor'>  
  <plugin-info>  
    <description>Audit Logging</description>  
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>  
    <version>1.0</version>  
  </plugin-info>  
  
  <listener name='Audit Log Listener'  
    class='com.atlassian.confluence.extra.auditer.AuditListener' key='auditListener'>  
    <description>Provides an audit log for each event within Confluence.</description>  
  </listener>  
</atlassian-plugin>
```


EventListener Example

This page last changed on Jan 04, 2005 by [cmiller](#).

Find an example of an EventListener below, which listens for the LoginEvent and LogoutEvent .

```
package com.atlassian.confluence.extra.userlister;

import com.atlassian.confluence.event.EventListener;
import com.atlassian.confluence.event.events.ConfluenceEvent;
import com.atlassian.confluence.event.events.LoginEvent;
import com.atlassian.confluence.event.events.LogoutEvent;
import com.atlassian.plugin.PluginManager;
import bucket.container.ContainerManager;

public class UserListener implements EventListener
{
    private UserLister userLister;
    private PluginManager pluginManager;

    Class[] handledClasses = new Class[]{ LoginEvent.class, LogoutEvent.class};

    public void handleEvent(ConfluenceEvent event)
    {
        if (event instanceof LoginEvent)
        {
            LoginEvent loginEvent = (LoginEvent) event;
            getUserLister().userLoggedIn(loginEvent.getUsername(), loginEvent.getSessionId());
        }
        else if (event instanceof LogoutEvent)
        {
            LogoutEvent logoutEvent = (LogoutEvent) event;
            getUserLister().userLoggedIn(logoutEvent.getUsername(),
logoutEvent.getSessionId());
        }
    }

    public UserLister getUserLister()
    {
        if (userLister == null)
        {
            if (pluginManager == null)
            {
                pluginManager = (PluginManager)
ContainerManager.getInstance().getContainerContext().getComponent("pluginManager");

                userLister = (UserLister) pluginManager.getEnabledPluginModule("userlister");
            }
        }
        return userLister;
    }

    public Class[] getHandledEventClasses()
    {
        return handledClasses;
    }
}
```

Extractor Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Extractor plugin modules are available in Confluence 1.4 and later versions

Extractor plugins allow you to hook into the mechanism by which Confluence populates its search index. Each time content is created or updated in Confluence, it is passed through a chain of extractors that assemble the fields and data that will be added to the search index for that content. By writing your own extractor you can add information to the index.

Extractor plugins can be used to extract the content from attachment types that Confluence does not support,

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)
- Extractor plugins are closely tied to the API of the [Lucene Java library](#)



Confluence's internal search is built on top of the [Lucene](#) Java library. While familiarity with Lucene is not an absolute requirement for writing an extractor plugin, you'll need it to write anything more than the most basic of plugins.

Extractor Plugins

Here is an example `atlassian-plugin.xml` file containing a single search extractor:

```
<atlassian-plugin name="Sample Extractor" key="confluence.extra.extractor">
  ...
  <extractor name="Page Metadata Extractor" key="pageMetadataExtractor"
    class="confluence.extra.extractor.PageMetadataExtractor" priority="1000">
    <description>Extracts certain keys from a page's metadata and adds them to the search
index.</description>
  </extractor>
  ...
</atlassian-plugin>
```

- the class attribute defines the class that will be added to the extractor chain. This class must implement `bucket.search.lucene.Extractor`
- the priority attribute determines the order in which extractors are run. Extractors are run from the highest to lowest priority. Extractors with the same priority may be run in any order.



As a general rule, all extractors should have priorities below 1000, unless you are writing an extractor for a new attachment type, in which case it should be greater than 1000.

If you are not sure what priority to choose, just go with `priority="900"` for regular extractors, and `priority="1200"` for attachment content extractors.

To see the priorities of the extractors that are built into Confluence, look in `WEB-INF/classes/plugins/core-extractors.xml` and

The Extractor Interface

All extractors must implement the following interface:

```
package bucket.search.lucene;

import bucket.search.Searchable;
import org.apache.lucene.document.Document;

public interface Extractor
{
    public void addFields(Document document, StringBuffer defaultSearchableText, Searchable
searchable);
}
```

- The document parameter is the Lucene document that will be added to the search index for the object that is being saved. You can add fields to this document, and the fields will be associated with the object in the index.
- The defaultSearchableText is the main body of text that is associated with this object in the search index. It is stored in the index as a Text field with the key "content". If you want to add text to the index such that the object can be found by a regular Confluence site search, append it to the defaultSearchableText. (Remember to also append a trailing space, or you'll confuse the next piece of text that's added!)
- The searchable is the object that is being saved, and passed through the extractor chain.

Attachment Content Extractors

If you are writing an extractor that indexes the contents of a particular attachment type (for example, OpenOffice documents or Flash files), you should extend the abstract class `bucket.search.lucene.extractor.BaseAttachmentContentExtractor`. This class ensures that only one attachment content extractor successfully runs against any file (you can manipulate the priorities of attachment content extractors to make sure they run in the right order).

For more information, see: [Attachment Content Extractor Plugins](#)

An Example Extractor

The following example extractor is untested, but it associates a set of page-level properties with the page in the index, both as part of the regular searchable text, and also as Lucene Text fields that can be searched individually, for example in a custom `{abstract-search}` macro.

```
package com.example.extras.extractor;

import bucket.search.lucene.Extractor;
import bucket.search.Searchable;
import org.apache.lucene.document.Document;
import org.apache.lucene.document.Field;
```

```

import com.atlassian.confluence.core.ContentEntityObject;
import com.atlassian.confluence.core.ContentPropertyManager;
import com.opensymphony.util.TextUtils;

public class ContentPropertyExtractor implements Extractor
{
    public static final String[] INDEXABLE_PROPERTIES = {"status", "abstract"};

    private ContentPropertyManager contentPropertyManager;

    public void addFields(Document document, StringBuffer defaultSearchableText, Searchable
searchable)
    {
        if (searchable instanceof ContentEntityObject)
        {
            ContentEntityObject contentEntityObject = (ContentEntityObject) searchable;
            for (int i = 0; i < INDEXABLE_PROPERTIES.length; i++)
            {
                String key = INDEXABLE_PROPERTIES[i];
                String value = contentPropertyManager.getStringProperty(contentEntityObject,
key);

                if (TextUtils.stringSet(value))
                {
                    defaultSearchableText.append(value).append(" ");
                    document.add(Field.Text(key, value));
                }
            }
        }
    }

    public void setContentPropertyManager(ContentPropertyManager contentPropertyManager)
    {
        this.contentPropertyManager = contentPropertyManager;
    }
}

```

Debugging

There's a really primitive Lucene index browser hidden in Confluence which may help when debugging. You'll need to tell it the filesystem path to your \$conf-home/index directory.

<http://yourwiki.example.com/admin/indexbrowser.jsp>

Attachment Content Extractor Plugins

This page last changed on Jan 09, 2006 by [cmiller](#).

 Extractor plugin modules are available in Confluence 1.4 and later

Attachment content extractor plugins enable Confluence to index the contents of attachments that it may not otherwise understand. Before you read this document, you should be familiar with [Extractor Plugins](#).

The BaseAttachmentContentExtractor class

Attachment content extractor plugins must extend the `bucket.search.lucene.extractor.BaseAttachmentContentExtractor` base class. The skeleton of this class is:

```
package bucket.search.lucene.extractor;

import bucket.search.lucene.Extractor;
import bucket.search.lucene.SearchableAttachment;
import bucket.search.Searchable;
import org.apache.lucene.document.Document;
import com.opensymphony.util.TextUtils;

import java.io.InputStream;
import java.io.IOException;

public abstract class BaseAttachmentContentExtractor implements Extractor
{
    /** You should not have to override this method */
    public void addFields(Document document, StringBuffer defaultSearchableText, Searchable
searchable);

    /** Override this method if you can not get the functionality you want by overriding
    getMatchingContentTypes() and getMatchingFilenameExtensions() */
    protected boolean shouldExtractFrom(String fileName, String contentType);

    /** Override this method to return the MIME content-types that your plugin knows how to
    extract
    text from. If you have already overridden shouldExtractFrom(), this method is useless
    */
    protected String[] getMatchingContentTypes()
    {
        return new String[0];
    }

    /** Override this method to return the filename extensions that your plugin knows how to
    extract
    text from. If you have already overridden shouldExtractFrom(), this method is useless
    */
    protected String[] getMatchingFileExtensions()
    {
        return new String[0];
    }

    /** Override this method to do the actual work of extracting the content of the attachment.
    Your extractor
    should return the text that is to be indexed */
    protected abstract String extractText(InputStream is, SearchableAttachment attachment)
    throws IOException;
}
```

 The first attachment content extractor that returns true from `shouldExtractFrom`, and a not-null, not-empty String from `extractText()` will cause all remaining attachment content extractors not to run against this file. Thus, it's important to get the priority value for your plugin right, so

general, but inaccurate extractors are set to run after specific, more accurate extractors.

Other (non-attachment) content extractors will still run, regardless.

An Example

This is an example of a hypothetical extractor that extracts the contents of mp3 ID3 tags.

```
package com.example.extras.extractor;

import com.hypothetical.id3.Id3Tag;
import bucket.search.lucene.extractor.BaseAttachmentContentExtractor;
import bucket.search.lucene.SearchableAttachment;

import java.io.InputStream;
import java.io.IOException;

public class Id3Extractor extends BaseAttachmentContentExtractor
{
    public static final String[] MIME_TYPES = {"audio/x-mp3",
                                                "audio/mpeg",
                                                "audio/mp4a-latm"};

    public static final String[] FILE_EXTS = {"mp3", "m4a"};

    protected String extractText(InputStream is, SearchableAttachment attachment)
        throws IOException
    {
        Id3Tag tag = Id3Tag.parse(is);
        return (tag.getTitle() + " " + tag.getArtist() + " "
                + tag.getGenre() + " " + tag.getAlbumTitle());
    }

    protected String[] getMatchingContentTypes()
    {
        return MIME_TYPES;
    }

    protected String[] getMatchingFileExtensions()
    {
        return FILE_EXTS;
    }
}
```

Job Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Job plugin modules are available in Confluence 2.2 and later.

Job plugin modules enable you to add repeatable tasks to Confluence, which are in turn scheduled by [Trigger Plugins](#).

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Job Plugin Module

The Job plugin module adds a simple reusable component within a plugin. At a minimum, the module class must implement Quartz's [Job interface](#), but for access to Confluence's objects and database you should extend `com.atlassian.quartz.jobs.AbstractJob`. Jobs are scheduled with [Trigger Plugins](#).

Note that at the moment Jobs are not autowired by Spring.

Here is an example `atlassian-plugin.xml` fragment containing a single Job module:

```
<atlassian-plugin name="Sample Component" key="confluence.extra.component">
  ...
  <job key="myJob"
    name="My Job"
    class="com.example.myplugin.jobs.MyJob" />
  ...
</atlassian-plugin>
```

- the name attribute represents how this component will be referred to in the Confluence interface.
- the key attribute represents the internal, system name for your Job. This is what the Trigger will refer to.
- the class attribute represents the class of the Job to be created. The class must have a no-argument constructor, or it will not be able to be instantiated by Confluence.

For examples of how to schedule Jobs to be run, see [Trigger Plugins](#).

Note that in Confluence 2.3 you can also use a [Spring Plugin](#) as a job. This allows you to inject other Spring components into the Job, via the "jobDataAsMap" property of the job. An example is shown below. You cannot do this in Confluence 2.2.



Plugins containing Spring `JobDetailBeans` can't be dynamically loaded at present, due to classloading issues.

```

<spring name="Space Cleaner Job" key="spaceCleanerJob" id="spaceCleanerJob"
class="org.springframework.scheduling.quartz.JobDetailBean">
  <property name="name">
    <value>Space Cleaner Job</value>
  </property>
  <property name="jobClass">
    <value>com.atlassian.confluence.extras.spacecleaner.SpaceCleanerJob</value>
  </property>
  <property name="jobDataAsMap">
    <map>
      <entry key="spaceManager"> <!-- these spring beans will be injected into the
SpaceCleanerJob instance -->
        <ref bean="spaceManager"/>
      </entry>
      <entry key="pageManager">
        <ref bean="pageManager"/>
      </entry>
      <entry key="settingsManager">
        <ref bean="settingsManager"/>
      </entry>
      <entry key="trashManager">
        <ref bean="trashManager"/>
      </entry>
      <entry key="runOncePerCluster">
        <value>true</value>
      </entry>
    </map>
  </property>
</spring>
<trigger key="com.atlassian.confluence.extras.spacecleaner.SpaceCleanerJob.trigger"
name="Space Cleaner Trigger">
  <job key="spaceCleanerJob" />
  <schedule cron-expression="0 * * * * ?" />
</trigger>

```


Language Pack Plugins

This page last changed on Aug 16, 2006 by [jnolen](#).

To run Confluence in another language, you must install a language pack plugin for that translation. Guides and tools for collaboratively creating translations have been made available to the Confluence community.

This page provides a technical overview of plugins, for users interested in [creating](#) or [updating](#) a translation. To install a translation, check out [Community Translations](#).

Language Pack Overview

Language plugins are placed in the <CONFLUENCE-INSTALL-DIRECTORY>/languages/<KEY> directory, where <KEY> is the international language identifier. They consist of three files:

Name	Purpose	Filename	Location
Language Plugin Descriptor	Defines language settings in language tag	atlassian-plugin.xml	./src/etc
ConfluenceActionSupport Properties File	Contains text strings in key:value mapping	ConfluenceActionSupport- ~~<KEY>~~ etc/com/atlassian/confluence	~~./src/etc/com/atlassian/confluence~~
Flag Image	Contains flag image for country	<KEY>.png	./src/etc/templates/languages/<K

Directory Structure

The location of the three files that compose a Language Pack plugin is as follows:

```
./src/etc/com/atlassian/confluence/<PATH_OF_PROPERTIES_FILE>  
./src/etc/templates/languages/<LANGUAGE_KEY>/<LANGUAGE_KEY>.gif  
./src/etc/atlassian-plugin.xml
```

As an example, this is the directory listing of the German translation ("de_DE"):

```
./confluence-2.2-std/plugins/de_DE/src  
./confluence-2.2-std/plugins/de_DE/src/etc  
./confluence-2.2-std/plugins/de_DE/src/etc/atlassian-plugin.xml  
./confluence-2.2-std/plugins/de_DE/src/etc/com  
./confluence-2.2-std/plugins/de_DE/src/etc/com/atlassian  
./confluence-2.2-std/plugins/de_DE/src/etc/com/atlassian/confluence  
./confluence-2.2-std/plugins/de_DE/src/etc/com/atlassian/confluence/core  
./confluence-2.2-std/plugins/de_DE/src/etc/com/atlassian/confluence/core/ConfluenceActionSupport_de_DE.prope  
./confluence-2.2-std/plugins/de_DE/src/etc/templates  
./confluence-2.2-std/plugins/de_DE/src/etc/templates/languages  
./confluence-2.2-std/plugins/de_DE/src/etc/templates/languages/de_DE  
./confluence-2.2-std/plugins/de_DE/src/etc/templates/languages/de_DE/de_DE.gif
```

Language Plugin Structure

The three components of a plugin must be updated for each translation. The following sections describe updating the language plugin descriptor, flag image and ConfluenceActionSupport properties file.

Defining The Language Plugin Descriptor

This is an example atlassian-plugin.xml file for a Language Pack plugin for German:

```
<atlassian-plugin name='German language pack' key='confluence.languages.de_DE'>
  <plugin-info>
    <description>This plugin contains translations for the German
language</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.0</version>
  </plugin-info>

  <language name="German" key="de_DE" language="de" country="DE">
    <!-- Define a flag that will be shown for this language -->
    <resource name="de_DE.gif" type="download"
location="templates/languages/de_DE/de_DE.gif">
      <property key="content-type" value="image/gif"/>
    </resource>
  </language>
</atlassian-plugin>
```

Language Plugin Descriptor Attributes

The atlassian-plugin.xml file declares the language being bundled using the following attributes:

Attribute	Description	Required
language	The language being defined	Yes
country	The country the language belongs to	No
variant	The variant of the language	No

These values are based off those defined in the [java.util.Locale](#) class. For information on the valid values for the language, country and variant attributes, please see the [java.util.Locale](#) documentation.

The key attribute is an aggregation of the the three previous attributes, in the same format as that of [java.util.Locale](#): language[_country][_variant]

Flag Images

Language packs define a flag that is to be used to represent the language. The atlassian-plugin.xml defines the language property:

```
<resource name="en_AU.gif" type="download" location="templates/languages/en_AU/en_AU.gif">
  <property key="content-type" value="image/gif"/>
</resource>
```

When selecting a language, the flag defined above will be displayed. Additionally, the flag will appear

during the setup process.

ConfluenceActionSupport Properties File

This Java Properties file contains key-value pairs for each string in Confluence, and supports variables. For example:

```
remove.all.name=Remove All  
view.mail.thread.desc.full=Entire Thread (Showing {0} of {1})
```

Creating A New Confluence Translation

This page last changed on Aug 16, 2006 by david.soul@atlassian.com.

If you would like to translate Confluence into your local language, follow the instructions below on creating a language pack plugin from an example.

The Confluence community is sharing their in-progress and complete translations. You should check that a shared translation to your target language has not already been started [here](#).

Preparation

Start by checking out the [technical overview of a Language Pack Plugin](#). Once you are familiar with the structure and content of a plugin, you can move on to creating your own:

1. Check that you have the latest version of Confluence [here](#). If not, you are recommended to install the latest version for translation, though you can use any version newer than 2.2. Refer to the guide on [upgrading Confluence](#) for instructions.
2. If you do not already have Apache Ant installed, download the [latest version](#) and setup your environmental variables according to the [manual](#)
3. If you are using Confluence 2.2.0 only, you will need to unzip the language plugin base files from [languages.zip](#) into a subdirectory of <CONFLUENCE-INSTALL-DIRECTORY> called languages

Modifying The Example Language Pack Settings

This example will work from an example plugin [en_AU.zip](#).

1. Unzip the example en_AU language pack [en_AU.zip](#) into a subdirectory of <CONFLUENCE-INSTALL-DIRECTORY>/languages called en_AU. Note that is the file is just a renamed copy of default English properties file
2. We will now update the properties file in the example to the latest version. Open your Confluence install directory and copy the
confluence\WEB-INF\classes\com\atlassian\confluence\core\ConfluenceActionSupport.properties
file to the example plugin directory src\etc\com\atlassian\confluence\core.
3. Remove the old ConfluenceActionSupport_en_AU.properties file, and rename
ConfluenceActionSupport.properties to ConfluenceActionSupport_en_AU.properties.
4. Locate the plugin descriptor file, ConfluenceActionSupport properies file and flag image

```
<CONFLUENCE-INSTALL-DIRECTORY>/languages/en_AU/src/etc/atlassian-plugin.xml  
<CONFLUENCE-INSTALL-DIRECTORY>/languages/en_AU/src/etc/com/atlassian/confluence/core/ConfluenceActionSupport  
<CONFLUENCE-INSTALL-DIRECTORY>/languages/en_AU/src/etc/templates/languages/en_AU/en_AU.png
```

5. Detemine your language plugin key <KEY> using your country and locale according to the [Language Pack Plugins](#) guide
6. Atlassian has licensed a set of flags for use with translations. Delete en_AU.png and download the appropriate flag from [Language Pack Flags](#), renaming it to the correct key
7. Update atlassian-plugin.xml to contain the relevant <KEY> and other references, including image type. Refer to the first section from the above [Language Pack Plugins](#) for help on deciding what to modify

8. Rename the directory structure and filenames that contain en-AU to your own <KEY>. The directory should now appear as

```
<CONFLUENCE-INSTALL-DIRECTORY>/languages/<KEY>/src/etc/atlassian-plugin.xml  
<CONFLUENCE-INSTALL-DIRECTORY>/languages/<KEY>/src/etc/com/atlassian/confluence/core/ConfluenceActionSupport  
<CONFLUENCE-INSTALL-DIRECTORY>/languages/<KEY>/src/etc/templates/languages/<KEY>/<KEY>.png
```

 You are now ready to build the plugin with the default English text to check that your setup is correct. These next few steps deploy the default English version of the pack under your own language

9. From the command line, go to <CONFLUENCE-INSTALL-DIRECTORY>/languages and execute

```
ant -Dlanguage=<KEY> build
```

10. Copy <CONFLUENCE-INSTALL-DIRECTORY>/plugins/<KEY>/dist/languages-<KEY>.jar to <CONFLUENCE-INSTALL-DIRECTORY>/confluence/WEB-INF/lib
11. Restart Confluence
12. From your browser, login as an Administrator, then go to Administration -> Language and verify that you are able to select the translation

Updating The Language Pack

To collaborate on the translation process, you may wish to upload your translation to the [Community Translations page](#). Repeat these instructions to test each iteration of your translation attempt.

1. Unzip [excelbundle0.9.zip](#) to your local drive.
2. Browse to your Confluence install and go to the \confluence\WEB-INF\classes\com\atlassian\confluence\core directory. Copy the ConfluenceActionSupport.properties file there into the translation_tool directory and rename it to ConfluenceActionSupport_en.properties.
3. If you want to start a fresh translation, skip this step. To work from an existing translation, copy it into the translation_tool directory and remove any country variant from the filename, eg ConfluenceActionSupport_ru_RU.properties becomes ConfluenceActionSupport_ru.properties.
4. Call the translation tool to create the spreadsheet file. For example, to create a Russian translation, open a terminal window in the translation_tool directory and call

```
java -jar excelbundle.jar -export translation_ru.xls -l en,ru -r "%cd%"
```

5. Edit the file content, referring to [Translating ConfluenceActionSupport Content](#) for more information on how to modify the string values.
6. Call the translation tool to export the updates back into the localised properties file. For the example Russian translation, open a terminal window, go to the translation_tool directory and call

```
java -jar excelbundle.jar -import translation_ru.xls -l ru -r "%cd%"
```

7. Once you have completed editing, you must copy and rename the localised translation back to the language plugin directory. For frequent updates, you may wish to create a script to do this.

Building The Language Pack Plugin

To build the new language pack plugin, execute Ant in the confluence\src\etc\languages directory:

```
ant -Dlanguage=<LANGUAGE> build
```

A JAR will be created in the languages/<LANGUAGE>/dist/ folder.

Installation On A Confluence Server

To install the translation in another instance of Confluence.

1. Copy languages-<KEY>.jar into the <CONFLUENCE-INSTALL-DIRECTORY>/confluence/WEB-INF/lib of your target installation
2. Restart Confluence
3. From your browser, login as an Administrator, then go to Administration -> Language and select the translation

Submitting A Translation (Optional)

If you would like to share your completed translation with other Confluence users, you can upload it [here](#).

By providing Atlassian permission to bundle complete translations with the Confluence install you will soon be able to select your local language from the Confluence translations list under System Administration, without needing to package it as a plugin.

Language Pack Flags

This page last changed on May 01, 2006 by david.soul@atlassian.com.

Below are flags that can be used with Language Pack Plugins in Confluence. For individual country names, see the [attachments list](#).



These images are only for us within Confluence plugins and may not be redistributed with any other code. For license details, see [license.txt](#)

([view as slideshow](#))

Translating ConfluenceActionSupport Content

This page last changed on Jul 14, 2006 by david.soul@atlassian.com.

Guide for translating the values for each property in a ConfluenceActionSupport_<LANGUAGE>.properties file:

Translating Strings Without Variables Or Links

These links can be translated directly. Using German in this example

```
submit.query.name=Submit Query
```

can be translated directly into

```
submit.query.name=Anfrage senden
```

Translating Strings Containing Variables Or Links

Some strings use variables or hyperlinks to provide contextual information. Variables are shown as {NUMBER} while hyperlinks are shown as LINK ALIAS. Translations must take into account the positioning of variables, and check that links occur over the relevant phrase. Using German again as an example

```
search.include.matches.in.other.spaces=There are <b>{0} matches</b> in <b>other spaces</b>. <a href="{1}">Include these matches</a>.
```

This tag uses a variable to show the number of matches, and a link the user can click to include those matches. The German version must place the 'matches' variable in the adjusted location, and reapply the hyperlink to the relevant phrase.

```
search.include.matches.in.other.spaces=Es wurden <b>{0} Resultate</b> in <b>anderen Spaces</b> gefunden. <a href="{1}">Diese Resultate einschliessen</a>.
```


Translations for the Rich Text Editor

This page last changed on Jan 01, 2007 by don.willis@atlassian.com.

In Confluence version 2.2.10 and above it is possible to provide translations for the tooltips and labels in the Rich Text Editor.

Most of the editor's internationalised text consists of its tooltips. There are also a few labels such as those in the Image Properties dialog.

Unfortunately, translations of these to another language are not currently read from the `ConfluenceActionSupport.properties` file. Instead they are read from a collection of javascript files within Confluence's `includes` directory.



Rich Text Editor translations can not be installed as a language pack. Vote for [CONF-6987](#) to get this fixed.



Incomplete Rich Text Editor translations result in the users seeing the "keys" for the missing translations, rather than falling back to another language.

Creating a new Translation

The Rich Text Editor provided by Confluence is Tiny MCE. The language files it uses are all within the `confluence/includes/js/tiny_mce` directory.

There are 7 files that need translating. They are located in 7 different directories and each english file is named "en.js". The translated files should be named with either a two letter language code or the combination of a two letter language and two letter country code.

The core editing strings are found in:

```
confluence/includes/js/tiny_mce/langs/en.js
```

Translations for most of these strings are included for a variety of languages. However, some of them may need to be re-encoded to UTF-8.

These two files:

```
confluence/includes/js/tiny_mce/themes/advanced/langs/en.js
confluence/includes/js/tiny_mce/plugins/table/langs/en.js
```

are also translated into the same languages. However some translations may be missing or out of date.

The remaining 4 files are all specific to Confluence and require translation for most or all languages:

```
confluence/includes/js/tiny_mce/plugins/confluence/langs/en.js
confluence/includes/js/tiny_mce/plugins/emotions/langs/en.js
confluence/includes/js/tiny_mce/plugins/fullscreen/langs/en.js
```

confluence/includes/js/tiny_mce/plugins/paste/langs/en.js

Using the Translations

Once you have translations for each file, you need to edit the locales-to-editor-languages.properties file located in confluence/WEB-INF/classes.

This file tells the Rich Text Editor which js files to use for a given language.

Example

Attached is a [translation for US English](#). (Since tiny MCE is a US product the core text is all spelt in US English anyway, but there is one "Centre" in the Image Properties dialogue). It contains files named en_us.js in the required directories.

To add this translation to Confluence:

1. Download and install the [US English Language Pack Plugin](#) provided [here](#).
2. Unzip the archive into the confluence/includes/js/tiny_mce directory.
3. Add en_US=en_us to the locales-to-editor-languages.properties file.
4. Restart Confluence.

To test the translation is working:

1. Change your language to US English (Preferences -> Edit Profile -> General -> Preferred Languages)
2. Edit a page using the Rich Text Editor
3. Click the Image icon
4. Check that the Alignment dropdown contains "Center"

Updating A Confluence Translation

This page last changed on Jul 25, 2006 by david.soul@atlassian.com.

This guide is for translating Confluence into non-English languages using a Spreadsheet, and covers:

1. Improving or finishing a translation for an existing Language Plugin
2. Updating an existing translation for a new version of Confluence

If you do not have a Language Plugin to deploy the updated ConfluenceActionSupport_<LANGUAGE>.properties file, you should instead go to the [Creating A New Confluence Translation](#).

To make small updates, it is quicker to translate the file directly. If your changes are more substantial, you may prefer to translate using Excel.

Translating Directly

This approach uses any file editor. If your translation uses English characters, you can skip to the next section.

Preparing Non-Unicode Files For Direct Translation

If you do not have the Sun Java JDK installed, please download it now. Version 5.0 can be downloaded [here](#).

1. Create a script or batch file that uses the native2ascii.exe program bundled in <JAVA-JDK-DIRECTORY>/bin to convert from the natively encoded file back to the Unicode file. For example, update the Russian properties file with a script or batch file that calls

```
native2ascii -encoding cp1251 JiraWebActionSupport_ru_RU-native.txt  
JiraWebActionSupport_ru_RU.properties
```

2. Copy ConfluenceActionSupport<KEY>.properties to a new file ConfluenceActionSupport<KEY>-native.txt. Save the new file local non-Unicode character encoding.

Performing Direct Translation

These steps apply to both Unicode and non-Unicode translations:

1. Open the properties file (or it's natively encoded equivalent) for editing, translate some or all of the properties file into your target language, and save the changes. If you are translating into a non-Unicode language, always edit ConfluenceActionSupport<KEY>-native.txt, otherwise modify ConfluenceActionSupport<KEY>.properties.
2. Edit the file content in a text editor, referring to [Translating ConfluenceActionSupport Content](#) for more information on how to modify the string values. Users who are unsatisfied with simply opening

two copies of the file in their favourite editor may want to try this freeware [properties editor](#), that allows side-by-side comparisons.

3. For non-Unicode translations only, run the native2ascii script to update ConfluenceActionSupport<KEY>.properties
4. If you wish to test the update, copy the file back to its original location in the plugin. Then restart Confluence.

Translating Using A Spreadsheet

The guide below uses the open-source [ExcelBundle](#), released under the [Apache License 2.0](#). To translate from Excel or OpenOffice:

1. Unzip [excelbundle0.9.zip](#) to your local drive.
2. Browse to your Confluence install and go to the \confluence\WEB-INF\classes\com\atlassian\confluence\core directory. Copy the ConfluenceActionSupport.properties file there into the translation_tool directory and rename it to ConfluenceActionSupport_en.properties.
3. If you want to start a fresh translation, skip this step. To work from an existing translation, copy it into the translation_tool directory and remove any country variant from the filename, eg ConfluenceActionSupport_ru_RU.properties becomes ConfluenceActionSupport_ru.properties.
4. Call the translation tool to create the spreadsheet file. For example, to create a Russian translation, open a terminal window in the translation_tool directory and call

```
java -jar excelbundle.jar -export translation_ru.xls -l en,ru -r "%cd%"
```

5. Edit the file content, referring to [Translating ConfluenceActionSupport Content](#) for more information on how to modify the string values.
6. Call the translation tool to export the updates back into the localised properties file. For the example Russian translation, open a terminal window, go to the translation_tool directory and call

```
java -jar excelbundle.jar -import translation_ru.xls -l ru -r "%cd%"
```

7. Once you have completed editing, you must copy and rename the localised translation back to the language plugin directory. For frequent updates, you may wish to create a script to do this.
8. To view the updates after copying across the new properties file, select the language plugin for your translation, then restart Confluence and refresh your browser.

Lifecycle Plugins

This page last changed on Apr 24, 2007 by david@randombits.org.



Lifecycle plugin modules are available in Confluence 2.3 and later.

Lifecycle plugins allow you to perform tasks on application startup and shutdown.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Application Lifecycle

Startup is performed after Confluence has brought up its Spring and Hibernate subsystems. If Confluence is being set up for the first time, the startup sequence is run after the completion of the setup wizard. This means that lifecycle plugins can assume access to a fully populated Spring container context, and a working database connection. (i.e. you don't need to check `isContainerSetup()` or `isSetupComplete()`)

Shutdown is performed when the application server is shutting down the web application, but before the Spring context is disposed of.



Plugin Activation and Deactivation

Activating or deactivating a lifecycle plugin will not cause any of its lifecycle methods to be run. If you want your plugin to respond to activation and deactivation, you should make sure it implements [StateAware](#).



Shutdown is not guaranteed

There are many situations in which the shutdown sequence will not be run, as it is dependent on the orderly shutdown of the application server. Plugins should not rely on shutdown being performed reliably, or even ever.

Shutdown lifecycle tasks are most useful for cleaning up resources or services that would otherwise leak in situations where the web application is being restarted, but the JVM is not exiting. (i.e. services that retain classloaders or threads that would otherwise prevent the application from being garbage-collected)

Defining a Lifecycle Plugin

Lifecycle plugin definitions are quite simple. Here's a sample `atlassian-plugin.xml` fragment:

```
<lifecycle key="frobozz" name="Frobozz Service" class="com.example.frobozz.Lifecycle"
sequence="1200">
  <description>Start and stop the Frobozz service</description>
</lifecycle>
```

- The key is the required plugin module key, which must be unique within the plugin.
- The name is the required display name for the plugin.
- The class is the required class name for the lifecycle service implementation.
- The sequence number is required, and determines the order in which lifecycle plugins are run. On startup, they are run from lowest to highest sequence number, then in reverse order on shutdown.

Defining a Lifecycle Service Implementation

If you are implementing a new lifecycle service, you should implement `com.atlassian.config.lifecycle.LifecycleItem`:

```
package com.atlassian.config.lifecycle;

public interface LifecycleItem
{
    /**
     * Called on application startup.
     *
     * @param context the application's lifecycle context
     * @throws Exception if something goes wrong during startup. No more startup items will be
     * run, and the application will post a fatal error, shut down all LifecycleItems that have run
     * previously, and die horribly.
     */
    void startup(LifecycleContext context) throws Exception;

    /**
     * Called on application shutdown
     *
     * @param context the application's lifecycle context
     * @throws Exception if something goes wrong during the shutdown process. The remaining
     * shutdown items will still be run, but the lifecycle manager will log the error.
     */
    void shutdown(LifecycleContext context) throws Exception;
}
```

However, for convenience, and to make it easy to plug in third-party lifecycle events that are implemented as servlet context listeners, lifecycle service classes can instead implement `javax.servlet.ServletContextListener` – the `contextInitialized()` method will be called on startup, and `contextDestroyed()` on shutdown.

Sequences

The sequence numbers of the lifecycle modules determine the order in which they are run. On startup, modules are run from lowest to highest sequence number, then on shutdown that order is reversed (first in, last out). As a general guideline:

Sequence number	Description
0 - 500	Configuration tweaks and application sanity checks.
800	Database and configuration upgrades.
5000	Start/stop the Quartz scheduler

- If your startup lifecycle item has a sequence less than 800, you can't assume that the configuration or database schema are current
- If you have a sequence number greater than 5000, you must keep in mind that scheduled jobs (including [Job Plugins](#)) may run before you've started up, or after you've shut down.

Macro Plugins

This page last changed on Apr 09, 2007 by [jnolen](#).

Macros are Confluence code that can be invoked from inside a page by putting the name of the macro in curly brackets. Users of Confluence will be familiar with macros like {color} or {children} or {rss}. Thanks to the plugin system, it is easy to write and install new macros into a Confluence server.



Created a new macro or looking for macros?

Share your macros and find new plugins in the [Confluence extensions](#) space.



For Simple Macros

If you want to create a macro that just inserts some boiler-plate text or performs simple formatting, you may only need a [User Macro](#). User macros can be written entirely from within the Confluence web interface, and require no special installation or programming knowledge.

Adding a macro plugin

Macros are a kind of Confluence plugin module.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

The Macro Plugin Module

Each macro is a plugin module of type "macro", packaged with whatever Java classes and other resources (i.e. Velocity templates) that the macro requires in order to run. Generally, similar macros are packaged together into a single plugin, for ease of management. Here is an example atlassian-plugin.xml file

```
<atlassian-plugin name='Task List Macros' key='confluence.extra.tasklist'>
  <plugin-info>
    <description>Macros to generate simple task lists</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.3</version>
  </plugin-info>

  <macro name='tasklist' class='com.atlassian.confluence.extra.tasklist.TaskListMacro'
    key='tasklist'>
    <description>Creates a very simple task list, with user checkable tasks</description>
  </macro>

  <!-- more macros... -->
</atlassian-plugin>
```

The name of the macro defines how it will be referenced from the page. So if you define your macro as having name="tasklist", the macro will be called from the page as {tasklist}.

The Macro Plugin Module Implementing Class

The class attribute of the macro defines what Java class will be used to process that macro. This is the class you need to write in order for the macro to function. It must implement the `com.atlassian.renderer.v2.macro.Macro` interface.

A more complete guide to writing macros can be found in [Writing Macros](#).

Compatibility with Confluence 1.3 Macros

Confluence 1.4 includes a compatibility layer that will run the majority, but not all macros from Confluence 1.3. Two thirds of the macros shipped with Confluence are still written to the old Radeox macro API and are run in compatibility mode.

The best way to find out if your macro still runs in Confluence 1.4 is to try it. If it doesn't work you may need to update your macro slightly, as some classes have moved from the `com.atlassian.confluence.renderer` package into `com.atlassian.renderer`. If you still can't get your macro to run, then you should rewrite it to the 1.4 API. The process is simple and should take you only hours at most.

Build a plugin

Maven

If your plugin is one based on the [Confluence Plugin Development Kit](#) or has the appropriate `project.xml` files, you can use Maven to build your plugin. Simply run the command: `maven jar`. This will build a jar file and deposit it in the `$my_plugin_dir/target` directory.

Then you can install the plugin using the Plugin Administration interface within Confluence. However, if you need to install an XWork plugin, see the Ant instructions below.

Ant

You will have to have [Ant](#) installed in order to build the macro plugins. Use the following commands from within the plugins directory in your Confluence installation to:

Create the jar file only:

```
ant -Dlibrary=macroname build
```

install the plugin:

You can install the plugin using ant, as shown below.

```
ant -Dlibrary=macroname install
```

You must use this method if your plugin contains xwork actions. Plugins installed via ant are not preserved when you upgrade Confluence, so if your plugin does not contain xwork actions, you should install it via the Administration, Plugin Manager page, where you can browse for and upload plugins.

Plugin Building Walkthrough

This section is a step by step description of creating a plugin. It assumes familiarity with your operating system's command line

1. Go to the plugins directory. Each plugin is a subdirectory in this directory.
2. Create a new plugin directory and source code. You can do this by copying an existing plugin, e.g. on unix `cp -r information information2`. You'll then need to change the package of all the java source files to `com.atlassian.confluence.extra.information2` and change the name and key of the plugin and the keys of the macros in `information2/src/etc/atlassian-plugin.xml`. All the reference to the package `com.atlassian.confluence.extra.information` in this file need to be changed to `com.atlassian.confluence.extra.information2` as well.
3. Build the plugin. From the directory `plugins`, run the command `ant -Dlibrary=information2 build`. This will create a jar file called `plugins/information2/dist/plugins-information2.jar`.
4. Install the plugin either by running `ant -Dlibrary=information2 install`, which copies the jar file to `confluence/WEB-INF/lib`, or by uploading the plugin using the Plugin Manager page, which copies the jar file to `<confluence.home>/plugins`.

Example Macro Plugins

The source-code of a number of macros (some of which are already built and packaged with Confluence) can be found in the `plugins` directory of your Confluence distribution. You can modify these macros (consistent with the Confluence license). The most interesting macros to read if you're looking at writing your own are probably:

- `tasklist` – a simple macro that stores its state in a page's `PropertySet`
- `userlister` – a macro that works in combination with an [event listener](#) to list logged-in users
- `livesearch` – a macro that leverages Javascript and `XMLHttpRequest` in combination with an [XWork plugin](#) to handle the server-side interaction.
- `graphviz` – a macro that interacts with an external, non-Java tool

Documenting Macros

This page last changed on May 12, 2005 by [jnolen](#).

The Confluence notation guide is the popup window that describes all the markup and macros available within a Confluence installation. Obviously, if a macro is installed, you will want it to also appear in the notation guide.

To do this you will need to:

1. Write a help file
2. Tell Confluence where to find that help file

Writing the Help File

The help file is a file containing a fragment of HTML. Your HTML will be inserted into a two-columned table, so you should provide a single table row with two columns. On the left-hand side, put usage examples of your macro. On the right hand side provide a description and sample output.

The file will be rendered through Velocity, which means useful things like `$req.contextPath` are available to you.

Here's an example of the help file used for the `{note}` macro:

```
<tr bgcolor=ffffff>
  <!-- The left-hand table cell should contain usage examples -->
  <td>
    {note:title=Be Careful}<br />
    The body of the note here..  

    {note}
  </td>

  <!-- The right-hand cell describes the macro and its available arguments -->
  <!-- and may include sample output -->
  <td>
    <p>
      Prints a simple note to the user.

    <!-- Provide a list of all possible macro arguments -->
    <ul>
      <li><b>title:</b> - (optional) the title of the note.</li>
      <li><b>icon:</b> - (optional) if "false", don't display the icon.</li>
    </ul>
    </p>

    <!-- This is the sample output -->
    <div align='center'><div class='informationMacroPadding'>
    <table cellpadding='5' width='85%' cellspacing='0' class='noteMacro' border='0'>
    <tr><td width='16' valign='top'>
    </td><td>
      <b class="strong">Be Careful</b><br /><br />
      The body of the note here.. $req.contextPath/images/icons/emoticons/warning.png
    </td></tr></table></div></div>
  </td>
</tr>
```

Configuring the help file in your macro

The help file is included in your macro as a plugin resource of type "velocity" and name "help". Here's the plugin definition of the note macro, including its help file:

```
<macro name='note' class='com.atlassian.confluence.extra.information.NoteMacro' key='note'>
  <description>Draws a note (yellow).</description>
  <resource type="velocity" name="help" location="templates/extra/layout/notemacro-help.vm">
    <param name="help-section" value="advanced"/>
  </resource>
</macro>
```

The "help-section" parameter is optional, and determines which section of the notation guide the macro will be documented in. The following sections are available (Note that regular wiki markup is also defined in here, so some sections like 'breaks' are unlikely to be appropriate for any real macro):

texteffects	Macros that change the appearance of text contained within them (e.g. {color})
headings	Macros that create headings within a page
breaks	Macros related to line- or paragraph breaks, or rulers
links	Macros related to links to other wiki or external content (e.g. {anchor})
lists	Macros related to lists
images	Macros for inserting or manipulating images within a page (e.g. {gallery})
tables	Macros for forming static tables (e.g. {section} and {column})
advanced	Macros for creating more complex structures in a page (e.g. {panel} or {info})
confluence	Macros for manipulating or displaying Confluence data (e.g. {children})
external	Macros for manipulating or displaying data from other systems (e.g. {rss})
misc	Macros that do anything else (Try to avoid using this section)

If you don't provide a help section, your macro documentation will appear in the "Macros" section of the notation guide. (This section only appears in the notation guide if it is needed).

User Macros

This page last changed on Apr 17, 2007 by david.soul@atlassian.com.

User macros are simple template-like macros that allow you to create simple formatting macros using the Confluence web interface.

 If you want to distribute your user macro as a plugin, please see [User Macro Plugins](#). If you want to create more complex, programmatic macros in Confluence, you may need to write a [Macro Plugin](#). Note also that Macro Plugins and User Macro Plugins can appear in the [Confluence Notation Guide](#), whereas User Macros do not.

To create a user macro,

 You must be a Confluence administrator to create user macros.

1. Go to the 'Administration Console' and click 'User Macros' in the left panel. (Users of Confluence 1.1 or 1.2 will find user macros under Administration -> Macro Management -> User Macros)
2. Click 'Create a User Macro' at the top of the list of macros.
3. Enter the macro attributes as explained below this screenshot, then click the 'Save' button.

Macro Name:	floatright Macro names are converted to lower-case
	☒ Macro has a body Convert macro body wiki markup to HTML
Output:	Macro generates HTML markup
Template:	<pre><div style="float: right; margin: 0 5px">\${body}</div></pre>
Save Cancel	

- 'Macro Name' — enter the text that you will type, within curly brackets, to invoke the macro from within a page. E.g. to invoke the 'floatright' macro defined in the above screenshot, you would type:

```
{floatright}
```

- 'Macro has a body' — check this box if you will pass body-text to the macro when you invoke it from within a page, e.g. :

```
{floatright}my text{floatright}
```

If you tick the Macro has a body checkbox, you will need to choose one of three options listed below.

- For 'Output', choose one of the following options:
 - 'Macro generates HTML markup' — choose this if you wish to write your Template in HTML markup (as shown in the above screenshot).
 - 'Macro generates wiki markup' — choose this if you wish to write your Template in wiki markup.
- 'Template' — this is written in the [Velocity](#) templating language, and specifies what the macro will do. Note: If you ticked Macro has a body, your Template can refer to the body-text by specifying '\$body'.

Options for 'Macro has a body':

When you select 'Macro has a body', anything the user types within the body of the macro will be available in the macro in the \$body variable. The options below allow you to tell Confluence to pre-process the body before it is placed in the macro output.

- Use unprocessed macro body — the body of the macro will be output verbatim, including any HTML markup. For example if the macro body is body, it will be displayed as body in the page.
- Escape HTML in macro body — the body of the macro will be output with HTML markup escaped. So if the macro body is body, it will be displayed as body in the page.
- Convert macro body wiki markup to HTML — the body of the macro will be converted from wiki text to HTML markup. So if the macro body is *body*, it will be displayed as body in the page.

Writing user macros: some examples

- The name attribute of the macro is how you will use it from within a page, ie {name}.
- The template attribute of the macro is written in the [Velocity](#) templating language, and controls the rendering of the macro itself.

As an example, let's write a simple macro that simply creates a red box (using an existing Confluence style) around some text (useful for writing about error conditions for example - hence the macro name 'error').

After clicking "New User Macro", enter error as the Name of your macro, and then put the following in the Template text area:

```
<div class="errorbox">$body</div>
```

Then click Add. You should now see your new macro in the User Macros library, and you can now enable and disable it individually.

To use the macro within a page, you would add notation like:

```
{error}This is bad{error}
```

And your page would (magically!) have an error box on it, like so:

This is bad

Another example to demonstrate how you can pass parameters into your macro. Say you wanted to write your own font colour macro:

```
<span style="color: $param0">$body</span>
```

The usage of this macro would be:

```
{colour:red}Some example text{colour}
```

which will produce:

Some example text

If your macro requires more than one parameter, you can use variables \$param0 to \$param9 to represent them. To specify multiple parameters, use:

```
{colour:red|blue|green}
```

Where red, blue and green are the 1st, 2nd and 3rd parameters respectively.

Available objects

The user macro above uses the \$body object, which is available for use within your user macro template if the macro has a body.

You can pass parameters to your user macro in the same way as any other macro (separated by | signs), these parameters are provided to your template as param1, param2. . . paramN.

The complete list of objects available for use are:

Name	Description	Doc Reference
\$body	The body of the macro (if the macro has a body)	
\$param0-n	The parameters passed to your macro (as available)	
\$config	The BootstrapManager object, useful for retrieving Confluence properties	BootstrapManager
\$content	The current ContentEntity object that this macro is a included in (if available)	ContentEntityObject
\$space	The Space object that this	Space

	content object is located in (if relevant)	
\$generalUtil	A GeneralUtil object, with useful utility methods for URL encoding etc	GeneralUtil
\$action	A blank ConfluenceActionSupport object, useful for retrieving i18n text if needed	ConfluenceActionSupport
\$webwork	A VelocityWebWorkUtil object, for it's htmlEncode() method	VelocityWebWorkUtil
\$req	The current HttpServletRequest object (if the page is rendered as a result of an HTTP request)	
\$res	The corresponding HttpServletResponse object (not recommended to be played with)	
\$userAccessor	For retrieving users, groups and checking membership	UserAccessor

More information on object usage is available from the [Velocity Template Overview](#).

User Macro Library

Below is a list of existing user macros that can be installed.

[Drop Shadows User Macro](#)
[Escape User Macro](#)
[Expand Text User Macro](#)
[Show-to User Macro](#)
[Typewriter text effect - User Macro](#)

Writing Macros

This page last changed on Mar 05, 2007 by [jnolen](#).

Macros are written and deployed into Confluence as [Macro Plugins](#). This page describes how to write a macro.

The Macro Class

All macros must implement the `com.atlassian.renderer.v2.macro.Macro` interface. The Javadoc comments are probably the best place to start:

<http://www.atlassian.com/software/confluence/docs/api/latest/com/atlassian/renderer/v2/macro/Macro.html>



The BaseMacro class

While it's not a requirement, your macro should extend the `com.atlassian.renderer.v2.macro.BaseMacro` abstract class. As of Confluence 1.4 this class does not contain any functionality, but if the Macro interface changes in the future, the BaseMacro class will be maintained in order to ensure backwards compatibility with existing macros.

Writing Your Macro

When writing a macro, you will need to override the following methods:

Method	Should return...
<code>hasBody()</code>	true if this macro expects to have a body, false otherwise
<code>getBodyRenderMode()</code>	The <code>RenderMode</code> under which the body should be processed before being passed into the macro
<code>isInline()</code>	false if the macro produces a block element (like a paragraph, table or div) true if it is inline and should be incorporated into surrounding paragraphs
<code>execute()</code>	a fragment of HTML that is the rendered macro contents

Understanding **RenderMode**

The `RenderMode` tells the Confluence wiki renderer which wiki-conversion rules should be applied to a piece of text. Once again, the best place to start is the Javadoc:

<http://www.atlassian.com/software/confluence/docs/api/latest/com/atlassian/renderer/v2/RenderMode.html>

There are a number of pre-defined render modes. The ones that would be useful to macro writers are probably:

Mode	Description
<code>RenderMode.ALL</code>	Render everything
<code>RenderMode.NO_RENDER</code>	Don't render anything: just return the raw wiki text
<code>RenderMode.INLINE</code>	Render things you'd normally find inside a paragraph, like links, text effects and so on
<code>RenderMode.SIMPLE_TEXT</code>	Render text made up only of paragraphs, without images or links

If you want finer control, `RenderMode` is implemented as a bit-field. Each constant of `RenderMode` starting with `F_` is a feature of the renderer that can be turned on or off. You can construct a `RenderMode` by manipulating these bits through the following methods:

Method	Description	Example
<code>RenderMode.allow()</code>	Allow only the renderings specified	<code>RenderMode.allow(RenderMode.F_LINKS RenderMode.F_HTML_ESCAPE)</code> will only render links, and escape HTML entities.
<code>RenderMode.suppress()</code>	Allow all renderings except those specified	<code>RenderMode.suppress(RenderMode.F_MACROS RenderMode.F_TEMPLATE)</code> will render everything except macros and template variables
<code>and()</code>	Perform a logical AND on an existing render mode	<code>RenderMode.SIMPLE_TEXT.and(RenderMode.SIMPLE_TEXT)</code> will render <code>SIMPLE_TEXT</code> without paragraphs
<code>or()</code>	Perform a logical OR on an existing render mode	<code>RenderMode.SIMPLE_TEXT.or(RenderMode.F_MACROS)</code> will render <code>SIMPLE_TEXT</code> with macros

 Many macros (like this note macro) produce a `div`. Often, if there's only one line of text within a `div`, you don't want it surrounded in paragraph tags. For this reason, the `RenderMode.F_FIRST_PARA` flag controls the first line of wiki text that is rendered. If `F_FIRST_PARA` is not set, and the first line of text is a paragraph, the paragraph tags will not be rendered.

Accessing the Rest of the System

Like all Confluence plugin modules, Macros are autowired by the Spring framework. To obtain a manager object through which you can interact with Confluence itself, all you need to do is provide a JavaBeans-style setter method for that component on your Macro class. See [Accessing Confluence Components From Plugin Modules](#)

Advanced Macro Techniques

Macros are often most powerful when combined with other plugin modules. For example, the `{livesearch}` macro uses an [XWork plugin](#) to perform its server-side duties, and the `{userlist}` plugin uses a [listener](#)

[plugin](#) to listen for login events and determine who is online. You may also consider using a [component plugin](#) to share common code or state between macros.

How Macros are Processed

If you want to know exactly what happens when a macro is processed, the following (slightly overly-detailed) description should help:

Consider the following code in a Wiki page:

```
{mymacro:blah|width=10|height=20}This _is_ my macro body{mymacro}
```

1. The `MacroRendererComponent` finds the first `{mymacro:blah|width=10|height=20}` tag, and asks the `MacroManager` if a macro is currently active with the name "mymacro". The `MacroManager` returns a singleton instance of your `Macro`.
2. The `MacroRendererComponent` calls `hasBody()` on the `Macro`.
 - a. If `hasBody()` returns false, the macro is processed with a 'null' body, and the next `{mymacro}` tag will be processed as a separate macro.
 - b. If `hasBody()` returns true, the `MacroRendererComponent` looks for the closing `{mymacro}`. Anything between the two becomes the macro body.
 - i. If there is a macro body, the `MacroRendererComponent` then calls `getRenderMode()` on the macro to determine how that body should be rendered
 - ii. The macro body is processed through the wiki renderer with the given `RenderMode` before being passed to the macro
3. The `MacroRendererComponent` calls `execute` on the macro, passing in the macro parameters, the (processed) body, and the current `RenderMode`
 - The `execute` method should return an HTML string. No further wiki processing is performed on macro output.
 - The parameters are a `Map` of `{String}`s, keyed by parameter name.
 - If any parameter is not named, it is keyed by the string representation of its position: so for the above example, `parameters.get("0")` would return "blah".
 - `parameters.get(Macro.RAW_PARAMS_KEY)` will return the raw parameter string, in this case: "blah|width=10|height=20"
4. The `MacroRendererComponent` calls `isInline()` on the macro to determine if its results should be inserted into the surrounding page as an inline (i.e. part of a surrounding paragraph) or a block element.

RPC Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Availability

RPC plugin modules are implemented in Confluence 1.4 and later.

RPC plugins allow you to deploy arbitrary SOAP or XML-RPC services within Confluence. These services may be completely independent of Confluence, or may take advantage of the Confluence APIs to provide a remote, programmatic interface to the Confluence server. Confluence's packaged remote API is implemented entirely as a plugin.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)
- The Remote API packaged with Confluence is documented at [Remote API Specification](#)

XML-RPC Plugins

Here is an example `atlassian-plugin.xml` file containing a single XML-RPC service:

```
<atlassian-plugin name="Sample XML-RPC" key="confluence.extra.xmlrpc">
  ...
  <rpc-xmlrpc key="helloworld-xmlrpc"
    name="Hello World XML-RPC"
    class="com.atlassian.confluence.extra.helloworldrpc.HelloWorld">
    <description>A public example XML-RPC service</description>
    <service-path>helloworld</service-path>
  </rpc-xmlrpc>
  ...
</atlassian-plugin>
```

- the class attribute defines the class that will be servicing XML-RPC requests. One instance of this class will be instantiated, and all of its public methods will be made available remotely. The instance is autowired from the Spring context.
- the service-path attribute is the method-prefix that is used to determine which XML-RPC method calls are routed to this plugin.

Confluence listens for XML-RPC requests at a single end-point. If your server is deployed at <http://www.example.com> then all XML-RPC requests must be made to <http://www.example.com/rpc/xmlrpc>. As such, the service-path is used to distinguish which plugin each request is directed at. If your RPC implementing class has a method `provideGreeting()`, and a service-prefix of `helloworld`, then the XML-RPC method call will be `helloworld.provideGreeting()`.



XML-RPC Interfaces

The XML-RPC specification is more limited than Java code. in particular:

- all method parameters in the class you have deployed must take as arguments, and return as values only the "XML-RPC-friendly types" listed below
- null is not a valid XML-RPC type, so you must never send null as an argument, or return null as a value
- void is not a valid XML-RPC return type, so all methods exposed via XML-RPC must return some value

Valid types for use as arguments in methods exposed via XML-RPC, or as return values from XML-RPC methods are:

- int
- boolean
- java.lang.String
- double
- java.util.Date
- java.util.Hashtable
- java.util.Vector
- byte[]

The object wrappers for the primitive types (java.lang.Integer, java.lang.Boolean, etc) may be used as return values, but not as method arguments. For more information, see:

<http://ws.apache.org/xmlrpc/types.html>

SOAP Plugins

Here is an example atlassian-plugin.xml file containing a single SOAP service:

```
<atlassian-plugin name="Sample XML-RPC" key="confluence.extra.xmlrpc">
  ...
  <rpc-soap key="helloworld-soap" name="Hello World SOAP"
class="com.atlassian.confluence.extra.helloworldrpc.HelloWorld">
    <description>A public example SOAP service</description>
    <service-path>helloworld</service-path>
    <published-interface>com.atlassian.confluence.extra.helloworldrpc.HelloWorldPublic</published-interf
  </rpc-soap>
  ...
</atlassian-plugin>
```

- the class attribute defines the class that will be servicing SOAP requests. One instance of this class is instantiated and autowired from the Spring context.
- the service-path element defines the SOAP service-path for this plugin, and where its WSDL file will be located.
- the published-interface element defines a Java interface that will be exposed via the SOAP service. The class defined in the class attribute must implement this interface.

Confluence listens for SOAP requests at a single end-point. If your server is deployed at

<http://www.example.com> then all XML-RPC requests must be made to <http://www.example.com/rpc/soap>. The preferred method for calling a SOAP service on Confluence is by parsing the WSDL file that is generated automatically for any deployed SOAP plugin. If your plugin has a service-path of helloworld, its WSDL file will be available at <http://www.example.com/rpc/soap/helloworld.wsdl>

Unlike XML-RPC, SOAP can accept and return complex types.

RPC Authentication

Confluence supplies a very simple, token-based authentication service for its remote API. Users log in over the remote interface using a `login(username, password)` method, and are supplied with a String token. This String token is then supplied as the first argument of any subsequent remote call, to authenticate the user with their previous login. More information about this protocol can be found in the [Remote API Specification](#) documentation.

Any RPC plugin can take advantage of the authentication service. To do so you must make some changes to your remote service objects, and to the configuration.

Here is an `atlassian-plugin.xml` containing SOAP and XML-RPC services that require authentication:

```
<atlassian-plugin name="Sample XML-RPC" key="confluence.extra.xmlrpc">
  ...
  <rpc-xmlrpc key="helloworldsecure-xmlrpc"
    name="Secure Hello World XML-RPC"
    class="com.atlassian.confluence.extra.helloworldrpc.HelloWorldSecureImpl">
    <description>An example XML-RPC service that requires a login</description>
    <service-path>helloworld-secure</service-path>
    <published-interface>com.atlassian.confluence.extra.helloworldrpc.HelloWorldSecure</published-interface>
    <authenticate>true</authenticate>
  </rpc-xmlrpc>
  <rpc-soap key="helloworldsecure-soap"
    name="Secure Hello World SOAP"
    class="com.atlassian.confluence.extra.helloworldrpc.HelloWorldSecureImpl">
    <description>An example SOAP service that requires a login</description>
    <service-path>helloworld-secure</service-path>
    <published-interface>com.atlassian.confluence.extra.helloworldrpc.HelloWorldSecure</published-interface>
    <authenticate>true</authenticate>
  </rpc-soap>
  ...
</atlassian-plugin>
```

An authenticated XML-RPC service requires an additional `published-interface` element that behaves like the `published-interface` element in the SOAP plugin: you must supply a Java Interface to represent which methods of your plugin class are being exposed remotely. The class represented by the class attribute must implement this interface.

There are two changes you have to make to your remote service objects (and their published interfaces) to allow them to take advantage of authentication:

1. You must implement the `String login(String username, String password)` and `boolean logout(String token)` methods in `com.atlassian.confluence.rpc.SecureRpc`. However, since

these methods will be intercepted by the Confluence RPC framework, they will never actually be called on your object. As such, you can leave the implementations empty.

2. All methods in your published interface must have an initial argument that is a String (the authentication token). This token will also be intercepted by the Confluence RPC framework. Your code must not rely on this token having any value by the time the method is called on your plugin.

If you are providing an authenticated service, the logged-in User will be available to you from `com.atlassian.confluence.user.AuthenticatedUserThreadLocal.getUser()`



If anonymous RPC is enabled for your server, the logged-in user may be null

Hibernate Session

If you use the Confluence API within your plugin you will probably need to create a Hibernate session, and start a transaction. Getting an error like: `net.sf.hibernate.HibernateException: Could not initialize proxy - the owning Session was closed` is one indication.

Using the HelloWorld example above:

The class which implements your service needs to delegate each call to another object, which will be supplied when the HelloWorld instance is autowired.

```
class HelloWorld implements HelloWorldPublic
{
    private HelloWorldDelegator helloWorldDelegator;

    public int doSomething(String arg)
    {
        return helloWorldDelegator.doSomething(arg);
    }

    public void setHelloWorldDelegator(HelloWorldHandler helloWorldDelegator)
    {
        this.helloWorldDelegator = helloWorldDelegator;
    }
}
```

HelloWorldDelegator contains the actual implementation of your service. It implements the same interface as HelloWorld, i.e. HelloWorldPublic. It is declared as a Spring bean, wrapped in a transaction:

```
<component name="HelloWorld SOAP Service core delegator"
    key="helloWorldDelegatorTarget"
    class="com.atlassian.confluence.extra.helloworldrpc.HelloWorldDelegator"/>

<spring key="helloWorldDelegator"
class="org.springframework.transaction.interceptor.TransactionProxyFactoryBean">
    <property name="transactionManager">
        <ref local="transactionManager"/>
    </property>
    <property name="target">
        <ref local="helloWorldDelegatorTarget"/>
    </property>
```

```
<property name="transactionAttributes">
  <props>
    <prop key="*">PROPAGATION_REQUIRED</prop>
  </props>
</property>
<property name="proxyInterfaces">
  <value>com.atlassian.confluence.extra.helloworldrpc.HelloWorldPublic</value>
</property>
<property name="postInterceptors">
  <list>
    <ref local="profilingInterceptor"/>
  </list>
</property>
</spring>
```

Example

Example XML-RPC and SOAP plugins are available in the Confluence distribution under `plugins/helloworldrpc`.

The full source to the Confluence remote API plugin can be found in the Confluence distribution under `plugins/confluencerpc`. The Confluence Remote API uses a mixture of RPC plugins and [Component plugins](#), along with a simple mechanism to serialize Java objects into an XML-RPC compatible struct, to serve the same API over both SOAP and XML-RPC. We strongly recommend you use a similar mechanism to provide both RPC APIs.

Servlet Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).

Servlet plugin modules enable you to deploy Java servlets as a part of your plugins.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

The Servlet Plugin Module

Each servlet is deployed as a plugin module of type "servlet". Here is an example atlassian-plugin.xml file containing a single servlet:

```
<atlassian-plugin name='Hello World Servlet' key='confluence.extra.helloworld'>
  <plugin-info>
    <description>A basic Servlet module test - says "Hello World!"</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.0</version>
  </plugin-info>

  <servlet name='Hello World Servlet' key='helloworld'
    class='com.atlassian.confluence.extra.helloworld.HelloWorldServlet'>
    <description>Says Hello World, Australia or your name.</description>
    <url-pattern>/helloworld</url-pattern>
    <init-param>
      <param-name>defaultName</param-name>
      <param-value>Australia</param-value>
    </init-param>
  </servlet>
</atlassian-plugin>
```

- the class attribute of servlet is an subclass of `javax.servlet.http.HttpServlet`.
- the url-pattern elements (one or more) define the locations this servlet will be accessed.
- the init-param elements allow you to define initial parameters for your servlet, using the same method as you would normally in `web.xml`.

Accessing Your Servlet

Your servlet will be accessed within the Confluence web application via each url-pattern you specify, beneath the `/plugins/servlet` parent path.

For example, if you specify a url-pattern of `/helloworld` as above, and your Confluence application was deployed at <http://yourserver/confluence> - then your servlet would be accessed at <http://yourserver/confluence/plugins/servlet/helloworld> .

Notes

Some information to be aware of when developing or configuring a servlet plugin module:

- Your servlet's `init()` method will not be called on web application startup, as for a normal servlet. Instead, this method will be called the first time your servlet is accessed after each time it is enabled. This means that if you disable a plugin containing a servlet, or a single servlet module, and re-enable it again `init()` will be called again.
- Because all servlet modules are deployed beneath a common `/plugins/servlet` root, be careful choosing each url-pattern under which your servlet is deployed. It is recommended to use a value that will always be unique to the world!

Example

There is an example servlet module within the `helloworldservlet` example.

Find this example in the `/plugins/helloworldservlet` directory within your Confluence distribution.

Spring Modules

A Spring module allows you to use standard Spring XML configuration tags.

A spring module appears in atlassian-plugin.xml like this:

```
<spring name="Space Cleaner Job" key="spaceCleanerJob"
class="org.springframework.scheduling.quartz.JobDetailBean">
    ... any standard spring configuration goes here...
</spring>
```

The above is equivalent to the following configuration in applicationContext.xml:

```
<bean id="spaceCleanerJob" class="org.springframework.scheduling.quartz.JobDetailBean">
    ...
</bean>
```

Description

The StateAware interface can be implemented by [plugin modules](#) which need to know when they are enabled or disabled.

Implementation

To be notified of enablement/disablement, implement the following in your [Macro Plugins](#), [Event Listener Plugins](#) or [Component Plugins](#):

```
public class YourMacro extends BaseMacro implements com.atlassian.plugin.StateAware
```

This has two methods you must implement:

```
public void enabled()
{
    // Your enablement code goes here.
}

public void disabled()
{
    // Your disablement code goes here.
}
```

Call Sequence

These methods are called in the following circumstances:

enabled()

1. At server startup, if the plugin is already installed and enabled.
2. If the plugin is installed via uploading
3. If the plugin is enabled after having been disabled.
4. If the specific module is enabled after having been disabled.

disabled()

1. At server shutdown, if the plugin is installed and enabled.
2. If the plugin is uninstalled.
3. If the plugin is disabled.
4. If the specific module is disabled.

Notes

Each method is only called once at each logical enablement/disablement event. Please note that the module class's constructor is not a reliable place to put initialisation code either, as the classes are often constructed or destructed more often than they are disabled/enabled. However, once enabled, the same class will remain in memory until it is disabled.

Known Issues

Supported Module Types

Not all module types have been tested, but the following have the following status:

Module Type	Confluence Version	Working
Macro Plugins	2.3.3	
Component Plugins	2.3.3	
Event Listener Plugins	2.3.3	
Lifecycle Plugins	2.3.3	

Theme Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).

Themes define a look and feel for Confluence. Confluence ships with several themes that you can use, such as the default theme and or the left-nav theme. Theme plugins, on the other hand, allow you to create your totally customized look and feel. A theme can be applied to an entire Confluence site or to individual spaces. Creating a new theme consists of two steps:

1. [Creating a theme](#) with decorators and colour schemes, which defines how each page looks.
2. [Packaging and installing a Theme Plugin](#) - themes are part of our [plugin](#) system.

To install it within Confluence, please read [Installing and Configuring Plugins manually](#).

There are several other themes that you can use as examples to learn from and extend:

- [Clickr Theme](#)
- [Comment Tab Theme](#)
- [Left-nav Theme](#)

We've also provided a [Confluence Space export](#) for theme developers. You can import this space into your development Confluence, and check each page to make sure all of the Confluence content looks good in your new theme.

You may also want to read [Including Cascading Stylesheets in Themes](#)

Creating a Theme Plugin

This page last changed on Dec 11, 2006 by david.soul@atlassian.com.

- [Using Decorators](#)
- [Using Colour Schemes](#)

Using Decorators

A decorator defines Confluence page layout. By modifying a decorator file, you can move "Attachments" tab from the left of the screen to the right or remove it completely. Decorator files are written in the Velocity templating language and have the VMD extension. You can familiarise yourself with Velocity at the [Velocity Template Overview](#) and decorators in general at the [Sitemesh homepage](#).

Decorators, Contexts and Modes

Confluence comes bundled with a set of decorator files that you can customize. Instead of having one decorator file for each screen, we've grouped together similar screens (example: view and edit page screens) to simplify editing layouts.

There is some terminology that we use when talking about decorators that should be defined. We've grouped all the screens in Confluence into major categories which we call contexts. Within each context are various modes (ways of viewing that particular layout).

The following table summarises how decorators use contexts and modes:

Decorator	Context	Mode	Comment
page.vmd	page	'view', 'edit', 'edit-preview', 'view-information', and 'view-attachments'	
blogpost.vmd	blogpost (news)	'view', 'edit', 'edit-preview', and 'remove'	We prefer to use 'news' as an end-user term; all templates and classes use 'blogpost' to indicate RSS related content
mail.vmd	mail	'view', 'view-thread' and 'remove'	
global.vmd	global	'dashboard', 'view-profile', 'edit-profile', 'change-password-profile', 'edit-notifications-profile'	
main.vmd	n/a (header and footer)		main.vmd is used to

Behaviour	Explanation
<code>\$helper.domainName</code>	displays the base URL of your Confluence instance on your page. This is useful for constructing links to your own Confluence pages.
<code>\$helper.spaceKey()</code>	returns the current space key or null if in a global context.
<code>\$helper.spaceName</code>	returns the name of the current space
<code>\$helper.renderConfluenceMacro("{create-space-button}")</code>	renders a call to a Confluence Macro for the velocity context
<code>\$helper.getText("key.key1")</code>	looks up a key in a properties file matching <code>key.key1</code> =A piece of text and returns the matching value ("A piece of text")
<code>\$helper.action</code>	returns the XWork action which processed the request for the current page.

If you are on a page or space screen you also have access to the actual page and space object by using `$helper.page` and `$helper.space` respectively.

If you want to delve more into what other methods are available in this object, please see our API's for ThemeHelper.

Velocity macros

Finally, the last thing you need to decipher decorator files is an understanding of macros. A velocity macro looks like this:

```
#myVelocityMacro()
```

In essence, each macro embodies a block of code. We've used these macros to simplify decorator files and make them easier to modify.

For example, the `#editPageLink()` macro will render the edit page link you see on the 'View Page Screen'. All the logic which checks whether a certain user has permissions to edit pages and hence see the link are hidden in this macro. As the theme writer, you need only care about calling it.

The easiest way to acquaint yourself with the macros is to browse through your `macros.vm` file, located in `/template/includes/macros.vm` (under the base Confluence installation).

Writing your own Velocity Macros

[Velocity macros](#) are very useful for abstracting out common presentation logic into a function call and for keeping decorators clean. If you wish to use them for your theme you can either:

h5 Write your own Macros file

Write your own Velocity macros library file, as we've done with `macros.vm`. If you elect to do this you

must locate the velocity.properties file beneath WEB-INF/classes and tell the Velocity engine where your library file can be located, relative to the base installation of Confluence.

```
velocimacro.library = template/includes/macros.vm
```

Use Inline Velcoty Macros.

Inline velocity macros, when loaded once, can be called from anywhere. See decorators/mail.vmd for examples of inline decorators.

The Colour Scheme Module

Colour schemes can be pre-configured for your theme. It is possible to configure them dynamically, in Space Administration, within an existing space.

The following colours can be customised in this space:

Top Bar		<default>
Space Name Text		<default>
Heading Text		<default>
Links		<default>
Borders and Dividers		<default>
Menu Bar Background		<default>
Menu Bar Text		<default>
Menu Bar Background Highlight		<default>
Menu Bar Text Highlight		<default>
Custom Colour 1		<default>
Custom Colour 2		<default>
Custom Colour 3		<default>
Custom Colour 4		<default>
Custom Colour 5		<default>

[Reset To Global Colour Scheme](#)

[Edit Space Colour Scheme](#)

To transport them within a theme, however, they need to be expressed in an XML document. Here the structure of the colour-scheme element which you will use to arrange your palette of colours.

```
<colour-scheme key="earth-colours" name="Brown and Red Earth Colours"
  class="com.atlassian.confluence.themes.BaseColourScheme">
  <colour key="topbar" value="#440000"/>
  <colour key="spacename" value="#999999"/>
  <colour key="headingtext" value="#663300"/>
  <colour key="link" value="#663300"/>
  <colour key="border" value="#440000"/>
  <colour key="navbg" value="#663300"/>
```

```
<colour key="navtext" value="#ffffff"/>
<colour key="navselectedbg" value="#440000"/>
<colour key="navselectedtext" value="#ffffff"/>
</colour-scheme>
```

The class of a colour scheme must implement `com.atlassian.confluence.themes.ColourScheme`. The `com.atlassian.confluence.themes.BaseColourScheme` class provided with Confluence sets the colours based on the module's configuration.

The available colours correspond to those that you would configure in the online colour-scheme editing, and are:

Key	Description
topbar	The strip across the top of the page
spacename	The text of the current space name, or Confluence in the top left
headingtext	All heading tags throughout the site
link	All links throughout the site
border	Table borders and dividing lines
navbg	Background of top navigational buttons
navtext	Text of top navigational buttons
navselectedbg	Background of navigational buttons when selected or hovered
navselectedtext	Text of navigational buttons when selected or hovered

Packaging and installing a Theme Plugin

This page last changed on Dec 07, 2006 by [jnolen](#).

The Theme Plugin Module

The theme module defines the theme itself. When someone in Confluence selects a theme either globally or within a space, they are selecting from the available theme modules.

```
<theme key="dinosaurs" name="Dinosaur Theme"
      class="com.atlassian.confluence.themes.BasicTheme">
  <description>A nice theme for the kids</description>
  <colour-scheme key="com.example.themes.dinosaur:earth-colours"/>
  <layout key="com.example.themes.dinosaur:main"/>
  <layout key="com.example.themes.corporate:mail-template"/>
</theme>
```

The class of a theme must implement `com.atlassian.confluence.themes.Theme`. The `com.atlassian.confluence.themes.BasicTheme` class provided with Confluence gathers together all the resources listed within the module definition into a theme.

A theme can contain an optional `colour-scheme` element that defines which colour-scheme module this theme will use, and any number of `layout` elements that define which layouts should be applied in this theme. Refer to these modules by their module complete key.

It is possible for a theme to use modules that aren't in the same plugin as the theme. Just keep in mind that your theme will be messed up if some plugin that the theme depends on is removed.

Installing the Theme

Themes are installed as 'plugin modules'. The plugin module is a collection of files, usually zipped up in a jar archive, which tells Confluence how to find the decorators and colour-scheme of your theme.

[Plugins](#) are a general topic in Confluence and have other uses than themes. In every case, the central configuration file, which describes the plugin to Confluence, is named `atlassian-plugin.xml`.

There are two steps to creating the plugin module.

1. Create the central configuration file for the theme: [atlassian-plugin.xml](#)
2. Create the jar archive for your theme: [bundling your theme](#)

Writing the `atlassian-plugin.xml` file for your theme.

The structure of an `atlassian-plugin.xml` file is fairly self-explanatory. In the code segment below you will

find a full example of an `atlassian-plugin.xml`, which lists

- each of the decorators you have defined to customize Confluence
- your colour scheme

in a way which Confluence can use to override the default theme. In other words, this XML tells Confluence to look in certain locations for replacement decorators when processing a request.

```
<atlassian-plugin key="com.atlassian.confluence.themes.tabless" name="Plain Theme">
  <plugin-info>
    <description>
      This theme demonstrates a plain look and feel for Confluence.
      It is useful as a building block for your own themes.
    </description>
    <version>1.0</version>
    <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/">
  </plugin-info>

  <theme key="tabless" name="Tabless Theme"
class="com.atlassian.confluence.themes.BasicTheme">
    <description>plain Confluence theme.</description>
    <layout key="com.atlassian.confluence.themes.tabless:main"/>
    <layout key="com.atlassian.confluence.themes.tabless:global"/>
    <layout key="com.atlassian.confluence.themes.tabless:space"/>
    <layout key="com.atlassian.confluence.themes.tabless:page"/>
    <layout key="com.atlassian.confluence.themes.tabless:blogpost"/>
    <layout key="com.atlassian.confluence.themes.tabless:mail"/>
    <colour-scheme key="com.atlassian.confluence.themes.tabless:earth-colours"/>
    // Optional: for themes which need configuration.
    <param name="space-config-path" value="/themes/tabless/configuretheme.action"/>
    <param name="global-config-path" value="/admin/themes/tabless/configuretheme.action"/>
  </theme>

  <layout key="main" name="Main Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/main.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/main.vmd"/>
  </layout>

  <layout key="global" name="Global Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/global.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/global.vmd"/>
  </layout>

  <layout key="space" name="Space Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/space.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/space.vmd"/>
  </layout>

  <layout key="page" name="Page Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/page.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/page.vmd"/>
  </layout>

  <layout key="blogpost" name="Blogpost Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/blogpost.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/blogpost.vmd"/>
  </layout>

  <layout key="mail" name="Mail Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/mail.vmd">
```

```

        <resource type="velocity" name="decorator"
                location="com/atlassian/confluence/themes/iless/mail.vmd"/>
    </layout>

    <colour-scheme key="earth-colours" name="Brown and Red Earth Colours"
        class="com.atlassian.confluence.themes.BaseColourScheme">
        <colour key="topbar" value="#440000"/>
        <colour key="spacename" value="#999999"/>
        <colour key="headingtext" value="#663300"/>
        <colour key="link" value="#663300"/>
        <colour key="border" value="#440000"/>
        <colour key="navbg" value="#663300"/>
        <colour key="navtext" value="#ffffff"/>
        <colour key="navselectedbg" value="#440000"/>
        <colour key="navselectedtext" value="#ffffff"/>
    </colour-scheme>

</atlassian-plugin>

```

The class which each decorator, or layout, is mapped to must implement `com.atlassian.confluence.themes.VelocityDecorator`.

The layout entry must provide an `overrides` attribute which defines which decorator within Confluence is being overridden by the theme.

Importantly, when telling Confluence to override a particular decorator with another one, the location of the custom decorator is specified; for example:

```

<layout key="page" name="Page Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/page.vmd">
    <resource type="velocity" name="decorator"
        location="com/atlassian/confluence/themes/iless/page.vmd"/>
</layout>

```

The location attribute needs to be represented in the jar archive you will use to bundle your theme.

Bundling the Theme

Your decorators should be placed in a directory hierarchy which makes sense to you. The `atlassian-plugin.xml` file should be placed at the top level of the directory structure, afterwards the decorators should be placed in directories which make a meaningful division of what they do. It is your choice as to how the structure is laid out, each decorator could even be placed alongside `atlassian-plugin.xml`. The essential thing is for the location attribute of each decorator to accurately tell Confluence how to load it.

Thus, a recursive directory listing of the example theme above gives:

```

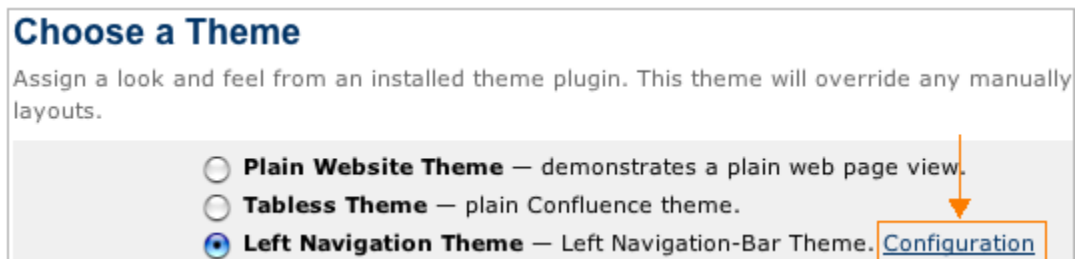
atlassian-plugin.xml
com/atlassian/confluence/themes/iless/
com/atlassian/confluence/themes/iless/global.vmd
com/atlassian/confluence/themes/iless/space.vmd
com/atlassian/confluence/themes/iless/mail.vmd
com/atlassian/confluence/themes/iless/blogpost.vmd
com/atlassian/confluence/themes/iless/main.vmd

```


Theme Configuration

This page last changed on Mar 05, 2007 by [jnolen](#).

The themes can be configured via the Configuration link on the Choose Theme page on both the space and global level.



For example, the Left Navigation Theme allows for the specification of the title of the page which page should be used for navigation. The [XWork module](#) allows for developing complex configurations for themes, which can be [saved in a config file](#).

Setting up the atlassian-plugin.xml

Configuration path parameter.

Specify the path to the configuration action in the [atlassian-plugin.xml](#):

```
<theme key="dinosaurs" name="Dinosaur Theme"
  class="com.atlassian.confluence.themes.BasicTheme">
  <description>A nice theme for the kids</description>
  <colour-scheme key="com.example.themes.dinosaur:earth-colours"/>
  <layout key="com.example.themes.dinosaur:main"/>
  <layout key="com.example.themes.corporate:mail-template"/>
  <param name="space-config-path" value="/themes/dinosaurs/configuretheme.action"/>
  <param name="global-config-path" value="/admin/themes/dinosaurs/configuretheme.action"/>
</theme>
```

Note that two new parameters have been specified in the above xml.

- space-config-path points to the action connected with the space theme configuration.
- global-config-path points to the action connected with the global theme configuration.

As themes can be specified either on a global or space level, different configuration actions can be implemented for each level. If there is no need for configuration on a level, simply don't specify the config path.

XWork Actions

Specify the configuration actions via the [Xwork plugin module](#).

Define two packages, one for the space-level and one for the global configuration.


```

<xwork name="themeaction" key="themeaction">
    <package name="dinosaurs" extends="default" namespace="/themes/dinosaurs">
        <default-interceptor-ref name="defaultStack" />
        <action name="configuretheme"
class="com.atlassian.confluence.extra.dinosaurs.ConfigureThemeAction" method="doDefault">
            <result name="input"
type="velocity">/templates/dinosaurs/configuretheme.vm</result>
        </action>
        <action name="doconfiguretheme"
class="com.atlassian.confluence.extra.dinosaurs.ConfigureThemeAction">
            <result name="success"
type="redirect">/spaces/choosetheme.action?key=${key}</result>
        </action>
    </package>

    <package name="dinosaurs-admin" extends="default" namespace="/admin/themes/dinosaurs">
        <default-interceptor-ref name="defaultStack" />
        <action name="configuretheme"
class="com.atlassian.confluence.extra.dinosaurs.ConfigureThemeAction" method="doDefault">
            <result name="input"
type="velocity">/templates/dinosaurs/configurethemeadmin.vm</result>
        </action>
        <action name="doconfiguretheme"
class="com.atlassian.confluence.extra.dinosaurs.ConfigureThemeAction">
            <result name="success" type="redirect">/admin/choosetheme.action</result>
        </action>
    </package>
</xwork>

```

- configuretheme defines the velocity file used to display the input view.
- doconfiguretheme defines the action to redirect to after the configuration was successful.

Note that the config-path parameters specified above matches the namespace plus the name of the action.

For example, given the above atlassian-plugin.xml, the configuretheme action would be accessed at

```
http://yourserver/confluence/themes/dinosaurs/configuretheme.action
```



The namespace of the global action has to start with /admin. Otherwise the action will not be decorated by the admin decorator, and the navigation of the admin area will not be visible.

Saving Theme Configurations with Bandana

This page last changed on Nov 14, 2006 by [jnolen](#).

To persist the configuration of a theme you can make use of the Bandana persistence framework. For example, the Left Navigation Theme uses the persister to store it's configuration values.

Defining a Settings Bean

The recommended way of saving the settings, is to create a simple configuration bean which implements the Serializable interface.

The bean for the Left Navigation Theme for example, simply consists of two String variables and their getter and setter methods.

```
package com.atlassian.confluence.extra.leftnavigation;
import java.io.Serializable;
public class LeftNavSettings implements Serializable
{
    private String space;
    private String page;

    public String getSpace()
    {
        return space;
    }

    public void setSpace(String space)
    {
        this.space = space;
    }

    public String getPage()
    {
        return page;
    }

    public void setPage(String page)
    {
        this.page = page;
    }
}
```

Saving the Bean

Bandana can be used to save a configuration object with a given context, where the context refers to a space.

The setValue function of the BandanaManager has three arguments:

- @param context The context to store this value in
- @param key The key of the object
- @param value The value to be stored

```
// Create a setting bean.
LeftNavSettings settings = new LeftNavSettings();
settings.setSpace("example Space");
```

```
settings.setPage("example Page");

// Save the bean with the BandanaManager
bandanaManager.setValue(new ConfluenceBandanaContext(spaceKey), THEMEKEY, settings);
```



A Context can be defined on two levels:

- Global: `new ConfluenceBandanaContext()`
- Space level: `new ConfluenceBandanaContext(spaceKey)`

Retrieving the Bean

The configuration object can be retrieved by using `bandanaManager.getValue`. This method will get the configuration object, starting with the given context and looking up in the context hierarchy if no context is found.

- @param context The context to start looking in
- @param key The key of the `BandanaConfigurationObject` object
- @return Object object for this key, or null if none exists.

```
LeftNavSettings settings = (LeftNavSettings) bandanaManager.getValue(new
ConfluenceBandanaContext(spaceKey), THEMEKEY);
```

Updating a theme for editable comments

This page last changed on Feb 05, 2007 by [mryall](#).

This is a simple how-to that shows the steps to upgrade your plugin for editable comments.

Modify `sharedcomments.vmd`

Making your themes compatible with editable comment only requires modifying `sharedcomments.vmd`. There are 3 parts to update. A good example of this is the [Clickr Theme](#).

Adding the edit link

First to enable editable comment you will need to give access to the edit function. Adding the link is as simple as adding the following piece of code near your existing 'Permalink' and 'Remove Comment' links:

```
#if ($permissionHelper.canEdit($remoteUser, $comment ))
| <a id="edit-$comment.id"
href="$req.contextPath$generalUtil.customGetPageUrl($page)showComments=true&editComment=true&focused"
#end
```

Enable inline editing

Editing a comment happens inline. Therefore the editor must be added when rendering the comment being edited as follow:

```
#if ($focusedCommentId == $comment.id && $action.editComment &&
$permissionHelper.canEdit($remoteUser, $comment))
<form name="editcommentform" method="POST"
action="$req.contextPath/pages/doeditcomment.action?pageId=$page.id&commentId=$comment.id">
  #bodytag (Component "name='content'" "theme='notable'" "template='wiki-textarea.vm'")
  #param ("formname" "editcommentform")
  #param ("spaceKey" "$generalUtil.urlEncode($spaceKey)")
  #param ("rows" 15)
  #param ("cols" 70)
  #param ("width" "100%")
  #param ("tabindex" "4")
  #param ("tdcolor" "f0f0f0")
  #param ("toolbarExpanded" "false")
  #param ("initialFocus" "false")
  #param ("edit" "true")
  #param ("heartbeat" "false")
  #param ("wikiContent" "$comment.content")
  #param ("wysiwygContent"
"$action.helper.wikiStyleRenderer.convertWikiToXHtml($comment.toPageContext(),
$comment.content)")
  #end
  #commentSubmission()
</form>
#else
## your current comment rendering...
#end
```

Add update information

This step is optional but it always nice for user to know when a comment has been updated and by who. The following piece of code gets the necessary information.

```
#if ( $action.helper.shouldRenderCommentAsUpdated($comment) )
  #if ( $comment.creatorName == $comment.lastModifierName )
    $action.getText("comment.updated.by.author", ["#usernameLink ($comment.lastModifierName)",
    $action.dateFormatter.formatDateTime( $comment.lastModificationDate )])
  #else
    $action.getText("comment.updated.by.non.author", ["#usernameLink
    ($comment.lastModifierName)", $action.dateFormatter.formatDateTime(
    $comment.lastModificationDate )])
  #end
#end
```

The `shouldRenderCommentAsUpdated` method is a convenience method that checks whether the comment has been updated by its creator more than 10 minutes after being created. It exists so that comments will not get cluttered with useless information because of a quick fix made shortly after the comment is posted. One can adjust the time frame by passing a number of seconds as the second argument to this method.

Finally, if the updater of the comment is different to the original author of the comment, his name is displayed.

Trigger Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).

 Trigger plugin modules are available in Confluence 2.2 and later.

Trigger plugin modules enable you to schedule when your [Job Plugins](#) are scheduled to run Confluence.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Trigger Plugin Module

The Trigger plugin module schedules Jobs within a plugin. Triggers are one of two types:

- cron - jobs are scheduled using cron syntax
- simple - jobs are scheduled to repeat every X seconds

Here is an example atlassian-plugin.xml fragment containing a Job with it's corresponding Trigger module using a cron-style expression (for reference, this expression will execute the job with key 'myJob' every minute):

```
<atlassian-plugin name="Sample Component" key="confluence.extra.component">
  ...
  <job key="myJob"
    name="My Job"
    class="com.example.myplugin.jobs.MyJob" />
  <trigger key="myTrigger" name="My Trigger">
    <job key="myJob" />
    <schedule cron-expression="0 * * * * ?" />
  </trigger>
  ...
</atlassian-plugin>
```

For the <trigger> element:

- the name attribute represents how this component will be referred to in the Confluence interface.
- the key attribute represents the internal, system name for your Trigger.
- the class attribute represents the class of the Job to be created. The class must have a no-argument constructor, or it will not be able to be instantiated by Confluence.

For more details on the cron expressions, see the Quartz documentation for [CronTrigger](#).

Here is another example, this time using a simple trigger that repeats every 360000 seconds (1 hour) and will only repeat 5 times:

```
... <trigger key="myTrigger" name="My Trigger">
```

```
    <job key="myJob" />
    <schedule repeat-interval="360000" repeat-count="5" />
  </trigger>
  ...
```

User Macro Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



You can create user macros without writing a plugin through the [User Macros](#) administration menu.

Adding a user macro plugin

User Macros are a kind of Confluence plugin module.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)



User macro plugin modules are available in Confluence 2.3 or later

User Macro Plugin Modules

User macro plugin modules allow plugin developers to define simple macros directly in the `atlassian-plugin.xml` file, without writing any additional Java code. User macro plugin modules are functionally identical to [User Macros](#) configured through the administrative console, except that they can be packaged and distributed in the same way as normal plugins.



User macros installed by plugin modules do not appear in the user macro section of the administrative console, and are not editable from within the user interface. They appear just as normal plugin modules in the plugin interface.

Configuring a Macro Plugin Module

Macro plugin modules are configured entirely inside the `atlassian-plugin.xml` file, as follows:

```
<atlassian-plugin name='Hello World Macro' key='confluence.extra.helloworld'>
  <plugin-info>
    <description>Example user macro</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.0</version>
  </plugin-info>

  <user-macro name='helloworld' key='helloworld' hasBody='true' bodyType='raw'
  outputType='html'>
    <description>Hello, user macro</description>
    <template><![CDATA[Hello, $body!]]></template>
  </user-macro>

  <!-- more macros... -->
</atlassian-plugin>
```

- The `<template>` section is required, and defines the velocity template that will be used to render

the macro

- All the velocity variables available in [User Macros](#) are available in user macro plugin modules
- The name and key of the macro must be specified the same as [Macro Plugins](#)
- No class attribute is required
- The attributes of the <user-macro> element match the corresponding configuration for user macros:

Available Attributes

Attribute	Required	Default Value	Allowed Values
hasBody	No	false	• true – the macro expects a body (i.e. {hello}World{hello}) • false – the macro does not expect a body (i.e. Hello, {name})
bodyType	No	raw	• raw – the body will not be processed before being given to the template • escapehtml – HTML tags will be escaped before being given to the template • rendered – the body will be rendered as wiki text before being given to the template
outputType	No	html	• html – the template produces HTML that should be inserted directly into the page • wiki – the template produces Wiki text that should be rendered to HTML before being inserted into the page

Velocity Context Plugins

This page last changed on Jan 17, 2007 by [jnolen](#).



Velocity Context plugin modules are available in Confluence 1.4 and later

Velocity Context plugin modules enable you to add components to Confluence's velocity context, making those components available in templates rendered from decorators, themes, XWork actions or macros.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Velocity Context Plugin Module

Each component module adds a single object to Confluence's default velocity context. This context is the collection of objects that are passed to each velocity template during rendering of macros, decorators, themes and XWork actions. This allows you to create helper objects that perform tasks too complex to represent in Velocity templates.

The objects are autowired by Spring before being added to the context.

Here is an example `atlassian-plugin.xml` file containing a single velocity context module:

```
<atlassian-plugin name="Sample Component" key="confluence.extra.component">
  ...
  <velocity-context-item key="myVelocityHelper"
    name="My Plugin's Velocity Helper" context-key="myVelocityHelper"
    class="com.example.myplugin.helpers.MyVelocityHelper" />
  ...
</atlassian-plugin>
```

- the name attribute represents how this component will be referred to in the Confluence interface.
- the key attribute represents the internal, system name for your component.
- the context-key attribute represents the variable that will be created in Velocity for this item. So if you set a context-key of `myVelocityHelper`, the object will be available as `$myVelocityHelper` in Velocity templates
- the class attribute represents the class of the component to be created. The class must have a no-argument constructor, or it will not be able to be instantiated by Confluence.

Web UI Plugins

This page last changed on Mar 05, 2007 by [jnolen](#).

 Web UI plugin modules are available in Confluence 2.2 and later.

Web UI plugin modules allow you to insert links, tabs and sections of links into the Confluence web interface. They're not much use on their own, but when combined with [XWork-WebWork Plugins](#) they become a powerful way to add functionality to Confluence.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

Sections and Items

Web UI plugins can consist of two kinds of plugin modules:

- web-item modules define links that are to be displayed in the UI at a particular location
- web-section modules define a collection of links to be displayed together

Web items or web sections (referred to collectively as 'web fragments') may be displayed in a number of different ways, depending on the location of the fragment and the theme under which it is being displayed.

Locations

In a number of places in the Confluence UI, there are lists of links representing operations relevant to the content being viewed. These are the locations that you can customise:

Location key	Themeable?	Sectioned?	Description	Availability
system.admin			The links in the left-hand menu on the global administrative console	2.2
system.space			The tabs in 'Browse Space'	2.2
system.space.admin			The links in the left-hand menu on the space administrative tab	2.2
system.space.advanc			The links in the left-hand menu on the space advanced tab	2.2

system.space.pages	✓	✗	The 'sub-tabs' in Browse Space ☐ Pages	2.2
system.space.labels	✗	✗	The 'sub-tabs' in Browse Space ☐ Labels	2.2
system.space.actions	✓	✗	The action icons in the top-right of most space-related views	2.2
system.page	✓	✗	The tabs for 'View Page'	2.2
system.page.actions	✓	✗	The action icons in the top right of the page view (eg. Watch this page)	2.3
system.news	✓	✗	The tabs for 'View News'	2.2
system.labels	✗	✗	The 'sub-tabs' in the global label view	2.2
system.profile	✓	✗	The tabs above the user profile	2.2

- Those locations marked as being 'themeable' can be moved around, reformatted or omitted by [Theme Plugins](#). The descriptions above refer to where they are located in the default theme.
- Locations marked as being 'sectioned' require that web items be grouped under web sections. In sectioned locations, web items that are not placed under a section will not be displayed.
- It is possible for themes to make any themeable locations sectioned, even when the default theme doesn't. We do not recommend this, as it would mean any plugin taking advantage of this would only be compatible with a particular theme.



Theme Compatibility

Themes based on Confluence versions prior to 2.2 will continue to function with Confluence 2.2, but will not be able to display any custom Web UI fragments until they are updated.

Web Item Definition

Here's a sample atlassian-plugin.xml fragment for a web item:

```
<web-item key="spacelogo" name="Space Logo" section="system.space.admin/looknfeel" weight="40">
  <label key="configure.space.logo" />
  <link>/spaces/configurespacelogo.action?key=$helper.spaceKey</link>
  <icon height="16" width="16">
    <link>/images/icons/logo_add_16.gif</link>
  </icon>
  <condition
class="com.atlassian.confluence.plugin.descriptor.web.conditions.NotPersonalSpaceCondition"/>
</web-item>
```

- The key is the required plugin module key, which must be unique within the plugin. It is also used in the UI for determining which module is currently being displayed.
- The name is a required displayable name for the module, only used in the plugin administrative UI
- The section is the required location into which this web item should be placed. For non-sectioned locations, this is just the location key. For sectioned locations it is the location key, followed by a slash ('/'), and the name of the web section in which it should appear
- The weight is required, and determines the order in which web items appear. Items are displayed top to bottom or left to right in order of ascending weight. (i.e. the 'lightest' weight is displayed first, the 'heaviest' weights sink to the bottom)
- The label element is required, and is the i18n key that will be used to look up the textual representation and mouse-over text of the link.
- The link element is required, and defines where the web item should link to. The contents of the link element will be rendered using Velocity, allowing you to put dynamic content in links. For more complex examples of links, see below.
- The icon element is optional, and defines an icon to display with or as the link.
- The condition element is optional, and defines a condition that must be satisfied for the web item to be displayed. If you want to 'invert' a condition, add an attribute 'invert="true"' to it. The web item will then be displayed if the condition returns false (not true).

Label elements

Label elements may contain optional parameters, as shown below:

```
<label key="navlink.attachments">
  <param name="param0">$!helper.page.title</param>
  <param name="param1">$!helper.numberOfAttachments</param>
</label>
```

- The parameters allow you to insert values into the label using Java's [MessageFormat](#) syntax.
- Parameter names must start with param and will be mapped in alphabetical order to the substitutions in the format string.
- Parameter values are rendered using Velocity, allowing you to include dynamic content

Link elements

Link elements may contain additional information:

```
<link linkId="editPageLink"
accessKey="$helper.action.getTextStrict('navlink.edit.accesskey')">/pages/editpage.action?pageId=$helper.pag
```

- The linkId is optional, and provides an XML id for the link being generated.
- The accessKey is optional and provides an access key for the link being generated. The contents of this element will be rendered using Velocity, allowing you to generate an access key dynamically.



There is no standard way for Confluence to display a web item, so depending on where the item is being displayed, some information in the configuration may be ignored. For example themes may choose not to display the icon, or may choose to only display the icon. Similarly, the linkId and accessKey are only used in some locations.

Condition elements

Condition elements must contain a class attribute with the fully-qualified name of a Java class. The referenced class:

- must implement `com.atlassian.confluence.plugin.descriptor.web.Condition`
- must be able to be instantiated via a no-argument constructor
- will be auto-wired by Spring before any condition checks are performed

Condition elements can take optional parameters. These parameters will be passed in to the Condition's `init()` method as a Map of String key/value pairs after autowiring, but before any condition checks are performed. For example:

```
<condition
class="com.atlassian.confluence.plugin.descriptor.web.conditions.PagePermissionCondition">
  <param name="permission">edit</param>
</condition>
```

Multiple condition elements can be included in a single web item. If a web item contains multiple conditions, all conditions must be satisfied for the web item to be displayed.

To invert a condition, add the attribute `invert="true"` to the condition element. This is useful where you want to show the section if a certain condition is not satisfied.

Web Section Definition

Here's a sample `atlassian-plugin.xml` for a web section:

```
<web-section key="mail" name="Mail" location="system.space.admin" weight="300">
  <label key="space-mail" />
  <condition
class="com.atlassian.confluence.plugin.descriptor.web.conditions.NotPersonalSpaceCondition"/>
</web-section>
```

- key, name, weight, label and condition are all the same as web-item
- location is required, and serves the same purpose as section in web-item, except that a section can not be contained within another section.
- Web sections do not have links or icons.

Q and A

How do I make use of sections or web items in my own themes?

Take a look at how they are used in the default themes, you should be able to get a good idea of the necessary code. For example, here is some sample code from `space.vmd`

```
#foreach ($item in $action.webInterfaceManager.getDisplayableItems("system.space",
$action.remoteUser, $helper))
  <li><a href="$item.link.getDisplayableUrl($req, $helper)" #if ($context == $item.key)
```

```
class="current" #end>
    $item.label.getDisplayableLabel($req, $helper)
</a></li>
#end
```

Can I create new locations for web UI plugins in my own themes?

Yes. Just pick a new key for the location or section parameters of your plugin modules. By convention, you should probably use the standard 'inverted domain name' prefix so as not to clash with anyone else's plugins. We reserve all system.* locations for Confluence's core use.

Once again, however, we don't recommend this as you end up with plugins that are only useful in your own themes. Try to at least provide an alternative set of UI modules for people who are using other themes and still want to access the same functionality. You could, for example, define alternative UI plugin modules that placed your functions in Confluence's standard locations, but have a <condition> that disabled them in favour of your custom locations if your theme was installed.

If I create a Web Item that links to my custom action, how do I make it appear in the same tabs/context as the other items in that location?

The best way is to look at the .vm file of one of the existing items in that location. You are most interested in the #applyDecorator directive being called from that file. For example viewpage.vm, which defines the "View" tab in the system.page location has the following #applyDecorator directive:

```
#applyDecorator("root")
#decoratorParam("helper" $action.helper)
#decoratorParam("mode" "view")
#decoratorParam("context" "page")

<!-- some stuff... -->

#end
```

If you were writing a plugin that was destined to be added as another item in the page tabs, your Velocity file for that action would also have to have a similar decorator directive around it:

```
#applyDecorator("root")
#decoratorParam("helper" $action.helper)
#decoratorParam("mode" "myPluginKey")
#decoratorParam("context" "page")

<!-- some stuff... -->

#end
```

Note that you should put you Web Item's plugin key as the "mode". This way, Confluence will make sure that the correct tab is highlighted as the active tab when people are viewing your action.



In some cases, such as the browse space tabs, you may have to use "context" instead of "mode"

Workflow Plugins

This page last changed on Oct 24, 2005 by [jnolen](#).

This set of pages describes the Workflow Plugin. This is a work in progress and is useful as:

- An example of a reasonably complicated plugin, using macros, events and xwork actions which stores state as page properties and interacts with content entity versions and permissions.
- A starting point for discussion of what plugin-based workflow in Confluence might look like. A workflow implementation which made core Confluence changes might look different.

Here's a [description of the workflow model](#) implemented by the plugin.

Here's a [technical description] of the components of the Workflow Plugin.



The workflow plugin as released in 1.4.2 does not have all the features described. It will be updated in the first 1.5DP release.

We're interested in getting feedback – how useful does the workflow model as described seem to you?

Workflow Plugin Prototype

This page last changed on Mar 13, 2007 by david.soul@atlassian.com.

Introduction

This page describes a prototype Workflow Plugin for Confluence. After reading it you should be able to create a workflow description and use it to manage a set of pages in Confluence.

The purposes of the Confluence Workflow Plugin Prototype are:

1. To provide a simple but usable workflow system for Confluence.
2. To solicit further requirements for Workflow in Confluence.
3. To demonstrate the power of the Confluence Plugin system – the workflow plugin did not require any changes to the core of Confluence.

The feature that this does not provide is the ability of different users to see different versions of a page. This is a problem for approval workflows, where we want an edit to remain invisible to 'ordinary' users until it has been approved.

I've also written up some ideas for a minimal [Approval Workflow](#).

Plugin Information

You will need Java and Groovy development skills to implement this plugin. This is currently provided 'as-is' without Atlassian technical support, but you can search for or post questions relating to it in the [Developer Forums](#). Alternatively, the Atlassian partner Saikore now [offers paid support](#).

Workflow Concepts

This section describes the concepts used in building the Workflow Plugin.

Workflow Client

This is the entity whose life cycle is managed by the workflow plugin. In this implementation a client is a Confluence page. The client is responsible for remembering which workflow it is taking part in, remembering its workflow state, and changing this state when told to by the workflow system. A client may (and should) have other state information which is not visible to the workflow system, for instance the contents of a Confluence page are not managed by the workflow system at all.

Workflow Type

This is the set of data which defines a workflow. A workflow type is assembled from collections of States, Operations, Triggers and Actions.

Workflow State

At any time a Workflow Client is in one (and only one) State. This state determines which Operations are available to be performed on the client.

Operation

An Operation may be requested by the user on a Workflow Client. An Operation itself doesn't change any state, either in the workflow system or in the Workflow Client, but simply sends a signal to the Workflow Type that this Operation has been requested on that particular Workflow Client. It is just a description meaningful to a user, associated with a code meaningful to the Workflow Type, together with security rules to determine when the Operation can be performed. The signals sent to the Workflow Type may cause one or more Triggers to fire. Whether an Operation is available on a particular Client depends on the State of the client and the group membership of the current user. In addition to Operations defined in a particular Workflow Type, all Workflow Types recognize page edit and page view operations.

Trigger

A Trigger listens for Operations, and either fires or does not fire, depending on the Operation, its internal state (if any – many simple triggers are stateless) and its implementation. When a Trigger fires it tells the set of Actions it contains to execute.

Examples of Triggers are:

1. Fire every time you receive a particular event.
2. Fire after receiving any of a set of events.
3. Fire after receiving all of a set of events, in any order. (This requires a Trigger which can maintain internal state)

Action

An Action is a piece of code which is executed in response to the firing of a Trigger.

Some Actions interact with the Workflow System:

1. Change Workflow State of Client.
2. Create a new Trigger.
3. Remove a Trigger.

Others interact with Confluence:

1. Restrict Page Permissions
2. Remove Page Permissions restriction.
3. Send Notification to prior editor of page.

Others could interact with the contents of the page itself:

1. Add 'Draft' warning to page contents.
2. Validate field values in the page contents.

Using The Prototype Confluence Workflow Plugin

Build and Install the Workflow Plugin

From your Confluence install directory, go to `plugins/workflow` or access from the Confluence source under `src/etc/plugins/workflow`. Build the plugin into a JAR file.

Configure groups and permissions

Decide what groups will be involved in the workflow, create them and assign appropriate users to them. Grant suitable permissions to the space.

Create a WorkflowType

You need to create an instance of a class which implements `com.atlassian.confluence.extra.workflow.WorkflowType`, and register it by passing it to `WorkflowManager.registerType()`.

One way to do this on a test basis is to put your workflow type in a `{script}` macro. The script macro can be downloaded from [here](#). You'll need to visit the page after restarting the server.

The example below uses a Groovy script – you could just as well use Beanshell, Jython or JRuby.

```
{script:groovy}
import com.atlassian.confluence.extra.workflow.*;
import com.atlassian.confluence.core.ContentPermission;
State requested = new State("test", "In Progress", "In Progress");
State readyToReview = new State("test", "Ready for review", "Ready for review");
State accepted = new State("test", "Accepted", "Accepted");
State rejected = new State("test", "Rejected", "Rejected");
def states = [DEV:requested, readyToReview, accepted, rejected];
def ops = [
    new DefaultOperation([DEV:requested, rejected], [DEV:"writer"], "completed", "Submit for Review"),
    new DefaultOperation([DEV:readyToReview], [DEV:"reviewer"], "accept", "Accept"),
    new DefaultOperation([DEV:readyToReview], [DEV:"reviewer"], "reject", "Reject"),
];
def groups = [DEV:"writer", "reviewer", "confluence-administrator"];
def triggers = [
    new SingleEventTrigger("init",
        [DEV:
            new StateChangeAction(requested),
            new RestrictAccessToGroupAction(new ContentPermission(ContentPermission.EDIT_PERMISSION, "writer")),
            new RestrictAccessToGroupAction(new ContentPermission(ContentPermission.VIEW_PERMISSION, "writer")),
        ]
    ),
    new SingleEventTrigger(
        "completed",
        [DEV:
            new StateChangeAction(readyToReview),
            new RestrictAccessToGroupAction(new ContentPermission(ContentPermission.EDIT_PERMISSION, "reviewer")),
        ]
    )
];
```

```

new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.VIEW_PERMISSION, "reviewer")),
],
new SingleEventTrigger(
"accept",
[DEV:
new StateChangeAction(accepted),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.EDIT_PERMISSION, "empty-group")),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.VIEW_PERMISSION, "confluence-users"))
],
),
new SingleEventTrigger(
"reject",
[DEV:
new StateChangeAction(rejected),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.EDIT_PERMISSION, "writer")),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.VIEW_PERMISSION, "writer"))
],
),
new SingleEventTrigger(
PageEditOperation.OPERATION_NAME,
[DEV:
new StateChangeAction(requested),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.EDIT_PERMISSION, "writer")),
new RestrictAccessToGroupAction(new
ContentPermission(ContentPermission.VIEW_PERMISSION, "writer"))
],
),
];
WorkflowManager.registerType(new DefaultWorkflowType("test2", "Page Review
2", states, ops, triggers, groups));
{script}

```

Put a {workflowtype:yourWorkflowTypeName} macro after your script, so you can see that it is properly creating the WorkflowType.

Create a Workflow Page

To make a page take part in the workflow you have just created, add the {workflow:workflowTypeName} macro to the page and hit Update.

You'll get a workflow box with the option 'Start Workflow'. Select this and the page will refresh. The workflow box will now indicate that the page is in the starting state for that workflow type.

Monitoring Workflow

You can use the {workflowTasks} macro to display a list of all workflow pages which are descendants of the current page. Any task which the viewing user can perform an action on will be starred.

To Do

1. More Trigger types.
2. More Action types.
3. Easy editing of WorkflowTypes.

4. Workflow of parent can depend on states of children
5. Introduce concept of 'Assignments', where at one workflow step a particular user is assigned to a role which nominates them to perform other operations.
6. Think about the visual style – the current style is good for when workflow is 'out of band', that is, it's an activity undertaken by site maintainers invisible to site users, but doesn't suit a 'Confluence as web-app' application, where workflow should blend in...

Approval Workflow

This page last changed on Oct 24, 2005 by [jnolen](#).

This page describes the details of an approval workflow.

- Users may be members of an 'author' group which is allowed to edit pages, an 'approver' group which is allowed to approve edited pages, or both groups (in which case they can't approve their own changes) or neither (in which case they are just consumers of the content).
- When an 'author' edits a page, the page goes into a 'editing in progress' state.
- When an author views an 'editing in progress' page, they are presented with an option to submit the page for review. This puts the page into the 'waiting for approval' state.
- Members of the approver group have access to a page in confluence which automatically lists the pages waiting for approval.
- When an 'approver' visits a 'waiting for approval' page, they are presented with options to accept or reject the changes. If they accept the changes, the page goes to the 'accepted' state, where pages spend most of their life, otherwise it goes to the 'rejected' state.
- Members of the 'author' group have access to a page in Confluence where they can see all the pages which they edited which have been rejected, or are waiting for approval. They don't see pages other authors have edited.
- When an author visits a page in the 'rejected' or 'waiting for approval' state, they have the option of withdrawing the change, which moves the page to the accepted state, and rolls back to the most recent approved version.
- When an author edits a page in the rejected state, it moves to the 'editing in progress' state.

All of this can be done with the [Workflow Plugin Prototype](#).

But we probably also want to show consumers the most recently approved version of a page, not the one currently under review. Without core Confluence changes, the best we can do is show users a banner which says "This content is being reviewed. The most recent approved content is here".

XWork-WebWork Plugins

This page last changed on Mar 05, 2007 by [jnolen](#).

 XWork plugin modules are available in Confluence 1.4 and later.

XWork plugin modules enable you to deploy [XWork](#) / [WebWork](#) actions and views as a part of your plugins.

- For more information about plugins in general, read [Confluence Plugin Guide](#).
- To learn how to install and configure plugins (including macros), read [Installing and Configuring Plugins manually](#).
- For an introduction to writing your own plugins, read [Writing Confluence Plugins](#)

The XWork Plugin Module

Each XWork module is deployed as a plugin module of type xwork and contains one or more XWork package elements.

Here is an example `atlassian-plugin.xml` file containing a single XWork module:

```
<atlassian-plugin name='List Search Macros' key='confluence.extra.livesearch'>
  ...
  <xwork name="livesearchaction" key="livesearchaction">
    <package name="livesearch" extends="default" namespace="/plugins/livesearch">
      <default-interceptor-ref name="defaultStack" />

      <action name="livesearch"
        class="com.atlassian.confluence.extra.livesearch.LiveSearchAction">
        <result name="success" type="velocity">
          /templates/extra/livesearch/livesearchaction.vm
        </result>
      </action>
    </package>
  </xwork>
</atlassian-plugin>
```

- the xwork element has no class attribute.
- beneath this element, multiple package elements can be specified. These are standard XWork package elements, just as you would specify in [xwork.xml](#).

Writing an Action

For information on how to write a WebWork action, please consult the [WebWork documentation](#).

WebWork actions must implement `com.opensymphony.xwork.Action`. However, we recommend you make your action extend [ConfluenceActionSupport](#), which provides a number of helper methods and components that are useful when writing an Action that works within Confluence.

Other action base-classes can be found within Confluence, but we recommend you don't use them - the

hierarchy of action classes in Confluence is over-complicated, and likely to be simplified in the future in a way that will break your plugins.

Accessing Your Actions

Actions are added to the XWork core configuration within Confluence, which means they are accessed like any other action!

For example, given the above `atlassian-plugin.xml`, the `livesearch` action would be accessed at <http://yourserver/confluence/plugins/livesearch/livesearch.action>.

Notes

Some issues to be aware of when developing or configuring an XWork plugin:

- Your packages should almost always extend the default Confluence package. It is useful to be aware of what this provides to you in the way of interceptors and result types.
- You can give your packages any namespace you like, but we recommend using `/plugins/unique/value` - that is prefixing plugin packages with `/plugins` and then adding a string globally unique to your plugin. The only name you can't use is `servlet` as the `/plugins/servlet` URL pattern is reserved for [Servlet plugins](#).
- Views must be bundled in the JAR file in order to be used by your actions. This almost always means using Velocity views.
- It is useful to be aware of the actions and features already bundled with Confluence, for example your actions will all be auto-wired by Spring (see [Accessing Confluence Components From Plugin Modules](#)) and your actions can use useful interfaces like `PageAware` and `SpaceAware` to reduce the amount of work they need to do.

Example

The LiveSearch example is a neat example of an Ajax-style Confluence plugin which uses a bundled XWork module to do it's work:

Find this example in the `/plugins/macros/livesearch` directory within your Confluence distribution.

Plugin Self-Configuration

This page last changed on Mar 05, 2007 by [jnolen](#).



Plugin configuration is available in Confluence 2.2 and later. Versions of Confluence before 2.1 will simply ignore any of these parameters

Plugins can specify internal links within Confluence to configure themselves. This is useful where your plugin requires any configuration or user specific settings to work. For example, the [Google Maps plugin](#) requires a Google API Key from Google (which needs to be configured on each server) before it will work properly.

- Configuration links will most often point to [XWork plugin modules](#) within the plugin itself
- Configuration links can be provided for a whole plugin and/or for any module within a plugin
- Configuration links are relative to the Confluence application

Plugin configuration - to add a configuration link for the whole plugin, place a single param element with the name `configure.url` within the `plugin-info` element at the top of the plugin descriptor:

```
<plugin-info>
  <description>A macro which displays Google maps within a Confluence page.</description>
  <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/">
  <version>0.1</version>
  <param name="configure.url">/admin/plugins/gmaps/configurePlugin.action</param>
</plugin-info>
```

Plugin module configuration - to add a configuration link for a single module, place the same param element with the name `configure.url` within the descriptor element for that module:

```
<macro name="gmap" class="com.atlassian.confluence.ext.gmaps.GmapsMacro" key="gmap">
  <description>The individual map macro.</description>
  <param name="configure.url">/admin/plugins/gmaps/configureMacro.action</param>
</macro>
```

Here is an image showing where the Configure links appear for both a plugin and an individual module:

Plugins	Google Maps						
Advanced Macros All modules enabled.	Vendor: Atlassian Software Systems Pty Ltd Plugin Version: 0.1						
Attachment Extractors All modules enabled.	A macro which displays Google maps within a Confluence page.						
Basic Macros All modules enabled.	☐ Configure plugin ☐ Disable plugin						
Compatibility Macros All modules enabled.							
Dashboard Macros All modules enabled.							
Google Maps All modules enabled.							
	<table border="1"><tbody><tr><td>gmap The individual map macro.</td><td>Configure Disable</td></tr><tr><td>Configure GMaps</td><td>Disable</td></tr><tr><td>gmapsManager</td><td>Disable</td></tr></tbody></table>	gmap The individual map macro.	Configure Disable	Configure GMaps	Disable	gmapsManager	Disable
gmap The individual map macro.	Configure Disable						
Configure GMaps	Disable						
gmapsManager	Disable						

Customise Confluence Page Exports

This page last changed on Dec 18, 2006 by david.soul@atlassian.com.

Modify the style or content of the following page exports:

- [Customise Adobe PDF Exports](#)
- [Customise MS Word Exports](#)

Customise Adobe PDF Exports

This page last changed on Apr 30, 2007 by [malam](#).

Confluence pages can be [output to PDF](#) and some resulting PDF content can be modified. While page content itself is not open to customisation without major source-code modifications, this guide covers the easier task of modifying the plain text contained in page titles, headers and footers and page size.

Change PDF page size

How to Change the page size

The default PDF page size is A4 (210mm x 297mm or 8.27in x 11.7in). Modify the file under your Confluence install directory:

```
.../confluence/WEB-INF/classes/com/atlassian/confluence/importexport/common_fop.vm
```

To change the page size for PDF export, page-width and page-height parameters have to be edited in the above mentioned file. Locate the line

```
<fo:simple-page-master margin-right="2cm" margin-left="2cm" margin-bottom="1cm"
margin-top="1cm" page-width="21cm" page-height="29.7cm" master-name="all-pages">
```

and change the values for page-width and page-height as required.

This file is pretty self-explanatory. Change to the following values:

- page-width="21.59cm"
- page-height="27.94cm"

Optionally you can modify the margins. To give the page a half-inch margin all around:

- margin-right="1.27cm"
- margin-left="1.27cm"
- margin-bottom="1.27cm"
- margin-top="1.27cm"

Landscape orientation

To change the default A4 +Portrait+ size to +Landscape+ follow the instructions below:

By default the page orientation for PDF export is set to "Portrait" with page-width="21cm" and page-height="29.7cm". To change the orientation to Landscape, swap the page-width and page-height measurement values as shown below:

```
<fo:simple-page-master margin-right="2cm" margin-left="2cm" margin-bottom="1cm"
margin-top="1cm" page-width="29.7cm" page-height="21cm" master-name="all-pages">
```

This will generate a PDF export with a Landscape orientation.

Editing PDF content

How to edit PDF content:

Confluence uses [Apache FOP](#) to write Confluence content to [XSL-FO](#) format, and uses Velocity macro files to render PDF headers, footers and page titles. For information on more content editing, study the [XSL-FO examples](#).

Always stop Confluence before editing a Velocity macro file. Users who are stuck can obtain technical assistance by posting the modified Velocity file to the [Confluence Developer Forum](#).

List Of PDF-Related Files

```
.../confluence/WEB-INF/classes/com/atlassian/confluence/importexport/common_header_fop.vm
.../confluence/WEB-INF/classes/com/atlassian/confluence/importexport/common_footer_fop.vm
.../confluence/WEB-INF/classes/com/atlassian/confluence/importexport/common_fop.vm
.../confluence/WEB-INF/classes/com/atlassian/confluence/pages/Page.pdfexport.vm
```

- The above example is for Unix-based systems, so Windows users should use back-slashes instead forward-slashes
- An example Windows install directory is C:\confluence-2.2.9-std
- An example Linux install directory is /opt/confluence-2.2.9/

Text

Inserting the example XSL-FO tag below into the relevant Velocity macro file will output a new line with This text is printed in plain text.

```
<fo:block text-align="left" font-family="$generalUtil.getDefaultFontFamily()" color="#0050B2">
  This text is printed
</fo:block>
```

Images

There are two steps involved in adding images to the header and the footer:

1. You need to modify common_fop.vm and adjust the margins, and sizes of the two regions (region-before and region-after) to fit in the image.

```
<fo:region-before extent="1cm"/>
<fo:region-after extent="1cm"/>
```

In the example above, change the "1cm" value to allow yourself as much space as you need for your customization.

2. Insert the example XSL-FO tag below into the relevant Velocity macro file to embed the local image C:\operahouse.png into the PDF.

If using windows, please make sure to use forward slashes, instead of backslashes while specifying directory paths.

Eg: Use "c:\images\operahouse.png" for windows and "c:/images/operahouse.png" for Unix.

```
<fo:block>
<fo:external-graphic
width="auto" height="auto"
src="c:/images/operahouse.png"
/>
</fo:block>
```

Modify Page Title

Modify page title for single page export

This title appears once on the first page of the PDF. An example title is

```
Demonstration Space : Timesheets
This page last changed on Nov 02, 2006 by Administrator
```

To modify the page title, go to your Confluence install directory and modify the Velocity macro file

```
...\confluence\WEB-INF\classes\com\atlassian\confluence\pages\Page.pdfexport.vm
```

The file contents are shown below

```
<fo:block text-align="left" font-family="$generalUtil.getDefaultFontFamily()"
font-weight="bold" color="#0050B2">
    $generalUtil.escapeXml($page.space.name) :
    $rendererBean.nativeToAscii($generalUtil.escapeXml($page.title))
    <fo:leader leader-pattern="rule" leader-length="100%"/>
</fo:block>
<fo:block color="grey" font-size="8pt" space-after.optimum="12pt">
    This page last changed on $generalUtil.format($page.lastModificationDate) by
    <fo:inline color="#0050B2">$!page.lastModifierName</fo:inline>.
</fo:block>
```

Explanation of the Velocity code from the above example

Velocity Code	Prints
<code>\$generalUtil.escapeXml(\$page.space.name)</code>	Space Name
<code>\$rendererBean.nativeToAscii(\$generalUtil.escapeXml(\$page.title))</code>	Page Name

Modify Page Headers for Space Export

How to modify page headers

By default, no page header is printed with PDF exports. To add one, go to your Confluence install directory and modify the Velocity macro file

```
...\confluence\WEB-INF\classes\com\atlassian\confluence\importexport\common_header_fop.vm
```

Example Header Modification

In between the two FO lines, add

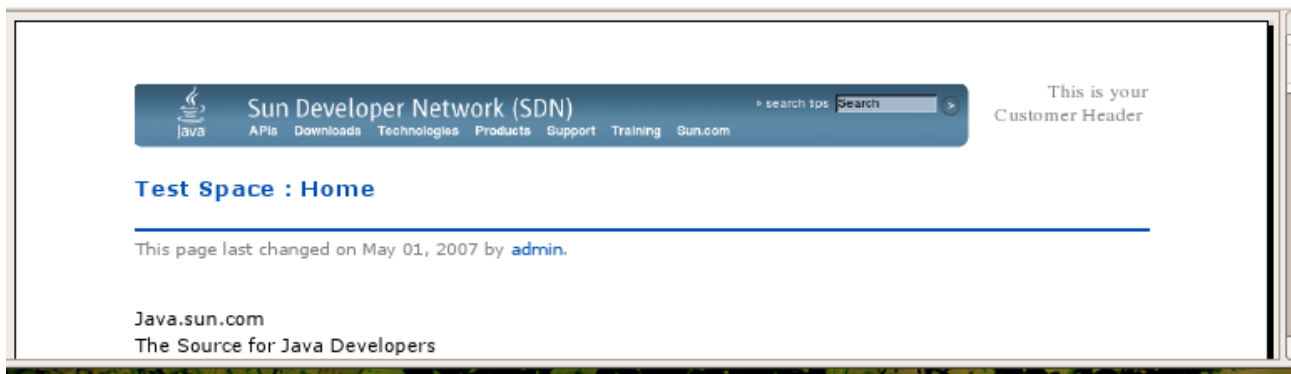
```
<fo:block text-align="left" font-family="$generalUtil.getDefaultFontFamily()" color="#0050B2">  
    Custom Header  
</fo:block>
```

Example Header Modification with Banner

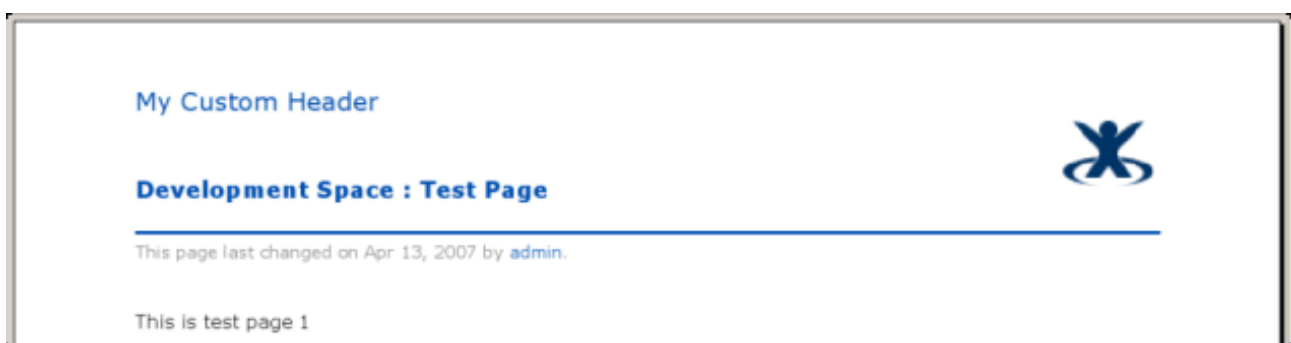
Below is a sample common_header_fop.vm velocity template for header with Banner. You need to update the value of <fo:region-before extent="1cm"/> on common_fop.vm template into 4 or 5 cm according to the size of your banner.

```
<fo:static-content flow-name="xsl-region-before">  
  <fo:table width="100%" table-layout="fixed" font-family="serif" font-size="10pt">  
    <fo:table-column column-width="14cm"/>  
    <fo:table-column column-width="3cm"/>  
    <fo:table-body>  
      <fo:table-row>  
        <fo:table-cell color="grey">  
          <fo:block text-align="left" font-family="$generalUtil.getDefaultFontFamily()" color="#0050B2">  
            <fo:external-graphic width="auto" height="auto" src="/home/malam/Desktop/Temp/Top_Banner.jpg" />  
          </fo:block>  
        </fo:table-cell>  
        <fo:table-cell color="grey">  
          <fo:block text-align="right">  
            This is your Customer Header  
          </fo:block>  
        </fo:table-cell>  
      </fo:table-row>  
    </fo:table-body>  
  </fo:table>  
</fo:static-content>
```

A Sample of Custom PDF Header with A Banner on the top



A Sample of Custom PDF Header with A Logo on the Right Top



Modify Page Footers for Space Export

How to modify page footer

Page footers appear on the bottom of every page. An example footer is

Document generated by Confluence on Dec 11, 2006 09:35

Page1

To modify the footer, go to your Confluence install directory and modify the Velocity macro file

```
...\confluence\WEB-INF\classes\com\atlassian\confluence\importexport\common_footer_fop.vm
```

Example Footer Modification

To produce this footer

Created on Dec 11, 2006 11:43
Copyright Altassian Software

Locate this line in common_footer_fop.vm

```
<fo:block>Document generated by Confluence on  
$generalUtil.formatDateTime($exportDate)</fo:block>
```

Replace it with the following Velocity code

```
<fo:block>Created on $generalUtil.formatDateTime($exportDate)</fo:block>  
<fo:block>Copyright Altassian Software</fo:block>
```

To produce a footer with a ruler on top and page number on right and some copy right content on bottom then you can use the sample common_footer_fop.vm template below

```
<fo:static-content flow-name="xsl-region-after">  
  <fo:block>  
    <fo:leader leader-pattern="rule" leader-length="100%"/>  
  </fo:block>  
  <fo:table width="100%" table-layout="fixed" font-family="serif" font-size="10pt">  
    <fo:table-column column-width="14cm"/>  
    <fo:table-column column-width="3cm"/>  
    <fo:table-body>  
      <fo:table-row>  
        <fo:table-cell color="grey">  
          <fo:block>Document generated by Confluence on  
$dateFormatter.formatDateTime($exportDate)</fo:block>  
          <fo:block>Created on  
$generalUtil.formatDateTime($exportDate)</fo:block>  
          <fo:block>Copyright Altassian  
Software</fo:block>  
        </fo:table-cell>  
        <fo:table-cell color="grey">  
          <fo:block text-align="end">Page  
<fo:page-number/></fo:block>  
        </fo:table-cell>  
      </fo:table-row>  
    </fo:table-body>  
  </fo:table>  
</fo:static-content>
```

Sample PDF Footer Image:

Document generated by Confluence on Apr 24, 2007 14:00
Created on Apr 24, 2007 14:00
Copyright Altassian Software

Page 1

Customise MS Word Exports

This page last changed on Dec 18, 2006 by david.soul@atlassian.com.

Overview

Confluence exports a Confluence page as a Microsoft Word document by:

1. Generating the HTML rendering of a page from Confluence wiki markup
2. Overriding some Confluence page styles with MS Word styles using a CSS wrapper

The wrapper is generated using a Velocity macro to provide CSS style information specific to MS Word exports.

Modifying Content

Please do not attempt to modify the output without some experience in CSS and HTML markup. You may also need to review Velocity template language.

- [W3Schools CSS Tutorial](#)
- [W3Schools HTML Tutorial](#)
- [Velocity Template Overview](#)

Before modifying any styles, you should always take a backup of both any files you are modifying and your entire Confluence install directory. If you require assistance with your customisation attempt, you should post your modified files along with a technical description to our [Confluence Developer Forum](#).

Important Files

The formatting is defined using the CSS styles in main Confluence stylesheet and overridden by any styles in the Word export wrapper.

Main Stylesheet

This file formats the default appearance of all Confluence content. Changes to this document will be shown when viewing a page from within Confluence, as well as in HTML or MS Word exports. You should avoid changing this document unless you wish a style to be changed throughout Confluence. The file is located under the Confluence install directory:

```
... \confluence\WEB-INF\classes\styles\site-css.vm
```

Export Wrapper

This file overrides the main Confluence stylesheet, so styles outlined in this file will be specific to MS

Word exports. It set the font and style for body text, some macro and grids, and a default background colour. The file is located under the Confluence install directory:

```
... \confluence\pages\exportword.vm
```

How To Modify Styles

If the CSS tag already exists in the Word export wrapper, you can modify it directly. If the CSS tag is defined by the main stylesheet, copy it into the export wrapper as a new entry in the `<style>` element and update it there:

1. Identify its CSS tag in the main stylesheet. You may need to use trial and error to identify which cascading property is relevant
2. Transfer the tag into the Word export wrapper so that it overrides the main stylesheet
3. Modify the tag style in the wrapper

Common Modifications

You can easily set the body font or background colour in the export wrapper.

Modify Body Font

The wrapper sets the body font:

```
body, p, td, table, tr, .bodytext, .stepfield {  
    font-family: Verdana, arial, sans-serif;  
}
```

Modify Background Colour

The wrapper sets the background colour:

```
<body style="background-color: white; padding: 10px;">  
    <h1>$page.title</h1>  
    $renderedPageContent  
</body>
```

Getting Started

This page last changed on Mar 28, 2007 by [jnolen](#).

This is a quick guide to getting off the ground when starting a new plugin for Confluence.

The Guide

Building and Deploying Confluence has been broken into a series of steps.

1. [Initial development environment setup](#)
2. [Building and Deploying Confluence in IDEA](#)
 - [Setup Confluence Source Code For Development](#)
 - [Creating an IDEA project with a Confluence distribution](#)
3. [Building and Deploying Plugins in IDEA](#)
 - [Setting up a new Confluence plugin](#)
 - [Working on an existing Confluence plugin](#)
4. [Packaging and releasing a plugin](#)

Extra Information

- [Development Tips](#)
- [Plugin Project Files](#)
- [Confluence Plugin Development Kit](#)
- [Userinfo Plugin Tutorial](#)
- [Developing with Eclipse](#)

Build and Deploy Confluence and Confluence Plugins

This page last changed on Apr 04, 2007 by david.soul@atlassian.com.

Building and Deploying Confluence has been broken into a series of steps.

1. [Initial development environment setup](#)
2. [Building and Deploying Confluence in IDEA](#)
 - [Setup Confluence Source Code For Development](#)
 - [Creating an IDEA project with a Confluence distribution](#)
3. [Building and Deploying Plugins in IDEA](#)
 - [Setting up a new Confluence plugin](#)
 - [Working on an existing Confluence plugin](#)
4. [Packaging and releasing a plugin](#)

Building and Deploying Confluence in IDEA

This page last changed on Apr 04, 2007 by david.soul@atlassian.com.



Please ensure you have completed the [Initial development environment setup](#) before following this guide

There are two main ways of deploying Confluence inside IDEA. The main reason you would want to is so that you can debug [your plugins](#).

Confluence Source

This is the preferred of the two, since it will allow you to step through Confluence code as well as your own plugin code when debugging. However, it is only available if you have a [source code license](#), which generally only comes with a full Commercial license.

Confluence Distribution

The other way is to get a regular Confluence distribution running inside IDEA. This works just fine, but you won't be able to step into code outside your own plugin.

I have the source code	I just have a regular distribution

Compiling and Running Confluence

This page last changed on Mar 28, 2007 by [jnolen](#).

Compiling and running Confluence

Now that it's set up, we should make sure it's all working by getting it to run inside IDEA.

1. Click the 'confluence' module and then select 'Build > Make Project' from the menu. Alternately, click the  button.
2. From the drop-down beside the  button, select your app server (eg. 'Tomcat').
3. Click the  button next to the app server drop-down.



The most common problem here is that the JDK has not been set up correctly. If you have a problem, check the following:

1. Right-click on the 'confluence' module in the project window and select 'Module Settings' at the bottom of the popup-window.
2. Select the 'Libraries' tab
3. Check that a valid JDK has been selected for the module.
4. Check the other modules in the project for the same.

Creating an IDEA project with a Confluence distribution

This page last changed on Apr 04, 2007 by david.soul@atlassian.com.



Please ensure you have completed the [Initial development environment setup](#) properly before following this guide



This page is useful for academic and open-source customers who do not have access to the [Confluence source distribution](#). If you are a commercial customer, you should download the Confluence source and follow [these instructions](#).

Getting the EAR/WAR distribution

1. [Download](#) the latest EAR/WAR distribution release of Confluence and expand it to a location on your hard disk (we'll call it '\$CONFBASE')
2. Download [confluence-dist.zip](#) file, which contains stripped-down project files for Maven, expand it and copy its contents into root of your Confluence release (\$CONFBASE).
3. Open the contained [build.properties](#) file in a text editor and adjust it to meet your environment settings. In particular, pay attention to the following:
 - JDK Version - This should be set to whatever your target JDK is called in IDEA. On Mac OS X, this is usually '1.4' or '1.5' (without quotes). Eg:

```
atlassian.idea.jdk.name=1.4
```

- Application Server Settings - Uncomment these and point to your app server installation. Only uncomment the ones you actually have installed. Eg:

```
atlassian.idea.tomcat.location=~/.apache-tomcat-5.5.12
#atlassian.idea.resin3.location=$PATH_TO_MY_INSTALLATION
#atlassian.idea.resin.location=$PATH_TO_MY_INSTALLATION
#atlassian.idea.orion.location=$PATH_TO_MY_INSTALLATION
```

- Application Settings - The settings in which your application server will launch confluence. The settings below will allow you to access the running server at <http://localhost:8080/confluence>:

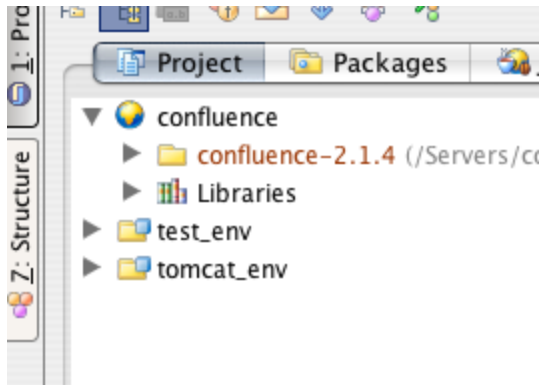
```
# port on which Confluence will listen
atlassian.idea.application.port=8080
# the context root at which Confluence will be deployed
atlassian.idea.application.webapp.contextpath=confluence
```

Creating the IDEA project files

1. Open a command prompt and enter the following:

```
cd $CONFBASE
maven atlassian-idea
```

2. That's it! Now just open up the freshly-generated 'confluence.ipr' file in IDEA. It should look something like this:



Setting up the Confluence environment

Once the project is loaded, you will need to set up where the 'confluence home' is.

1. Open `confluence/WEB-INF/classes/confluence-init.properties`
2. Set the 'confluence.home' property to the location you want confluence data stored. An example might be `$CONFBASE/confluence/home`, or somewhere in your home directory. If the location doesn't exist, Confluence will try to create it when you run the webapp.

Compiling and running Confluence

Now that it's set up, we should make sure it's all working by getting it to run inside IDEA.

1. Click the 'confluence' module and then select 'Build > Make Project' from the menu. Alternately, click the  button.
2. From the drop-down beside the  button, select your app server (eg. 'Tomcat').
3. Click the  button next to the app server drop-down.



The most common problem here is that the JDK has not been set up correctly. If you have a problem, check the following:

1. Right-click on the 'confluence' module in the project window and select 'Module Settings' at the bottom of the popup-window.
2. Select the 'Libraries' tab
3. Check that a valid JDK has been selected for the module.
4. Check the other modules in the project for the same.

What's Next?

Now that we've got Confluence running, we can start working on plugins.

I want to start one from scratch	I want to work on an existing plugin

Creating an IDEA project with a Confluence source release Maven1

This page last changed on Jan 16, 2007 by michael@atlassian.com.



Please ensure you have completed the steps required to develop with IntelliJ IDEA before attempting the following.

Getting the source code

Firstly, you will probably only have access to the source code if you have a [commercial license](#). If you don't, but feel you should, [contact Atlassian](#) and see what you can work out.

Assuming the above, do the following:

1. [Download](#) the desired version of Confluence.
2. Expand the archive to your desired location (we'll call it \$CONFSRC)
3. Open the 'confluence' subdirectory under it.
4. Open the contained [build.properties](#) file in a text editor and adjust it to meet your environment settings. In particular, pay attention to the following:
 - JDK Version - This should be set to whatever your target JDK is called in IDEA. On Mac OS X, this is usually '1.4' or '1.5' (without quotes). Eg:

```
atlassian.idea.jdk.name=1.4
```

- Source code location - The location of extra source code. For some reason this is set incorrectly in the default source release. Set it to this:

```
atlassian.idea.src.relative.location=.
```

- Application Server Settings - Uncomment these and point to your app server installation. Only uncomment the ones you actually have installed. Eg:

```
atlassian.idea.tomcat.location=~/.apache-tomcat-5.5.12
#atlassian.idea.resin3.location=$PATH_TO_MY_INSTALLATION
#atlassian.idea.resin.location=$PATH_TO_MY_INSTALLATION
#atlassian.idea.orion.location=$PATH_TO_MY_INSTALLATION
```

- Application Settings - The settings in which your application server will launch confluence. The settings below will allow you to access the running server at <http://localhost:8080/confluence>:

```
# port on which Confluence will listen
atlassian.idea.application.port=8080
# the context root at which Confluence will be deployed
atlassian.idea.application.webapp.contextpath=confluence
```

- WAR Settings - These should already be set for you in later versions, but it's good to check them. Eg:

```
maven.multiproject.type=war
maven.war.webxml=src/webapp/WEB-INF/web.xml
maven.war.webapp.dir=target/ exploded
```

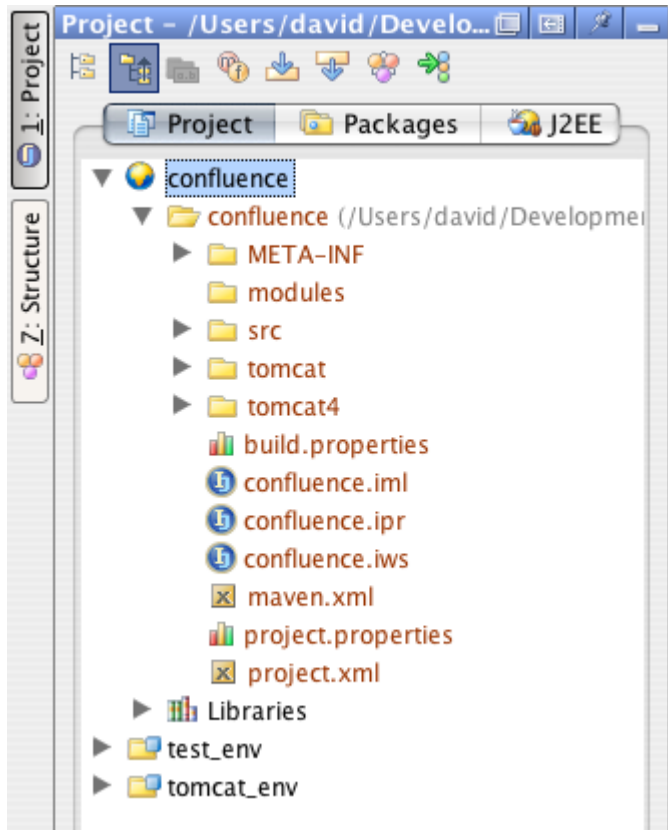
- Database Settings - If you are using an external database, set this up as documentation dictates.

Creating the IDEA project files

1. Open a command prompt and enter the following:

```
cd $CONFSRC/confluence
maven atlassian-idea
```

2. That's it! Now just open up the freshly-generated 'confluence.ipr' file in IDEA. It should look something like this:



Setting up the Confluence environment

Once the project is loaded, you will need to set up where the 'confluence home' is.

1. Open src/etc/java/confluence-init.properties
2. Set the 'confluence.home' property to the location you want confluence data stored. An example might be \$CONFSRC/confluence/home, or somewhere in your home directory. If the location doesn't exist, Confluence will try to create it when you run the webapp.

Compiling and running/debugging Confluence

Now that it's set up, we should make sure it's all working by getting it to run inside IDEA.

1. Click the 'confluence' module and then select 'Build > Make Project' from the menu. Alternately,

click the  button.



The most common problem here is that the JDK has not been set up correctly. If you have a problem, check the following:

- a. Right-click on the 'confluence' module in the project window and select 'Module Settings' at the bottom of the popup-window.
- b. Select the 'Libraries' tab
- c. Check that a valid JDK has been selected for the module.
- d. Check the other modules in the project for the same.

2. From the drop-down beside the  button, select your app server (eg. 'Tomcat').

3. Click the  button next to the app server drop-down.

Hopefully your project will now run and you will be able to access Confluence through your web browser.

To debug, basically switch the last step of the above to clicking the  button instead of the  button.

What's Next?

Now that we've got Confluence running, we can start working on plugins.

I want to start one from scratch	I want to work on an existing plugin

Setup Confluence Source Code For Development

This page last changed on Apr 17, 2007 by [mjensen](#).

Software developers can customise Confluence extensively by modifying the source code. Follow the instructions to build Confluence from source using IntelliJ IDEA.

Setup Development Environment

Complete the [Initial Development Environment Setup](#) to setup your environment.

Download Confluence Source Code

Access to the Confluence source code is provided to all [commercial license holders](#). If you don't have a commercial licence but believe you have a valid reason to need the source, you can [request access](#).

If you have source-code access:

1. [Download](#) the desired version of Confluence.
2. Expand the archive to your desired location (we'll call it \$CONFSRC)

Configure settings.xml

The settings.xml file is the file that stores the configurations that are relevant to Maven 2. This should be under your \$HOME/.m2/ directory (which is located at C:\Documents and Settings[your username]\.m2 on a Windows environment). Dependencies are, by default, downloaded in \$HOME/.m2/repository.

You can see an [example settings.xml](#).



You will need to update the <properties> section to match where you installed Tomcat and/or Resin.

If you don't have any existing file, create a new file called settings.xml and paste the example code into it. If you have already a settings.xml then just add the extra information.



Configure your web application server. For example to configure Resin uncomment the atlassian.idea.resin.location variable and set its value to the path of your Resin installation. You can do the same with the Tomcat and Orion parameters to use different application servers. Comment out any application servers which are not relevant for you.

Install Confluence into the local Maven2 repository

Because of Maven2's dependencies you have to install Confluence into the local repository to get rid of any warning messages that pop up with maven commands. So use the following command:

```
> cd $CONFSRC/confluence
> mvn install -Pcore,bamboo -Dunit-test=false
```



Where \$CONFSRC is the root directory of the expanded confluence source release.

This will take approximately 10 minutes to run for the first time, as all the dependencies are downloaded from the Internet. Go get a cup of coffee or find a blog to read.

Building a new Standalone

You can build a Confluence standalone distribution from this source release using the 'standalone' maven profile.

1. To do this you must download the zip release of Tomcat and the Tomcat JDK 1.4 Compatibility Package. Place them in the same directory. Download them from [here](#).
2. Add two new properties to the settings.xml file described above.

```
<standalone.tomcat.zip.location>/path/to/zip/</standalone.tomcat.zip.location>
<standalone.confluence.tomcat.version>5.5.23</standalone.confluence.tomcat.version>
```

3. Then run this command in the root of the confluence source.

```
mvn -Pstandalone -Dmaven.test.skip=true
```

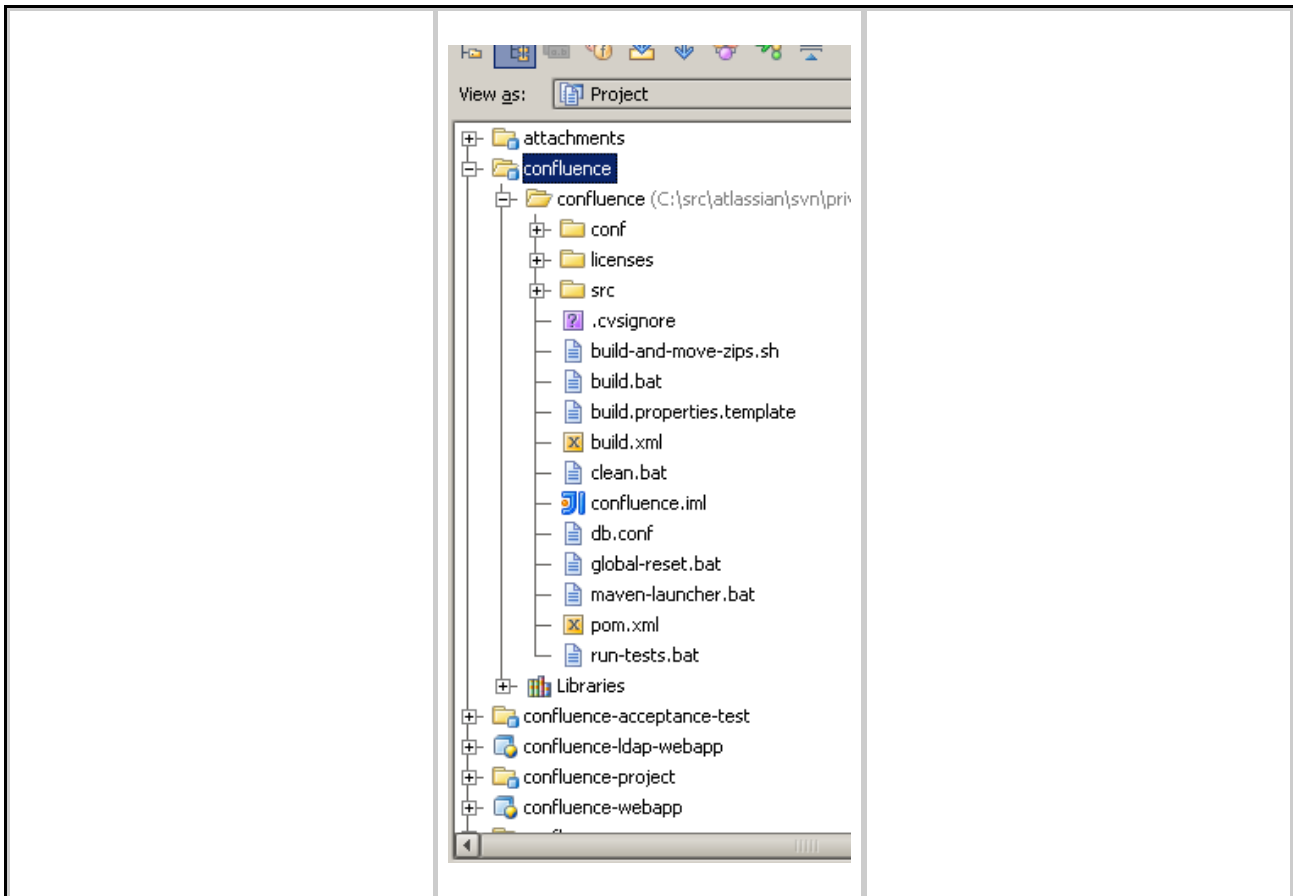
This will create a confluence-VERSION-std.tar.gz and confluence-VERSION-std.zip in confluence/conf-standalone/release relative to your confluence source root.

Create the IDEA project files

Open a command prompt and enter the following:

```
> cd $CONFSRC/confluence
> mvn atlassian-idea:all -Pidea
```

That's it! Now just open up the freshly-generated 'confluence-project.ipr' file in IDEA. It should look something like this:



Setup Confluence Environment

Once the project is loaded, you will need to set up where the 'confluence home' is.

1. Open `src/etc/java/confluence-init.properties`
2. Set the 'confluence.home' property to the location you want confluence data stored. An example might be `$CONFSRC/confluence/home`, or somewhere in your home directory. If the location doesn't exist, Confluence will try to create it when you run the webapp.

Compiling and running Confluence

Now that it's set up, we should make sure it's all working by getting it to run inside IDEA.

1. Click the 'confluence' module and then select 'Build > Make Project' from the menu. Alternately, click the  button.
2. From the drop-down beside the  button, select your app server (eg. 'Tomcat').
3. Click the  button next to the app server drop-down.



The most common problem here is that the JDK has not been set up correctly. If you have a problem, check the following:

1. Right-click on the 'confluence' module in the project window and select 'Module Settings' at the bottom of the popup-window.
2. Select the 'Libraries' tab
3. Check that a valid JDK has been selected for the module.
4. Check the other modules in the project for the same.

Hopefully your project will now run and you will be able to access Confluence through your web browser.

What's Next?

Now that we've got Confluence running, we can start working on plugins.

I want to start a brand new plugin	I want to work on an existing plugin

Building and Deploying Plugins in IDEA

This page last changed on Sep 26, 2006 by [jnolen](#).



This guide assumes that you have already set IDEA to [build and deploy Confluence](#).

There are two basic scenarios when starting plugin development with IDEA (well, in general really).

1. Starting from scratch
You have been inspired/ordered to make Confluence to something totally new and interesting.
2. Enhancing/maintaining an existing plugin
You want to fix some bugs or add some cool new functionality to an existing project, but you've just downloaded the source, or are switching from a different IDE.

I want to start one from scratch	I want to work on an existing plugin

Adding a plugin project to IDEA

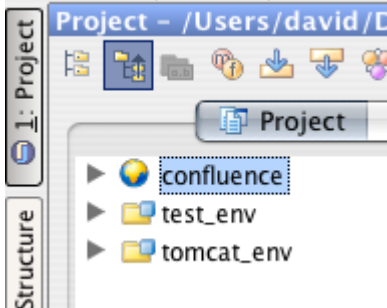
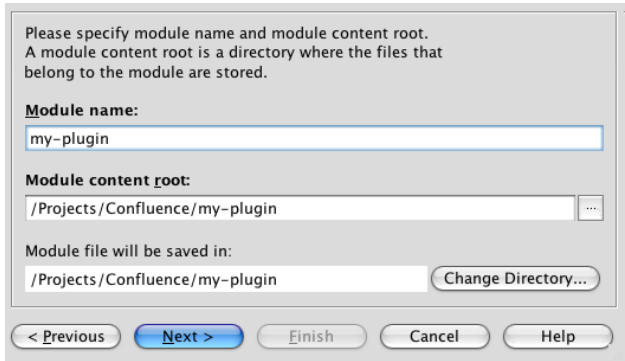
This page last changed on Mar 28, 2007 by [jnolen](#).

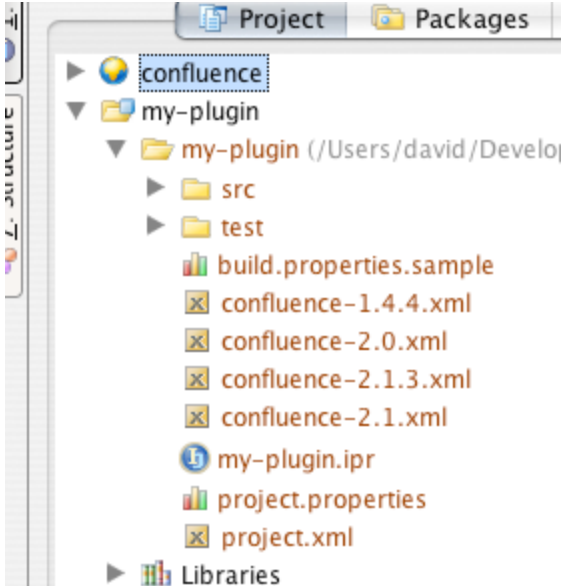
 This guide assumes you have [set up IDEA](#) and have

- [created a new plugin from scratch](#) or
- [downloaded and set up an existing plugin](#).

Now that we have our web application project and our plugin projects set up, we need to connect them together. The good news is, most of the hard work has been done now.

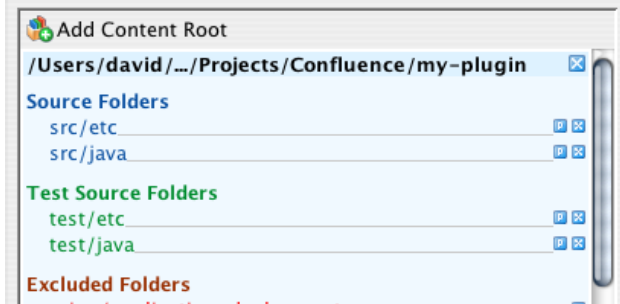
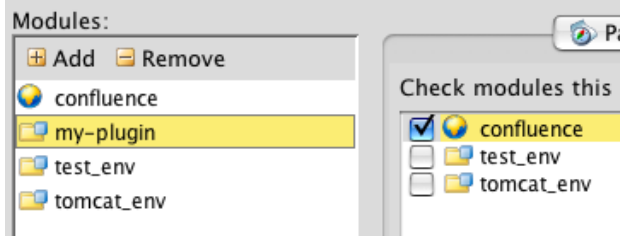
Adding a plugin

1. Open up your main Confluence project in IDEA. Your project should look something like this:	
2. Now we add the plugin project you just created. First, select 'File > New Module'.	
3. Select the 'Create new module' option and click next.	
4. In 'Module Content Root', select to the root directory for the plugin.	

5. After continuing, the module should now have been added to your main project.	

Checking the plugin settings

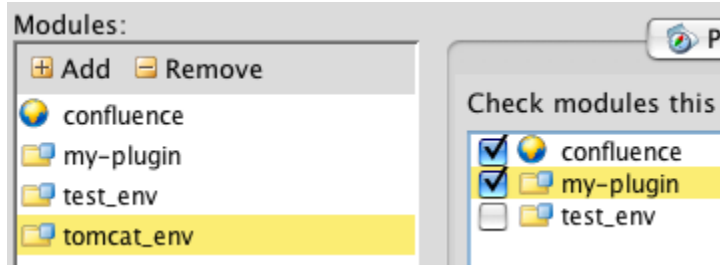
Next, we check that the plugin was actually generated correctly by atlassian-idea. Right-click on your new plugin module and select 'Module Settings'. We'll check through the tabs one-by-one.

Paths: In addition to the java/src/ path, you should add java/etc/. Your source paths look something like this:	
Libraries (Classpath): If your JDK is labeled 'Invalid', you need to select a JDK for your project (it should be the same one used by the main Confluence Module).	
Dependencies: Make sure that your plugin depends on the 'confluence' module.	
Order/Export: No changes here.	
JavaDoc: This one stays as-is.	

Linking the plugin to Confluence

So far, the plugin should compile nicely, but it won't actually be hooked into Confluence if you run it in Tomcat (or your chosen application server). Let's set that up.

1. Open the Module Settings for the 'tomcat_env' project (Or your application server) and switch to Dependencies.
2. Select your new plugin as a dependency.



Building and Testing your Plugin

Now, you just need to [develop your plugin](#). Once you have some code to test, do the following:

1. Start 'Build > Make Project'. This will put the necessary files into the webapp, ready to run, including your plugin source code.
2. Run the server ('Run > Run') or set some break-points and debug it ('Run > Debug').

What Next?

Now it's up to you to build something cool. Take a look at our [plugin guide](#) to see what the possibilities are.

Once you've completed your plugin, it's time to package it for distribution.

[I'm ready to package my plugin](#)

Setting up a new Confluence plugin

This page last changed on Apr 25, 2007 by [jnolen](#).



Please ensure you have [set up IDEA with Confluence](#) before following these instructions.

Creating the base plugin

Method 1: Extract the sample project

1. Download [example-plugin-2.0.zip](#), and extract it somewhere where you can edit it.
2. Run 'mvn eclipse:eclipse' to generate an Eclipse project file.

Follow the instructions in the README.txt for generating an IDE project file and customising the plugin.

The contents of the sample project are like this:

```
example-plugin/pom.xml
example-plugin/README.txt
example-plugin/src/main/java/com/example/confluence/plugin/ExampleMacro.java
example-plugin/src/main/resources/atlassian-plugin.xml
example-plugin/src/test/java/com/example/confluence/plugin/TestExampleMacro.java
```

It includes a sample macro, ExampleMacro.java, a test case for that macro, TestExampleMacro.java, and a plugin descriptor, atlassian-plugin.xml.

Method 2: Use the Confluence plugin archetype

This Maven archetype automatically creates a simple plugin project, customising the sample files according to the parameters you provide on the command line. The [Maven archetype plugin](#) is responsible for downloading the Confluence plugin archetype and extracting it.

All you need to do is run the archetype:create goal from the command line. Here is the command used to create the attached sample project:

```
mvn archetype:create \
  -DarchetypeGroupId=com.atlassian.maven.archetypes \
  -DarchetypeArtifactId=confluence-plugin-archetype \
  -DarchetypeVersion=2.0 \
  -DremoteRepositories=http://repository.atlassian.com/maven2/ \
  -DgroupId=com.example.confluence.plugin \
  -DartifactId=example-plugin
```

The last two parameters, groupId and artifactId, should be customised to suit your project. The first four parameters select the archetype to use, and should not be changed.

Related pages

For more information on writing Confluence plugins, see the [Confluence plugin guide](#).

Now what?

Next, we have to add your new project to the [Confluence project](#) you set up earlier.

[I'm ready to add my plugin project](#)

Working on an existing Confluence plugin

This page last changed on Sep 26, 2006 by [jnolen](#).

Get the plugin source code

Many plugin authors have been generous in sharing their plugin source code to allow other users to modify and contribute to their plugins. Some have chosen to use the [Atlassian Developer Network Subversion Repository](#) to maintain their source code.

You can generally find the source code location of a plugin by looking at table at the top of the plugin homepage ([like this one](#)). Most will list a source-code location, either a download or a Subversion URL.

Subversion

If the plugin source code is stored in Subversion, you need to check out the source code using your subversion client. If you're using the commandline client, you'd type:

```
svn co http://svn.atlassian.com/svn/public/contrib/confluence/sql-plugin/trunk/ sql-plugin
```

This should download all of the plugin's current source code into a directory called 'sql-plugin.'

Download

If the plugin author has attached the source code to the plugin homepage, just download the zip file and expand it.

Once you have the plugin source code, you're ready to move to the next step.

[I'm ready to add my plugin project](#)

How to use Eclipse for Confluence plugin development

[Eclipse](#) can be used to make Confluence plugin development easier.

General setup

- [Install Eclipse](#)
- Use Subversion
 - [Install the SVN plugin for Eclipse](#)
 - Add the Confluence Subversion site to Eclipse
 - Window->Open perspective and then find the Subversion perspective
 - <https://svn.atlassian.com/svn/public/contrib/confluence/>
- Use Maven
 - Install Maven 1.0.x
 - Install the [Maven \(1.x\) Eclipse plugin](#) by downloading the jar and copying to the Eclipse plugin directory
 - Setup your MAVEN_REPO property in Eclipse to point to your Eclipse workspace location

```
maven eclipse:add-maven-repo -Dmaven.eclipse.workspace=C:/...
```

Plugin specific

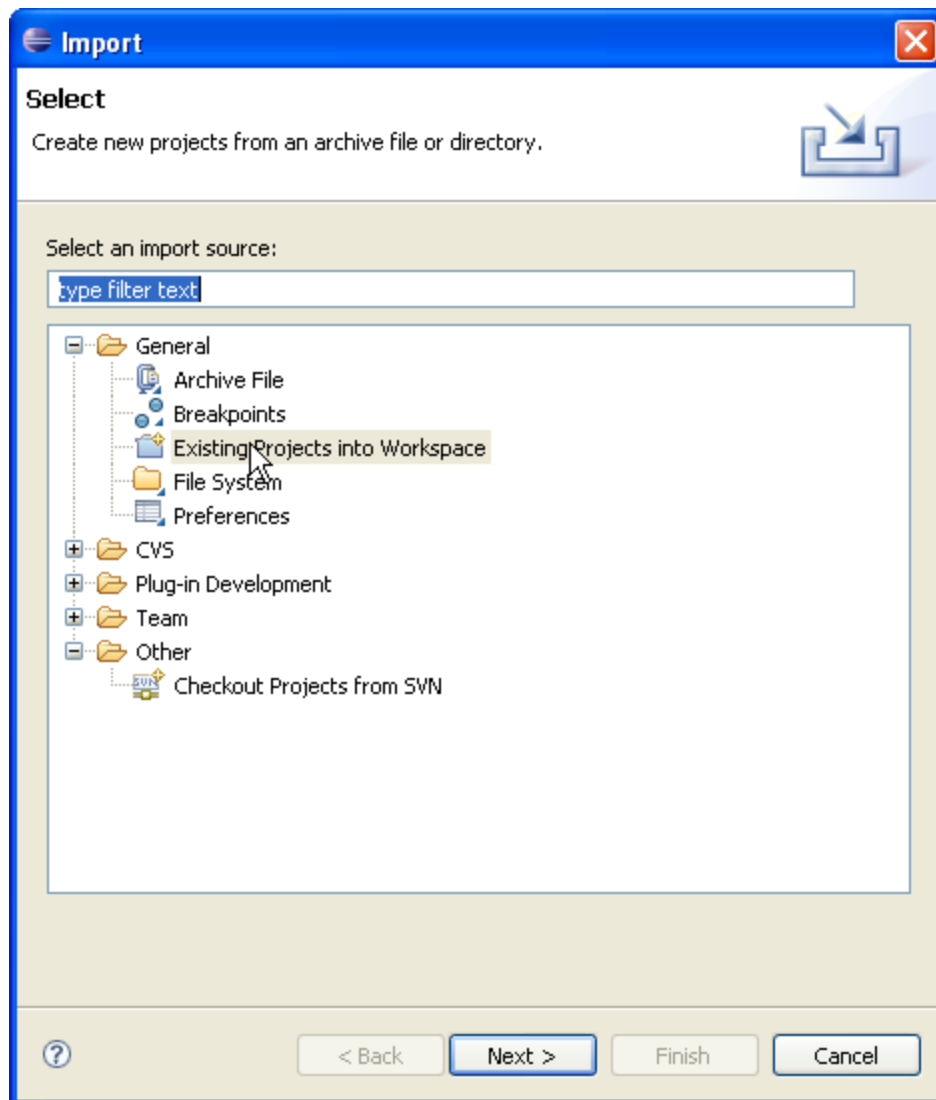
The following assumes you have a somewhat standard plugin directory structure that you created or checked out from Subversion. For example:

```
xxx-plugin
  trunk
    src
      etc
      java
    target
```

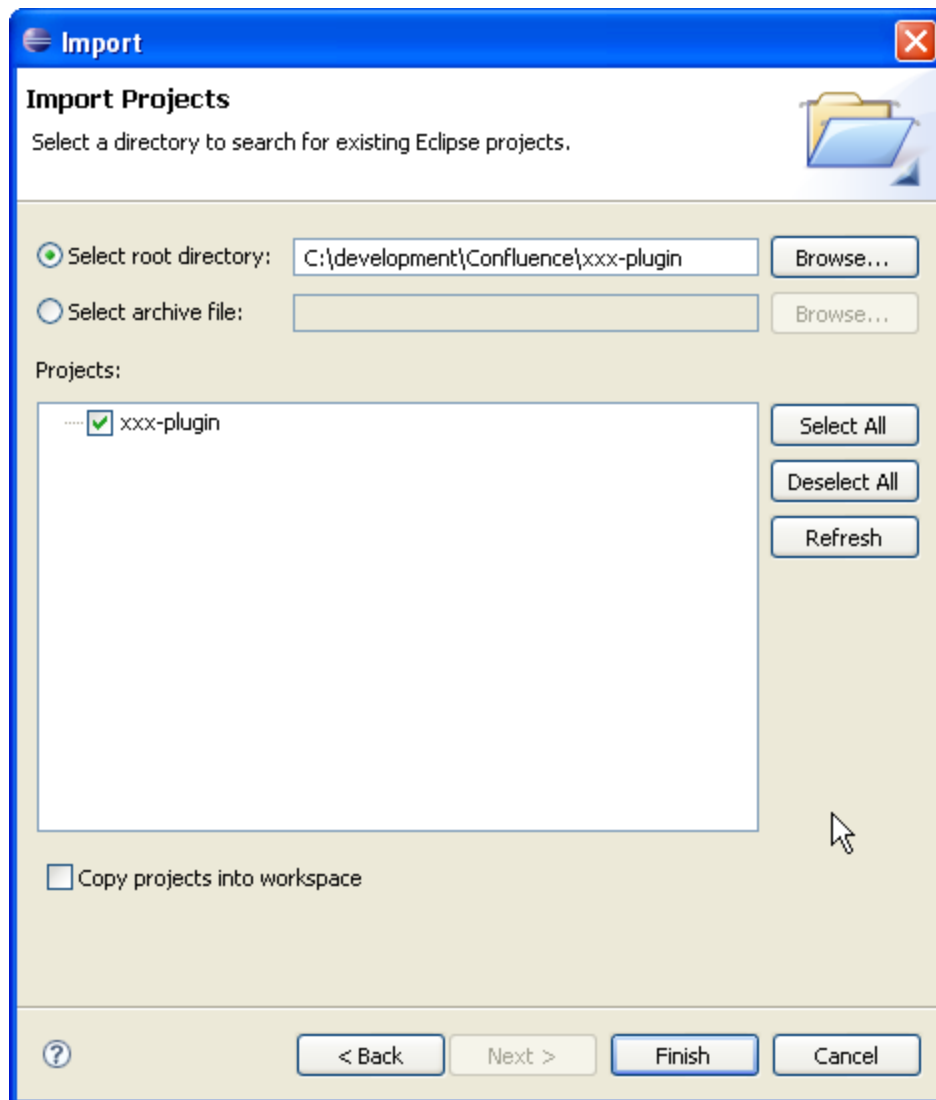
- Edit the project.xml file to make sure it contains all the dependencies needed
 - This must be done before generating the Eclipse project files
 - If the dependencies need to be changed later, the Eclipse project files will need to be re-generated and then in Eclipse, refresh your project using right click -> Refresh
- Generate the Eclipse project and classpath files
 - From a command line, cd to the trunk directory

```
cd ../xxx-plugin/trunk
maven eclipse
```

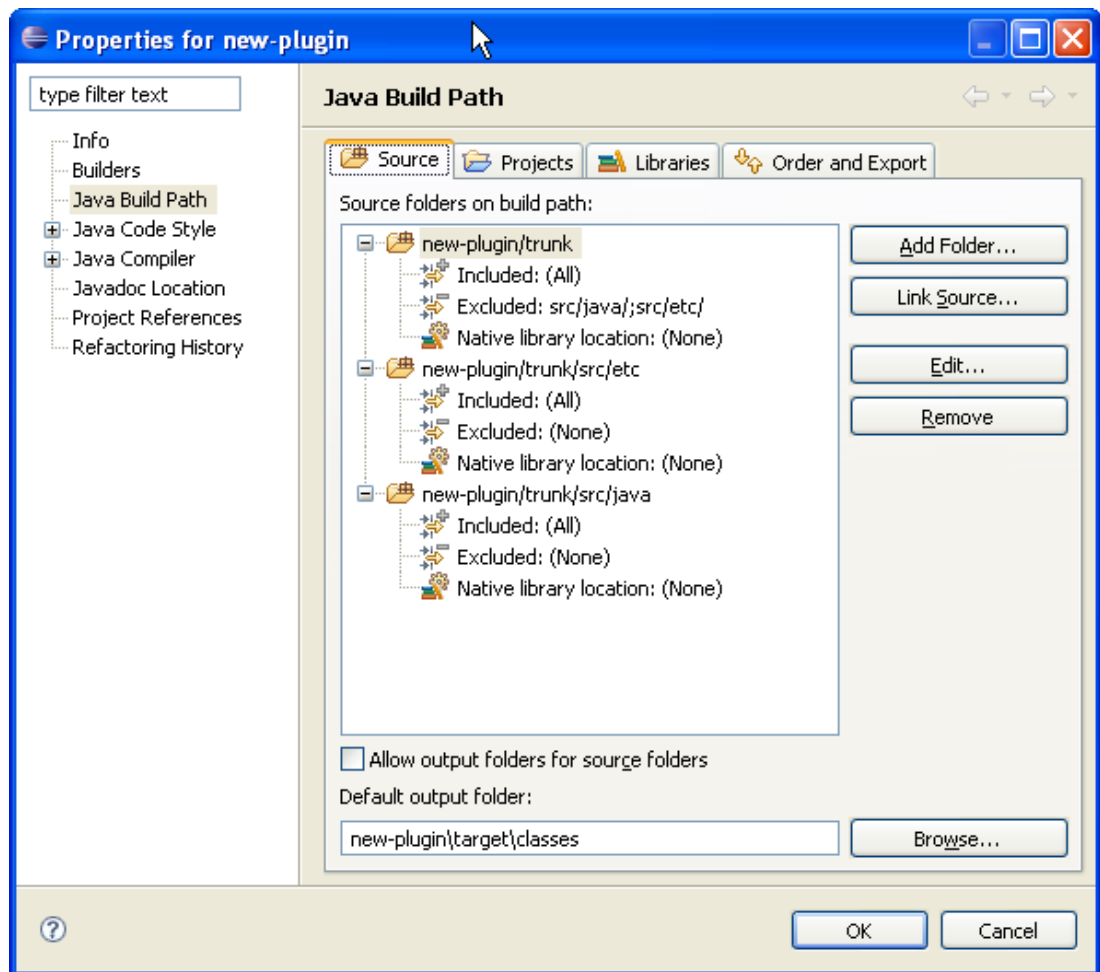
- Move the .project and .classpath files to the xxx-plugin directory
- Import the project by pointing at the plugin directory (that now contains a .project file!)
 - Right click Import



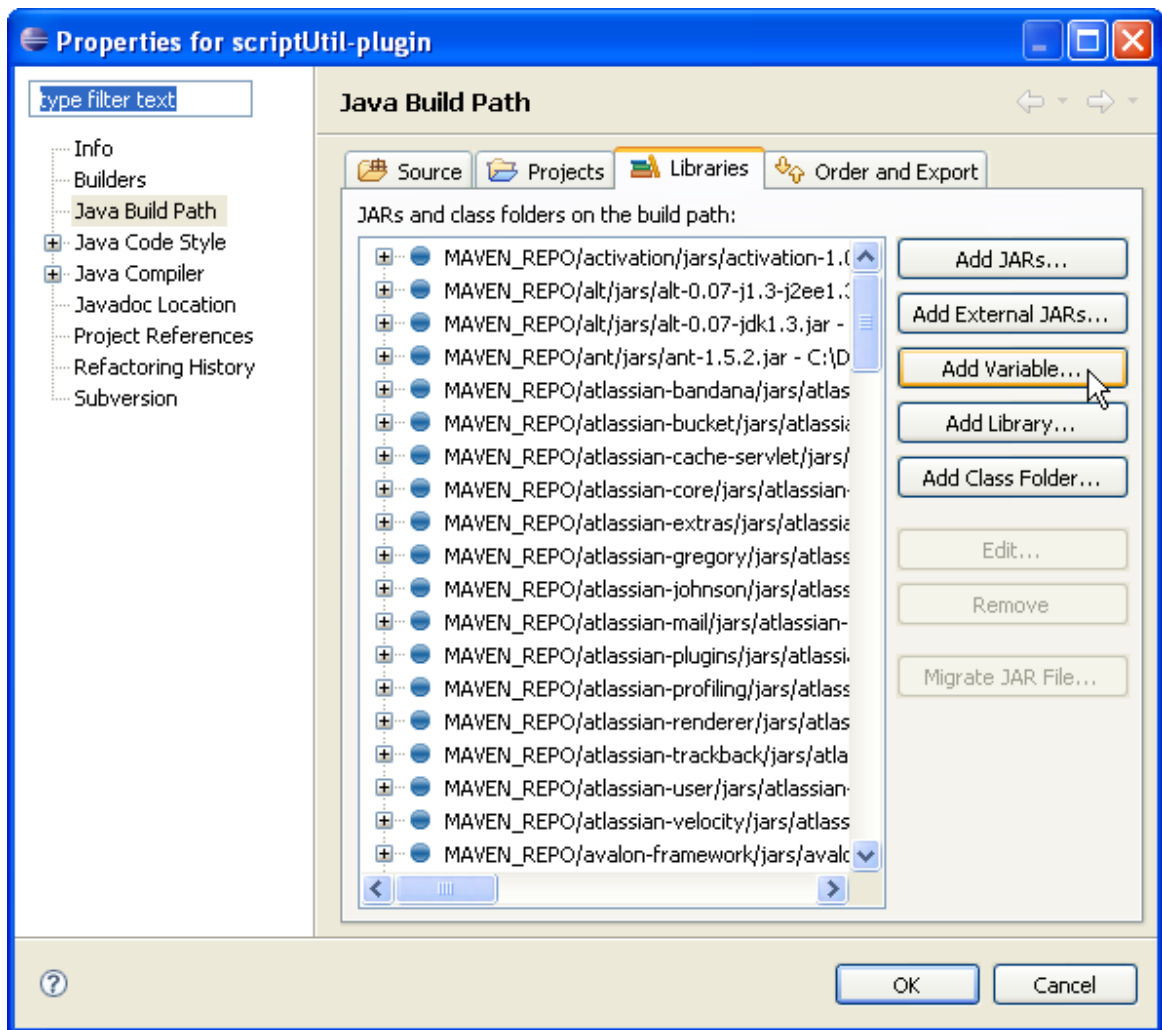
- ° Choose Existing Projects into Workspace



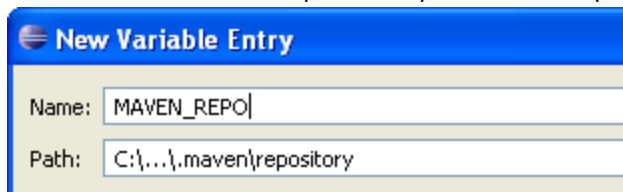
- Customize the build path source using right click on project -> Build Path -> Configure Build Path
 - removing the default location
 - adding /trunk/src/etc
 - adding /trunk/src/java
 - adding /trunk (last)



- Add MAVEN_REPO classpath variable to Eclipse
 - This only needs to be done for the first plugin you setup
 - MAVEN_REPO is used in the Maven generated .classpath file that contains references to all the dependencies defined to Maven in the project.xml and related files
 - Customize the build path libraries using right click on project -> Build Path -> Configure Build Path



- Add a new variable that points to your maven repository directory



Summary

- Eclipse should now analyse the plugin code and report errors
- Once all errors are fixed in Eclipse, a maven build (run outside Eclipse) should be clean

Development Tips

This page last changed on Feb 12, 2006 by david@randombits.org.

Here are some tips for debugging and optimising the development proccess.

Contents

- [Allocate more memory to IDEA](#)
- [Disable Velocity Caching](#)
- [Enabling Developer Mode](#)

Allocate more memory to IDEA

This page last changed on Feb 19, 2007 by [jnolen](#).

You may like to increase the default memory allocated for the IDEA app. via modifying the VM options located in:

for Windows

<Install-dir>\bin\idea.exe.vmoptions

for Unix

<Install-dir>\bin\idea.vmoptions

For example, if you installed the application in it's default location on Windows you may see something like this:

```
C:\Program Files\JetBrains\IntelliJ IDEA 6.0\bin\idea.exe.vmoptions
```

Below is an example of settings:

```
-Xms32m  
-Xmx256m  
-XX:MaxPermSize=128m  
-ea
```

Disable Velocity Caching

This page last changed on Nov 01, 2006 by [mryall](#).

When you are developing for Confluence, it is often useful to disable the caching of the velocity templates so that you don't have to restart the server to see velocity changes.

Perform the following modifications before starting the server, or restart it afterwards:

1. Edit `./confluence/src/etc/java/velocity.properties` (or `/WEB-INF/classes/velocity.properties` if you are using the webapp).
2. Set all the `"...resource.loader.cache"` values to `false`.
3. Set the `"class.resource.loader.cache"` to `false`.
4. Set `"velocimacro.library.autoreload"` to `true` (uncomment the line if necessary).

This will allow even the macro library (`macros.vm`) to reload automatically.

Enabling Developer Mode

This page last changed on Nov 08, 2005 by david@randombits.org.

Confluence's Developer Mode is a system property setting that tells Confluence to enable various debugging features that are not otherwise exposed to users. To enable Developer Mode, you should start Confluence with the following system property set.

```
-Dconfluence.devmode=true
```

If you are writing a Confluence extension and want to check if Developer Mode is active, you can call `ConfluenceActionSupport#isDevMode()` if you have an action available (`$action.devMode` in Velocity templates), or `Boolean.getBoolean(ConfluenceActionSupport.DEVMODE)` if you don't.

Developer Mode Features

Currently, enabling Developer Mode will activate the following features:

Prior to Confluence 2.0

- Developer Mode not available in these releases

Confluence 2.0

- The System Information page and 500 error page will contain an entry noting that Developer Mode is enabled
- The "view as HTML" button will be made available in the WYSIWYG rich-text editor

Initial development environment setup

This page last changed on Apr 04, 2007 by david.soul@atlassian.com.

The first time you set out to develop, you will need to make sure you have the supporting environment set up.

1. [Java Development Kit](#)
2. [Maven](#)
3. [Application Server](#)
4. [Database](#)
5. [Subversion](#)
6. [IDE](#)

Java Development Kit (JDK)

Any of the following should work:

- [Sun JDK 1.4.2_x](#)
- [Sun JDK 1.5.0_x](#)
- [Sun JDK 1.6.0_x](#)
- [Jikes](#)

Follow the installation instructions for your choice and platform.

If you're planning to distribute your work to the Confluence user community, we strongly encourage you to use JDK 1.4 instead of 1.5 or 1.6. We make sure that Confluence is compatible with JDK 1.4, and many Confluence users still run on the older JVM. If you're developing for your own use only, you are free to use the JDK version your internal Confluence instance is running on.

Maven 2.0.5

Quoting its [homepage](#), "Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information."

Both Confluence and Jira are set up to use Maven. And although it's not a requirement, most of the open-source plugins in the [Developer Subversion Repository](#) also use Maven. This guide assumes you will be using Maven for your plugins.

Confluence is now built using Maven2, and so the

1. [Download and install](#) Maven 2.0.5
2. Set up your environment variables:
 - Define `$MAVEN_HOME` in your shell config
 - Add `$MAVEN_HOME/bin` to your path

Application Server Setup

You can use the Atlassian-IDEA Maven plugin to configure deployment environments for Resin 2, Resin 3, Tomcat 5.5.x and Orion 2. You can run on any or all of these appservers. Unless you're testing compatibility, you probably only need one. Resin seems to be the most popular, but Tomcat is the basis for the standalone dist, so either of those are good choices.

Tomcat Installation

1. [Download](#) & [install](#) Tomcat 5.5.x
2. If you want to run Tomcat 5.5 on a 1.4 JDK, download the [Compatibility package](#) and [install](#) it.

Resin 3 Installation

1. [Download](#) & [install](#) Resin 3.0.x (see also [jira documentation](#))

Resin 2 Installation

1. [Download](#) & install Resin 2.1.x (see also [jira documentation](#))

Orion 2 Installation

1. [Download](#) & [install](#) Orion 2.0.x (see also [jira documentation](#))

Database Setup (optional)

While both JIRA and Confluence come with the HSQLDB file-based database, it is sometimes useful to have a non-file-based database for development - it's faster and it's easier to find out what's going on inside. However, there are other cases where it is completely appropriate to stick with the HSQLDB as provided. If you want to use the standalone database, you can skip this step.

If you're using a database other than HSQLDB, then you need to create a database and a user which can access that database. If you're using HSQLDB, skip this step.

A wide variety of databases are supported. [MySQL 4.1](#) is used in this example. Follow a similar procedure for your database of choice.

1. [Download](#) & [install](#) MySQL 4.1.
2. Make sure the database is running and will restart after reboot.
3. Create a new database (eg. 'confdb').
4. Create a new username/password (eg. 'confuser'/'confuser').
5. Grant the new user full rights on the new database.
6. [Download](#) & install the database driver into \$TOMCAT_HOME/common/lib, \$RESIN_HOME/lib,

\$RESIN3_HOME/lib and/or \$ORION_HOME/???.

Subversion (optional)

Atlassian hosts a [Subversion](#) repository for developers to contribute open-source plugins. If you want to contribute your plugin, or get the latest version of helpful development resources, installing a subversion client is recommended.

Most modern IDEs include some support for Subversion, but you can also install the command-line client. This can also be helpful if the IDE's implementation doesn't quite do what you expected. You can find out where to get a command-line client (and other types of clients too) here:

http://subversion.tigris.org/project_packages.html

IDE

Now that the basic development environment is ready, we need to the the IDE (Integrated Development Environment) set up. Development can be done with any Java development environment. At Atlassian, we prefer IntelliJ's IDEA, and our instructions follow that path. We also have some user-contributed documentation about [Developing with Eclipse](#).

JetBrains IntelliJ IDEA Installation

1. [Download](#) & install the latest version of IDEA (5.0 or later).

Eclipse

1. [Download](#) & install the latest version of Eclipse.

What's Next?

Now that we've (finally) got the pieces in place, the next stage is to get Confluence setup and running inside IDEA. How you do this will depend on whether or not you have access to the Confluence source code. Currently this is only available to [commercial licensees](#). Choose your setup type:

I have the source code	I have a distribution

Related topics

[Increase memory for IDEA](#)

Example settings.xml

This page last changed on Apr 16, 2007 by [jnolen](#).

This is an example settings.xml for Maven 2. It can be placed in your \$HOME/.m2/ directory and it will apply to all maven projects that you build. If you would rather, you can make this a per-project settings by including a profile.xml in your project base directory. See [Maven's documentation on Build Profile Settings](#).

```
<settings>
  <pluginGroups>
    <pluginGroup>com.atlassian.confluence.maven.plugins</pluginGroup>
    <pluginGroup>com.atlassian.maven.plugins</pluginGroup>
  </pluginGroups>
  <mirrors>
    <mirror>
      <id>ibiblio.net</id>
      <url>http://www.ibiblio.net/pub/packages/maven2</url>
      <mirrorOf>central</mirrorOf>
    </mirror>
  </mirrors>
  <servers>
    <server>
      <id>atlassian-m2-repository</id>
    </server>
    <server>
      <id>atlassian-m1-repository</id>
    </server>
  </servers>
  <profiles>
    <profile>
      <id>default</id>
      <activation>
        <activeByDefault>true</activeByDefault>
      </activation>
      <repositories>
        <repository>
          <id>atlassian-m2-repository</id>
          <name>Atlassian Maven 2.x Repository</name>
          <url>http://repository.atlassian.com/maven2</url>
          <snapshots>
            <enabled>true</enabled>
            <updatePolicy>interval:30</updatePolicy>
          </snapshots>
        </repository>
        <repository>
          <id>atlassian-m1-repository</id>
          <name>Atlassian Maven 1.x Repository</name>
          <url>http://repository.atlassian.com</url>
          <layout>legacy</layout>
          <snapshots>
            <enabled>true</enabled>
          </snapshots>
        </repository>
        <repository>
          <id>Codehaus</id>
          <name>Codehaus Repository</name>
          <url>http://repository.codehaus.org</url>
          <snapshots>
            <enabled>true</enabled>
          </snapshots>
        </repository>
      </repositories>
      <pluginRepositories>
        <pluginRepository>
          <id>atlassian-m2-repository</id>
          <name>Atlassian Maven 2.x Repository</name>
          <url>http://repository.atlassian.com/maven2</url>
          <snapshots>
            <enabled>true</enabled>
            <updatePolicy>always</updatePolicy>
          </snapshots>
        </pluginRepository>
      </pluginRepositories>
    </profile>
  </profiles>
</settings>
```

```
    </pluginRepository>
  </pluginRepositories>
  <properties>
    <atlassian.idea.tomcat_env.jdk.name>1.4.2</atlassian.idea.tomcat_env.jdk.name>
    <atlassian.idea.jdk.name>1.4.2</atlassian.idea.jdk.name>
    <atlassian.pdk.server.url>http://localhost:8080/</atlassian.pdk.server.url>
    <atlassian.pdk.server.username>admin</atlassian.pdk.server.username>
    <atlassian.pdk.server.password>admin</atlassian.pdk.server.password>
    <atlassian.idea.resin.location>C:\resin-2.1.17</atlassian.idea.resin.location>
    <atlassian.idea.resin3.location>C:\resin-3.0.19\resin-3.0.19</atlassian.idea.resin3.location>
    <atlassian.idea.tomcat.location>C:\apache-tomcat-5.5.17</atlassian.idea.tomcat.location>
    <atlassian.idea.orion.location>C:\orion2.0.7\orion</atlassian.idea.orion.location>
  </properties>
</profile>
</profiles>
</settings>
```

Packaging and releasing a plugin

This page last changed on Mar 28, 2007 by [jnolen](#).

Packaging your plugin

In order to install your new plugin on your production instance of Confluence, you'll need to package it up and install it there.

1. Navigate to your plugin's root directory.
2. Make sure that your POM.xml is depending to the version of Confluence on which you plan to deploy.
3. Run the command `mvn package`
4. That will create `my-plugin-X.X.X.jar` in the target directory.
5. You can now [install this plugin in Confluence](#).

* If your plugin has dependent jars, see this [page](#).

Releasing your plugin

We encourage you to open-source (we recommend a [BSD-style license](#)) your plugin and put in on Atlassian's [Developer Subversion Repository](#) and add it to the [Confluence Extensions Library](#) for other Confluence users to use and enhance. Never underestimate the power of collaboration!

1. Get [Subversion](#) access (email developer-relations@atlassian.com).
2. Request a [JIRA project](#) for your plugin (email developer-relations@atlassian.com).
3. Check in your code to Subversion.
4. [Add your plugin to the Plugin Repository](#)
5. Create a homepage for your plugin in the [Confluence Plugin Library](#).
6. Announce your plugin on the [Confluence Mailing Lists](#).

Plugin Project Files

This page last changed on Feb 13, 2006 by david@randombits.org.

There are several files common to most plugin projects. Here is a summary of the areas of interest to plugin developers.

Files

- [build.properties](#)
- [project.properties](#)
- [project.xml](#)

build.properties

This page last changed on Feb 14, 2006 by david@randombits.org.

The build.properties file contains project properties specific to the specific developer's environment. It should NOT be checked into source control, or it will break other people's build environment. Also, properties which should apply to the project independent of the build environment should be put in [project.properties](#) instead.

As well as the properties listed below, you can override any of the properties specified in [project.properties](#), so it may be worth checking those options too.

Below are some examples of common properties which may need to be set in your environment.

Maven Properties

Remote Repositories

This property allows you to specify remote repositories which Maven can download dependent libraries from. In general, this should be specified in [project.properties](#), however there are some occasions where a repository isn't available (eg. it is a private repository inside an organisation) and outsiders will have to get the libraries from elsewhere. This should be avoided if possible.

```
maven.repo.remote=file:../lib,http://repository.atlassian.com,http://www.ibiblio.org/maven
```

Proxy Settings

If you are behind a firewall, you may need to specify how Maven can get through your proxy server. Only complete the ones which are required for your server.

```
## Specify these properties if you are behind a proxy server
maven.proxy.host=192.168.0.1
maven.proxy.port=8080
maven.proxy.username=xxx
maven.proxy.password=yyy
maven.proxy.ntlm.host=server
maven.proxy.ntlm.domain=domain
```

IntelliJ IDEA Properties

If you are using the 'atlassian-idea' plugin to build your project files, there are several custom properties available to make project setup simpler.

Jikes

You can specify that IDEA uses the open-source [Jikes](#) compiler if you wish.

```
atlassian.idea.jikespath=/path/to/jikes
```

JDK

Usually, however, you'll be using one of the standard JDKs set up in IDEA. Specify the name that IDEA has given the JDK here. You can find the name by opening IDEA and selecting 'File > Settings', then 'JDK & Global Libraries'. The value you need is in the 'Name' field of the JDK.

```
atlassian.idea.jdk.name=1.4
```

Source Code

If you have access to the Confluence or JIRA source code, it can be handy to have your linked libraries referencing that source code when debugging. You can specify a basic set of source code links by pointing the plugin at the root of the downloaded source distribution. Debugging will still work fine without it, but it will get lost once the trace leaves your plugin code.

```
atlassian.idea.src.relative.location=../confluence-2.1-src
```

Global Libraries

Sometimes you will need to specify extra global libraries that need to be linked to by your project. Often these are items like JDBC drivers, and are more often required when setting up Confluence or JIRA as a whole, rather than a plugin project. However, this is where you do it.

```
atlassian.idea.global.libraries.to.enable=mysql
```

Application Server Settings

These properties will only be relevant in the project files for Confluence or JIRA, not plugin projects. They point to your app server installation(s). Currently supported are Tomcat 4 & 5, Resin 2 & 3, and Orion.

Only include/uncomment the ones you actually have installed.

```
atlassian.idea.tomcat.location=~/.apache-tomcat-5.5.12
atlassian.idea.resin3.location=~/.resin3
atlassian.idea.resin.location=~/.resin2
atlassian.idea.orion.location=~/.orion
```

Application Server Settings

Once you've picked your application server, the following will specify how the web application is launched.

The settings below will allow you to access the running server at <http://localhost:8080/confluence>:

```
# port on which Confluence will listen
atlassian.idea.application.port=8080
# the context root at which Confluence will be deployed
atlassian.idea.application.webapp.contextpath=confluence
```

WAR Settings

Again, these are not relevant for plugin projects and in fact should not be present. These should already be set for you in later versions of Confluence and JIRA, but it's good to check them.

```
maven.multiproject.type=war
maven.war.webxml=src/webapp/WEB-INF/web.xml
maven.war.webapp.dir=target/ exploded
```

Database Settings

If you are using an external database, set this up as documentation dictates. Confluence and JIRA build.properties files have some instructions for common database engines which should be fairly easy to adapt to your environment.

project.properties

This page last changed on Feb 14, 2006 by david@randombits.org.

This file contains properties relating to the project which do not change in a given development environment.

The `project.xml` file describes the project structure to Maven, which is used to build and deploy the plugin. It can also be used to create project files for IntelliJ IDEA and [Eclipse](#).

File Contents

1. `<extend>` - This determines most of the dependencies for your plugin and should be set to the oldest version of Confluence your plugin will support. There are often significant changes between different versions of Confluence, so it's probably best to stick with the most recent version initially. This value should match one of the 'confluence-x.x.xml' files in the project directory. Start with something like this:

```
<extend>confluence-2.1.3.xml</extend>
```

2. `<id>` - The name of the plugin. Since this will turn into file names, it's best to stick with alphanumerics and '-' for the name (eg. 'my-plugin' rather than 'My Most Excellent Plugin!').
3. `<name>` - This is your human-readable name for the plugin. 'My Most Excellent Plugin!' will work fine here.
4. `<currentVersion>` - The current version of the project. This will be updated each time you do a major release. You will also need to update the number in the `atlassian-plugin.xml` file at the same time (more on that later).

```
<id>my-plugin</id>
<name>My Most Excellent Plugin</name>
<currentVersion>1.0</currentVersion>
```

5. `<organization>` - Details about your organisation go here.

```
<organization>
  <name>My Organization</name>
  <url>http://www.myorganization.com/</url>
</organization>
```

6. `<package>` - The base package for your project. This is used when generating the JavaDocs for the project, so make it the lowest common package name. Eg, if you have classes in 'com.myorg.confluence' and 'com.myorg.utilities' in the plugin, then make this value 'com.myorg'.

```
<package>com.myorg.confluence.plugin</package>
```

7. `<description>` - Just a regular, human-readable description of the project.
8. `<dependencies>` - This is where you can specify extra dependencies specific to your plugin. Don't bother listing libraries which are already in the standard Confluence build - they're already taken care of by the `<extend>` tag above. If your extra library is not in one of the standard Maven repositories, you will have to do some extra work here to get it going, which will, for the moment, be left as an exercise for the reader.
Also, this example uses `<id>`, which is not Maven best-practice. The overall guide is being updated to Maven 2, and this will be addressed during that process. Stay tuned.

```
<dependencies>
```

```
<dependency>
  <id>extra-library</id>
  <version>1.2-dr3</version>
</dependency>
</dependencies>
```

9. <build> - There isn't too much in this section that you will need to change, other than the <nagEmailAddress>.

```
<build>
  <nagEmailAddress>me@myorg.com</nagEmailAddress>
  <!-- The rest of the settings stay the same... -->
</build>
```

Userinfo Plugin Tutorial

This page last changed on Jun 30, 2006 by [cmiller](#).

Introduction

This tutorial is being written during the course of the development of a Confluence plugin. It is a demonstration of a number of techniques and tips useful to plugin development, and also of how all the various types of Confluence plugin modules can be combined to add new features to the Confluence application.

The plugin being developed during the course of this tutorial is not just a toy or a random idea that was thought up to write a guide around, it's actually something that we intend to make use of on the Atlassian extranet, fulfilling a real requirement of our business.

I'm hoping to add new chapters to the tutorial each week until its development of the plugin is complete.

Requirements

In order to get the most out of this tutorial, you should have:

1. Confluence 2.2 (the plugin makes use of features that were not available in Confluence 2.1 or earlier)
2. A suitable [plugin development environment](#).

The Plugin

On the Atlassian extranet, which is obviously powered by Confluence, we keep a staff directory. This directory is really just a single Confluence page with a section for each staff member. Here's mine:

Charles Miller



Role:	Lead Confluence Developer
Email:	charles@atlassian.com 
Personal Space:	Home
Extension:	13
Mobile:	0414 366 511
Other:	
AIM:	  carlfishy
MSN Messenger:	cmiller@pastiche.org
Yahoo:	 carlfishie
ICQ:	 1939355
Skype:	

When we started the page, there were only about twenty people in the company. Now we've grown over fifty, it has started to become unwieldy, and with each new hire it gets a little harder to maintain. Thus, the aims of the userinfo plugin are:

- Allow users to maintain their own contact details
- Provide a way to display contact information in wiki pages

Once that's done, we could add more features like:

- A searchable / categorisable staff directory
- vCard export of contact information
- iCal export of staff birthdays

(How many of these we get done really depends on how much time I have to spare 😊)

Contents

- [UPT 1 - Getting Started](#)
- [UPT 2 - Getting the Data](#)
- [UPT 3 - Integrating with the Confluence UI](#)
- [UPT4 - Display the info in a macro](#)

Coming Soon:

- [UPT 3 - Integrating with the Confluence UI](#)
- UPT 4 \- The userinfo Macro
- More...

UPT 1 - Getting Started

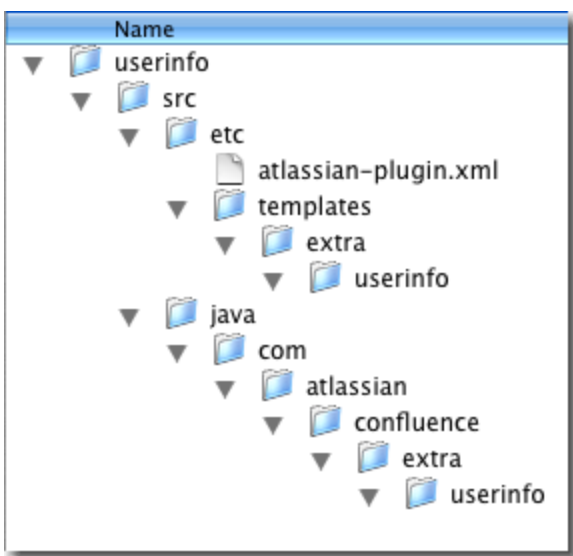
This page last changed on Jun 30, 2006 by [cmiller](#).

Set up the Plugin Source Directory

First things first, I'm going to need somewhere to put all my source code.

The [Confluence Plugin Development Kit](#) contains a template directory that you can rename to use for your own plugin. Having a standard directory structure is useful, because it allows you to use maven (or the ant tasks packaged in the `plugins` directory of your Confluence installation) to build your plugin jar. If you use a different directory structure, you'll have to build the plugin yourself.

You'll have to think of a name for your plugin. There are probably better names than `userinfo`, but I started this late on a Thursday afternoon. Also, you'll need a package name for your Java code. The Java standard for package names is to reverse your company's domain-name, which is exactly what I've done here:



I'm going to be doing all my development for this tutorial in the `plugins` directory of a copy of Confluence 2.2.5 that I downloaded from [the Atlassian website](#)

The Unreliable Narrator

In fact, I'll be doing all of my development in the same development environment I use to develop Confluence itself. I will then be copying it into the aforementioned `plugins` directory and taking screenshots, and pretending that's how I developed it in the first place.

In cooking shows, this would be called "...and here's one I prepared earlier."

Make an Empty `atlassian-plugin.xml` file.

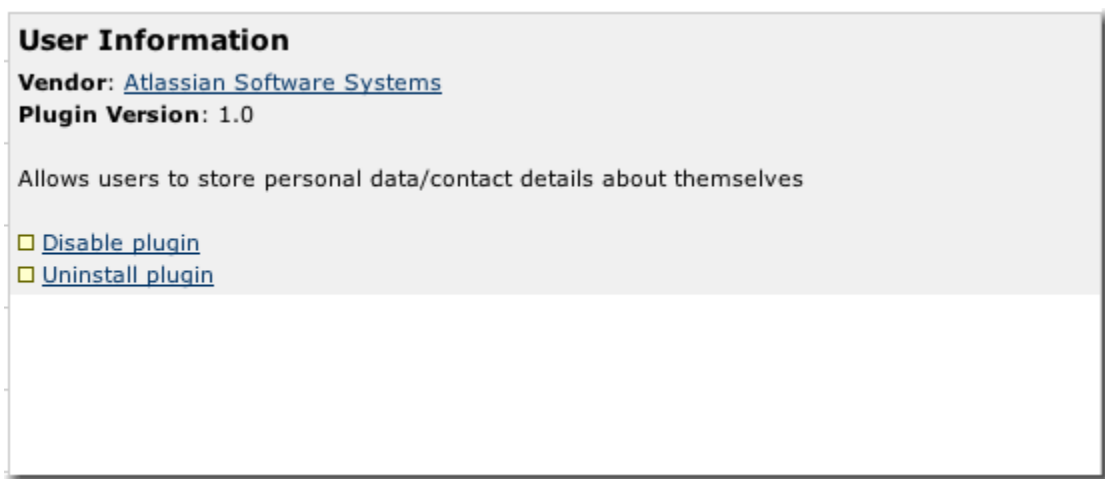
You'll need to choose a unique plugin key. I can use the `confluence.extra` prefix for my plugin keys because I work at Atlassian. You should make your plugin key the same as the Java package name you chose earlier. You should also fill in the plugin metadata.

```
<atlassian-plugin name='User Information' key='confluence.extra.userinfo'>
  <plugin-info>
    <description>Allows users to store personal data/contact details about
themselves</description>
    <vendor name="Atlassian Software Systems" url="http://www.atlassian.com"/>
    <version>1.0</version>
  </plugin-info>
</atlassian-plugin>
```

Once again, there's a template file in the Plugin Development Kit.

Compile and Upload

The plugin can now be built and installed into Confluence. I have no idea why you'd want to do it, but it's sort of necessary to come away from each step in a tutorial with some tangible evidence you've accomplished something. So here's what my new plugin looks like when I upload it into Confluence's plugin manager:



That's it. A plugin with no plugin modules. Next, we write some code!

Downloads

- The source for the empty plugin: [userinfo-src-1.tgz](#)
- The compiled empty plugin jar: [plugins-userinfo-1.jar](#)

UPT 2 - Getting the Data

This page last changed on Mar 05, 2007 by [jnolen](#).

Planning Ahead

The initial requirements for the userinfo plugin are that I need to:

1. Gather contact data from users, somehow.
2. Display it, somehow.

In this part of the tutorial, I'm going to cover the first step. But in order to do so, I need to decide how I'm going to gather this information.

The traditional wiki way to do this would be through "magic markup". We would define some special Confluence markup (in Confluence that would be a [macro](#)) that users could insert into a page to set their contact information, and have the macro save that somewhere for later retrieval. This approach makes the programmatic interface very simple (you're only ever writing macros), but it doesn't make life particularly easy for users who have to remember, or continually look up, some obscure wiki syntax.



Metadata Plugin

The [Metadata Plugin](#) is an excellent Confluence plugin that does just this. It allows arbitrary metadata to be added to any page through a macro, and then allows you to collate, tabulate and aggregate that data in some pretty cool ways. If we wanted to go the "magic markup" route, I could just stop the tutorial now and say "use the Metadata Plugin instead".

The Metadata Plugin was written by the [Pantero Corporation](#), and won an [honourable mention](#) in our first ever [plugin development competition](#).

Confluence has powerful plugin module types that allow you to modify not only the content of wiki pages, but the functionality of the Confluence application itself. It's those modules that we will be using to gather our users' contact information:

1. [XWork-WebWork Plugins](#) to provide the web form
2. [Web UI Plugins](#) to add links to the form into the Confluence UI

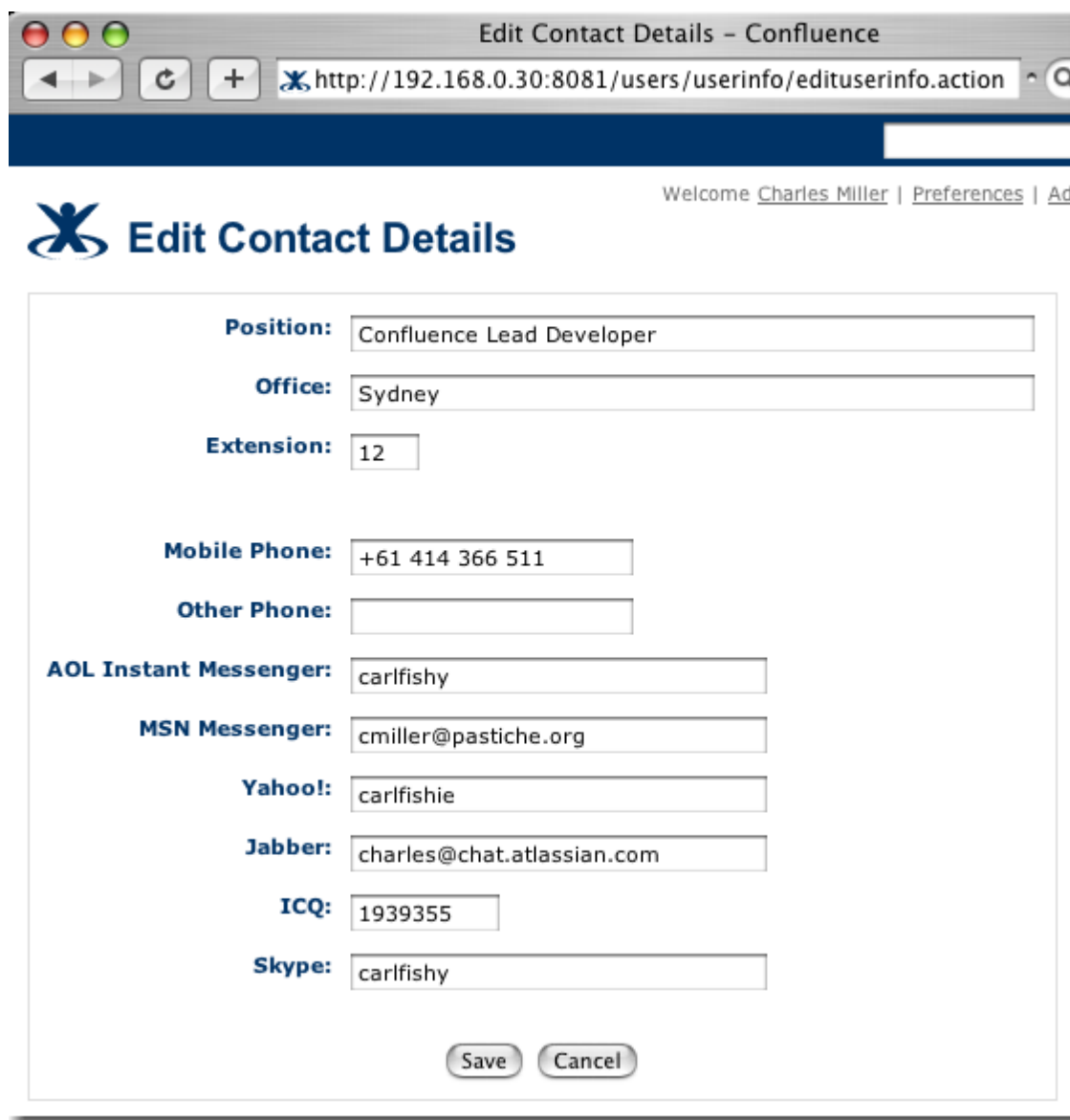
In this second part of the tutorial, we will concentrate on using an XWork plugin to display a form to the user, and store and retrieve the information they submit.

Writing the Code

- [UPT 2.1 - The UserInfo Bean](#)
- [UPT 2.2 - The XWork Action Class](#)
- [UPT 2.3 - The Velocity Template](#)
- [UPT 2.4 - Defining the XWork Plugin Module](#)

The End Result

Compiling and uploading the plugin I've written so far gives me the ability to set and edit my user information:



The screenshot shows a web browser window titled "Edit Contact Details - Confluence". The address bar displays the URL `http://192.168.0.30:8081/users/userinfo/edituserinfo.action`. The page header includes a welcome message "Welcome Charles Miller" and links for "Preferences" and "Ad". The main heading is "Edit Contact Details" with a Confluence logo. The form contains several input fields for contact information:

- Position:** Confluence Lead Developer
- Office:** Sydney
- Extension:** 12
- Mobile Phone:** +61 414 366 511
- Other Phone:** (empty field)
- AOL Instant Messenger:** carlfishy
- MSN Messenger:** cmiller@pastiche.org
- Yahoo!:** carlfishie
- Jabber:** charles@chat.atlassian.com
- ICQ:** 1939355
- Skype:** carlfishy

At the bottom of the form are "Save" and "Cancel" buttons.

It's a bit ugly, though:

- I have to navigate to the edit URL myself – `/users/userinfo/edituserinfo.action` – there's no link from the Confluence UI.
- The page doesn't look like it's integrated into Confluence very well. It doesn't fit in to the right navigational structure.

I'll fix those problems in the part three of the tutorial.

Downloads

1. The source code for this tutorial: [userinfo-src-2.tgz](#)
2. The compiled plugin jar for this tutorial: [plugins-userinfo-2.jar](#)

UPT 2.1 - The UserInfo Bean

This page last changed on Jun 30, 2006 by [cmiller](#).

The first thing I need is an object to store the user information in. I already know what information I need to store: I'm replicating the contents of our existing staff directory. In Ruby, I'd write something like this:

```
Unable to find source-code formatter for language: ruby. Available languages are:
actionscript, html, java, javascript, none, sql, xhtml, xml
```

```
class UserInfo
  attr_accessor :position, :office, :extension, :mobile_phone, :other_phone,
    :aim_id, :msn_id, :yahoo_id, :jabber_id, :icq_id, :skype_id;
end
```

However, Confluence plugins are written in Java. I've got to write this instead:

```
package com.atlassian.confluence.extra.userinfo;

import java.io.Serializable;

/**
 * Dumb serializable bean so we can fit all the user info in a single property
 */
public class UserInformation implements Serializable
{
    private String position;
    private String office;
    private String extension;

    private String mobilePhone;
    private String otherPhone;
    private String aimId;
    private String msnId;
    private String yahooId;
    private String jabberId;
    private String icqId;
    private String skypeId;

    public String getPosition()
    {
        return position;
    }

    public void setPosition(String position)
    {
        this.position = position;
    }

    public String getOffice()
    {
        return office;
    }

    public void setOffice(String office)
    {
        this.office = office;
    }

    public String getExtension()
    {
        return extension;
    }

    public void setExtension(String extension)
    {
        this.extension = extension;
    }
}
```

```
public String getMobilePhone()
{
    return mobilePhone;
}

public void setMobilePhone(String mobilePhone)
{
    this.mobilePhone = mobilePhone;
}

public String getOtherPhone()
{
    return otherPhone;
}

public void setOtherPhone(String otherPhone)
{
    this.otherPhone = otherPhone;
}

public String getAimId()
{
    return aimId;
}

public void setAimId(String aimId)
{
    this.aimId = aimId;
}

public String getMsnId()
{
    return msnId;
}

public void setMsnId(String msnId)
{
    this.msnId = msnId;
}

public String getYahooId()
{
    return yahooId;
}

public void setYahooId(String yahooId)
{
    this.yahooId = yahooId;
}

public String getJabberId()
{
    return jabberId;
}

public void setJabberId(String jabberId)
{
    this.jabberId = jabberId;
}

public String getIcqId()
{
    return icqId;
}

public void setIcqId(String icqId)
{
    this.icqId = icqId;
}

public String getSkypeId()
{
    return skypeId;
}

public void setSkypeId(String skypeId)
{

```

```
        this.skypeId = skypeId;  
    }  
}
```

Luckily, 90% of the typing above can be done for me by [any decent Java IDE](#).

The most important part of the code above is that the object is Serializable. This is what makes it possible to store and retrieve the object later.

UPT 2.2 - The XWork Action Class

This page last changed on Jun 30, 2006 by [cmiller](#).

The Skeleton XWork Action

Confluence uses [WebWork 2](#) as its web framework, which in turn uses a command framework called [XWork](#). XWork plugins allow you to add new commands to Confluence's web framework, which allows you to add pretty much anything to the Confluence web application. For the userinfo plugin, I'm going to add a form page into which users can input their contact details.

I need an action class. It needs to extend [ConfluenceActionSupport](#), a base class that contains the minimum functionality necessary for an action to play well with Confluence.

The Action will also need an instance of the UserInformation object that [I defined earlier](#). I will expose that property with a standard Java getter method, which will make it available when we write our form in the next step.

```
package com.atlassian.confluence.extra.userinfo;

import com.atlassian.confluence.core.ConfluenceActionSupport;

public class EditUserInfoAction extends ConfluenceActionSupport
{
    private UserInformation userInfo = new UserInformation();

    public UserInformation getUserInfo()
    {
        return userInfo;
    }
}
```

Introducing XStream and the ContentPropertyManager

[XStream](#) is a library for serializing Java objects to and from XML. The [ContentPropertyManager](#) is a Confluence component that allows you to associate arbitrary properties with any Confluence content object. Every Confluence user has a Content object associated with them, their [PersonalInformation](#).

The combination of these three things is how I am going to store a user's contact details, by adding the following to the EditUserInfoAction.

```
private static final Category log = Category.getInstance(EditUserInfoAction.class);
private static final String USERINFO_PROPERTY_KEY = "confluence.extra.userinfo";

private PersonalInformationManager personalInformationManager;
private ContentPropertyManager contentPropertyManager;
private XStream xStream;

private void setUserInformation(String username, UserInformation userInformation)
{
    contentPropertyManager.setTextProperty(personalInformationManager.getPersonalInformation(username),
        USERINFO_PROPERTY_KEY, xStream.toXML(userInformation));
}

private UserInformation getUserInformation(String username)
{
}
```

```

        String userInfoXml =
contentPropertyManager.getTextProperty(personalInformationManager.getPersonalInformation(username),
        USERINFO_PROPERTY_KEY);

        if (TextUtils.stringSet(userInfoXml))
        {
            try
            {
                return (UserInformation) xStream.fromXML(userInfoXml);
            }
            catch (Throwable t)
            {
                log.warn("Error unpacking user's personal information: " + username + ": " +
t.getMessage(), t);
            }
        }

        return new UserInformation();
    }

    public void setPersonalInformationManager(PersonalInformationManager
personalInformationManager)
    {
        this.personalInformationManager = personalInformationManager;
    }

    public void setContentPropertyManager(ContentPropertyManager contentPropertyManager)
    {
        this.contentPropertyManager = contentPropertyManager;
    }

    public void setXStream(XStream xStream)
    {
        this.xStream = xStream;
    }

```

In the above code, we are relying on the fact that Spring, Confluence's component manager, will [autowire](#) XWork actions (or any other plugin module). If you need a reference to any Confluence component (Like the xStream service, ContentPropertyManager or PersonalInformationManager), all you need to do is provide the appropriate setter method, and the component will be provided to the action before it is executed.

From there we can write the code to write and read our contact details from the appropriate content property.

XWork Action Methods

Our XWork action class is going to handle two situations.

1. The user is viewing the 'edit my contact information' form. The form should be pre-filled with their contact information
2. The user is submitting changes to the form.

By convention, these two cases are dealt with using the action's `doDefault` and `execute` methods, respectively. For the `doDefault` method, all I have to do is make sure that the `userInfo` property contains the user's up-to-date contact details. `getRemoteUser` is a method on `ConfluenceActionSupport` that returns the currently logged-in user.

```

public String doDefault() throws Exception
{
    userInfo = getUserInformation(getRemoteUser().getName());
}

```

```
        return super.doDefault();  
    }
```

For the execute method, I have to write the userInfo property back out. For now, let's assume that XWork is magic, and that by the time execute() is invoked, userInfo has been populated with the values submitted by the user.

```
public String execute() throws Exception  
{  
    setUserInformation(getRemoteUser().getName(), userInfo);  
    return super.execute();  
}
```

Validation

One thing I'm not doing here is validating the form input. This is mostly because the data I am collecting requires more effort to validate than it is worth. I don't really care too much if someone types an invalid email address, they can just go fix it themselves.

If you wanted to add validation to the action, you could do so by implementing a validate() method, as described in the [XWork custom validation documentation](#).

UPT 2.3 - The Velocity Template

This page last changed on Jul 06, 2006 by [cmiller](#).

Having written the [model](#) and the [controller](#), it's now time to work on the view. Confluence views are written in [Velocity](#).

Our velocity template needs to draw a form. It needs to populate that form with the `UserInfo` object we loaded during the `doDefault` method of the [EditUserInfoAction](#), and submit it back to the action for saving.

I put the velocity file in `src/etc/templates/extra/userinfo/edituserinfo.vm`.

```
<html>
  <head>
    <title>Edit Contact Details</title>
  </head>
  <body>
    <div class="thickPadded">
      <form name="edituserinfo.form" method="POST" action="doedituserinfo.action">
        <table class="greyBox" width="450" cellpadding="2" cellspacing="4">
          #tag( TextField "label='Position'" "name='userInfo.position'"
"size='50'" )
          #tag( TextField "label='Office'" "name='userInfo.office'" "size='50'" )
          #tag( TextField "label='Extension'" "name='userInfo.extension'"
"size='4'" )
          <tr><td colspan="2" >&nbsp;</td></tr>
          #tag( TextField "label='Mobile Phone'" "name='userInfo.mobilePhone'"
"size='20'" )
          #tag( TextField "label='Other Phone'" "name='userInfo.otherPhone'"
"size='20'" )
          #tag( TextField "label='AOL Instant Messenger'" "name='userInfo.aimId'"
"size='30'" )
          #tag( TextField "label='MSN Messenger'" "name='userInfo.msnId'"
"size='30'" )
          #tag( TextField "label='Yahoo!'" "name='userInfo.yahooId'" "size='30'" )
          #tag( TextField "label='Jabber'" "name='userInfo.jabberId'" "size='30'" )
          #tag( TextField "label='ICQ'" "name='userInfo.icqId'" "size='10'" )
          #tag( TextField "label='Skype'" "name='userInfo.skypeId'" "size='30'" )
        <tr>
          <td colspan="2" align="center">
            <br/>
            #tag( Submit "name='confirm'" "value='update.name'" "theme='notable'" )
            #tag( Submit "name='cancel'" "value='cancel.name'" "theme='notable'" )
          </td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

Here I'm taking advantage of [WebWork Velocity tags](#) to draw the form elements. The velocity tags take care of making the form elements part of the surrounding table, formatting them, filling them with their associated data, and if necessarily associating them with validation errors.

Note that we've called each form `userInfo.propertyName`. This means that when we submit the form, `XWork` will call `getUserInfo().setPropertyname(value)` for each property, thus populating our `UserInfo` bean before it is saved in the `execute()` method.

Note also that this HTML is lacking anything to define the Confluence look and feel. [SiteMesh](#) will take care of filling in the surrounding detail.

UPT 2.4 - Defining the XWork Plugin Module

This page last changed on Mar 05, 2007 by [jnolen](#).

Now I've written my action class, I'll need to define a plugin module that adds my class to Confluence's XWork configuration. This is done by adding this section to my `atlassian-plugin.xml` file.

```
<xwork name="userinfoactions" key="userinfoactions">
  <description>Actions for manipulating a user's personal information.</description>

  <package name="userinfo" extends="default" namespace="/users/userinfo">
    <default-interceptor-ref name="defaultStack" />

    <action name="edituserinfo"
class="com.atlassian.confluence.extra.userinfo.EditUserInfoAction" method="doDefault">
      <result name="input"
type="velocity">/templates/extra/userinfo/edituserinfo.vm</result>
    </action>

    <action name="doedituserinfo"
class="com.atlassian.confluence.extra.userinfo.EditUserInfoAction">
      <result name="input"
type="velocity">/templates/extra/userinfo/edituserinfo.vm</result>
      <result name="success"
type="velocity">/templates/extra/userinfo/edituserinfo.vm</result>
    </action>
  </package>
</xwork>
```

Some notes:

- You can read more about XWork plugin modules here: [XWork-WebWork Plugins](#)
- The `<package>` section is essentially passed verbatim to XWork as if it was an `xwork.xml` file, so the best place to look for more information is the [XWork documentation](#).
- I've define two actions: one for viewing the form, and the other for submitting it.
- Since I'm not doing any input validation, I'm using the `defaultStack` interceptor chain.

UPT 3 - Integrating with the Confluence UI

This page last changed on Aug 03, 2006 by [cmiller](#).

Making it Look Good

I've written my form for entering my contact information, but it doesn't exactly look like a part of the Confluence UI yet. There's no link to it from the regular navigation, and it's not decorated with all of the the Confluence look and feel.

Writing the Code

- [UPT 3.1 - Linking Using Web UI Plugins](#)
- [UPT 3.2 - Using Inline Decorators](#)

The End Result

The input page for my details is now decorated to look like a part of the user's profile editing screen, and is linked from just where you'd expect to find it:

Downloads

1. The source code for this tutorial: [[^userinfo-src-3.tgz](#)]
2. The compiled plugin jar for this tutorial: [[^plugins-userinfo-3.jar](#)]

UPT 3.1 - Linking Using Web UI Plugins

This page last changed on Aug 03, 2006 by [cmiller](#).

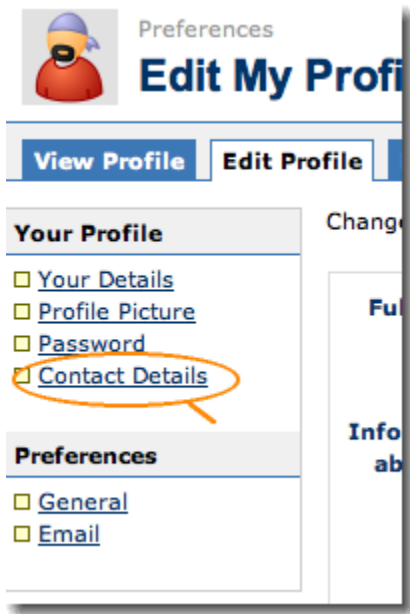
[Web UI Plugins](#) allow plugin authors to insert links to their custom actions or servlets directly into the Confluence UI, at predetermined locations. The implementation is pretty simple: for the most part you don't need any custom code to implement them, you just need to add their definitions to `atlassian-plugin.xml`.

For my userinfo plugin, I am going to create a link to my custom action in the user's profile, just where they would edit any of their other account details:

```
<web-item key="edituserinfo" name="Edit Profile" section="system.profile.edit/yourprofile"
weight="20">
  <label key="Contact Details" />
  <link>/users/userinfo/edituserinfo.action</link>
</web-item>
```

Some notes:

- The section attribute determines where in the Confluence UI the item will be inserted. The best way to find out which section is correct is to look at Confluence's default web items in `WEB-INF/classes/plugins` (they're defined in the `-sections.xml` and `-tabs.xml` files)
- You can also define icons for your link, but since this section doesn't use icons, we don't bother.



Now the link points to where we want it to, but when you follow the link, you're blown out of the theme's tab layout. This is what we fix by [adding a decorator to the form template](#).

UPT 3.2 - Using Inline Decorators

This page last changed on Aug 03, 2006 by [cmiller](#).

This is the part of the tutorial with the most voodoo, at least so far. It involves changing the `edituserinfo.vm` file so that it will invoke the correct decorator, which in turn will make the plugin look like it is an integrated part of the Confluence UI. While following the instructions in this page will give you a general idea of what I'm accomplishing, some of the decisions I make, like which decorator to call and which action class to extend, are only applicable to this particular plugin.

The best way to find out what's right for your plugin, if you're not familiar enough with the Confluence codebase to find out for yourself, is to ask on the [developer mailing list](#). This tutorial should at least give you a good idea what questions you need to ask.

Inline Decorators

Confluence makes heavy use of the [Sitemesh](#) library to lay out pages. Sitemesh works by decorating content. The main decorator, `main.vmd` is applied to each page automatically. You can see this by looking at the [results of part 2 of the tutorial](#). Despite the fact that `edituserinfo.vm` does not contain any of the code for the search bar, top bar or profile links, they're included on the resulting page.

The decorators that are used to build the tab panels and other themeable parts of the Confluence page are invoked manually as inline decorators. In order to make the plugin a part of the profile tab infrastructure, I modify the `vm` file like this (The full velocity file is [attached]^`edituserinfo.vm`], this is just the important bit we're adding):

```
#applyDecorator("root")
  #decoratorParam("context" "profile")
  #decoratorParam("mode" "edit-profile")
  #decoratorParam("helper" $action.helper)
  #decoratorParam("infopanel-width" "200px")

  <!-- the stuff we want decorated -->
#end
```

- You will always be applying the "root" decorator. The root decorator is a dispatcher which chooses the correct theme decorator to apply, based on the context and mode arguments supplied.
- The profile context and edit-profile mode tell the root decorator that we are displaying the profile tabs, and that we currently have the edit tab selected.
- The helper must always be passed as a parameter.
- The `infopanel-width` should also be passed, it doesn't really do anything useful but some pages still need it.

Modifying the Action

Each inline decorator makes certain assumptions about the action class that it is a result of. For example, when drawing the HTML for the profile context, the decorator assumes the existence of a `getUser()` method on the action. The easiest way to ensure that I have all the right methods for the decorator is to find the abstract class that all of the stock Confluence actions that use that decorator extends. In the case of the profile, this is `com.atlassian.confluence.user.actions.AbstractUserProfileAction`. By modifying my `EditUserInfoAction` so that it extends `AbstractUserProfileAction`, the decorator will

be able to render successfully.

```
public class EditUserInfoAction extends AbstractUserProfileAction
{
    // ...
}
```

UPT4 - Display the info in a macro

This page last changed on Jan 17, 2007 by [jnolen](#).

- Plugin Module definition
- Macro class
- Template

Remote API Specification

This page last changed on Apr 19, 2007 by [jnolen](#).

- [Introduction](#)
- [XML-RPC](#)
- [SOAP](#)
- [Remote Methods](#)
- [Data Objects](#)
- [Notes](#)
- [Scripts Examples](#)
- [Changelog](#)

Introduction

Confluence provides remote APIs as both XML-RPC and SOAP. This document refers to the XML-RPC specification, see [SOAP details below](#). XML-RPC and SOAP are both remote choices, as they have bindings for almost every language making them very portable.

Which should I use?

- SOAP is generally more useful from a strongly typed language (like Java or C#) but these require more setup.
- XML-RPC is easier to use from a scripting language (like Perl, Python, AppleScript etc) and hence is often quicker to use.



Looking for the JIRA remote APIs? They are [here](#).

XML-RPC Information

Some borrowed from the [VPWik specification](#)):

- The URL for XML-RPC requests is <http://confluence-install/rpc/xmlrpc>.
- All XML-RPC methods must be prefixed by `confluence1.` - to indicate this is version 1 of the API. We might introduce another version in the future. For example to call the `getPage` method, the method name is `confluence1.getPage`.
- All keys in structs are case sensitive.
- All strings are passed as UTF-8, and not ASCII per the XML-RPC [update on 6/30/2003](#)
- Confluence uses 64 bit long values for things like object IDs, but XML-RPC's largest supported numeric type is `int32`. As such, all IDs and other long values must be converted to Strings when passed through XML-RPC API.
- Anywhere you see the word Vector, you can interchange it with "Array" or "List" depending on what language you prefer. This is the array data type as defined in the XML-RPC spec.
- Anywhere you see the word Hashtable, you can interchange it with "Struct" or "Dictionary" or "Map" depending on what language you prefer. This is the struct data type as defined in the XML-RPC spec.
- The default session lifetime is 30 minutes, but that can be controlled by the deployer from the `applicationContext.xml` file.

SOAP Information

The SOAP API follows the same methods as below, except with typed objects (as SOAP allows for).

To find out more about the SOAP API, simply point your SOAP 'stub generator' at the WSDL file, located at <http://<confluence-install>/rpc/soap-axis/confluenceservice-v1?wsdl> .

For reference, the confluence.atlassian.com WSDL file is [here](#).

Remote Methods

Authentication Methods

- `String login(String username, String password)` - login a user. Returns a `String` authentication token to be passed as authentication to all other remote calls. It's not bulletproof auth, but it will do for now. Must be called before any other method in a 'remote conversation'. From 1.3 onwards, you can supply an empty string as the token to be treated as being the anonymous user.
- `boolean logout(String token)` - remove this token from the list of logged in tokens. Returns true if the user was logged out, false if they were not logged in in the first place (we don't really need this return, but void seems to kill XML-RPC for me)

Administration

- `String exportSite(String token, boolean exportAttachments)` - exports a Confluence instance and returns a `String` holding the URL for the download. The boolean argument indicates whether or not attachments ought to be included in the export.
- `ClusterInformation getClusterInformation(String token)` - returns information about the cluster this node is part of.
- `Vector getClusterNodeStatuses(String token)` - returns a `Vector` of `NodeStatus` objects containing information about each node in the cluster.

General

- [ServerInfo](#) `getServerInfo(String token)` - retrieve some basic information about the server being connected to. Useful for clients that need to turn certain features on or off depending on the version of the server. (Since 1.0.3)

Spaces

Retrieval

- `Vector getSpaces(String token)` - returns all the [SpaceSummaries](#) that the current user can see.
- [Space](#) `getSpace(String token, String spaceKey)` - returns a single Space.
- `String exportSpace(String token, String spaceKey, String exportType)` - exports a space and returns

a String holding the URL for the download. The export type argument indicates whether or not to export in XML, PDF, or HTML format - use "TYPE_XML", "TYPE_PDF", or "TYPE_HTML" respectively. Also, using "all" will select TYPE_XML.

Management

- [Space](#) addSpace(String token, [Space](#) space) - create a new space, passing in name, key and description.
- Boolean removeSpace(String token, String spaceKey) - remove a space completely.
- [Space](#) addPersonalSpace(String token, [Space](#) personalSpace, String userName) - add a new space as a personal space.
- boolean convertToPersonalSpace(String token, String userName, String spaceKey, String newSpaceName, boolean updateLinks) - convert an existing space to a personal space.

Pages

Retrieval

- Vector getPages(String token, String spaceKey) - returns all the [PageSummaries](#) in the space. Doesn't include pages which are in the Trash. Equivalent to calling Space.getCurrentPages().
- [Page](#) getPage(String token, String pageId) - returns a single [Page](#)
- [Page](#) getPage(String token, String spaceKey, String pageTitle) - returns a single [Page](#)
- Vector getPageHistory(String token, String pageId) - returns all the [PageHistorySummaries](#) - useful for looking up the previous versions of a page, and who changed them.
- Vector getPagePermissions(String token, String pageId) - returns the page level permissions for this page (since 1.4)

Dependencies

- Vector getAttachments(String token, String pageId) - returns all the [Attachments](#) for this page (useful to point users to download them with the full file download URL returned).
- Vector getAncestors(String token, String pageId) - returns all the ancestors (as [PageSummaries](#)) of this page (parent, parent's parent etc).
- Vector getChildren(String token, String pageId) - returns all the direct children (as [PageSummaries](#)) of this page.
- Vector getDescendents(String token, String pageId) - returns all the descendents (as [PageSummaries](#)) of this page (children, children's children etc).
- Vector getComments(String token, String pageId) - returns all the comments for this page.
- [Comment](#) getComment(String token, String commentId) - returns an individual comment.
- [Comment](#) addComment(String token, [Comment](#) comment) - adds a comment to the page.
- boolean removeComment(String token, String commentId) - removes a comment from the page.

Management

- [Page](#) storePage(String token, [Page](#) page) - add or update a page. For adding, the Page given as an argument should have space, title and content fields at a minimum. For updating, the Page given should have id, space, title, content and version fields at a minimum. The parentId field is always optional. All other fields will be ignored.
- String renderContent(String token, String spaceKey, String pageId, String content) - returns the

HTML rendered content for this page. If 'content' is provided, then that is rendered as if it were the body of the page (useful for a 'preview page' function). If it's not provided, then the existing content of the page is used instead (ie useful for 'view page' function).

- `String renderContent(String token, String spaceKey, String pageId, String content, Hashtable parameters)` - Like the above `renderContent()`, but you can supply an optional hash (map, dictionary, etc) containing additional instructions for the renderer. Currently, only one such parameter is supported:
 - "style = clean" Setting the "style" parameter to "clean" will cause the page to be rendered as just a single block of HTML within a div, without the HTML preamble and stylesheet that would otherwise be added.
- `void removePage(String token, String pageId)` - remove a page

Attachments - new in version 2.0

Retrieval

- [Attachment](#) `getAttachment(String token, String pageId, String fileName, String versionNumber)` - get information about an attachment.
- `byte[] getAttachmentData(String token, String pageId, String fileName, String versionNumber)` - get the contents of an attachment.

Management

- [Attachment](#) `addAttachment(String token, long contentId, Attachment attachment, byte[] attachmentData)` - add a new attachment to a content entity object. Note that this uses a lot of memory - about 4 times the size of the attachment. The 'long contentId' is actually a String pageId for XML-RPC.
- `boolean removeAttachment(String token, String contentId, String fileName)` - remove an attachment from a content entity object.
- `boolean moveAttachment(String token, String originalContentId, String originalName, String newContentEntityId, String newName)` - move an attachment to a different content entity object and/or give it a new name.

Blog Entries

- `Vector getBlogEntries(String token, String spaceKey)` - returns all the [BlogEntrySummaries](#) in the space.
- [BlogEntry](#) `getBlogEntry(String token, String pageId)` - returns a single [BlogEntry](#).
- [BlogEntry](#) `storeBlogEntry(String token, BlogEntry entry)` - add or update a blog entry. For adding, the [BlogEntry](#) given as an argument should have space, title and content fields at a minimum. For updating, the [BlogEntry](#) given should have id, space, title, content and version fields at a minimum. All other fields will be ignored.
- [BlogEntry](#) `getBlogEntryByDayAndTitle(String token, String spaceKey, int dayOfMonth, String postTitle)` - Retrieves a blog post in the Space with the given spaceKey, with the title 'postTitle' and posted on the day 'dayOfMonth'.

Search

- `Vector search(String token, String query, int maxResults)` - return a list of [SearchResults](#) which

match a given search query (including pages and other content types). This is the same as a performing a parameterised search (see below) with an empty parameter map.

- `Vector search(String token, String query, Map parameters, int maxResults)` - (since 1.3) like the previous search, but you can optionally limit your search by adding parameters to the parameter map. If you do not include a parameter, the default is used instead.

Parameters for Limiting Search Results

key	description	values	default
spaceKey	search a single space	(any valid space key)	Search all spaces
type	Limit types of search results to return	all page blogpost mail comment attachment spacedescription personalinformation	All except mail
lastModified	Search recently modified content	today yesterday lastweek lastmonth	No limit

Security

- `Vector getPermissions(String token, String spaceKey)` - Returns a Vector of Strings representing the permissions the current user has for this space (a list of "view", "modify", "comment" and / or "admin").
- `Vector getPermissionsForUser(String token, String spaceKey, String userName)` - Returns a Vector of Strings representing the permissions the given user has for this space. (since 2.1.4)
- `Vector getPagePermissions(String token, String pageId)` - Returns a Vector of [Permissions](#) representing the permissions set on the given page.
- `Vector getSpaceLevelPermissions(String token)` - returns all of the space level permissions which may be granted. This is a list of possible permissions to use with `addPermissionToSpace`, below, not a list of current permissions on a Space.
- `boolean addPermissionToSpace(String token, String permission, String remoteEntityName, String spaceKey)` - Give the entity named `remoteEntityName` (either a group or a user) the permission `permission` on the space with the key `spaceKey`.
- `boolean addPermissionsToSpace(String token, Vector permissions, String remoteEntityName, String spaceKey)` - Give the entity named `remoteEntityName` (either a group or a user) the permissions `permissions` on the space with the key `spaceKey`.
- `boolean removePermissionFromSpace(String token, String permission, String remoteEntityName, String spaceKey)` - Remove the permission `permission` from the entity named `remoteEntityName` (either a group or a user) on the space with the key `spaceKey`.
- `boolean addAnonymousPermissionToSpace(String token, String permission, String spaceKey)` - Give anonymous users the permission `permission` on the space with the key `spaceKey`. (since 2.0)
- `boolean addAnonymousPermissionsToSpace(String token, Vector permissions, String spaceKey)` - Give anonymous users the permissions `permissions` on the space with the key `spaceKey`. (since 2.0)
- `boolean removeAnonymousPermissionFromSpace(String token, String permission, String spaceKey)`

- Remove the permission permission} from anonymous users on the space with the key {{spaceKey}. (since 2.0)
- boolean removeAllPermissionsForGroup(String token, String groupname) - Remove all the global and space level permissions for groupname.

User Management

- [User](#) getUser(String token, String username) - get a single user
- void addUser(String token, [User](#) user, String password) - add a new user with the given password
- void addGroup(String token, String group) - add a new group
- Vector getUserGroups(String token, String username) - get a user's current groups
- void addUserToGroup(String token, String username, String groupname) - add a user to a particular group
- boolean removeUserFromGroup(String token, String username, String groupname) - remove a user from a group.
- boolean removeUser(String token, String username) - delete a user.
- boolean removeGroup(String token, String groupname, String defaultGroupName) - remove a group. If defaultGroupName is specified, users belonging to groupname will be added to defaultGroupName.
- Vector getGroups(String token) - gets all groups
- boolean hasUser(String token, String username) - checks if a user exists
- boolean hasGroup(String token, String groupname) - checks if a group exists
- boolean editUser(String token, [RemoteUser](#) remoteUser) - edits the details of a user
- boolean deactivateUser(String token, String username) - deactivates the specified user
- boolean reactivateUser(String token, String username) - reactivates the specified user
- Vector getActiveUsers(String token, boolean viewAll) - returns all registered users
- boolean setUserInformation(String token, [UserInformation](#) userInfo) - updates user information
- [UserInformation](#) getUserInformation(String token, String username) - Retrieves user information
- boolean changeMyPassword(String token, String oldPass, String newPass) - changes the current user's password
- boolean changeUserPassword(String token, String username, String newPass) - changes the specified user's password
- boolean addProfilePicture(String token, String userName, String fileName, String mimeType, byte[] pictureData) - add and set the profile picture for a user.

Labels

- Vector getLabelsById(String token, long objectId) - Returns all [Labels](#) for the given ContentEntityObject ID
- Vector getMostPopularLabels(String token, int maxCount) - Returns the most popular [Labels](#) for the Confluence instance, with a specified maximum number.
- Vector getMostPopularLabelsInSpace(String token, String spaceKey, int maxCount) - Returns the most popular [Labels](#) for the given spaceKey, with a specified maximum number of results.
- Vector getRecentlyUsedLabels(String token, int maxResults) - Returns the recently used [Labels](#) for the Confluence instance, with a specified maximum number of results.
- Vector getRecentlyUsedLabelsInSpace(String token, String spaceKey, int maxResults) - Returns the recently used [Labels](#) for the given spaceKey, with a specified maximum number of results.
- Vector getSpacesWithLabel(String token, String labelName) - Returns an array of [Spaces](#) that have been labelled with labelName.
- Vector getRelatedLabels(String token, String labelName, int maxResults) - Returns the [Labels](#) related to the given label name, with a specified maximum number of results.
- Vector getRelatedLabelsInSpace(String token, String labelName, String spaceKey, int maxResults) -

Returns the [Labels](#) related to the given label name for the given spaceKey, with a specified maximum number of results.

- Vector getLabelsByDetail(String token, String labelName, String namespace, String spaceKey, String owner) - Retrieves the [Labels](#) matching the given labelName, namespace, spaceKey or owner.
- Vector getLabelContentById(String token, long labelId) - Returns the content for a given label ID
- Vector getLabelContentByName(String token, String labelName) - Returns the content for a given label name.
- Vector getLabelContentByObject(String token, [Label](#) labelObject) - Returns the content for a given [Label](#) object.
- Vector getSpacesContainingContentWithLabel(String token, String labelName) - Returns all [Spaces](#) that have content labelled with labelName.
- boolean addLabelByName(String token, String labelName, long objectId) - Adds label(s) to the object with the given ContentEntityObject ID. For multiple labels, labelName should be in the form of a space-separated or comma-separated string.
- boolean addLabelById(String token, long labelId, long objectId) - Adds a label with the given ID to the object with the given ContentEntityObject ID.
- boolean addLabelByObject(String token, [Label](#) labelObject, long objectId) - Adds the given label object to the object with the given ContentEntityObject ID.
- boolean addLabelByNameToSpace(String token, String labelName, String spaceKey) - Adds a label to the object with the given ContentEntityObject ID.
- boolean removeLabelByName(String token, String labelName, long objectId) - Removes the given label from the object with the given ContentEntityObject ID.
- boolean removeLabelById(String token, long labelId, long objectId) - Removes the label with the given ID from the object with the given ContentEntityObject ID.
- boolean removeLabelByObject(String token, [Label](#) labelObject, long objectId) - Removes the given label object from the object with the given ContentEntityObject ID.
- boolean removeLabelByNameFromSpace(String token, String labelName, String spaceKey) - Removes the given label from the given spaceKey.

Data Objects

Most returned structs have a summary and a detailed form:

- The summary form is a primary key (ie space key, page id) and a representative form (ie space name, page title)
- The detailed form will have all of the entity details as might be needed for the client.

Unless otherwise specified, all returned structs are in detailed form.

ServerInfo

Key	Type	Value
majorVersion	int	the major version number of the Confluence instance
minorVersion	int	the minor version number of the Confluence instance
patchLevel	int	the patch-level of the Confluence instance

buildId	String	the build ID of the Confluence instance (usually a number)
developmentBuild	Boolean	Whether the build is a developer-only release or not
baseUrl	String	The base URL for the confluence instance

Note: Version 1.0.3 of Confluence would be major-version: 1, minor-version: 0, patch-level: 3. Version 2.0 would have a patch-level of 0, even if it's not visible in the version number.

SpaceSummary

Key	Type	Value
key	String	the space key
name	String	the name of the space
type	String	type of the space
url	String	the url to view this space online

Space

Key	Type	Value
key	String	the space key
name	String	the name of the space
url	String	the url to view this space online
homepage	String	the id of the space homepage
description	String	the HTML rendered space description

PageSummary

Key	Type	Value
id	String	the id of the page
space	String	the key of the space that this page belongs to
parentId	String	the id of the parent page
title	String	the title of the page
url	String	the url to view this page online
locks	int	the number of locks current on this page

Page

Key	Type	Value
id	String	the id of the page
space	String	the key of the space that this page belongs to
parentId	String	the id of the parent page
title	String	the title of the page
url	String	the url to view this page online
version	int	the version number of this page
content	String	the page content
created	Date	timestamp page was created
creator	String	username of the creator
modified	Date	timestamp page was modified
modifier	String	username of the page's last modifier
homePage	Boolean	whether or not this page is the space's homepage
locks	int	the number of locks current on this page
contentStatus	String	status of the page (eg. current or deleted)
current	Boolean	whether the page is current and not deleted

PageHistorySummary

Key	Type	Value
id	String	the id of the historical page
version	int	the version of this historical page
modifier	String	the user who made this change
modified	Date	timestamp change was made

BlogEntrySummary

Key	Type	Value
id	String	the id of the blog entry
space	String	the key of the space that this blog entry belongs to
title	String	the title of the blog entry
url	String	the url to view this blog entry

		online
locks	int	the number of locks current on this page
publishDate	Date	the date the blog post was published

BlogEntry

Key	Type	Value
id	String	the id of the blog entry
space	String	the key of the space that this blog entry belongs to
title	String	the title of the page
url	String	the url to view this blog entry online
version	int	the version number of this blog entry
content	String	the blog entry content
locks	int	the number of locks current on this page

RSS Feed

Key	Type	Value
url	String	the URL of the RSS feed
title	String	the feed's title

Search Result

Key	Type	Value
title	String	the feed's title
url	String	the remote URL needed to view this search result online
excerpt	String	a short excerpt of this result if it makes sense
type	String	the type of this result - page, comment, spacedesc, attachment, userinfo, blogpost
id	String	the long ID of this result (if the type has one)

Attachment

Key	Type	Value
id	String	numeric id of the attachment
pageId	String	page ID of the attachment
title	String	title of the attachment
fileName	String	file name of the attachment (Required)
fileSize	String	numeric file size of the attachment in bytes
contentType	String	mime content type of the attachment (Required)
created	Date	creation date of the attachment
creator	String	creator of the attachment
url	String	url to download the attachment online
comment	String	comment for the attachment (Required)

Comment

Key	Type	Value
id	String	numeric id of the comment
pageId	String	page ID of the comment
title	String	title of the comment
content	String	notated content of the comment (use renderContent to render)
url	String	url to view the comment online
created	Date	creation date of the attachment
creator	String	creator of the attachment

User

Key	Type	Value
name	String	the username of this user
fullname	String	the full name of this user
email	String	the email address of this user
url	String	the url to view this user online

Permission

Key	Type	Value
lockType	String	The type of permission. One of 'View' or 'Edit'
lockedBy	String	The user or group name of the permission's owner

Label

Key	Type	Value
name	String	the name of the label
owner	String	the username of the owner
namespace	String	the namespace of the label
id	String	the ID of the label

UserInfo

Key	Type	Value
username	String	the username of this user
content	String	the user description
creatorName	String	the creator of the user
lastModifierName	String	the url to view this user online
version	int	the version
id	String	the ID of the user
creationDate	Date	the date the user was created
lastModificationDate	Date	the date the user was last modified

ClusterInfo

Key	Type	Value
isRunning	boolean	true if this node is part of a cluster.
name	String	the name of the cluster.
memberCount	int	the number of nodes in the cluster, including this node (this will be zero if this node is not clustered.)
description	String	a description of the cluster.
multicastAddress	String	the address that this cluster uses for multicaster communication.

multicastPort	String	the port that this cluster uses for multicast communication.

NodeStatus

Key	Type	Value
nodeId	int	an integer uniquely identifying the node within the cluster.
jvmStats	Map	a Map containing attributes about the JVM memory usage of node. Keys are "total.memory", "free.memory", "used.memory".
props	Map	a Map containing attributes of the node. Keys are "system.date", "system.time", "system.favourite.colour", "java.version", "java.vendor", "jvm.version", "jvm.vendor", "jvm.implementation.version", "java.runtime", "java.vm", "user.name.word", "user.timezone", "operating.system", "os.architecture", "fs.encoding".
buildStats	Map	a Map containing attributes of the build of Confluence running on the node. Keys are "confluence.home", "system.uptime", "system.version", "build.number".

Script Examples

The [Confluence Extension space](#) contains various examples of [scripts](#)

Changelog

2.3

- Added getClusterInformation and getClusterNodeStatuses.

2.2

- Added `addPersonalSpace`, `convertToPersonalSpace` and `addProfilePicture`.

2.1.4

- Added `getPermissionsForUser`.

2.0

- Updated `getLocks()` to `getPagePermissions()`
- Added `addAttachment`, `getAttachment`, `getAttachmentData`, `removeAttachment` and `moveAttachment` methods to allow remote attachment handling. Note that adding large attachments with this API uses a lot of memory during the `addAttachment` operation.
- Added `addAnonymousPermissionToSpace`, `addAnonymousPermissionsToSpace` and `removeAnonymousPermissionFromSpace`.
- Added the `addComment` and `removeComment` methods for comment manipulation.
- Added `hasGroup` and `hasUser` methods to determine if a group or user exists.
- Added `editUser` method.
- Added ability to deactivate and reactivate users.
- Added `getActiveUsers` method to retrieve a user list.
- Added ability to change the user password.
- Added ability to retrieve and modify user information.
- Added ability to retrieve, add and remove labels.
- Added `getBlogEntryByDayAndTitle`

1.4

- Added new `exportSpace` and `exportSite` methods to build exports of an individual space or an entire Confluence instance and return with a URL leading to the download.
- Added new `getChildren` and `getDescendents` methods to get the direct children and all descendents of a given page.
- Added new `getAncestors` method to get the ancestors of a given page.
- Removed the old `getLocks` as locks are superceded by page level permissions.
- Added new `getPagePermissions` method to retrieve page level permissions.
- Added new `removeUser`, `removeGroup`, `removeAllPermissionsForGroup`, `addUserToGroup` and `removeUserFromGroup` methods.
- Added new `addPermissionToSpace` method.
- Added new `Permission` data object.
- Added new `getSpaceLevelPermissions` method.

1.3

- Added new `getPage` method which retrieves a page by space key and page title.
- Added new `removeSpace` method to remove an entire space.
- Added ability to limit search by parameters.
- Allow anonymous access.

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- renderContent takes an optional hashtable for rendering hints, the only one supported right now is "style=clean"

1.1

- getLocks gives you back a list of any locks that apply to a given page
- added a locks field to the various Page structs containing a count of any applicable page-level locks
- CRUD methods added for blog-posts

1.0.3

- getServerInfo gives you some basic information about the server version [CONF1123](#)
- storePage now allows you to change the page's name (incoming links are all renamed) [CONF-974](#)
- storePage now reliably allows you to re-parent pages
- WSDL now respects the server's configured base URL, allowing it to work on proxy-hosted servers [CONF-1088](#)

Remote API Specification 2.4

This page last changed on Apr 19, 2007 by [jnolen](#).

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- [XML-RPC](#)
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- [Remote Methods](#)
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Introduction

Confluence provides remote APIs as both XML-RPC and SOAP. This document refers to the XML-RPC specification, see [SOAP details below](#). XML-RPC and SOAP are both remote choices, as they have bindings for almost every language making them very portable.

Which should I use?

- SOAP is generally more useful from a strongly typed language (like Java or C#) but these require more setup.
- XML-RPC is easier to use from a scripting language (like Perl, Python, AppleScript etc) and hence is often quicker to use.



Looking for the JIRA remote APIs? They are [here](#).

XML-RPC



Read Me First!

XML-RPC notes: (some borrowed from the [VPWik specification](#))

- The URL for XML-RPC requests is <http://confluence-install/rpc/xmlrpc>.
- All XML-RPC methods must be prefixed by `confluence1.` - to indicate this is version 1 of the API. We might introduce another version in the future. For example to call the `getPage` method, the method name is `confluence1.getPage`.
- All keys in structs are case sensitive.
- All strings are passed as UTF-8, and not ASCII per the XML-RPC [update on 6/30/2003](#)
- Confluence uses 64 bit long values for things like object IDs, but XML-RPC's largest supported numeric type is `int32`. As such, all IDs and other long values must be converted to Strings when passed through XML-RPC API.
- Anywhere you see the word Vector, you can interchange it with "Array" or "List" depending on what language you prefer. This is the array data type as defined in the XML-RPC spec.
- Anywhere you see the word Hashtable, you can interchange it with "Struct" or "Dictionary" or "Map" depending on what language you prefer. This is the struct data type as defined in the XML-RPC spec.
- The default session lifetime is 30 minutes, but that can be controlled by the deployer from

the applicationContext.xml file.

SOAP

The SOAP API follows the same methods as below, except with typed objects (as SOAP allows for).

To find out more about the SOAP API, simply point your SOAP 'stub generator' at the WSDL file, located at <http://<confluence-install>/rpc/soap-axis/confluenceservice-v1?wsdl> .

For reference, the confluence.atlassian.com WSDL file is [here](#).

Changelog

2.4

Following methods were added:

- storeSpace
- importSpace
- getSpacesInGroup
- addSpaceGroup
- getSpaceGroups
- removeSpaceGroup

Added new SpaceGroup data object.

2.3

- Added getClusterInformation and getClusterNodeStatuses.

2.2

- Added addPersonalSpace, convertToPersonalSpace and addProfilePicture.

2.1.4

- Added getPermissionsForUser.

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- Added new removeUser, removeGroup, removeAllPermissionsForGroup, addUserToGroup and removeUserFromGroup methods.
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- Added new Permission data object.
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- `storePage` now reliably allows you to re-parent pages
- WSDL now respects the server's configured base URL, allowing it to work on proxy-hosted servers [CONF-1088](#)

Remote Methods

Authentication Methods

- `String login(String username, String password)` - login a user. Returns a `String` authentication token to be passed as authentication to all other remote calls. It's not bulletproof auth, but it will do for now. Must be called before any other method in a 'remote conversation'. From 1.3 onwards, you can supply an empty string as the token to be treated as being the anonymous user.
- `boolean logout(String token)` - remove this token from the list of logged in tokens. Returns true if the user was logged out, false if they were not logged in in the first place (we don't really need this return, but void seems to kill XML-RPC for me)

Administration

- `String exportSite(String token, boolean exportAttachments)` - exports a Confluence instance and returns a `String` holding the URL for the download. The boolean argument indicates whether or not attachments ought to be included in the export.
- `ClusterInformation getClusterInformation(String token)` - returns information about the cluster this node is part of.
- `Vector getClusterNodeStatuses(String token)` - returns a `Vector` of `NodeStatus` objects containing information about each node in the cluster.

General

- [ServerInfo](#) `getServerInfo(String token)` - retrieve some basic information about the server being connected to. Useful for clients that need to turn certain features on or off depending on the version of the server. (Since 1.0.3)

Spaces

Retrieval

- `Vector getSpaces(String token)` - returns all the [SpaceSummaries](#) that the current user can see.
- `Vector getSpacesInGroup(String token, String spaceGroupKey)` - returns all the [SpaceSummaries](#) from a given group that the current user can see.
- [Space](#) `getSpace(String token, String spaceKey)` - returns a single `Space`.
- `boolean storeSpace(String token, Hashtable Space)` - Allows for modifying space details. Currently

you can update the name, homepage and spaceGroup properties of a space. Note that changing the space key and other properties will have no effect.

Management

- [Space](#) addSpace(String token, [Space](#) space) - create a new space, passing in name, key and description.
- Boolean removeSpace(String token, String spaceKey) - remove a space completely.
- [Space](#) addPersonalSpace(String token, [Space](#) personalSpace, String userName) - add a new space as a personal space.
- boolean convertToPersonalSpace(String token, String userName, String spaceKey, String newSpaceName, boolean updateLinks) - convert an existing space to a personal space.
- String exportSpace(String token, String spaceKey, String exportType) - exports a space and returns a String holding the URL for the download. The export type argument indicates whether or not to export in XML, PDF, or HTML format - use "TYPE_XML", "TYPE_PDF", or "TYPE_HTML" respectively. Also, using "all" will select TYPE_XML.
- boolean importSpace(String token, byte[] importData) - import a space in a compressed XML format.

SpaceGroups

Retrieval

- [SpaceGroup](#) addSpaceGroup(String token, [SpaceGroup](#) spaceGroup) - create a new space group passing in a [SpaceGroup](#) data object
- Vector getSpaceGroups(String token) - returns all the [SpaceGroups](#) in Confluence. ⚠ Requires Confluence Administrator permission.
- boolean removeSpaceGroup(String token, String spaceGroupKey) - removes the [SpaceGroup](#) with the given key from the system. The contained spaces will not be deleted. ⚠ Requires Confluence Administrator permission.

Management

Pages

Retrieval

- Vector getPages(String token, String spaceKey) - returns all the [PageSummaries](#) in the space. Doesn't include pages which are in the Trash. Equivalent to calling Space.getCurrentPages().
- [Page](#) getPage(String token, String pageId) - returns a single [Page](#)
- [Page](#) getPage(String token, String spaceKey, String pageTitle) - returns a single [Page](#)
- Vector getPageHistory(String token, String pageId) - returns all the [PageHistorySummaries](#) - useful for looking up the previous versions of a page, and who changed them.
- Vector getPagePermissions(String token, String pageId) - returns the page level permissions for this page (since 1.4)

Dependencies

- Vector getAttachments(String token, String pageId) - returns all the [Attachments](#) for this page (useful to point users to download them with the full file download URL returned).
- Vector getAncestors(String token, String pageId) - returns all the ancestors (as [PageSummaries](#)) of this page (parent, parent's parent etc).
- Vector getChildren(String token, String pageId) - returns all the direct children (as [PageSummaries](#)) of this page.
- Vector getDescendents(String token, String pageId) - returns all the descendents (as [PageSummaries](#)) of this page (children, children's children etc).
- Vector getComments(String token, String pageId) - returns all the comments for this page.
- [Comment](#) getComment(String token, String commentId) - returns an individual comment.
- [Comment](#) addComment(String token, [Comment](#) comment) - adds a comment to the page.
- boolean removeComment(String token, String commentId) - removes a comment from the page.

Management

- [Page](#) storePage(String token, [Page](#) page) - add or update a page. For adding, the Page given as an argument should have space, title and content fields at a minimum. For updating, the Page given should have id, space, title, content and version fields at a minimum. The parentId field is always optional. All other fields will be ignored.
- String renderContent(String token, String spaceKey, String pageId, String content) - returns the HTML rendered content for this page. If 'content' is provided, then that is rendered as if it were the body of the page (useful for a 'preview page' function). If it's not provided, then the existing content of the page is used instead (ie useful for 'view page' function).
- String renderContent(String token, String spaceKey, String pageId, String content, Hashtable parameters) - Like the above renderContent(), but you can supply an optional hash (map, dictionary, etc) containing additional instructions for the renderer. Currently, only one such parameter is supported:
 - "style = clean" Setting the "style" parameter to "clean" will cause the page to be rendered as just a single block of HTML within a div, without the HTML preamble and stylesheet that would otherwise be added.
- void removePage(String token, String pageId) - remove a page

Attachments - new in version 2.0

Retrieval

- [Attachment](#) getAttachment(String token, String pageId, String fileName, String versionNumber) - get information about an attachment.
- byte[] getAttachmentData(String token, String pageId, String fileName, String versionNumber) - get the contents of an attachment.

Management

- [Attachment](#) addAttachment(String token, long contentId, [Attachment](#) attachment, byte[] attachmentData) - add a new attachment to a content entity object. Note that this uses a lot of memory - about 4 times the size of the attachment. The 'long contentId' is actually a String pageId for XML-RPC.
- boolean removeAttachment(String token, String contentId, String fileName) - remove an attachment from a content entity object.
- boolean moveAttachment(String token, String originalContentId, String originalName, String newContentEntityId, String newName) - move an attachment to a different content entity object

and/or give it a new name.

Blog Entries

- Vector `getBlogEntries(String token, String spaceKey)` - returns all the [BlogEntrySummaries](#) in the space.
- [BlogEntry](#) `getBlogEntry(String token, String pageId)` - returns a single [BlogEntry](#).
- [BlogEntry](#) `storeBlogEntry(String token, BlogEntry entry)` - add or update a blog entry. For adding, the [BlogEntry](#) given as an argument should have space, title and content fields at a minimum. For updating, the [BlogEntry](#) given should have id, space, title, content and version fields at a minimum. All other fields will be ignored.
- [BlogEntry](#) `getBlogEntryByDayAndTitle(String token, String spaceKey, int dayOfMonth, String postTitle)` - Retrieves a blog post in the Space with the given spaceKey, with the title 'postTitle' and posted on the day 'dayOfMonth'.

Search

- Vector `search(String token, String query, int maxResults)` - return a list of [SearchResults](#) which match a given search query (including pages and other content types). This is the same as a performing a parameterised search (see below) with an empty parameter map.
- Vector `search(String token, String query, Map parameters, int maxResults)` - (since 1.3) like the previous search, but you can optionally limit your search by adding parameters to the parameter map. If you do not include a parameter, the default is used instead.

Parameters for Limiting Search Results

key	description	values	default
spaceKey	search a single space	(any valid space key)	Search all spaces
type	Limit types of search results to return	all page blogpost mail comment attachment spacedescription personalinformation	All except mail
lastModified	Search recently modified content	today yesterday lastweek lastmonth	No limit

Security

- Vector `getPermissions(String token, String spaceKey)` - Returns a Vector of Strings representing the permissions the current user has for this space (a list of "view", "modify", "comment" and / or "admin").
- Vector `getPermissionsForUser(String token, String spaceKey, String userName)` - Returns a Vector of Strings representing the permissions the given user has for this space. (since 2.1.4)

- Vector getPagePermissions(String token, String pageId) - Returns a Vector of [Permissions](#) representing the permissions set on the given page.
- Vector getSpaceLevelPermissions(String token) - returns all of the space level permissions which may be granted. This is a list of possible permissions to use with addPermissionToSpace, below, not a list of current permissions on a Space.
- boolean addPermissionToSpace(String token, String permission, String remoteEntityName, String spaceKey) - Give the entity named remoteEntityName (either a group or a user) the permission permission on the space with the key spaceKey.
- boolean addPermissionsToSpace(String token, Vector permissions, String remoteEntityName, String spaceKey) - Give the entity named remoteEntityName (either a group or a user) the permissions permissions on the space with the key spaceKey.
- boolean removePermissionFromSpace(String token, String permission, String remoteEntityName, String spaceKey) - Remove the permission permission} from the entity named {{remoteEntityName (either a group or a user) on the space with the key spaceKey.
- boolean addAnonymousPermissionToSpace(String token, String permission, String spaceKey) - Give anonymous users the permission permission on the space with the key spaceKey. (since 2.0)
- boolean addAnonymousPermissionsToSpace(String token, Vector permissions, String spaceKey) - Give anonymous users the permissions permissions on the space with the key spaceKey. (since 2.0)
- boolean removeAnonymousPermissionFromSpace(String token, String permission, String spaceKey) - Remove the permission permission} from anonymous users on the space with the key {{spaceKey. (since 2.0)
- boolean removeAllPermissionsForGroup(String token, String groupname) - Remove all the global and space level permissions for groupname.

User Management

- [User](#) getUser(String token, String username) - get a single user
- void addUser(String token, [User](#) user, String password) - add a new user with the given password
- void addGroup(String token, String group) - add a new group
- Vector getUserGroups(String token, String username) - get a user's current groups
- void addUserToGroup(String token, String username, String groupname) - add a user to a particular group
- boolean removeUserFromGroup(String token, String username, String groupname) - remove a user from a group.
- boolean removeUser(String token, String username) - delete a user.
- boolean removeGroup(String token, String groupname, String defaultGroupName) - remove a group. If defaultGroupName is specified, users belonging to groupname will be added to defaultGroupName.
- Vector getGroups(String token) - gets all groups
- boolean hasUser(String token, String username) - checks if a user exists
- boolean hasGroup(String token, String groupname) - checks if a group exists
- boolean editUser(String token, [RemoteUser](#) remoteUser) - edits the details of a user
- boolean deactivateUser(String token, String username) - deactivates the specified user
- boolean reactivateUser(String token, String username) - reactivates the specified user
- Vector getActiveUsers(String token, boolean viewAll) - returns all registered users
- boolean setUserInfo(String token, [UserInfo](#) userInfo) - updates user information
- [UserInfo](#) getUserInformation(String token, String username) - Retrieves user information
- boolean changeMyPassword(String token, String oldPass, String newPass) - changes the current user's password
- boolean changeUserPassword(String token, String username, String newPass) - changes the specified user's password

- `boolean addProfilePicture(String token, String userName, String fileName, String mimeType, byte[] pictureData)` - add and set the profile picture for a user.

Labels

- `Vector getLabelsById(String token, long objectId)` - Returns all [Labels](#) for the given `ContentEntityObject` ID
- `Vector getMostPopularLabels(String token, int maxCount)` - Returns the most popular [Labels](#) for the Confluence instance, with a specified maximum number.
- `Vector getMostPopularLabelsInSpace(String token, String spaceKey, int maxCount)` - Returns the most popular [Labels](#) for the given `spaceKey`, with a specified maximum number of results.
- `Vector getRecentlyUsedLabels(String token, int maxResults)` - Returns the recently used [Labels](#) for the Confluence instance, with a specified maximum number of results.
- `Vector getRecentlyUsedLabelsInSpace(String token, String spaceKey, int maxResults)` - Returns the recently used [Labels](#) for the given `spaceKey`, with a specified maximum number of results.
- `Vector getSpacesWithLabel(String token, String labelName)` - Returns an array of [Spaces](#) that have been labelled with `labelName`.
- `Vector getRelatedLabels(String token, String labelName, int maxResults)` - Returns the [Labels](#) related to the given label name, with a specified maximum number of results.
- `Vector getRelatedLabelsInSpace(String token, String labelName, String spaceKey, int maxResults)` - Returns the [Labels](#) related to the given label name for the given `spaceKey`, with a specified maximum number of results.
- `Vector getLabelsByDetail(String token, String labelName, String namespace, String spaceKey, String owner)` - Retrieves the [Labels](#) matching the given `labelName`, `namespace`, `spaceKey` or `owner`.
- `Vector getLabelContentById(String token, long labelId)` - Returns the content for a given label ID
- `Vector getLabelContentByName(String token, String labelName)` - Returns the content for a given label name.
- `Vector getLabelContentByObject(String token, Label labelObject)` - Returns the content for a given [Label](#) object.
- `Vector getSpacesContainingContentWithLabel(String token, String labelName)` - Returns all [Spaces](#) that have content labelled with `labelName`.
- `boolean addLabelByName(String token, String labelName, long objectId)` - Adds a label to the object with the given `ContentEntityObject` ID.
- `boolean addLabelById(String token, long labelId, long objectId)` - Adds a label with the given ID to the object with the given `ContentEntityObject` ID.
- `boolean addLabelByObject(String token, Label labelObject, long objectId)` - Adds the given label object to the object with the given `ContentEntityObject` ID.
- `boolean addLabelByNameToSpace(String token, String labelName, String spaceKey)` - Adds a label to the object with the given `ContentEntityObject` ID.
- `boolean removeLabelByName(String token, String labelName, long objectId)` - Removes the given label from the object with the given `ContentEntityObject` ID.
- `boolean removeLabelById(String token, long labelId, long objectId)` - Removes the label with the given ID from the object with the given `ContentEntityObject` ID.
- `boolean removeLabelByObject(String token, Label labelObject, long objectId)` - Removes the given label object from the object with the given `ContentEntityObject` ID.
- `boolean removeLabelByNameFromSpace(String token, String labelName, String spaceKey)` - Removes the given label from the given `spaceKey`.

Data Objects

Most returned structs have a summary and a detailed form:

- The summary form is a primary key (ie space key, page id) and a representative form (ie space name, page title)
- The detailed form will have all of the entity details as might be needed for the client.

Unless otherwise specified, all returned structs are in detailed form.

ServerInfo

Key	Type	Value
majorVersion	int	the major version number of the Confluence instance
minorVersion	int	the minor version number of the Confluence instance
patchLevel	int	the patch-level of the Confluence instance
buildId	String	the build ID of the Confluence instance (usually a number)
developmentBuild	Boolean	Whether the build is a developer-only release or not
baseUrl	String	The base URL for the confluence instance

Note: Version 1.0.3 of Confluence would be major-version: 1, minor-version: 0, patch-level: 3. Version 2.0 would have a patch-level of 0, even if it's not visible in the version number.

SpaceSummary

Key	Type	Value
key	String	the space key
name	String	the name of the space
type	String	type of the space
url	String	the url to view this space online

Space

Key	Type	Value
key	String	the space key
name	String	the name of the space
url	String	the url to view this space online
homepage	String	the id of the space homepage
description	String	the HTML rendered space description

SpaceGroup

Key	Type	Value
key	String	the space-group key
name	String	the name of the space-group
licenseKey	String	license stored against the space group

PageSummary

Key	Type	Value
id	String	the id of the page
space	String	the key of the space that this page belongs to
parentId	String	the id of the parent page
title	String	the title of the page
url	String	the url to view this page online
locks	int	the number of locks current on this page

Page

Key	Type	Value
id	String	the id of the page
space	String	the key of the space that this page belongs to
parentId	String	the id of the parent page
title	String	the title of the page
url	String	the url to view this page online
version	int	the version number of this page
content	String	the page content
created	Date	timestamp page was created
creator	String	username of the creator
modified	Date	timestamp page was modified
modifier	String	username of the page's last modifier
homePage	Boolean	whether or not this page is the space's homepage
locks	int	the number of locks current on

		this page
contentStatus	String	status of the page (eg. current or deleted)
current	Boolean	whether the page is current and not deleted

PageHistorySummary

Key	Type	Value
id	String	the id of the historical page
version	int	the version of this historical page
modifier	String	the user who made this change
modified	Date	timestamp change was made

BlogEntrySummary

Key	Type	Value
id	String	the id of the blog entry
space	String	the key of the space that this blog entry belongs to
title	String	the title of the blog entry
url	String	the url to view this blog entry online
locks	int	the number of locks current on this page
publishDate	Date	the date the blog post was published

BlogEntry

Key	Type	Value
id	String	the id of the blog entry
space	String	the key of the space that this blog entry belongs to
title	String	the title of the page
url	String	the url to view this blog entry online
version	int	the version number of this blog entry
content	String	the blog entry content
locks	int	the number of locks current on

		this page

RSS Feed

Key	Type	Value
url	String	the URL of the RSS feed
title	String	the feed's title

Search Result

Key	Type	Value
title	String	the feed's title
url	String	the remote URL needed to view this search result online
excerpt	String	a short excerpt of this result if it makes sense
type	String	the type of this result - page, comment, spacedesc, attachment, userinfo, blogpost
id	String	the long ID of this result (if the type has one)

Attachment

Key	Type	Value
id	String	numeric id of the attachment
pageId	String	page ID of the attachment
title	String	title of the attachment
fileName	String	file name of the attachment (Required)
fileSize	String	numeric file size of the attachment in bytes
contentType	String	mime content type of the attachment (Required)
created	Date	creation date of the attachment
creator	String	creator of the attachment
url	String	url to download the attachment online
comment	String	comment for the attachment (Required)

Comment

Key	Type	Value
id	String	numeric id of the comment
pageId	String	page ID of the comment
title	String	title of the comment
content	String	notated content of the comment (use renderContent to render)
url	String	url to view the comment online
created	Date	creation date of the attachment
creator	String	creator of the attachment

User

Key	Type	Value
name	String	the username of this user
fullname	String	the full name of this user
email	String	the email address of this user
url	String	the url to view this user online

Permission

Key	Type	Value
lockType	String	The type of permission. One of 'View' or 'Edit'
lockedBy	String	The user or group name of the permission's owner

Label

Key	Type	Value
name	String	the name of the label
owner	String	the username of the owner
namespace	String	the namespace of the label
id	String	the ID of the label

UserInfoation

Key	Type	Value

username	String	the username of this user
content	String	the user description
creatorName	String	the creator of the user
lastModifierName	String	the url to view this user online
version	int	the version
id	String	the ID of the user
creationDate	Date	the date the user was created
lastModificationDate	Date	the date the user was last modified

ClusterInformation

Key	Type	Value
isRunning	boolean	true if this node is part of a cluster.
name	String	the name of the cluster.
memberCount	int	the number of nodes in the cluster, including this node (this will be zero if this node is not clustered.)
description	String	a description of the cluster.
multicastAddress	String	the address that this cluster uses for multicaster communication.
multicastPort	String	the port that this cluster uses for multicast communication.

NodeStatus

Key	Type	Value
nodeId	int	an integer uniquely identifying the node within the cluster.
jvmStats	Map	a Map containing attributes about the JVM memory usage of node. Keys are "total.memory", "free.memory", "used.memory".
props	Map	a Map containing attributes of the node. Keys are "system.date", "system.time", "system.favourite.colour", "java.version", "java.vendor", "jvm.version", "jvm.vendor", "jvm.implementation.version", "java.runtime", "java.vm",

		"user.name.word", "user.timezone", "operating.system", "os.architecture", "fs.encoding".
buildStats	Map	a Map containing attributes of the build of Confluence running on the node. Keys are "confluence.home", "system.uptime", "system.version", "build.number".

Scripts examples

The [Confluence Extension space](#) contains various examples of [scripts](#)

Alternative Backup Strategy for Large Confluence Sites

This page last changed on Apr 11, 2007 by rosie@atlassian.com.

If these apply to you:

- encountering problems creating a site backup from the Administration > Backup and Restore page
- automatic daily backups do not work anymore
- last working backup size without attachments is large (say over 500Mb)

You may want to consider an alternative backup strategy. As you may have already discovered, the built in backup functionality in Confluence requires a lot of memory to run. In some cases, [increasing the total memory allocated your Confluence](#) instance will still not help.

In these circumstances we recommend that you:

- Create a backup or dump of your database using tools provided by your database
- Create a backup of your Confluence home directory

We want to stress that creating these two backups is just as good as having a Confluence backup. You will be able to restore your whole site, including all data, attachments and configuration information intact with these two backups. We have written up a document on how to do this [here](#).

Confluence Documentation Home

This page last changed on Apr 15, 2007 by [smader](#).

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Administrators Guide

This page last changed on Apr 23, 2007 by david.soul@atlassian.com.

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Configuring Confluence Data and Backups System Administration Importing Data Mail Configuration Security User Management Design and Layout Integrating Confluence and JIRA Plugin Management Performance Tuning Character Encoding Support	 You can download the Confluence Admin Guide in PDF, HTML or XML formats.
	Site Administrator?
Additional Resources	The Confluence Administrators Guide provides information to site administrators on how to manage their Confluence instances.
Visit the Configuration Guide for documentation on configuring databases and application servers. The User Guide has information on how to use Confluence as a collaborative tool. Go to Documentation Home for links to more resources.	If you still have a question that hasn't been answered, write and tell us about it .
	 Hosted users should check the feature comparision as some documents only apply to the installed version.

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This page last changed on Mar 26, 2007 by david.soul@atlassian.com.

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This page last changed on Feb 02, 2006 by [vidya](#).

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Cache Statistics

This page last changed on Oct 30, 2006 by ivan@atlassian.com.

Confluence provides statistical information about its internal caches that allows you to track the size and hit ratio of each cache and tune it if necessary, for better performance. See [Performance Tuning](#) for more information.

To view the cache statistics, go to the 'Administration Console' and click on 'Cache Statistics' in the left panel. Here, you will find a list of all object cached within Confluence. For example, one of the main one is the ContentEntityObject

com.atlassian.confluence.core.ContentEntityObject (Alive): flush

ACCESSES

Size	Total	Hits	Not Found	Expired	Ratio
5000	24827480	11332536	13494944	0	45%

About the generated numbers :

Size:	the max number of items in the cache (can be configured in ehcache.xml)
Accesses, Total:	the number of reads from the cache
Accesses, Hits:	the number of reads accessing cache and required content existed
Accesses, Not Found:	the number of reads accessing cache and required content was not-found
Accesses, Expired:	the number of items which were evicted from the cache, due to age or replacement by new entries (timeout or expired)
Ratio:	the percentage of reads which were hits

For instance to calculate Ratio :

```
Hits/Total x 100 = Ratio
11332536/24827480 = 0.45645131 x 100 = 45%
```

and to calculate Total :

```
Total = Hits + Not Found + Expired
24827480 = 11332536 + 13494944 + 0
```

flush - clears cache



The upcoming new release of cluster-able [Confluence 2.3](#) will be using distributed cache called [Tangosol Coherence](#).

Performance Tuning

If you require to tune your application when under high usage, you may like to review [this document](#) for suggestions.

RELATED TOPICS

[Cache Statistics](#)

[Viewing License Details](#)

[Viewing System Information](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Changing time of Daily Backup

This page last changed on Feb 02, 2006 by [vidya](#).

By default, Confluence runs its daily backup at 2.00 AM. You can configure Confluence to perform the backup at a time that is best suited to you or your organisational needs.

Confluence uses [Quartz](#) for scheduling periodic jobs. To change the time of your daily backup, you will need to edit the Quartz configuration.

To change the time of your daily backup

1. Open the Quartz configuration file `schedulingSubsystemContext.xml` located under `confluence/WEB-INF/classes/`
2. Find the following section of the file:

```
<bean id="backupTrigger" class="org.springframework.scheduling.quartz.CronTriggerBean">
  <property name="jobDetail">
    <ref bean="backupJob"/>
  </property>
  <property name="cronExpression">
    <value>0 0 2 * * ?</value>
  </property>
</bean>
```

3. The string `'0 0 2 * * ?'` sets up a [Cron Trigger](#) for the job to run at the zeroth second of the zeroth minute of the 2nd hour, every day of every month, every day of the week.
4. You can set a new time by editing this string. Note that the date and time format in this configuration file is in this order:
Second minute hour day

 For example, to set the new time to twenty past ten PM, change the string to `'0 20 22 * * ?'`. If you wanted to back up only once a week, for example, at midnight on Sundays, you would change the string to `'0 0 0 ? * SUN'`.

For complete details on the formatting of the cron string, please see <http://www.opensymphony.com/quartz/api/org/quartz/CronTrigger.html>.

RELATED TOPICS

[Backup FAQ](#)
[Changing time of Daily Backup](#)
[Configuring Daily Backups](#)
[Manually Backing Up The Site](#)
[Site Backup and Restore](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Confluence Data Directory Configuration

This page last changed on May 22, 2006 by david.soul@atlassian.com.

Here is a link listing [important Confluence files](#).

The home directory defines the location of the directory where Confluence will store its data, including attachments, indexes and backups. Administrators can set this location by defining a value for the file `<MY-INSTALL>/confluence/WEB-INF/classes/confluence-init.properties`. To find what your home directory is currently set to, open this file and check the `confluence.home` property. It is unset on new installations.

Windows Configuration

On Windows, the path

```
C:\confluence\data
```

will be written as:

```
confluence.home=C:/confluence/data
```

Note that all backslashes (\) are written as forward slashes (/).

UNIX/Linux/Mac Configuration

On any UNIX-based system, the property is defined using the normal directory syntax:

```
confluence.home=/var/confluence/
```

Symbolic links

If your `confluence.home` directory contains a symbolic link, you must define the absolute path.



Please note that there can be no symbolic links within the `confluence.home` directory. If disk space is an issue, place the entire `confluence.home` directory on a disk partition where there is enough space.

The absolute path of generated files (such as exports) is compared with the absolute path of the `confluence.home` directory when constructing URLs. When a sub-directory has a different path, the URL will be incorrect, and you may receive "Page not found" errors. These measures are in place to prevent "directory traversal" attacks.

Fixing the Confluence Configuration

The Confluence configuration file: `confluence-cfg.xml` inside the home directory may contain references to the original location of your Confluence home. You will need to edit this file to update these references to also point to the new location. The two properties in this file that need to change are:

- `daily.backup.dir` if you have not configured your backups to be placed elsewhere already
- `hibernate.connection.url` if you are using the embedded HSQL database.

Content Index Administration

This page last changed on Aug 30, 2006 by [mryall](#).

The Content Index powers Confluence's search functionality and is also used for a number of related functions such as building email threads in the mail archive. While the index is maintained automatically, you may need to rebuild it manually under these circumstances:

- If you find that your searching and mail threading are malfunctioning.
- After an upgrade (if a reindex is required after an upgrade, it will be noted in upgrade section of the [release notes](#)).

To manually rebuild the content index,

1. Go to the 'Administration Console' and click on 'Content Indexing' under the heading 'Administration' in the left panel.
 -  For reasons of efficiency, content is not immediately added to the index. New and modified Confluence content is first placed in a queue, and the queue is processed once every minute.
2. Click 'Rebuild Index'.

Slow reindexing?

Indexing can take a long time to complete, depending on the number of pages, number, type and size of attachments and the amount of memory allocated to Confluence.

It may help to increase the heap memory allocation of Confluence by following [these instructions](#).

If you are running an older version of Confluence and find that the index rebuild is not progressing, you may need to shut down Confluence, and restart it with the following Java system property set: `bucket.indexing.threads.fixed=1`. This will cause the re-indexing to happen in a single thread and be much more stable (but slower).

RELATED TOPICS

[8.1 Locating Important Directories and Files](#)

[Configuring Indexing Language](#)

[Content Index Administration](#)

[Macro Parameters Index](#)

[Working with Macros](#)

!Administration Guide Attachments directory^adminhome.gif!  [Confluence Documentation Home](#)

Important Directories and Files

This page last changed on Aug 31, 2006 by david.soul@atlassian.com.

Application Directory

This is the directory into which the downloaded Confluence application has been unpacked. Confluence does not modify or store any data in this directory.

Important Files and Directories

- `confluence/WEB-INF/classes/confluence-init.properties` : This file tells Confluence where to find the Confluence Home Directory. This file is modified by the administrator when [installing Confluence](#).
- `confluence/WEB-INF/classes/osuser.xml` : This file is modified when connecting Confluence to an external user management system such as an LDAP server or JIRA instance in Confluence 2.0 and earlier.
- `confluence/WEB-INF/lib/` : This directory is used when deploying plugins, especially those plugins that cannot automatically be loaded through the Administration Console.
- `confluence/WEB-INF/classes/log4j.properties` : Confluence's logging configuration file.
- `confluence/WEB-INF/classes/ehcache.xml` : This is where you can configure the size of Confluence's internal caches
- `confluence/WEB-INF/classes/styles/site-css.vm` : Confluence's main stylesheet, modify at your own risk
- `conf/server.xml` : SSL configuration.

The Temp Directory

The temp directory is configured in the Java runtime and some Confluence components write temporary files or lockfiles into this directory.

Typically, this directory is `/tmp` on Unix systems, or `C:\Temp` on Windows.

To change the location of this directory, you should start the Java Virtual Machine in which confluence is running with the argument:

```
-Djava.io.tmpdir=/path/to/your/own/temp/directory.
```

The Confluence Home Directory

This is the directory in which Confluence stores its configuration information, search indexes, custom decorators and page attachments. Also, if you're using the embedded HSQL database, the database is also stored in this directory. Administrators can expect the Confluence Home Directory to grow quite large in a busy site.

The location of this directory is configured by the Confluence administrator during installation (see

confluence-init.properties above).

Important Files and Directories

- `confluence.cfg.xml` : Confluence's core configuration file; includes the configuration for connecting to its database.
- `default-formatting.properties` : Some auxiliary configuration data concerning default number and date formats.
- `attachments/` : All file attachments in the Confluence site are stored under this directory. This is the only place Confluence keeps attachment files.
- `backups/` : If Confluence is configured to produce daily backups, these are kept in this directory. Administrators should occasionally delete old or unwanted backups from this directory to prevent it from growing too large.
- `config/` : Miscellaneous global and per-space configuration files are kept in this directory.
- `database/` : If Confluence is being run from the embedded HSQL database, the database files will be kept in this directory.
- `index/` : The full-text search index is kept in this directory. Removing or modifying files in this directory may cause search to no longer function. Rebuilding the search index from Confluence's global administration screen will completely regenerate the contents of this directory.
- `plugins/` : Dynamically uploaded plugins are stored in this directory. Administrators can install new plugins by copying them into this directory and triggering a scan from the plugin management page.
- `temp/` : Confluence stores temporary files in this directory, especially during backups and exports. A daily job within Confluence deletes files that are no longer needed.
- `thumbnails/` : Stores temporary files for image thumbnails. The contents of this directory can be safely deleted, as Confluence will regenerate thumbnails as required.
- `velocity/` : Storage for customised page layouts, globally and per-space.

Database

All other data - page contents, links, archived mail and so on is kept in the database. If you have configured Confluence to use the embedded HSQL database, the database will store its files under `database/` in the Confluence Home Directory. Otherwise, the database management system you are connecting to is responsible for where and how your remaining data is being stored.



Tip

All of Confluence's persistent data is stored either in the Confluence Home Directory, or the database. If you have backup copies of both of these, taken at the same time, you will be able to restore Confluence from them (see [Restoring Data from other Backups](#)).

RELATED TOPICS



[Administrators Guide Home](#) !Administration Guide Attachments directory^dochome.gif!

Manually Backing Up The Site

This page last changed on Feb 02, 2006 by [vidya](#).

Confluence is configured to make a daily backup of your data and store it as a zipped XML file in the 'backups' folder under the Confluence Home Directory. A site administrator can also manually backup the data from the Administration Console.

To manually backup your site,

1. Go to the 'Administration Console' and click on 'Backup and Restore' in the left panel.
2. Select 'Archive to Backups Folder' to store a copy of the backup in the same folder as Confluence's [daily backups](#) (if you do not archive the backup it will be made available for you to download, and then deleted from the server after 24 hours).
3. Select 'Backup Attachments' to include attachments in your backup.
4. Click 'Backup'.
 -  Please note that this process will take a few minutes.
5. Once the backup is completed, you will be prompted to download the zipped backup file.

RELATED TOPICS

[Backup FAQ](#)

[Changing time of Daily Backup](#)

[Configuring Daily Backups](#)

[Manually Backing Up The Site](#)

[Site Backup and Restore](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Configuring Daily Backups

This page last changed on Jan 07, 2007 by ivan@atlassian.com.

Confluence backs up your data on a daily basis into a zipped XML file. By default, the backup is performed at 2.00 am and the backup files are stored in the backups folder under the Confluence Home Directory.

The default naming convention for the backup files is 'daily-backup-yyyy_MM_dd'. Confluence can write backups to both local and mapped network drives.

From the Administration Console, you can:

- Enable or disable backups
- Include or exclude attachments in back ups
- Configure a different path to store backup files
- Change the naming format used for the files.

To configure your daily backups,

Go to the Administration Console and click 'Daily Backup Administration' under 'Configuration'.

1. Select 'Disable' to disable backups.
2. Select 'Custom' if you want to provide an alternate path to store backup files. Enter the path in the input field displayed.
3. Select 'Off' beside 'Backup Attachments' to exclude attachments from backups. By default, this is 'on'.
4. To use a different naming prefix format, enter the new format in the 'Backup File Prefix' input field.
5. To use a different date format, enter it in in the 'Backup File Date Pattern' input field using the syntax described in [this document](#).
6. 'Save' your changes.

Below is an example of daily backup being disabled.

Backup Path	☐ Default (/opt/j2ee/domains/atlassian.com/confluence/webapps/atlassian-confluence/data/backups) ☐ Custom ☒ Disable
Backup Attachments:	☒ On ☐ Off
Backup File Prefix:	daily-backup-
Backup File Date Pattern:	yyyy_MM_dd

RELATED TOPICS

[Backup FAQ](#)

[Changing time of Daily Backup](#)
[Configuring Daily Backups](#)
[Manually Backing Up The Site](#)
[Site Backup and Restore](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

User Submitted Backup & Restore Scripts

This page last changed on Oct 26, 2006 by david.soul@atlassian.com.

These scripts are user-submitted and are unsupported by Atlassian technical support. Please use with caution.

If you would like to submit or update a script, please append it as a comment.

Delete Old Backups - Wscript Script On Windows

This script examines backup filename and deletes them if necessary, it may need to be edited.

```
'If you want 3 day old files to be deleted then insert 3 next to Date - "your number here"
'This script will search out and delete files with this string in them ".2005-12-04-" This of
course depends on the number you enter.
'You can always do a wscript.echo strYesterday or strFileName to see what the script thinks you
are searching for.

dtmYesterday = Date - 3

strYear = Year(dtmYesterday)

strMonth = Month(dtmYesterday)
If Len(strMonth) = 1 Then
    strMonth = "0" & strMonth
End If

strDay = Day(dtmYesterday)
If Len(strDay) = 1 Then
    strDay = "0" & strDay
End If

strYesterday = strYear & "-" & strMonth & "-" & strDay

strFileName = "C:\test*." & strYesterday & "-*"

Set objFSO = CreateObject("Scripting.FileSystemObject")
objFSO.DeleteFile(strFileName)
```

Delete Old Backups - Basic Bash Script For Linux

Old XML backups can be deleted automatically by inserting a nightly or weekly automation script or cron similar to the following:

```
ls -t <path to your backup dir>/* | tail +6 | xargs -i rm {}
```

Delete Old Backups - Advanced Bash Script For Linux

Old XML backups can be deleted automatically by inserting a nightly or weekly automation script or cron similar to the following. Set the BACKUP_DIR and DAYS_TO_RETAIN variables to appropriate values for your site. Between runs, more files than DAYS_TO_RETAIN builds up.

```
#!/bin/sh

# Script to remove the older Confluence backup files.
# Currently we retain at least the last two weeks worth
# of backup files in order to restore if needed.

BACKUP_DIR="/data/web/confluence/backups"
DAYS_TO_RETAIN=14

find $BACKUP_DIR -maxdepth 1 -type f -ctime +$DAYS_TO_RETAIN -delete
```

Manual Database & Home Backup - Bash Script For Linux

This backs up a mySQL database and the Confluence home directory.

```
#!/bin/bash
CNFL=/var/confluence
CNFL_BACKUP=/backup/cnflBackup/`date +%Y%m%d-%H%M%S`

rm -rf $CNFL/temp/*
mkdir $CNFL_BACKUP
mysqldump -uroot -p<password> confluence|gzip > $CNFL_BACKUP/confluence.mysql.data.gz
tar -cjvf $CNFL_BACKUP/data.bzip $CNFL > $CNFL_BACKUP/homedir.status
```

Related Topics

- [Site Backup and Restore](#)
- [Backup FAQ](#)

Migrate Or Clone Confluence Between Servers

This page last changed on Apr 19, 2007 by david.soul@atlassian.com.

To copy a Confluence instance from one server to another, for example to transfer the current production snapshot to a test server as [permitted in the licence agreement](#):

On the original server:

1. Stop Confluence
2. Copy your Confluence install directory
3. Copy your Confluence home directory
4. Use your database administration tool to access your external database and create a Confluence database export
5. Start Confluence

On the target server:

1. If you are not using Standalone Confluence, setup the same version of the application server use on the original
2. Setup the database to be an exact clone of the original
 - a. Setup the same database version and driver
 - b. Setup the database user to have the same permissions as the original
 - c. Import the Confluence database export
3. Place the Confluence install directory but do not start Confluence yet
4. Place the Confluence home directory
5. If the home directory is in a different location, go to the Confluence install directory and edit `..\confluence\WEB-INF\classes\confluence-init.properties`. The home directory is set under `confluence.home`
6. To modify any database connection information, go to the Confluence home directory and edit `confluence.cfg.xml`. The connection URL is set under `hibernate.connection.url`
7. Start Confluence

The target instance will be a clone of the original instance.

Moving Confluence Between Servers

This page last changed on Oct 17, 2006 by david.soul@atlassian.com.

Administrators may need to move a Confluence instance from one server to another for upgrades or downtime.



Avoid upgrades while transferring

If you are planning to switch databases, application servers or Confluence versions, perform the transfer and test that it is successful separately to any other changes.

Transferring Confluence Standalone To Another Server Using The Same Operating System

If you are using Confluence Standalone and the operating systems on both servers are the same, then the home and install folders can be copied straight into an identical external database and user management setup.

1. On the original server, create zips of the Confluence install and home directories. Copy the zips to the new server.
2. On the new server, unzip the install and home directories. Windows users should avoid unzipping with the Windows built-in extractor, instead use Winzip or the free [7Zip](#). If you are changing the location of the home directory, open the Confluence install\confluence\WEB-INF\classes directory and edit confluence-init.properties by changing the line starting with 'confluence.home='.
3. This next step is dependent on your database:
 - For users of the internal database, the content is stored inside the home directory. You should consider switching to an external database after the transfer is successful.
 - For databases stored on another server, change the user account or datasource permissions so that the new server has the same network access permissions as the original. Then confirm from the new server that the hostname can be resolved and is listening for database connections on the expected port.
 - For external databases stored locally:
 - A. On the original server, create a manual database backup.
 - B. Copy the database backup to the new server.
 - C. On the new server, install or upgrade the database version to match the original server.
 - D. Import the database backup.
 - E. Add a database user account with the same username and password as the original.
 - F. Provide the user with the full access to the imported database.
 - G. Use a database administration tool to confirm that the user can login from the localhost.
4. If you are using internal user management, skip this step. For users who have JIRA or LDAP integration, provide the new server with network or local access to the same hosts as the original.
5. If you configured Confluence as a Windows service, [repeat those instructions](#).

All Other Transfers

Create a backup and import into the new server.

1. Create a backup from Confluence by going to 'Administration' -> 'Backup & Restore', checking the 'Backup Attachments' and selecting 'Backup'.
2. Identify the current version of Confluence your are using, displayed at the bottom of each Confluence page.
3. Download the same version as you are currently using to the new server, which may be the [current Confluence release](#), or an [older version](#).
4. Using the same version, follow the [Upgrading Confluence](#) guide.

Rebuilding the Ancestor Table

This page last changed on Mar 22, 2007 by ivan@atlassian.com.

In Confluence, the ancestor table controls the [breadcrumb](#) navigation at the top of each Confluence page. Occasionally, the ancestor table will become out of sync. When this happens, you can rebuild the table to restore everything to normal.

Simply access this URL:

```
http://yoursite/admin/permissions/rebuild_ancestor_table.action
```

[Dashboard](#) > [Administration](#) > [Page Level Permissions](#)

 Administration

Page Level Permissions

Configuration

- ☐ [General Configuration](#)
- ☐ [Daily Backup Admin](#)
- ☐ [Manage Referrers](#)
- ☐ [Plugins](#)

[Rebuild Ancestor Table](#)



RELATED TOPICS

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Restoring a Site

This page last changed on Apr 26, 2007 by [ganand](#).



CAUTION: Restoring a backup of an entire confluence site (consisting of multiple spaces) will:

- Wipe out all confluence content in the database. Ensure that your database is backed up.
- Log you out after the restore process. Make sure you know your login details in the data being restored.

Confluence only supports Backward Compatibility for site backups. You can only successfully restore backups of a site from an older major version of Confluence to a newer major version of Confluence.

For example, if you create a Site backup in Confluence v 2.4.5, it cannot be restored into a Confluence v2.2.2. It can however, be restored in 2.5.x (because 2.5.x is a newer 'major' version)

There are two ways to restore a site from a backup file:

1. [Restore a site from the Confluence Setup Wizard](#): This restores the data into a new instance of Confluence.
2. [Restore a site from the Administration Console](#): This restores data into the current instance of Confluence.



If your daily backup zips cannot be restored for whatever reason, but you have both a database backup and backups of your confluence home directory, then it is still possible to [restore from these backups](#).



You can not restore a particular space only from the entire site backup when the backup contains more than one space.

RELATED TOPICS

[Confluence](#)

[Manually Backing Up The Site](#)

[Restoring a Site](#)

[Restoring a Space](#)

[Restoring Data from the Administration Console](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Restoring a Space

This page last changed on Apr 26, 2007 by [ganand](#).

Confluence will only allow you to restore a space if a space by that name does not already exist on the site. If you already have a space with the identical name, you will need to delete (or rename) the existing space before restoring the new one.



Before you begin

Confluence only supports Forward Compatibility and Backward Compatibility for individual space import and export when executed within the same major version of Confluence instances. This means that a space export created in a newer major version of Confluence cannot be imported into an older major version of Confluence. For example, if you create a Space export in Confluence v2.4.5, it cannot be imported into a Confluence v2.2.2. It can be however imported into 2.4.6. (because 2.2.2 and 2.4.5 are two different 'major' versions) Similarly, a space export created in v 2.2.2 can not be imported into v 2.4.5. Yet it can be restored in 2.2.10. (2.2.2 and 2.2.10 belong to the same major version release)

If such an operation is carried out, an error message similar to the one below will be displayed and the import action will be stopped.

The following error(s) occurred:

- Restore denied. You can only restore space backups exported from the same major version (e.g. 2.2.x or 2.3.x).

To restore a space,

Go to the 'Administration Console' and click on 'Backup and Restore' in the left panel.

You can restore data in one of two ways:

1. Upload a zipped backup to Confluence
 - Browse for the backup file.
 - Uncheck 'Build Index' if you want to create the index at a later stage.
 - Click 'Upload and Restore'.
2. Restore a backup from the filesystem
 - Select the backup file from the form field displayed. If you do not see your backup file, make you sure that it has been copied into the `/opt/java/src/confluence/deployments/conf.atlassian.com/home/restore` directory.
 - Click 'Restore'.

RELATED TOPICS

[Confluence](#)

[Manually Backing Up The Site](#)

[Restoring a Site](#)

[Restoring a Space](#)

[Restoring Data from the Administration Console](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Restoring Data from other Backups

This page last changed on Jan 10, 2007 by david.soul@atlassian.com.

Typically, Confluence data is restored from the [Administration Console](#) or from the [Confluence Setup Wizard](#).

If you are experiencing problems restoring from an zipped XML backup file, it is still possible to restore provided you have:

1. a backup of your home directory
2. a backup of your database (if you're using an external database)

Instructions for this method of restoring differ depending on whether you are using the embedded database or an external database (like Oracle, MS SQL Server, MySQL or Postgres).

Embedded Database

If you are running against the embedded database, the database is located inside the database folder of your Confluence Home Directory. Hence, all you need to do is:

1. retrieve the most recent backup of your home directory
 2. unpack the Confluence distribution and point the `confluence-init.properties` file to this directory
-

External Database

If you're using an external database, you need to:

1. prepare backups of your home directory and database (preferably backups that are dated the same). That is, make sure the home directory is accessible on the filesystem and the database available to be connected to.
2. if this database happens to have a different name, or is on a different server, you need to modify the `jdbc url` in the `confluence.cfg.xml` file inside the Confluence Home Directory. The value of this property is specified as `hibernate.connection.url`.
3. unpack the Confluence distribution and point the `confluence-init.properties` file to the home directory.

RELATED TOPICS

[Migrate to an External Database](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Restoring Data from the Administration Console

This page last changed on Apr 26, 2007 by [ganand](#).

Use this option if you want to restore data into your current instance of Confluence. If you want to restore data into a new instance, follow the instructions [here](#).



CAUTION:

Restoring a backup of an entire confluence site (consisting of multiple spaces) will:

- Wipe out all confluence content in the database. Ensure that you your database is backed up.
- Log you out after the restore process. Make sure you know your login details in the data being restored.

To restore data from backup,

Go to the 'Administration Console' and click on 'Backup and Restore' in the left panel.

You can restore data in one of two ways:

1. Upload a zipped backup to Confluence
 - Browse for the backup file.
 - Uncheck 'Build Index' if you want to create the index at a later stage.
 - Click 'Upload and Restore'.
2. Restore a backup from the filesystem
 - Select the backup file from the form field displayed. If you do not see your backup file, make you sure that it has been copied into the `/opt/java/src/confluence/deployments/conf.atlassian.com/home/restore` directory.
 - Click 'Restore'.

RELATED TOPICS

[Confluence](#)

[Manually Backing Up The Site](#)

[Restoring a Site](#)

[Restoring a Space](#)

[Restoring Data from the Administration Console](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Retrieve file attachments from a backup

This page last changed on Jan 02, 2007 by ivan@atlassian.com.

File attachments on pages can be retrieved from a backup without needing to import the the backup into Confluence. This is useful for recovering attachments that have been deleted by users.

Both [daily](#) and [manual](#) backups allow this, as long as the 'Include attachments' property was set. Users wanting to restore pages, spaces or sites should check out the [Administrators Guide](#) instead.

Before following the [instructions for recovering attachments](#), please review how backups store file and page information.

How Backups Store File and Page Information

The backup zip file contains entities.xml, an XML file containing the Confluence content, and a directory for storing attachments.

Backup Zip File Structure

Page attachments are stored under the attachments directory by page and attachment id. Here is an example listing:

```
Listing for test-2006033012_00_00.zip
\attachments\98\10001
\attachments\98\10002
\attachments\99\10001
entities.xml
```

Inside the attachment directory, each numbered directory inside is one page, and the numbered file inside is one attachment. The directory number is the page id, and the file number is the attachment id. For example, the file \attachments\98\10001 is an attachment with page id 98 and attachment id 10001. You can read entities.xml to link those numbers to the original filename. Entities.xml also links each page id to the page title.

Entities.xml Attachment Object

Inside the entities.xml is an Attachment object written in XML. In this example, the page id is 98, the attachment id is 10001 and the filename is myimportantfile.doc. The rest of the XML can be ignored:

```
<object class="Attachment" package="com.atlassian.confluence.pages">
  <id name="id">98</id>
  <property name="fileName"><![CDATA[myimportantfile.doc]]></property>
  ...
  <property name="content" class="Page" package="com.atlassian.confluence.pages"><id
name="id">10001</id>
  </property>
  ...
</object>
```

Entities.xml Page Object

This XML describes a page. In this example, the page id is 98 and the title is Editing Your Files. The rest of the XML can be ignored:

```
<object class="Page" package="com.atlassian.confluence.pages">
  <id name="id">98</id>
  <property name="title"><![CDATA[Editing Your Files]]></property>
  ...
</object>
```

Instructions for Recovering Attachments

Each file must be individually renamed and re-uploaded back into Confluence by following the instructions below. Choose one of the three methods:

Choice A - Recover Attachments By Filename

Best if you know each filename you need to restore, especially if you want just a few files:

1. Unzip the backup directory and open entities.xml.
2. Search entities.xml for the filename and find the attachment object with that filename. Locate its page and attachment id.
3. Using the page and attachment id from entities.xml, go to the attachments directory and open that directory with that page id. Locate the file with the attachment id.
4. Rename the file to the original filename and test it.
5. Repeat for each file.
6. To import each file back into Confluence, upload to the original page by attaching the file from within Confluence.

Choice B - Restore Files By Page

Best if you only want to restore attachments for certain pages:

1. Unzip the backup directory and open entities.xml.
2. Search entities.xml for the page title and find the page object with that title. Locate its page id.
3. Go to the attachments directory and open that directory with that page id. Each of the files in the directory is an attachment that must be renamed.
4. Search entities.xml for attachment objects with that page id. Every attachment object for the page will have an attachment id and filename.
5. Rename the file with that attachment id to the original filename and test it.
6. Repeat for each page.
7. To import each file back into Confluence, upload to the original page by attaching the file from within Confluence.

Choice C - Restore All Files

Best if you have a small backup but want to restore many or all the attachments inside:

1. Unzip the backup directory and open entities.xml.
2. Go to the attachments directory and open any directory. The directory name is a page id. Each of the files in the directory is an attachment that must be renamed.
3. Search entities.xml for attachment objects with that page id. When one is found, locate the attachment id and filename.
4. Rename the file with that attachment id to the original filename and test it.
5. Find the next attachment id and rename it. Repeat for each file in the directory.
6. Once all files in the current directory are renamed to their original filenames, search entities.xml for the page id, eg directory name. Find the page object with that page id and locate its page title.
7. Rename the directory to the page title and move on to the next directory. Repeat for each un-renamed directory in the attachments directory.
8. To import each file back into Confluence, upload to the original page by attaching the file from within Confluence.



To obtain detailed information about lost attachments, location, name and type of the attachments, you may use the [findattachments script](#)

Troubleshooting failed XML site backups

This page last changed on Mar 22, 2007 by dave@atlassian.com.

Seeing an error when creating or importing a backup?

Problem	Solution
Exception while creating backup	Follow instructions below
Exception while importing backup	Follow Troubleshooting XML backups that fail on restore instead

Resolve Errors With Creating An XML Backup

The errors may be caused by a slightly corrupt database. If you're seeing errors such as '[Couldn't backup database data](#)' in your logs, this guide will help you correct the error on your own. We strongly recommend that you backup your database and your Confluence home directory beforehand, so that you can [restore your site from those](#) if required. If you are unfamiliar with SQL, we suggest you contact your database administrator for assistance.

To Identify And Correct The Problem

To work out where the data corruption or problems are, increase the status information reported during backup, then edit the invalid database entry:

1. Stop Confluence.
2. If you have an external database, use a database administration tool to create a manual database backup.
3. Backup your Confluence home directory. You will be able to [restore your whole site](#) using this and the database backup.
4. Open the `my_confluence_install/confluence/WEB-INF/classes/log4j.properties` and add this to the bottom and save:

```
log4j.logger.com.atlassian.confluence.importexport.impl.XMLDatabinder=DEBUG, confluencelog
log4j.additivity.com.atlassian.confluence.importexport.impl.XMLDatabinder=false
```

5. Find your Confluence output logs. On standalone, this is the `/logs` directory under your Confluence install. Move or delete all existing Confluence logs to makes it easier to find the relevant logging output.
6. Restart Confluence and login.
7. Begin a backup so that the error reoccurs.
8. You must now check your log files to find out what object could not be converted into XML format. Open `my_confluence_install/logs/catalina.out`. Scroll to the bottom of the file.
9. Do a search for 'ObjectNotFoundException'. You should see an error similar to this:

```
01 2005-08-24 00:00:33,743 DEBUG [DOCPRIV2:confluence.importexport.impl.XMLDatabinder] Writing
object: com.atlassian.confluence.core.ContentPermission with ID: 5 to XML.
02 2005-08-24 00:00:33,743 DEBUG [DOCPRIV2:confluence.importexport.impl.XMLDatabinder] Writing
property: type
03 2005-08-24 00:00:33,743 DEBUG [DOCPRIV2:confluence.importexport.impl.XMLDatabinder] Writing
property: group
04 2005-08-24 00:00:33,743 DEBUG [DOCPRIV2:confluence.importexport.impl.XMLDatabinder] Writing
property: expiry
```

```

05 2005-08-24 00:00:33,743 DEBUG [DOCPRIV2:confluence.importexport.impl.XMLDatabinder] Writing
property: content
06 [DOCPRIV2:ERROR] LazyInitializer - Exception initializing proxy
<net.sf.hibernate.ObjectNotFoundException: No row with the given identifier exists: 2535,
07 of class:
com.atlassian.confluence.core.ContentEntityObject>net.sf.hibernate.ObjectNotFoundException:
08 No row with the given identifier exists: 2535, of class:
com.atlassian.confluence.core.ContentEntityObject
09     at
net.sf.hibernate.ObjectNotFoundException.throwIfNull(ObjectNotFoundException.java:24)
10     at net.sf.hibernate.impl.SessionImpl.immediateLoad(SessionImpl.java:1946)
11     at net.sf.hibernate.proxy.LazyInitializer.initialize(LazyInitializer.java:53)
12     at
net.sf.hibernate.proxy.LazyInitializer.initializeWrapExceptions(LazyInitializer.java:60)
13     at net.sf.hibernate.proxy.LazyInitializer.getImplementation(LazyInitializer.java:164)
14     at net.sf.hibernate.proxy.CGLIBLazyInitializer.intercept(CGLIBLazyInitializer.java:108)
15     at
com.atlassian.confluence.core.ContentEntityObject$$EnhancerByCGLIB$$cc2f5557.hashCode(<generated>)
16     at java.util.HashMap.hash(HashMap.java:261)
17     at java.util.HashMap.containsKey(HashMap.java:339)
18     at
com.atlassian.confluence.importexport.impl.XMLDatabinder.toGenericXML(XMLDatabinder.java:155)

```

10. Open a DBA tool such as DbVisualizer and connect to your database instance. Scan the table names in the schema. You will have to modify a row in one of these tables.
11. To work out which table, open catalina.out, check the first line of the exception. This says there was an error writing the ContentPermission object with id 5 into XML. This translates as the row with primary key 5 in the CONTENTLOCK table needs fixing. To work out what table an object maps to in the database, here's a rough guide:
 - Pages, blogposts, comments --> CONTENT table
 - attachments --> ATTACHMENTS table
12. Now you must find the primary key of the incorrect row in this table. In this case, you can check the first line and see that the row has a primary key of 5.
13. Each property is written to a column, so the last property that was being written has the incorrect value. The row being written to when the exception was thrown was CONTENT (line 5) with a value of 2535 (line 6). Now you know the column and value. This value 2535 is the id of an entry that no longer exists.
14. Using a database administrative tool, login to the Confluence database. Locate the row in the relevant table and correct the entry. Check other rows in the table for the default column value, which may be null, 0 or blank. Overwrite the invalid row value with the default.
15. Restart Confluence.
16. Attempt the backup again. If the backup fails and you are stuck, please [lodge a support request](#) with your latest logs.

To Help Prevent This Issue From Reoccurring

1. If you are using the embedded database, be aware that it is bundled for evaluation purposes and does not offer full transactional integrity in the event of sudden power loss, which is why an external database is recommended for production use. You should [migrate to an external database](#).
2. If you are using an older version of Confluence than [the latest](#), you should consider [upgrading](#) at this point.

RELATED TOPICS

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Viewing License Details

This page last changed on Mar 21, 2006 by [mryall](#).

The license details page will tell you how many users your Confluence instance is licensed to support (and how many are currently registered), and how much time remains in your one-year support and upgrades period (for full licenses) or 30-day trial (for trial licenses).

To view the details of your Confluence license,

1. Go to the 'Administration Console' and click on 'License Details' under the heading 'Administration' in the left panel.
2. To update your license, enter it in the form field displayed and 'Save'.

The number of licensed users only includes users who have use Confluence permission. [Deactivated users](#) are not included.

RELATED TOPICS

[Cache Statistics](#)

[Viewing License Details](#)

[Viewing System Information](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Viewing System Information

This page last changed on Feb 14, 2007 by ivan@atlassian.com.

The System Information screen provides information about Confluence's configuration, and the environment in which Confluence has been deployed. Your system configuration information is helpful to us when diagnosing errors you may face using Confluence. If you file a support request or bug report, the more detail you can provide about your installation and environment the faster we will be able to help.

To view your system information, go to the 'Administration Console' and click on 'System Configuration'.



The handy Memory Graph helps you keep track of Confluence's memory usage.

RELATED TOPICS

[Cache Statistics](#)

[Viewing License Details](#)

[Viewing System Information](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Where Is My ConfluenceHome Directory?

This page last changed on Mar 04, 2004 by [vidya](#).

Often in the documentation, you'll see a reference to the "ConfluenceHome" directory. This is the directory in which Confluence stores its configuration information, search indexes, custom decorators and page attachments. Also, if you're using the embedded HSQL database, the database is also stored in this directory.

When Confluence first starts up, it reads a file called `confluence-init.properties`, which is located inside the `confluence/WEB-INF/classes` directory under where you unpacked the distribution. This file contains a single line telling Confluence where the ConfluenceHome directory is. If you ever forget where you put your home directory, check `confluence-init.properties`.

Administration Guide Attachments Directory

This page last changed on Jan 31, 2006 by [vidya](#).

This page contains the attachments for the Administrators Guide.

Cluster Administration page

This page last changed on Mar 13, 2007 by rosie@atlassian.com.

Overview

Any copy of Confluence which uses a clustered license has a Cluster Administration Page which includes information about the active cluster.

1. Click 'Administration', available at the top-right of every Confluence page.
2. Click 'Cluster Configuration' in the left-hand menu, in the section called 'Clustering'.

Availability

To access this functionality, you must:

- be a Confluence site administrator (i.e. have global Administrate Confluence permission)
- be using Confluence 2.3 or later
- be using a clustered Confluence license.

Screenshot

Cluster Status	RUNNING
Cluster Name	extranet
Multicast Listen Address	235.54.69.161:32357
Active Nodes	2
Licensed Nodes	8

Active Nodes

Node ID	2
Unicast Listen Address	172.16.0.11:8088
Uptime	1 day, 20 hours, 49 minutes, 47 seconds
JVM Version	1.4.2_12
Operating System	Linux 2.6.9-42.0.3.ELsmp
Memory Graph	 9 % Free

Node ID	3
Unicast Listen Address	172.16.0.10:8088
Uptime	1 day, 20 hours, 27 minutes, 32 seconds
JVM Version	1.4.2_12
Operating System	Linux 2.6.9-42.0.3.ELsmp
Memory Graph	 17 % Free

Cluster Administration Page

This page shows your cluster configuration, and allows you to start a new Confluence cluster using data from this instance.

Cluster Status indicates whether your cluster is currently running.

Licensed nodes is the maximum number of instances of Confluence your license allows in a cluster.

Active nodes lists the instances of Confluence currently participating in the cluster.

Starting a new cluster will perform the following changes:

- enable a clustered cache
- migrate attachments from file system to the database
- publish database connection information so other nodes can join the cluster.

 All access to Confluence will be locked while this take place, and you will be forced to restart Confluence afterwards.

Cluster name is a short name for identifying your cluster. Other Confluence instances can join the cluster using this name.

 To join an existing cluster, start a clean copy of Confluence on this node and select 'Join Cluster' during the setup wizard.

Related documents

[Confluence Cluster Installation](#)
[Cluster Troubleshooting](#)

Cluster Troubleshooting

This page last changed on Feb 21, 2007 by rosie@atlassian.com.

Symptoms

Below is a list of potential problems with a Confluence cluster, and their likely solutions. The solutions are listed below.

Problem	Likely solutions
Cluster panic errors at startup	Add multicast route , Check firewall
Error in log: The interface is not suitable for multicast communication	Change multicast interface , Add multicast route
Multicast being sent, but not received (detectable with tcpdump)	Check firewall , Check intermediate routers , Increase multicast TTL
Any issue not covered here	Contact support

Which multicast address?

The multicast address and port used by Confluence can be found on the [Cluster Administration page](#), or in `confluence.cfg.xml` in the Confluence home directory.

Debugging tools

Listed below are some debugging tools that help determine what the status of the multicast traffic is:

Tool	Information provided
<code>netstat -gn</code>	Lists multicast groups. Does not work on Mac OS X.
<code>netstat -rn</code>	Lists system routing table.
<code>tcpdump -i interface</code>	Captures network traffic on the given interface. Most useful on an interface that only receives cluster traffic.

Add multicast route

Multicast networking requirements vary across operating systems. Some operating systems require little configuration, while some require the multicast address to be explicitly added to a network interface before Confluence can use it.

Usually, adding a route for all multicast traffic to use the correct interface will fix multicast traffic. The example below is for a Ubuntu Linux system:

```
route add -net 224.0.0.0 netmask 240.0.0.0 dev eth0
```

To support multiple applications using multicast on different interfaces, you may need to specify a route specific to the [Confluence multicast address](#).

Check firewall

Ensure your firewall allows UDP traffic on the [multicast address and port used by Confluence](#).

Change multicast interface

Confluence might have selected the incorrect interface for multicast traffic, which means it cannot connect to other nodes in the cluster. To override the interface used for multicast traffic after initial setup, edit `confluence.cfg.xml` in the Confluence home directory and add a property (or change the existing one) to select your desired network interface. For example to tell Confluence to use `eth1`:

```
<property name="confluence.cluster.interface">eth1</property>
```

Increase multicast TTL

The multicast time-to-live (TTL) specifies how many hops a multicast packet should be allowed to travel before it is discarded by a router. It should be set to the number of routers in between your clustered nodes: 0 if both are on the same machine, 1 if on two different machines linked by a switch or cable, 2 if on two different machines with one intermediate router, and so on.

Create a file in the Confluence home directory called `tangosol-coherence-override.xml`. Add the following to it, setting the TTL value appropriately (1 is the default):

```
<?xml version='1.0'?>
<coherence>
<cluster-config>
  <multicast-listener>
    <time-to-live system-property='tangosol.coherence.ttl'>1</time-to-live>
  </multicast-listener>
</cluster-config>
</coherence>
```

Alternatively, simply start Confluence with the system property: `-Dtangosol.coherence.ttl=1`. Again, 1 is the default value, and you should change it to something appropriate to your network topology.

Check intermediate routers

Advanced switches and routers have the ability to understand multicast traffic, and route it appropriately. Unfortunately sometimes this functionality doesn't work correctly with the multicast management information (IGMP) published by the operating system running Confluence.

If multicast traffic is problematic, try disabling advanced multicast features on switches and routers in between the clustered nodes. These features can prevent multicast traffic being transmitted by certain operating systems.

For best results, use the simplest network topology possible for the cluster traffic between the nodes. For two nodes, that means a single network cable. For larger numbers, try using a single high-quality switch.

Advanced Tangosol configuration

If the solution to your problem involves changes to the Tangosol configuration, these changes should not be made to the Confluence configuration in `confluence/WEB-INF/classes/`. Instead, to ensure your configuration survives upgrades, make your changes via:

- Tangosol system properties
- creating a `tangosol-coherence-override.xml` file in the Confluence home directory.

Examples of making these changes are shown in the [increasing the TTL section](#).

Didn't find a solution? Contact Atlassian support

We have dedicated staff on hand to support your installation of Confluence. Please follow the instructions for [raising a support request](#) and mention that you're having trouble setting up your Confluence cluster.

Configuring Confluence

This page last changed on Feb 02, 2006 by [vidya](#).

- [Optional Settings](#)
 - [Attachment Storage Configuration](#)
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Optional Settings

This page last changed on Jan 31, 2006 by [vidya](#).

- [Attachment Storage Configuration](#)
- [Enabling CamelCase Linking](#)
- [Enabling Remote APIs](#)
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- [WebDAV Configuration](#)

Attachment Storage Configuration

This page last changed on Apr 01, 2007 by [mryall](#).

Confluence 2.2 introduces the ability to store Attachments in one of three places.

Local filesystem

In the past, Confluence has stored Attachments in the attachments directory within the configured Confluence home folder. This remains the default in version 2.2.

Database

Confluence 2.2 gives administrators the option to store attachments in the database that Confluence is configured to use.

There are a number of reasons why, as an administrator, you may want to choose this storage system:

- Ease of backup
- Avoid issues with certain characters in attachment filenames



While storing Attachments in the database can offer some advantages, please be aware that the amount of space used by the database will increase, because of the greater storage requirements of Confluence

WebDAV

Confluence also allows administrators to set a WebDAV repository as the location for Attachment storage.

Migration between Attachment storage systems

An improvement introduced in Confluence 2.2 is the ability to "migrate" between different Attachment storage systems. All existing Attachments will be moved over to the new Attachment storage system.



When the migration occurs, all other users will be locked out of the Confluence instance. This is to prevent modification of Attachments while the migration process occurs. Access will be restored as soon as the migration is complete.

To perform a migration, follow the steps below:

1. View the 'Administration Console'
2. Click on 'Attachment Storage'. The current configuration will be displayed.

Attachment Storage	
Attachments Storage:	WebDAV: WebDav Server URL: http://localhost:8080/slide/files User Name: confluence

[Edit](#)

Attachment storage configuration

3. Click on the 'Edit' button to modify the configuration. Select the storage system you desire.

Attachment Storage	
Attachments Storage:	☐ Locally in Confluence home directory ☒ In Confluence's configured database ☐ Remotely on a WebDav server
	WebDav Server URL: http://localhost:8080/slide/files User Name: confluence Password:

[Save](#) [Cancel](#)

Edit attachment storage

4. Click on the 'Save' button to save the changes.

5. A screen will appear, asking you to confirm your changes. Clicking 'Migrate' will take you to a screen that displays the progress of the migration.

WARNING:

Changing your attachment storage location from the current setting will result in amigration occurring. This may take time (depending on the amount of attachments).

During the migration process, users will not be able to access the system.

Migration Notes:

Prior to migration, all records in the Attachment data database table will be removed.

Are you sure you want to perform this migration?

[Migrate](#)
[Cancel](#)

Migration warning

Troubleshooting

To enable debug logging for WebDAV attachment storage, add the following to the bottom of WEB-INF/classes/log4j.properties and restart Confluence:

```
log4j.logger.com.atlassian.confluence.pages.persistence.dao=DEBUG,confluencelog
log4j.additivity.com.atlassian.confluence.pages.persistence.dao=false

log4j.logger.org.apache.webdav=DEBUG,confluencelog
log4j.additivity.org.apache.webdav=false
```

RELATED TOPICS

[Important Directories and Files](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Enabling CamelCase Linking

This page last changed on Feb 02, 2006 by [vidya](#).

[CamelCase linking](#) is a form of markup used in many wikis where words capitalized and compounded together without spaces 'LikeThis', are used to create links.

By default, CamelCasing is not enabled in Confluence. To use CamelCasing, a site administrator will need to enable this option from the 'Administration Console'.

To enable CamelCasing,

1. From the 'Administration Console' click on 'General Configuration' in the left panel.
2. This will display the 'Options and Settings' screen. Click 'Edit'.
3. Select 'On' beside 'Camelcasing'.
4. Click 'Save'.

RELATED TOPICS

[Attachment Storage Configuration](#)

[Enabling CamelCase Linking](#)

[Enabling Remote APIs](#)

[Enabling Rich Text Editing Option](#)

[Enabling Threaded Comments](#)

!Administration Guide Attachments directory^adminhome.gif!  [Confluence Documentation Home](#)

Enabling Remote APIs

This page last changed on Feb 02, 2006 by [vidya](#).

Confluence provides XML-RPC and SOAP remote APIs. A site administrator will need to enable the APIs from the Administration Console before you can access Confluence remotely.

To enable the Remote API,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Select 'On' beside 'Remote API'.
4. 'Save' your changes.

RELATED TOPICS

[Confluencer.NET](#)

[Remote API Specification](#)

[RPC Plugins](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Enabling Rich Text Editing Option

This page last changed on Feb 02, 2006 by [vidya](#).

With Confluence 2.0 and later versions, users have the option of using the [Rich Text](#) editor to create pages. By default, this is set to 'On'. If desired, a site administrator can disable 'Rich Text Editing' from the Administration Console.

To disable Rich Text editing,

1. Go to the Administration Console, click on 'General Configuration' in the left panel.
2. In the 'Options and Settings' screen, click 'Edit'.
3. Select 'Off' beside 'Rich Text Editing'.
4. Click 'Save'.

RELATED TOPICS

[Enabling Rich Text Editing Option](#)

[Making Rich Text Editing default](#)

[Rich Text Editor Overview](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Enabling Threaded Comments

This page last changed on Feb 02, 2006 by [vidya](#).

Comments on pages or news items are displayed in one of two views:

- Threaded: Shows the comments in a hierarchy of responses. Each subsequent reply to a comment is indented to indicate the relationships between the comments.
- Flat: Displays all the comments in one single list and does not indicate the relationships between comments.

By default, comments are displayed in Flat mode.

To enable or disable the 'threaded view',

1. Go to the 'Administration Console', click on 'General Configuration' in the left panel.
2. In the 'Options and Settings' screen, click 'Edit'.
3. Select "On" beside 'Threaded Comments'.
4. Click 'Save'.

RELATED TOPICS

[Commenting on a Page](#)

[Viewing Comments](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Enabling Trackback

This page last changed on Mar 14, 2007 by donna@atlassian.com.

When Trackback is enabled, any time you link to an external webpage that supports Trackback Autodiscovery, Confluence will send a trackback ping to that page to inform it that it has been linked to.

Confluence pages also support Trackback Autodiscovery and when Trackback is enabled, can receive trackback pings sent by other sites.

To enable trackback,

1. Go to the 'Administration Console', click on 'General Configuration' in the left panel.
2. In the 'Feature Settings' screen, click 'Edit'.
3. Select "On" beside 'Trackback' and click 'Save'.

RELATED TOPICS

[Attachment Storage Configuration](#)

[Enabling CamelCase Linking](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Making Rich Text Editing default

This page last changed on Feb 02, 2006 by [vidya](#).

A site administrator can configure whether the default mode of editing on the site is 'Rich Text' or 'Wiki Markup'.

Users will still be able to [configure their individual preferences](#) from the 'Edit' tab of a page.

To Make Rich Text Editing Default,

1. From the 'Administration Console' click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Select 'On' beside 'Users see rich text editor by default'. Select 'Off' to make 'Wiki Markup' editing default.
4. Click 'Save'.

RELATED TOPICS

[Enabling Rich Text Editing Option](#)

[Making Rich Text Editing default](#)

[Rich Text Editor Overview](#)

!Administration Guide Attachments directory^adminhome.gif!  [Confluence Documentation Home](#)

WebDAV Configuration

This page last changed on Sep 24, 2006 by ivan@atlassian.com.

You can configure Confluence to store attachments in an external WebDAV server. This provides users with an existing WebDAV infrastructure with an alternative way of accessing attachments, and of attaching files to Confluence pages.

 If you have existing attachments on your file system, these will no longer be accessible once you switch over to WebDAV.

To store attachments remotely on a WebDav server,

1. From the 'Administration Console' under 'Attachment Storage' click on 'WebDav Configuration' in the left panel.
2. This will display the current storage location for attachments. Click 'Edit'.
3. Select the radio button 'Remotely on a WebDav server'.
4. Enter the 'WebDav Server URL' where you want to store your attachments.
5. Enter your username and password and click 'Save'.

RELATED TOPICS

[Important Directories and Files](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Other Settings

This page last changed on Jan 31, 2006 by [vidya](#).

- [Configuring Attachment Size](#)
- [Configuring Character Encoding](#)
- [Configuring HTTP Timeout Settings](#)
- [Configuring Indexing Language](#)
- [Configuring Jira Issues Icon mappings](#)
- [Configuring Number Formats](#)
- [Configuring Shortcut Links](#)
- [Configuring Time and Date Formats](#)
- [Number of Ancestors to Show in Breadcrumbs](#)
- [Thumbnail Settings](#)

Configuring Attachment Size

This page last changed on Jul 24, 2006 by ivan@atlassian.com.

Confluence gives you the option of limiting the maximum size of a single file attachment. Site administrators should keep in mind that the amount of disk space used by Confluence is directly proportional to the number and size of attachments put into the system.

To configure the maximum size of an attachment,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Beside 'Attachment Maximum Size', enter the maximum size. The default is 10 mb.
4. 'Save' your changes.

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Configuring Character Encoding

This page last changed on Feb 02, 2006 by [vidya](#).

Confluence uses UTF-8 character encoding to deliver its pages.

 While it is possible to change the character encoding, unless you are certain of what you are doing, we recommend that you leave this as it is.

To change the character encoding,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Beside 'Encoding', enter the new character encoding of your choice.
4. 'Save' your changes.

RELATED LINKS

Joel Spolsky: [The Absolute Minimum Every Software Developer Absolutely, Positively Must Know About Unicode and Character Sets \(No Excuses!\)](#)

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Configuring HTTP Timeout Settings

This page last changed on Aug 07, 2006 by tom@atlassian.com.



This feature is available in 2.2.8 and later versions of Confluence

When macros such as the RSS macro, the Calendar macro or the Repository Client Plugin make HTTP requests to servers which are down, a long timeout value is used. You can set this timeout value through a system parameter to avoid this.

If you are using Tomcat, you can add this to the catalina.bat/sh file:

```
JAVA_OPTS=-Dhttp.timeout=timeInSecondsHere
```

Configuring Indexing Language

This page last changed on Jul 24, 2006 by ivan@atlassian.com.

Changing the Indexing Language setting may improve the accuracy of Confluence search results if the majority of the content of your site is in some language other than English. Since Confluence v. 2.2.5, the content indexing support is provided in German, Russian, Chinese, CJK, French, Brazilian, Czech and Greek besides English (default).

To configure a different indexing language,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' on the right hands side of the 'Formatting and International Settings' section.
3. There is a drop-down list of 'Indexing Language' currently supported in Confluence.
4. 'Save' your changes.

RELATED TOPICS

[8.1 Locating Important Directories and Files](#)

[Configuring Indexing Language](#)

[Content Index Administration](#)

[Macro Parameters Index](#)

[Working with Macros](#)

Configuring Jira Issues Icon mappings

This page last changed on Feb 02, 2006 by [vidya](#).

If you are using the {jiraissues} macro to retrieve information from a JIRA server, you will have to tell Confluence where to find the icons for any custom statuses or issue types you have configured in JIRA.

 Confluence is configured by default with all JIRA's standard issue type and status icons. You will only need to change these settings if you have customised additional statuses or issue types for JIRA or have changed JIRA's default icons.

To configure custom icons,

1. Go to the 'Administration Console' and click on 'Jira Issue Icon Mappings' in the left panel.
2. For each icon you wish to configure, enter the name of the issue type or status into the Jira entity field, and the filename of its icon into the filename field.
 -  Ensure that the icon with that filename is located in the /images/icons directory of the JIRA server.
3. You may edit existing icon mappings by clicking on the remove link by an existing mapping, then re-adding it with a new icon filename.

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Configuring Number Formats

This page last changed on Feb 02, 2006 by [vidya](#).

To change the number formats,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
 - There are two number format settings:
 - Long Number Format
 - Decimal Number Format
3. Change the formats using the guidelines in [this document](#).
4. 'Save' your changes.

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Configuring Shortcut Links

This page last changed on Jan 03, 2007 by [mryall](#).

Shortcut links provide a quick way of linking to resources frequently referenced from Confluence. When you create a shortcut link, you are assigning a key to a url so that when a user edits Confluence documents they can type the key instead of the complete url.

Here is an example:

Most Google searches look like this: `http://www.google.com/search?q=`. If you create a shortcut for this search with the key 'google', every time a user needs to use `http://www.google.com/search?q=searchterms`, they can just type `[searchterms@google]` instead.

Here is a screenshot showing the shortcuts currently defined on <http://confluence.atlassian.com>:

Key	Expanded Value	Default Alias	Operations
cache	<code>http://www.google.com/search?q=cache:</code>		Remove
imdb	<code>http://us.imdb.com/Title?</code>		Remove
jira	<code>http://jira.atlassian.com/secure/QuickSearch.jsps?searchString=</code>	JIRA Issue %s	Remove
googlegroups	<code>http://groups.google.com/groups?q=</code>		Remove
google	<code>http://www.google.com/search?q=</code>		Remove
dictionary	<code>http://www.dict.org/bin/Dict?Database=*&Form=Dict1&Strategy=*&Query=</code>		Remove

Shortcut links are added and maintained by site administrators from the Administration Console.

To create a shortcut link,

1. Go to the 'Administration Console' and click on 'Shortcut Links' in the left panel.
2. Enter a 'Key' for your shortcut. This is the shortcut name a user will use to reference the url.
3. Enter the 'Expanded Value'. This is the url for the link. You can use '%s' in the URL to specify where the user's input is inserted. If there is no '%s' in the URL, the user's input will be put at the end.
4. (Optional. Available in Confluence version 2.3 and later.) Enter a 'Default Alias'. This is the text of the link which will be displayed on the page where the shortcut is used, with the user's text being substituted for '%s'.
5. Click 'Save'.

Using Shortcut Links

Simply specify in the link what should go on the end of the shortcut URL, followed by an at-sign and the key of the shortcut. Shortcut names are case-insensitive. So, for example, using the keys shown in the above screenshot:

To link to...	Type this	Resulting URL	Demonstration
a JIRA issue	<code>[CONF-1000@JIRA]</code>	<code>http://jira.atlassian.com/secure/QuickSearch.jsps?searchString=</code>	CONF-1000

a Google search	[Atlassian Confluence@Google]	http://www.google.com/search?q=Atlassian+Confluence+Confluence@Google	Atlassian+Confluence Confluence@Google

Shortcut links can have titles just like any other link:

To link to...	Type this	Resulting URL	Demonstration
Internet Movie Database	[Fight Club tt0137523@IMDB]	http://us.imdb.com/Title?tt0137523	Fight Club
Google Cache	[Cached Homepage www.atlassian.com@cache]	http://www.google.com/search?q=homepage.atlassian.com	Cached Homepage

Deleting Shortcut Links

Once you create a shortcut link, it is listed under 'Shortcut Links' in the 'Administration Console'. Click 'Remove' to delete the shortcut.

RELATED TOPICS

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Configuring Time and Date Formats

This page last changed on Feb 02, 2006 by [vidya](#).

Confluence allows you to localise the formats used to display dates and times within the web interface. The settings use the syntax of Java's SimpleDateFormat class (described below).

To change the time and date formats,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
 - There are three time and date format settings:
 - Time Format : displaying only the time of day (for example, when each news item is posted)
 - Date Time Format : displaying both the date and the time of day (for example, in historical versions of pages)
 - Date Format : displaying only the date (for example, the creation and most recent modification dates of pages)
3. Change the formats using the guidelines in [this document](#).
4. 'Save' your changes.

RELATED LINKS

- [Java 1.4.2 SimpleDateFormat API](#)

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

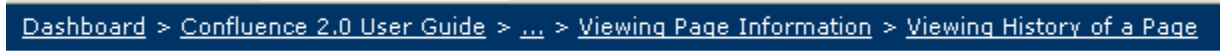
Number of Ancestors to Show in Breadcrumbs

This page last changed on Feb 02, 2006 by [vidya](#).

Whenever there are three or more page links to be displayed in the breadcrumbs, Confluence will use an ellipsis like this '...' and display only the topmost and lowermost page links. Clicking on the ellipsis will display the page links in between.

 Note that the Dashboard and space homepage links are always displayed at the start of the breadcrumbs, and are not counted as ancestors for the purpose of this setting.

Screenshot: Breadcrumbs



[Dashboard](#) > [Confluence 2.0 User Guide](#) > ... > [Viewing Page Information](#) > [Viewing History of a Page](#)

You can configure how many immediate ancestors you want displayed in the breadcrumbs when you go to the page.

To configure the number of ancestors to show in the breadcrumbs,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Beside 'Number of Ancestors to show in Breadcrumbs', enter a number. For example, if you enter 2, two immediate ancestors for the page will be displayed following the dots.
4. 'Save' your changes.

[Configuring Attachment Size](#)

[Configuring Character Encoding](#)

[Configuring HTTP Timeout Settings](#)

[Configuring Indexing Language](#)

[Configuring Number Formats](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Thumbnail Settings

This page last changed on Feb 02, 2006 by [vidya](#).

The thumbnail settings allow you to define the height and width of images when they are displayed as thumbnails.

To configure thumbnail settings,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Under the heading 'Thumbnail Settings', enter a value in pixels for:
 - Maximum Height: 200 pixels by default.
 - Maximum Width: 200 pixels by default.
4. 'Save' your changes.

RELATED TOPICS

[Gallery Macro](#)

[Thumbnail Macro](#)

[Uploading a Profile Picture](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Site Configuration

This page last changed on Jan 31, 2006 by [vidya](#).

- [Configuring the Server Base URL](#)
- [Configuring the Site Homepage](#)
- [Editing the Global Logo](#)
- [Editing the Site Title](#)
- [Editing the Site Welcome Message](#)
- [View Space Goes to Browse Space](#)

Configuring the Server Base URL

This page last changed on Jan 31, 2006 by [vidya](#).

The Server Base URL is the url via which users access Confluence. The base url must be set to the same URL by which browsers will be viewing your Confluence site.

Confluence will autodetect the base url during setup, but you may need to set it manually if your site's URL changes, or if you set up Confluence from a different URL to the one that will be used to access it publicly.

To configure the Server Base Url,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Beside 'Server Base URL', enter the new url.
4. 'Save' your changes.



Warning

If you configure a different base url, or if visitors use some other URL to access Confluence, it is possible that you may encounter [errors](#) while viewing some pages.

RELATED TOPICS

[Configuring the Server Base URL](#)

[Configuring the Site Homepage](#)

[Editing the Global Logo](#)

[Editing the Site Title](#)

[Editing the Site Welcome Message](#)

Configuring the Site Homepage

This page last changed on Feb 02, 2006 by [vidya](#).

You can configure Confluence to direct users to any of the space homepages on the site when they login, rather than to the Dashboard.

To configure the site-wide homepage,

1. Go to the 'Administration Console' and click 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Select the space you want to set as homepage from the 'Set Homepage' drop-down menu .
 - ❗ Ensure that the 'View Space Goes to Browse Space' setting is set to 'OFF' if you want users to be sent to the space homepage and not the summary page

❗ The spaces available to be set as your homepage will depend on the access permissions of the space and the site.

- If your site allows anonymous access, the site homepage must also be anonymously accessible.
- If your site does not allow anonymous access, the site homepage must be accessible to the 'confluence-users' group.

Screenshot : Configuring the site homepage

Site Homepage: dashboard

Site Title:

Maximum Size (B) :

Welcome Message:

Indexing Language:

Server Base URL:

Show in Breadcrumbs:

RELATED TOPICS

- [Configuring the Server Base URL](#)
- [Configuring the Site Homepage](#)
- [Editing the Global Logo](#)
- [Editing the Site Title](#)
- [Editing the Site Welcome Message](#)

Editing the Global Logo

This page last changed on Feb 02, 2006 by [vidya](#).

By default, the global logo appears beside the page title on all pages in the site. You can disable the logo or replace it with one of your own.

To edit the global logo,

1. From the 'Administration Console' click on 'Global logo' under the heading 'Look and Feel' in the left panel.
2. In the screen displayed, select 'Off' to disable logo.
3. To upload a new logo, click 'Browse' to select a new image and click 'Upload Logo'.

RELATED TOPICS

[Configuring the Server Base URL](#)

[Configuring the Site Homepage](#)

[Editing the Global Logo](#)

[Editing the Site Title](#)

[Editing the Site Welcome Message](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Editing the Site Title

This page last changed on Feb 02, 2006 by [vidya](#).

The site title appears in your browser's title bar. By default, it is set to 'Confluence'.

To change the title of your Confluence instance,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Enter a new title for your site in the input field beside 'Site Title' and 'Save'.

RELATED TOPICS

[Configuring the Server Base URL](#)

[Configuring the Site Homepage](#)

[Editing the Global Logo](#)

[Editing the Site Title](#)

[Editing the Site Welcome Message](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Editing the Site Welcome Message

This page last changed on Feb 02, 2006 by [vidya](#).

The site welcome message appears on the Dashboard. It can be used to provide users with an introduction of the site, or as a "message of the day".

To edit the site welcome message,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen..
3. In the text-entry box beside 'Site Welcome Message' enter your text using regular [Confluence markup](#).
4. 'Save' your changes.

RELATED TOPICS

[Configuring the Server Base URL](#)

[Configuring the Site Homepage](#)

[Editing the Global Logo](#)

[Editing the Site Title](#)

[Editing the Site Welcome Message](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

View Space Goes to Browse Space

This page last changed on Feb 02, 2006 by [vidya](#).

By default, when you click on a space link, you are taken to the space's homepage. If you wish, you can configure Confluence to redirect all space links on the site to the 'Browse Space' view of the space instead.

To direct the space link to the 'browse space' view,

1. Go to the 'Administration Console' click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen. .
3. Select 'ON' beside 'View Space goes to Browse Space' and click 'Save'.

RELATED TOPICS

[Configuring the Server Base URL](#)

[Configuring the Site Homepage](#)

[Editing the Global Logo](#)

[Editing the Site Title](#)

[Editing the Site Welcome Message](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Configuring Encoding

This page last changed on Apr 09, 2007 by [mjensen](#).

Confluence allows the configuration of which character encoding is used to deliver pages.



While different character encodings are supported, we strongly recommend that UTF-8 is used. Confluence is heavily tested on UTF-8, and users are likely to have less problems with this encoding than others.



Mac Users

Mac Users please note that MacRoman encoding is compatible with UTF-8. You do not need to change your encoding settings if you are already using MacRoman.

To avoid problems with character encoding, make sure the encoding used across the different components of your system are the same:

- [Configuring Database Character Encoding](#)
- [Application Server URL encoding](#)
- [Confluence Character Encoding](#)

If you are having problems with the character encoding in Confluence, please see the [Troubleshooting Character Encodings](#) page.

Troubleshooting Character Encodings

This page last changed on Jun 25, 2006 by david.soul@atlassian.com.

Often users may have problems with certain characters in a Confluence instance. Symptoms may include:

- Non-ASCII characters appearing as question marks (?)
- Page links with non-ASCII characters not working
- Single characters being displayed as two characters
- Garbled text appearing

In most cases, it is due to a mis-configuration in one of the components that Confluence uses.

Follow these steps to diagnose the problem:

1. Run the encoding test

Confluence includes an encoding test that can reveal problems with your configuration.

To perform the test, view the `/admin/encodingtest.action` page on your Confluence instance. You will be required to copy and paste a line of text and submit a form. The test will take the text and pass it through Confluence, the application server and the database, and return the results.



If the text displayed in the encoding test is different to what was entered, then there are problems with your character encoding settings.

A successful test looks like the following:

The encoding test has now been run. Below, you can compare the raw text delivered from Confl a round-trip through the database. All the test results should appear identical.

İñtërnâtiônàlizætiøn

This image is how all of the test results below *should* appear. this page, and all of your [System Information](#).

Test 1: Raw text

This is the test string generated in Confluence

İñtërnâtiônàlizætiøn

Test 2: Form submission

This is the test string pasted by you into the web form and submitted back to Confluence

İñtërnâtiônàlizætiøn

Test 3: Database round-trip (select as LOWER)

This is the string from Test 2 after being stored in the database and then retrieved

ıñtërnâtiônàlizætiøn

Expected result (converting Java string to lowercase)

ıñtërnâtiônàlizætiøn

Test 4: Database round-trip (select as UPPER)

This is the string from Test 2 after being stored in the database and then retrieved

İÑTËRNÂTIÔNÀLIZÆTIØN

Expected result (converting Java string to uppercase)

İÑTËRNÂTIÔNÀLIZÆTIØN

MySQL 3.x

MySQL 3.x is known to have some problems with the upper- and lower-casing of some characters, and may fail the last two tests. For more information, see [MySQL 3.x Character Encoding Problems](#).

2. Ensure the same encoding is used across all components

As mentioned in the [Configuring Encoding](#) document, the same character encoding should be used across the database, application server and web application (Confluence).

- To change the character encoding used in Confluence, see [Configuring Character Encoding](#).
- To change the character encoding used in the application server, please ensure you set the [Application Server URL encoding](#) and view your application server's documentation on any other settings required to enable your encoding.
- To change the character encoding used in the database, see [Configuring Database Character](#)

[Encoding](#).

3. Requesting support

If there are still problems with character encoding after following the above steps, [create a support request](#), and our support staff will aid in solving your problem.

Entering in the following details will help us to identify your problem:

- Attach screenshots of the problem
- Attach the results of the encoding test (above)
- Select which application server (and version) you are using
- Select which database (and version) you are using
- Copy the contents of the [System Information](#) page into the 'Description' field

"€" Euro character

This page last changed on Sep 17, 2006 by [cmiller](#).

The [€ \(euro\) symbol](#) is a three byte character, with byte values in file (UTF-8) of 0xE2, 0x82, 0xAC.

Sometimes, if the character encoding is not set consistently among all participating entities of the system, Confluence, server and the database, one may experience strange behaviour.

...

I write a page with a Euro sign in it (€). All is well, the Euro sign shows up in the wiki markup text-box, and the preview, and the display of the saved page.

One day later, the Euro sign has changed into a question mark upside down!

...

What is going on? Why does the Euro sign mysteriously change? How do I prevent it?

Interestingly enough the character encoding test passes with no problems, demonstrating that Confluence and the connected Database both recognise the € symbol.

There are two potential reasons for this behaviour:

Database and Confluence is using utf-8 encoding. The connection is not.

When data transferred to it via the connection which does not use utf-8 encoding gets encoded incorrectly. Hence, updating the connection encoding may resolve this problem from now on, yet it probably would not affect already existing data.

Database is not using utf-8. Confluence and your connection are.

If your Database encoding is not set to UTF-8, yet is using some other encoding such as latin1, it could be one of the potential reasons why you lose the "€" characters at some stage. It could be occurring due to caching. When Confluence saves data to the database, it may also keep a local cached copy. If the database encoding is set incorrectly, the Euro character may not be correctly recorded in the database, but Confluence will continue to use its cached copy of that data (which is encoded correctly). The encoding error will only be noticed when the cache expires, and the incorrectly encoded data is fetched from the database.

For instance the latin1 encoding would store and display all 2-byte UTF8 characters correctly except for the euro character which is replaced by '?' before being stored. As Confluence's encoding was set to UTF-8, the 2-byte UTF-8 characters were stored in latin1 database assuming that they were two latin1 different characters, instead of one utf8 character. Nevertheless, this is not the case for 3-byte utf8 characters, such as the Euro symbol.

Please ensure that you set the character encoding to UTF-8 for all the entities of your system as advised in this [guide](#).

MySQL 3.x Character Encoding Problems

This page last changed on Mar 21, 2006 by jeremy@atlassian.com.

MySQL 3.x is known to have some problems upper- and lower-casing certain (non-ASCII) characters.

Diagnosing the problem

1. Follow the instructions for [Troubleshooting Character Encodings](#).
2. If the upper- and lower-cased strings displayed on the Encoding Test are different, then your database is probably affected.

An example (faulty) output of the Encoding Test is shown below:

The encoding test has now been run. Below, you can compare the raw text delivered from Confluence to the database round-trip through the database. All the test results should appear identical.

Iñtërnâtiônàlizætiøn

This image is how all of the test results below *should* appear on this page, and all of your [System Information](#).

Test 1: Raw text

This is the test string generated in Confluence

Iñtërnâtiônàlizætiøn

Test 2: Form submission

This is the test string pasted by you into the web form and submitted back to Confluence

Iñtërnâtiônàlizætiøn

Test 3: Database round-trip (select as LOWER)

This is the string from Test 2 after being stored in the database and then retrieved

iñtërnâtiônàlizætiøn

Expected result (converting Java string to lowercase)

iñtërnâtiônàlizætiøn

Test 4: Database round-trip (select as UPPER)

This is the string from Test 2 after being stored in the database and then retrieved

İÑTĚRNÂTIÔNÀLIZÆTIØN

Expected result (converting Java string to uppercase)

İÑTĚRNÂTIÔNÀLIZÆTIØN

Solution

Upgrade to a newer version of MySQL. (4.1 is confirmed to work.)

Configuring Mail

This page last changed on Feb 02, 2006 by [vidya](#).

- [Configuring a Server for Outgoing Mail](#)
- [Enabling the 'Mail Page' plugin](#)
- [The Mail Queue](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Configuring a Server for Outgoing Mail

This page last changed on Apr 13, 2007 by [ktran](#).

Configuring your Confluence server to send outgoing mail allows Confluence users to:

- [receive Daily Reports](#)
- [send a page via email](#)

To configure Confluence Standalone to send outgoing mail,

1. Go to the 'Administration Console' and click 'Mail Servers' under 'Configuration' in the left panel. This will list all currently configured SMTP servers.
2. Click 'Add New SMTP Server' (or edit an existing server)
 - Name: By default, this is set to 'SMTP Server'.
 - From: Enter the email id that will be displayed in the 'from' field for email messages originating from this server.
 - Subject Prefix: Enter a subject prefix, if required.
3. Configuring the Host Address, Username and Password.
 - Manually enter your 'Host Address', 'Username' and 'Password' details in the form fields displayed (recommended).
 - OR
 - Specify the 'JNDI' location of a mail session configured in your application server in the form field displayed.

Troubleshooting

If you experience problems with these configurations, please check that your <Confluence-Install>/confluence/WEB-INF/lib contains only one copy of the following JAR files:

1. javamail-x.x.x.jar
2. activation-x.x.x.jar
3. mail-x.x.x.jar

Ideally, these should be:

- javamail-1.3.2.jar
- activation-1.0.2.jar
- mail-1.3.2.jar

You will then need to move these into the proper directory:

Standalone Version

Please move the above three jar files from the confluence/WEB-INF/lib directory to the common/lib directory and restart Confluence.

EAR/WAR Version

To Be Confirmed

RELATED TOPICS

[Configuring a Server for Outgoing Mail](#)

[Enabling the 'Mail Page' plugin](#)

[The Mail Queue](#)

Enabling the 'Mail Page' plugin

This page last changed on Mar 16, 2007 by ivan@atlassian.com.

The 'Mail Page' plugin allows anyone with the 'View' [space permission](#) to [email a Confluence page](#).

 Confluence versions 2.4 and later come with the 'Mail Page' plugin preinstalled.

The 'Mail Page' plugin is disabled by default. This is because, when someone [emails a Confluence page](#), they can select from a list of all Confluence users and groups (note, however, that email addresses are not visible), or even mail the page to arbitrary addresses. If you have enabled [anonymous access](#) or [self-signup](#), visitors could potentially use this feature to send spam or nuisance email through your Confluence server.



Please note that this plugin only works when the mail server is configured.

To enable the 'Mail Page' plugin,

1. Go to the 'Administration Console' and click 'Plugins' (under 'Configuration' in the left panel).
2. This will list all plugins that are currently installed in your Confluence system. Click 'Mail Page Plugin'.
3. This will display the 'Mail Page Plugin' details. To enable the 'Mail Page' plugin, click 'Enable plugin'.
4. Ensure that both of the following are enabled:
 - 'Mail Page Link' — displays the 'E-mail' link next to the 'Copy' link on the 'Page Info' screen (see ['E-mailing a page'](#))
 - 'mailpageactions' — enables the e-mail operation to be performed.

RELATED TOPICS

[Configuring a Server for Outgoing Mail](#)
[Enabling the 'Mail Page' plugin](#)
[The Mail Queue](#)

The Mail Queue

This page last changed on Feb 02, 2006 by [vidya](#).

Email messages waiting to be sent out are queued in a 'Mail Queue' and periodically flushed from Confluence once a minute. A site administrator can also manually flush emails from the mail queue.

If there is an error sending messages, the failed emails are sent to an 'Error Queue' from which you can either try to resend them or delete them.

To view the mail queue,

1. Go to the 'Administration Console' and click on 'Mail Queue' in the left panel. This will display the emails currently in the queue.
2. Click 'Flush Mail Queue' to send all emails immediately.
3. Click 'Error Queue' to view failed email messages. You can try to 'Resend' the messages, which will flush the mails back to the 'Mail Queue' or 'Delete' them from here.

RELATED TOPICS

[Configuring a Server for Outgoing Mail](#)
[Enabling the 'Mail Page' plugin](#)
[The Mail Queue](#)

RELATED TOPICS

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Confluence and JIRA

This page last changed on Feb 01, 2006 by [vidya](#).

- [Add Confluence EAR-WAR to JIRA Standalone](#)
- [Integrating JIRA and Confluence](#)
- [Override properties in JIRA to Confluence Bridge](#)

Add Confluence EAR-WAR to JIRA Standalone

This page last changed on Mar 16, 2007 by david.soul@atlassian.com.

This document will assist you in adding Confluence to your existing JIRA Standalone.

Step 0 - Consider alternatives

This guide is for experts only. If you run into any difficulties with this process, Atlassian technical support may provide limited assistance outside of helping users switch to running [Confluence Standalone separately](#).

Before embarking on this process, consider whether you could not rather run JIRA and Confluence in separate Tomcat instances running behind an Apache frontend server (see guides for [Confluence](#) and [JIRA](#)). There are some benefits to keeping them separate:

- Each app can be restarted without affecting the other.
- If one webapp hangs for any reason (eg. running out of memory), it doesn't affect the other.
- Any problems can be debugged more easily. Logs are separate and product-specific, rather than everything going to catalina.out. Thread and heap dumps are smaller and more relevant.
- It reduces the likelihood of jar conflicts (eg. jars that must be installed in common/lib), particularly if you later want to install a third webapp not from Atlassian.

Offsetting this is the extra complexity of having to run Apache.

If you wish to proceed, please follow these instructions:

Step 1 - Download and extract WAR

1. Download the [Confluence WAR file](#)
2. Extract the downloaded zip file. It should extract to a folder called confluence-<version>. Inside this folder you'll find a folder called "confluence". Make a note of the absolute path to this directory (as you will need to use it later). Note: Do not copy the confluence folder to the webapps folder inside tomcat - this may cause Confluence to be deployed more than once.

Step 2 - Configure confluence-init.properties

1. Open confluence/WEB-INF/classes/confluence-init.properties in a text editor
2. Set the confluence.home property to a directory of your choosing. This is the directory that will contain all of Confluence's configuration, backup and attachment files.

Step 3 - Edit tomcat context descriptors

If you are deploying to JIRA version 3.3 or higher:

1. Create a file called confluence.xml in your JIRA standalone's conf/Catalina/localhost directory (if you have set up a different hostname for your JIRA tomcat instance, please specify that instead of localhost)
2. Open confluence.xml and add these lines:

```
<Context path="/confluence" docBase="c:/applications/confluence-2.1.3/confluence" debug="0"
reloadable="true"> <Logger className="org.apache.catalina.logger.FileLogger"
prefix="atlassian-confluence." suffix=".log" timestamp="true"/> </Context>
```

3. For docBase specify the value you noted down earlier. ⚠ This is the full path to the confluence folder in your confluence-<version> installation folder, not the confluence home folder. It should look like: c:/<path to confluence installation>/confluence-<version>/confluence.

Otherwise (for older versions of JIRA):

1. Open conf/server.xml in a text editor
2. Find the block that begins: <Context path="/" docBase="../atlassian-jira" debug="0" reloadable="true"> and ends with </Context> block.
3. After the </Context>, append the following:

```
<Context path="/confluence" docBase="c:/applications/confluence-2.1.3/confluence" debug="0"
reloadable="true"> <Logger className="org.apache.catalina.logger.FileLogger"
prefix="atlassian-confluence." suffix=".log" timestamp="true"/> </Context>
```

4. For docBase specify the value you noted down earlier. ⚠ This is the full path to the confluence folder in your confluence-<version> installation folder, not the confluence home folder. It should look like: c:/<path to confluence installation>/confluence-<version>/confluence.
5. Remove the commons-logging-1.0.4.jar file from the confluence\WEB-INF\lib directory

⚠ Do not delete the existing Jira <Context> block. Insert the code above after the Jira <Context> block.

Step 4 - Modify your setenv.sh/bat (ONLY IF YOU ARE RUNNING A SUN MICROSYSTEMS JVM)

1. Open JIRA's bin/setenv.sh/bat (.sh on unix, .bat on windows) in a text editor.
2. Find the line that says: "... JAVA_OPTS=..." and add **-XX:MaxPermSize=128m** to its end.

The Java Virtual Machine sets aside a portion of memory as the "permanent space", for objects that it never expects to have to garbage-collect. Because JIRA and Confluence are both quite large applications, it is possible that this permanent space will be filled up. Increasing the application heap size will not help, because the permanent generation size is a separate setting.



This flag is only supported on JVM's created by Sun Microsystems. If you include this flag while running another vendors JVM (such as JRocket, or IBM's JVM) they will not start.

Step 5 - Restart the Server

1. Shut down, and then restart the standalone server
2. Confluence should now be accessible on the same server as your existing JIRA standalone, under

the confluence directory.

For example, if your JIRA is running at <http://jira.example.org:8080/>, Confluence will be running on <http://jira.example.org:8080/confluence>reuse

 When setting up the Confluence database do not reuse the JIRA database. Create a new database for Confluence.

Troubleshooting

When I try to send a test mail from Confluence, I get **javax.mail.NoSuchProviderException: smtp**

In some circumstances, Confluence will be unable to send email after being deployed in the same application-server as JIRA. If, when you try to send a test mail from the administration tool, you get the error: "javax.mail.NoSuchProviderException: smtp", please follow [these instructions](#) to fix it.

I have installed JIRA and Confluence in some other application server than Tomcat

These instructions only apply to the standalone Tomcat version of JIRA. Other application servers have not been tested in this configuration, and users have specifically reported difficulties deploying the two applications together in Orion Server and JBoss. We hope to resolve these issues soon.

Confluence is slow, and dumps enormous amounts of information to its logfiles

If you are seeing a large amount of DEBUG logging output, then ensure that you have removed the commons-logging-1.0.4.jar file from the confluence\WEB-INF\lib directory

Integrating JIRA and Confluence

This page last changed on Mar 16, 2007 by david.soul@atlassian.com.



If you are looking for a technical guide to the process, see [Add Confluence EAR-WAR to JIRA Standalone](#)

[JIRA](#) and [Confluence](#) were designed to complement each other. We've all seen projects where people try to store all their knowledge in the issue tracker, and we've seen projects where people have suffered trying to track issues in a knowledge management tool. We say: collect your team's thoughts, plans and knowledge in Confluence, track your issues in JIRA, and let the two applications work together to help you get your job done.

Here are four ways you can get JIRA and Confluence working together: use Confluence shortcuts to make easy links to JIRA issues, use trackback for two-way linking between Confluence and JIRA, use macros to include JIRA reports in Confluence pages, and integrate your JIRA and Confluence user management.

Combine Confluence Shortcuts and JIRA Quick Search

The simplest ideas can often be the most useful. In our Confluence site's global configuration - Administration > Shortcut Links, we have the following shortcut defined:

JIRA: `http://jira.atlassian.com/secure/QuickSearch.jspa?searchString=`

Dashboard > Administration > Browse Shortcuts

Administration

Welcome [Ivan Benko](#) | [History](#) | [Preferences](#) | [Administration](#) | [Log Out](#)

Browse Shortcuts

Shortcut links can help you compose links to your favourite websites with greater ease. They do that by storing the portion of the URL that doesn't change. For example, most google searches look like the following:

`http://www.google.com/search?q=`

To link to a google search, you can simply use:

`[searchterms@Google]`

Which is equivalent to linking to:

`http://www.google.com/search?q=searchterms`

Add Shortcut

Key:

Expanded Value:

Key	Expanded Value	Operations
cache	<code>http://www.google.com/search?q=cache:</code>	Remove
kicksn	<code>http://websvn.kickstart.org/trunk/</code>	Remove
imdb	<code>http://us.imdb.com/title?</code>	Remove
jira	<code>http://jira.atlassian.com/secure/QuickSearch.jspa?searchString=</code>	Remove
developerblog	<code>http://blogs.atlassian.com/developer/</code>	Remove
googlegroups	<code>http://groups.google.com/groups?q=</code>	Remove
google	<code>http://www.google.com/search?q=</code>	Remove
dictionary	<code>http://www.dict.org/bin/Dict?Database=*&form=Dict1&Strategy=*&Query=</code>	Remove

Administration

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This way, it's simple to create links using Confluence's shortcut notation. Link directly to JIRA issues: [CONF-1000](#), or use JIRA's intuitive quick-search functionality to create links to particular groups of issue: [CONF open improvements](#) will link to a list of all open issues in the Confluence project of type "Improvement" (try it and see!)

Use Trackback for easy two-way linking

Activate Trackback in JIRA and Confluence, and if someone makes a link from one application to the other, the link will automatically lead both ways: create a link from a JIRA issue to an example in a Confluence page, and the Confluence page will automatically know to link back to the JIRA issue, and vice versa. This is the perfect way to keep discussion connected to an issue.

- Document your user stories or use-cases in Confluence, and see at a glance which issues affect each use-case.
- If a JIRA issue requires more discussion or thought than can be conveniently held in comments, link them to a Confluence page.

(Note: as of Confluence 1.0 and JIRA 2.6, there is no mechanism for trackback to log in to JIRA or Confluence, so the use of trackback is limited to pages that are visible to anonymous visitors. In a protected Intranet environment, you may wish to open up Anonymous access to JIRA and Confluence to allow trackback to take place. Future revisions of the applications will give you the opportunity to allow Confluence to "log in" to JIRA and vice versa, avoiding this limitation)

Use the {jiraissues} macro to embed JIRA reports into your Confluence site

Any JIRA search-result can be embedded in a Confluence page using the [{jiraissues} macro](#) with your choice of included fields and field ordering. This way you can incorporate information from JIRA into the normal flow of your knowledge management. Combined with other macros like {junitreport}, {rss} and {html-include} and the FatCow suite, you can create dashboards in Confluence consolidating information from across your project, with Confluence and JIRA at the centre.

Link to Confluence pages from JIRA issues

While it is possible to simply paste links to Confluence pages into text fields of an issue (e.g. descriptions), the [JIRA Linker Plugin](#) provides a custom field that helps you find the correct page.

Integrate JIRA and Confluence user-management

To save you having to enter users into both JIRA and Confluence, you can [configure Confluence to use JIRA's user database](#) (this requires that you are using JIRA with an external database, it will not work if you are using JIRA with an embedded HSQL database)

And much more coming...

When you buy a license for JIRA or Confluence, you are automatically entitled to a year of updates. We listen to our customers needs, and having our products complement and work well with each other is very important to us. So if there is any way you think Confluence and JIRA could be made to work better,

suggest it in our [discussion space](#), and it may very well end up in a future version.

Override properties in JIRA to Confluence Bridge

This page last changed on May 10, 2005 by [vidya](#).

Overriding properties used in the JIRA and Confluence Bridge

If, for some reason, you need to override the name of a column or a table used in Confluence's bridge to JIRA, you may do so in `osuser.xml` (see below).

This is most likely something you would consider doing if columns names were failing because your database is case sensitive.

```
<provider class="bucket.user.providers.CachingCredentialsProvider">
  <property
    name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcCredentialsProvider</property>
    <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
  </provider>
  <provider class="bucket.user.providers.CachingAccessProvider">
    <property
      name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcAccessProvider</property>
      <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
    </provider>
    <provider class="bucket.user.providers.CachingProfileProvider">
      <property
        name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcProfileProvider</property>
        <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
      </provider>
      <property
        name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
      </provider>
```

Simply add the `<property name="chain.PROPERTY_NAME_HERE">NEW_VALUE</property>` element, to override a property (see below) with a new value.

Name Value Pairs for JiraJdbcAccessProvider, JiraJdbcProfileProvider and JiraJdbcCredentialsProvider

Property	Default value
userTable	userbase
userName	userName
userPassword	password_hash
groupTable	groupbase
groupName	groupname
membershipTable	membershipbase
membershipUserName	user_name
membershipGroupName	group_name
userId	id
membershipId	userId

Confluence Security

This page last changed on Oct 03, 2005 by [vidya](#).

- [Confluence Community Security Advisory 2006-01-19](#)
- [Confluence Security Advisory 2005-02-09](#)
- [Confluence Security Advisory 2005-12-05](#)
- [Confluence Security Advisory 2006-01-20](#)
- [Confluence Security Advisory 2006-01-23](#)
- [Confluence Security Advisory 2006-06-14](#)
- [Java Policy Security with Confluence](#) — If you would like to secure the confluence webapp to make sure plugins (or other code executed) cannot access unwanted system resources, the following will restrict file system access.
- [NoFollow Support](#)

Confluence Community Security Advisory 2006-01-19

This page last changed on Jan 20, 2006 by jeremy@atlassian.com.



This security advisory is not endorsed by Atlassian - this is a public service advisory from a member of the confluence community. Please remember to backup any modified files, and use these instructions at your own risk. While this information is based on Confluence v2.1.2, it may have uses with older affected versions of Confluence.

The official security advisory is located at [Confluence Security Advisory 2006-01-20](#)

Problem

There is a possibility of XSS exploitation of the Full Name user profile field when displayed.

Solution

The problem was unescaped outputting of the fullname - wrapping the output in `$generalUtil.htmlEncode()` resolve it. The vast majority of the problem can be resolved by changing `/confluence/template/includes/macros.vm` in the distribution on the following lines:

- 180
- 186
- 200
- 340
- 893

I have attached the modified [macros.vm](#) file here which you can copy into your distribution.

Scope

There are other places which are still affected which Atlassian have been made aware of, a complete resolution should be provided by Atlassian in their own official advisory.

I hope this helps some of you!

Confluence Security Advisory 2005-02-09

This page last changed on Feb 08, 2005 by [jnolen](#).

A flaw has been found in Confluence by which attackers can bypass Confluence security and change content on the site. Atlassian STRONGLY recommends that all Confluence customers apply the fix described below immediately, or upgrade to Confluence 1.3.3

Vulnerability

By crafting custom URLs, any person with the ability to browse Confluence can modify content on the site, bypassing security settings. This vulnerability does not allow users to view content they would not normally be able to view, or escalate their privileges in other ways.

This flaw affects all versions of Confluence prior to 1.3.3, including the 1.4-DR development releases.

Fix

This vulnerability is fixed in Confluence 1.3.3 and later. Customers who do not wish to migrate to 1.3.3 can fix this bug using the procedure below:

1. Edit the file `confluence/WEB-INF/classes/xwork.xml`
2. Find the following section near the top of the file (around line 34):

```
<interceptor-stack name="defaultStack">
  <interceptor-ref name="profiling">
    <param name="location">Before defaultStack</param>
  </interceptor-ref>
  <interceptor-ref name="transaction"/>
  <interceptor-ref name="authentication"/>
  <interceptor-ref name="requestParameterHack"/>
  <interceptor-ref name="eventnotifier"/>
  <interceptor-ref name="autowire"/>
  <interceptor-ref name="params"/>
  <interceptor-ref name="servlet"/>
  <interceptor-ref name="pageAware"/>
  <interceptor-ref name="permissions"/>
  <interceptor-ref name="profiling">
    <param name="location">After defaultStack</param>
  </interceptor-ref>
</interceptor-stack>
```

3. Locate the "autowire" and "params" entries:

```
<interceptor-ref name="eventnotifier"/>
-->      <interceptor-ref name="autowire"/>      <--
-->      <interceptor-ref name="params"/>         <--
      <interceptor-ref name="servlet"/>
```

4. Swap the two lines around. The whole stack should now look like this:

```
<interceptor-stack name="defaultStack">
  <interceptor-ref name="profiling">
    <param name="location">Before defaultStack</param>
  </interceptor-ref>
  <interceptor-ref name="transaction"/>
  <interceptor-ref name="authentication"/>
```

```
<interceptor-ref name="requestParameterHack"/>
<interceptor-ref name="eventnotifier"/>
<interceptor-ref name="params"/>
<interceptor-ref name="autowire"/>
<interceptor-ref name="servlet"/>
<interceptor-ref name="pageAware"/>
<interceptor-ref name="permissions"/>
<interceptor-ref name="profiling">
  <param name="location">After defaultStack</param>
</interceptor-ref>
</interceptor-stack>
```

5. Restart Confluence.

Confluence Security Advisory 2005-12-05

This page last changed on Dec 04, 2005 by [cmiller](#).

A flaw has been found in Confluence by which attackers to inject malicious HTML code into Confluence. Atlassian STRONGLY recommends that all Confluence customers apply the fix described below immediately, or upgrade to Confluence 2.0.2

Vulnerability

By entering HTML code into the Confluence search input fields, attackers can cause arbitrary scripting code to be executed by the user's browser in the security context of the Confluence instance.

This flaw affects all versions of Confluence between 1.4-DR releases and 2.0.1.

(Atlassian was not informed of the problem before it was published by third-party security researchers. You can read the third-party security advisory here: <http://secunia.com/advisories/17833/>. The vulnerability was originally reported [here](#).)

Fix

This vulnerability is fixed in Confluence 2.0.2 and later. Customers who do not wish to migrate to 2.0.2 can fix this bug using the procedure below:

1. Edit the `confluence/decorators/components/searchresults.vmd`
2. Replace the following reference (around line 48):

```
$action.getText("search.result", [$start, $end, $total, $queryString])
```

with

```
$action.getText("search.result", [$start, $end, $total, $generalUtil.escapeXml($queryString)]).
```

3. Edit the `confluence/search/searchsite-results.vm`.
4. Replace the following reference (around line 11):

```
Searched for <b>$action.searchQuery.queryString</b>
```

with

```
Searched for <b>$generalUtil.escapeXml($action.searchQuery.queryString)</b>
```

5. Restart Confluence.

Alternatively, you can download the patched source files from [CONF-4825](#). If you are patching a 2.0.x installation, then use the files with the `.2.0` suffix. If you are patching a 1.4.x installation, then use the files with the `.1.4` suffix.

Confluence Security Advisory 2006-01-20

This page last changed on Jan 20, 2006 by jeremy@atlassian.com.

A flaw has been found in Confluence by which attackers to inject malicious HTML code into Confluence. Atlassian STRONGLY recommends that all Confluence customers apply the fix described below immediately, or upgrade to Confluence 2.1.3.

Vulnerability

By entering HTML/JavaScript code into the full name of a user's profile, attackers can cause arbitrary scripting code to be executed by the user's browser in the security context of the Confluence instance.

This flaw affects all versions of Confluence between 1.4-DR releases and 2.1.2.

This issue was initially reported by [Ricardo Sueiras](#) and a fix was quickly documented by Dan Hardiker at the [Confluence Community Security Advisory 2006-01-19](#) page. Our thanks to them for bringing this to our attention.

There is an issue in JIRA at [CONF-5233](#).

Fix

This vulnerability is fixed in Confluence 2.1.3 and later. Customers who do not wish to migrate to 2.1.3 can fix this bug using the procedure below:

Steps to fix:

1. Copy [macros.vm](#) to your confluence/template/includes folder
2. Restart Confluence

Note: If you are using version 1.4.4, please download and copy this [file](#) instead. You will need to rename it back to macros.vm.

If you are not using any of the above versions, you will need to replace wrap calls to display full names of users in `$generalUtil.htmlEncode()`. Alternatively, send us an email. We do however encourage you to use the latest stable point release regardless of the version you are using.

Confluence Security Advisory 2006-01-23

This page last changed on Jan 20, 2006 by jeremy@atlassian.com.

A flaw has been found in Confluence by which the unrestricted content of a space can be revealed in search results.

Vulnerability

By entering in a space key and blank query string into the Search macro, pages from the specified space will be displayed, without filtering on page and space permissions. This can allow unpermitted users to view the excerpts of pages they don't have access to.

This flaw is confirmed to affect all releases from 1.4 to 2.1.2.

More information is available at [CONF-5189](#).

Fix

This vulnerability is fixed in Confluence 2.1.3 and later. We strongly suggest that customers upgrade to this release to fix the vulnerability.

Customers who are using 1.4.x and do not wish to upgrade can download a patched class from [CONF-5198](#).

Confluence Security Advisory 2006-06-14

This page last changed on Jun 14, 2006 by [cmiller](#).

Vulnerability

By crafting a custom HTTP request, an attacker can delete or modify global permissions settings on a Confluence site.

This flaw affects all Confluence versions between 1.4 and 2.2.2. 2.2.3 and later are not vulnerable.

Fix

This issue has been fixed in Confluence 2.2.3. Patches are also available for all versions of Confluence between 1.4 and 2.2.2. For more information, please see [this issue report](#).

Atlassian STRONGLY recommends that all customers either upgrade to Confluence 2.2.3, or apply the patch.

Java Policy Security with Confluence

This page last changed on Jan 14, 2007 by dhardiker@adaptavist.com.

If you would like to secure the confluence webapp to make sure plugins (or other code executed) cannot access unwanted system resources, the following will restrict file system access.

Create the following .java.policy file and place it somewhere:

```
grant {
  permission java.util.PropertyPermission "*", "read,write";
  permission java.net.SocketPermission "*:-", "connect,accept,listen";
  permission java.io.FilePermission "/tangosol-coherence-override.xml", "read";
  permission java.io.FilePermission "/tangosol-coherence-override-prod.xml", "read";
  permission java.io.FilePermission "/path/to/confluenceWebapp/-", "read,write";
  permission java.io.FilePermission "/path/to/confluence.home", "read,write,delete";
  permission java.io.FilePermission "/path/to/confluence.home/-", "read,write,delete";
  permission java.io.FilePermission "/path/to/resin/lib/-", "read";
  permission java.io.FilePermission "/tmp", "read";
  permission java.io.FilePermission "/tmp/*", "read,write,delete";
  permission java.io.FilePermission "quartz.properties", "read";
  permission java.util.logging.LoggingPermission "control";
  permission java.awt.AWTPermission "*";
  permission java.lang.reflect.ReflectPermission "suppressAccessChecks";
  permission java.io.SerializablePermission "*";
  permission java.lang.RuntimePermission "*";
  permission java.net.NetPermission "*";
  permission ognl.OgnlInvokePermission "*";
};
```

Make sure the following java options are defined:

```
-Djava.security.manager -Djava.security.policy=/path/to/.java.policy
```

Of course you might be able to get away with less - please edit with any improvements you have!

NoFollow Support

This page last changed on May 23, 2005 by [vidya](#).



NoFollow support is a new feature in the release of Confluence 1.4.

Nofollow Support

As part of the effort to combat the spamming of wikis and blogs (Confluence being both), Google came up with [some markup](#) which instructs search-engines not to follow links. By removing the main benefit of wiki-spamming it's hoped that the practice will stop being cost-effective and eventually die out.

By default, all URLs inserted in a page (or in comments) will be given the nofollow tag. Inter-page links (i.e. Documentation Home) or shortcut links (i.e. CONF-2622@JIRA) will not be tagged.

The site administrator can turn the feature off in General Configuration.

Hide External Links From Search Engines: ON

Design and Layout

This page last changed on Jan 31, 2006 by [vidya](#).

- [Custom Decorator Templates](#)
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 - [Customising Colour Schemes](#)
 - [Customising Layouts](#)
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 - [Working With Decorator Macros](#)
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 - [Adding a theme icon](#)
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 - [Modifying Look and Feel \(for themes\)](#)
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 - [Themes Overview](#)

Custom Decorator Templates

This page last changed on Mar 28, 2006 by [mryall](#).

About Decorators

Confluence is built on top of the Open Source [SiteMesh](#) library, a web-page layout system that provides a consistent look and feel across a site. SiteMesh works through "decorators" that define a page's layout and structure, and into which the specific content of the page is placed. If you are interested, you can read more on [the SiteMesh website](#).

What this means for Confluence is that you can customise the look and feel of almost all of your Confluence site through editing three decorators:

- The "Main" decorator defines the look and feel of most pages on the site
- The "Popup" decorator defines the look and feel of the popup windows such as the "Insert Link" and "History" pages.
- The "Printable" decorator defines the look and feel of the printable versions of pages (available through the Cannot resolve external resource into attachment. icon on each page)

You can view and edit these decorators from within Confluence: they are available from the "Site Decorators" section of the site Administration menu. Changes to the decorators will affect all spaces hosted on that Confluence installation.

The decorator that is used to draw Confluence's administrative pages can not be edited from within Confluence. This means that if you make some editing mistake that renders the rest of the site unuseable, the administrative pages should still be available for you to fix the template.

Browsing the Default Decorators

At any time, you can browse the default decorators that come packaged with Confluence by following the "View Default" links. The template browser also allows you to view the "#parsed" templates that are included within the template when it is compiled. While you can't edit these included templates, you will probably have to copy some or all of them into your custom template as you do your customisation.

Editing Custom Decorators: Add a Logo

To edit Confluence decorators, you should have a good knowledge of [HTML](#), and some understanding of the [Velocity templating language](#).

The first thing you will see when you choose to create a custom "Main" decorator is... there's not much to edit. By default, most of the content of this decorator is included from other files:

```
<html>
<head>
  <title>$title - Confluence</title>
```



```

#standardHeader()
</head>
<body onload="placeFocus()">

<div id="Content">
  <table border="0" cellpadding="0" cellspacing="0" width="100%">
    <tr>
      <td width="60%" rowspan=2 class="logocell">#pagetitle("spacename:title")</td>

      <td width="40%" align="right" valign="top">#globalnavbar("table")</td>
    </tr>
    #if ($setup.isSetupComplete())
    <tr>
      <td align=right valign="bottom">
        #usernavbar()
        #printableicon()
        #helpicon()
      </td>
    </tr>
    #end
  </table>

  #breadcrumbsAndSearch()

  <table border="0" cellpadding="5" cellspacing="0" width="100%"><tr><td>
<table border="0" cellpadding="0" cellspacing="0" width="100%"><tr>

  <td valign="top" class="pagebody">
## The "toolbar-style" page operations
## #if ($page.getProperty("page.operations"))
## <table align="right" class="toolbar"><tr><td>
## $page.getProperty("page.operations")
## </td></tr></table>
## #end

    #if ($page.getProperty("page.surtitle"))
      $page.getProperty("page.surtitle")
    #end

    #if (!$page.getProperty("page.no-page-header"))
      <div class="pageheader">
        <span class="pagetitle">$title</span>
      </div>
    #end

    $body
  </td>

#parse ("/decorators/includes/complete_footer.vmd")

```

We can add our logo, changing the "logocell" table cell:

<pre><td width="60%" rowspan=2 class="logocell"> #pagetitle("spacename:title")</td></pre>

When you insert this into the right section of the template and hit save, visitors to the site will see the logo at the top of each page. Note, the administrative pages will be unaffected: you will have to go to the dashboard or to a space to see the changes you have made.

Macros

Some parts of the page are drawn using Velocity macros, including the navigation bar. The macros you should know about when editing decorators are described in [Decorator Macros](#)

If Something Goes Terribly Wrong

From the "Site Decorators" page in Confluence's administrative menu, you can delete your custom templates. When you do this, the default template will be restored, fixing anything that may have been broken.

Alternatively, the custom templates are stored inside the `confluence.home` directory you defined in `confluence-init.properties` when installing Confluence. If you have somehow managed to render Confluence completely unuseable through editing your templates, simply delete the `confluence.home/velocity` directory, and restart Confluence. The default templates will be restored.

WARNING: Only delete the velocity directory! Changing anything else inside your `confluence.home` is dangerous, and you could lose important data!

For Advanced Users

The velocity directory is at the front of Confluence's velocity template search path. As such, you can override any of Confluence's velocity templates by placing an identically named file in the right place.

While we don't recommend you do this unless you know exactly what you're doing, it does give you complete control over the look of every aspect of Confluence. It also means that you can edit your templates in a text-editor if you wish, rather than through the web interface.

There are, however, two important caveats:

1. Velocity is configured to cache templates in memory. When you edit a page from within Confluence, it knows to reload that page from disk. If you are editing the pages on disk, you will either have to turn off velocity's caching temporarily in `WEB-INF/classes/velocity.properties`, or restart the server to make your changes visible.
2. Because we only officially support the modification of the three global decorator files, other changes may interact unpredictably with future versions of Confluence. When upgrading, you should always test your custom modifications thoroughly before deploying them on a live site.

Customising Look and Feel Overview

This page last changed on Feb 02, 2006 by [vidya](#).

You can customise the 'look and feel' of Confluence at both the global and space levels.

Any changes you make to the 'look and feel' of the site at the global level will be applied as the default 'look and feel' for all the spaces in the site.

An individual space can be configured to have its own 'look and feel' through the [space administration screens](#).

Here's how you can customise the look and feel of your site:

- [Colour Scheme](#) : Change the colour scheme of the user interface.
- [Layouts](#) : Edit how the controls are laid out in the site. This does not change the actual page layouts but the way the surrounding controls appear in the page.
- [Themes](#) : Use themes for advanced layout customisation.

RELATED TOPICS

[Customising Colour Schemes](#)
[Customising Layouts](#)
[Customising Look and Feel Overview](#)
[Global Templates](#)
[Working With Decorator Macros](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Customising Colour Schemes

This page last changed on Feb 02, 2006 by [vidya](#).

A site administrator can configure a new colour scheme for the site dynamically from the Administration Console.

The default colour scheme for the site will also become the default for all spaces within it. However, it is possible for space administrators to configure a different colour scheme for spaces from the space administration screens.

To change the site's colour scheme,

1. Go to the 'Administration Console' and click 'Colour schemes' in the left panel.
This will bring up a new screen. See Screenshot below.
2. Click 'Edit colour scheme'. Enter standard HTML/CSS2 colour codes, or use the colour-picker  to choose a new colour from the palette provided. Any changes you make will immediately be reflected across the Confluence installation.

The colour scheme applies to the following UI elements:

- Top Bar - the bar across the top of the page that contains the breadcrumbs.
- Space Name Text - the text of the current space name located above the page title.
- Heading Text - all heading tags throughout the space.
- Links - all links throughout the space.
- Borders and Dividers - table borders and dividing lines.
- Menu Bar Background - background of top navigational buttons
- Menu Bar Text - text that appears on the menu bar
- Menu Bar Background Highlight - background colour of menu bar when highlighted.
- Menu Bar Text Highlight - menu bar text when highlighted

Screenshot : Editing a site's colour scheme

Top Bar		<default>
Breadcrumbs Text		<default>
Space Name Text		<default>
Heading Text		<default>
Links		<default>
Borders and Dividers		<default>
Menu Bar Background		<default>
Menu Bar Text		<default>
Menu Bar Background Highlight		<default>
Menu Bar Text Highlight		<default>
Custom Colour 1		<default>
Custom Colour 2		<default>
Custom Colour 3		<default>
Custom Colour 4		<default>
Custom Colour 5		<default>



Handy Hint

If you mess things up, just click the 'Reset Default Colour Scheme' button and then try again.

RELATED TOPICS

[Customising Colour Schemes](#)

[Customising Layouts](#)

[Customising Look and Feel Overview](#)

[Global Templates](#)

[Working With Decorator Macros](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Customising Layouts

This page last changed on Apr 22, 2007 by david.soul@atlassian.com.

You can customise the layout of your Confluence instance by editing the "decorators" that define the look and feel of the site.

Confluence is built on top of the Open Source [SiteMesh](#) library, a web-page layout system. Read more on the [SiteMesh website](#). To edit the layout of Confluence, you will need to modify these decorator files. A decorator file is a vmd file and is written in a very simple programming language called Velocity. Learn [more about Velocity](#). Once you become familiar with Velocity, you can edit the decorator files to personalise the appearance of Confluence.

You can customise the layouts for the entire site or for an individual space.

 You need to be a site administrator to edit site decorator files.

The decorator files are grouped into:

Site layouts : These are used to define the controls that surround each page in the site. For example, the header and the footer.

Content layouts : These control the appearance of content such as pages and news items: they don't change the way the pages themselves are displayed, but allow you to alter the way the surrounding comments or attachments are displayed.

Export Layouts: These control the appearance of spaces and pages when they are exported to HTML. If you are using Confluence to generate a static website, for example, you will need to modify these layouts.

To edit a site decorator file,

1. Go to the 'Administration Console' and click on 'Layouts' under 'Look and Feel' in the left navigation panel. The decorators are grouped under Site, Content and Group layouts.
 - Click 'View Default' to view the vmd file.
 - Click 'Create Custom' to edit the default vmd file. This will open up the vmd file in edit mode.
2. Make changes and click 'Update'.

 If something goes wrong : Click 'Reset Default' to revert to the original layouts.

Alternatively, the custom templates are stored inside the `confluence.home` directory you defined in `confluence-init.properties` when installing Confluence. If you have somehow managed to render Confluence completely unuseable through editing your templates, simply delete the `confluence.home/velocity` directory, and restart Confluence. The default templates will be restored.

CAUTION: Only delete the `velocity` directory! Changing anything else inside your `confluence.home` is

dangerous, and you could lose important data!

Using Velocity Macros

When editing Custom Decorator Templates, there are a number of macros available to define complex or variable parts of the page such as menus and breadcrumbs. You may insert these macros anywhere in your templates. More information on [Working With Decorator Macros](#).

For Advanced Users

The velocity directory is at the front of Confluence's velocity template search path. As such, you can override any of Confluence's velocity templates by placing an identically named file in the right place. While we don't recommend you do this unless you know exactly what you're doing, it does give you complete control over the look of every aspect of Confluence. It also means that you can edit your templates in a text-editor if you wish, rather than through the web interface.



WARNING

1. Velocity is configured to cache templates in memory. When you edit a page from within Confluence, it knows to reload that page from disk. If you are editing the pages on disk, you will either have to turn off velocity's caching temporarily in `WEB-INF/classes/velocity.properties`, or restart the server to make your changes visible.
2. Because we only officially support the modification of the three global decorator files, other changes may interact unpredictably with future versions of Confluence. When upgrading, you should always test your custom modifications thoroughly before deploying them on a live site.

RELATED TOPICS

[Customising Colour Schemes](#)
[Customising Layouts](#)
[Customising Look and Feel Overview](#)
[Global Templates](#)
[Working With Decorator Macros](#)



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Global Templates

This page last changed on Jan 31, 2006 by [vidya](#).

A template is a pre-defined page that can be used as a prototype when creating new pages. Templates are useful for giving pages a common style or format.

Global Templates are defined by site administrators and are available in every space across the site.

Templates are written in regular [Confluence markup](#), using [special markup](#) to define form fields that need to be filled in.

To add a global template,

1. Go to the Administration Console, click on 'Global templates' in the left navigation panel.
2. Click 'Add new global template'.
3. Enter a name for your template in the 'Name' text field and an optional description in the 'Description' text field.
4. Using regular [Confluence markup](#) and [form field markup](#) (if you are using forms), enter content in the text-entry box as you would in any other Confluence page.
5. Preview and click 'Add'.

Screenshot: A template

Step 2: Fill in template variables

Choose values for the variables in this template. These values will be automatically inserted into the template for you in the correct locations.

This is a template about (Thing)

Name		(Name)
Phone Number		(PhoneNumber)
Date of Birth		(DOB)

<< Back Insert Variables

RELATED TOPICS

[Creating a Page using a Template](#)
[Form Field Markup for Templates](#)

Working With Decorator Macros

This page last changed on Apr 22, 2007 by david.soul@atlassian.com.

Decorator Macros are [Velocity](#) macros which are used to draw complex or variable parts of the page such as menus and breadcrumbs when editing [Custom decorators](#). Decorator macros can be inserted anywhere in your templates.

The macro is called by inserting a string of the form: `#macroName("argument1" "argument2" "argument3")`. There are no commas between the arguments. Unless otherwise noted, these macros take no arguments.

NOTE: These macros will only work reliably when customising `main.vmd`. They may not work in other Velocity decorators. Decorator macros will not work inside normal confluence pages.

Macro	Usage
<code>#breadcrumbs()</code>	Draws the "You are here" breadcrumbs list, like the one found above the page name in the default template.
<code>#includePage(pageTitle)</code>	Includes a confluence page with the specified title. If you have 2 or more pages with the same title across multiple spaces, this macro will include the page belonging to the space you are currently viewing.
<code>#searchbox()</code>	Inserts a search box into the page, like the one to the far right of the breadcrumbs in the default template.
<code>#globalnavbar(type)</code>	Draws the global navigation bar, as found in the top right-hand corner of the default template. The navigation bar can be displayed in two modes:
<code>#globalnavbar("table")</code>	Displays the navigation bar in its default mode: drawn as a table of links with coloured backgrounds and mouse-over effects.
<code>#globalnavbar("text")</code>	Displays the navigation bar as series of text links separated by characters.
<code>#usernavbar()</code>	Draws the user-specific navigation-bar. This bar contains the links to the user's profile and history, or to the login and signup pages if the user is not logged in.
<code>#helpicon()</code>	Draws the Cannot resolve external resource into attachment. help icon, and link to the Confluence help page.
<code>#printableicon()</code>	On pages where a printable version is available, draws the Cannot resolve external resource into attachment. printable page icon, linking to the printable version of the page. Otherwise, draws nothing

#pagetitle(class)	When you are viewing a page in a Confluence space, draws the name of the space that page is in. Otherwise, writes the word "CONFLUENCE".The "class" argument is the CSS class that the title should be drawn in. Unless you have customised your Confluence installation's CSS file, you should call this with "spacename" as the class: #pagetitle("spacename")
#poweredby()	Writes out the "Powered by Confluence" and Confluence version-number boilerplate found at the bottom of the default template.
#bottomshadow()	Draws the fading shadow-effect found at the bottom of the content area in the default template.
#dashboardlink()	Inserts a link to the dashboard page.

RELATED TOPICS

[Editing and Removing macros](#)
[Enabling HTML macros](#)
[Enabling the html-include Macro](#)
[User Macros](#)
[Writing Macros](#)

Themes Configuration

This page last changed on Jan 31, 2006 by [vidya](#).

- [Applying a Theme To A Site](#)
- [Creating a Theme](#)
 - [Adding a theme icon](#)
- [Deploying the theme as a plugin](#)
- [Including Cascading Stylesheets in Themes](#)
- [Modifying Look and Feel \(for themes\)](#)
 - [Configuring the theme plugin](#)
- [Themes Overview](#)

Applying a Theme To A Site

This page last changed on Apr 23, 2007 by david.soul@atlassian.com.

Themes can be applied across the site or to individual spaces.

Themes are installed as plugins and added via the administration console by a site administrator. Once installed, themes become available to be applied across a site or to individual spaces. Any theme applied at the global level will become the default theme for all spaces in the site.

To apply a theme across the site,

1. Ensure that the theme plugin you wish to apply has been [installed](#).
2. Go to the 'Administration Console' and click on 'Themes' under 'Look and Feel' in the left navigation panel.
3. If there are any themes installed, they will be listed here.
4. Select a theme and click 'Confirm'.

RELATED TOPICS

[Adding a theme icon](#)

[Applying a Theme To A Site](#)

[Applying A Theme To A Space](#)

[Creating a Theme](#)

[Including Cascading Stylesheets in Themes](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Creating a Theme

This page last changed on Mar 30, 2006 by jens@atlassian.com.

There are three steps involved in creating a theme:

- [Modifying the look and feel of Confluence](#): Work with the different components that define the look and feel of Confluence and modify them to suit your theme:
 - Layout
 - Colour Scheme (optional)
 - Stylesheet (optional)
- [Configuring the atlassian-plugin.xml file](#): Edit the central configuration file for the theme plugin to reference the new files defining your theme.
- [Adding a theme icon](#): Add a preview icon for your theme.
- [Deploying the theme as a plugin](#): Bundle the files into a jar file and deploy the theme as a plugin into Confluence.

[Unsure what a theme is?](#)

RELATED TOPICS

[Adding a theme icon](#)

[Applying a Theme To A Site](#)

[Applying A Theme To A Space](#)

[Creating a Theme](#)

[Including Cascading Stylesheets in Themes](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Adding a theme icon

This page last changed on Mar 30, 2006 by jens@atlassian.com.

A theme icon can be packed with a theme to give the user a little preview on how the theme will change the layout of Confluence. If you do not specify a custom icon for your theme, a default icon will be shown in the preview.

Defining the theme icon in the atlassian-plugin.xml

To include an icon in the theme, you will need to reference it as a [Downloadable Plugin Resource](#) from within the [theme module](#).

Here is an example where an icon called my-theme-icon.gif is being used in the Dinosaur Theme:

```
<theme key="dinosaurs" name="Dinosaur Theme"
class="com.atlassian.confluence.themes.BasicTheme">
  <description>A nice theme for the kids</description>
  <colour-scheme key="com.example.themes.dinosaur:earth-colours"/>
  <layout key="com.example.themes.dinosaur:main"/>
  <layout key="com.example.themes.dinosaur:mail-template"/>
  <resource name="themeicon.gif" type="download"
location="com/example/themes/dinosaur/my-theme-icon.gif">
    <property key="content-type" value="image/gif"/>
  </resource>
</theme>
```

The resource parameter takes three arguments:

- Name: The name of the icon (⚠️ has to be themeicon.gif).
- Type: The type of resource-in this instance, 'download'.
- Location: The location of the file represented in the jar archive you will use to bundle your theme.

The icon will automatically appear on the themes screen in the space and global administration and will be displayed next to the text and description of the theme.



☒ Default Theme

Assign the default Confluence look and feel. You can customise colour-schemes and layouts manually.

Creating your own theme icon

In order to keep the look and feel of the icons consistent, we recommend to base the icon style on icons shipped with the Confluence themes. A good starting point when creating new icons is to use the default theme icon or the left navigation theme icon:



RELATED TOPICS

- [Adding a theme icon](#) (Confluence)
- [Applying a Theme To A Site](#) (Confluence)
- [Applying A Theme To A Space](#) (Confluence 2 User Guide)
- [Creating a Theme](#) (Confluence)
- [Including Cascading Stylesheets in Themes](#) (Confluence)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Deploying the theme as a plugin

This page last changed on Feb 26, 2007 by david.soul@atlassian.com.

In order to deploy your custom Confluence theme, you will have to have [Ant](#) installed. To learn how to install and use Ant, please follow the [instructions](#) on the projects website.

To deploy the theme, execute the following command from within the theme directory in your Confluence installation:

```
ant build -Dtheme=<specifynameoftheme>
```

For example to build a theme with the name dinosaur, you will have to type:

```
ant build -Dtheme=dinosaur
```

You will find the build jar of the dinosaur theme in you Confluence install directory under `.../themes/dinosaur/dist_` directory.

Installing the theme

To install the theme you can simply drop the previously created .jar file into the `.../confluence/WEB-INF/lib` directory in your Confluence installation as described under [Installing and Configuring Plugins](#).

As a second option, you can also call the following ant command instead of the one found above to install the theme and copy the jar automatically in the appropriate directory.

```
ant install -Dtheme=<specifynameoftheme>
```

Read more about [plugins](#)

To change the time and date formats,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
 - There are three time and date format settings:
 - Time Format : determines the time format for when each news item is posted
 - Date Time Format : determines date and time format for historical versions of pages.
 - Date Format : determines date and time format for all new and modified content.
3. Change the formats using the guidelines in [this document](#).
4. 'Save' your changes.

RELATED TOPICS

[Adding a theme icon](#) (Confluence)

[Applying a Theme To A Site](#) (Confluence)

[Applying A Theme To A Space](#) (Confluence 2 User Guide)

[Creating a Theme](#) (Confluence)

[Including Cascading Stylesheets in Themes](#) (Confluence)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Including Cascading Stylesheets in Themes

This page last changed on Apr 24, 2007 by david.soul@atlassian.com.

Confluence allows you to integrate your own stylesheets within the theme plugin so you can have greater control over the appearance of your site. Confluence's main stylesheet is a useful reference when overriding styles and can be found in the Confluence install directory under `...confluence/WEB-INF/classes/styles/site-css.vm`.

Step One: Defining the stylesheet in the atlassian-plugin.xml

To make a stylesheet available to a decorator, you will need to reference it as a resource from within the central configuration file - `atlassian-plugin.xml`.

Here is an example where a stylesheet is being used to define the 'leftnavigation' theme:

```
<layout key="main" name="Main Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
overrides="/decorators/main.vmd">
<resource type="velocity" name="decorator"
location="templates/leftnavigation/main.vmd"/>
<resource type="stylesheet" name="leftnav.css"
location="templates/leftnavigation/leftnav-css.vm">
</resource>
</layout>
```

The resource parameter takes three arguments:

- Type: The type of resource-in this instance, 'stylesheet'.
- Name: The name of the stylesheet.
- Location: The location of the file represented in the jar archive you will use to bundle your theme.

Step Two: Using the stylesheet in the decorator

To reference the stylesheet in the decorator, you will need to use the `#pluginStylesheet` velocity macro.

For example, here's how you reference the `leftnav.css` file defined in the layout entry above:

```
#pluginStylesheet("com.atlassian.confluence.themes.leftnavigation:main" "leftnav.css")
```

The macro takes two arguments:

- `completePluginKey`: The complete plugin key which is constructed from the pluginkey and the layout key like this: `{pluginKey}:{layoutKey}`
In the above example, `com.atlassian.confluence.themes.leftnavigation` is the key of the plugin, and `main` is the key of the layout.
- `stylesheetName`: the name of the stylesheet

If you place your stylesheet after the `#standardHeader` macro in the decorator, the contents of your custom stylesheet will override those in Confluence's default stylesheet.

If your stylesheet needs to reference the colour scheme, you need to use the space stylesheet macro instead:

```
#pluginSpaceStylesheet("com.atlassian.confluence.themes.leftnavigation:main" "leftnav.css"
$spaceKey)
```

You can then use colour scheme references in your stylesheet, similar to Confluence's stylesheets, and they will be replaced with the appropriate global or space-specific colour scheme:

```
.navItemOver {
    color: $action.navSelectedTextColor;
}
```

RELATED TOPICS

- [Adding a theme icon](#) (Confluence)
- [Applying a Theme To A Site](#) (Confluence)
- [Applying A Theme To A Space](#) (Confluence 2 User Guide)
- [Creating a Theme](#) (Confluence)
- [Including Cascading Stylesheets in Themes](#) (Confluence)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Modifying Look and Feel (for themes)

This page last changed on Feb 01, 2007 by [dchui](#).

Here's how you can define a new look and feel for Confluence in your theme:

1. Layout : Edit Confluence's layout by modifying the decorator files that are used to define it.
 - [Working with Decorators](#)
 - [Velocity Template Overview](#)
 - [Configuring the atlassian.plugin.xml file to reference the decorators](#)
2. Colour schemes : Configure a new colour scheme for your theme. Optional
 - [Configuring a new colour scheme](#)
 - [Configuring the atlassian.plugin.xml file to include the new colour scheme](#)
3. [Stylesheet](#) : Include a stylesheet to define your theme. Optional

i Note that for every component you edit, you will need to configure the `atlassian-plugin.xml` which is the central configuration file for the plugin to override the default files with the new files you've created.

Layout: Working with decorators

What are decorators?

Confluence is built on top of the Open Source [SiteMesh](#) library, a web-page layout system. To edit the layout of Confluence, you will need to modify these decorator files. A decorator file is a vmd file and is written in a very simple programming language called Velocity. Learn [more about Velocity](#).

Confluence comes bundled with a set of decorator or VMD files that you can customize. Broadly these are categorised into Site, Content and Export decorators. These are further grouped into categories called contexts and under each context has various modes (ways of viewing the context).

To make editing easier, layout for similar screens (example: view and edit page screens) is configured through the same VMD file. So, if you want to customize how the Confluence View Page Screen or Edit Page Screen looks, you can make both of these changes inside one decorator file: `page.vmd`.

Decorator	Context	Mode	Comment
page.vmd	page	'view', 'edit', 'edit-preview', 'view-information', and 'view-attachments'	
blogpost.vmd	blogpost (news)	'view', 'edit', 'edit-preview', and 'remove'	We prefer to use 'news' as an end-user term; all templates and classes use 'blogpost' to indicate RSS related content
mail.vmd	mail	'view', 'view-thread' and	

		'remove'	
space.vmd	space-pages, space-mails, space-blogposts, space-templates, space-operations, space-administration	CONTEXT: "space-pages". MODES: "list-alphabetically", "list-recently-updated", "list-content-tree", "create-page". CONTEXT: "space-mail". MODES: "view-mail-archive". CONTEXT: "space-blogposts". MODES: "view-blogposts", "create-blogpost". CONTEXT: "space-templates". MODES: "view-templates". CONTEXT: "space-operations". MODES: "view-space-operations". CONTEXT: "space-administration". MODES: "view-space-administration", "list-permission-pages".	space.vmd handles a wide range of options, this context is accessed by clicking on 'browse space' in the default theme of Confluence (tabbed theme)
global.vmd	global	'dashboard', 'view-profile', 'edit-profile', 'change-password-profile', 'edit-notifications-profile'	
main.vmd	n/a (header and footer formatting)		main.vmd is used to control the header and footer of each page, not the page specific presentation logic

For example, if you wanted to remove the 'Attachments' tab on the view page screen, you would make this layout change in the page.vmd file - where the 'view' mode is handled (as shown below).

```

#*
    Display page based on mode: currently 'view', 'edit', 'preview-edit', 'info' and
    'attachments'.
    See the individual page templates (viewpage.vm, editpage.vm, etc.) for the setting of the
    mode parameter.
    *#
    ## VIEW
    #if ($mode == "view")
        <make layout modifications here>
    #elseif ...

```

Step One: Copying the decorators

The easiest way to begin configuring a new layout is by copying the default decorator files and editing them to suit your theme.

1. Go to the 'Administration Console' and click on Layouts in the left panel. This will display options to view and edit the default decorators.
2. Copy the files that you intend to modify and place them in a directory structure that makes sense to you. See example below.

Step Two: Creating a directory structure for the decorators:

You should place your decorators in a directory hierarchy which makes sense to you. We recommend that you place the `atlassian-plugin.xml` file at the top level of the directory structure, and then place the decorators in directories which make a meaningful division of what they do.

Here is an example:

```
atlassian-plugin.xml
com/atlassian/confluence/themes/mytheme/
com/atlassian/confluence/themes/mytheme/global.vmd
com/atlassian/confluence/themes/mytheme/space.vmd
com/atlassian/confluence/themes/mytheme/mail.vmd
com/atlassian/confluence/themes/mytheme/blogpost.vmd
com/atlassian/confluence/themes/mytheme/main.vmd
com/atlassian/confluence/themes/mytheme/page.vmd
```

Step Three: Editing the decorators

To edit the decorators, you will require knowledge of a very simple programming language called Velocity. Learn [more about Velocity](#).

Decorator Macros

When editing the decorators, you will need to use Decorator Macros to draw complex or variable parts of the page such as menus and breadcrumbs. See `DOCPRIV2:Working with Decorator Macros`

Theme Helper Object

When editing decorator files you will also come across a variable called `$helper` - this is the theme helper object.

The following table summarises what this object can do:

Behaviour	Explanation
<code>\$helper.domainName</code>	displays the base URL of your Confluence instance

	on your page. This is useful for constructing links to your own Confluence pages.
<code>\$helper.spaceKey</code>	returns the current space key or null if in a global context.
<code>\$helper.spaceName</code>	returns the name of the current space
<code>\$helper.renderConfluenceMacro("{create-space-button}")</code>	renders a call to a Confluence Macro for the velocity context
<code>\$helper.getText("key.key1")</code>	looks up a key in a properties file matching key.key1=A piece of text and returns the matching value ("A piece of text")
<code>\$helper.action</code>	returns the XWork action which processed the request for the current page.

If you are on a page or space screen you also have access to the actual page and space object by using `$helper.page` and `$helper.space` respectively.

If you want to deliver more into what other methods are available in this object, please see our API's for ThemeHelper.

Step Four: Configuring the central configuration file to reference the new decorators

How to do this is explained in [Configuring the theme plugin](#)

Working with colour schemes for themes

Configuring the colour scheme

The easiest way to configure a colour scheme is to do it dynamically from the Administration Console (as you would normally when you want to change the site's colour scheme online), and then express it as an xml file. This method makes it possible for you to experiment with different colours and test them out before including the colour scheme in your theme.

1. Go to the 'Administration Console' and click on 'Colour scheme' in the left panel.
2. Use the colour picker to define the colours for the following UI elements:
 - Top Bar - the bar across the top of the page that contains the breadcrumbs.
 - Space Name Text - the text of the current space name located above the page title.
 - Heading Text - all heading tags throughout the space.
 - Links - all links throughout the space.
 - Borders and Dividers - table borders and dividing lines.
 - Menu Bar Background - background of top navigational buttons

- Menu Bar Text - text that appears on the menu bar
- Menu Bar Background Highlight - background colour of menu bar when highlighted.
- Menu Bar Text Highlight - menu bar text when highlighted

[More information on customising colour schemes](#)

Expressing the colour scheme as XML

Once, you have decided on the colours for the different UI elements, you will need to configure the `atlassian.plugin.xml` to include the new colour scheme. How to do this is explained in detail in [Configuring the theme plugin](#).

RELATED TOPICS

[Adding a theme icon](#)

[Applying a Theme To A Site](#)

[Applying A Theme To A Space](#)

[Creating a Theme](#)

[Including Cascading Stylesheets in Themes](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Configuring the theme plugin

This page last changed on Sep 28, 2006 by tom@atlassian.com.

Each plugin is described in its own `atlassian-plugin.xml` file, which specifies attributes of the plugin, including a description of each module it contains. Once you have modified the different components to define a new look and feel for your theme, you will need to configure this file so Confluence knows where to look when overriding the default files.

The easiest way to begin is by copying the `atlassian-plugin.xml` from one of the default themes bundled with confluence and modifying it for your theme.

The structure of an `atlassian-plugin.xml` file is fairly self-explanatory. In the code segment below you will find a full example of an `atlassian-plugin.xml`:

```
<atlassian-plugin key="com.atlassian.confluence.themes.tabless" name="Plain Theme">
  <plugin-info>
    <description>This theme demonstrates a plain look and feel for Confluence. It is useful
as a building block for your own themes.</description>
    <version>1.0</version>
    <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/">
  </plugin-info>

  <theme key="tabless" name="Tabless Theme"
class="com.atlassian.confluence.themes.BasicTheme">
    <description>plain Confluence theme.</description>
    <layout key="com.atlassian.confluence.themes.tabless:main"/>
    <layout key="com.atlassian.confluence.themes.tabless:global"/>
    <layout key="com.atlassian.confluence.themes.tabless:space"/>
    <layout key="com.atlassian.confluence.themes.tabless:page"/>
    <layout key="com.atlassian.confluence.themes.tabless:blogpost"/>
    <layout key="com.atlassian.confluence.themes.tabless:mail"/>
    <colour-scheme key="com.atlassian.confluence.themes.tabless:earth-colours"/>
  </theme>

  <layout key="main" name="Main Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/main.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/main.vmd"/>
  </layout>

  <layout key="global" name="Global Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/global.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/global.vmd"/>
  </layout>

  <layout key="space" name="Space Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/space.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/space.vmd"/>
  </layout>

  <layout key="page" name="Page Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/page.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/page.vmd"/>
  </layout>

  <layout key="blogpost" name="Blogpost Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/blogpost.vmd">
    <resource type="velocity" name="decorator"
      location="com/atlassian/confluence/themes/tabless/blogpost.vmd"/>
  </layout>
</atlassian-plugin>
```

```

</layout>

<layout key="mail" name="Mail Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
    overrides="/decorators/mail.vmd">
    <resource type="velocity" name="decorator"
        location="com/atlassian/confluence/themes/tabless/mail.vmd"/>
</layout>

<colour-scheme key="earth-colours" name="Brown and Red Earth Colours"
    class="com.atlassian.confluence.themes.BaseColourScheme">
    <colour key="topbar" value="#440000"/>
    <colour key="spacename" value="#999999"/>
    <colour key="headingtext" value="#663300"/>
    <colour key="link" value="#663300"/>
    <colour key="border" value="#440000"/>
    <colour key="navbg" value="#663300"/>
    <colour key="navtext" value="#ffffff"/>
    <colour key="navselectedbg" value="#440000"/>
    <colour key="navselectedtext" value="#ffffff"/>
</colour-scheme>

</atlassian-plugin>

```

Modifying the {{atlassian-plugin.xml}}file

We will configure this file section by section

Plugin information

```

<atlassian-plugin key="com.atlassian.confluence.themes.tabless" name="Plain Theme">
  <plugin-info>
    <description>This theme demonstrates a plain look and feel for Confluence. It is useful
as a building block for your own themes.</description>
    <version>1.0</version>
    <vendor name="Atlassian Software Systems Pty Ltd" url="http://www.atlassian.com/">
  </plugin-info>

```

plugin key : Specify a key that uniquely identifies the plugin, eg. com.example.themes.dinosaur

name : Give the plugin a name.

description : Provide a short description of the plugin.

vendor : Replace the text with your information.

Theme information

```

<theme key="dinosaurs" name="Dinosaur Theme"
    class="com.atlassian.confluence.themes.BasicTheme">
  <description>A nice theme for the kids</description>
  <colour-scheme key="com.example.themes.dinosaur:earth-colours"/>
  <layout key="com.example.themes.dinosaur:main"/>
  <layout key="com.example.themes.dinosaur:mail-template"/>
</theme>

```

theme key : Specify a key that uniquely identifies the theme.

class : The class of a theme must implement `com.atlassian.confluence.themes.Theme`. The `com.atlassian.confluence.themes.BasicTheme` class provided with Confluence gathers together all the resources listed within the module definition into a theme.

name : Give the theme a name. Make sure that you replace all instances of the theme name with this name.

description : Provide a short description of your theme

colour-scheme key : A theme can contain an optional colour - scheme element that defines which colour-scheme module this theme will use. If you are using a new colour scheme, enter its key.

layout key : A theme can contain any number of layout elements that define which layouts should be applied in this theme. Refer to these modules by their module complete key as shown above.

Referencing the decorators

You will need to add a layout entity as shown below for each of the decorators you are using. See [working with decorators](#)

```
<layout key="page" name="Page Decorator"
class="com.atlassian.confluence.themes.VelocityDecorator"
  overrides="/decorators/page.vmd">
  <resource type="velocity" name="decorator"
    location="com/atlassian/confluence/themes/tables/page.vmd"/>
</layout>
```

class : The class which each decorator, or layout, is mapped to must implement `com.atlassian.confluence.themes.VelocityDecorator`.

overrides : The layout entry must provide an `overrides` attribute which defines which decorator within Confluence is being overridden by the theme.

Location : Specify the location of the new decorator file, so Confluence know where to look when overriding the default decorator.

 It is possible for a theme to use modules that aren't in the same plugin as the theme. Just keep in mind that your theme will be messed up if the plugin that the theme depends on is removed.

Including the colour scheme

Colour schemes can be pre-configured for your theme dynamically from the Administration Console. See [configuring colour schemes](#)

To transport them within a theme however, they need to be expressed in the `atlassian-plugin.xml` file

as shown above.

```
<colour-scheme key="earth-colours" name="Brown and Red Earth Colours"
  class="com.atlassian.confluence.themes.BaseColourScheme">
  <colour key="topbar" value="#440000"/>
  <colour key="spacename" value="#999999"/>
  <colour key="headingtext" value="#663300"/>
  <colour key="link" value="#663300"/>
  <colour key="border" value="#440000"/>
  <colour key="navbg" value="#663300"/>
  <colour key="navtext" value="#ffffff"/>
  <colour key="navselectedbg" value="#440000"/>
  <colour key="navselectedtext" value="#ffffff"/>
</colour-scheme>
```

colour-scheme key : Specify a key that uniquely identifies the colour scheme.

name : Give a name to the colour scheme.

class : The class of the colour scheme must implement `com.atlassian.confluence.themes.ColourScheme`. The `com.atlassian.confluence.themes.BaseColourScheme` class provided with Confluence sets the colours based on the module's configuration.

colour key: For each UI element, you will need to add its name and value.

see [configuring colour scheme](#)

RELATED TOPICS

[Adding a theme icon](#)

[Applying a Theme To A Site](#)

[Applying A Theme To A Space](#)

[Creating a Theme](#)

[Including Cascading Stylesheets in Themes](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Themes Overview

This page last changed on Apr 23, 2007 by david.soul@atlassian.com.

Themes are pre-defined styles that can be applied to alter the appearance of your site.

Use themes when you want to add new functionalities or to change the appearance of Confluence. For example, you will need to use themes to apply a left-navigation scheme instead of the default top-navigation scheme.

Themes are installed as plugins and added via the Administration Console by a site administrator. Once installed, themes can be applied across the site or to individual spaces.

What do you want to do?

[Apply a theme](#)

[Create a new theme](#)

[Include cascading stylesheets in a theme](#)

RELATED TOPICS

[Adding a theme icon](#)

[Applying a Theme To A Site](#)

[Applying A Theme To A Space](#)

[Creating a Theme](#)

[Including Cascading Stylesheets in Themes](#)



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Importing Data

This page last changed on Jan 31, 2006 by [vidya](#).

- [Snip Snap Import](#)

Snip Snap Import

This page last changed on Feb 02, 2006 by [vidya](#).

The snipsnap importer allows you to import a Snip Snap XML backup file into a space in Confluence.

 Currently, attachments are not imported, and Confluence does not recognise duplicate users.

To import a SnipSnap backup file,

1. Go to the Administration Console and click on 'Snip Snap Import' in the left panel.
2. Enter the location of the backup file in the input field displayed. You can also 'browse' and locate the file.
3. Select a space to import the content into and click 'Save'.
 -  You cannot import content into multiple spaces.

RELATED TOPICS

[Confluence File Uploader](#)

[Perl XML-RPC client](#)

[Snip Snap Import](#)

[Wiki Importer](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Macros

This page last changed on Jan 31, 2006 by [vidya](#).

- [Editing and Removing macros](#)
- [Enabling HTML macros](#)
- [Guide to Confluence Macros](#)
 - [Attachments Macro](#)
 - [Blog Posts Macro](#)
 - [Children Display Macro](#)
 - [Child Page 1](#)
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 - [Code Block Macro](#)
 - [Color Text Macro](#)
 - [Create Space Button Macro](#)
 - [Dynamic Tasklist Macro](#)
 - [Enable The Flowchart Macro](#)
 - [Gallery Macro](#)
 - [Global Reports Macro](#)
 - [IM Presence Macro](#)
 - [Include Page Macro](#)
 - [JIRA Issues Macro](#)
 - [JIRA 3.7 Link Format Change](#)
 - [JIRA Portlet Macro](#)
 - [JUnit Report Macro](#)
 - [Layout Macros](#)
 - [Noformat Macro](#)
 - [Recently Updated Content Macro](#)
 - [RSS Feed Macro](#)
 - [Search Macro](#)
 - [Space Details Macro](#)
 - [Spacegraph Macro](#)
 - [Spaces List Macro](#)
 - [Userlister Macro](#)
 - [Welcome Message Macro](#)

Editing and Removing macros

This page last changed on Feb 02, 2006 by [vidya](#).

To edit or remove a user macro,

1. Go to the 'Administration Console' and click on 'User Macros' in the left panel. This will list the currently configured user macros with options to 'Edit' or 'Remove' each macro.
 - Click 'Edit'. This will display the edit screen for the macro. [Make changes](#) in the 'template' input field and click 'Save'.
 -  Templates are in HTML, not wiki markup.
 - Click 'Remove' to delete the macro.

RELATED TOPICS

[Editing and Removing macros](#)
[Enabling HTML macros](#)
[Enabling the html-include Macro](#)
[User Macros](#)
[Writing Macros](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Enabling HTML macros

This page last changed on Aug 07, 2006 by tom@atlassian.com.

The {html} macro allows you to use HTML code within a Confluence page.

The {html-include} macro allows you to include the contents of an HTML file in a Confluence page.

CAUTION: Including unknown HTML inside a webpage is dangerous. Because HTML can contain active scripting components, it would be possible for a malicious attacker to present a user of your site with script that their web browser would believe came from you. Such code could be used, for example, to steal a user's authentication cookie and give the attacker their Confluence login password. By default, the html macros are disabled. You should only turn on these macros if you trust all your users not to attempt to exploit them.

To enable the HTML macros,

1. Go to the 'Administration Console' and click 'Plugins' in the left panel. This will display the installed plugins active for this Confluence installation.
2. Click 'HTML macros', then click 'Enable Plugin'

RELATED TOPICS

[Editing and Removing macros](#)

[Enabling HTML macros](#)

[Enabling the html-include Macro](#)

[User Macros](#)

[Writing Macros](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Guide to Confluence Macros

This page last changed on Oct 20, 2005 by [vidya](#).

Macros allow you to perform programmatic functions within a page, and can be used for generating more complex content structures.

Generally speaking, a macro is simply a command wrapped inside curly braces {...}. To learn how to write your own macro, or use macros written by other people, read the [Confluence Plugin Guide](#).

Macros currently available in Confluence include:

- [Attachments Macro](#) — Show a list of attachments belonging to the current page.
- [Blog Posts Macro](#) — Lists the most recent blog entries in the space.
- [Children Display Macro](#) — Displays the children and descendants of the current page.
- [Code Block Macro](#) — Allows you to display code in your document with the appropriate syntax highlighting.
- [Color Text Macro](#) — Change the color of a block of text.
- [Create Space Button Macro](#) — Renders a create space button linked to the create space page.
- [Dynamic Tasklist Macro](#) — Displays a dynamic task list which can be modified in View mode.
- [Enable The Flowchart Macro](#)
- [Gallery Macro](#) — Forms a thumbnail gallery of all images attached to a page
- [Global Reports Macro](#) — Renders a list of links to global reports within a table
- [IM Presence Macro](#) — Show a graphic indication of when someone is online
- [Include Page Macro](#) — Inserts the contents of the specified page into the current one.
- [JIRA Issues Macro](#) — Display a list of JIRA issues in a page.
- [JIRA Portlet Macro](#) — Display a JIRA dashboard portlet in Confluence
- [JUnit Report Macro](#) — Display a summary of JUnit test results
- [Layout Macros](#) — Allows display content in multiple columns.
- [Noformat Macro](#) — Displays a block of text in monospace font
- [Recently Updated Content Macro](#) — Include a list of which Confluence content has changed recently
- [RSS Feed Macro](#) — Displays the contents of an RSS feed.
- [Search Macro](#) — Search Confluence, and include the results in the page
- [Space Details Macro](#) — Include the summary of a Confluence space in the page
- [Spacegraph Macro](#) — Displays a chart of the pages in a space and their connections.
- [Spaces List Macro](#) — Displays a list of all spaces visible to the user
- [Userlister Macro](#) — Display a list of Confluence users, from an optional group
- [Welcome Message Macro](#) — Include the Confluence site welcome message.

Attachments Macro

This page last changed on Apr 19, 2007 by [cmiller](#).

Attachments Macro

Usage:	<code>{attachments:patterns=pattern, ... old=true/false sortBy=name/size/date upload=true/false}</code> the patterns, old and sortBy arguments are all optional
Description:	Show a list of attachments belonging to the current page. Optionally filter attachments by name, optionally include old attachments, optionally allow uploads of new attachments.
Example:	<code>{attachments:patterns=.*jpg,.*gif old=true sortBy=date}</code>
Input:	patterns An optional comma separated list of regular expressions, any of which must match a complete file name for it to be included in the output of the macro. Note that the patterns are regular expressions, so to match a file suffix of 'jpg', use <code>.*jpg</code>, not <code>*.jpg</code>. old An optional true/false value which determines whether to show old versions of attachments. False by default.
Output:	A list of attachments belonging to the current page.
Bundled with Confluence?:	Yes

Here's a [detailed tutorial on regular expressions](#), but often you just need to know that '.' matches any character and '*' matches zero or more occurrences of the preceding character. So '.' in a regular expression matches anything (including nothing).

The regular expression pattern 'a.jpg' will match 'a123.jpg', 'axxxxxxxxxjpg' or 'ajpg'. The regular expression '.*handout.' would match 'Biology handout number one.doc', 'Chemistry handout2.txt' or 'handout'.



Issue

There is a current issue open against this bug that prevents the "old" parameter from working on Confluence 2.3.3 onwards. Please see [CONF-8297](#) for more details.

This bug is fixed in Confluence 2.4.6

Blog Posts Macro

This page last changed on Feb 10, 2006 by [gfraser](#).

Blog Posts Macro

Usage:	<code>{blog-posts:1}</code>
Description:	Lists the most recent blog entries in the space.
Example:	 Sunday, September 25, 2005 Confluence 1.4.4 Released Confluence 1.4.4 is a maintenance release that resolves some issues users may have encountered using Confluence 1.4 or higher. It fixes approximately 40 issues, including making the dynamic uploading of plugins significantly more reliable. 1.4.4 is a free upgrade for all customers who purchased their Confluence license after September 23, 2004. If you're not a Confluence customer, you can download a fully functional 30-day trial, Also don't forget we offer free licenses to registered non-profit organisations and qualifying open source projects. Further Reading • Find out what's new in the Confluence 1.4.4 Release Notes • Download Confluence 1.4.4  Posted at 25 Sep @ 9:26 AM by  Charles Miller  0 comments Edit
Arguments:	1: The number of posts to display content:
Output:	A listing of blog posts the number of which determined by input
Bundled with Confluence?:	yes

Children Display Macro

This page last changed on Nov 22, 2005 by tom@atlassian.com.

Displays the children and descendants of the current page.

Usage:

`{children}`

OR

`{children:page=a_page_title}`

OR

`{children:all=true}`

OR

`{children:depth=a_depth}`

OR

`{children:depth=_a_depth_|style=heading_style}`

OR

`{children:_sort=<mode>|reverse=<true or false>}`

parameter	Required	Default	Description
page	no	the current page	Specify which page to display children for
depth	no	none	Specify the depth of descendents to display
style	no	none	One of "h1", "h2" "h6" - displays children in a contents view
excerpt	no	false	Display the child pages' excerpts (if they exist)
sort	no	title	The 'sort' attribute is an optional attribute that allows you to configure how the children are sorted. Specify 'creation' to sort by content creation date, 'title' to sort alphabetically on title and 'modified' to sort of last modification date.
reverse	no	false	Use the reverse attribute to optionally reverse the sorting.



If the page parameter is '/', then the macro will list all the current space's "top level" pages - those without parents. If the page parameter is a space key followed by a colon (e.g `{children:page=DOC:}`), then the top level pages of that space will be listed.

Example 1:

```
{children:all=true}
```

gives:

- [Child Page 1](#)
 - [Grandchild Page](#)
- [Child Page 2](#)

Example 2:

A depth of 1 will only display the first generation descendents of the current page. That is it will only display the direct children of the current page.

```
{children:depth=1}
```

gives:

- [Child Page 1](#)
- [Child Page 2](#)

Example 3:

A style of "h3" will display the page's direct children as level 3 headings, with their children as lists below the headings. Very useful for quickly generating a contents page

```
{children:all=true|style=h3}
```

gives

[Child Page 1](#)

- [Grandchild Page](#)

[Child Page 2](#)

Child Page 1

This page last changed on Jan 19, 2004 by dave@atlassian.com.

Grandchild Page

This page last changed on Mar 18, 2004 by mike@atlassian.com.

This is the grandchild page!

Child Page 2

This page last changed on Jan 19, 2004 by dave@atlassian.com.

Code Block Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

Allows you to display code in your document with the appropriate syntax highlighting.

Usage:

`{code:language} ... code ... {code}`

OR

`{code} ... java code ... {code}`

Parameter	Required	Default	Description
language	no	Java	Specify the programming language. Currently supported: Java, XML and SQL.

Example 1: Java

```
{code}
public String getFoo()
{
    return foo;
}
{code}
```

gives:

```
public String getFoo()
{
    return foo;
}
```

Example 2: XML

```
{code:XML}
<test>
<another tag="attribute"/>
</test>
{code}
```

gives:

```
<test>
  <another tag="attribute"/>
</test>
```

Color Text Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

Change the color of a block of text.

Usage:

`{color:mycolor} ... text ... {color}`

Parameter	Required	Default	Description
mycolor	yes	none	color of text. You can use names for common colors or use the hex code for a more specific color

Example:

```
{color:red}red{color}
{color:orange}orange{color}
{color:yellow}yellow{color}
{color:green}green{color}
{color:blue}blue{color}
{color:purple}purple{color}
{color:violet}violet{color}
```

```
{color:003366}#003366{color}
```

gives:

red
orange
yellow
green
blue
purple
violet

#003366

Create Space Button Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

Create Space Button

Usage:	<code>{create-space-button: size=large width=32 height=32}</code>
Description:	Renders a create space button linked to the create space page.
Example:	<code>{create-space-button}</code>
Input:	size=small (size of 'small' uses a smaller graphic, whereas size of 'large' uses a larger one) \ height=x (pixel height in pixels) \ width=y (width in pixels)
Output:	a create space icon linked to the create space page
Bundled with Confluence?:	Yes
Since:	1.4 DR2

Dynamic Tasklist Macro

This page last changed on Jan 03, 2007 by david.soul@atlassian.com.

Usage:	{dynamictasklist:tasklist name}
Description:	Displays a dynamic task list which can be modified in View mode.
Example:	<pre>{dynamictasklist:Shopping}</pre>
Input:	optional task list name, defaults to no visible name.
Output:	A task list on the page.
Bundled with Confluence?:	Yes

Install Instructions

Users must [upgrade to JDK 1.5](#) before installing the plugin.

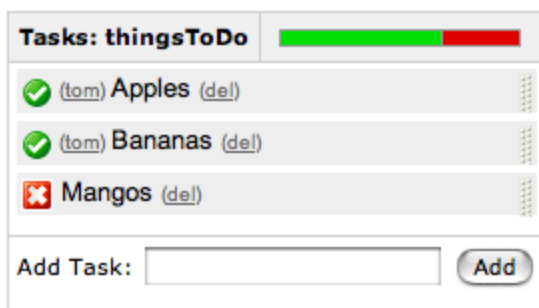
This plugin must be installed using ant, it cannot be uploaded. If you are having problems, ensure that you have installed it using the command `ant -Dlibrary=dynamictasklist install` and that there is no `dynamictasklist.jar` or `plugins-dynamictasklist.jar` file in your `<confluence home>/plugins` directory, and only a `plugins-dynamictasklist.jar`, not a `dynamictasklist.jar` in your `WEB-INF/lib` directory.

JDK Upgrade Problem

If you are using JDK 1.4 or earlier, tasklist content created while [must be manually transferred into a new list](#) when you upgrade your JDK. New users can avoid this by [upgrading to JDK 1.5](#) before installing the plugin.

Example Tasklist Screenshot:

Here is a screenshot of what the dynamic tasklist looks like:



Live Example

Below is a live example of the dynamic task list in operation. Play with it! Add new tasks, complete or uncomplete tasks, grab the handles on the right hand side to reorder your tasks.

Tasks: To Do

- ☒ () anotherone (del)
- ☐ Review (del)
- ☐ asdasdad (del)
- ☐ jkj (del)
- ☐ another new one (del)
- ☒ () ss (del)
- ☐ Buy confluence (del)
- ☐ sss (del)
- ☐ wow! (del)
- ☒ () shopping (del)

Add Task:

Enable The Flowchart Macro

This page last changed on Mar 01, 2007 by david.soul@atlassian.com.

Installation

This plugin must be installed by a Confluence administrator.

1. [Install GraphViz](#)
2. [Install Apache Ant](#)
3. If running on Windows, restart your computer
4. Instructions to insert the GraphViz installation directory path into PATH variable depend on your operating system.
Windows Users
 1. Open the directory GraphViz is installed under and confirm the path. An example path is C:\Program Files\ATT\Graphviz\bin
 2. Go to Start > Control Panel > System
 3. Select the 'Advanced' tab, then 'Environment Variables'
 4. Under 'System Variables', select the 'Path' variable
 5. Select 'Edit' and view the 'Variable value' text
 6. Confirm that path to the bin directory of GraphViz is appended to this string in the MS-DOS 8.3 standard and separated by a semicolon. An example might be ;C:\PROGRA~1\ATT\Graphviz\binLinux, OS X or Unix Users
 1. Open the directory GraphViz is installed under and confirm the path
 2. Login as the user who runs Confluence or starts the Confluence service
 3. Append the path to the bin directory of GraphViz to the 'Path' variable
5. Build the GraphViz plugin from source.
 2. Stop Confluence
 3. Open a command window in your Confluence install directory and go to the plugins directory
 4. From the plugins directory, compile the GraphViz by running `ant -Dlibrary=graphviz install`
 5. Start Confluence

Usage

See the [Enable The Flowchart Macro](#) in the User Guide.

Troubleshooting

Error Message

flowchart: No useable executable name defined in graphviz.properties
graphviz: No useable executable name defined in graphviz.properties
spacegraph: No useable executable name defined in graphviz.properties

Solution

1. Check that the system 'Path' variable includes a path to dot.exe, the executable file contained in the Graphviz bin directory.

2. Restart Confluence server

Gallery Macro

This page last changed on Mar 28, 2007 by ernest@atlassian.com.

Gallery Macro

Usage:	<pre>{gallery:columns=3\ title=Example Title} {gallery}</pre>
Description:	Forms a thumbnail gallery of all images attached to a page
Example:	<pre>{gallery:columns=3\ title=Example Title} {gallery}</pre>
Input:	optional: columns=<int n> title=<title string>
Output:	a thumbnail gallery with the number of columns specified (default 4) and a heading for the title parameter
Bundled with Confluence?:	yes

Troubleshooting

If you encounter the following error message: System does not support thumbnails: no JDK image support then ensure that you have following system property available for your JVM:

```
JAVA_OPTS=-Djava.awt.headless=true
```

Also see [CONF-1737](#)



Please note that gallery-ext.jar is available at [CONF-6620](#)

Global Reports Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

Global Reports Macro

Usage:	{global-reports: width=x}
Description:	Renders a list of links to global reports within a table of width x (defaults to 99%).
Example:	{global-reports} (arguments are optional)
Input:	width=x
Output:	A table of links leading to global reports
Bundled with Confluence?:	Yes
Since	1.4 DR2

IM Presence Macro

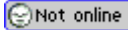
This page last changed on May 18, 2005 by daniel@atlassian.com.

The IM presence macros allow you to show a graphic indication when someone is online.

The supported systems are

1. Yahoo!
2. AIM
3. ICQ

Yahoo! Presence Macro

Usage:	{yahoo:yahooID}
Description:	Show a graphic indication of when someone is online
Example:	<code>{yahoo:myYahooId}</code>
Input:	yahooID: is required and should be a valid Yahoo! account ID.
Output:	An image indicating the online status of the specified user. eg:  or 
Bundled with Confluence?:	Yes
Since:	1.4

AIM Presence Macro

Usage:	{aim:screenname}
Description:	Show a graphic indication of when someone is online
Example:	<code>{aim:myScreenName}</code>
Input:	screenname: is required and should be a valid AIM screen name.
Output:	An image indicating the online status of the specified user. eg:  or 
Bundled with Confluence?:	Yes
Since:	1.4

ICQ Presence Macro

Usage:	{icq:icqnumber}
Description:	Show a graphic indication of when someone is online
Example:	{icq:12345678}
Input:	icqnumber: is required and should be a valid ICQ UIN.
Output:	An image indicating the online status of the specified user. eg:  Online or 
Bundled with Confluence?:	Yes
Since:	1.4

Include Page Macro

This page last changed on Feb 12, 2007 by [mryall](#).

Summary

Inserts the contents of the specified page into the current one.

Usage

```
{include:Some page}  
{include:spaceKey=KEY|pageTitle=Another page}
```

Parameters

Parameter	Required	Default	Description
(default)	yes, if no pageTitle parameter	none	Name of a page in the current space to include
pageTitle	yes, if no default parameter	none	Name of a page to include
spaceKey	no	current space	Key for space which has the page

Notes

Users without permission to view the included page will see an error that the page could not be found.

A page cannot include itself or a page that includes itself. An error message will be displayed if this occurs.

JIRA Issues Macro

This page last changed on Jan 04, 2007 by david.soul@atlassian.com.

You can embed a [JIRA](#) issue into your Confluence page. This page covers parameters available when calling the macro.

Usage:	{jiraissues:url=jira_rss_url columns=columns}
Description:	Display a list of JIRA issues in a page.
Input:	See parameters table below.
Output:	Nice looking list of issues in a Confluence page
Bundled with Confluence?:	

Setup Notes

1. HTTPS

The JIRA issues macro can access a JIRA instance running under SSL as long as the Confluence server is [set to accept the JIRA SSL certificate](#).

2. JIRA 3.7 Link Format Change

As a result of [RSS feed improvements](#), the [JIRA Issues Macro](#) differs between JIRA 3.6 and 3.7.

This is not an issue for users running the latest versions of Confluence and JIRA. However, users using Confluence versions older than 2.2.10 to access JIRA 3.7 must upgrade Confluence or patch the JIRA issues macro to handle the 3.7 format.

Confluence	JIRA	OK	Action Required
2.2.10, 2.3	Any version		None
Older than 2.2.10	3.7		Stop Confluence, open your Confluence install directory and remove the file \\WEB-INF\\lib\\jira3.jar. Download the JIRA 3.7 version and rename it to jira3.jar
Older than 2.2.10	Older than 3.7		None

Using The JIRA Issues Macro

See the [User Guide entry](#).

JIRA Issue Parameters

The following parameters can be embedded in the macro call.

Parameter	Required	Default	Description
url	yes	none	The URL of the XML view of your selected issues in Jira Issue Navigator.
columns	no	none	a semi-colon delimited list of jira column names. Valid columns are key, summary, type, created, updated, due, assignee, reporter, priority, status and resolution
count	no	false	true will output the number of issues in JIRA, linking the count to the JIRA instance
cache	no	on	'off' will refresh the jiraissues cache, forcing a reload on the page before the display
baseurl	no		the header link to the issue navigator will use this base url (used when Confluence connects to Jira with a different URL to normal users)
tempMax	no	20	limits the number of results you get back. This is the case even when count is set to true.

Example

This macro call requests a filter results from the Atlassian public JIRA instance:

```
{jiraissues:url=http://jira.atlassian.com/secure/IssueNavigator.jspa?view=rss&pid=10470&fixfor=10650&sorter/
```

The filter results are embedded in the page as:

Atlassian JIRA (3 issues)		
T	Key	Summary
	CONF-497	Search includes old versions of pages
	CONF-496	Problem with rename
	CONF-495	Problem with incoming links

Troubleshooting

For problems relating to the [JIRA Issues Macro](#), click on your query below for the solution.

Issues Appear Out Of Date

Using cache with this macro it can be that you have stale data in you table. You can force a refresh of the table by clicking the Refresh button in the top-right hand corner of the table.

Cannot Access Issues When JIRA Uses HTTPS

Check out [Troubleshooting HTTPS or SSL-related Problems](#).

'Error Rendering Macro' or No Issues Are Displayed or Not All Issues Are Displayed

You must append a JIRA username and password to your JIRA issues filter URL. That JIRA user must also have permission to view the all issues returned by the filter, otherwise they will be omitted. Please append the os_username and os_password as described below so that

jiraissues:url=<http://host.com/secure/IssueNavigator.jspa?...> becomes

jiraissues:url=http://host.com/secure/IssueNavigator.jspa?...&os_username=MYUSERNAME&os_password=MYPASSWORD

where MYUSERNAME and MYPASSWORD are a JIRA login.

'Error rendering macro: java.io.IOException: Could not download'

You may need to configure Confluence to [acknowledge your proxy server](#) before it is able to download the feed.

'Error rendering macro: java.io.IOException: Error on line -1: Premature end of file'

Did you select an existing JIRA filter? If you did, your issues filter URL will end with

.../12345/SearchRequest-12345.xml where 12345 is any number. You should retry using a new and unsaved filter.

Issue icons are not displayed

Check that you are using the [correct macro version for JIRA](#).

JIRA 3.7 Link Format Change

This page last changed on Jan 10, 2007 by [sleberrigaud](#).

As a result of [RSS feed improvements](#), the [JIRA Issues Macro](#) differs between JIRA 3.6 and 3.7.

This is not an issue for users running the latest versions of Confluence and JIRA. However, users using Confluence versions older than 2.2.10 to access JIRA 3.7 must upgrade Confluence or patch the JIRA issues macro to handle the 3.7 format.

Confluence	JIRA	OK	Action Required
2.2.10, 2.3	Any version		None
Older than 2.2.10	3.7		Stop Confluence, open your Confluence install directory and remove the file \\WEB-INF\\lib\\jira3.jar. Download the JIRA 3.7 version and rename it to jira3.jar
Older than 2.2.10	Older than 3.7		None

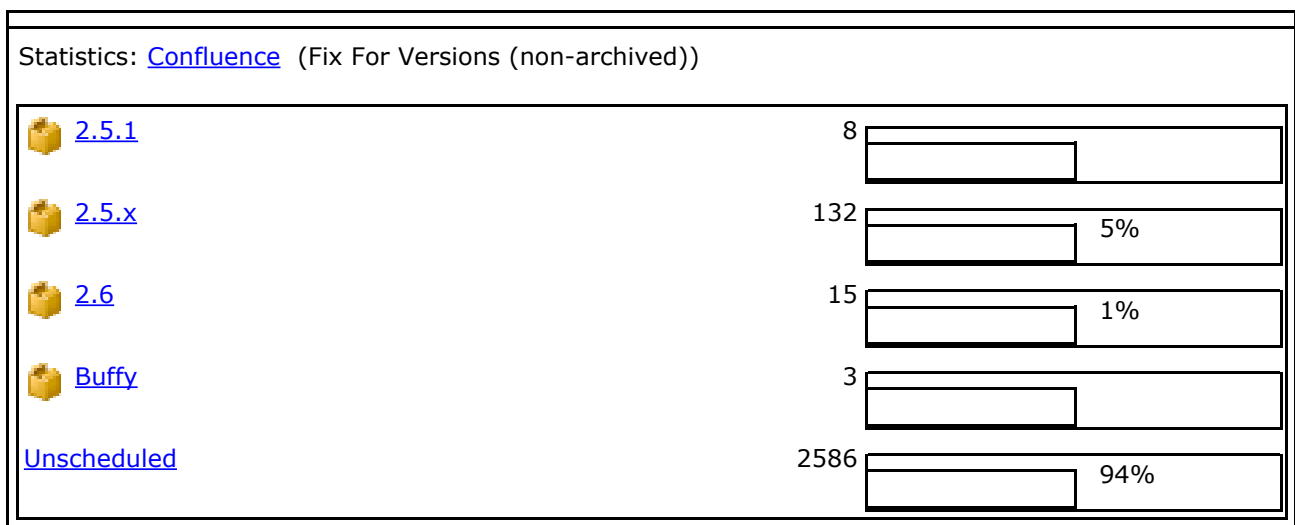
JIRA Portlet Macro

This page last changed on May 11, 2005 by [mike@atlassian.com](#).

Jira Portlet Macro

Usage:	jiraportlet:url=
Description:	Display a JIRA dashboard portlet in Confluence
Input:	url= http://jira.atlassian.com/secure/RunPortlet.jsps?portletKey=com.atlassian.jira.plugin.system.portlets:projectstats&description=Stats:%20Confluence%20(Versions)&projectid=10000&statistictype=fixfor&template=/portlets/dashboard/projectstats
Output:	Nice looking portlet in a Confluence page
Bundled with Confluence?:	yes

Example



How to find the URL for a JIRA Portlet

Confluence needs a URL in order to retrieve JIRA portlets.



If your JIRA instance requires you to log in, you must add `&os_username=username&os_password=password` to the end of the URL (substituting a valid JIRA username and password) so that Confluence can log in to retrieve the portlet. This is a temporary measure until we get Confluence and JIRA cross-authentication working more effectively.

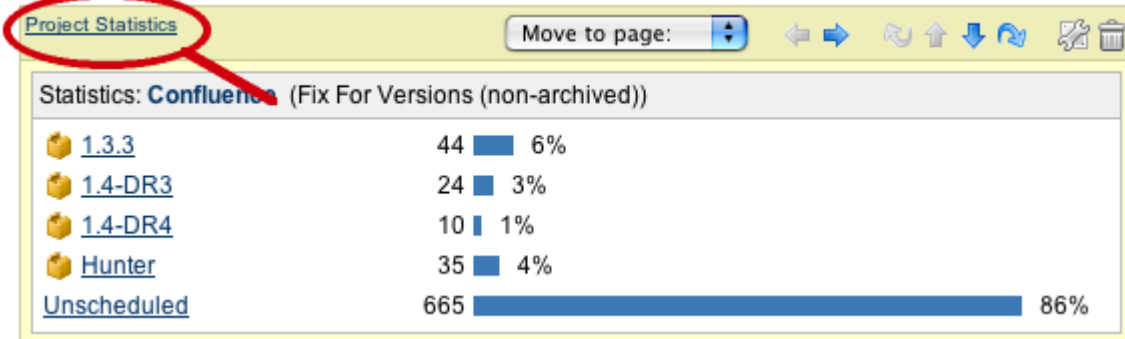
1. Add the portlet you wish to include in Confluence to your JIRA dashboard (Once you have copied the portlet's URL into Confluence, you will be able to remove from your JIRA dashboard)
2. Configure your dashboard

Atlassian JIRA

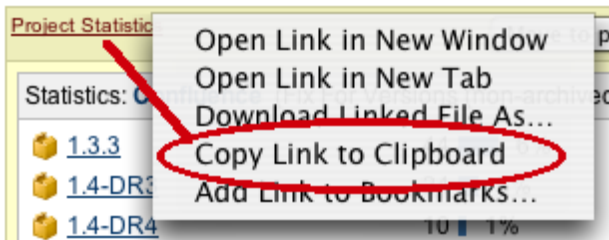
Dashboard [Confluence Stats](#)

Configure: [ON](#) [OFF](#) [Manage Portal](#)

3. Locate the portlet's direct link in the top-left corner



4. Right-click on the link to copy it to your clipboard, and paste it into the {jiraportlet} macro



(Note, the command for copying a link to the clipboard may differ in your browser)

JUnit Report Macro

This page last changed on Jul 06, 2005 by tom@atlassian.com.

Display a summary of JUnit test results from a directory accessible from the Confluence server.

When generating reports, set ant formatter to "xml".

Usage:

{junitreport:directory=[file:///*/directory*/\](#)}

OR

{junitreport:url=http://*host*/*path*\}

parameter	Required	Default	Description
directory	no	none	URI of a directory containing your test result files.
url	no	none	URI of a particular test result XML file.
reportdetail	no	'fixture'	Detail for report. Can be 'all', 'fixture', 'summary' or 'failuresonly'.
debug	no	false	Show the content of failures, as well as their message.

Layout Macros

This page last changed on Jul 12, 2006 by [mryall](#).

Layout Macros

Usage:	<code>{section} {column:width=30%}content{column}</code> <code>{column:width=70%}content{column} {section}</code>
Description:	Allows display content in multiple columns.
Example:	<pre>{section} {column:width=30%}Some stuff goes here{column} {column:width=70%}Some more stuff goes here{column} {section}</pre>
Input:	Any wiki content within columns
Output:	A column display of that content.
Bundled with Confluence?:	Yes

Layout macros allow you to define a `{section}` of the page that is divided into multiple `{column}`'s.

You must always define `{column}`s inside a `{section}`, or the macro will not work.

Optional parameters for the `{section}` macro:

- `border` – use `{section:border=true}` to draw the columns with borders around them. The default is no border.

Option parameters for the `{column}` macro:

- `width` – use the width parameter to determine how wide each column should be. By default, the columns are automatically resized to fit their contents.

Example:

```
{section}
{column:width=30%}
  This is some _Wiki Markup_
{column}

{column:width=70%}
  This is some more wiki *markup*
{column}
{section}
```

Produces:

This is some Wiki Markup	This is some more wiki markup

And the same with `{section: border=true}`

This is some Wiki Markup	This is some more wiki markup

Noformat Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

Displays a block of text in monospace font.

Usage:

```
{noformat} ... text ... {noformat}
```

Example:

```
{noformat}  
Hello World!  
Hello Mike!  
{noformat}
```

gives:

```
Hello World!  
Hello Mike!
```


Recently Updated Content Macro

This page last changed on Jun 14, 2005 by jens@atlassian.com.

Recently Updated Content Macro

Usage:	{recently-updated: spaces=foo1,foo2 width=50% }
Description:	Include a list of which Confluence content has changed recently Content will be listed from the current space or for each space defined in a comma separated list (space = x, y). The list will be rendered in a table with width matching the width argument (width=z) or defaulting to 99%
Example:	{recently-updated} (arguments are optional)
Input:	spaces= x, y width=z
Output:	a table of width z, listing recently updated content for spaces x and y
Bundled with Confluence?:	yes
Since	1.4 DR2

RSS Feed Macro

This page last changed on Nov 17, 2005 by jens@atlassian.com.

Displays the contents of an RSS feed. [RSS](#) is an Internet standard for syndicating news, and is used by many news sites and weblogs.

Please note that updates are only retrieved after at least an hour has elapsed since the last update.

Usage:

```
{rss:url=my_rss_url}
```

Parameter	Required	Default	Description
my_rss_url	yes	none	the url to the RSS feed
max	no	none	Maximum entries to be displayed
showTitlesOnly	no	false	Show only the title of the entry

Example:

```
{rss:url=http://feeds.feedburner.com/AtlassianDeveloperBlog}
```

gives:

Atlassian Developer Blog (rss_2.0)

[Codegeist Update; Plugin Hosting](#)

We're starting to get some great entries in for Codegeist. There's a lot of activity around Bamboo, our new continuous integration server, which is very exciting to us. There's a Cobertura code-coverage plugin, which we're already using on the JIRA...

[Codegeist Dev Chat Tomorrow](#)

We're holding another Dev Chat tomorrow evening (US time) to help out with folks building plugins for Codegeist. If you have any development questions, come by and we'll help you out. The chat is tomorrow, April 25th at 6pm PST....

[OpenID 2.0 Logo Concepts](#)

The OpenID project has proposed a new marketing image with the launch of the 2.0 version of the protocol, quoting the email thread: The existing OpenID logo has been a good fit over the last year or so. Its easily...

[OMG, OpenID -- how do I do it?](#)

Everyone seems to be going nuts for OpenID. The concept is still new, yet new sites pop up every day supporting the technology. There is plenty of chatter on various blogs and mailing list about integrating with OpenID, yet...

[Searching the Confluence Plugin Library](#)

I added a new feature to the Confluence plugin library: searching! You can now list, filter, sort and search all of the plugins in the Confluence Plugin Repository. This is the same list that Confluence admins will see when they...

[Codegeist II: Release Early, release often](#)

One of the most valuable things that I learned from last year's Codegeist competition is that openness wins. Some of our competitors got their plugins working and put them up for download in the entries section very early in the...

[4 more days in a leaky boat](#)

Random Mortal Combat quote: Sonya Blade: A handful of people on a leaky boat are gonna save the world? Lord Rayden: Exactly. Another month and more memory problems for one of our products. "Let mortal combat begin" The JIRA 1.5...

[Codegeist Dev Chats](#)

'Tis the season of Codegeist, and that means lots of people jumping in to new coding projects. And that inevitably means lots of questions. So to make sure that you get lots of answers, we're going to be holding developer...

[Survey about wiki habits](#)

Eugene Eric Kim, co-founder of the collaboration consulting firm Blue Oxen Associates and active member of the wiki community, is working on a study of wiki interoperability. He's published a survey about users' wiki habits, focusing primarily on people who...

[Codegeist II is here](#)

It's that time of the year again! Atlassian is kicking off Codegeist II, our second annual plugin competition. We're putting up twice as much money this year -- \$20k in cash prizes -- and have lined up a selection of...

[Guest Bloggers Wanted: JIRA for Agile Development](#)

A JIRA customer recently asked us if we had a best practices guide on the use of JIRA for agile development. This is a project we had started but never completed, though it's clearly a topic of interest. Here's one...

[SVN Scheduled Maintenance Tonight](#)

The Atlassian Developer Network SVN server is going offline tonight for about 3.5 hours for scheduled maintenance. The outage will last from 3am until 7.30am Pacific time. If you have any problems or questions, please contact me directly....

[Migration to JPA: experts wanted](#)

In the Confluence team, we're investigating an upgrade of our data access layer of Hibernate 2 with Spring 1.1 to a shiny new OpenJPA and Spring 2.0 implementation. If you have experience with a migration of a large enterprise application...

[From manual to automatic](#)

When Crowd first became an Atlassian product it was built using a bunch of ant scripts and lived in CVS, this is quite common for a lot of projects out there, but it is something that can be improved on....

[Confluence adoption in the trenches](#)

Simon posts a terrific article about driving Confluence adoption in his consulting firm. There are some really good tips in here about the techniques he's used to introduce his colleagues to the wiki. Many suggestions are similar to ones you'll...

Search Macro

This page last changed on Sep 10, 2005 by [cmiller](#).

Search Confluence, and include the results in the page. The search macro behaves identically to Confluence's built-in site search.

Usage:

```
{search:my_query}
```

OR

```
{search:my_query|maxLimit=maxLimit}
```

Parameter	Required	Default	Description
query	yes	none	search query (what you enter in the search box)
maxLimit	no	none	sets the maximum number of search results to return
type	no	all except mail	sets the kind of content to search
spaceKey	no	none	Limit the search to the contents of a particular space

Available types:

type parameter	Will search:
all	all content, including mail
page	only pages
blogpost	only news
mail	only mail
attachment	only attachments
comment	only comments
userinfo	only user profiles
spacedesc	only space descriptions

Supplying no type will result in the search returning results from all content except mail.

Example:

```
{search:confluence|maxLimit=5}
```

gives:

Found 11763 search result(s) for confluence (Display limit: 5)

[Confluence Community](#) (Space Description)

space is for discussing ideas, new features and suggestions for Confluence. null

Sep 26, 2005

Labels: [confluence](#)

[Confluence 2 User Guide](#) (Space Description)

User Guide for Confluence version 2

Jan 02, 2007

Labels: [confluence](#),

[Offline Confluence Editor](#) ([Atlassian Developer Network](#))

Offline Confluence Editor High Provide an offline client that would allow a user to add/edit pages/news/comments when disconnected. \\ Name Offline Confluence Editor Author(s) Priority High Description Provide an offline client ...

Mar 22, 2007

Labels: [confluence](#)

[Confluence](#) (Space Description)

Dec 14, 2005

Labels: [confluence](#), [restoring-data](#)

[Confluencer](#) ([Confluence Extension](#))

page has been discontinued. See Confluencer.NET, new version of Confluencer. Name Confluencer Version 0.1 beta 4 Product Versions Author(s) Jinwoo Min Homepage <http://sf.net/projects/confluencer> Price \$0 License not yet JavaDocs ...

Apr 27, 2007

Labels: [plugin](#), [soap](#), [xmlrpc](#), [remote_api](#), [delphi](#) ... 4 more labels.

Space Details Macro

This page last changed on Sep 04, 2006 by ivan@atlassian.com.

Space Details Macro

Usage:	{space-details: width=x}
Description:	Include the summary of a Confluence space in the page. Renders space details within a table with width specified by width argument or defaulting to 99%.
Example:	{space-details} (width argument is optional)
Input:	width = x
Output:	a table holding the current's space's details
Bundled with Confluence?:	Yes
Since	1.4 DR2

You may also be interested in [Spaces List Macro](#)

Spacegraph Macro

This page last changed on Mar 01, 2007 by david.soul@atlassian.com.

Spacegraph Macro

Usage:	{spacegraph:space key}
Description:	Displays a chart of the pages in a space and their connections.
Example:	{spacegraph:ds}
Input:	optional space key, defaults to space of current page.
Output:	A chart of the space.
Bundled with Confluence?:	Yes

This macro requires that [GraphViz](#) is installed. You should perform the default installation for your operating system. See the [Enable The Flowchart Macro](#) for Graphviz configuration information.

For details on composing diagrams, see the [GraphViz Documentation](#).

This macro is shipped with Confluence as source, to use it you need to build the 'graphviz' plugin. To do this, you need to install [ant](#) and run the command:

```
ant -Dlibrary=graphviz install
```

from the plugins directory.

Spaces List Macro

This page last changed on Sep 04, 2006 by ivan@atlassian.com.

spaces-list Macro

Usage:	<code>{spaces-list:width=<width_variable>}</code>
Description:	Displays a list of all spaces visible to the user, with linked icons leading to various space content functionality, within a table. The width parameter expresses the specifies the table on the page.
Example:	<code>{spaces-list:width=40%}</code>
Input:	width
Output:	a list of spaces
Bundled with Confluence?:	yes
Since:	1.4 DR2

You may also be interested in [Space Details Macro](#)

Userlister Macro

This page last changed on Jun 21, 2005 by [cmiller](#).

Userlister Macro

The Userlister macro has been updated for the Confluence 1.4 release to provide a greater range of flexibility. For convenience, the [1.3 Userlister usage documentation](#) is provided below.

Usage:	{userlister:groups=group,... online=true/false}
Description:	Display a list of Confluence users, from an optional set of groups
Example:	<code>{userlister:groups=confluence-users online=true}</code>
Input:	groups: is an optional comma separated list of group names online: is an optional true/false value to filter the users based upon there online status
Output:	Displays a table of user names and emails
Bundled with Confluence?:	Yes
Since:	1.4

Examples:

- {userlister} List all users
- {userlister:groups=confluence-users} List all users in group confluence-users
- {userlister:groups=project1,project2} List all users in group project1 or project2
- {userlister:online=true} List all users currently online (may not be 100% accurate)
- {userlister:groups=confluence-users|online=true} List all currently online users in group confluence-users

1.3 Userlister Macro usage documentation

Usage:	{userlister:group-name}
Description:	Display a list of Confluence users, from an optional group
Example:	<code>{userlister:confluence-users}</code>
Input:	a group-name is optional and will restrict the user list to members of that group
Output:	Displays a table of user names and emails

Bundled with Confluence?:	Yes
Since:	1.3

Welcome Message Macro

This page last changed on Jan 24, 2005 by [cmiller](#).

welcome-message Macro

Usage:	{welcome-message}
Description:	Include the Confluence site welcome message. The site welcome message may be configured in the Adminstation -> General Configuration section.
Example:	{welcome-message}
Input:	
Output:	The site welcome message
Bundled with Confluence?:	Yes
Since:	1.4 DR2

Performance Tuning

This page last changed on Apr 03, 2007 by tom@atlassian.com.

Like any server application, Confluence may require some tuning as it is put under heavier use. We do our best to make sure Confluence performs well under a wide variety of circumstances, but there's no single configuration that is best for everyone's environment and usage patterns.

If you are having problems with the performance of Confluence and need our help resolving them, you should read this document: [Requesting Performance Support](#)

Built-in Profiler

You can identify the cause of page delays using Confluence's built-in profiler according to [Troubleshooting Slow Performance Using Page Request Profiling](#).

Choice of Database

The embedded database that is provided with Confluence is meant only to be used for evaluation, or for low-volume Confluence sites. Once your site grows, you will almost certainly need to switch to an external relational database management system. Beyond this, we do not recommend any particular RDBMS over another. We recommend using what you are familiar with, because your ability to maintain the database will probably make far more difference to what you get out of it than the choice of database itself.

Antivirus Software

Antivirus Software can greatly decrease the performance of Confluence. Antivirus Software that intercepts all access to the hard disk is particularly detrimental, and may even cause errors with Confluence. If possible configure your software to ignore the Confluence home directory, or at least its index directory.

Database Indexes

If Confluence is running slowly, the most likely cause is that there is some kind of bottleneck in the database.

If you have the luxury of access to a DBA, it would be worthwhile having her tune the database specifically to the demands that your particular Confluence installation is placing on it. If you do not have a DBA, you may want to consult the [database indexing advice](#) that we have been gathering from customer reports and our own experience running and developing Confluence. The instructions on that page are for Oracle, but most of the indexes can be applied to (and will help with) any database.

(These database indexes are now created automatically when Confluence is installed, but existing

installations upgrading to a more recent version may still need to add them manually)

Cache Tuning

To reduce the load on the database, and speed up many operations, Confluence keeps its own cache of data. Tuning the size of this cache may speed up Confluence (if the caches are too small), or reduce memory (if the caches are too big). Future versions of Confluence will allow you to tune the size of this cache from within the web application.

In Confluence versions prior to 2.3 cache is entirely configured from the file `confluence/WEB-INF/classes/ehcache.xml`. In Confluence 2.3 and above cache is Configured in `confluence/WEB-INF/classes/confluence-coherence-cache-config.xml` (or `confluence/WEB-INF/classes/confluence-coherence-cache-config-clustered.xml` for clustered versions). More information about cache Coherence configuration can be found on [Coherence cache reference](#).

There is also cache status page provided with Confluence. It is not linked from anywhere in the interface, but administrative users can access it at the url <http://your.confluence.install.example.com/admin/cachestatistics.action>. This page will show you the size of each cache, and its hit ratio.

Important Caches

- `com.atlassian.confluence.core.ContentEntityObject` should be set to at least 20-30% of the number of content entity objects (pages, comments, emails, news items) in your system. To find the number of content entity objects, use the query `select count(*) from CONTENT`.
- `com.atlassian.confluence.core.ContentEntityObject.bodyContents` should be set to at least 20% of the number of content entity objects (pages, comments, emails, news items) in your system. To find the number of content entity objects, use the query `select count(*) from CONTENT`.
- `com.atlassian.confluence.security.PermissionCheckDispatcher.isPermitted()` should be set to at least the number of concurrent users you expect to access Confluence at the same time
- `com.atlassian.confluence.user.DefaultUserAccessor.deactivatedUsers` must be set to at least the number of users with `USE_CONFLUENCE` permission (don't worry, it only takes up a few bytes per user). To find an upper bound for this, use the query `select count(*) from OS_USER`, or if you have configured `atlassian-user.xml` to use the Hibernate repository, `select count(*) from users`.
- `com.atlassian.confluence.security.SpacePermission` should be set to the number of space permissions in your deployment (a good rule of thumb is 20 times the number of spaces). You can find the number of space permissions using the query `select count(*) from SPACEPERMISSIONS`.

The following are more specific performance problems that can be resolved from tuning the cache.

"Edit Page" screen takes a long time to load

If your installation of Confluence is suffering from this problem, it may be due to a insufficient `SpacePermissions` cache size. To address this problem, first determine the number of space permission objects in your Confluence instance. You can do this by running this query against your database:

```
> select count(*) from SPACEPERMISSIONS
```

Now locate the cache entry for SpacePermissions in your ehcache.xml file. It looks like this:

```
<cache name="com.atlassian.confluence.security.SpacePermission" maxElementsInMemory="10000"
eternal="false" timeToIdleSeconds="3600" timeToLiveSeconds="0" overflowToDisk="false" />
```

The equivalent for confluence-coherence-cache-config.xml would be:

```
<local-scheme>
<scheme-name>cache:com.atlassian.confluence.security.CachingSpacePermissionManager.permissions</scheme-name>
  <scheme-ref>default</scheme-ref>
  <high-units>10000</high-units>
  <expiry-delay>0s</expiry-delay>
</local-scheme>
```

Adjust the maxElementsInMemory or high-units property to the number of space permissions you have (in the example above, I've used 10000). Also, just as important, you need to adjust the timeToLiveSeconds or expiry-delay property to 0.

Note: 10K of space permissions consumes approximately 8MB of memory. Please ensure there is enough memory allocated to your instance to cater for this.

Adjust Application Server Memory Settings

See [Managing Application Server Memory Settings](#).

Use A Web Server

For high-load environments, performance can be improved by using a web server such as Apache in front of the application server. There is a configuration guide to [running Confluence behind Apache](#).

When configuring your new web server, make sure you configure sufficient threads/processes to handle the load. This applies to both the web server and the application server connector, which are typically configured separately. If possible, you should enable connection pooling in your web server connections to the application server.

Configuring a Large Confluence Installation

This page last changed on Jan 24, 2007 by noam@atlassian.com.

Deploying any application to several thousand users requires care and planning, especially if those users are going to be relying on the application to get their work done.

General Advice

Staged Rollout

Do not try to deploy Confluence immediately to your whole organisation. Instead, roll it out department by department, or project by project.

How Confluence will scale given a particular software and hardware configuration depends very much on how Confluence is likely to be used in your organisation. Launching Confluence to everybody at once may seem like a neat idea, but it also means that any problems you might experience scaling the system up to your entire organisation will hit you all at once, annoy everyone and possibly hurt adoption.

Rolling Confluence out gradually will give you the chance to tune it as you go, resulting in a much more painless experience. There will also be organisational advantages: you can identify those teams or projects who are most likely to be successful 'early adopters', and those teams can experiment with how best a wiki might suit your organisation, and pass on their 'best wiki practices' as usage of Confluence expands.

Configuring your Application Server, Web Server and Database

Because Confluence can be deployed in so many server combinations, we do not currently have guides on the best tuning parameters for each individual server. We will be happy to provide support, however. If you have any tuning parameters that you find particularly useful for Confluence instances, feel free to share them with other Confluence users in the [Confluence Community space](#).

Things to Keep an Eye On

Memory Usage

The Java virtual machine is configured with a "maximum heap size" that limits the amount of memory it will consume. If Confluence fills up this maximum heap size it will run out of memory, and start behaving unpredictably. You can keep track of Confluence's memory usage from the System Information screen of the administration console:

Java VM Memory Statistics	
Total Memory	313 MB
Free Memory	140 MB
Used Memory	173 MB

Memory Graph  45 % Free

This example shows that, at the time of writing, confluence.atlassian.com is using 173MB of an allocated 313MB of heap. (The JVM was configured with a maximum heap size of 450MB, but this information is not available in the graph. The 313MB figure shows that the full 450MB of heap has not yet been needed)

Database Connection Pool

Confluence will need a database connection for each simultaneous user connection to the server. It is also a good idea to have 5-10 connections spare for Confluence internal processes such as backups, re-indexing or daily notification jobs.

Running out of pooled connections will cause the server to slow down as more users are waiting for a connection to be freed before starting their own request, and will eventually cause visible system errors as Confluence times out waiting for a database connection.

If you are using Confluence's internal connection pool, you can increase the number of available connections by modifying the `hibernate.c3p0.max_size` property in `{confluence_home}/confluence-cfg.xml`, and restarting Confluence. Make sure you have also configured your database to be able to support that many simultaneous connections.

Cache Sizes

The [Performance Tuning](#) page includes some useful rules of thumb for configuring the sizes of Confluence's internal caches.

Confluence Performance Enhancement

This page last changed on Oct 24, 2005 by [jnolen](#).

One of our current tasks is improving Confluence's performance, in time and space. This page lists some of the things we've done to speed up Confluence, and to reduce its memory footprint.

- [Creating Memory Leaks with Spring](#)
- [Filtering Regular Expression Application](#)

Creating Memory Leaks with Spring

This page last changed on Oct 24, 2005 by [jnolen](#).

I've spent the last few days looking at Confluence's memory footprint.

The biggest win so far (besides turning off all the caches 😊) has been in Spring. Confluence uses dependency injection everywhere, both for its services and to initialise short lived objects like xwork actions. It seems that Spring doesn't directly cater for the latter use, and is very easy to misuse if you aren't careful.

Spring keeps track of dependencies between the beans it manages, so if you inject bean A into bean B, Spring will record the fact. Spring will call `B.setA(A)` of course, to perform the injection. Then it adds the name of B to the list of beans which depend on A, so that during shutdown it can remove B before A.

Confluence autowires beans using the `DefaultListableBeanFactory.autowireBeanProperties()` method. This assumes that the bean is a singleton, and registers it. It also doesn't check whether the bean it is registering is already a dependent of the bean being injected. So the linked list of dependencies grows with every page view. Five hundred views go it up to almost 10MB!

Spring does allow non-singleton beans, and it understands that they shouldn't be registered as dependents, but `DefaultListableBeanFactory` doesn't provide a way of autowiring a non-singleton bean.

I created a new factory to do the job:

```
private static class BucketListableBeanFactory extends DefaultListableBeanFactory
{
    public BucketListableBeanFactory(ApplicationContext context)
    {
        super(context);
    }

    public void autowireNonSingletonBeanProperties(Object existingBean, int autowireMode,
boolean dependencyCheck)
        throws BeansException
    {
        if (autowireMode != AUTOWIRE_BY_NAME && autowireMode != AUTOWIRE_BY_TYPE)
        {
            throw new IllegalArgumentException("Just constants AUTOWIRE_BY_NAME and
AUTOWIRE_BY_TYPE allowed");
        }
        RootBeanDefinition bd = new RootBeanDefinition(existingBean.getClass(),
autowireMode, dependencyCheck);
        bd.setSingleton(false);
        populateBean(existingBean.getClass().getName(), bd, new
BeanWrapperImpl(existingBean));
    }
}
```

That's just a copy of `autowireBeanProperties()`, with the addition of a call to `setSingleton()`.

Confluence's calisthenics and orthodontia is under way. Soon we'll be running light without overbyte!

Filtering Regular Expression Application

This page last changed on Oct 24, 2005 by [jnolen](#).

Confluence uses (mostly) regular expressions to convert wiki style markup into html. These are simple to write, fairly simple to compose (that is, you can add another regular expression which gets applied on top of the ones you already have), and most importantly, are forgiving.

It wouldn't be too hard to write a grammar expressing the markup language, but when a user enters markup which the system doesn't understand, you need to fail softly – not throwing away any input, and not presenting the user with an error message. The mechanics of the markup process must be invisible to the user.

Regular expressions can be expensive to apply – for instance, when viewing a 100 line page in Confluence 1.4, 17% of the CPU time used during the request is used in `java.util.regex.Matcher.replaceAll()`.

A typical regular expression is

```
"(^|\\s)---(\\s|$)"
```

which finds

```
---
```

and replaces it with an emdash,

```
&#8212;
```

which renders as — .

It's simple to see when this regular expression certainly doesn't apply to some wiki text – when that text doesn't include

```
---
```

You can do an analogous test for each of our many regular expressions, just look for a constant part of the regex. Of course, the existence of the constant part is a necessary, not a sufficient condition to know that the regex will match, but it works well enough to be worthwhile.

A simple

```
wikiText.indexOf(constantPart) > 0
```

check before each application of a regular expression reduces that 17% to 9%, on a page of 100 lines which has bold and italic markup on every other line.

It's interesting that `replaceAll()` doesn't try that itself. Presumably its optimised for the case when the string you give it does match the expression, which is probably the most common situation.

A very simple but worthwhile saving. The only situation we need to worry about is if many of the lines in our pages have many types of markup on them, because then we not only pay for the `replaceAll()`, but

also pay for the indexOf.

How Adaptavist Runs Confluence

This page last changed on Sep 19, 2006 by brendan.patterson@gmail.com.

Key information about performance tuning and how Adaptavist runs many instances of Confluence. This was posted to the mailing list but not captured in the forums so I wanted to copy it here:

Confluence Performance Recommendations from Adaptavist

Hi,

> 1) Opterons – for better or worse, we're solely an Intel shop at this point (i.e. I'll get some resistance going down the AMD path). It seems like the latest Woodcrest Xeons have caught up with the Opterons performance-wise (although AMD was smacking around Intel for a while before that). Have you the Woodcrest Xeons at all? (I'm guessing at this point you're probably just interested in pursuing an Opteron path but figured I'd ask.)

We found the Opterons are perfect for running multithreaded apps - especially when running lots of Confluence / JIRA installs on a server in their own Resin containers. In addition, the Opterons use a less electrical power than their Intel counterparts which reduces our energy bills - for that reason we've not tried the Woodcrest chip yet. The chassis used for Opteron chips is also more established than the Woodcrest counterpart and is thus cheaper at the moment and has more options. Any dual-core will likely give better results, but you'll obviously need your OS and other software on the server to be set-up to take advantage of them.

> 2) Resin vs. Tomcat – would you mind guessing at performance numbers from what you've seen? In a ton of Googling, it seems like people are saying that Tomcat was slow back with 4.x but got much faster with 5.x and even more with 5.5.x. See the comments in the first link.

Resin, properly configured, is still faster 😊 In addition, it uses a lot less RAM (important when you have 50 web apps in their own containers). We spent a lot of time super-fine-tuning Resin (about 4 months if memory serves - huge thanks to Caucho and the chaps at BeJUG) to run Confluence very nicely indeed. I can't vouch for it's speed with regards to other apps. We've found Resin to be highly stable (when correctly configured) and it deals very well with that elusive Confluence memory leak (something you notice on a site like JavaPolis1 with over 17,600 registered users). It's garbage collection, again when properly tuned, was better than Tomcat and we found many tasks easier to automate with Resin as compared to Tomcat.

Admittedly, a lot of the reasons that we chose Resin for are geared to an environment where we're running up to 50 Confluences on a single server, each in their own web app. That's quite a different scenario to what you are doing where you maybe have one or two Confluences on a server. Although, having said that, we use the same set-up for our dedicated hosting (we're hosting some real BIG Confluence installs as you'll know if you followed the discussion about the import routine we've been working on) and it works great in that environment too.

We use the commercial version of Resin2 - it's much better than the OS version as it has fewer bugs, runs more smoothly and has some real nice features (read: absolutely critically essential for the sanity of our staff thus reducing our monthly bills for padded cells and therapy) for the type of environment we use it in. We also really liked Caucho's licensing of resin3: \$500 per physical server with 2 cores (additional cores @ \$500/core which is very reasonable) regardless of the number of Resin containers on that server.

It should be noted that some of the stats you provided links to were done on Windows running Cygwin - hardly an ideal server environment 😊 The second link (with all the graphs that people like me understand) was far more representative. We run on SuSE Linux 10 EMT64 (or something like that -

whatever the latest version of their 64-bit OS is) so there's no Windows bloat getting in the way of the web apps, etc.

> 3) Memory. I think I'll go for DDR667 and see if I can bump Confluence up to 2 GB. Is there ever a point where you can allocate too much RAM? (i.e. java and/or Confluence just don't handle tracking that many cached objects well)

I think we're up to 16GB in most of our servers now. Confluence does enjoy more RAM (although containers such as Resin bring the overall RAM consumption down a fair bit - very noticeable on servers with 50 containers/apps). More RAM means more space to cache and longer gaps between forced GC. RAM allocation is also vital when it comes to the nightly backup (or "the dreaded backup hour" as we refer to it) - you can imagine the CPU and RAM spikes caused by 50 large Confluence installations all deciding to backup at the same time (roll on Confluence 2.3!)...

Should you have too much memory, you can always run a Quake server on there :o)

FYI: We also separate our database out on to a separate server.

Best Regards,

Guy

1 <http://www.javapolis.com> - at last year's conference the Belgian's were somewhat annoyed at the term "SOA" which is an obscenity over there. They were also less than happy about the spoons in sexual positions plastered all over Antwerp (and several thousand Javapolians wearing the conference t-shirts). So this year Stephan and the crew have decided to push the boundaries to hitherto unimaginable levels - anyone who's seen the promo video will know exactly what I mean (and no, not the white painted bloke next to the urinal - the video goes waaaaay beyond that - how they got James Gosling to... well, you'll have to wait and see)

2 <http://www.caucho.com/resin-3.0/features/overview.xtp>

3 <http://www.caucho.com/sales/sales.xtp>

Dan will probably be along in the morning to correct any mistakes I've made 😊

-

Memory usage and requirements

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

Managing Confluence's performance and memory usage really depends on what resources are available - Confluence will run faster if you give it lots of memory for its caches, but it should still be able to run quite well in low-memory environments, with the right tuning. Below are some tips on getting the most out of your Confluence site:

Increasing the amount of memory available to Confluence

See [JIRA:Increasing JIRA memory](#) for details on how to increase the memory available to web application servers typically used to run Confluence.

Embedded Database

The embedded HSQL database that comes with Confluence essentially holds all your data in memory while the Confluence server is running. If you are running out of memory, you should consider [migrating Confluence to some external RDBMS](#).

Caching

By default, Confluence keeps large in-memory caches of data to improve its responsiveness and the user experience. The trade off is an increase in memory requirements to support the cache. The default size of these caches will be reduced significantly in Confluence 1.5 (although this means that administrators of larger Confluence sites may need to configure the size of their caches to improve performance).

To customise confluences cache to meet your needs, see [cache tuning](#).

To increase the amount of memory available to confluence, see [allocating more memory to tomcat](#).

Mail error queue

Confluence keeps a copy of all emails that it failed to send within an internal error queue. In the event of intermittent failures such as network connectivity issues, the emails in this queue can be manually resent when the problem is fixed. Under certain circumstances, the mail queue can fill up with large objects. Since Confluence 1.4.1 the queue is regularly flushed, but if you get a lot of mail errors, you might get a spike in memory usage.

Attachments

The indexing of large attachments requires that the attachment be loaded into memory. In the case of large attachments, this can cause a temporary strain on the systems resources, and may result in indexing failing because the attachment could not be fully loaded into memory.

System backup / resort

The Confluence backup and resort process scales linearly with the size of data. This can have a significant impact on large Confluence instances where the amount of data exceeds the amount of available memory. If you are experiencing OutOfMemoryErrors during either a backup or restore, you will either need to move to per space backups or increase the memory allocated to Confluence. This is addressed in the upcoming Confluence 2.0.

If you are attempting to restore a backup and encountering the OutOfMemoryError, how much memory will you need to make it work? A good rule of thumb is to have a look at the size of the entities.xml file in your backup. This file contains all of the data Confluence will be loading, so at least that much is required. Add another 64-128Mb to ensure that Confluence has enough memory to load and function and that should be enough.

This problem has been resolved in Confluence post 1.4.x. To increase the amount of memory available to Confluence, see [allocating more memory to tomcat](#).

Known issues that we do not have control over.

There are also some memory issues we don't have any control over. For example,

- There's a memory leak in the Oracle 10g JDBC drivers. Not much we can do about that.
- one customer found a rather nasty memory leak that appeared to originate inside Tomcat 5, but only using the IBM JDK on PowerPC.

If you're having problems that appear to be a memory leak, file an issue on <http://support.atlassian.com>. Our memory profiler of choice is [YourKit](#), so if you can get a memory dump from that tool showing a leak

Confluence is taking long periods of time to respond to some actions

A common cause of random pauses in Confluence is the JVM running garbage collection. To determine if this is what is happening, enable verbose garbage collection and look at how long Java is taking to free up memory. If the random pauses match when Java is running its garbage collection, garbage collection is the cause of the pause.

Verbose garbage collection will generate log statements that indicate when Java is collecting garbage, how long it takes, and how much memory has been freed. You can enable verbose garbage collection by specifying the `-verbose:gc` JVM option. To have the garbage collection logs written to a file, use `-Xloggc:<filename>`

What can you do to minimise the time taken to handle the garbage collection? See <http://java.sun.com/docs/hotspot/gc1.4.2/> for details on tuning the JVM to minimize the impact that garbage collection has on the running application.

java.util.zip.ZipFile.open causes OutOfMemoryError for large zip files

This page last changed on Nov 29, 2006 by ivan@atlassian.com.

Problem

For large backup zip files (bigger than 1GB) OutOfMemoryErrors can occur during restore, even though the maximum heap size is way above this value.

The error will look something like this:

```
Cause:
javax.servlet.ServletException: Servlet execution threw an exception
at
org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:275)
caused by: java.lang.OutOfMemoryError
at java.util.zip.ZipFile.open(Native Method)
```

However, when looking at the system information you will find that there is still a lot of memory available on the heap.

```
Memory Information:
Total Memory: 2480 MB
Free Memory: 2385 MB
Used Memory: 95 MB
```

Solution

The problem seems to be a [bug in Java](#). The method `java.util.zip.ZipFile.open` does not actually use the allocated memory of the heap, it maps the entire zip file into virtual memory outside the heap. If you run into this problem, you should try to reduce your heap size to about 600MB and try the restore again. This seems to accord with the experience of other developers:

if you set a small value for max heap size, it works correctly, but if you specify too large a value, then OutOfMemoryErrors occur.

There is no obvious relationship between the max heap size, the size of the zip file, and the computer's available memory. With a max heap size less than about 600 MB, errors never occur. Large than that, and they occur. A 1.2 GB zip file always opens correctly, but a 1.4 GB one never does (if the max heap size is larger than 600 MB). I have tested this on computers with both 256 MB of RAM and 2 GB of RAM, and the behavior is nearly identical.

Related topics

[Allocating more memory](#)

Requesting Performance Support

This page last changed on Apr 19, 2007 by [mjensen](#).

If you are having performance issues with Confluence, and the advice on [Performance Tuning](#) has not helped, you can always ask us for help. Performance issues can be hard to diagnose, however, and we often spend a lot of time going back and forth looking for more information about what may be causing Confluence to be slow for you. The best way to get a speedy resolution to your issue is to provide this information up front.

Please gather all of the information listed below and include it in your support request, even if you think you have a good idea what's causing the problem. That way we don't have to ask for it later.

System Information

Confluence Server

- Take a screenshot of Confluence's Administration # System Information (or save the page as HTML)
- Take a screenshot of Confluence's Administration # Cache Statistics (or save the page as HTML)
- Find out the exact hardware Confluence is running on
 - How many CPUs? What make and model? What MHz?
 - How much memory is installed on the machine?
 - How much memory is assigned to Confluence's JVM? (i.e. what are the -Xmx and -Xms settings for the JVM?)
 - What other applications are being hosted on the same box?

Confluence Content

- How many users are registered in Confluence?
- How many spaces are there in your Confluence server?
- Approximately how many pages? (Connect to your database and perform 'select count(*) from content where prevver is null and contenttype = 'PAGE'')

The Database

- What is the exact version number of Confluence's database server?
- What is the exact version number of the JDBC drivers being used to access it? (For some databases, the full filename of the driver JAR file will suffice)
- Is the database being hosted on the same server as Confluence?
- If it is on a different server, what is the network latency between Confluence and the database?
- What are the database connection details? How big is the connection pool? If you are using the standard configuration this information will be in your confluence_cfg.xml file. Collect this file. If you are using a Data source this information will be stored in your application server's configuration file, collect this data.

User Management

- Are you using external user management or authentication? (i.e. JIRA or LDAP user delegation, or single sign-on)
- If you are using external JIRA user management, what is the latency between Confluence and JIRA's database server?
- If you are using LDAP user management:
 - What version of which LDAP server are you using?
 - What is the latency between Confluence and the LDAP server?

Diagnostics

Observed Problems

- Which pages are slow to load?
 - If it is a specific wiki page, attach the wiki source-code for that page
- Are they always slow to load, or is the slowness intermittent?

Profiling and Logs

- Enable Confluence's built-in profiling for long enough to demonstrate the performance problem using [Troubleshooting Slow Performance Using Page Request Profiling](#).
 - If a single page is reliably slow, you should make several requests to that page
 - If the performance problem is intermittent, or is just a general slowness, leave profiling enabled for thirty minutes to an hour to get a good sample of profiling times
- Find Confluence's standard output logs (which will include the profiling data above). Take a zip of the entire logs directory.
- [Take a thread dump](#) during times of poor performance

CPU Load

- If you are experiencing high CPU load, please [install the YourKit profile](#) and attach two profiler dumps taken during a CPU spike. If the CPU spikes are long enough, please take the profiles 30-60 seconds apart.

Next Step

Open a ticket on <http://support.atlassian.com> and attach all the data you have collected. This should give us the information we need to track down the source of your performance problems and suggest a solution. Please follow the progress of your enquiry on the support ticket you have created.

If your site is non-responsive, please use our [Live Support](#) during [business hours](#) once you have created the ticket to escalate your problem.

Troubleshooting Slow Performance Using Page Request Profiling

This page last changed on Mar 11, 2007 by david.soul@atlassian.com.

If Confluence is responding slowly, an internal timing trace of the slow page request can help to identify the cause of the delay.

Profiling An Activity

You will need access to the Confluence server to view a profile.

1. Locate Confluence's standard screen output, or stdout, on the Confluence server. Users [running Confluence as a Windows service](#) may have this logged to the `/logs/stdout.log` file under the Confluence install directory, while users running Confluence using `startup.bat` under Windows have stdout written to the command prompt window.
Enable profiling using **?profile=on**
2. Enable profiling by accessing any page in your Confluence instance. Modify the URL by appending `?profile=on` to the end of the URL for static pages, or `&profile=on` if the URL is dynamic and already has parameters. For example, if your Dashboard link is

```
http://localhost:8080/dashboard.action
```

You would manually add `?profile=on` to the end of the URL and visit

```
http://localhost:8080/dashboard.action?profile=on
```

Profiles for every page hit, for all users, will now be logged to stdout until Confluence is restarted. Note that each time a user visits a link, a single profile is printed.

3. Confirm that profiles are being printed to stdout.
4. Perform the activity that is resulting in unusually slow response time and copy the profile for that action. The relevant profiles are for links that took a long time to respond. If a single page is slow, only that profile is necessary. If Confluence is generally or intermittently slow, copy all profiles logged during the slowdown until a reasonable sample has been collected.
5. If you were instructed to profile your instance by Atlassian technical support, attach all relevant profiles to your support ticket.
6. Turn profiling off again by appending `?profile=off` to the end of the URL for static pages, or `&profile=off` if the URL is dynamic and already has parameters. For example, if your Dashboard link is

```
http://localhost:8080/dashboard.action
```

You would add `?profile=off` to the end of the URL and visit

```
http://localhost:8080/dashboard.action?profile=off
```

7. Confirm that profiles are no longer being printed to stdout

Example Profile

The first few lines of a normal profile for accessing a page called Confluence Overview.

```
[344ms] - /display/ds/Confluence+Overview
[313ms] - SiteMesh: parsePage: http://localhost:8080/display/ds/Confluence+Overview
[313ms] - XW Interceptor: Before defaultStack: /pages/viewpage.action
(ViewPageAction.execute())
  [0ms] - SpaceAwareInterceptor.intercept()
  [16ms] - PageAwareInterceptor.intercept()
    [0ms] - AOP: PageManager.getPage()
    [16ms] - AOP: PermissionManager.hasPermission()
      [0ms] - AOP: SpacePermissionManager.hasPermission()
      [16ms] - AOP: SpacePermissionManager.hasPermission()
    [0ms] - AOP: SpacePermissionManager.hasPermission()
  [0ms] - AOP: SpacePermissionManager.hasPermission()
[281ms] - XW Interceptor: After defaultStack: /pages/viewpage.action
(ViewPageAction.execute())
  [281ms] - XW Interceptor: After validatingStack: /pages/viewpage.action
(ViewPageAction.execute())
...
```

Related Topics

[Requesting Performance Support](#)

Profiling using the YourKit Plugin

This page last changed on Apr 30, 2007 by [mryall](#).

Introduction

There is a plugin for Confluence 2.2 and later which allows easy profiling using the [YourKit profiler](#). No license is required to generate a memory or CPU snapshot, but you will need at least an evaluation license to analyse the results.



JIRA also has a plugin to [profile JIRA's CPU and memory usage](#) with YourKit.

Configuring YourKit in your JVM

[Download YourKit 6.0](#) for your platform, and install it by following the installation instructions.

The following instructions apply to Confluence Standalone and Tomcat installations with Sun JDK 1.5. They should be easily applicable to other application servers and JVMs, however. The YourKit documentation covers this in more detail.

Windows configuration

On Windows, add to your PATH environment variable the bin/win32/ directory underneath the YourKit installation directory. For example, you might add "C:\Program Files\YourKit Java Profiler 6.0.12\bin\win32" to your PATH, via Control Panel, System, Advanced, Environment Variables.

To configure Confluence's JVM to use the YourKit agent, you need to add a parameter to JAVA_OPTS in the bin/setenv.bat file in your Confluence application directory. This file controls the startup parameters for Tomcat, so you'll need to restart it after making the changes.

Add the 'agentlib' parameter to the end like this:

```
set JAVA_OPTS=%JAVA_OPTS% -Xms128m -Xmx256m -agentlib:yjpagent
```

Linux/Mac OS X configuration

On Unix-based systems, include the installation directory in the LD_LIBRARY_PATH environment variable, as shown below:

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/path/to/yourKitAgent
```

In general, to configure a Sun 1.5 JDK, you add the agentlib parameter:

```
java -agentlib:yjpagent ...
```

You can add this to Tomcat's bin/setenv.sh like this:

```
JAVA_OPTS="-Xms128m -Xmx256m $JAVA_OPTS -Djava.awt.headless=true -agentlib:yjpagent "
```

Installing the YourKit plugin

[Download the plugin](#) and upload it into Confluence through the Administration, Plugins page.

A new menu option will appear under the 'Administration' heading. Click it and you should see the options to take a memory or CPU snapshot.

- Administration**
- ☐ [Backup & Restore](#)
 - ☐ [Content Indexing](#)
 - ☐ [Mail Queue](#)
 - ☐ [Cache Statistics](#)
 - ☐ [SnipSnap Import](#)
 - ☐ [License Details](#)
 - ☐ [System Information](#)
 - ☐ [Site Statistics](#)
 - ☐ [Global Activity](#)
 - ☐ [YourKit Profiling](#)

YourKit Profiling menu item

This profiler dump will be saved to a local temp directory, and the path shown once it is complete. For the CPU snapshot, this will take at least 30 seconds. For the memory snapshot, 10-15 seconds.

The screenshot shows the 'YourKit Profiling Action' configuration page. At the top, there's a search bar and a navigation bar with 'Administration' selected. Below the navigation bar, the page title is 'YourKit Profiling Action'. On the left, there's a 'Configuration' sidebar with a list of links: General Configuration, Daily Backup Admin, Manage Referrers, Plugins, Languages, Shortcut Links, Global Templates, Mail Servers, User Macros, JIRA Issues Icon Mappings, Attachment Storage, Spam Prevention, and PDF Language Support. The main content area shows a status message: 'Captured snapshot (0secs) to: C:\Documents and Settings\matt\Bootstrap-2007-04-30(1).cpu'. Below this, there are two buttons: 'Memory Snapshot' and 'CPU Snapshot'. The 'Memory Snapshot' button is highlighted, and its description is: '- capture a memory snapshot to disk instantly.' The 'CPU Snapshot' button is also visible, with its description: '- capture a CPU snapshot over the next 30 seconds.'

You can take either a memory or CPU snapshot

Why would I do this?

Analysing a profiler dump enables Atlassian Support (or you, if you are interested) to see exactly what is happening in your application: what classes are using the memory, what is using CPU and so on. This can

help us debug tricky performance problems which would otherwise be impossible to analyse remotely.

Take a CPU snapshot if:

- Confluence is sometimes unresponsive
- Pages take a long time to load
- Confluence's CPU usage is peaking.

Take a memory snapshot if:

- Confluence's memory usage is higher than you expect
- You are getting OutOfMemoryError's in your logs.

Plugin source code

The source code for this Confluence plugin is available from [Subversion](#) and browseable in [Fisheye](#). To rebuild the JAR attached to this page, you need to run `maven jar`, and then extract the YourKit controller dependency (`yjp-controller-api-redis-6.0.14.jar`) and include that in the 'mashed' JAR too.

Recognised System Properties

This page last changed on Oct 24, 2006 by [cmiller](#).

Confluence has a small number of obscure configuration and debugging settings that can be enabled through Java system properties. System properties are usually set by passing the `-D` flag to the Java virtual machine in which Confluence is running.

Property	Possible Values	Module...	Effect	
<code>confluence.home</code>	Any filesystem path	Confluence and atlassian-config	If this system property is set, Confluence will ignore the contents of the <code>confluence-init.properties</code> file, and use this property as the setting for the Confluence Home directory.	
<code>confluence.devmode</code>	<code>true</code>	Confluence	Enables additional debugging options that may be of use to Confluence developers. Do not enable this flag on a production system.	
<code>atlassian.forceSchemaUpdate</code>	<code>true</code>	atlassian-config	By default, Confluence will only run its database schema update when it detects that it has been upgraded. This flag will force Confluence to perform the schema update on system startup.	
<code>confluence.ignore.debug.logging</code>	<code>true</code>	Confluence	Confluence will normally log a severe error message if it detects that DEBUG level logging is enabled (as DEBUG logging generally causes a significant degradation in	

			system performance). Setting this property will suppress the error message.
confluence.i18n.reload	resource bundles	Confluence	Setting this property will cause Confluence to reload its i18n resource bundles every time an internationalised string is looked up. This can be useful when testing translations, but will make Confluence run insanely slowly.
atlassian.disable.cache	atlassian-cache-servelet	atlassian-plugins, atlassian-cache-servelet	Setting this property will disable conditional get and expires: headers on some web resources. This will significantly slow down the user experience, but is useful in development if you are frequently changing static resources and don't want to continually flush your browser cache.

Security

This page last changed on Jan 31, 2006 by [vidya](#).

- [Adding SSL for Secure Logins and Page Security](#)
- [Anonymous Access to Remote API](#)
- [Enabling or Disabling Public Signup](#)
- [Hiding External Links From Search Engines](#)
- [Managing External Referrers](#)
 - [Excluding external referrers](#)
 - [Hiding external referrers](#)
- [Shared Mode](#)
- [User Email Visibility](#)

Adding SSL for Secure Logins and Page Security

This page last changed on Feb 21, 2007 by dave@atlassian.com.

This document describes how to configure Confluence to use a HTTPS encrypted secure socket layer for user logins and page data.

Unencrypted confidential data within Confluence may be intercepted by an attacker. To secure user logins, you can enable access via HTTPS (HTTP over SSL), and require its use for pages where passwords are sent. In some cases where issue data is sensitive, all pages can be set to be accessed over HTTPS.

Enabling SSL access is different for each application server, but specifying which pages to require protection for is generic. This document is specific to Tomcat, the default application server shipped with Confluence.

Adding Secure User Logins

Adding HTTPS requires a valid SSL certificate. If you have a Certificate prepared, skip to the 'Modify the <INSTALL>/conf/server.xml File' section.

Creating A New SSL Certificate

On Windows, perform the following at the command prompt:

```
"%JAVA_HOME%\bin\keytool" -genkey -alias tomcat -keyalg RSA
```

Or on other platforms, perform the following at the command prompt:

```
$JAVA_HOME/bin/keytool -genkey -alias tomcat -keyalg RSA
```

Some questions will be asked, including a password for the certificate (the default is 'changeit'). Please note down what you choose, as it will be used in the next step.

Modify the <INSTALL>/conf/server.xml File

In the confluence directory, open the conf/server.xml file and insert one of the following just after the closing </Engine> tag:

1. For users of Confluence 2.2 or later:
Open conf/server.xml, uncomment the lines:

```
<Connector port="8443" maxHttpHeaderSize="8192"  
    maxThreads="150" minSpareThreads="25" maxSpareThreads="75"  
    enableLookups="false" disableUploadTimeout="true"  
    acceptCount="100" scheme="https" secure="true"  
    clientAuth="false" sslProtocol="TLS"
```

```
URIEncoding="UTF-8" keystorePass="<MY_CERTIFICATE_PASSWORD>" />
```

Or for users of Confluence 2.1.x or earlier, add or uncomment the following lines:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8443" minProcessors="5"
maxProcessors="75"
    enableLookups="true" acceptCount="100" debug="0" scheme="https" secure="true"
    useURIVValidationHack="false" disableUploadTimeout="true" URIEncoding="UTF-8">
    <Factory className="org.apache.coyote.tomcat4.CoyoteServerSocketFactory"
clientAuth="false" protocol="TLS" keystorePass="<MY_CERTIFICATE_PASSWORD>" />
</Connector>
```

2. Change <MY_CERTIFICATE_PASSWORD> to the password you entered for the certificate when you generated it.

If you have a Certificate Prepared

If you just created your new Certificate or your existing one is in the default location, skip to the 'Testing SSL' section. By default, Tomcat will look for the certificates in C:\Documents and Settings\%CURRENT_USER%\\.keystore on Windows or ~/.keystore on Unix. If your Certificate is not in this location, you will need to update your <INSTALL>/conf/server.xml file as outlined below, so that Tomcat can find it. Advanced users who require an official CA-issued key pair for their Certificate can find instructions in the [Tomcat documentation](#).

1. For users of Confluence 2.2 or later:
Open conf/server.xml, add the keystoreFile="<MY_CERTIFICATE_LOCATION>" parameter to the Connector tag as shown below:

```
<Connector port="8443" maxHttpHeaderSize="8192"
    maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
    enableLookups="false" disableUploadTimeout="true"
    acceptCount="100" scheme="https" secure="true"
    clientAuth="false" sslProtocol="TLS"
    URIEncoding="UTF-8" keystorePass="<MY_CERTIFICATE_PASSWORD>"
keystoreFile="<MY_CERTIFICATE_LOCATION>" />
```

Or for users of Confluence 2.1.x or earlier, change the <Factory> tag to following:

```
<Factory className="org.apache.coyote.tomcat4.CoyoteServerSocketFactory" clientAuth="false"
protocol="TLS" keystoreFile="<MY_CERTIFICATE_LOCATION>"
keystorePass="<MY_CERTIFICATE_PASSWORD>" />
```

2. Change <MY_CERTIFICATE_LOCATION> to the path of the Certificate.

Testing SSL

Restart Tomcat and access your instance on https://<MY_BASE_URL>:8443/

For more detailed information on setting up SSL with Tomcat (including additional configuration options), have a look at [Tomcat 4 SSL Howto](#) or [Tomcat 5.5 SSL Howto](#).

Although HTTPS is now activated and available, the old HTTP URLs (<http://localhost:8080>) are still

available. In most situations one wants these URLs to continue working, but for some to redirect to their HTTPS equivalent.

To configure which URL's you want secured, edit the `confluence/WEB-INF/web.xml` file and add to the end the following declaration:

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Login and Restricted Space URLs</web-resource-name>
    <url-pattern>/login.action</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>
```

Note that the example above specifies a `url-pattern` for the login URL `/login.action`. This means that whenever a user tries to access the unprotected version of the login page, they will be redirected automatically to the secured version of it.

If you want to protect individual spaces, there isn't a complete way of doing this at the moment. You can add a pattern like this:

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Login and Restricted Space URLs</web-resource-name>
    <url-pattern>/login.action</url-pattern>
    <url-pattern>/display/SALARIES/*</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>
```

This will redirect all URL's for page views in the SALARIES space. This does not however, protect pages that are accessed via a URL like `/pages/viewpage.action?pageId=123`. Confluence generates these types of URL's for pages that have non-ASCII characters in the title. Hence this is not a complete solution.

If you want to protect all pages and spaces, use:

```
<security-constraint>
  <web-resource-collection>
    <web-resource-name>Restricted URLs</web-resource-name>
    <url-pattern>*.action</url-pattern>
  </web-resource-collection>
  <user-data-constraint>
    <transport-guarantee>CONFIDENTIAL</transport-guarantee>
  </user-data-constraint>
</security-constraint>
```

Once this change is made, restart Confluence and access <http://localhost:8080>. You should be redirected to <https://localhost:8443/login.action>.



There does not seem to be an easy way to make subsequent pages revert to HTTP after logging in via HTTPS - see [JRA-7250](#)

Note for users of Confluence versions prior to 2.2

You are required to configure a Realm, even though the security-constraint above does not access it. Add this realm tag inside the Engine tag:

```
<Engine ...  
  <Realm className="org.apache.catalina.realm.MemoryRealm" />  
  ...  
</Engine>
```



You can protect other paths as necessary, but be aware that if attachments are protected, they will not be downloadable from Internet Explorer (see [this issue](#)).

Anonymous Access to Remote API

This page last changed on Feb 02, 2006 by [vidya](#).

Sites may wish to disable anonymous access to the remote API to make it harder for malicious users to write 'bots' that perform bulk changes to the site. If you wish to enable the Remote APIs but do not want [anonymous users](#) to access Confluence remotely, you can disable anonymous access from the Administration Console.

To disable anonymous access to Remote APIs,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. Click 'Edit' at the bottom of the 'Options and Settings' screen.
3. Select 'Off' beside 'Anonymous Access to API'.
4. 'Save' your changes.

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)

[Enabling or Disabling Public Signup](#)

[Excluding external referrers](#)

[Hiding External Links From Search Engines](#)



[Administrators Guide Home](#)



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Enabling or Disabling Public Signup

This page last changed on Feb 02, 2006 by [vidya](#).

Enabling 'Public Signup' allows users to sign themselves up to the site.

If you want to restrict your site to a particular set of users, you may want to disable 'Public Signup'. In this instance, site administrators can add new users from the Administration Console.

To enable or disable 'Public Signup',

1. From the 'Administration Console' click on 'General Configuration' in the left panel.
2. This will display the 'Options and Settings' screen. Click 'Edit'.
3. Beside 'Public Signup', select 'On' to enable Public Signup. Select 'Off' to disable it.
4. Click 'Save'.

RELATED TOPICS

[Adding a Group](#)

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Hiding External Links From Search Engines

This page last changed on Feb 02, 2006 by [vidya](#).

Hiding external links from search engines helps to discourage spammers from posting links on your site. If you turn this option on, any urls inserted in pages and comments will be given the "nofollow" attribute, which prevents search engines from following them.

 Shortcut links and links to other pages within Confluence are not affected.

To hide external links from search engines,

1. Go to the 'Administration Console' and click on 'General Configuration' in the left panel.
2. This will display the 'Options and Settings' screen. Click 'Edit'.
3. Select 'On' beside 'Hide External Links From Search Engines'.
4. 'Save' your changes.

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)

[Enabling or Disabling Public Signup](#)

[Excluding external referrers](#)

[Hiding External Links From Search Engines](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Managing External Referrers

This page last changed on Feb 02, 2006 by [vidya](#).

An external referrer is any site that links to your Confluence instance.

By default, external referrers for a page are listed under 'Incoming Links' under the 'Info' tab of the page.

Here's how you can manage your external referrers:

1. [Hide all external referrers](#) : By default, Confluence lists all external referrers under the 'Info' tab of a page. If you turn this option on, external referrers will not be listed here.
2. [Specify which external referrers to exclude](#) : You can decide which referrers you want to exclude from being displayed on your site.

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#) (Confluence)

[Anonymous Access to Remote API](#) (Confluence)

[Enabling or Disabling Public Signup](#) (Confluence)

[Excluding external referrers](#) (Confluence)

[Hiding External Links From Search Engines](#) (Confluence)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Excluding external referrers

This page last changed on Feb 02, 2006 by [vidya](#).

Excluding external referrers prevents them from being displayed anywhere on your site.

There are two instances where you may want to do this:

1. If you are running a Confluence installation that is open to public:

In a site that is open to public, one unfortunate problem is that malicious sites can "spam" a page's incoming links statistics. This is usually done to get the site's URL to appear in the sidebar. By adding these sites to the 'excluded referrers' list, you can prevent them from being listed on your site.

2. If Confluence is installed on a server with multiple domain names or IP addresses:

Confluence will consider any url originating from the domain name where Confluence is installed as an internal link. However, if Confluence is installed on a server with multiple domain names or IP addresses, you will need to add the other domain name prefixes to this list to let Confluence know that any links from these domains should not be considered external links.

 You need to be a site administrator and know the url of the site to add it to the excluded referrers list.

To add a url to the excluded referrers list,

1. Go to the Administration Console and click on 'Manage External Referrers' in the left panel.
2. Add the URL to the 'Excluded External Referrer Prefixes' section. You must include 'http://' at the front of the URL.

 You can add more than one url by separating each new url with a new line.

Once saved, all incoming links URLs that match the blocked list will no longer be recorded. Referrer URLs are blocked if they start with any of the URLs in the exclusion list. So <http://evilspamsite.blogspot.com> will also match <http://evilspamsite.blogspot.com/nastypage.html>

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)

[Enabling or Disabling Public Signup](#)

[Excluding external referrers](#)

[Hiding External Links From Search Engines](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Hiding external referrers

This page last changed on Jan 31, 2006 by [vidya](#).

By default, Confluence lists all external referrers under the 'Info' tab of a page. You can configure Confluence to hide referrers from this view.

To hide external referrers,

1. Go to the 'Administration Console' and click on 'Manage External Referrers' in the left panel.
2. Click 'Off' beside 'External Referrers'

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)

[Enabling or Disabling Public Signup](#)

[Excluding external referrers](#)

[Hiding External Links From Search Engines](#)

Shared Mode

This page last changed on Nov 01, 2006 by jens@atlassian.com.

When Confluence is run in a shared environment, certain changes to Confluence features have to be applied in order to guarantee privacy. To account for this, we've added a new setting in the general configuration called Shared Mode.

When should shared mode be used?

The shared mode setting should be used when Confluence is run in a shared environment where distinct groups and users share the same instance. To ensure that one party can not bring down the whole system, certain features will be disabled in a shared environment. Also to guarantee the privacy of independent groups, search and security behaviour is different in Shared Mode.

What is affected?

Feature	Behaviour
Search	Searching for users is currently disabled in shared mode
User/Group Picker	Only groups the current users is a member of, and their users will be displayed in the picker
Mail	The mail feature is currently disabled in shared mode
People Directory	The people directory will be disabled in shared mode

User Email Visibility

This page last changed on Feb 02, 2006 by [vidya](#).

Confluence provides three options for email address privacy which can be configured by a site administrator from the Administration Console:

- Public: email addresses are displayed publicly.
- Masked: email addresses are still displayed publicly, but masked in such a way to make it harder for spam-bots to harvest them.
- Private: only site administrators can see the email addresses.

 Anyone in the confluence-administrators group will still be listed (with their email address) on the administrators page, although their addresses will be masked.

To configure user email visibility,

1. From the 'Administration Console' click on 'General Configuration' in the left panel.
2. This will display the 'Options and Settings' screen. Click 'Edit'.
3. Beside 'User email visibility', select one of the options: 'Public', 'Masked', or 'Private'.
4. 'Save' your changes.

Screenshot : email visibility

User email visibility:	☐ public
	☐ masked (i.e. user at example dot com)
	☒ only visible to site administrators

RELATED TOPICS

[Adding SSL for Secure Logins and Page Security](#)

[Anonymous Access to Remote API](#)

[Enabling or Disabling Public Signup](#)

[Excluding external referrers](#)

[Hiding External Links From Search Engines](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Spam Prevention (Captcha)

This page last changed on Jan 02, 2007 by rosie@atlassian.com.

Captcha Configuration

If your Confluence site is open to the public you may find that automated spam is being added, in the form of comments or new pages.

You can configure Confluence to deter automated spam by asking users to prove that they are human before they are allowed to:

- Sign up for an account
- Add a comment
- Create a page
- Edit a page



Captcha is the technical term for a test that can distinguish a human being from an automated agent such as a web spider or robot. When Captcha is enabled, users are required to read some text from an image (example on the right) and type it into the form.

When it is on, users will need to recognise a distorted picture of a word, and must type the word into a text field. This is easy for humans to do, but very difficult for computers.

You can choose which users don't have to complete Captchas. You can exempt signed-in users (they will have completed a Captcha when they signed up), or members of particular groups.

You can also customise the Captcha image (see [Advanced Configuration](#) below).

To enable captchas for Confluence,

You need to be a [space administrator](#) to enable captcha.

1. Click on the 'Administration' link in the top right corner of the screen.
2. Choose 'Spam Configuration' from the Configuration menu on the left.
3. Click on 'Change Space Logo' in the left panel under the heading 'Look and Feel'. This will bring up a new screen.
4. Turn on captchas by clicking the 'ON' link.

To disable captcha for certain groups,

By default captchas will not be shown to registered users. Only anonymous users will have to perform the captcha test when creating comments or editing pages.

If you don't trust all registered users, captchas can also be disabled for only a certain group/groups of users.

1. Select the 'Members of Group' and click the 'Save' button.
2. Use the 'Group Picker' in the Groups menu and click the 'Add' button to add a single or multiple groups to the list.
3. To remove a group from the list, click the 'Remove Symbol' behind the group name.

[Take me back to Confluence 2.0 Home](#)

Advanced Configuration

You can also control which type of image is presented to your users. This requires editing the applicationContext.xml file which you can find in the confluence/WEB-INF/classes directory under your Confluence installation.

The section of this file which configures Captchas looks like this:

```
<!-- Image capture service -->
<!-- this is a very easy captcha generator. If you want difficult captures, uncomment the
DefaultGimpyEngine below,
      or use an engine class from http://jcaptcha.sourceforge.net -->
<bean id="captchaEngine" class="com.atlassian.confluence.security.ConfluenceCaptchaEngine"
autowire="byName"/>
<!--bean id="captchaEngine" class="com.octo.captcha.engine.image.gimpy.DefaultGimpyEngine"
autowire="byName"-->
<bean id="captchaManager" class="com.atlassian.confluence.security.DefaultCaptchaManager"
autowire="byName"/>
```

You can replace the 'captchaEngine' class with any text-based engine from [jcaptcha](http://jcaptcha.sourceforge.net).

Troubleshooting slow search performance and "Too many open files" problem

This page last changed on Mar 16, 2007 by dave@atlassian.com.

The purpose of this document is to provide a workaround for customers using Confluence version 2.2.x and who are experiencing slow search performance and/or Too many open files error in their logs.

This problem has been properly addressed as of Confluence 2.3. If upgrading is an option for you, we recommend upgrading to the latest stable version.

The workaround

The workaround for this problem involves two steps.

1. Reducing the frequency of index optimisation

Index optimisation is performed over your entire search index periodically to maintain good search performance. However, this process will lock down the index for the entire duration that it occurs. Searching will not be possible during this time. For small Confluence instances with small indexes, optimisation time is negligible. However, for larger instances, where optimisation is potentially expensive to perform, it could cause a noticeable inconvenience for users.

In Confluence 2.2.x, index optimisation is scheduled to occur every time the index queue is flushed (every minute). Optimisation does not need to be performed this regularly. To fix this:

1. Extract [DefaultConfluenceLuceneIndexManager.zip](#) to your `confluence/WEB-INF/classes/com/atlassian/confluence/search/lucene` directory. This patch will allow you to specify a JVM parameter to adjust the frequency of optimization. For example if you want it to occur on every 20th flush of the index queue start Confluence with this JVM parameter:

```
-Dconfluence.optimize.index.modulo=20
```

Setting it back to 1 will revert back to normal behaviour (optimize on every flush).

2. Restart Confluence

2. Apply a patched bonnie jar

To address the Too many open files issue, you need to download the patched bonnie jar attached to this issue: <http://jira.atlassian.com/browse/CONF-7401>. Copy the jar to your `{[confluence/WEB-INF/lib]}` directory and remove the old one. Now restart and rebuild the index.

If are still experiencing problems after this, please file a support request at <http://support.atlassian.com> and we'll investigate the issue further.

User Management

This page last changed on Jan 31, 2006 by vidya.

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 - [Adding a Group](#)
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 - [Changes in osuser.xml from 1.0.3a to 1.1.x](#)
 - [Configuring multiple LDAP repositories](#)
 - [Confluence Caching OSUser Provider](#)
 - [Importing LDAP Users](#)
 - [LDAP FAQ](#)
 - [Troubleshooting the "Not Permitted" Screen under LDAP Integration](#)
 - [Cannot login with Confluence admin account](#)
- [Migrating users from Confluence to JIRA](#) — There is currently no way to delegate user management from JIRA to Confluence. So, if you are in a situation where your users are defined in Confluence and would like to take advantage of Confluence's ability to use JIRA user management, you will need to transfer all of your existing Confluence users into JIRA. You can do this manually, or if you have a large number of users, you can use the attached XML-RPC script.
- [Requesting External User Management Support](#)
- [Understanding User Management in Confluence](#)
- [User Management Frequently Asked Questions](#)

Confluence User Management

This page last changed on Jan 31, 2006 by [vidya](#).

- [Adding a Group](#)
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- [Removing a Group](#)
- [Removing a User](#)
- [Setting up Anonymous Access](#)
- [Viewing members of a group](#)

Adding a Group

This page last changed on Feb 02, 2006 by [vidya](#).

To add a new group,

1. Go to the 'Administration Console' and click on 'Manage Groups' in the left panel.
2. Enter a name for your group in the 'Add Group' input field and click 'Save'.

You are now ready to start [adding users](#) to the group.

RELATED TOPICS

[Adding or Removing a User from a Group](#)

[Global Groups Overview](#)

[Removing a Group](#)

[Viewing members of a group](#)

!Administration Guide Attachments directory^adminhome.gif!  [Confluence Documentation Home](#)

Adding a New User

This page last changed on Aug 22, 2006 by noam@atlassian.com.

There are two ways a new user can be added to Confluence:

Public Signup: [Enabling public signup](#) from the Administration Console allows users to sign themselves up to the site.

By Site Administrators : If you want to restrict your site to a select group of users, you may want to disable 'Public Signup'. In this instance, site administrators can add new users from the Administration Console.

To add a new user to Confluence from the Administration Console,

1. Go to the 'Administration Console' and click on 'Manage Users' in the left panel.
2. Click on the link 'Add new user' listed at the top of the page.
3. In the form displayed, enter the user's details: username, password, name and email id.
4. Click 'Create' to add the user.

RELATED TOPICS

[Adding a Group](#)

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Changing Usernames](#)

[Editing User Details](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Adding or Removing a User from a Group

This page last changed on Dec 05, 2006 by meiyan.chan@atlassian.com.

To add or remove a user from a group,

1. Go to the 'Administration Console' and click on 'Manage Users' in the left panel.
All members of the Confluence-Users group are listed in alphabetical order (first name). To find a user, you can either browse through the pages; or do a search on the user's mail id or the group to which they belong.
2. Click on the user link. This will display the user's current details and links to edit them.
3. Click 'Edit Groups'. This will display two lists of groups:
 - 'Not a member of groups': All groups to which the user doesn't belong. To add the user to a group, select a group and click 'Join'. Hold Ctrl and click to select more than one group.
 - 'Member of groups': All groups to which the user belongs. Select a group and click 'Leave' to remove the user from the group.



You cannot use the Edit Groups option to add or remove users from external groups, as Confluence access to LDAP and JIRA groups is read only.

RELATED TOPICS

[Adding a Group](#)

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Changing Usernames](#)

[Editing User Details](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Changing Usernames

This page last changed on Mar 01, 2007 by ivan@atlassian.com.

A username is the name used to login to Confluence, eg. jsmith. There is no support for changing a username via Confluence yet, but you can to vote towards a [feature request to allow usernames to be changed from the web interface](#).

Instructions For Changing Usernames

Usernames can only be changed through direct update to the Confluence database.

1. If you have a database administrator, request that they approve the database-related steps described below
2. If you are using JIRA user management, [Revert from JIRA To Internal User Management](#)
3. [Backup Confluence](#)
4. Creating a usermigration table:

```
create table usermigration
(
  oldusername varchar,
  newusername varchar
)
```

5. Usernames that will be changed must be placed in the usermigration table with their current and planned usernames:

```
insert into usermigration (oldusername, newusername)
values ('oldusername', 'newusername');
```

6. If your DB administration tool does not support multiple SQL queries, these must be entered individually.

```
update attachments
set creator = newusername from usermigration u
where creator = u.oldusername;

update attachments
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update content
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update content
set creator = newusername from usermigration u
where creator = u.oldusername;

update content
set username = newusername from usermigration u
where username = u.oldusername;

update extrnltns
set creator = newusername from usermigration u
where creator = u.oldusername;

update extrnltns
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update links
```

```

set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update links
set creator = newusername from usermigration u
where creator = u.oldusername;

update notifications
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update notifications
set creator = newusername from usermigration u
where creator = u.oldusername;

update pagetemplates
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update pagetemplates
set creator = newusername from usermigration u
where creator = u.oldusername;

update spaces
set creator = newusername from usermigration u
where creator = u.oldusername;

update spaces
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update spacepermissions
set permusername = newusername from usermigration u
where permusername = u.oldusername;

update spacepermissions
set creator = newusername from usermigration u
where creator = u.oldusername;

update spacepermissions
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update contentlock
set creator = newusername from usermigration u
where creator = u.oldusername;

update contentlock
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

update os_user
set username = newusername from usermigration u
where username = u.oldusername;

update trackbacklinks
set creator = newusername from usermigration u
where creator = u.oldusername;

update trackbacklinks
set lastmodifier = newusername from usermigration u
where lastmodifier = u.oldusername;

```

7. If using Confluence 2.1 or newer, run the following command:

```

update user
set name = newusername from usermigration u
where name = u.oldusername;

```

8. Reassign personal spaces associated with the old username to the new username. The tilda (~) is required as it is prepended to the space key of all personal spaces.

```

update spaces
set spacekey = '~newusername'

```

```
where spacekey = '~oldusername';
```

9. Each username is associated with a full name. For example, username 'jsmith' may have a full name of 'John M Smith'. If this fullname needs to be changed, modify the fullname in the user or os_user table.

All old usernames in Confluence should now be replaced with the new usernames from the usermigration table.

RELATED TOPICS

[Adding a Group](#)

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Changing Usernames](#)

[Editing User Details](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Editing User Details

This page last changed on Feb 09, 2006 by [mryall](#).

To update a user's details,

1. Go to the 'Administration Console' and click on the link 'Manage Users' in the left panel.
2. Locate the user by doing a search on the user's mail id or the groups to which they belong.
3. Click on the user link. This will display the user's current details and links to edit them.
 - View Profile : View the user's profile.
 - Edit Groups : [Add or remove](#) this user from a group.
 - Edit Details : Edit the user's name and email address. Changing a user's username is not supported through the application, see [Changing Usernames](#) for other solutions.
 - Set Password : Edit the user's password details.
 - Deactivate : It is not possible to 'remove' a user if the user is responsible for content on the site because Confluence will need the user information to maintain history of pages. In this instance, you can deactivate the user so that they can no longer log in to Confluence.
 - Remove : You can remove a user permanently if the user has not added or edited any content on the site.



Deactivating users

This functionality was removed in Confluence 2.1.x. See [Removing a User](#) for more information.

Screenshot : User Details

User:	testfoo2@atlassian.com
Full Name:	test foo 2
Email:	testfoo2@atlassian.com
Groups:	☒ confluence-users
View Profile Edit Groups Edit Details Set Password Deactivate Remove	

RELATED TOPICS

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Editing User Details](#)

[Global Permissions Overview](#)

[Removing a User](#)

Global Groups Overview

This page last changed on Feb 02, 2006 by [vidya](#).

There are two special default groups in Confluence:

1. **Confluence-Administrators:** This is a 'super-group' of users who can access the 'Administration Console' from which site-wide administration is performed.
A user from this group has permission to do anything in the site regardless of any other setting.
2. **Confluence-Users:** This is a default group of all new users. Permissions you assign to this group will be assigned to all new signed-up users of Confluence.

Other user-groups : A site administrator can also group users together into user-groups for more convenient administration. Once created, user-groups become available at the space and page levels to allow for flexible permissioning. A user in one of these groups will automatically be granted all permissions granted to the group.

Anonymous-Users : Confluence treats all users who do not log in when they access Confluence as being 'Anonymous'. Enabling anonymous 'Use permission' allows non-registered users to browse pages and spaces in Confluence.

RELATED TOPICS

[Adding a Group](#)
[Adding a New User](#)
[Adding or Removing a User from a Group](#)
[Changing Usernames](#)
[Editing User Details](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Global Permissions Overview

This page last changed on Oct 05, 2006 by nicholas@atlassian.com.

Permissions determine what actions a user is allowed to perform within Confluence.

Global permissions control which users can :

- Can Use: This is the most basic permission that allows users to access the site.
- Attach Files to User Profile This allows the user to upload files to be stored in their user profile.
- Personal Space This permission allows the user to create a personal space.
- Create Space: This permission allows users to create new spaces within a Confluence site. When a space is created, the creator automatically has the 'Administrate Space' permission for that space and can perform space-wide administrative functions.
- Administrate Confluence: This permission allows users to access the Administration Console that controls site-wide administrative functions.

Global Permissions are granted in the Global Permissions section of the Administration Console. In order to assign these permissions, a user must already have the global 'Administrate Confluence' permission.

Site administrators can assign global permissions to [user-groups](#), individual users, and to anonymous users. Further permissioning is granted from the [space administration Screens](#).

Note about 'Administrate Confluence' permission

Granting a user 'Administrate Confluence' permission will not automatically grant her access to all spaces in the site. It will only grant the user access to the Administration menu.

Automatically being an administrator of all spaces is only available to the special "confluence-administrators" group (internally called the superuser group). There is an outstanding enhancement request to [replace the superuser group with something better](#).

Be aware, however, that users with 'administrate' permission must still be trusted. They have access to modify users and groups in Confluence, so can always add themselves to the 'confluence-administrators' group and become a superuser.

RELATED TOPICS

[Adding a Group](#)

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Changing Usernames](#)

[Editing User Details](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Migrating to new User Management

This page last changed on Nov 07, 2006 by ivan@atlassian.com.

In order to support advanced forms of User Management, Confluence now uses new user management which can store users through hibernate instead of delegating the user management to OSuser.

By default Confluence still delegates User Management to OSuser. However, you may wish to migrate your users away from OSuser, either in preparation to use external user management, or because you are having problems with OSuser, such as [CONF-5218](#).



These migration instructions are only valid since version 2.2 of Confluence.

Step 1 - Upgrade Confluence

Please check that you are running the [latest version](#) of Confluence. If not, we strongly recommend that you consider upgrading Confluence according to [this guide](#). Confirm that you have upgraded successfully before trying to add LDAP to the new version.

Step 2 - Confluence user migration

1. You will need to find out your Confluence base URL. To check this from Confluence, go to Administration > General Configuration > Base URL. Record this for later in the process.
2. Make a backup of your:
 - database
 - Confluence home directory
 - confluence/WEB-INF/classes/atlassian-user.xml (only if you have made changes)



If you do not create a backup, you cannot rollback to the old version if the migration is unsuccessful.

3. Download [hibernate_osuser_atlassian-user.xml](#) and rename to `atlassian-user.xml`. Then copy this file to your `confluence/WEB-INF/classes` directory (you can overwrite the one that's there).
4. Restart Confluence.
5. Login as an Administrator, copy the address `http://<BASEURL>/<contextpath>/admin/osuser2atluser.jsp` and paste it into your browser's address bar. Edit the `<BASEURL>` to your actual base URL and `<contextpath>` to your context path (usually 'confluence') and follow the link.
6. Click the link Begin migration. You will know the migration has been successful if you see this reported:

```
Migrating users ... Users migrated successfully!
Migrating propertyset data ... Propertyset data migrated successfully!
Migrating groups ... Groups migrated successfully\!
```

If you encounter errors, please create a support ticket at <http://support.atlassian.com> and attach your application server logs.

7. Stop Confluence.
8. Start up Confluence and check that you can login using the admin account you first set up when running through the Confluence Setup Wizard. If not, re-examine your steps and repeat from there.

9. Download [hibernate_cache_atlassian-user.xml](#), rename it to `atlassian-user.xml` then copy to your `<INSTALL>/confluence/WEB-INF/classes` directory. It should overwrite the previous `atlassian-user.xml`.
10. Restart Confluence. Check that your users can still log in.

Removing a Group

This page last changed on Jan 31, 2006 by [vidya](#).

To remove a group,

1. Go to the 'Administration Console' and click on 'Manage Groups' in the left panel. A list of all existing groups is displayed along with links to remove them.
2. Click 'Remove' beside the group you want to remove. You will need to confirm your action before the group is deleted.

RELATED TOPICS

[Configuring Attachment Size](#)
[Configuring Character Encoding](#)
[Configuring HTTP Timeout Settings](#)
[Configuring Indexing Language](#)
[Configuring Number Formats](#)

Removing a User

This page last changed on Feb 08, 2006 by [mryall](#).

i It is not possible to 'remove' a user if the user is responsible for content on the site because Confluence will need the user information to maintain a history of pages. If you wish to prevent a user from accessing Confluence, you can 'deactivate' a user so that they can no longer log in to Confluence.

You can however, 'remove' a user if the user has not added or edited any content on the site.

To deactivate or remove a user,

1. Go to the 'Administration Console' and click on 'Manage Users' in the left panel.
All members of the Confluence-Users group are listed in alphabetical order (first name). To find a user, you can either browse through the pages, or do a search on the user's mail id or the group to which they belong.
2. Click on the user link. This will display the user's current details and links to edit them.
 - Click 'Deactivate' if the user is responsible for any content on the site. Deactivating will prevent them from logging in to the site. (Only prior to 2.1, see below.)
 - Click 'Remove' if the user is not responsible for any content on the site.



Note on deactivating users

This functionality was removed in Confluence 2.1.x in line with the incorporation of the new [Polis](#) library. This was done for performance reasons and we are still in the process of coming up with a more performant solution.

In the meantime, to deactivate a user, you will need to remove him/her from all groups that have currently been assigned global "Use Confluence" permission. If you have assigned "Use Confluence" permission to the specific user, you will also need to remove this. See [Global Permissions Overview](#) for how to do the latter.

Screenshot: Adding and removing users

Not a member of groups:	Member of groups:
atlassian-developers atlassian-partners atlassian-staff atlassian-training bnp-consulting bnpp-boys case-studies citigroup-users Join >>	confluence-users << Leave

RELATED TOPICS

[Adding a Group](#)
[Adding a New User](#)
[Adding or Removing a User from a Group](#)
[Changing Usernames](#)
[Editing User Details](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Setting up Anonymous Access

This page last changed on Mar 01, 2007 by [ktran](#).

You can enable public access to your site by granting the 'Use Confluence' permission to 'Anonymous' users from the Administration Console.

This user category has been created for convenient administration of users who have not logged into the site. Permissions assigned to this group apply to all anonymous users of the site.

To enable public access to your site,

1. Go to the 'Administration Console' and click 'Global Permissions' in the left panel.
2. Click 'Edit Permissions'.
3. Under 'Anonymous Access' check 'Can Use' Confluence.

 Once you grant this permission, further permissions can be granted from the space administration screens to control the viewing and editing privileges of anonymous users. See [Space Permissions Overview](#).



To turn off "Anonymous Access", uncheck the "Can Use" option.

RELATED TOPICS

[Adding a New User](#)

[Adding or Removing a User from a Group](#)

[Editing User Details](#)

[Global Permissions Overview](#)

[Removing a User](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Viewing members of a group

This page last changed on Feb 02, 2006 by [vidya](#).

To view the members of a group,

1. Go to the 'Administration Console' and click on 'Manage Groups' in the left panel. This will list all the existing groups on the site along with the number of users in each group (displayed within parenthesis).
2. Click on the number within the paranthesis to display all the users in the group.

RELATED TOPICS

[Adding or Removing a User from a Group](#)

[Global Groups Overview](#)

[Removing a Group](#)

[Viewing members of a group](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Integrating with Crowd

This page last changed on Mar 19, 2007 by rosie@atlassian.com.

Atlassian's Crowd identity management system can be integrated with Confluence. Please see [Integrating Crowd with Confluence](#).

JIRA User Management

This page last changed on Jan 31, 2006 by [vidya](#).

- [Delegate user management to use JIRA logins](#)
 - [Revert from JIRA to internal user management](#)
- [JIRA User Management FAQ](#)

Delegate user management to use JIRA logins

This page last changed on Apr 02, 2007 by tom@atlassian.com.

If you already have a significant user base set up inside JIRA, it makes sense to connect Confluence up to it so user management is centralised and not duplicated. This document outlines how to delegate Confluence's user authentication and group management to JIRA so that you can use your JIRA users to login to Confluence.

Read Before Proceeding

1. The examples used in this document are based on Tomcat Application Server and the MySQL database, but the same concepts (but not the verbatim examples) can be applied to other application servers or databases.
2. Always install Confluence with a new database. Do not attempt to use the existing Jira database, with either JDBC or data source. Do not add any spaces or content once Confluence installation is complete. Users in Confluence will no longer be valid once you switch over to using your JIRA users
3. If JIRA is using LDAP for authentication, you should not use JIRA for Confluence user management. Use [Add LDAP Integration With Group Management](#) instead
4. If you have existing users or groups in Confluence, these users will not be available once you switch to using JIRA's user management. Any existing content will no longer be associated with valid users
5. If you run into a problem, check the [Troubleshooting](#) section

Technical Overview

In the configuration described below, Confluence will use JIRA's database for its user and group information. The Confluence application will have two database connections:

1. A connection to the primary database, set up during Confluence installation. This database stores all the normal Confluence data: spaces, pages, comments, etc.
2. A read-only data source connection to JIRA's database, set up after Confluence is installed. Confluence reads information about users and groups from this database.

The reason this works is because both JIRA and Confluence use the same user management library, OSUser. The OSUser database schema is the same in JIRA and Confluence, so Confluence can easily read from JIRA's tables to get the user and group information.

Step One: Installing Confluence

Skip this step if you have installed Confluence already and completed the setup wizard.

1. If you are running JIRA standalone please follow [these instructions](#) for installing Confluence.
2. If you have JIRA deployed under your own tomcat server, please follow [these instructions](#).
3. Ensure that Confluence is running and has been set up, that is, you have completed the setup wizard and verified that you can create pages.

4. Shutdown Confluence.

Step Two: Setting up datasource to JIRA's database

To enable Confluence to delegate all user authentication attempts and group membership queries to JIRA, it needs to be made aware of JIRA's database (and hence the user tables in JIRA's database).

In Tomcat this is achieved by specifying JIRA's database as a resource. You will need to declare it inside the <context> descriptor you set up in Step One.



If there is an existing block of <Resource> in the <context> descriptor, please do not replace it. Rather, just add the following <Resource> block inside the <context> descriptor.



If you are running Confluence WAR/EAR version separate to Jira, or under Jira standalone 3.3 and later, your Confluence context will be in the confluence.xml file.
If you are running Confluence standalone separate to Jira, or Confluence WAR/EAR version under an older version of Jira, your Confluence context will be in the server.xml file. You should never have a Confluence context in both.

If you are running Confluence stand-alone (or Confluence inside a JIRA stand-alone) and aren't sure which version of Tomcat you are using, check your log files. You'll see *INFO: Starting Servlet Engine: Apache Tomcat/5.5.nn* if you are using Tomcat 5.5.



The DataSource configuration below is using MySQL as an example. You will need to modify these settings according to the database that you are using.

- Tomcat 4.x and Tomcat 5.0.x: Sample context descriptor

```
<Context path="/confluence" docBase="C:/programs/confluence" swallowOutput="true">
  <Resource name="jdbc/JiraDS" auth="Container" type="javax.sql.DataSource"/>
  <ResourceParams name="jdbc/JiraDS">
    <parameter>
      <name>username</name>
      <value>your_db_username</value>
    </parameter>
    <parameter>
      <name>password</name>
      <value>your_db_password</value>
    </parameter>
    <parameter>
      <name>driverClassName</name>
      <value>com.mysql.jdbc.Driver</value>
    </parameter>
    <parameter>
      <name>url</name>
      <value>jdbc:mysql://your.domain.com/jira_database_name?autoReconnect=true</value>
    </parameter>
    <parameter>
      <name>factory</name>
      <value>org.apache.commons.dbcp.BasicDataSourceFactory</value>
    </parameter>
  </ResourceParams>
</Context>
```

- Tomcat 5.5.x: This version of Tomcat has a new syntax for specifying resources (note that you don't add a new context to server.xml, just add the Resource to your existing Context):

```
<Context path="/confluence" docBase="C:/programs/confluence" swallowOutput="true">
  <Resource name="jdbc/JiraDS" auth="Container" type="javax.sql.DataSource"
    username="your_db_username"
    password="your_db_password"
    driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://your.domain.com/jira_database_name?autoReconnect=true"/>
</Context>
```

Step Three: Installing the JDBC driver

Ensure that your JDBC driver is on the classpath of your application server. In this example, a jar for the mysql driver should be in the /common/lib folder.

1. Download the mysql driver from [here](#).
2. Copy the jar file into the /common/lib folder

Step Four: Modify osuser.xml



Please perform this step after you have completed the Confluence setup wizard.

1. Find the osuser.xml file in the /confluence/WEB-INF/classes folder and open in a text editor.
Comment out the following block of code:

```
<provider class="bucket.user.providers.CachingCredentialsProvider">
  <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider</property>
  <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingAccessProvider">
  <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateAccessProvider</property>
  <property
name="chain.configuration.provider.class">bucketuser.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingProfileProvider">
  <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateProfileProvider</property>
  <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
```

2. Uncomment this block:

```
<provider class="bucket.user.providers.CachingCredentialsProvider">
  <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcCredentialsProvider</property>
  <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
</provider>
<provider class="bucket.user.providers.CachingAccessProvider">
  <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcAccessProvider</property>
  <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
```

```

    </provider>
    <provider class="bucket.user.providers.CachingProfileProvider">
      <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcProfileProvider</property>
      <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
      <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
    </provider>

```

Your osuser.xml should now look like this:

```

<opensymphony-user>
  <!--
    Authenticators can take properties just like providers.

    This smart authenticator should work for 'most' cases - it dynamically looks up
    the most appropriate authenticator for the current server.
  -->
  <authenticator class="com.opensymphony.user.authenticator.SmartAuthenticator"/>

  <!-- JIRA User management (with caching) -->
  <!-- Note: Do not add any line breaks or spaces when specifying the chain.classname,
otherwise a ClassNotFoundException will be thrown -->

  <provider class="bucket.user.providers.CachingCredentialsProvider">
    <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcCredentialsProvider</property>
    <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
  </provider>
  <provider class="bucket.user.providers.CachingAccessProvider">
    <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcAccessProvider</property>
    <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
  </provider>
  <provider class="bucket.user.providers.CachingProfileProvider">
    <property
name="chain.classname">com.atlassian.confluence.user.providers.jira.JiraJdbcProfileProvider</property>
    <property name="chain.datasource">java:comp/env/jdbc/JiraDS</property>
    <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
  </provider>

  <!--
  <provider class="bucket.user.providers.CachingCredentialsProvider">
    <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider</property>
    <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
  </provider>
  <provider class="bucket.user.providers.CachingAccessProvider">
    <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateAccessProvider</property>
    <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
  </provider>
  <provider class="bucket.user.providers.CachingProfileProvider">
    <property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateProfileProvider</property>
    <property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
  </provider>
  -->

  <!--<provider class="com.opensymphony.user.provider.memory.MemoryCredentialsProvider" />
  <provider class="com.opensymphony.user.provider.memory.MemoryAccessProvider" />
  <provider class="com.opensymphony.user.provider.memory.MemoryProfileProvider" />-->
</opensymphony-user>

```

Please make sure your file looks like this.

In this example, JiraDS is the name of the JIRA datasource you are sharing with Confluence. If you have changed the name in step 2 of this documentation, you will need change all occurrences of the value here too.

You can also download the already configured file [here](#).

Step Five: Customize osuser.xml

In some cases you may need to customize the behavior of the JiraJdbc classes, you can do this by setting properties within the osuser.xml file.

This process is documented [here](#).

Step Six: Creating Confluence Groups in JIRA

1. Add confluence-users and confluence-administrators groups in JIRA
2. Add yourself to both these groups.
 - To give your existing JIRA users access to Confluence, you have two options.
 - Manually edit the groups of these users inside JIRA and give them membership to one or both of these confluence groups OR
 - Startup Confluence. Log in using your JIRA account, and go to Administration and then Global Permissions. Now add USE permission to your desired JIRA groups.



In order to use Confluence, users must be a member of the confluence-users group (or have confluence USE permission).

Step Seven: Activating External User Management

Since user management is now conducted in JIRA and outside of Confluence, you will need to switch external user management on.

NOTE: Activating external user management will remove user and group management options from Confluence. Your users will also no longer be able to edit their full name or email address inside Confluence (if they want to, they would have to do so in JIRA). To do this:

1. Log into Confluence using your JIRA account.
2. Go to the Administration Console and click General Configuration in the left panel
3. Click 'Edit' at the bottom of the 'Options and Settings' screen.
4. Select 'ON' beside 'External User Management'.

For answers relating to [JIRA User Management](#), click on any query below.

Troubleshooting

Confluence login page loads with 'NullPointerException' system error

If the page loads with 'System error' with cause 'java.lang.NullPointerException at com.atlassian.user.impl.osuser.OSUUserManager.getOpensymphonyUser(OSUUserManager.java:85)' and output logs shows 'user.provider.jdbc.BaseJDBCProvider] init Could not look up DataSource using JNDI location' error, either the Resource for the DataSource is not being loaded by the application server, or it is being loaded but the resource names do not match. Check the names first, so if '/confluence/WEB-INF/classes/osuser.xml' specifies a datasource named 'java:comp/env/jdbc/JiraDS', the datasource specified in server.xml or confluence.xml must be 'jdbc/JiraDS'.

Confluence login page loads with 'HTTP Status 404' and output log shows 'java.lang.ClassNotFoundException' for driver, eg 'com.mysql.jdbc.Driver'

Missing the database driver library. On standalone or Apache Tomcat, download the database jar to the common\lib directory.

Confluence login page loads but login fails with 'Username and password are incorrect' and output log shows 'Access denied for user'

Caused by an incorrect database URL or login in the datasource.

Confluence login page loads but login fails with 'Username and password are incorrect' and output log shows 'Cannot create JDBC driver'

If your log outputs an error with "FATAL [user.provider.jdbc.JDBCCredentialsProvider] Could not list users. org.apache.commons.dbcp.SQLNestedException: Cannot create JDBC driver of class " for connect URL 'null'", you are using the incorrect Tomcat format for specifying the Datasource resource. You should check your Tomcat version and use the alternative format.

I cannot get my JIRA integration to work, where can I get technical support?

See [Requesting External User Management Support](#) for information on logging a support request.

RELATED TOPICS

[Delegate user management to use JIRA logins](#)
[Migrating users from Confluence to JIRA](#)
[Revert from JIRA to internal user management](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Revert from JIRA to internal user management

This page last changed on Oct 25, 2006 by david.soul@atlassian.com.

Administrators can revert a Confluence instance that uses JIRA for user management back to internal user management. With few users, it is easier to manually recreate the JIRA users and groups in Confluence. For more users, migrate JIRA users and groups into the Confluence database instead.

Option A - Manually Recreate Users In Confluence

This option is too time consuming for hundreds or thousands of users. After completing the reversion, links to users who created or updated Confluence content may go to error screens.

To manually recreate the users, you must first have an instance of Confluence with internal user management and your data.

- If you have made limited customisations to Confluence and migrating would be desirable - follow the [upgrade guide](#) and import your data to a new installation.
- Alternatively, if you have made extensive customisations or do not wish to migrate - go to [delegating user management to JIRA](#) and remove your JIRA user management by undoing the instructions in reverse order. These steps are specific to your instance so cannot be covered here.

Then manually create JIRA's groups and users in Confluence. If you have assigned permissions in Confluence to a group which exists in JIRA, you must create a group in Confluence with the same name. If a user who exists in JIRA has created content or has had permissions assigned to them, you must also create that user in Confluence.

Option B - Transfer JIRA Users & Groups To Confluence

This option manually migrates JIRA users into the Confluence database, but requires knowledge of SQL.



Users not using mySQL

Users of non-mySQL databases must be experienced enough to modify the SQL to work in their database as examples are provided for mySQL only. If you adapt the SQL to another database, please consider posting the SQL you used to the comments.



Users of Confluence 2.0 or older

Pre-Confluence 2.0 users may need to modify the instructions to your older schema, or [upgrade Confluence](#). For example, on Confluence 2.1.5 and older, SQL references to the property table must be updated to be called OS_PROPERTYENTRY in all upper-case.

Stage One - Create Backups

Creating backups is the only way to restore your data if something goes wrong.

1. From Confluence, create a full XML backup including attachments.
2. Stop Confluence.
3. Take a backup copy of the Confluence home and install directories.
4. Repeat the above steps for JIRA.
5. From your mySQL admin tool, create a database backup for the JIRA and Confluence databases.

Stage Two - Replace Confluence User Management

Replace the Confluence user and group permissions with JIRA by transferring table content. The SQL provided is specific to mySQL and must be modified for other databases. For each SQL statement, do a find and replace on the JIRA and Confluence table names to your table names. In the examples, they are called confluence224 and jira364.

1. Login to a DBA tool that can execute SQL on your DB.
2. Erase user and group content from the Confluence DB:

```
delete from confluence224.os_propertyentry where entity_name='OSUser_user';
delete from confluence224.os_user_group;
delete from confluence224.os_group;
delete from confluence224.os_user;
```

3. Copy JIRA's groupbase table into Confluence's os_group table:

```
insert into confluence224.os_group (id, groupname)
select *
from jira364.groupbase;
```

4. Copy JIRA's userbase table into Confluence's os_user table:

```
insert into confluence224.os_user (id, username, passwd)
select *
from jira364.userbase;
```

5. Copy JIRA's membershipbase table into Confluence's os_user_group table.

```
insert into confluence224.os_user_group (group_id, user_id)
select distinct groupbase.id as "group_id", userbase.id as "user_id"
from jira364.groupbase, jira364.membershipbase, jira364.userbase
where membershipbase.user_name = userbase.username and membershipbase.group_name =
groupbase.groupname;
```

6. Merge relevant content from JIRA's propertyentry and propertystring tables into Confluence's os_propertyentry table. Some versions of SQL use "0" instead of "false" for boolean values.

```
insert into confluence224.os_propertyentry (entity_name, entity_id, entity_key, key_type,
boolean_val, double_val, string_val, text_val, long_val, int_val, date_val)
select 'OSUser_user', propertyentry.entity_id, propertyentry.property_key, 5, false, 0,
propertystring.propertyvalue, '', 0, 0, null
from jira364.propertyentry, jira364.propertystring
where propertyentry.entity_name='OSUser' and propertyentry.id=propertystring.id;
```

Stage Three - Revert To Local Management

- If you have made limited customisations to Confluence and migrating would be desirable - Install a new instance of Confluence using the [upgrade guide](#) and use Method 1 to import your updated database.
- Alternatively, if you have made extensive customisations or do not wish to migrate - go to [Delegating User Management to JIRA](#) and remove your JIRA user management by undoing the instructions in reverse order. These steps are specific to your instance so cannot be covered here.

Done! Note that the original administrator may not display their groups correctly, however their groups are still present.

JIRA User Management FAQ

This page last changed on Jan 14, 2007 by david.soul@atlassian.com.

For answers relating to [JIRA User Management](#), click on any query below.

Troubleshooting

Confluence login page loads with 'NullPointerException' system error

If the page loads with 'System error' with cause 'java.lang.NullPointerException at com.atlassian.user.impl.osuser.OSUUserManager.getOpensymphonyUser(OSUUserManager.java:85)' and output logs shows 'user.provider.jdbc.BaseJDBCProvider] init Could not look up DataSource using JNDI location' error, either the Resource for the DataSource is not being loaded by the application server, or it is being loaded but the resource names do not match. Check the names first, so if '/confluence/WEB-INF/classes/osuser.xml' specifies a datasource named 'java:comp/env/jdbc/JiraDS', the datasource specified in server.xml or confluence.xml must be 'jdbc/JiraDS'.

Confluence login page loads with 'HTTP Status 404' and output log shows 'java.lang.ClassNotFoundException' for driver, eg 'com.mysql.jdbc.Driver'

Missing the database driver library. On standalone or Apache Tomcat, download the database jar to the common\lib directory.

Confluence login page loads but login fails with 'Username and password are incorrect' and output log shows 'Access denied for user'

Caused by an incorrect database URL or login in the datasource.

Confluence login page loads but login fails with 'Username and password are incorrect' and output log shows 'Cannot create JDBC driver'

If your log outputs an error with "FATAL [user.provider.jdbc.JDBCCredentialsProvider] Could not list users. org.apache.commons.dbcp.SQLNestedException: Cannot create JDBC driver of class " for connect URL 'null'", you are using the incorrect Tomcat format for specifying the Datasource resource. You should check your Tomcat version and use the alternative format.

I cannot get my JIRA integration to work, where can I get technical support?

See [Requesting External User Management Support](#) for information on logging a support request.

LDAP User Management

This page last changed on Jan 14, 2007 by david.soul@atlassian.com.

Grouping page for external user management documentation (including LDAP, ActiveDirectory, etc). What resource do you need?

- [Overview of external user management](#)
- [Help with troubleshooting external user management](#)
- [Guide to adding LDAP integration with group management](#)
- [LDAP FAQ](#)

Check the listing of children pages below for other useful resources.

Activating External User Management

This page last changed on Aug 06, 2006 by tom@atlassian.com.

If your user management is being handled outside of Confluence by JIRA you will need to turn on the external management option from the Administration Console.

If your user management is being done with LDAP, you must not turn on external user management, although users and groups which exist in your LDAP repository cannot be modified.

Activating an external user management system will remove all user and group management options from Confluence. The assignment of permissions to groups and users is still carried out within Confluence, but the creation of groups and users is not.

This will also disable users from signing up to the site, as well as editing their name, email and password particulars from within Confluence.

To activate an external user management system,

1. Go to the 'Administration Console', click on 'General Configuration' in the left panel.
2. In the 'Security and Privacy' screen, click 'Edit'.
3. Select 'On' beside 'External User Management'.
4. Click 'Save'.

RELATED TOPICS

[Activating External User Management](#)
[Add LDAP Integration For User Authentication Only](#)
[Changes in osuser.xml from 1.0.3a to 1.1.x](#)
[Confluence Caching OSUser Provider](#)
[Importing LDAP Users](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Add LDAP Integration For User Authentication Only

This page last changed on Jan 22, 2007 by david.soul@atlassian.com.

Description

There are two kinds of Confluence/LDAP integration available:

User Authentication	Internal Users	Internal Groups	LDAP Users	LDAP Groups
LDAP Without Groups	✓	✓	✓	✗
LDAP With Groups	✓	✓	✓	✓

This guide covers LDAP without groups, where if a username exists in both Confluence and LDAP, they use their LDAP password to login. You still maintain users from Confluence and use internal Confluence groups for group permissions.

Alternatively, you may use [LDAP with Groups](#) to have users and groups automatically updated from LDAP, and use LDAP groups for group permissions.

Applies For

- Enabling LDAP for the first time
- Upgrading existing LDAP without enabling group management

Important Points

- Only the password lookup is done against LDAP and only if the Confluence username coincides with the LDAP username. Users and user profiles are still managed in Confluence. See [technical explanation](#) below.
- Confluence account must be created for each LDAP user, as they do not automatically have access. For an LDAP user to access Confluence, a site administrator will still need to create an account for them. The password in this Confluence account will be ignored as the LDAP password will override it.
- User management in Confluence 2.0 and earlier is handled by [OSUser](#). OSUser is configured through the osuser.xml file located in confluence/WEB-INF/classes.

Instructions

CAUTION: Make sure that when you first set up Confluence, you make no changes to the default osuser.xml. Once Confluence is up and running, you can then apply the changes described here to enable LDAP integration.

Step One: Open the osuser.xml file located in your home directory under WEB-INF/classes

In the osuser.xml file, the CredentialsProviders are responsible for authenticating passwords. The default CachingCredentialsProvider looks in the Confluence database. To enable LDAP authentication, you will need to add a LDAPCredentialsProvider, so that LDAP users can also be authenticated:

Here's what the default osuser.xml contains:

```
<provider class="bucket.user.providers.CachingCredentialsProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingAccessProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateAccessProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingProfileProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateProfileProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
```

Step Two: Edit the osuser.xml file as shown below:

For Confluence version 2.1 and later:

```
<provider class="com.atlassian.confluence.user.ConfluenceLDAPCredentialsProvider">
  <property name="java.naming.factory.initial">com.sun.jndi.ldap.LdapCtxFactory</property>
  <property name="java.naming.provider.url">ldap://localhost:389</property>
  <property name="searchBase">dc=atlassian,dc=com</property>
  <property name="uidSearchName">cn</property>
  <!--
  <property name="java.naming.security.principal">cn=Manager,dc=atlassian,dc=com</property>
  <property name="java.naming.security.credentials">secret</property>
  <property name="exclusive-access">true</property>
  -->
</provider>

<provider class="bucket.user.providers.CachingCredentialsProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingAccessProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateAccessProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingProfileProvider">
  <property
    name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateProfileProvider</property>
  <property
    name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
```

```
</provider>
```

For older versions of Confluence

```
<provider class="com.opensymphony.user.provider.ldap.LDAPCredentialsProvider">
<property name="java.naming.factory.initial">com.sun.jndi.ldap.LdapCtxFactory</property>
<property name="java.naming.provider.url">ldap://localhost:389</property>
<property name="searchBase">dc=atlassian,dc=com</property>
<property name="uidSearchName">cn</property>
<!--
<property name="java.naming.security.principal">cn=Manager,dc=atlassian,dc=com</property>
<property name="java.naming.security.credentials">secret</property>
<property name="exclusive-access">true</property>
-->
</provider>

<provider class="bucket.user.providers.CachingCredentialsProvider">
<property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider</property>
<property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingAccessProvider">
<property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateAccessProvider</property>
<property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
<provider class="bucket.user.providers.CachingProfileProvider">
<property
name="chain.classname">com.opensymphony.user.provider.hibernate.HibernateProfileProvider</property>
<property
name="chain.configuration.provider.class">bucket.user.BucketHibernateConfigProvider</property>
</provider>
```

- Update the following properties to suit your LDAP server:
 - url (currently set to ldap://localhost:389)
 - searchBase (currently set to dc=atlassian,dc=com)
 - uidSearchName (currently set to cn)
- If your LDAP server is not configured to allow anonymous lookups, you need to:
 - remove comment tags
 - enter the username; including searchBase (currently set to cn=Manager,dc=atlassian,dc=com)
 - enter password (currently set to secret)

 The Credentials (password) checking is a separate operation from user-profile lookups. The profile can be loaded from the Confluence database, but the password is looked up from LDAP. Furthermore, multiple credentials providers can be specified (here, LDAP and OSUser), and if one fails, the other will be used. This allows non-LDAP users to log in with their Confluence password.

RELATED TOPICS

[Activating External User Management](#)
[Add LDAP Integration For User Authentication Only](#)
[Changes in osuser.xml from 1.0.3a to 1.1.x](#)
[Confluence Caching OSUser Provider](#)
[Importing LDAP Users](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Add LDAP Integration With Group Management

This page last changed on Apr 23, 2007 by david.soul@atlassian.com.

Confluence can delegate user authentication to LDAP and use LDAP group memberships to set the user's Confluence access permissions. This also allows Active Directory (AD) integration. This guide is for both users enabling LDAP, and those upgrading their LDAP scheme to support group management. It applies to LDAP over HTTP and SSL/HTTPS:

Once the LDAP is enabled and LDAP users are using Confluence, you cannot revert back to local user management without those users being disabled. However, you can create new local users while using LDAP integration.

Who is this guide for?

To decide if this is the correct document for you, please answer these 3 questions:

1. Do you want use keep using internal Confluence groups but have LDAP passwords for logins? If so, follow [Adding LDAP Integration Authentication Only](#) instead.
2. Are you using Atlassian-User LDAP on Confluence 2.1.x? If so, follow the [2.1.x LDAP Upgrade Instructions](#) instead.
3. Are you using a version of Confluence older than 2.1? If you are using 2.0.x, follow [OSUser LDAP integration](#) instead. If it is older than 2.0, you must [upgrade Confluence](#).

Step 1 - Upgrade Confluence

Please check that you are running the [latest version](#) of Confluence. If not, we strongly recommend that you consider upgrading Confluence according to [this guide](#). Confirm that you have upgraded successfully before trying to add LDAP to the new version.

Step 2 - Contact your LDAP/AD Administrator

Integration can only be setup by an administrator confident with running user queries against their LDAP directory. You should request assistance from your LDAP or Active Directory administrator for the following steps.

Step 3 - Check your LDAP server

Confirm this information about your LDAP server.

1. Check your server LDAP version. Supported versions are v2 and v3. Supported LDAP servers include OpenLDAP, Microsoft Active Directory, Novell eDirectory, and any server that uses Java JNDI-LDAP mapping.
2. Your LDAP or Active Directory server must support static groups. This means that the user DN's must be stored against a membership attribute inside an LDAP groups. An example of a static groups is shown below:


```
Dn: CN=Sales and Marketing,CN=Users,DC=ad,DC=atlassian,DC=com
objectClass: top; group;
cn: Sales and Marketing;
distinguishedName: CN=Sales and Marketing,CN=Users,DC=ad,DC=atlassian,DC=com;
name: Sales and Marketing;
...
member: CN=John Smith,CN=Users,DC=ad,DC=atlassian,DC=com
member: CN=Sally Smith,CN=Users,DC=ad,DC=atlassian,DC=com
...
```

The membership attribute in this case is member, but this is not required. Note that the full DN's of John and Sally Smith are listed. If the values against member are not full DN's, but are just usernames, then you need to add the flag

`<useUnqualifiedUsernameForMembershipComparison>true</useUnqualifiedUsernameForMembershipComparison>` to your ldap configuration. Open Directory on OS X uses this configuration.

3. You must not have LDAP groups called 'confluence-users' or 'confluence-administrators'.
4. You must have at least one existing Confluence administrator who's username does not exist in the LDAP server.

Step 4 - Administrator account check

This step assumes that you have at least one account which has permissions to administer your Confluence site. For this account, please check that there isn't an account on your LDAP system that has the exact same username.

If this is the case and you do not have another local account that has administration rights, then you should perform one of the following:

- create another account to act as the administrator that doesn't exist on LDAP
- rename you local admin account to use another username that doesn't exist in LDAP
- rename your LDAP account

This will ensure that you will have an account that has sufficient rights to administer your site after you migrate your users (next step).

Step 5 - Confluence user migration

The new Atlassian-User-LDAP-Integration depends on a new user management component and requires you to migrate your current users even in the case of new installs. The following steps will guide you:

1. You will need to find out your Confluence base URL. To check this from Confluence, go to Administration > General Configuration > Base Url. Record this for later in the process.
2. You must create backups in order to rollback to the old version if the migration is unsuccessful. Make a backup of your:
 - database
 - Confluence home directory
 - confluence/WEB-INF/classes/atlassian-user.xml (only if you have made changes)
3. Download [hibernate_osuser_atlassian-user.xml](#) and rename to `atlassian-user.xml` and copy to your `confluence/WEB-INF/classes` directory (you can overwrite the one that's there)



Are you using Confluence 2.3.x ?

Right click on [osuser2atluser.jsp](#) and download it to the `\confluence\admin` subdirectory of your

Confluence install. Overwrite the existing `osuser2atluser.jsp` file.

4. Restart Confluence. Login as an Administrator, and go to this URL:

```
<BASEURL>/admin/osuser2atluser.jsp
```

Please ensure you replace `<BASEURL>` with the URL you currently use to access Confluence. For example, <http://confluence.atlassian.com> or <http://foobar.com/confluence>.

5. Click the link Begin migration. You will know the migration has been successful if you see this reported:

```
Migrating users ... Users migrated successfully!  
Migrating propertyset data ... Propertyset data migrated successfully!  
Migrating groups ... Groups migrated successfully\!
```

If you encounter errors, please create a support ticket at <http://support.atlassian.com> and attach your application server logs.

6. Stop Confluence.
7. Start up Confluence and check that you can login using the admin account you first set up when running through the Confluence Setup Wizard. If not, re-examine your steps and repeat from there.
8. If you can't successfully login with this account, please check that the username of this account does not already exist in your LDAP server. If usernames are the same, Confluence recognises LDAP accounts over local Confluence accounts.

Step 6 - Configure LDAP connection in `atlassian-user.xml`

1. Download [ldap_hibernate_cache_atlassian-user.xml](#), rename it to `atlassian-user.xml` then copy to your `<INSTALL>/confluence/WEB-INF/classes` directory. It should overwrite the previous `atlassian-user.xml`.
2. Follow [Customising atlassian-user.xml](#)

Step 7 - Grant access to LDAP users and groups

To grant Confluence access to an LDAP group:

1. From Confluence, go to Administration > Global Permissions
2. Click to Edit Permissions for Groups
3. In the textbox to Grant Browse Permission, enter the name of an LDAP group that should have Confluence access. Click Add.
4. Tick the Can Use box for the LDAP group. If the group is not found, it was not present in your LDAP server.
5. For other LDAP groups that need access to Confluence, add them using the same method.
6. Setup your Confluence page and space permissions for these LDAP groups.

Installation complete!

Troubleshooting Resources

- [LDAP FAQ](#)
- If LDAP users or groups are not displayed in Confluence, download the [Paddle diagnostic tool](#)
- List of [known, unresolved LDAP bugs](#)
- Comments on this page

Failing that, lodge a [support request](#). Be sure to attach your atlassian-user.xml, [Paddle](#) logs and a zip of your Confluence logs.

Automatically Adding LDAP users to the confluence-users Group

This page last changed on Feb 28, 2007 by tom@atlassian.com.

This Authenticator adds users to confluence-users as they log in. To use it, change the line:

```
<authenticator class="com.atlassian.confluence.user.ConfluenceAuthenticator"/>
```

in seraph-config.xml to:

```
<authenticator class="com.atlassian.confluence.user.ConfluenceGroupJoiningAuthenticator"/>
```

If you are using Confluence 2.2 you need to download the [ConfluenceGroupJoiningAuthenticator.class](#) file and put it in WEB-INF/classes/com/atlassian/confluence/user.

Confluence 2.3 and later include this class as standard.

Customising atlassian-user.xml

This page last changed on Apr 26, 2007 by [mryall](#).

The LDAP server connection is specified by manually editing the file `atlassian-user.xml`. Confluence 2.3 onwards supports multiple LDAP servers by repeating the instructions below for each server so that there are multiple repositories defined.

Stage 1 - Configure Connection Details

1. Edit the file `.../confluence/WEB-INF/classes/atlassian-user.xml` and configure the connection for either AD or LDAP.
 - [Connections in Active Directory](#)
 - [Connections in other LDAP servers](#)
2. If your Active Directory Server allows anonymous searches, then you do not need to specify a `securityPrincipal` and `securtyCredential` at all. For an example of how you would configure Confluence to allow anonymous authentication, see [Enable Anonymous Authentication in LDAP or Active Directory](#)
3. To connect to LDAP over SSL, see [Connect to LDAP via SSL](#)
4. Check your configuration against the example connection details shown below.

```
<ldap key="ldapRepository" name="LDAP Repository@hecate.atlassian.com" cache="true">
  <host>hecate.atlassian.com</host>
  <port>389</port>
  <securityPrincipal>cn=admin,dc=atlassian,dc=private</securityPrincipal>
  <securityCredential>secret</securityCredential>
  <securityProtocol>plain</securityProtocol>
  <securityAuthentication>simple</securityAuthentication>
  <baseContext>dc=atlassian,dc=private</baseContext>
...

```

Stage 2 - Map LDAP Data Tree

1. Configuring the mappings in `atlassian-user.xml` for either AD or LDAP.
 - [Mapping Active Directory](#)
 - [Mapping other LDAP servers](#)
2. Check your configuration against the example connection details shown below.

```
...
  <baseUserNamespace>dc=staff,dc=perftest,dc=atlassian,dc=private</baseUserNamespace>
  <baseGroupNamespace>dc=groups,dc=perftest,dc=atlassian,dc=private</baseGroupNamespace>
  <usernameAttribute>cn</usernameAttribute>
  <userSearchFilter>(objectClass=inetorgperson)</userSearchFilter>
  <firstnameAttribute>givenname</firstnameAttribute>
  <surnameAttribute>sn</surnameAttribute>
  <emailAttribute>mail</emailAttribute>
  <groupnameAttribute>cn</groupnameAttribute>
  <groupSearchFilter>(objectClass=groupOfNames)</groupSearchFilter>
  <membershipAttribute>member</membershipAttribute>
</ldap>

```

Stage 3 - Optional LDAP Settings

The following settings do not appear in the default `atlassian-user.xml` file:

```
<poolingOn>true</poolingOn>
<maxSize>0</maxSize>
<initSize>10</initSize>
<prefSize>10</prefSize>
<debugLevel>none</debugLevel>
<securityProtocol>plain_ssl</securityProtocol>
<authentication>simple</authentication>
<timeout>0</timeout>
<initialContextFactory>com.sun.jndi.ldap.LdapCtxFactory</initialContextFactory>
<batchSize>100</batchSize>
<timeToLive>0</timeToLive>
<userSearchAllDepths>true</userSearchAllDepths>
<groupSearchAllDepths>true</groupSearchAllDepths>
```

However, if you want to override the default values listed above, you can add the value onto the end like so:

```
...
  <groupnameAttribute>cn</groupnameAttribute>
  <groupSearchFilter>(objectClass=groupOfNames)</groupSearchFilter>
  <membershipAttribute>member</membershipAttribute>
  <initSize>20</initSize>
</ldap>
```

It is important that the connection pool timeout value be set to 0, as this will force Atlassian User (via the JNDI layer) to clean up lingering connections that have lived past one request. More information about LDAP pools [here](#).

Configuring multiple LDAP repositories

For some LDAP servers, it might be necessary to configure Confluence to connect to multiple LDAP servers. This functionality is available in Confluence 2.3 and above, and has a separate guide: [Configuring multiple LDAP repositories](#).

Related pages

[Add LDAP Integration With Group Management](#)
[Configuring multiple LDAP repositories](#)

atlassian-user.xml reference

This page last changed on Sep 17, 2006 by dave@atlassian.com.

This page describes the function of each of the tags in an atlassian-user.xml file.

Child tags of the <ldap> tag:

host	The host name of the machine running the LDAP server. This must resolve from the machine running Confluence.
port	The port number that the LDAP server is running on. This should usually be 389.
securityPrincipal	The distinguished name of a user who is allowed to browse the entire LDAP repository. This is omitted if the repository has anonymous access enabled.
securityCredential	That user's password. This is omitted if the repository has anonymous access enabled.
securityProtocol	Must be 'plain'. This is omitted if the repository has anonymous access enabled.
securityAuthentication	Must be 'simple', or 'none' if the repository has anonymous access enabled.
baseContext	This should be set to a context at the 'top' of your LDAP tree.
baseUserNamespace	This should be set to a context which contains all your user entities.
userSearchFilter	A filter which matches only user entities.
baseGroupNamespace	This should be set to a context which contains all your group entities
groupSearchFilter	A filter which matches only group entities
usernameAttribute	The name of the attribute on a user entity which contains the Confluence user name of the user.
firstnameAttribute	The name of the attribute on a user entity which contains the first name of the user.
surnameAttribute	The name of the attribute on a user entity which contains the surname of the user.
emailAttribute	The name of the attribute on a user entity which contains the email address of the user.
groupnameAttribute	The name of the attribute on a group entity which contains the Confluence group name of the group.
membershipAttribute	The name of an attribute on a group entity which contains the distinguished name of a member of a group. This should occur multiple times on a group

	to indicate multiple members of the group.
userSearchAllDepths	Set to 'true' to search the baseUserNamespace level and all nodes underneath for users. Defaults to 'false'.
groupSearchAllDepths	Set to 'true' to search the baseGroupNamespace level and all nodes underneath for groups. Defaults to 'false'.
useUnqualifiedUsernameForMembershipComparison	Set to 'true' to use the value of the usernameAttribute for membership comparisons instead of the distinguished name. Defaults to 'false'.

Changes in osuser.xml from 1.0.3a to 1.1.x

This page last changed on Sep 14, 2006 by david.soul@atlassian.com.

If you have setup Confluence to:

- delegate user management to JIRA (as per our documentation [here](#)) or
- use LDAP/Active directory authentication (as per our documentation [here](#))

Then you will need to make the following changes to your osuser.xml file:

1. replace

```
com.atlassian.confluence.user.providers.Caching
```

with

```
bucket.user.providers.Caching
```

Doing this will effectively convert the following:

```
com.atlassian.confluence.user.providers.CachingCredentialsProvider  
com.atlassian.confluence.user.providers.CachingAccessProvider  
com.atlassian.confluence.user.providers.CachingProfileProvider
```

to

```
bucket.user.providers.CachingCredentialsProvider  
bucket.user.providers.CachingAccessProvider  
bucket.user.providers.CachingProfileProvider
```

2. and replace

```
com.atlassian.confluence.user.ConfluenceHibernateConfigProvider
```

with

```
bucket.user.BucketHibernateConfigProvider
```

Alternatively

You can just reconfigure the new osuser.xml with your changes.

Configuring multiple LDAP repositories

This page last changed on Apr 27, 2007 by [mryall](#).

Availability

Confluence 2.3 and above support multiple LDAP servers configured in `atlassian-user.xml`. Instructions are below.

Confluence releases prior to 2.3 do not support multiple LDAP repositories.

Prerequisites

Before reading this, ensure you understand the configuration details outlined in [Customising atlassian-user.xml](#). This describes how to configure a single LDAP repository in Confluence, and is prerequisite knowledge for following the instructions below.

For brevity, all examples on this page are partial examples. A complete `atlassian-user.xml` LDAP configuration can be found in [Customising atlassian-user.xml](#).

Configuration

To configure multiple LDAP repositories in Confluence, put multiple `<ldap>...</ldap>` entries into `confluence/WEB-INF/classes/atlassian-user.xml`.

The order of the entries in the file will be the order that the repositories are searched for users. That is, if a user tries to log in with the username `jsmith`, the first repository in `atlassian-user.xml` will be searched for the user with the username `jsmith`. If no user is found in that repository, the second repository specified in `atlassian-user.xml` will be searched.

Here is a partial configuration that connects Confluence to two different LDAP servers. They are given the identifiers `ldap1` and `ldap2`, and connect to the servers `ldap-sf.example.org` and `ldap-nyc.example.org` respectively.

```
<atlassian-user>
  <repositories>
    <ldap key="ldap1" name="San Francisco Example Repository" cache="true">
      <host>ldap-sf.example.org</host>
      <port>389</port>

      <!-- ... remainder of server configuration ... -->
    </ldap>

    <ldap key="ldap2" name="New York City Example Repository" cache="true">
      <host>ldap-nyc.example.org</host>
      <port>389</port>

      <!-- ... remainder of server configuration ... -->
    </ldap>
  </repositories>
</atlassian-user>
```

```
<hibernate key="hibernate" name="Hibernate Repository" description="Hibernate
Repository" />
</repositories>
</atlassian-user>
```

Points to note:

- each server must have a unique key attribute
- each server must include the full LDAP configuration, including baseUserNamespace, baseGroupNamespace and so on
- Confluence's internal repository, the <hibernate> repository, must be specified last
- you can include more than two LDAP repositories, but please read the Side effects section below.

Side effects

The main side effect of configuring multiple LDAP servers is degrading performance. There are many activities in Confluence where user or group information is retrieved:

- logging in
- user/group searches
- permission checks when viewing or editing a page.

Confluence tries to cache as much information as possible from the LDAP queries, but almost certainly adding multiple LDAP servers will degrade the performance of the application. This is especially true if any of the LDAP servers are geographically distant from Confluence, where any LDAP query has a significant latency (> 50 ms roundtrip).

Two connections to the same server

It is also possible, but not usually recommended, for Confluence to connect twice to the same server. When connecting twice to the same server, you must not have overlapping group or user namespaces in the LDAP tree.

Here is an partial configuration, retrieving two separate LDAP user branches, but only one LDAP group branch. To configure only a single group branch, the group filter in the second LDAP repository searches for a non-existent value so it will not return any results. (This is generally fast as long as your LDAP server has an index on objectClass for the given tree section.)

```
<atlassian-user>
  <repositories>
    <ldap key="ldap1" name="Example Repository, SF user tree" cache="true">
      <host>ldap.example.org</host>
      <port>389</port>
      <!-- ... remainder of connection configuration ... -->

      <!-- user search filter -->
      <baseUserNamespace>cn=San Francisco,dc=ldap,dc=example,dc=org</baseUserNamespace>
      <userSearchFilter>(objectClass=user)</userSearchFilter>

      <!-- ... remainder of user configuration ... -->

      <!-- group search filter -->
      <baseGroupNamespace>cn=Groups,dc=ldap,dc=example,dc=org</baseGroupNamespace>
```

```

        <groupSearchFilter>(objectClass=group)</groupSearchFilter>

        <!-- ... remainder of server configuration ... -->
    </ldap>
    <ldap key="ldap2" name="Example Repository, NYC user tree" cache="true">
        <host>ldap.example.org</host>
        <port>389</port>
        <!-- ... remainder of connection configuration ... -->

        <!-- user search filter -->
        <baseUserNamespace>cn=New York City,dc=ldap,dc=example,dc=org</baseUserNamespace>
        <userSearchFilter>(objectClass=user)</userSearchFilter>

        <!-- ... remainder of user configuration ... -->

        <!-- group search filter -->
        <baseGroupNamespace>cn=Groups,dc=ldap,dc=example,dc=org</baseGroupNamespace>
        <groupSearchFilter>(objectClass=nothing)</groupSearchFilter>

        <!-- ... remainder of server configuration ... -->
    </ldap>
    <hibernate key="hibernate" name="Hibernate Repository" description="Hibernate
Repository" />
</repositories>
</atlassian-user>

```

Points to note:

- each repository will have its own connection pool, so Confluence will use twice as many connections to the LDAP server
- performance will typically be degraded, as discussed in Side effects above
- each server must have a unique key attribute
- each server must include the full LDAP configuration, including baseUserNamespace, baseGroupNamespace and so on
- Confluence's internal repository, the <hibernate> repository, must be specified last.

Related pages

[Customising atlassian-user.xml](#)

[Add LDAP Integration With Group Management](#)

Confluence Caching OSUser Provider

This page last changed on Apr 06, 2004 by [mryall](#).

During some operations such as rendering pages, Confluence makes a large number of queries to the user management subsystem ([OSUser](#)). To cater for this, the OSUser providers built in to Confluence in v1.0 performed a certain amount of in-memory caching of user identities. Unfortunately, this means that if you configure Confluence to use some other provider (such as LDAP or JIRA), this caching is no longer performed, and the application slows significantly as a result.

This document is aimed at Confluence users who have, or wish to have Confluence use an external user management through customising their `osuser.xml` file. If you are just using Confluence's built-in user-management, you do not need to read this document.

Note

While the caching providers should work with any OSUser provider, we have only tested them against Confluence's built-in user-management, and the JIRA provider that ships with Confluence.

Provider Configuration

Confluence 1.0.1 introduces the following OSUser providers:

`com.atlassian.confluence.user.providers.CachingCredentialsProvider`,
`com.atlassian.confluence.user.providers.CachingAccessProvider`,
`com.atlassian.confluence.user.providers.CachingProfileProvider`. They are written as caching wrappers around another provider that does all the real work. So, for example, this is the default `CredentialsProvider` configuration that ships with Confluence:

```
<provider class="com.atlassian.confluence.user.providers.CachingCredentialsProvider">
  <property name="chain.classname">
    com.opensymphony.user.provider.hibernate.HibernateCredentialsProvider
  </property>
  <property name="chain.configuration.provider.class">
    com.atlassian.confluence.user.ConfluenceHibernateConfigProvider
  </property>
</provider>
```

To configure the caching provider, you need to supply:

1. The class-name of the provider that will ultimately be providing the credentials, as the property `chain.classname`
2. Any properties that need to be passed to that next provider. If the next provider requires a property `configuration.provider.class`, then you can pass that property to the provider by prepending `chain.` to the property name: `chain.configuration.provider.class`

The configuration for the Access and Profile providers is identical.

Importing LDAP Users

This page last changed on Nov 30, 2006 by dave@atlassian.com.



Deprecation Notice

A new improved LDAP integration was introduced in Confluence 2.1. This document describes the old style LDAP integration and has been deprecated. If you are new to Confluence and have not set up LDAP integration before, we recommend using the [new LDAP integration](#).

To import users from your LDAP server into Confluence,

1. Download the [LDAP user importer](#).
2. Open ldap2confluence.sh (Unix) or ldap2confluence.bat (Windows)
3. Set the Base URL to the URL of your Confluence system (e.g. <http://my.server/confluence>).
4. Set the 'ADMINUSER' and 'ADMINPASSWORD' variables to the username and password of your Confluence Admin user.
5. Setup the connection.properties file as described [here](#).
6. Setup the mappings.properties file as described [here](#).
7. Run ldap2confluence to import your users.

RELATED TOPICS

[Activating External User Management](#)

[Add LDAP Integration For User Authentication Only](#)

[Changes in osuser.xml from 1.0.3a to 1.1.x](#)

[Confluence Caching OSUser Provider](#)

[Importing LDAP Users](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

LDAP FAQ

This page last changed on Mar 26, 2007 by david.soul@atlassian.com.

For answers relating to [LDAP User Management](#), click on any query below.

Troubleshooting

I just added LDAP integration, why can't I login using my original account?

If there is an LDAP user with the same username as your administrator account, you must now use their password to login. LDAP logins override internal logins.

Why do my LDAP users sees 'Not Permitted' screens when they login?

To login, the user must be a member of one or more groups that have been granted 'Can Use' permission from the Administration -> Global Permissions -> Group Permissions.

Confluence fails to start with error 'Error creating bean with name 'userManager' defined in class path resource [atlassianUserContext.xml]'

Your atlassian.xml file may contain filters with characters that must be escaped from XML. Check [here](#) for details.

Editing a user under Administration -> Manage Users throws an error 'org.apache.velocity.exception.MethodInvocationException'

If you see an error:
"org.apache.velocity.exception.MethodInvocationException: Invocation of method 'isUserDeactivated' in class com.atlassian.confluence.user.actions.ViewUserAction threw exception class java.lang.NullPointerException : null"
You should open \confluence\WEB-INF\classes\atlassian-user.xml and check that your Hibernate Repository is not wrapped in a comment tag (<!-- and -->). The line to uncomment is:
<hibernate name="Hibernate Repository" key="hibernateRepository" description="Hibernate Repository" />

After setting up LDAP, I cannot see LDAP users or groups from the Confluence user or group browser

Are your users or groups located in subtrees beneath the directory returned by the search filter? If so, you may need to add <usersearchalld Depths>TRUE</usersearchalld Depths> or <groupsearchalld Depths>TRUE</groupsearchalld Depths> to your altassian-user.xml See [Map LDAP Users and Groups](#) for details.

Cannot edit user groups under Administration -> Manage Users as nothing happens

If nothing happens when you add or remove membership to an internal group, you should check that your OSUser Repository is commented out as described in [Add LDAP Integration With Group Management](#). To do so, go to your Confluence install directory and open \confluence\WEB-INF\classes\atlassian-user.xml. Find the entry below.

```
<osuser key="osuserRepository" name="OSUser Repository"/>
```

If not commented out, you should stop Confluence then remove or comment out that line.

Cannot edit groups for LDAP users

Confluence has read-only access to LDAP groups, they cannot be updated from within Confluence. However you should be able to edit the internal group memberships for all users. If nothing happens when you add or remove membership to an internal group, you should check that your OSUser Repository is commented out as described in [Add LDAP Integration With Group Management](#). To do so, go to your Confluence install directory and open \confluence\WEB-INF\classes\atlassian-user.xml. Find the entry below.

```
<osuser key="osuserRepository" name="OSUser Repository"/>
```

If not commented out, you should stop Confluence then remove or comment out that line.

I cannot see an LDAP/AD group in Confluence

Is the group in a subtree? If so, you will need to edit atlassian-user.xml and add a groupSearchAllDepths=true parameter to the LDAP repository to set Confluence to search subtrees of the base group namespace. See [Map LDAP Users and Groups](#) for details.

I cannot get my LDAP to work, where can I get technical support?

See [Requesting External User Management Support](#) for information on logging a support request.

General Questions

How can I enable LDAP?

See [Add LDAP Integration With Group Management](#).

Are all users in LDAP visible in Confluence administration? Can they can be assigned groups/permissions?

All LDAP users with 'Can Use' permission can be viewed from the user browser, even if they have never logged in. When an LDAP user logs in for the first time, a Confluence user account is created automatically to store their information. You have read-only access to LDAP groups, and can add/remove Confluence internal groups to any user.

When a user is deleted from LDAP, how does Confluence handle this? Is the user's assignment to one or more groups still visible?

Users are not deleted from Confluence, but their logins are disabled within one hour as they expire in the cache. Only non-LDAP groups are retained. Refer to the [overview](#) for more detail.

How can I assign an LDAP user a Confluence account?

LDAP groups or users granted 'Can Use' permission under 'Global Permissions' can login to Confluence.

Can we use LDAP and Confluence groups simultaneously, as a "mixed mode", where some groups are kept in Confluence and others in LDAP?

Yes.}

If a user is in Confluence with one password, and an LDAP user with the same username is added, which password gets used?

The LDAP login has priority over the Confluence login. If LDAP 'Can Use' permission is removed or the user is deleted, the Confluence login will still work.

I enabled LDAP and some users are now returned twice under the user browser

When LDAP is enabled, it is normal for the user browser to return two copies of users who have both LDAP and internal users accounts. If you are interested in a fix for this, please vote towards ['User browser shows duplicate accounts when a user exists both locally and in LDAP'](#).

Active Directory Questions

Can it make distinctions between security and distribution groups, or group types?

No, Confluence has no group types. However, you can configure Confluence to only recognise some of these groups over others. For example, you can configure Confluence to only recognise distribution

groups. this is done by adjusting the groupSearchFilter in your atlassian-user.xml file.

Can group memberships be retrieved from multi-domain forests?

Not without an LDAP proxy to combine multiple LDAP repositories

Can Confluence support multiple Active Directory repositories?

Yes.

Can it handle nesting?

No, each child group must be individually specified instead. You may wish to vote towards support for nested groups at [CONF-6755](#).

Other Questions

For troubleshooting, please [create a problem report](#). General enquiries should be [posted to a support ticket](#)

Troubleshooting the "Not Permitted" Screen under LDAP Integration

This page last changed on Jun 14, 2006 by [mryall](#).

If you have set up Confluence with AtlassianUser integration and attempted a login with an LDAP/AD account and got a page titled "Not Permitted" here are the steps to troubleshoot this:

- Have you assigned USE permission to the relevant LDAP groups from the Administration > Global Permissions page?

Before an LDAP user can login and use Confluence, the LDAP group they belong to must be given USE permission directly. (Please note: nested groups is not supported in Confluence as yet, so you cannot specify the parent group. If you want this feature, please vote for it [here](#).)

- Does an account exist on your LDAP/AD server that has the same name as your local admin account? (for example, is there an account on LDAP called 'admin'?)

If so, then you will not be able to login with your local admin account once you enable LDAP integration. To rectify this, you need to either rename your LDAP admin account or rollback your LDAP integration and create another Confluence admin account.

- You have assigned USE permission to the relevant LDAP groups, but LDAP users in those groups still get "Not Permitted"?

Here, you need to check if Confluence is actually aware that your LDAP users belong to those LDAP groups. To work this out, here is what we need from you:

1. login as the local admin account you created when you first set up Confluence.
2. enable profiling by appending ?profile=on to the end of a Confluence URL (say the URL of the dashboard, if you happen to be on that page) and hit enter to refresh the page. This setting will now be enabled and cause additional information to be written to your log files to help us diagnose the problem.
3. Now browse to the Administration > Manage Users screen and do a search for any LDAP user.
4. Now click on the user to view their details (including the groups they belong to).
5. Now submit a support ticket at <http://support.atlassian.com> and attach:
 - a screenshot of the user details page
 - your server logs files

If you are feeling brave, you can attempt to decipher the logs yourself. Here's how:

1. your logs should display something similar to this:

```
[0ms] - com.atlassian.user.impl.ldap.adaptor.LDAPStaticGroupAdaptor_search((&(objectClass=groupOfNames)(member=cn=confadmin,ou=users,ou=people,ou=functest,dc=atlassian,dc=com))
[0ms] - com.atlassian.user.impl.ldap.repository.DefaultLDAPRepository_getLDAPContext
[0ms] - com.atlassian.user.impl.ldap.adaptor.LDAPStaticGroupAdaptor_search_JNDI_RAW((&(objectClass=groupOfNames)(member=cn=confadmin,ou=users,ou=people,ou=functest,dc=atlassian,dc=com))
```

This means that Confluence is using this LDAP search filter
(&(objectClass=groupOfNames)(member=cn=confadmin,ou=users,ou=people,ou=functest,dc=atlassian,dc=com)
to find the groups that the user 'confadmin' belongs to. Obviously, the objectClass and member

attributes may differ in your install, but the filter should be similar.

2. connect to your LDAP/AD server with [JXplorer](#) or an LDAP tool of your choice, and issue the above filter and check that you get the results you expect. This should help you to identify if and why the filter is incorrect and what it should be. Please add what you find in this step to the support ticket if you are unable to resolve it from here.

Cannot login with Confluence admin account

This page last changed on Aug 20, 2006 by dave@atlassian.com.

By 'admin account', we are referring to the account that was setup during the Confluence setup wizard.

If you have just integrated Confluence with LDAP or Active Directory, but find yourself not being able to login with this account but instead get a 'not permitted' screen: here's the explanation and fix:

Explanation

This is caused by there being an account on LDAP with the same username as your admin account. (so for example, your Confluence admin account is 'admin' and there's a user on LDAP that also has username 'admin').

Fix

1. Shutdown Confluence
2. Open `confluence/WEB-INF/classes/atlassian-user.xml` in a text editor and comment out the LDAP statements for now. For example:

```
<atlassian-user>
  <repositories>

    <osuser key="osuserRepository" name="OSUser Repository"/>

    <!--
    <ldap key="ldapRepository" name="LDAP Repository@hecate.atlassian.com" cache="true">
      <host>hecate.atlassian.com</host>
      <port>389</port>
      <securityPrincipal>cn=admin,dc=atlassian,dc=private</securityPrincipal>
      <securityCredential>secret</securityCredential>
      <securityProtocol>plain</securityProtocol>
      <securityAuthentication>simple</securityAuthentication>
      <baseContext>dc=atlassian,dc=private</baseContext>

      <baseUserNamespace>dc=staff,dc=perftest,dc=atlassian,dc=private</baseUserNamespace>
      <baseGroupNamespace>dc=groups,dc=perftest,dc=atlassian,dc=private</baseGroupNamespace>
      <usernameAttribute>cn</usernameAttribute>
      <userSearchFilter>(objectClass=inetorgperson)</userSearchFilter>
      <firstnameAttribute>givenname</firstnameAttribute>
      <surnameAttribute>sn</surnameAttribute>
      <emailAttribute>mail</emailAttribute>
      <groupnameAttribute>cn</groupnameAttribute>
      <groupSearchFilter>(objectClass=groupOfNames)</groupSearchFilter>
      <membershipAttribute>member</membershipAttribute>

    </ldap>
    -->

    <hibernate name="Hibernate Repository" key="hibernateRepository"
description="Hibernate Repository" />

  </repositories>
</atlassian-user>
```

Notice the `<!--` and `-->` symbols added before and after the `<ldap>` tags.

3. Start up Confluence. You should now be able to login with your admin account
4. Create another admin account that has a different name to the one that exists in LDAP or Active Directory.

5. Undo the changes you made to `atlassian-user.xml` and restart Confluence.

Alternative Fix

Alternatively, you can either rename or remove the admin account present on LDAP or Active Directory. But if this is not an option, stick to the fix above.

Migrating users from Confluence to JIRA

This page last changed on Sep 06, 2006 by [mryall](#).

There is currently no way to delegate user management from JIRA to Confluence. So, if you are in a situation where your users are defined in Confluence and would like to take advantage of Confluence's ability to use JIRA user management, you will need to transfer all of your existing Confluence users into JIRA. You can do this manually, or if you have a large number of users, you can use the attached XML-RPC script.



You should [backup your JIRA installation](#) before running this script. This is an experimental script that has not gone through the same extensive testing as the Confluence and JIRA products.

Getting the migration tool

- Download the attached [rpc-tools-0.9.zip](#).
- Extract the ZIP file to a temporary directory on your computer.

Patching Confluence 2.0.x

A patched RPC plugin is included in the ZIP file to allow remote retrieval of a full list of users from Confluence 2.0.x. To install it:

- In your Confluence webapp, move `confluence/WEB-INF/lib/confluencerpc.jar` to a backup location
- Copy `plugins-confluencerpc.jar` from the `patch/` directory in the extracted ZIP file to `confluence/WEB-INF/lib`.

No patch is required for Confluence 2.1 and later.

Running the migration tool

- [Back up your JIRA database](#).
- If you do not have an 'admin' username with password 'admin' in both JIRA and Confluence, create it now.
- Ensure JIRA and Confluence have remote API access enabled. In both applications, it is configured in the General Configuration screen in Administration.
- Edit `connection.properties` in the extracted ZIP file to set the XML-RPC URLs for JIRA and Confluence. The XML-RPC URLs in the default file correspond to the following application base URLs:
 - JIRA - <http://localhost:8080>
 - Confluence - <http://localhost:8080/confluence>
- Run `java -jar tools.jar` in the extracted ZIP file directory.

A successful run will generate output like the following:

```
$ java -jar tools.jar
- Transferring group: confluence-administrators
- Transferring group: confluence-users
- Transferring user: testuser1
- Transferring user: testuser2
```

Things to note:

- This script requires that both the Confluence and JIRA remote APIs are available and accessible to a username 'admin', password 'admin'. You can temporarily add this user to both system to run the script, then remove it afterwards.
- A random password will be assigned to each user that is transferred because it is not possible to access password information via the XML-RPC API. Therefore they will have retrieve a new password via the password reminder.
- Jira does not allow users to sign up if they do not have a valid email address. Therefore we will assign them an email address of type username@example.com to any Confluence users that do not have a email address. This will allow you to find the users and help them to create a password or change the email address.

Trouble running the script?

- Ensure you have created a user 'admin' with password 'admin' in both Confluence and JIRA.
- Ensure both applications have remote API access enabled (see above).
- Ensure you have patched the Confluence RPC plugin if running Confluence 2.0.x.

If you're still having trouble, please [raise a support request](#), and include a copy of the error you're getting.

Requesting External User Management Support

This page last changed on Apr 01, 2007 by [ktran](#).

If you are having external user management issues with Confluence, and the advice on [Add LDAP Integration With Group Management](#) has not helped, you can always ask us for help. External user management issues can be hard to diagnose, however, and we often spend a lot of time understanding the particular configuration you have. The best way to get a speedy resolution to your issue is to provide this information up front.

Please gather all of the information listed below and include it in your support request (<http://support.atlassian.com>), even if you think you have a good idea what's causing the problem. That way we don't have to ask for it later.

Confluence server

- Take a screenshot of Confluence's Administration # System Information (or save the page as HTML)
- Take a screenshot of Confluence's Administration # Global Permissions, if you are having problems with logging in
- Take a screenshot of the Space permissions page, if you are having problems with space or page permissions.

Confluence configuration files

- Attach a copy of `atlassian-user.xml`, found in `confluence/WEB-INF/classes`
- Attach a copy of `osuser.xml`, found in `confluence/WEB-INF/classes`.

If you are running Confluence 2.1 you will have to attach the following file instead of `atlassian-user.xml`

- Attach a copy of `atlassianUserContext.xml`, found in `confluence/WEB-INF/classes`

User management system

- What is the name and version of your LDAP server?
- Does your LDAP server use dynamic or static groups?

Using Active Directory for LDAP?

Please include [JXplorer](#) Table Editor snapshots with the information specified on [this page](#)

Diagnostics

- Enable profiling (as described [here](#))
- Enable detailed user management logging by editing `confluence/WEB-INF/classes/log4j.properties`:

Change this section:

```
###
# Atlassian User
###
#log4j.logger.com.atlassian.user=DEBUG, confluence_log
#log4j.additivity.com.atlassian.user=false
#log4j.logger.com.atlassian.confluence.user=DEBUG,console
#log4j.additivity.com.atlassian.confluence.user=false
#log4j.logger.bucket.user=DEBUG,console
#log4j.additivity.bucket.user=false
```

To this:

```
###
# Atlassian User
###
log4j.logger.com.atlassian.user=DEBUG, confluence_log
log4j.additivity.com.atlassian.user=false
log4j.logger.com.atlassian.confluence.user=DEBUG,confluence_log
log4j.additivity.com.atlassian.confluence.user=false
log4j.logger.bucket.user=DEBUG,confluence_log
log4j.additivity.bucket.user=false
log4j.logger.com.atlassian.seraph=DEBUG, confluence_log
log4j.additivity.com.atlassian.seraph=false
log4j.logger.com.opensymphony.user=DEBUG, confluence_log
log4j.additivity.com.opensymphony.user=false
```

- After enabling both the above, please attempt a Confluence LDAP account login and attach a copy of the log files that are produced when the problem occurs. To do this, locate your install directory or exploded WAR directory, then zip the full /logs subdirectory into a single file for us to examine. An example location might be confluence-2.2.2-std/logs.



If you are using LDAP, download [Paddle](#) and run it. Attach the logs created to the support ticket.

Understanding User Management in Confluence

This page last changed on Sep 14, 2006 by david.soul@atlassian.com.



Looking for help with your user management configuration? See [Requesting External User Management Support](#).

Components of user management

1. Authentication - determining what user identity is making a request to Confluence
2. User management - storing and retrieving core information about users
3. Group membership - storing and retrieving groups, and group membership
4. Profile information - providing metadata associated with users.

It's important to understand that these are separate components of the user management system. The term LDAP integration is not really meaningful, because you could use LDAP repository for any or all of the above tasks.

For example, in OSUser authentication can be performed against different repository to that used for group membership queries. In AtlassianUser/Polis, authentication and group membership can be retrieved from LDAP, but profile information is still stored in the Confluence database.

Authentication

Seraph

Almost all authentication in Confluence (and JIRA) is performed through [Seraph](#), Atlassian's open source web authentication framework. The goal of seraph is to provide a simple, extensible authentication system that we can use on any application server.

Seraph is implemented as a servlet filter. Its sole job is, given a web request, to associate that request with a particular user (or no user if the request is anonymous). It supports several methods of authentication, including HTTP Basic Authentication, form-based authentication, and looking up credentials already stored in the user's session.

Seraph performs no user management itself. It merely checks the credentials of the incoming request, and delegates any user-management functions (looking up a user, checking a user's password is correct) to Confluence's user-management subsystem.

If you were looking to integrate Confluence with a Single Sign-On (SSO) infrastructure, you would do so by writing a [custom Seraph authenticator](#) (and in fact, many customers have done so).

XML-RPC and SOAP Authentication

Authentication for requests performed by the [remote API](#) do not go through Seraph, so they can't take

advantage of Seraph authenticators. XML-RPC and SOAP authentication requests are checked directly against the user-management framework, and tokens are assigned directly by the remote API subsystem.

Password Authentication and User Management

By default, password authentication is delegated from Seraph to the user management system. This is not necessary, however. Single Sign-On systems may have no password authentication at all, and get all the necessary credentials from the SSO provider.

Confluence user management frameworks

The rest of this document covers the user management frameworks used by Confluence: AtlassianUser and OSUser.

AtlassianUser

AtlassianUser is a new user and group management framework developed by Atlassian, and is the core framework used in Confluence since version 2.1. AtlassianUser was developed with the following goals in mind:

- Support LDAP as a fully functional repository for authentication, group management and profile information (profile information not yet implemented).
- Compatibility with both JIRA and Confluence (JIRA support not yet implemented).
- Be simple to configure (partially complete, needs better migration and UI integration).

We plan to release AtlassianUser as an open source project some time in the future (probably under the name Polis), but right now the system is still under heavy development inside Atlassian.

AtlassianUser provides user, group and profile management services to Confluence. It does so by delegating tasks to configurable repositories. Multiple repositories can be configured, so for example Confluence can draw user information from both the database _and_ an LDAP server.

Default configuration

By default, Confluence's AtlassianUser configuration delegates all user, group, profile and password authentication to OSUser. This is done to minimise the impact of the migration from OSUser to AtlassianUser. At some time in the future, we will migrate all user management to AtlassianUser's native providers, and the OSUser delegation will only be needed by customers who are still relying on the OSUser/JIRA bridge, or the old-style OSUser LDAP support.

Configuration of AtlassianUser is done through the `atlassian-user.xml` file (in Confluence 2.2+) or `atlassianUserContext.xml` (in Confluence 2.1).

Database (Hibernate) Support

AtlassianUser can store user, group and profile data directly in Confluence's database. This will be the default behaviour for Confluence once we have completed the migration from OSUser.

LDAP support

AtlassianUser currently supports password authentication, user management and group management with an LDAP server. There are instructions on [how to configure AtlassianUser LDAP integration](#).

At this point, only read-only access to LDAP is planned. Java's JNDI-LDAP interface does not support updating an LDAP repository, and the administration tools that come with LDAP servers such as Microsoft Active Directory are generally comprehensive and already available in enterprise IT departments.

JIRA integration?

AtlassianUser will not support delegating Confluence user management to JIRA. Instead, our goal is to implement AtlassianUser as the JIRA user management framework as well. Once this is done, both Confluence and JIRA can use the same LDAP server for their authentication and group management.

OSUser

[OpenSymphony User](#) was Confluence's core user management framework up until it was replaced by AtlassianUser in version 2.1. OSUser is still heavily used within Confluence through AtlassianUser's OSUser repositories, and for the time being remains the default user, group and profile repository for Confluence.

OSUser is also built around the model of pluggable providers, but its LDAP support is limited.

OSUser Database (Hibernate) Providers

In its default configuration, Confluence's OSUser providers store a list of users and groups together with profile information in tables in the Confluence database:

- os_user (authentication)
- os_group (group membership)
- os_user_group (group membership)
- os_propertyentry (profile information)

The hashed password in the os_user table is used to authenticate the user unless LDAP support is enabled. The os_user_group table is queries for group membership information.

OSUser configuration is controlled through the osuser.xml file.

LDAP support

OSUser only supports authentication against an LDAP server. That is, you can check user passwords against LDAP, but all other user information must be shadowed in the Confluence database. There are

instructions on [how to configure OSUser LDAP authentication](#).

If you need support for LDAP user information or group membership as well, AtlassianUser should be used instead (see above).

Delegating user management to JIRA

Confluence can use OSUser to retrieve information for authentication, group membership and profile information from JIRA.

If you look at the discussion of OSUser's implementation above, you can see how this can work pretty easily. A data source to JIRA database is configured in Confluence which lets Confluence read directly from JIRA's `os_*` tables. For example, when a user is created in JIRA, the username and password goes in the `os_user` table in the JIRA database. Confluence looks at the same table in the JIRA database to authenticate the user.

Access to the JIRA database is read-only. For this reason, Confluence maintains a subset of the user's profile information (things like last login time and user preferences that Confluence needs to be able to modify) locally in the Confluence database.

There are instructions on [how to configure OSUser delegation to JIRA](#).

User Management Frequently Asked Questions

This page last changed on Jan 17, 2007 by david.soul@atlassian.com.

This page has been split into the [LDAP FAQ](#) and [JIRA User Management FAQ](#).

Configuration Guide

This page last changed on Feb 21, 2007 by rosie@atlassian.com.

The Configuration Guide contains instructions on installing and configuring Confluence. If you cannot find what you are looking for, try the Search box in the top right-hand corner.

TOPICS

Installation and Setup

[Requirements](#)
[Installing Confluence Standalone](#)
[Installing Confluence EAR-WAR Standalone Setup Wizard](#)
[Custom Installation](#)
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Webserver Configuration

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Application Server Configuration

To install the Confluence EAR-WAR edition in an application server, [click here](#).

- [Known Issues for Apache Tomcat](#)
- [Known Issues for JBoss](#)
- [Known Issues for Jetty](#)
- [Known Issues for Resin 2.x](#)
- [Known Issues for Resin 3.x](#)
- [Known Issues for SAP Application Server](#)
- [Known Issues for WebLogic](#)
- [Known Issues for Websphere](#)
- [List Of Supported Application Servers](#)
- [Websphere 6 Install Walkthrough](#)

Database Configuration

To configure Confluence with an external database, [click here](#).

- [Database Setup Guides](#)
- [Improving Database Performance](#)
- [Known Issues For Supported Databases](#)
- [List Of Supported Databases](#)
- [Migrate to an External Database](#)
- [Troubleshooting External Database Connections](#)
- [Troubleshooting the Embedded Database \(hSQL DB\)](#)
- [Upgrading From HSQL 1.7.1 to 1.8](#)

RELATED CONTENT

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[Frequently Asked Questions](#)
[Confluence Community](#)
[Development Hub](#)
[Extensions](#)

Adding SSL on Confluence 2.1.5a and earlier

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

How to setup SSL/HTTPS access in Confluence Standalone

This section describes how to enable secure access on a Confluence Standalone instance (running Tomcat 4.1.30). The configuration details may be slightly different for newer versions of Tomcat and different application servers.



Users of Confluence 2.2.0 and newer

Please follow [this guide](#) instead.

Create an SSL certificate using keytool

Before configuring SSL, an SSL certificate must be created. If you have already configured one, you can skip this step.

Windows configuration

On Windows, perform the following at the command prompt:

```
%JAVA_HOME%\bin\keytool -genkey -alias tomcat -keyalg RSA
```

Unix/Linux configuration

On Unix/Linux, perform the following at the command prompt:

```
$JAVA_HOME/bin/keytool -genkey -alias tomcat -keyalg RSA
```

This will also apply to MacOS X systems.

Some questions will be asked, including a password for the certificate (the default is 'changeit'). Please note down what this is, as it will be used in the next step.

Modify the conf/server.xml file

In the confluence directory, open the conf/server.xml file and insert one of the following just after the closing `</Engine>` tag:

For Tomcat 4 (Confluence 2.1.x and below):

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8443" minProcessors="5"
maxProcessors="75"
  enableLookups="true" acceptCount="100" debug="0" scheme="https" secure="true"
  useURIVValidationHack="false" disableUploadTimeout="true">
  <Factory className="org.apache.coyote.tomcat4.CoyoteServerSocketFactory" clientAuth="false"
protocol="TLS" keystorePass="#CERT_PASSWORD#" />
</Connector>
```

For Tomcat 5.5 (Confluence 2.2 and above):

```
<Connector port="8443" maxHttpHeaderSize="8192"
  maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
  enableLookups="false" disableUploadTimeout="true"
  acceptCount="100" scheme="https" secure="true"
  clientAuth="false" sslProtocol="TLS"
  URIEncoding="UTF-8" keystorePass="#CERT_PASSWORD#" />
```

Please note that the above configuration is included in the Confluence Standalone conf/server.xml file, and only needs to be uncommented.

Change #CERT_PASSWORD# to the password you entered for the certificate when you generated it.



By default, Tomcat will look in C:\Documents and Settings\%CURRENT_USER%\keystore (Windows) or ~/.keystore (Unix) for the certificates. If you have previously generated an SSL certificate and it is located in a different location, you will need to add an additional attribute in the conf/server.xml file.

On Tomcat 4 change the `<Factory>` tag to following:

```
<Factory className="org.apache.coyote.tomcat4.CoyoteServerSocketFactory"
clientAuth="false" protocol="TLS" keystoreFile="#KEYSTORE_LOCATION#"
keystorePass="#CERT_PASSWORD#" />
```

On Tomcat 5.5 change the `<Connector>` tag to following:

```
<Connector port="8443" maxHttpHeaderSize="8192"
  maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
  enableLookups="false" disableUploadTimeout="true"
  acceptCount="100" scheme="https" secure="true"
  clientAuth="false" sslProtocol="TLS"
  URIEncoding="UTF-8" keystorePass="#CERT_PASSWORD#"
  keystoreFile="#KEYSTORE_LOCATION#" />
```

Also replace the #KEYSTORE_LOCATION# and #CERT_PASSWORD#.

After that, restart Tomcat and access your instance on <https://host.domain:8443/>.

For more detailed information on setting up SSL with Tomcat (including additional configuration options), have a look at [Tomcat 4 SSL Howto](#) or [Tomcat 5.5 SSL Howto](#).

Application Server Configuration

This page last changed on Sep 20, 2006 by david.soul@atlassian.com.

Before deploying the EAR/WAR version of Confluence in your choice of application server, please review the setup notes and any known issues.

[Known Issues for Apache Tomcat](#)

[Known Issues for JBoss](#)

[Known Issues for Jetty](#)

[Known Issues for Resin 2.x](#)

[Known Issues for Resin 3.x](#)

[Known Issues for SAP Application Server](#)

[Known Issues for WebLogic](#)

[Known Issues for Websphere](#)

Known Issues for Apache Tomcat

This page last changed on May 25, 2006 by [mryall](#).

- [Configuring a MySQL Datasource in Apache Tomcat](#)
- [Configuring Tomcat's URI encoding](#)
- [Max size of HTTP POST request and Confluence page size](#)
- [NotSerializableException on shutdown](#)
- [Running Tomcat on a Different Port](#)

Configuring a MySQL Datasource in Apache Tomcat

This page last changed on Jul 18, 2006 by david.soul@atlassian.com.

Instructions on setting up a MySQL DataSource connection for Confluence Standalone or EAR/WAR.



autoReconnect=true is required

The Confluence database connection URL must have autoReconnect=true added to the end to prevent disconnection issues.

Shut down Tomcat

- Run bin/shutdown.sh or bin/shutdown.bat to bring Tomcat down while you are making these changes

Install the Drivers

- download the MySQL JDBC drivers from <http://www.mysql.com/downloads/api-jdbc-stable.html>.
- After unpacking the file you have downloaded, you'll find a file called something like mysql-connector-java-3.0.10-stable-bin.jar.
- Copy this file into the common/lib directory of your Tomcat installation.

Configure Tomcat

The configuration is different for Confluence 2.2 onwards due to an upgrade to Tomcat 5.5

For users of Confluence 2.2 and later

- If you are using the Standalone distribution. edit the conf/server.xml file in your Tomcat installation. Users running their own Tomcat instance must edit the xml file where they declared the Confluence Context descriptor.
- If editing conf/server.xml, find the following lines:

```
<Context path="" docBase="../confluence" debug="0" reloadable="true">
    <!-- Logger is deprecated in Tomcat 5.5. Logging configuration for
Confluence is specified in confluence/WEB-INF/classes/log4j.properties -->
```

- Within the Context tags, directly after the opening <Context.../> line, insert the DataSource Resource tag:

```
<Resource name="jdbc/confluence" auth="Container" type="javax.sql.DataSource"
    username="yourusername"
    password="yourpassword"
    driverClassName="com.mysql.jdbc.Driver"
    url="jdbc:mysql://localhost:3306/confluence?autoReconnect=true"
    validationQuery="Select 1" />
```

- Replace the username and password parameters with the correct values for your database

- In the url parameter, replace the word 'confluence' with the name of the database your confluence data will be stored in.
- If you plan to use non-latin characters, you will also need to add "&useUnicode=true&characterEncoding=utf8" on the end of the above URL. These options are not required for any database other than MySQL.

For users of Confluence 2.1.x and earlier

- Edit the conf/server.xml file in your Tomcat installation
- Find the following lines:

```
<Context path="" docBase="../confluence" debug="0" reloadable="true">
  <Logger className="org.apache.catalina.logger.FileLogger" prefix="atlassian-confluence."
    suffix=".log" timestamp="true"/>
```

- Directly after the <Logger.../> line, (before the next </Context> line), insert the following:

```
<Resource name="jdbc/confluence" auth="Container" type="javax.sql.DataSource"/>
<ResourceParams name="jdbc/confluence">
  <parameter>
    <name>factory</name>
    <value>org.apache.commons.dbcp.BasicDataSourceFactory</value>
  </parameter>
  <parameter>
    <name>maxActive</name>
    <value>20</value>
  </parameter>
  <parameter>
    <name>maxIdle</name>
    <value>10</value>
  </parameter>
  <parameter>
    <name>maxWait</name>
    <value>10000</value>
  </parameter>
  <parameter>
    <name>username</name>
    <value>yourusername</value>
  </parameter>
  <parameter>
    <name>password</name>
    <value>yourpassword</value>
  </parameter>
  <parameter>
    <name>driverClassName</name>
    <value>com.mysql.jdbc.Driver</value>
  </parameter>
  <parameter>
    <name>url</name>
    <value>jdbc:mysql://localhost:3306/confluence?autoReconnect=true</value>
  </parameter>
</ResourceParams>
```

- You may want to choose different maxActive and maxIdle values: these are how many total database connections will be allowed at one time, and how many will be kept open even when there is no database activity
- Replace the username and password parameters with the correct values for your database
- In the url parameter, replace the word 'confluence' with the name of the database your confluence data will be stored in.
- If you plan to use non-latin characters, you will also need to add &useUnicode=true&characterEncoding=utf8 on the end of the above URL. These options are not required for any database other than MySQL.

Configure the Confluence web application

- Edit confluence/WEB-INF/web.xml in your confluence installation
- Go to the end of the file and just before </web-app>, insert the following:

```
<resource-ref>
  <description>Connection Pool</description>
  <res-ref-name>jdbc/confluence</res-ref-name>
  <res-type>javax.sql.DataSource</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

Configure Confluence

- If you have not yet set up Confluence
 - Follow the steps in the [Confluence Setup Guide](#)
 - In the [Database Setup](#) section, choose the "Datasource Connection" option.
 - Set the JNDI name to java:comp/env/jdbc/confluence
 - Set the Database dialect to MySQL.
- If you are changing an existing Confluence installation over to using a Tomcat datasource
 - Find your ConfluenceHome directory (see: [Where Is My ConfluenceHome Directory?](#) if you don't know where it is).
 - Edit the confluence.cfg.xml file
 - Delete any line that contains a property that begins with hibernate.
 - Insert the following at the start of the <properties> section.

```
<property name="hibernate.setup"><![CDATA[true]]></property>
<property
name="hibernate.dialect"><![CDATA[net.sf.hibernate.dialect.MySQLDialect]]></property>
<property
name="hibernate.connection.datasource"><![CDATA[java:comp/env/jdbc/confluence]]></property>
```

Restart Confluence

- Run bin/startup.sh or bin/startup.bat to start Tomcat with the new settings.

F.A.Q.

I see "Can't call commit when autocommit=true" during an upgrade of Confluence or otherwise.

Check out <http://jira.atlassian.com/browse/CONF-1710> This error can be fixed by adding:
&relaxAutoCommit=true
to the end of your JDBC url.

Example:

jdbc:mysql://localhost/confdb?autoReconnect=true&relaxAutoCommit=true

This JDBC url can be found in your confluence.cfg.xml file located in your confluence home folder.

Configuring Tomcat's URI encoding

This page last changed on May 25, 2006 by [mryall](#).

By default, Tomcat uses ISO-8859-1 character encoding when decoding URLs received from a browser. This can cause problems when Confluence's encoding is UTF-8, and you are using international characters in attachment or page names.

1. Edit `conf/server.xml` and find the line where the Coyote HTTP Connector is defined. It will look something like this, possibly with more parameters:

```
<Connector port="8080"/>
```

2. Add a `URIEncoding="UTF-8"` property to the connector:

```
<Connector port="8080" URIEncoding="UTF-8"/>
```

3. Restart Tomcat

If you are using `mod_jk`

You should apply the same `URIEncoding` parameter as above to the AJP connector if you are using `mod_jk`, and add the following option to your Apache `mod_jk` configuration:

```
<Connector port="8009" protocol="AJP/1.3" URIEncoding="UTF-8"/>
```

```
JkOptions +ForwardURISCompatUnparsed
```

More information using Apache with Tomcat

For comprehensive examples of how to use Tomcat and Apache with Confluence, see [Running Confluence behind Apache](#).

Max size of HTTP POST request and Confluence page size

This page last changed on Aug 01, 2006 by ivan@atlassian.com.

There is no maximum limit stipulated on a page size in Confluence. However, if a page larger than 2Mb is created, an user can experience two problems:

Rendering of a page is slow

Understandably, rendering of a large page is going to take excessive time. Don't try to put the entire content of a book into one page, split it into pages/chapters.

It is easier to manage and fast to render too.

HTTP POST error when Tomcat 5 is used

```
java.lang.IllegalStateException: Post too large
at org.apache.catalina.connector.Request.parseParameters(Request.java:2361)
```

This error manifests that a page is far too large, larger than 2 MB.

Apache Tomcat 5, by default, sets the maximum size of acceptable HTTP POST request to 2MB.

You can reconfigure Tomcat to accept larger requests. This can be done by increasing the allowable limit or just simply disabling this functionality.

The file you need to edit is `<Tomcat-Dir>/server.xml`. Set the Tomcat configuration parameter `maxPostSize` for the `HTTPConnector` to a larger value (in bytes) to increase the limit. Setting it to 0 will disable the size check.



See the [Tomcat Configuration Reference](#) for more information.

`maxPostSize` - "The maximum size in bytes of the POST which will be handled by the container FORM URL parameter parsing. The feature can be disabled by setting this attribute to a value inferior or equal to 0. If not specified, this attribute is set to 2097152 (2 megabytes)."

NotSerializableException on shutdown

This page last changed on Sep 20, 2006 by ivan@atlassian.com.

You may see an exception similar to this:

```
StandardManager[/confluence]: IOException while loading persisted sessions:
java.io.WriteAbortedException: writing aborted;
java.io.NotSerializableException: bucket.search.lucene.SearchWordsLister
java.io.WriteAbortedException: writing aborted; java.io.NotSerializableException:
bucket.search.lucene.SearchWordsLister
at java.io.ObjectInputStream.readObject0(ObjectInputStream.java:1278)
at java.io.ObjectInputStream.defaultReadFields(ObjectInputStream.java:1845)
at java.io.ObjectInputStream.readSerialData(ObjectInputStream.java:1769)
```

This is because Confluence's HTTP sessions may contain objects which cannot be serialized to disk. Tomcat tries to serialize existing sessions by default during shutdown.

You can add the following configuration parameter into Tomcat's `server.xml` file between the `<Context>` tags to disable this:

```
<Manager className="org.apache.catalina.session.PersistentManager" saveOnRestart="false"/>
```

Running Tomcat on a Different Port

This page last changed on May 25, 2006 by [mryall](#).

By default Confluence's Tomcat instance listens on port 8080 for connections, and port 8005 for the command to shut down.

If you see errors like:

```
java.net.BindException: Address already in use:8080
```

in your logs, then you need to change the port number Confluence listens on (or you may be trying to start Confluence twice).

Confluence WAR/EAR edition

Modify Tomcat conf/server.xml, change the ports used on the Server tag and HTTP Connector tag. If you don't know what this means, see the example in the Standalone configuration below.

Confluence Standalone 2.2 and newer

Edit conf/server.xml in your Confluence application directory, and change the ports on the Server tag and the Connector tag to unused ports on your system. The following example shows the relevant section of server.xml where they are changed to 8100 (Server) and 8180 (HTTP Connector). In this configuration you would access Confluence on the URL: <http://localhost:8180/confluence>.

```
<Server port="8100" shutdown="SHUTDOWN" debug="0">
  <Service name="Tomcat-Standalone">
    <Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8180"
minProcessors="5"
      maxProcessors="75"
      enableLookups="true" redirectPort="8444" acceptCount="10" debug="0"
connectionTimeout="20000"
      useURIValidationHack="false" URIEncoding="UTF-8"/>
```

Confluence prior to 2.2

You can change the port number by editing the file `<confluence install directory>/conf/server.xml`.

Find the line:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8080" minProcessors="5"
maxProcessors="75"
```

and change 8080 to the port you want to use.

If you are running two Tomcat instances, you'll also need to change the shutdown port in the line:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
```

Known Issues for JBoss

This page last changed on Nov 30, 2006 by jon@atlassian.com.

A Quick Note about Confluence and JBoss

Confluence does not make any use of the JBoss container beyond its embedded Tomcat web application server, as can be easily demonstrated by the fact that our standalone Confluence ships with, and runs entirely inside, Tomcat. In addition deploying Confluence inside JBoss can cause additional problems, as described below.

While JBoss is a supported platform, and (subject to the limitations below) you can deploy Confluence into it successfully, we recommend that unless there is some overriding reason to run JBoss - i.e. you are making use of its specific management features, or you're already running several other JBoss servers and want to keep your deployments consistent - you just run Confluence directly under Tomcat instead.

JBoss and Multiple Application Deployments



Atlassian do not currently support configuring Confluence on the same JBoss instance as an existing Confluence or JIRA server.

Due to JBoss's inventive interpretation of the J2EE Classloader specification, multiple applications deployed on the same JBoss instance can interfere with each other. The most common symptom of this problem from the Confluence side is for a user to be unable to edit their profile (although it causes many other seemingly random problems). As such, we do not recommend running Confluence on the same JBoss instance as any other J2EE application.

This issue is reported in [CONF-1635](#).

Some customers have reported success having Confluence share a server with other Confluence or JIRA instances by tweaking their classloader settings or server configurations. A number of recipes for doing so are mentioned below in comments. We currently have not verified these configurations at Atlassian. You're welcome to try them yourself, but if they do not work for you, we can not currently provide support getting them to work.

JBoss Root Logging

On starting up Confluence under JBoss, you may see the following message logged to the console:

```
ERROR [lifecycle] The root log4j logger is set to DEBUG level. This may cause Confluence to run slowly.
ERROR [lifecycle] If you are running Confluence under JBoss, please read
http://confluence.atlassian.com/x/PtAB
ERROR [lifecycle] To disable this error message, start Confluence with the system property
-Dconfluence.ignore.debug.logging=true
```

By default, JBoss ships with the root confluence logger set to DEBUG level. This means that Confluence

(and any other log4j-enabled application deployed in the JBoss server) will spend a lot of time generating debugging information that will just end up wasting processor cycles and disk space.

To fix this problem, edit the `conf/log4j.xml` file in your JBoss server installation. Find the following section:

```
<root>
  <appender-ref ref="CONSOLE"/>
  <appender-ref ref="FILE"/>
</root>
```

Replace it with this:

```
<root>
  <priority value="warn" />
  <appender-ref ref="CONSOLE"/>
  <appender-ref ref="FILE"/>
</root>
```

This will raise the default log level to WARN, which is where Confluence is most comfortable running day-to-day. Logging at INFO level should also be safe, but it will result in a lot more unnecessary information being logged. We recommend you keep Confluence logging at WARN level unless something is going wrong that you need to diagnose (or you're asked to log at a lower level by support).

Additional `log4j.xml` Configuration

The Confluence `log4j.properties` file includes some additional logging configuration, which is overridden by JBoss's `log4j.xml`. To set logging to the same level as the standard Confluence distribution, you should include the following in `log4j.xml` immediately above the root declaration you edited above.



Putting this anywhere else in the file will probably break your JBoss logging configuration.

```
<logger name="com.atlassian.confluence.lifecycle" additivity="false">
  <level value="INFO"/>
  <appender-ref ref="FILE"/>
  <appender-ref ref="CONSOLE"/>
</logger>
<logger name="com.atlassian.confluence.upgrade" additivity="false">
  <level value="INFO"/>
  <appender-ref ref="FILE"/>
  <appender-ref ref="CONSOLE"/>
</logger>
```

Known Issues for Jetty

This page last changed on Jun 15, 2006 by christopher.owen@atlassian.com.

Form sizes

Jetty limits form submission sizes to 200000 bytes by default. This can cause the following error to occur when attempting to edit a large page in Confluence.

```
java.lang.IllegalStateException: Form too large
```

This limit may be adjusted via the `org.mortbay.http.HttpServletRequest.maxFormContentSize` [system property](#) passed to the JVM on startup. Setting this value to 500000 may be a good start to avoid this problem but please note that setting this value too high can leave your server vulnerable to denial of service attacks.

Known Issues for Resin 2.x

This page last changed on Nov 09, 2006 by [mryall](#).

Resin caching breaks Confluence stylesheets

Resin 2 has a broken caching algorithm that for certain URLs will always return a 304 Not-Modified status and return no content, even when the client does not send a Last-Modified header. This usually results in broken stylesheets in Confluence.

To fix this disable caching in Resin by commenting out the following line in resin.conf:

```
<!-- <cache dir='cache' size='4096' entries='4096' /> -->
```

Known Issues for Resin 3.x

This page last changed on Sep 12, 2006 by [mryall](#).

The Symptoms

Whenever you use Confluence under Resin 3.0:

- You can't seem to stay logged in, and are continually asked to enter your username and password
- The Edit tab (or other links) only appear if you grant Anonymous users permission to perform those functions

See also:

- [CONF-1000](#)
- [CONF-1509](#)
- [CONF-1511](#)
- [CONF-3397](#)



Resin 2 Users

Confluence has always run without modification on Resin 2.1.11 and later. These instructions only apply to Resin 3.0



Resin and SOAP

If you want to use Confluence's SOAP interface under Resin, you will need to follow these instructions as well: [Confluence and SOAP on Resin](#)

The Solution

Resin 3.0 does not correctly support the Servlet 2.3 specification. Confluence relies on this specification to function. The workaround is to modify Confluence's `web.xml` file so that it is conformant with the Servlet 2.4 specification. A big thankyou to Matthew Schmidt for supplying us with this workaround.

Premodified files

You can download one of the premodified `web.xml` files that are attached to this page. After downloading rename to `web.xml` and place in the `$confluenceWebapp/WEB-INF/` directory, overwriting the existing `web.xml` in there. Don't forget to keep a backup!

Confluence Release	File
2.1	resin-3.conf-2.1-web.xml
2.1.2	resin-3.conf-2.1.2-web.xml
2.1.4	resin-3.conf-2.1.4-web.xml
2.2.1a	resin-3.conf-2.2.1a-web.xml
2.2.4	resin-3.conf-2.2.4-web.xml

Please only use the file with the exact version of Confluence you are using. An incorrect web.xml file can cause strange problems. You can follow the instructions below to patch any other version.

Modifying web.xml manually

Step One: The web.xml header

First, you will need to change the XML preamble for the web.xml file. Servlet 2.3 validates against a DTD, Servlet 2.4 validates against a schema. Also note that the <display-name> and <description> elements have reversed orders.

Before:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE web-app PUBLIC "-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"
"http://java.sun.com/dtd/web-app_2_3.dtd">

<web-app>
  <display-name>Confluence</display-name>
  <description>Confluence Web App</description>
```

After:

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app id="ConfluenceWebApp" version="2.4" xmlns="http://java.sun.com/xml/ns/j2ee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://java.sun.com/xml/ns/j2ee
http://java.sun.com/xml/ns/j2ee/web-app_2_4.xsd">
  <description>Confluence Web App</description>
  <display-name>Confluence</display-name>
```

Step two: filter-mapping dispatchers

Move down web.xml until you find the definition of the login filter-mapping. You need to change the definitions of the login, security and sitemesh filters:

Before:

```
<filter-mapping>
  <filter-name>login</filter-name>
  <url-pattern>/*</url-pattern>
</filter-mapping>

<filter-mapping>
  <filter-name>security</filter-name>
  <url-pattern>/*</url-pattern>
</filter-mapping>

<filter-mapping>
  <filter-name>sitemesh</filter-name>
  <url-pattern>*.action</url-pattern>
</filter-mapping>

<filter-mapping>
  <filter-name>sitemesh</filter-name>
```

```

    <url-pattern>*.vm</url-pattern>
</filter-mapping>

<filter-mapping>
    <filter-name>sitemesh</filter-name>
    <url-pattern>/display/*</url-pattern>
</filter-mapping>

```

After:

```

<filter-mapping>
    <filter-name>login</filter-name>
    <url-pattern>/*</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

<filter-mapping>
    <filter-name>security</filter-name>
    <url-pattern>/*</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

<filter-mapping>
    <filter-name>sitemesh</filter-name>
    <url-pattern>*.action</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

<filter-mapping>
    <filter-name>sitemesh</filter-name>
    <url-pattern>*.vm</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

<filter-mapping>
    <filter-name>sitemesh</filter-name>
    <url-pattern>/display/*</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

```



Confluence 2.0

In Confluence 2.0, you will need to add dispatcher tags to another of the sitemesh filter mappings:

```

<filter-mapping>
    <filter-name>sitemesh</filter-name>
    <url-pattern>/label/*</url-pattern>
    <dispatcher>REQUEST</dispatcher>
    <dispatcher>FORWARD</dispatcher>
</filter-mapping>

```

You will also need to find all the <display-name> servlet attributes and remove them as well. For example:

Before

```

<servlet>
    <servlet-name>dwr-invoker</servlet-name>

```

```
<display-name>DWR Servlet</display-name>
<servlet-class>uk.ltd.getahead.dwr.DWRServlet</servlet-class>
```

After

```
<servlet>
  <servlet-name>dwr-invoker</servlet-name>
  <servlet-class>uk.ltd.getahead.dwr.DWRServlet</servlet-class>
```

This will need to be done for the dwr-invoker, labels-javascript, editpage-javascript, wysiwyg-javascript, labels and tinymce servlets.

Confluence 2.1

In addition to the Confluence 2.0 modifications you will also need to remove the Selenese servlet and mappings:

```
<servlet>
  <servlet-name>SeleneseServletSpike</servlet-name>
  <servlet-class>com.thoughtworks.selenium.outbedded.CommandBridge</servlet-class>
</servlet>

<servlet-mapping>
  <servlet-name>SeleneseServletSpike</servlet-name>
  <url-pattern>/selenium-driver/driver</url-pattern>
</servlet-mapping>
```

Otherwise you might get the following error when starting up resin:

```
com.caucho.config.LineConfigException: WEB-INF/web.xml:582:
`com.thoughtworks.selenium.outbedded.CommandBridge' is not a known servlet.
Servlets belong in the classpath, often in WEB-INF/classes.
```

Confluence 2.2

The removal of the `<display-name/>` element from the dwr-invoker, labels-javascript, editpage-javascript, wysiwyg-javascript, labels and tinymce servlets, as described in the Confluence 2.0 appendage, is no longer required.

Done

Confluence should now run under Resin 3.0. Please [report any other bugs](#) as you find them.

Confluence and SOAP on Resin

This page last changed on Apr 26, 2006 by [cmiller](#).

Symptom

The WSDL generated by Confluence on the Resin application server is invalid. Attempting to parse it gives you an error like this (using Axis as the client):

WSDLException (at /wsdl:definitions/types): faultCode=INVALID_WSDL: Encountered illegal extension element 'types' in the context of a 'javax.wsdl.Definition'. Extension elements must be in a namespace other than WSDL's.:

Cause

The default XML parser included with the Resin application server is incompatible with the Axis SOAP library, and causes Axis to generate an invalid WSDL file. You can find information about this issue here:

- <http://issues.apache.org/jira/browse/AXIS-2235>

Solution

The solution is to override Resin's default XML parser by placing the following within the <server> section of resin.conf:

```
<system-property  
  javax.xml.parsers.DocumentBuilderFactory="org.apache.xerces.jaxp.DocumentBuilderFactoryImpl"/>  
<system-property  
  javax.xml.parsers.SAXParserFactory="org.apache.xerces.jaxp.SAXParserFactoryImpl"/>
```

(You can also make this configuration per web-app by putting it in the <web-app> section. For more information see this page: [JAXP - specifying XML and XSLT implementations](#))

The Confluence issue for this error is here:

- <http://jira.atlassian.com/browse/CONF-5953>

Updating web.xml for Resin 3

This page last changed on Mar 29, 2007 by christopher.owen@atlassian.com.

In order to run Confluence under Resin 3, you will need to use a special version of web.xml. This has been bundled in the main Confluence download as:

```
confluence/WEB-INF/web.resin3.xml
```

To enable it, simply remove the default confluence/WEB-INF/web.xml and then rename web.resin3.xml to web.xml. Now restart.

Known Issues for SAP Application Server

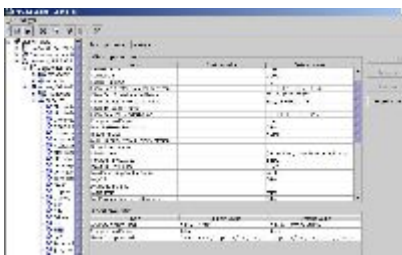
This page last changed on Oct 12, 2006 by tom@atlassian.com.

SAP WebAS thinks that the Confluence responses are gzipped, which makes your setup page appear like this:



You need to reconfigure the HTTP server part of WebAS to disable gzip output.

Make the change on this Visual Administrator screen:



Known Issues for WebLogic

This page last changed on Apr 20, 2007 by [mjensen](#).

WebLogic Configuration tips



Enabling logging

Confluence sends its log output to standard out, so by default Weblogic does not record it. To redirect Confluence's log output to a file follow these instructions [Redirecting System.out and System.err to a File](#)



Confluence must be deployed as an exploded war file to WebLogic. Otherwise you may experience errors as such:

```
java.lang.IllegalStateException: Spring Application context has not been set
    at
    bucket.container.SpringContainerContext.getComponent(SpringContainerContext.java:98)
```

Deploying Confluence on Weblogic 9.x

If you are seeing the following error -- or other NoSuchMethodErrors -- then this tip is for you!

```
java.lang.NoSuchMethodError:
org.objectweb.asm.ClassVisitor.visit(ILjava/lang/String;Ljava/lang/String;[Ljava/lang/String;Ljava/lang/Stri
```

It appears that WLS 9 ships with an incompatible version of org.objectweb.asm.* packages which clash with the ones required by Hibernate. You can fix this by adding to the weblogic.xml deployment descriptor the settings.

```
<container-descriptor>
  <prefer-web-inf-classes>true</prefer-web-inf-classes>
</container-descriptor>
```

WebLogic 8.1 performance problems

Creating a weblogic.xml file can improve the performance of Confluence within the WebLogic 8.1 series. This is particularly suitable in cases where WebLogic continually seeks to reload files from jars - which can be noticed when profiling Confluence in WebLogic and encountering excessive calls to java.util.zip.ZipFile.getEntry()

Find a typical example immediately below with an explanation of terms following:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE weblogic-web-app PUBLIC "-//BEA Systems, Inc.//DTD Web Application 8.1//EN"
```

```

"http://www.bea.com/servers/wls810/dtd/weblogic810-web-jar.dtd">
<weblogic-web-app>
  <jsp-descriptor>
    <jsp-param>
      <param-name>pageCheckSeconds</param-name>
      <param-value>-1</param-value>
    </jsp-param>

    <jsp-param>
      <param-name>precompile</param-name>
      <param-value>>false</param-value>
    </jsp-param>

    <jsp-param>
      <param-name>workingDir</param-name>
      <param-value>./jsp_precompile_dir/confluence</param-value>
    </jsp-param>
  </jsp-descriptor>

  <container-descriptor>
    <servlet-reload-check-secs>-1</servlet-reload-check-secs>
  </container-descriptor>

  <context-root>confluence</context-root>
</weblogic-web-app>

```

This file should be created in the WEB-INF/ directory of your Confluence deployment.

The full weblogic.xml syntax is described in [BEA's documentation](#). Here we describe some important parameters you should consider setting.

Disabling JSP reload checks

Performance can be considerably affected by Weblogic's tendency to scan JSPs for changes on every page load.

This can be disabled by setting pageCheckSeconds to -1.

Disabling servlet reload checks

Similar to the JSP reload checks, Weblogic will scan servlets for modifications every second (by default), hurting performance.

This can be prevented by setting the servlet-reload-check-secs element to -1.

Avoiding JSP recompiles on redeploy

If your Weblogic instance is often restarted, performance can be improved by explicitly setting a directory to save compile JSPs to (the workingDir parameter), and setting precompile to 'false'.

Character Encoding

A JIRA user has reported that the following configuration can ensure that Chinese character sets are displayed correctly - add the following entry to the weblogic.xml file.

```
<weblogic-web-app>
  <jsp-descriptor>
    <jsp-param>
      <param-name>encoding</param-name>
      <param-value>UTF-8</param-value>
    </jsp-param>
    <jsp-param>
      <param-name>compilerSupportsEncoding</param-name>
      <param-value>>false</param-value>
    </jsp-param>
  </jsp-descriptor>
</weblogic-web-app>
```

Most of this page duplicates JIRA documentation - you might also like to read <http://www.atlassian.com/software/jira/docs/latest/servers/weblogic.html> .

Disabling the OSCache for Confluence 2.x

Confluence 2.0 uses oscache 2.1.1, which causes problems when Confluence is deployed in a weblogic container. This problem will show up by the Confluence css file taking a very long time (upwards of 30mins) to load. To fix this, you will need to disable the oscache, by removing the following entry from the WEB-INF/web.xml file.

```
<filter>
  <filter-name>CacheFilter</filter-name>
  <filter-class>com.opensymphony.oscache.web.filter.CacheFilter</filter-class>
</filter>
```

We are currently [investigating](#) the root cause of this problem

Custom templates (decorators) do not work on WebLogic 8.1 SP2.

If, after creating a custom template, you see no result, check your velocity.log for a statement similar to:

```
2005-01-06 14:47:57,752 - ResourceManager : unable to find resource
'/'<space_key>/decorators/main.vmd' in any resource loader.
```

where <space_key>, of course, matches your space key.

This problem does not occur on WebLogic 8.1 SP3.

WebLogic 8.1 Soap issues

Axis 1.2 is known to not work out of the box with WebLogic 8.1. Please refer to the [AXIS installation instructions](#) for details. The following excerpt was taken from the [AXIS documentation](#).

WebLogic 8.1 ships with webservices.jar that conflicts with Axis' saaj.jar and prevents Axis 1.2 from working right out of the box. This conflict exists because WebLogic uses an older definition of javax.xml.soap.* package from Java Web Services Developer Pack Version 1.0, whereas Axis uses a

newer revision from J2EE 1.4.

However, there are two alternative configuration changes that enable Axis based web services to run on Weblogic 8.1.

In a webapp containing Axis, set `<prefer-web-inf-classes>` element in `WEB-INF/weblogic.xml` to true. An example of `weblogic.xml` is shown below:

```
<weblogic-web-app>
<container-descriptor>
<prefer-web-inf-classes>true</prefer-web-inf-classes>
</container-descriptor>
</weblogic-web-app>
```

If set to true, the `<prefer-web-inf-classes>` element will force WebLogic's classloader to load classes located in the `WEB-INF` directory of a web application in preference to application or system classes. This is a recommended approach since it only impacts a single web module.

In a script used to start WebLogic server, modify `CLASSPATH` property by placing Axis's `saaj.jar` library in front of WebLogic's `webservice.jar`.

NOTE: This approach impacts all applications deployed on a particular WebLogic instance and may prevent them from using WebLogic's webservice.

For more information on how WebLogic's class loader works, see [WebLogic Server Application Classloading](#).

WebLogic 8.1 & HTTP Compression

There may be problems with WebLogic 8.1 and HTTP compression (by default disabled). This issue is being investigated and tracked at [CONF-6304](#)

ATT: HSQL or Embedded Database users - Webapp redeployment problems

A customer has reported that it is not possible to redeploy Confluence when it has been set up against a HSQL or embedded database. In general we do not recommend customers use the embedded database on production systems. If you want the ability to redeploy Confluence (particularly if you have other applications deployed in your weblogic server), you must use an external database in order for it to work. Thanks to Eric Black for this tip.

Known Issues for Websphere

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

Version Requirements

To run Confluence on Websphere, you will need to be running Confluence 1.4.2 or higher, against Websphere 5.1.1 with fixpack 3 or higher installed (5.1.1.3 or higher). There are known issues running Confluence against earlier versions of Websphere.

Websphere and Oracle

Confluence can not currently use Websphere datasources to access an Oracle database. This is because in order to effectively store pages in the database, Confluence needs access to the raw Oracle connection object, rather than the wrapper that Websphere places around it.

We are currently working on fixing this problem ([CONF-3580](#)), but for now the workaround is to not use a Websphere datasource. Use Confluence's internal connection pool instead (the "Direct JDBC Connection" option during setup).

Websphere on Windows platform



Most Windows OS have a file path limit of 255 characters. When an application is deployed with a long name, it is possible the deployed application files will reach this path limit. Currently, there is no check performed and the error messages when trying to create such long files are not very descriptive.

Example of installing Confluence on Windows XP Professional '02 sp 2. and Websphere App Server v 6.0 produced by default this deployed location:

```
1) C:\Program Files\IBM\WebSphere\AppServer/profiles/default\wstemp\92668751\workspace\cells\bluetongueNode01Cell\ap
```

to get to the class structure of Confluence that needs to be used

```
2) atlassian-confluence-2_2_8_war\WEB-INF\classes\com\atlassian\confluence\user\actions\UserPickerAction$
```

hence the length to that particular class

```
$ perl -e 'print length "C:\Program Files\IBM\WebSphere\AppServer/profiles/default\wstemp\92668751\workspace\cells\bluetongueNode01Cell\applications\atlassian-confluence-2_2_8_war\WEB-INF\classes\com\atlassian\confluence\user\actions\UserPickerAction$UsernameToUserTranslatingPaginationSupport";'
264
```

and consequently an error which is produced when attempted to run Confluence 1) + 2):

```
*Cause: *  
java.lang.NoClassDefFoundError:  
com/atlassian/confluence/user/actions/UserPickerAction$UsernameToUserTranslatingPaginationSupport  
at java.lang.Class.getDeclaredConstructors0(Native Method)
```

Troubleshooting

I can not view any Confluence page with a space in the title

Please see [Fix 'Page Not Found' errors for pages with spaces in the title.](#)

When I visit some URL, I get a blank page

This is a known issue, caused when you visit a page in Confluence that does not exist. Confluence's "Page Not Found" error page is not being displayed correctly by Websphere. For more information, please visit the issue in JIRA: [CONF-3487](#).

I am having trouble with the £ and € characters

Confluence allows you to specify which character encoding should be used for its requests. To use the £ and € characters, you will need to use the "UTF-8" option. However, in some cases, WebSphere will encode the characters using ISO-8859-1 before they get to Confluence. If you have set the Confluence character encoding to "UTF-8" and are having problems, have a look at <http://www-306.ibm.com/software/globalization/j2ee/encoding.jsp> for an explanation of WebSphere and Character encoding. In particular, the `-Dclient.encoding.override=UTF-8` system property allows you to override WebSpheres defaults.

List Of Supported Application Servers

This page last changed on Mar 26, 2007 by ivan@atlassian.com.

Supported

- [Apache Tomcat](#) (4.1 and 5.5)
- Weblogic (8.1 SP3 and above)
- Resin (2.11.11 and above)
- JBoss
- Orion (2.0.2 and above)
- Websphere (5.1.1.3 and above)

Unsupported

- Macromedia JRun - untested

Incompatible

- Oracle OC4J - [JIRA Issue CONF-2919](#)
- Sun Application Server - [JIRA Issue CONF-5509](#)
- GlassFish - [JIRA Issue CONF-6603](#)

Websphere 6 Install Walkthrough

This page last changed on Jan 17, 2007 by tom@atlassian.com.

This page describes installing Confluence on a plain Websphere 6.0 installation.

Installation

You need to start with a confluence.war file which has had the WEB-INF/classes/confluence-init.properties file modified to set confluence.home.

Log on to the administration console, i.e. <http://localhost:9060/ibm/console/secure/logon.do>

Choose the 'Install New Application' link.

Specify a path to the confluence.war file on the local file system, and choose the context root which you want to deploy confluence at (this is the context you'll access Confluence on, i.e: http://yourserver/context_root). Click Next. (You just accept the default from here on)

On the 'Choose to generate default bindings and mappings' page, just click Next.

On the 'Application Security Warnings' page, just click Continue.

On 'Step 1', just click Next.

On 'Step 2' and 'Step 3', just click Next. On 'Step 4' click finish.

The installation will be performed. Click 'Save to Master Configuration', then click the Save button.

At this point you can make adjustments to the exploded version of Confluence which Websphere has put in <WAS Install Dir>\AppServer\profiles\default\installedApps\<node id>\confluence_war.ear\confluence.war. You can edit confluence-init.properties or add JDBC drivers to WEB-INF/lib -- just remember that you'll need to do this again if you reinstall the application.

When that completes you'll be returned to the console. Click 'Enterprise Applications', check the 'confluence_war' checkbox and click the Start button.

Go to <http://localhost:9080/confluence>. You should get the setup page.

You don't need to use 'parent last' classloading, the default 'parent_first' works, with the changes in the position of jar files mentioned below.

Known Problems

RSS Generation Fails

The error:

```
com.atlassian.core.exception.InfrastructureException: java.lang.NoClassDefFoundError:
com/sun/syndication/io/WireFeedOutput
    <at>
com.atlassian.xwork.interceptors.XWorkTransactionInterceptor.intercept(XWorkTransactionInterceptor.java(Comp
Code))

caused by: java.lang.NoClassDefFoundError: com/sun/syndication/io/WireFeedOutput
    <at> com.atlassian.xwork.results.RssResult.doExecute(RssResult.java:41)
```

To correct this, copy the files 'jdom-1.0.jar' and 'dom4j-1.4-full.jar' from Confluence's WEB-INF/lib directory into your <appServerRoot>/lib directory (that is, the lib subdirectory of the directory named AppServer in the default Websphere install)

URLs with International Characters Don't Work

For example, a personal space for the user häns generates a URL which Websphere doesn't correctly interpret. We don't have a solution for this at the moment.

Error registering bean with name 'fileSystemAttachmentDataDao'

If you get that error message, it is because the path to a class file is longer than Windows can handle. You need to rename your war file to a shorter name.

Application Server URL encoding

This page last changed on Mar 22, 2006 by david.soul@atlassian.com.

Application servers may have different settings for character encodings. We strongly suggest setting this to UTF-8 where possible.

Information on setting the character encoding is available at:

- [Configuring Tomcat's URI Encoding](#)

Confluence Installation Guide

This page last changed on Apr 19, 2007 by david.soul@atlassian.com.

Please review the system requirements before installing Confluence:

CLIENT REQUIREMENTS

Clients can access Confluence using:

- Internet Explorer 6 or later
- Firefox
- Mozilla-based browsers ([Some do not support Rich Text Editing](#))

SERVER REQUIREMENTS

Server load depends primarily on the number of users online at once and their usage of Confluence.

Under 25 Online Users

- 1GHz+ CPU Pentium 4 or equivalent
- 256MB RAM

Over 25 Online Users

- Dual 2.4GHz CPU Pentium Xeon or equivalent
- 512MB+ RAM

See [Server Hardware Requirements Guide](#) for details.

OPERATING SYSTEM

Supported

- Windows
- Linux
- Mac OS X
- Solaris
- AIX
- Unix

Any OS that support J2EE 1.4

DISK SPACE

Confluence Install Directory - 250MB

- Install files
- Nightly site backups
- Temporary files

Confluence Home Directory or External Database - 250MB minimum

- Text content
- File attachments

JAVA

Confluence requires JDK 1.4 or later.

 JDK 1.6 is not yet fully supported

DATABASE

 Confluence is bundled with a pre-configured HSQL database for evaluation purposes only.

For [safe production use](#), it must be configured to use one of the following databases:

Fully Supported

- PostgreSQL 8+
- MySQL 4.1+ ([MySQL 5 is unsupported](#))
- Oracle 10g+
- DB2 8.2+

Supported [With Minor Workarounds](#)

- PostgreSQL 7.1+
- Oracle 8i, 9i or later
- Microsoft SQL Server 2000+
- Sybase ASE 12.5.1+

If you have no preference, [PostgreSQL](#) is scalable, free and easy to setup. For database setup information, see [Database Configuration](#).

SELECT CONFLUENCE EDITION

Confluence can be deployed in either:

Standalone Edition	EAR-WAR Edition

Document generated by Confluence on May 01, 2007 00:44 Page 640

• Ready for production use after connection to an external database • Packaged with Apache Tomcat for performance and scalability • Recommended for evaluation users	• Deploys into an existing application server • Suitable only for server administrators

NEXT

[Standalone Install Guide](#) or [EAR-WAR Install Guide](#)

OTHER TOPICS

[Confluence Setup Guide](#)

[Confluence Cluster Installation](#)

[Confluence 2.0 User Guide](#)

[How to add Confluence to a JIRA Standalone installation](#)

[Documentation Home](#)

Confluence Cluster Installation

This page last changed on Feb 21, 2007 by rosie@atlassian.com.

Overview

There are two methods of installing Confluence in a cluster, depending on whether you have existing data. This page describes a fresh installation with no existing data.

See also [Confluence Cluster Installation with Existing Data](#).

Installation with no existing data

To get Confluence running in a two-node cluster, you must do the following:

1. Ensure you meet the clustering requirements, including obtaining a clustered license key from Atlassian for each node
2. Install Confluence on a single node, configuring an external database and a cluster name
3. Load test the single node installation, see whether clustering is required
4. Shut down the first node, copy the Confluence application and Confluence home directory to the second node
5. Start the first node, wait until it is running, then bring up the second node and it will automatically join the cluster
6. Test the cluster is working correctly
7. Configure a load balancer in front of the two clustered nodes.

Each of these steps will be described in detail below.

1. Clustering requirements

Your Confluence cluster installation must meet all the following criteria for clustering:

- you must be running Confluence 2.3 or later
- you must have a clustered license
- you must use an external database
- you must use a load balancer with session affinity in front of the cluster.

Clustered licenses are available through the [Confluence website](#).

A cluster can run using two copies of Confluence Standalone. However, cluster administrators must understand how to configure an application server and web server with load balancing, so we recommend you are comfortable installing Confluence as a EAR/WAR in your application server before proceeding with a clustered installation.

2. Installation on first node

Cluster administrators should already be comfortable with the [normal installation method](#), so it won't be repeated here. There are two differences in the Confluence Setup Wizard from a normal installation:

- you must use an external database
- you must enter a cluster name.



Enter a cluster name to create a new cluster



Technical note

The cluster name will be converted into a unique multicast IP address and port for your Confluence cluster. UDP multicast traffic is used for Confluence to automatically discover other nodes in the cluster when they start up.

3. Load test the single node

Most Confluence installations do not need to be clustered. Ensure you have tested your single node installation with the number of users you expect to host before going ahead with the additional complexity of clustering.

Check out our [performance tuning tips](#) for ways to improve the performance of a single instance of Confluence.

You can upgrade your single node to a multi-node cluster at any time by resuming this guide from step 4 below.

4. Copy Confluence to second node

Confluence clusters must use the same JDK, application server and application. The easiest way to ensure this is to shut down Confluence on the first node, then copy its web application and home directory to the second node:

1. Shut down Confluence on node #1.
2. Shut down your application server on node #2, or stop it automatically loading web applications.
3. Copy the Confluence web application from node #1 to node #2.
4. Copy the Confluence home directory from node #1 to node #2.

Copying the web application ensures any modifications you have made to the application itself, custom LDAP settings (atlassian-user.xml), and any other advanced configuration are copied to node #2.

Copying the home directory ensures the Confluence search index (the index/ directory), the database

and cluster configuration (confluence.cfg.xml), and any other home directory settings are copied to node #2.

5. Start Confluence on the first node, wait, then start Confluence on second node

For the most stable start-up process, it is important to start Confluence one server at a time.

1. Start Confluence on node #1.
2. Wait for Confluence to become available on node #1.
3. Start Confluence on node #2.
4. Wait for Confluence to become available on node #2.

6. Test cluster connectivity

The [Cluster Administration page](#) (Administration, Cluster Configuration) includes information about the active cluster. When the cluster is running properly, this page displays:

- a correct count of the nodes in the cluster
- a status display for each node in the cluster
- an uptime for each node that is accurate.



[Cluster Administration page](#)

A simple process to ensure your cluster is working correctly is:

1. Create a new document on node #1
2. Ensure the new document is visible by accessing it directly on node #2
3. Wait one minute (Confluence does batch indexing once per minute)
4. Search for the new document on node #1, ensure it appears
5. Search for the new document on node #2, ensure it appears.



Technical note

If Confluence detects more than one instance accessing the database but not in a working cluster, it will shut itself down in a cluster panic. This can be fixed by [troubleshooting the network connectivity of the cluster](#).

7. Configure load balancer

For the moment, configuring the load balancer is outside the scope of this document.

However, a simple [Apache and Tomcat load-balancing configuration](#) is available, which includes sample configuration for the Apache Tomcat and the Apache web server, using its load-balancing JK connector.

Troubleshooting

If you have problems with the above procedure, please see our [Cluster Troubleshooting guide](#).

Upgrading a cluster

It is important that upgrades follow the procedure for [Upgrading a Confluence Cluster](#).

Related documentation

[Confluence Cluster Installation with Existing Data](#)

[Confluence Installation Guide](#)

[Upgrading a Confluence Cluster](#)

[Cluster Administration page](#)

Apache and Tomcat load balancing

This page last changed on Dec 29, 2006 by [mryall](#).

Overview

The following is a description of how to setup a Confluence Cluster on a Windows machine using Apache and mod_jk to handle the loadbalancing.

The characteristics of this cluster are:

- Session affinity: sessions are associated with single servers.
- Failover: if a server dies, a connection will be directed to the nearest available server. (NOTE: sessions are not replicated)
- Failback: when a server comes back online, it will rejoin the cluster.
- Weighted load balancing: the load balancing can be controlled to take into account machine differences. (See the mod_jk documentation for details on this.)

What do you need?

1. Download and install one copy of [Apache httpd](#). Do not install Apache as a service, but set it to listen on port 8080. (Tested with Apache httpd 2.0.55.)
2. Download the latest version of [mod_jk](#). Copy this file into the Apache modules/ directory and rename it to mod_jk.so. (Tested with JK-1.2.19.)
3. Download and extract one copy of the [ZIP distribution of Apache Tomcat](#). (Tested with Tomcat 5.5.)
4. Download JDBC drivers for the external database you will be using. Put the drivers in Tomcat's common/lib/ directory. (Tested with PostgreSQL 8.1, postgresql-8.1-404.jdbc3.jar).

Apache configuration

Edit the main Apache config file, conf/http.conf:

- add the following immediately after the other LoadModule directives:

```
LoadModule jk_module modules/mod_jk.so
```

- add the following just before the end of the file:

```
JkWorkersFile conf/workers.properties
JkLogFile logs/mod_jk.log
JkLogLevel info

JkMount /confluence loadbalancer
JkMount /confluence/* loadbalancer
```

Create a workers.properties file in the Apache conf/ directory. This version of the workers.properties file is configured to use 2 Tomcat instances: tomcat1 and tomcat2.

```
worker.list=loadbalancer

worker.tomcat1.port=18081
worker.tomcat1.host=localhost
worker.tomcat1.type=ajp13
worker.tomcat1.lbfactor=1

worker.tomcat2.port=28081
worker.tomcat2.host=localhost
worker.tomcat2.type=ajp13
worker.tomcat2.lbfactor=1

worker.loadbalancer.type=lb
worker.loadbalancer.balanced_workers=tomcat1, tomcat2
worker.loadbalancer.method=Busyness
```

Tomcat configuration

The Tomcat configuration below will run multiple instances from the same binaries in the main Tomcat directory. For complete documentation of this configuration, see the `RUNNING.txt` file in the Tomcat distribution.

Create instance home directories

Create a directory for each instance of Tomcat, somewhere outside where you installed Tomcat. For example, if you extracted Tomcat to `/opt/apache/tomcat-5.5`, your instances could be in `/var/tomcat-instances/tomcat1`, `/var/tomcat-instances/tomcat2`. These folders will be referred to as the instance home directories.

Copy the following folders from the Tomcat installation directory into each instance home directory. Some of the folders may be empty, but copy them anyway.

- `conf`
- `logs`
- `shared`
- `webapps`

Configure `server.xml` in each instance

Edit `conf/server.xml` in the instance home directories to include the Confluence application and have distinct listen ports for Server, HTTP Connector and AJP13 Connector. All nodes can use the same Confluence webapp as long as you set `confluence.home` via a system property (see startup scripts below).

Attached are two sample configurations:

- [tomcat1/conf/server.xml](#) - listens on port 18080 (http) and 18081 (ajp13)
- [tomcat2/conf/server.xml](#) - listens on port 28080 (http) and 28081 (ajp13)

To use these sample config files, you will need to edit them to set the Confluence web-app location and the data source configuration.

If editing the configuration files yourself, the points to note are:

- 'Server' port must be distinct
- 'Connector' for HTTP must be uncommented and use a distinct port. Use this port for testing the node individually.
- 'Connector' for AJP13 must be uncommented and use a distinct port. This port must match the port of the worker in the Apache workers.properties.
- 'Engine' for localhost must have jvmRoute matching the name of the worker in Apache's workers.properties.
- 'Context' for Confluence must be added inside the 'Host' tag, and include a 'Resource' for the datasource, as per normal Confluence installation under Tomcat.

Create a startup script for each instance

The startup scripts for each instance must set the CATALINA_BASE environment variable and confluence.home system property. The variables in the sample scripts below should reference:

- CATALINA_HOME - Tomcat installation directory
- CATALINA_BASE - Tomcat instance home directory (distinct for each node)
- JRE_HOME - Java runtime directory
- JAVA_OPTS - include a confluence-home system property (distinct for each node)

tomcat1/startup.bat:

```
set CATALINA_HOME=C:\home\mryall\opt\apache\apache-tomcat-5.5.16
set CATALINA_BASE=C:\home\mryall\var\tomcat-instances\tomcat1
set JRE_HOME=C:\Java\jre1.5.0_06
set JAVA_OPTS=-Dconfluence.home=C:\home\mryall\data\confluence\cluster\tomcat1 -Xmx512m
%CATALINA_HOME%\bin\startup.bat
```

tomcat2/startup.bat:

```
set CATALINA_HOME=C:\home\mryall\opt\apache\apache-tomcat-5.5.16
set CATALINA_BASE=C:\home\mryall\var\tomcat-instances\tomcat2
set JRE_HOME=C:\Java\jre1.5.0_06
set JAVA_OPTS=-Dconfluence.home=C:\home\mryall\data\confluence\cluster\tomcat2 -Xmx512m
%CATALINA_HOME%\bin\startup.bat
```

Continue setting up Confluence

Follow the [Confluence Cluster Installation](#) procedure with the steps following the app server setup.

Troubleshooting

General advice

The above tomcat configurations enable HTTP connectors on each Tomcat instance so that you can connect to the nodes individually. To check whether the load balancer (Apache & mod_jk) is causing the

problem, try connecting to the individual Tomcat instances.

Session-affinity doesn't seem to be working?

Ensure the name you use for your worker in workers.properties (e.g. tomcat1) matches the jvmRoute attribute of the engine tag in your Tomcat server.xml. For an example, search for 'Engine' in the [attached sample config](#).

For troubleshooting your Confluence cluster, see [Cluster Troubleshooting](#).

References

General

<http://raibledesigns.com/tomcat/>
<http://httpd.apache.org/>

Tomcat Clustering support

<http://tomcat.apache.org/tomcat-5.0-doc/cluster-howto.html>
<http://tomcat.apache.org/tomcat-5.0-doc/balancer-howto.html>
http://tomcat.apache.org/tomcat-3.3-doc/mod_jk-howto.html
[Clustering and Load Balancing in Tomcat 5, Part 1](#)
[Clustering and Load Balancing in Tomcat 5, Part 2](#)

Confluence Cluster Installation with Existing Data

This page last changed on Dec 29, 2006 by [mryall](#).

Overview

There are two methods of installing Confluence in a cluster, depending on whether you have existing data. This page describes how to upgrade an existing Confluence instance into a cluster.

See also [Cluster installation without existing data](#).

Cluster installation from an existing copy of Confluence

To upgrade an existing copy of Confluence to run in a two-node cluster, you must do the following:

1. Ensure you meet the clustering requirements, including obtaining a clustered license key from Atlassian for each node
2. Upgrade the existing Confluence instance to a clustered license
3. Enable clustering and select a cluster name
4. Shut down the first node, copy the Confluence application and Confluence home directory to the second node
5. Start the first node, wait until it is running, then bring up the second node and it will automatically join the cluster
6. Test the cluster is working correctly
7. Configure a load balancer in front of the two clustered nodes.

Each of these steps will be described in detail below.

1. Clustering requirements

Your Confluence cluster installation must meet all the following criteria for clustering:

- you must be running Confluence 2.3 or later
- you must have a clustered license
- you must use an external database
- you must use a load balancer with session affinity in front of the cluster.

Clustered licenses are available through the [Confluence website](#).

A cluster can run using two copies of Confluence Standalone. However, cluster administrators must understand how to configure an application server and web server with load balancing, so we recommend you are comfortable installing Confluence as a EAR/WAR in your application server before proceeding with a clustered installation.

You can follow the instructions to [Migrate Confluence to an external database](#).

2. Upgrade existing instance to clustered license

Once you've obtained your clustered license from Atlassian, you can simply update the license in your running Confluence instance:

1. Go to 'Administration'.
2. Go to 'License Details', and paste in the new license.
3. Click 'Save'.

When you enter a clustered license, you will see a new line appear on this page: Licensed Clustered Nodes. This tells you how many nodes your Confluence license will allow.

Organisation	Atlassian
Date Purchased	Aug 15, 2006
License Type	Confluence: Commercial Server
Licensed Users	Unlimited
Licensed Clustered Nodes	8 nodes (2 nodes currently clustered).

License Details page shows the number of cluster nodes permitted

3. Enable clustering and select a cluster name

When you change Confluence to use a cluster license, a new menu option will be revealed on the left: Cluster Configuration. Open this menu item to configure your cluster.

On this page, you need to enter a name for your cluster, and possibly select which network interface on your server will be used for the cluster (only if you have more than one suitable interface).

Clicking 'Start cluster' will migrate your attachments to the database, then prevent any access to Confluence until it is restarted.



Technical note

The cluster name will be converted into a unique multicast IP address and port for your Confluence cluster. UDP multicast traffic is used for Confluence to automatically discover other nodes in the cluster when they start up.

4. Copy Confluence to second node

For the remaining steps in setting up a cluster with existing data, please continue from [step 4 in the normal Confluence cluster installation guide](#).

5. Start Confluence on the first node, wait, then start Confluence on second node

See comment in step 4.

6. Test cluster connectivity

See comment in step 4.

7. Configure load balancer

See comment in step 4.

Troubleshooting

If you have problems with the above procedure, please see our [Cluster Troubleshooting guide](#).

Upgrading a cluster

It is important that upgrades follow the procedure for [Upgrading a Confluence Cluster](#).

Related documentation

[Confluence Cluster Installation](#)
[Confluence Installation Guide](#)
[Upgrading a Confluence Cluster](#)
[Confluence User Guide](#)

Upgrading a Confluence Cluster

This page last changed on Jan 03, 2007 by [mryall](#).

This page contains instructions for upgrading an existing Confluence cluster to a new version of Confluence. If you are not running a clustered instance of Confluence and wish to, see [Confluence Cluster installation with existing data](#).

You can download the latest version of Confluence from [here](#).

Overview

The steps involved in upgrading a multi-node Confluence cluster are:

1. Backup your confluence instance.
2. Read the Release Notes for this version and check you have the required expertise to perform the upgrade.
3. Stop each node in the cluster.
4. Install the new version into the application server on the first node.
5. Install the new version into the application server onto the remaining nodes.

Step One: Backing up



We highly recommend that you backup your Confluence home and install directories and your database before proceeding.

For specific files to backup see [Upgrading Confluence](#).

Step Two: Things you need to check ...

- Always check the [release-notes](#) for the version of Confluence you are installing for upgrade instructions specific to that version.
- To perform this upgrade you must be familiar with the usage of the application server running your Confluence Cluster, and the web server load balancing it.
- Check the [Configuration Guide](#) for your application server and database, to make sure there isn't anything extra you need to do to get Confluence running.
- Check that you know what configurations or customisations have been made to your Confluence instance. These may include specialised user management configurations and changes to Confluence's Java classes and Velocity templates.

Step Three: Stopping the cluster



It is vital that all nodes in the cluster are running the same version of Confluence. That's why the first step is to stop all the nodes.

Stop the Confluence application on each node using your application server.

Step Four: Upgrading the first node



We advise configuring your load balancing web server to redirect traffic away from Confluence until the upgrade is complete on multiple nodes.

Upgrading a cluster node uses the same process as "Method One" on [Upgrading Confluence](#).

1. Unzip the new version.
2. Edit its confluence-init.properties to point to the existing home directory.
3. Port any immediately required customisations from the old version to the new one. Eg atlassian-user.xml.
4. Install the new version into the application server. Eg for Tomcat edit confluence.xml or server.xml to point to the new location, and restart Tomcat.
5. Wait for the Node to finish upgrading and confirm that you can log in and view pages before continuing to Step Five.
6. Port any additional customisations from the old version to the new version. Eg modifications to Java classes or Velocity templates.

Step Five: Upgrading other nodes

Copy the confluence installation, complete with customisations, to the next node.

1. Edit its confluence-init.properties to point to the existing home directory.
2. Install the new version into the application server. Eg for Tomcat 5 edit confluence.xml to point to the new location, and restart Tomcat.
3. Wait for the Node to finish upgrading and confirm that you can log in and view pages before continuing with the next node.

Troubleshooting

For suggested troubleshooting techniques, see our [Cluster Troubleshooting](#) page.

Related documentation

[Confluence Installation Guide](#)

[Cluster Troubleshooting](#)

[Confluence Cluster Installation](#)

[Confluence Cluster Installation with existing data](#)

[Confluence User Guide](#)

Confluence Unix and X11 Dependencies

This page last changed on Apr 06, 2007 by [dchui](#).



If This Doesn't Help

If you have X11 installed and thumbnailing still does not work, please ensure that you are running Java in headless mode: see the FAQ "[Fix 'Error using thumbnails - No image support in Java runtime'](#)"

Java X11 Dependencies

On Unix-based operating systems, the Java runtime makes use of certain parts of the platform's native X11 graphics libraries. The X Server does not have to be running, but the libraries must be available on the server. Confluence will run on a server that does not have Xlib installed, but parts of the application that manipulate graphics: PDF exports, image thumbnailing, the image gallery macro, CAPTCHA, and the resizing of profile pictures, will fail.



Mac OS X

You do not need to install X11 on Mac OS X, as it has its own graphics libraries.

If X11 is not present, you may see any of the following errors

- "This Confluence installation can not generate thumbnails: no image support in Java runtime"
- "Exception in thread "main" java.lang.UnsatisfiedLinkError: /usr/local/j2sdk1.4.2_09/jre/lib/i386/libawt.so: libXp.so.6: cannot open shared object file: No such file or directory" when exporting a PDF
- "NoClassDefFoundError" when uploading a profile picture

Specific Installation Instructions

Fedora Core

On Fedora Core, you will need to install the `xorg-x11-deprecated-libs` package.

(https://bugzilla.redhat.com/bugzilla/show_bug.cgi?id=130239)

Fedora Core 6

- `libXp`
- `libXp-devel` (if you wish to compile against this library)

Debian Linux

On Debian, you will need to install the following packages ([CONF-6411](#)):

```
apt-get install libx11-6 libx11-dev libxt6 libxt6-dbg libxext6 libxtst-dev libxtst6
```

xlibs-dbg xlibs-dev

Gentoo Linux

emerge libICE libSM libX11 libXext libXp libXt libXtst

Error creating bean with name 'scheduler'

This page last changed on Mar 28, 2005 by [vidya](#).

If you install Confluence 'out of the box' and encounter the error below, consider your location's way of calculating the current date.



org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'scheduler' defined in class path resource schedulingSubsystemContext.xml: Initialization of bean failed; nested exception is org.quartz.SchedulerException: Based on configured schedule, the given trigger will never fire.

It's possible to encounter this if your current country's way of reading timestamps differs from the norm. For example, one of our users encountered this problem in Thailand, which worked out the current year (2005) to be 2548.

Simply change the operating system's calculation of the date to resemble "the norm" - i.e., European style calculation - and start your application server again.

The scheduling subsystem in Confluence is based on [Quartz](#) .

Get A Confluence Licence

This page last changed on Jan 01, 2007 by david.soul@atlassian.com.

Don't have a licence yet?

- New users can [get a free multi-user Evaluation licence](#) or two-user [Personal licence](#) immediately
- For enterprise, non-profit, open source and educational licences, see [Confluence Licencing and Pricing](#)
- Existing users can retrieve their key from the [Licence Viewer](#)
- If you can't find your key or are having problems, contact sales@atlassian.com

Installing Confluence Standalone

This page last changed on Apr 12, 2007 by tom@atlassian.com.

This install guide is for users running Windows, Mac OS X, Solaris, Unix or Linux.

Notes

- You must be able to use a command prompt and install Java to continue. If not, please contact your system administrator to assist you or consider the [Online Trial](#)
- Have your licence key ready. You can [obtain a trial, free or commercial licence](#) now, or [retrieve your existing key](#)
- Help is available under [Troubleshooting](#)

STAGE 1 - Install The Java Developers Kit

Do you already have the Java Developers Kit 1.4 or newer installed?

- [Yes](#)
- [No, or not sure](#)

(Mac users can go straight to [STAGE 2](#), as OS X comes with a Java Development Kit.)

JDK 1.5 Or Earlier

You must confirm the JDK is installed correctly:

1. Open a command prompt. On Windows this is done by opening your Start menu and selecting Run, then typing cmd and pressing OK.
2. In the command prompt, type echo %JAVA_HOME% and press Enter.
If a line is printed such as C:\Progra~1\Java\jdk1.5.0_06 with the last two letters being dk, the JDK is installed. If nothing is printed, or the last two letters in the path are not dk, follow the '[No, or not sure](#)' instructions.
3. Users who have installed a non-Sun JDK must install the [Sun JSSE package](#)
4. Go to [STAGE 2](#)

JDK Unknown or Not Installed

Install the JDK:

1. Download [JDK 1.5_08](#) to the Confluence server
2. Once downloaded, run the installer. At one point, you will be asked to choose a directory to install to. Copy or write this directory down for use later
3. Windows users follow [these instructions](#) to set your JAVA_HOME environment variable to the directory you just installed the JDK in. The default directory is under C:\Program Files\Java
4. Go to [STAGE 2](#)

STAGE 2 - Download & Unzip Confluence

Select your operating system:

- [Windows](#)
- [Unix, Linux or Solaris](#)
- [Mac](#)



The Install Directory is also referred to as the <Confluence-Install> Directory.
The Home Directory is also referred to as the <Confluence-Home> Directory.

Windows

1. The default Windows unzipper cannot unzip Confluence
If you have already unzipped Confluence using the default Windows unzip, delete the directory created now
2. You will need a third-party unzip program like 7Zip or Winzip. If you do not have one, download and install one before continuing:
 - [7Zip](#) Recommended. If in doubt, download the '32-bit .exe' version
 - [Winzip](#)
3. If you have not downloaded Confluence already, [download the Standalone zip](#)
4. Use your unzip program to unzip the install file to a directory such as c:\confluence, avoiding directories with spaces. To make upgrades easier, Windows users should aim to create a directory structure like below:

```
c:\confluence\confluence-2.2.10-std      <-- <Confluence-Install> directory, unzipped now
c:\confluence\data                      <-- <Confluence-Home> directory, created next
```

You have now created your <Confluence-Install> directory. This is the directory where you unzipped Confluence, for example c:\confluence\confluence-2.2.10-std

5. Go to [STAGE 3](#)

Unix, Linux or Solaris

1. Install [these X11 libraries](#)
2. If you have not downloaded Confluence already, [download the Standalone TAR](#)
3. Use your unzip program to unzip the install file to a directory such as /home/jsmith/confluence-2.4.2-std/, avoiding directories with spaces. Linux or Unix users can use any unzip program to unzip Confluence, but Solaris users must use [GNU Tar](#) instead of [Solaris Tar](#)

```
/home/jsmith/confluence-2.4.2-std/      <-- <Confluence-Install> directory,
unzipped now
/home/jsmith/confluence-data/confluence-2.4.2-std/  <-- <Confluence-Home> directory, created
next
```


You have now created your <Confluence-Install> directory. This is the directory where you unzipped Confluence, for example /home/jsmith/confluence-2.4.2-std/

4. Go to [STAGE 3](#)

Mac OS X 10.3 or 10.4

1. Before you begin, it is recommended that you run Software Update to ensure that your operating system is up to date.
2. If you have not downloaded Confluence already, [download the Standalone TAR](#).
3. Find the downloaded file in the Finder. OS X has uncompressed the file, so it has only a .tar suffix, not the .tar.gz suffix of the file you downloaded. Double-click on the confluence-2.4.2-std file. This will open the archive file and expand it into a folder hierarchy containing the Confluence installation. This folder is called the <Confluence-Install> folder.
4. Move this folder to wherever you want to keep your Confluence installation (e.g. your home folder). Ensure that there are no spaces in the folder name, or in the names of any of its parent folders.
5. Create a folder named confluence-data. You can create this anywhere, e.g. in your home folder, but not inside the <Confluence-Install> directory. Ensure that there are no spaces in the folder name, or in the names of any of its parent folders. Create this folder in the Finder, using the 'New Folder' command in the 'File' menu. This folder is called the <Confluence-Home> folder.
6. You now need to set up an environment variable which tells Confluence where your Java Virtual Machine is installed. Inside the <Confluence-Install> folder, locate the file named catalina.sh. Open it with TextEdit, and add the following line as the second line of the file:

```
export JAVA_HOME=/Library/Java/Home
```

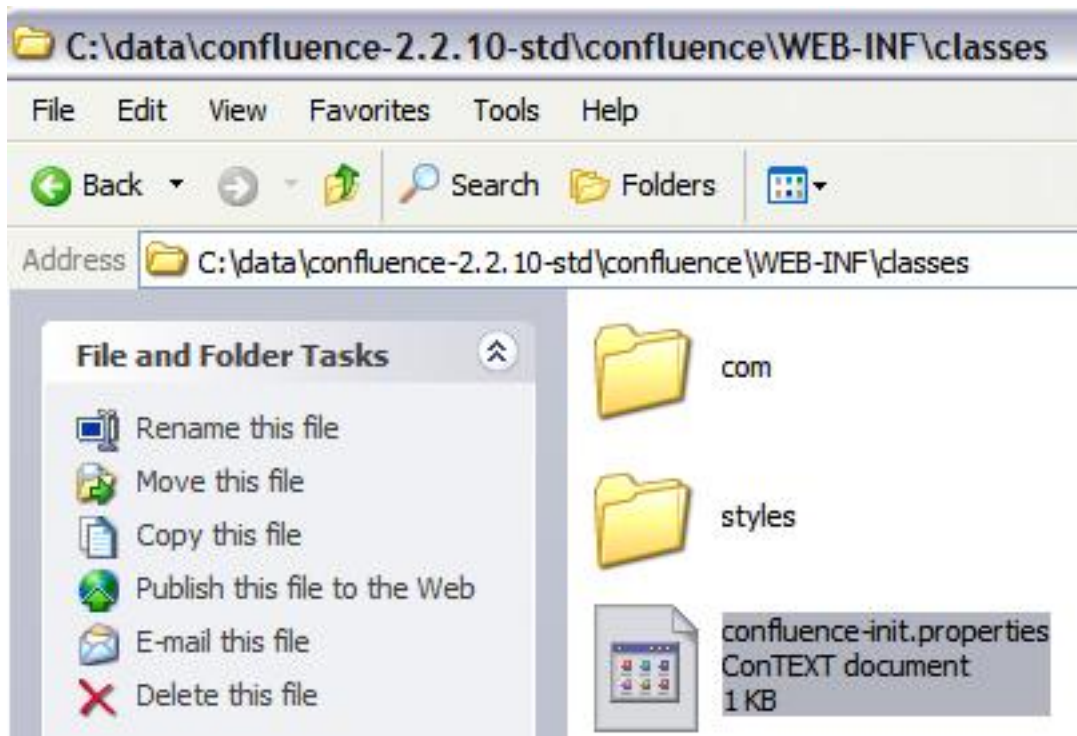
(The first line of the file will be: #!/bin/sh)

7. Go to [STAGE 3](#)

STAGE 3 - Set Your Home Directory

This stage creates a Home directory where Confluence will store its configuration information, indexes and attachments.

1. Open your <Confluence-Install> directory
2. Under the install directory, find \confluence\WEB-INF\classes\confluence-init.properties



3. Open the file `confluence-init.properties` in a text editor such as Notepad (Windows) or TextEdit (Mac).

4. Scroll to the bottom and find the line

```
# confluence.home=c:/confluence/data
```

5. Remove the '#' and the space at the front of this line to uncomment it. It should now begin with 'confluence.home'

6. Choose what your <Confluence-Home> directory will be.

- Windows users should use the default `c:\confluence\data` for simplicity but you can choose any directory that does not contain a space in the path.
- Mac users should use the <Confluence-Home> folder they created earlier.

7. If you are using a different <Confluence-Home> directory from `c:\confluence\data`, edit the line now.

- Windows users must use / characters to separate each directory in the path. Windows users can save the <Confluence-Home> directory as the default by saving the line as

```
confluence.home=c:/confluence/data
```

- Linux users should specify <Confluence-Home> using the absolute path instead of a symbolic link, e.g:

```
confluence.home=/home/jsmith/confluence-data/confluence-2.4.2-std/
```

- Mac users should place the cursor after the '=' sign, find the <Confluence-Home> folder which you created earlier and drag it to TextEdit. This will insert the full path of the folder into the file. It's important to make sure that you deleted the leading '#' character, and that the path after the '=' sign starts with a '/' character. The line should now look something like this:

```
confluence.home=/Users/jsmith/confluence-data
```

You have now set your <Confluence-Home> directory.

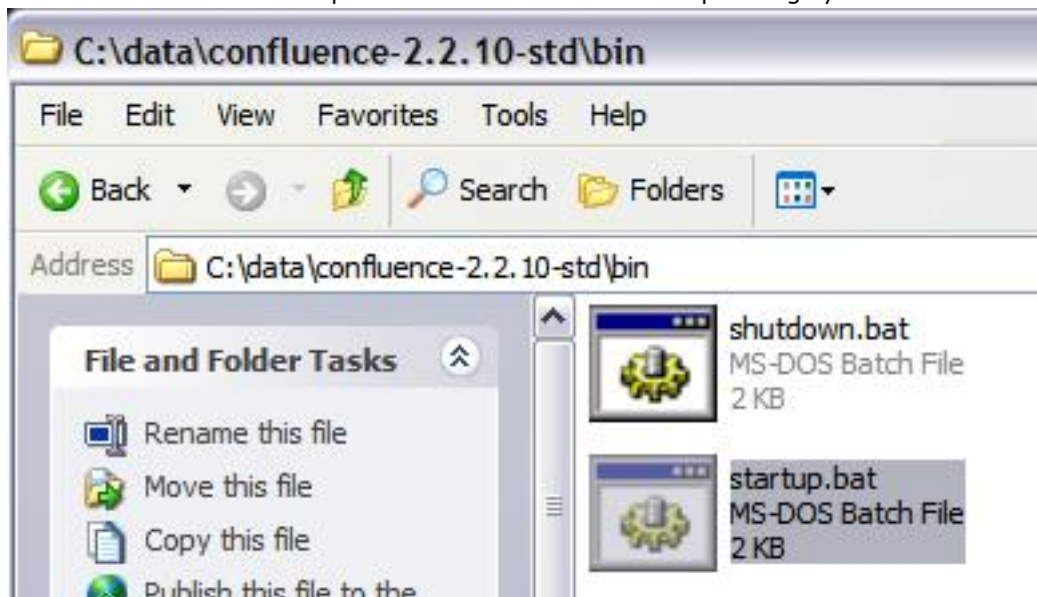
STAGE 4 - Review Release Notes

Review the [Release Notes for your Confluence version](#) and apply any patches listed.

STAGE 5 - Start Confluence

To start Confluence for the first time,

1. Go to your <Confluence-Install> directory
2. Under your <Confluence-Install> directory, open the bin directory and run the startup script. Windows users run startup.bat while users with other operating systems run startup.sh



Mac users will be prompted by OS X to choose an application to use. Choose the Terminal application, which is inside the Utilities folder.

If the window closes immediately when started, click [here](#) for assistance

An error is preventing Confluence from starting. To view this error:

1. Open a command prompt. On Windows, do this by clicking on your Start menu, then click Run. In the Run box, type cmd and press OK
3. From the command prompt, go to your <Confluence-Install> directory
4. Go into the bin subdirectory
5. Run startup.bat and read the error message
6. Find the solution to that error in the [Troubleshooting section](#)

3. Once Confluence is running, open a web browser and visit <http://localhost:8080/>

The Confluence Setup Wizard should appear for you to enter your licence key. If the address shows an error, check the [Troubleshooting section](#)

NEXT STEP

Proceed to the [Confluence Setup Wizard Guide](#)

TROUBLESHOOTING

Solutions to common issues with [installing Confluence](#). Review your logs by opening the Confluence install directory and checking the /logs/catalina.out and /logs/catalina.out files for errors described below. Click on a problem to show the solution.

Confluence window closes immediately when started

An error is preventing Confluence from starting.

1. Open a command prompt. On Windows, do this by clicking on your Start menu, then click Run. In the Run box, type cmd and press OK
2. From the command prompt, go to your Confluence install directory
3. Go into the bin subdirectory
4. Run startup.bat and read the error message
5. Find the solution to that error below

Confluence won't start - java.lang.NoClassDefFoundError IntraHibernateAttachmentCopier

If you are seeing "java.lang.NoClassDefFoundError: com/atlassian/confluence/pages/persistence/dao/hibernate/AbstractHibernateAttachmentDao\$IntraHibernateAttachmentCopier" you have unzipped Confluence using a program that cannot handle long filenames. You must delete your install directory and go back to the point in the instructions that covers unzipping Confluence using a third-party unzip program.

Confluence won't start - Exception in thread "main" java.lang.NoClassDefFoundError: ...

If <http://localhost:8080> goes to an error page when you run Confluence, go to the install directory and find the /logs/catalina.out. If this file contains a single line error starting with "Exception in thread "main" java.lang.NoClassDefFoundError", your install path may contain spaces. The solution is to rename your install directory path so that there are no spaces, then restart Confluence.

Confluence won't start - Error creating Confluence Home directory

The confluence.home variable specified in confluence-init.properties cannot be created. To fix this, edit /confluence/WEB-INF/classes/confluence-init.properties and check the path specified exists. Make sure all the directory slashes use / and that the # has been removed. If you're stuck, try using confluence.home=c:/confluence/data

Confluence won't start - JAVA_HOME environment variable is not defined correctly

You have not installed the Java Development Kit, or not set the %JAVA_HOME% to the directory of the JDK. You should re-check your steps in Stage 2.

Confluence won't start - Port 8080 is in use

If you have another Tomcat running on the same machine, you must edit <INSTALL>/conf/server.xml and change both 8080 and 8005 to ports that do not conflict with your other Tomcat instance according to [these instructions](#).

Confluence won't start - Error creating bean with name 'scheduler'

You will need to [adjust your system time](#).

Confluence won't start - Error registering bean with name 'fileSystemAttachmentDataDao'

If you did not use one of the [recommended unzipping tools](#), and happened to use for instance the default Windows XP extractor, one of the classes required for starting up Confluence may not be located due to the lengthy file-path. This is due to the reason that the default Windows tool silently fails to extract files with long names. We suggest you to use other tools such as WinZIP and 7zip and redo the deployment process.

Cause:

```
org.springframework.beans.factory.BeanDefinitionStoreException: Error registering bean with name
'fileSystemAttachmentDataDao' defined in class path resource applicationContext.xml: Class that bean
class com.atlassian.confluence.pages.persistence.dao.FileSystemAttachmentDataDao depends on not
found; nested exception is java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrategy
at
org.springframework.beans.factory.xml.DefaultXmlBeanDefinitionParser.parseBeanDefinition(DefaultXmlBeanDefinition
caused by: java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrategy
at java.lang.Class.forName0(Native Method)
```

Confluence starts but localhost:8080 times out

Check the server logs for errors. If you are running Confluence Standalone on Windows, error messages will be printed to the console window that opened when you ran startup.bat. On Unix systems, Confluence will log messages to logs/catalina.out.

Confluence starts but localhost:8080 goes to Tomcat start homepage

The CATALINA_HOME environment variable is set to another instance of Tomcat. You should run shutdown.sh, remove the CATALINA_HOME reference to the other Tomcat version, and run startup.sh again.

Confluence starts but logins fail at login screen

If you try to login with the correct username and password but are always returned to the login screen without any error messages, and you are running [Zone Alarm](#), please check that it is not blocking the Confluence server

RELATED TOPICS

[Change listen port for Confluence Standalone](#)

[Adding SSL on Confluence 2.1.5a and earlier](#)

[Confluence Setup Guide](#)

[Configuration Guide](#)

[Documentation Home](#)

Change listen port for Confluence Standalone

This page last changed on Mar 04, 2007 by rosie@atlassian.com.

Problem

You get errors like the following when starting Confluence Standalone, and can't access Confluence on port 8080.

```
java.net.BindException: Address already in use: JVM_Bind:8080
```

This means you are running other software on Tomcat's default port 8080. This may either be another Tomcat or some other process.

To find out what process is listening on that port, load a command prompt and type: **netstat -an**

```
-a : Displays all active TCP connections and the TCP and UDP ports on which the computer is listening.
-n : Displays active TCP connections, however, addresses and port numbers are expressed numerically and no attempt is made to determine names.
```

There is also [Process Explorer tool](#) available to determine what is binding port 8080.

Solution: change Confluence listen ports

To change the ports for Confluence Standalone, open the file `conf/server.xml` under your Confluence installation. The first four lines of the file look like this:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
  <Service name="Tomcat-Standalone">
    <Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8080"
minProcessors="5" maxProcessors="75"
      enableLookups="true" redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURValidationHack="false"/>
    ...
```

You need to modify both the server port (8005) and the connector port (8080) to ports that are free on the machine hosting Confluence. If required, `netstat` can be used to identify free ports on your machine [\[1\]](#).

For example, the first four lines of a modified `server.xml` using ports 8015 and 8090 is below:

```
<Server port="8015" shutdown="SHUTDOWN" debug="0">
  <Service name="Tomcat-Standalone">
    <Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8090"
minProcessors="5" maxProcessors="75"
      enableLookups="true" redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURValidationHack="false"/>
    ...
```

To access Confluence in this configuration, point your web browser to <http://localhost:8090/>.

NOTES

[1] For more information on netstat, see [using netstat on Windows](#), or [netstat man page](#) (Linux).

[2] JIRA Standalone also runs on port 8080 by default. If you're looking to change the port of JIRA Standalone, see [Changing JIRA Standalone's port](#).

RELATED PAGES

[Installing Confluence Standalone](#)
[Documentation Home](#)

Installing the Confluence EAR-WAR edition

This page last changed on Apr 27, 2007 by david.soul@atlassian.com.

Confluence EAR/WAR Requirements

The EAR-WAR edition of Confluence is intended for deployment into an existing J2EE application server. It is assumed that you already know how to deploy a webapp on the application server of choice. If not, we recommend installing the [Confluence Standalone Edition](#).

- Supported
 - [Apache Tomcat](#) (4.1 and 5.5)
 - Weblogic (8.1 SP3 and above)
 - Resin (2.11.11 and above)
 - JBoss
 - Orion (2.0.2 and above)
 - Websphere (5.1.1.3 and above)

Unsupported

- Macromedia JRun - untested

Incompatible

- Oracle OC4J - [JIRA Issue CONF-2919](#)
- Sun Application Server - [JIRA Issue CONF-5509](#)
- GlassFish - [JIRA Issue CONF-6603](#)



- If you are not confident with application server configuration, please contact your system administrator to assist you before proceeding or consider [installing Confluence Standalone](#)
- If deploying to an application server other than Apache Tomcat server, review the [Application Server Configuration](#) guide.
- If deploying as an unexploded WAR, Ant 1.3 or later is required
- If deploying on an unsupported servers, server-related issues cannot be covered by Atlassian technical support. Requests for assistance can be directed to the [user forums](#) instead
- Confluence, the database and application server must [use the same character encoding](#). UTF-8 is recommended
- A user-contributed [Fedora or RHEL/Centos Install Guide](#) is also available for reference
- Unix, Linux or Solaris users must install [these X11 libraries](#)

- [Known Issues For Application Servers](#)

Before installing the WAR version of Confluence, please go through this [checklist](#) of requirements.

Instructions on how to install the WAR version on Tomcat

Step 1 - Download and extract WAR

1. Download the [Confluence WAR zip file](#)
2. Extract the downloaded zip file. It will unzip your Confluence install directory, which should contain the version number e.g. confluence-2.2.9 or confluence-2.5.0. This directory will be later referred to as the Confluence install directory. Inside is a confluence subdirectory, referred to later as the Confluence WAR directory. Record the absolute path to the Confluence WAR directory.



Tomcat Users must not unzip their Confluence install to inside the Tomcat webapps folder as this may cause Confluence to be deployed more than once.

Windows users avoid Win XP's built-in unzip as it doesn't extract all the files. Use a 3rd party zip extractor like [WinZip](#).
Solaris users will need to use GNU tar to handle the long filenames.

Step 2 - Check for patches

Review the [Release Notes for your Confluence version](#) and apply any patches listed

Step 3 - Configure confluence-init.properties

1. Inside the Confluence install directory, edit
...confluence/WEB-INF/classes/confluence-init.properties in a text editor
2. Set the confluence.home property to a directory of your choosing. This is the directory that will contain all of Confluence's configuration, backup and attachment files.

Step 4 - Edit Tomcat context descriptors

If you using Tomcat 5.0.x or Tomcat 5.5.x:

1. Create a file called confluence.xml in your Tomcat installation's conf/Catalina/localhost directory (if you have set up a different hostname for your tomcat instance, please specify that instead of localhost)
2. Open confluence.xml and add these lines:

```
<Context path="/confluence" docBase="c:/applications/confluence-2.1.3/confluence" debug="0"
reloadable="true">
<Logger className="org.apache.catalina.logger.FileLogger"
prefix="atlassian-confluence." suffix=".log" timestamp="true"/>
</Context>
```

3. For docBase specify the value you noted down earlier.

If you are using Tomcat 4.x

1. Open conf/server.xml in a text editor
2. Add the following:

```
<Context path="/confluence" docBase="c:/applications/confluence-2.1.3/confluence" debug="0"
reloadable="true">
<Logger className="org.apache.catalina.logger.FileLogger"
prefix="atlassian-confluence." suffix=".log" timestamp="true"/>
</Context>
```

3. For docBase specify the value you noted down earlier.

Step 5 - Configure Your Application server

Review any documentation associated with your webserver [here](#). If your application server requires deploying Confluence as a EAR/WAR:

To build the WAR File:

Windows users

1. Open a the command line prompt
2. Navigate to the Confluence WAR directory
3. Run the command **build war**

Linux users

1. Open a terminal window
2. Navigate to the Confluence WAR directory
3. Add executable mode to build.sh - `chmod +x build.sh`
4. Run **build.sh**
5. The WAR file is now located in the dist subfolder in your Confluence WAR directory

Step 6 - Restart Server

1. Shut down, and then restart tomcat
2. Confluence should now be accessible on <http://host:port/confluence>

Next Step

[Setup Confluence](#)

General Tips & Information

- [Start Confluence automatically on Windows as a Service](#)
- [Known Issues with Enterprise or Webhosting environments](#)
- [Pull down RSS Feeds through a Proxy](#)

- [Set JAVA_HOME variable in Windows](#)
- [Setup a mail session in standalone version](#)
- [Where Is My ConfluenceHome Directory?](#)

Troubleshooting

Solutions to common issues with [installing Confluence](#). Review your logs by opening the Confluence install directory and checking the `/logs/catalina.out` and `/logs/catalina.out` files for errors described below. Click on a problem to show the solution.

Confluence window closes immediately when started

An error is preventing Confluence from starting.

1. Open a command prompt. On Windows, do this by clicking on your Start menu, then click Run. In the Run box, type `cmd` and press OK
2. From the command prompt, go to your Confluence install directory
3. Go into the `bin` subdirectory
4. Run `startup.bat` and read the error message
5. Find the solution to that error below

Confluence won't start - `java.lang.NoClassDefFoundError IntraHibernateAttachmentCopier`

If you are seeing "java.lang.NoClassDefFoundError: com/atlassian/confluence/pages/persistence/dao/hibernate/AbstractHibernateAttachmentDao\$IntraHibernateAttachmentCopier" you have unzipped Confluence using a program that cannot handle long filenames. You must delete your install directory and go back to the point in the instructions that covers unzipping Confluence using a third-party unzip program.

Confluence won't start - Exception in thread "main" java.lang.NoClassDefFoundError: ...

If <http://localhost:8080> goes to an error page when you run Confluence, go to the install directory and find the `/logs/catalina.out`. If this file contains a single line error starting with "Exception in thread "main" java.lang.NoClassDefFoundError", your install path may contain spaces. The solution is to rename your install directory path so that there are no spaces, then restart Confluence.

Confluence won't start - Error creating Confluence Home directory

The `confluence.home` variable specified in `confluence-init.properties` cannot be created. To fix this, edit `/confluence/WEB-INF/classes/confluence-init.properties` and check the path specified exists. Make sure all the directory slashes use `/` and that the `#` has been removed. If you're stuck, try using `confluence.home=c:/confluence/data`

Confluence won't start - JAVA_HOME environment variable is not defined correctly

You have not installed the Java Development Kit, or not set the %JAVA_HOME% to the directory of the JDK. You should re-check your steps in Stage 2.

Confluence won't start - Port 8080 is in use

If you have another Tomcat running on the same machine, you must edit <INSTALL>/conf/server.xml and change both 8080 and 8005 to ports that do not conflict with your other Tomcat instance according to [these instructions](#).

Confluence won't start - Error creating bean with name 'scheduler'

You will need to [adjust your system time](#).

Confluence won't start - Error registering bean with name 'fileSystemAttachmentDataDao'

If you did not use one of the [recommended unzipping tools](#), and happened to use for instance the default Windows XP extractor, one of the classes required for starting up Confluence may not be located due to the lengthy file-path. This is due to the reason that the default Windows tool silently fails to extract files with long names. We suggest you to use other tools such as WinZIP and 7zip and redo the deployment process.

Cause:

org.springframework.beans.factory.BeanDefinitionStoreException: Error registering bean with name 'fileSystemAttachmentDataDao' defined in class path resource applicationContext.xml: Class that bean class com.atlassian.confluence.pages.persistence.dao.FileSystemAttachmentDataDao depends on not found; nested exception is java.lang.NoClassDefFoundError:

com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao\$FileSystemAttachmentNamingStrategy at

org.springframework.beans.factory.xml.DefaultXmlBeanDefinitionParser.parseBeanDefinition(DefaultXmlBeanDefinitionParser.java:100)

caused by: java.lang.NoClassDefFoundError:

com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao\$FileSystemAttachmentNamingStrategy

at java.lang.Class.forName0(Native Method)

Confluence starts but localhost:8080 times out

Check the server logs for errors. If you are running Confluence Standalone on Windows, error messages will be printed to the console window that opened when you ran startup.bat. On Unix systems, Confluence will log messages to logs/catalina.out.

Confluence starts but localhost:8080 goes to Tomcat start homepage

The CATALINA_HOME environment variable is set to another instance of Tomcat. You should run shutdown.sh, remove the CATALINA_HOME reference to the other Tomcat version, and run startup.sh again.

Confluence starts but logins fail at login screen

If you try to login with the correct username and password but are always returned to the login screen without any error messages, and you are running [Zone Alarm](#), please check that it is not blocking the Confluence server

RELATED TOPICS

[Confluence Cluster Installation
Configuration Guide](#)
[Confluence Setup Guide](#)
[Confluence Documentation Home](#)

License will not validate

This page last changed on Apr 26, 2005 by [vidya](#).

This issue has been fixed and the solution will be shipped as part of future confluence releases, beginning with confluence 1.4. In the interim, if you are experiencing this problem, see below.

Some users have recently reported problems when installing Confluence regarding licensing. This problem is encountered in the first stage of the Setup Wizard, where a provided license will simply not validate. The log file resembles the below.



```
2005-04-24 20:56:13,240 WARN [confluence.license.decoder.LicenseDecoder] Signature did not
verify properly.
2005-04-24 20:56:13,267 WARN [confluence.license.decoder.LicenseDecoder] Signature did not
verify properly.
2005-04-24 20:56:13,270 FATAL [confluence.setup.actions.SetupLicenseAction] License is not
valid
```

Our own testing shows that this problem replicates under Windows XP, Service Pack 2 with with JDKs 1.4.2_08, 1.5_02 . The problem does not occur when running JDK 1.4.2_07 and below.

A simple workaround is to download the file in attachment, Page.key, and place it in the WEB-INF/classes directory of your Confluence installation beneath the following path:

```
WEB-INF/classes/com/atlassian/confluence/page/Page.key
```

Here it will load correctly and the license will validate.

Server Hardware Requirements Guide

This page last changed on Apr 26, 2007 by david.soul@atlassian.com.

New users can use this guide in combination with the free Confluence trial period to evaluate their server hardware requirements. Because server load is difficult to predict, live testing is the best way to determine what hardware a Confluence instance will require in production.

Minimum Hardware Requirements

On small instances, server load is primarily driven by the peak number of anonymous or logged-in clients browsing or editing Confluence simultaneously.

5 Concurrent Users

- 1GHz+ CPU Pentium 4 or equivalent
- 256MB RAM

25 Concurrent Users

- Dual 2.4GHz CPU Pentium Xeon or equivalent
- 512MB+ RAM

Example Hardware Specifications

These are example hardware specifications for non-clustered Confluence instances. It not recorded whether the RAM refers to either total server memory or memory allocated to the JVM, while blank settings indicate that the information was not provided.

Accounts	Spaces	Pages	CPUs	CPU (GHz)	RAM (Meg)
150	30	1,000	1	2.6	1,024
350	100	15,000	2	2.8	700
5,000	500		4	3	2,024
10,000	350	16,000	2	3.8	2,024
10,000	60	3,500	2	3.6	512
21,000	950		2	3.6	4,048

Server Load & Scalability

When planning server hardware requirements for your Confluence deployment, you will need to estimate the server scalability based on peak concurrent users, the editor to viewer ratio and total content.

- Peak concurrent users is the maximum number of clients ever simultaneously browsing or editing Confluence, even if anonymous

- The editor to viewer ratio is how many clients are performing updates to versus those only viewing content
- Total content is best estimated by a count of total spaces

Confluence scales best with a low peak user load, few editors and few spaces. Users should also take into account:

- Total pages is not a major consideration for performance. For example, instances hosting 80K of pages can consume under 512 meg of memory
- Always [use an external database](#)

Maximum Reported Usages

The largest customer instances reported to Atlassian or created internally.

Most Spaces	1700
Most Internal Users	15K
Most LDAP Users	100K
Most Pages	80K

Related Pages

[Clustering In Confluence](#)

Using the IBM 64bit J9 JDK

This page last changed on Sep 04, 2006 by tom@atlassian.com.

This JVM must be started with the argument: `-Dsun.reflect.inflationThreshold=0`

Otherwise you will see an error message like:

```
bucket.core.InfrastructureException: java.lang.NoClassDefFoundError:  
com.atlassian.confluence.spaces.Space$$EnhancerByCGLIB$$58d74b80  
    at  
com.atlassian.confluence.util.XWorkTransactionInterceptor.intercept(XWorkTransactionInterceptor.java:151)  
caused by: java.lang.NoClassDefFoundError:  
com.atlassian.confluence.spaces.Space$$EnhancerByCGLIB$$58d74b80  
    at sun.reflect.GeneratedMethodAccessor311.invoke(Unknown Source)
```

Confluence Release Cycle

This page last changed on May 17, 2006 by david.soul@atlassian.com.

New versions of Confluence are released frequently. Our goals are to:

- Make bug-fixes available to customers sooner
- Give interested customers early access to new features and API changes
- Make Confluence major releases predictable

Feature Releases

We aim to release new versions of Confluence every two to three months. These releases will contain the bulk of new functionality.

Feature releases are numbered by incrementing Confluence's minor version number, so the move from Confluence 2.0 to 2.1 and 2.1 to 2.2 both introduced significant new features to the product. Occasionally we may change to a whole new major version number (Confluence 2.0 was originally slated to be released as 1.5), but that is mostly done for marketing purposes, and shouldn't be considered to have any practical meaning. 😊

Feature releases may not be API-compatible with the previous release. This means that you should test RPC clients, macros and plugins before running them on a newer version of Confluence.

Bug-Fix Releases

Confluence bug-fix releases are scheduled every two to three weeks, depending on the number and urgency of the bugs that have been fixed during that particular development cycle. We aim to minimise the time between a bug being reported and a fix being available, without either us or our customers having to manage clumsy sets of manual patches.

Bug-fix releases will contain mostly bug-fixes, plus the occasional minor new feature or enhancement. Enhancements will be limited, however, as the main aim of these point releases is to improve stability, and make no significant API changes.

Bug-fix releases are numbered by incrementing the patch-level. So the first bug-fix release after Confluence 2.2 is 2.2.1, followed by 2.2.2. Occasionally, we will re-issue a bug-fix release because something was faulty with the original download. In that case we will create a "re-issue" release number, for example 2.1.5a or 2.2.1a.

Obviously, we don't expect anyone to upgrade Confluence every two weeks, administrators should keep their own schedule, based on how much of an inconvenience is being caused by any bugs that may have been fixed since. Sometimes, however, a security issue or serious application bug will arise that we feel it is in everyone's best interests to fix as soon as possible. In such cases, we will recommend in the [Release Notes](#) that all customers upgrade to the latest version.

Development Releases

Occasionally, when possible, we will release preview "development snapshots" of the next major Confluence version. How often and when we do so depends on the particulars of the current development cycle. In situations where we are working on a number of disparate features we may be able to do a number of progressive development releases, whereas in iterations where we are making significant changes to the Confluence internals, we may not have anything suitable for public consumption until quite late in the release cycle.

Development releases will be announced on the [Development Releases](#) page, and to the [confluence-developer mailing list](#).

The version number of a Development Release will be the version number of the next major release, suffixed with -dev. So Confluence 2.3-dr1 will be followed by 2.3-dr2, and so on until the ultimate release of the finished Confluence 2.3

Development Releases

This page last changed on Nov 13, 2006 by [cmiller](#).

Development Releases are approximately fortnightly builds of Confluence that we make available so that interested customers can try out new features, especially those features that you may have been waiting for, and don't want to wait another month for the next official release.



Development Releases are Not Safe

Development releases are snapshots of the ongoing Confluence development process. As such:

- While we try to keep these releases stable, they have not undergone the same degree of testing as a full release.
- Features in development releases may be incomplete, or may change or be removed before the next full release.



No Upgrade Path

Because Development releases represent work in progress, we can not provide a supported upgrade path between DRs, or from any DR to the eventual final release. Thus, any data you store in a Confluence DR may not be able to be migrated to a future Confluence release.

Current Development Release Cycle

- [Release Notes 2.3-DR1](#)
- [Release Notes 2.3-DR2](#)

Previous Development Release Cycles

1.5 - 2.0 Development

- 1.5-DR1 was not released
- [Release Notes 1.5-DR2](#)
- [Release Notes 2.0-RC1](#)
- [Release Notes 2.0-RC2](#)

1.4 Development

- [Release Notes 1.4-DR1](#)
- [Release Notes 1.4-DR2](#)
- [Release Notes 1.4-DR3](#)
- [Release Notes 1.4-DR4](#)
- 1.4-DR5 was not released
- [Release Notes 1.4-DR6](#)
- [Release Notes 1.4-DR7](#)
- 1.4-RC1 was not released
- [Release Notes 1.4-RC2](#)

1.3 Development

- [Release Notes 1.3-DR1](#)
- [Release Notes 1.3-DR2](#)
- [Release Notes 1.3-DR3](#)
- [Release Notes 1.3-DR4](#)
- [Release Notes 1.3-final](#)

Development Release Warnings

This page last changed on Nov 13, 2006 by [cmiller](#).



Development Releases are Not Safe

Development releases are snapshots of the ongoing Confluence development process. As such:

- While we try to keep these releases stable, they have not undergone the same degree of testing as a full release.
- Features in development releases may be incomplete, or may change or be removed before the next full release.



No Upgrade Path

Because Development releases represent work in progress, we can not provide a supported upgrade path between DRs, or from any DR to the eventual final release. Thus, any data you store in a Confluence DR may not be able to be migrated to a future Confluence release.

Release Notes 1.3-DR1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3-DR1 is the first development release in the cycle leading up to Confluence 1.3. In it, we have rewritten the Space Summary/Space Administration pages to be more useable, and implemented a much-requested feature: the ability to undelete pages.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

New Features in Confluence 1.3-DR1

Space Summary

The Space Summary page has been the dumping-ground for every space-related operation and report since Confluence's early alpha releases. As such, it had become confusing to navigate and hard to find anything on.

For 1.3-DR1, we have rewritten the space summary to be a suite of tabbed pages, making that whole area of Confluence easier to navigate, more self-explanatory, and much better-looking.

The Trash Can

When a page or blog post is deleted, it is no longer removed completely, but is placed in a space-wide trash can.

The trash can be found in the Administration tab of the newly rearranged Space Summary pages. Space Administrators can choose to restore pages from the trash, or purge them so they are unrecoverable.

New Emoticons

Just because.

Cannot resolve external resource into attachment.

Bug Fixes

All the bug-fixes that were part of the [Confluence 1.2.2 release](#) have also been incorporated into 1.3-DR1. In addition, we've fixed one or two issues specifically for 1.3-DR1, take a look in [JIRA](#) for the full list.

Release Notes 1.3-DR2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3-DR2 is the second development release in the cycle leading up to Confluence 1.3. For DR2, we have made space-level permissions a lot more fine-grained, and added a new plugin manager which should open the way to making it easier for people to write extensions to Confluence:

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Note: Because we have made significant changes to permissions in 1.3-DR2, you should check that your user permissions have been correctly migrated. The upgrade manager should ensure permissions remain consistent between versions, but as with anything related to security, it's best to double-check.

New Features in Confluence 1.3-DR2

New Space-Level Permissions

([CONF-1375](#), [CONF-1764](#) and their linked issues)

Groups

These are the permissions currently assigned to groups for this space.

	View	Pages			Blog Posts		Comments		Attachments		Space	
		Create	Export	Remove	Create	Remove	Create	Remove	Create	Remove	Export	Admin
 atlassian-developers	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗
 atlassian-staff	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
 confluence-administrators	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 confluence-users	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	✓	✗

Edit Permissions

We've been getting a lot of requests for more fine-grained control over who can do what in a space, so as a result, we've added a whole raft of new permissions at the space level:

Object	Permissions
Page	create/edit, remove, export
Blog Post	create/edit, remove
Comment	create, remove
Attachment	create, remove
Space	export, administer

Create space permission is still managed at the global level.

The permissions editing screens have been changed a little, too, taking into consideration the feedback we received from the last DR. All editing functions are now firmly on the edit screen, and we have introduced a user-picker to avoid having to find users in a massive drop-down list.

New Plugin Architecture

([CONF-1877](#))

Confluence now incorporates the plugin architecture that was written for JIRA 3.0 (which in turn was adapted from Confluence's macro management. Who said code reuse was dead?). Right now, there's not much you can do with it, but plugins pave the way to making Confluence a great deal more flexible and extensible.

See: [Writing Confluence Plugins](#)

New Macro Descriptor Format

([CONF-1878](#))

Macro libraries are now implemented as plugins, which means that if you have written a macro library, you will need to convert your `macro-library.xml` files to `atlassian-plugin.xml` files.

See: [Converting Macro Libraries to Confluence Plugins](#)

Themes

([CONF-1856](#))

It is now possible to package a colour-scheme and a set of customised decorators into a portable Confluence plugin. Just drop the theme jar into your server's classpath, restart the server and space administrators will be able to select the theme from the space administration console.

Space Theme

Global Look and Feel

Use the globally configured look and feel. You can customise colour-schemes and layouts manually.

☐ **No Theme**

Choose a Theme

Assign a look and feel from an installed theme plugin. This theme will override any manually configured colour-schemes or layouts.

☒ **Clean Anonymous** — Only show menus and toolbars to users who are logged in.

☐ **Left Navigation** — Draw a navigation menu on the left-hand side

Confirm

DR-2 comes with two very simple themes (look under themes/ in your Confluence directory), but we will have more (and more useful) themes available by the time 1.3.0 is released. In addition, we're hoping that users will continue to share their Confluence modifications in the [Confluence Extensions Space](#), and that themes will help you continue to share neat things you've done with Confluence.

See: Confluence Themes

Bugs fixed for 1.3-DR2

All the bug-fixes that were part of the [Confluence 1.2.3 release](#) have also been incorporated into 1.3-DR2. In addition, we've fixed a handful of issues specifically for 1.3-DR2, take a look in [JIRA](#) for the full list.

Release Notes 1.3-DR3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3-DR3 is the third development release in the cycle leading up to Confluence 1.3 - and a momentous day in the history of Confluence.

We've finally made it to that special point in every applications life.

Confluence has evolved.

1.3-DR3 is best summed up by Jamie Zawinski's Law of Software Envelopment:

Every program attempts to expand until it can read mail. Those programs which cannot so expand are replaced by ones which can.

That's right - Confluence now has more content than ever before. It reads, stores and indexes email. Oh, and as a nifty little bonus - it also indexes Word documents, PDF documents, RTF documents, Excel spreadsheets, PowerPoint files, text files, source files etc... attached to your mail!

Have we got your interest? How does all this magic happen you ask? Read on to pull back the curtain.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Note: Because we have made significant changes to permissions in 1.3-DR2, you should check that your user permissions have been correctly migrated. The upgrade manager should ensure permissions remain consistent between versions, but as with anything related to security, it's best to double-check.

New Features in Confluence 1.3-DR2

Mail Archiving

([CONF-1965](#))

Confluence is a collaboration tool. When communication happens through email instead of through Confluence, information will get lost in the depths of someone's mail folders, instead of shared with the team, archived, interlinked and indexed.

While we would love to see all collaboration within a group to happen through Confluence, it's often not possible to change the way people work. So instead of finding new ways to force people to use Confluence instead of email, why not route all the relevant email into Confluence?

Location: [Dashboard](#) > [BUGTRAQ](#) > [Mail Archive](#) > MySQL Authentication Bypass

Subject: MySQL Authentication Bypass
From: NGSSoftware Insight Security Research
Date: Oct 22, 2004

NGSSoftware Insight Security Research Advisory

Name: MySQL Authentication Bypass / Buffer Overflow
Systems Affected: MySQL 4.1 prior to 4.1.3, and MySQL 5.0.
Severity: High
Vendor URL: <http://www.mysql.com>
Author: Chris Anley [chris@ngssoftware.com]
Date of Advisory: 1st July 2004

It is now possible to archive email within a Confluence space. The support for mail is only just getting started in DR3, but we believe this is an incredibly useful direction for Confluence to go, and will be expanding and improving the mail integration in future releases.

Confluence spaces can retrieve mail periodically from a POP mailbox (this will delete all mail from that POP account, so don't try it on an account you want to keep mail on), or space administrators can import mail directly from a standard mbox-format mail file.

Once mail is imported into Confluence, it can be browsed chronologically from the Content pane of the Space Summary page, and can be searched through Confluence's search interface.

In the future, we will be adding new ways to link to and between email (bringing the email closer to the other content of the wiki), proper representation of email threads, more flexible search, and much, much more.

Read the [Mail Archiving FAQ](#) for more information

Want to play with it now?

We love to play with features right now, so here's how you can:

- Testing mail search is a snap. We're indexing our own [mailing list](#) on this very space! [View archives](#)

or [search mail](#).

- Testing mailing content into Confluence is also easy - well, relatively. Simply mail mailtest@atlassian.com and your email will show up [here](#) (it only polls the box once an hour, but it will show up eventually!). It will also be indexed.

Improved Indexing Performance

We now make much more efficient use of resources by batching updates to full-text search index. This should lead to improved performance for many tasks within Confluence, but will mean that it may take up to a minute for a change in the site to be reflected in the site's index. ([CONF-2029](#)

In addition, we have made a number of improvements to the indexing of large PDFs, including fixing some cases where a PDF might cause indexing to freeze indefinitely. ([CONF-1953](#), [CONF=1954](#))

Library Upgrades

Many of the libraries Confluence is dependent on have been upgraded for this release, which should result in improved stability and performance.

Bugs fixed for 1.3-DR3

We've fixed a handful of issues specifically for 1.3-DR3, take a look in [JIRA](#) for the full list.

Release Notes 1.3-DR4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3-DR4 is the fourth development release in the cycle leading up to Confluence 1.3. We're on the home stretch! The final, stable 1.3 isn't far away.

Confluence 1.3-DR4 includes a raft of improvements to mail archiving, a redesigned setup wizard, significant improvements to the way we back up and restore your system configuration, and a truck-load of bug fixes.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Note: You will need to rebuild the search index after you upgrade for certain features (including mail threading) to work properly.

New Features in Confluence 1.3-DR4

Setup Improvements

Confluence's setup wizard was badly in need of an overhaul, so that's exactly what we've done. Among the improvements, we have:

- Improved the ordering of steps. For example, if you are importing straight from a backup, you no longer need a redundant administrative user.
- Added a quick, two-step setup process to get Confluence running straight away
- Made the database setup much more robust, and much better at reporting errors
- Removed those steps that weren't really necessary to get Confluence running

Hopefully this will make it a lot easier to get Confluence up and running, or show off Confluence to your friends and family.

Mail Archive Improvements

([CONF-2050](#))

We've been working hard to build on the basic mail-archiving features included in 1.3-DR3. Included in the new version are:

- Improved indexing of mail senders, message-ids and subjects
- Improved integration of mail with search
- The ability to delete mail (if you have been assigned the delete mail permission)
- Direct access to mail archives from the dashboard
- Display of mail attachments in the "view mail" page
- The ability to link to a single message by its internal Confluence ID ([\\\$1234] will link to message 1234)
- The ability to navigate forward and back through mails chronologically
- Email addresses are displayed or masked in accordance with your global preferences

We still have a few things to do (date based views, a calendar), but the mail archive is now very useable. Especially when you take into account...

Mail Threading

([CONF-2059](#))

Of course, it's important for your mail archive to be able to represent conversation threads. How you present threads, though, is just as important.

Here's how most mail-based web archives present your thread at the bottom of each message:

- **Follow-Ups:**
 - [RE: PaceDateModified](#)
 - *From:* Bob Wyman
- **References:**
 - [Re: PaceDateModified](#)
 - *From:* Tim Bray

Not very helpful, is it. Here's how that same bottom-of-the-message view looks in Confluence:

[Entire Thread](#)

Re: PaceDateModified Dare Obasanjo <kpako@yahoo.com>

The real question is why you'd be looking for "last modified" information from an entry in the first place when atom:updated exists.

↳ **Re: PaceDateModified** Eric Scheid <eric.scheid@ironclad.net.au>

Why? When you two versions of the same entry, and they both have the same atom:updated value, yet they are different in content. How do you determine which is the most recently modified? e.

↳ **Re: PaceDateModified** Robert Sayre <mint@franklinmint.fm>

The definition of atom:updated holds the answer to that question--it doesn't matter.
Robert Sayre

↳ **Re: PaceDateModified** Dare Obasanjo <kpako@yahoo.com>

The one you fetched most recently from the feed. Is this a trick question?

↳ **Re: PaceDateModified** Eric Scheid <eric.scheid@ironclad.net.au>

that's not a good assumption to make as to which is most recently modified.
lots of things can go wrong to break that assumption. e.

At a glance, you can see exactly where the message sits in a conversation.

Backup Improvements

([CONF-1090](#) and [CONF-2046](#))

Confluence 1.3-DR4 contains two significant improvements to backing up and restoring the system.

- You can now exclude attached files from your backups. Of course, this means you have to back up your attachment directory separately, but if you already have a good backup regime for your filesystem (and can thus restore the attached files separately), it means that your Confluence data backups will take up far less room.
- We now include important parts system configuration in your backups. this means that colour-schemes and plugin preferences are now saved, and fixes a large number of issues that users have filed due to the restore process not bringing the system back up in the same state as when they saved it.

Library Upgrades

We have continued the process of upgrading to the most recent stable versions of those libraries Confluence is built on, which should result in improved stability and performance.

Bugs fixed for 1.3-DR4

We've also fixed a lot of bugs, as we ramp up for the stable 1.3 release. Take a look in [JIRA]<http://jira.atlassian.com/secure/IssueNavigator.jspa?reset=true&mode=hide&sorter/order=ASC&sorter/field=pr> 10933] for the full list.

Release Notes 1.3-final

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3-final is the stable release of Confluence 1.3. Woohoo! We made it! The [full release-notes for Confluence 1.3 are located here](#), this page documents only the changes made since the 1.3-DR4 development release.

1.3-final contains over 100 improvements over 1.3-DR4, mostly focused around fixing bugs, polishing the interface, and making Confluence ready for a stable release.

Who should upgrade?

Confluence 1.3 is the new stable release of Confluence. It contains a huge raft of enhancements and fixes made since 1.2.3. If you are running Confluence (and not using Oracle, see below), you should upgrade to Confluence 1.3. If you are not running Confluence, you should install 1.3 immediately, regardless of your database.

Current users of Confluence on Oracle databases users may wish to delay upgrading. [Read this document](#) for more details.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Note: You will need to rebuild the search index after you upgrade for certain features (including mail threading) to work properly.

New Features in Confluence 1.3-final

New Demonstration Content

As part of the DR4 setup improvements, users were given the option to install an example space, but the demonstration content that was loaded was pretty uninspiring. For the final release, the demonstration space now contains a suite of demonstration pages, examples of what Confluence can do, and a few pictures of the Sydney Opera House. This should make it much easier to get Confluence up and running quickly.

Referrer Performance Improvement

We discovered (from monitoring the <http://confluence.atlassian.com> site) that our recording of HTTP referrers was causing some serious performance problems for public Confluence sites. Upgrading to

Confluence 1.3-final should make Confluence a lot more responsive, especially under heavy load.

Improved Notation Guide

The [notation guide](#) has been reorganised to be more user-focused, making it easier to find the markup or macro you are looking for.

It is also now possible for macro plugins to insert themselves into the notation guide. Just write your macro description as a two-column HTML table row, put it in a vm file, and include the following in your atlassian-plugin.xml file:

```
<resource type="velocity" name="help" location="/path/to/your/helpfile.vm">
  <param name="help-section" value="tables"/>
</resource>
```

The help section can be one of: texteffects, headings, breaks, links, lists, images, tables, advanced, confluence, external or miscellaneous. If you don't include a help section, it will be put in the 'macros' section.

Improved Search Indexing

We've updated the way we index content within Confluence. A lot of searches that came up empty before will now find something. In addition, you can now set your primary language for indexing under General Configuration, so that the indexer can better optimise itself for non-English content.

Also

- By popular demand (it was our most highly voted-for bug), pages are now exported in alphabetical order, not in order of creation.
- The Remote API can be accessed anonymously, if you wish (anonymous remote access must be turned on in the general configuration).
- When previewing a page, you can continue to edit on that screen, instead of having to go back to the edit page.
- The thread view on a mail page has been improved, and the full-thread view is no longer a pop-up.
- You no longer need to be in the confluence-admin group to access the administration pages, you just need global administrative privileges
- You can link to anything in Confluence if you know its ID in the database (currently this is how you must link to email): [\$1234]
- You can link to anything relative to the root of the Confluence site (useful for pointing to parts of the site that can't otherwise be linked): [///pages/editpage.action?pageId=1234]
- New macros: {jiraportlet}, {note} {tip}, {information} and {warning}
- A lot more...

Issues Resolved for 1.3-final

In all, over 130 issues were resolved between DR4 and 1.3-final. Unfortunately, merging all the versions together in JIRA means the list of precisely what went into those 130 has been lost, but if you sort this list by last-modification date, you'll get some idea... [Issues Resolved for 1.3](#)

Release Notes 1.4-DR1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4-DR1 is the first development release in the cycle leading up to Confluence 1.4. On the surface, we have implemented one of Confluence's most requested features. Under the hood, there's a whole new event system to play with.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.4-DR1

Consult JIRA for the [full list of issues resolved for 1.4-DR1](#) (Note, this list doesn't include all the 1.3.1 fixes that were also merged into the development release)

Move Page Hierarchy

When you move a page between spaces, you now have the option to include all children of that page in the move. With 13 votes, this was one of Confluence's most requested features.

(Note, as of DR1, you can not both move a hierarchy of pages and rename the root page at the same time. This bug is filed as [CONF-2452](#))

Attach Multiple Files

Another commonly requested feature, you can now attach multiple files to a page at once. By default, you can attach a maximum of five at a time, but this maximum is configurable.

GZip Content Encoding

Pages are served with GZip content encoding, which means less bandwidth consumption and faster page downloads.

Events and Listeners

We have implemented the beginnings of a pervasive system of events within Confluence.

By the final release of 1.4, all major actions within Confluence will trigger an event. These events can be listened for, and reacted to by a new plugin module type: "listener". This will allow Confluence to be further customised, as extensions can react to anything that happens within the system.

Creating an event listener plugin is insanely easy. Step one, implement this interface:

```
package com.atlassian.confluence.event;

import com.atlassian.confluence.event.events.ConfluenceEvent;

/**
 * Defines a listener for Confluence events.
 */
public interface EventListener
{
    /**
     * Perform some action as a response to a Confluence event. The EventManager will
     * ensure that this is only called if the class of the event matches one of the
     * classes returned by getHandledEventClasses
     *
     * @param event some event triggered within Confluence
     */
    void handleEvent(ConfluenceEvent event);

    /**
     * Determine which event classes this listener is interested in.
     *
     * The EventManager performs rudimentary filtering of events by their class. If
     * you want to receive only a subset of events passing through the system, return
     * an array of the Classes you wish to listen for from this method.
     *
     * For the sake of efficiency, only exact class matches are performed. Sub/superclassing
     * is not taken into account.
     *
     * Returning an empty array will allow you to receive every event.
     *
     * @return An array of the event classes that this event listener is interested in,
     *         or an empty array if the listener should receive all events. Must not
     *         return null.
     */
    Class[] getHandledEventClasses();
}
```

Step two: Package it as a plugin module with a descriptor like this:

```
<listener name="My Listener" key="mylistener"
          class="com.example.listeners.MyListener">
  <description>Listens for stuff.</description>
</listener>
```

And that's about it. We'll be adding information about the events that are being produced in Confluence over the next couple of days (We would have had them documented today, but Nick, who wrote most of them, was sick).

Bugs Fixed

All bugs that were fixed in [Confluence 1.3.1](#) are also fixed in Confluence 1.4-DR1.

Release Notes 1.4-DR2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4-DR2 is the second development release in the cycle leading up to Confluence 1.4. Seeing as the DR2 development fortnight straddled Christmas it's not quite as feature-laden as some previous releases, but we thought we'd give you a few new toys to play with for the New Year.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.4-DR2

Consult JIRA for the [full list of issues resolved for 1.4-DR2](#)

Export Page Hierarchy

When you export a page to PDF or HTML, you have the option to include its children in the export.

Export Format:	☒ HTML Output ☐ PDF Output ☐ XML Output
Other Options:	☒ Export child pages ☐ Include comments ☐ Backup Attachments (for XML export only)
Export Cancel	

Popup Page Picker

We now have a popup that can be used to select pages for inserting links, or choosing a page's parent. The picker lets you choose from your recently visited pages, the list of pages that link to the current page, or you can perform a search within the picker itself.

Parent Page: [Choose Page](#)
 optional - specify a parent page's title to create a page hierarchy.

Page Picker – Confluence

Page Picker

History

Recently Modified

Search

[Development Releases](#)
by [Charles Miller](#) (21 Dec)

Development Releases are approximately fortnightly builds of Confluence that we make available so that interested customers can try out new features, especially those features that you may have been waiting for,...

[Release Notes 1.4-DR2](#)
by [Charles Miller](#) (10 mins ago)

Confluence 1.4DR2 is the second development release in the cycle leading up to Confluence 1.4. Seeing as the DR2 development fortnight straddled Christmas it's not quite as featureladen as some previous releases,...

[Converting Macro Libraries to Confluence Plugins](#)
by [Charles Miller](#) (24 mins ago)

XML based conversion of Macros to Plugins From Confluence 1.3 and onwards Macros become 'Plugins.' When upgrading, the only conversion which must take place is XML based. The example below uses the tasklist macro, which is bundled in Confluence 1....

New Macros

As part of the process of making Confluence more flexible, we have implemented the various functions of the Confluence dashboard and space summary pages as macros. These macros are currently disabled by default, but if you're interested in using them within regular pages, you can enable them from your global plugin configuration.

This currently has no effect on the dashboard itself - but will become useful in the future when the dashboard becomes customisable. For example, the {spaces-list} macro will reproduce the list of spaces that appears on the dashboard:

- Spaces:
- My
- Team
- New (1)
- All

[ABC](#) (ABC)
[Artwork](#) (art)
[Atlassian Developer Network](#) (DEVNET)
[Atlassian Developer Network Private](#) (DEVCOM)
[Atlassian Development](#) (DEV)
[Atlassian Japan](#) (IMH)
[Atlassian Jobs](#) (AJOB5)
[Atlassian Media Room](#) (NEWS)
[Atlassian Meetings](#) (MEET)
[Atlassian Partner Tools](#) (APT)
[Atlassian Partner Wiki](#) (APW)
[Atlassian Referrals](#) (RFL)
[Atlassian Support](#) (Support)
[Atlassian Training](#) (Training)
[Atlassian User Group](#) (AUG)
[Bamboo](#) (BAMBOO)
[Bamboo Extensions](#) (BAMEXT)
[BusDev Demo Space](#) (BDD)
[Business Objects Discussions](#) (BODiscussion)
[Case Studies](#) (CS)
[Citigroup](#) (citigroup)
[CodeGear](#) (CG)
[Codegeist](#) (CODEGEIST)
[Concinnity Solutions Workspace](#) (CSW)
[Confluence](#) (DOC)
[Confluence 1.4 User Guide](#) (CONF14)
[Confluence 2 User Guide](#) (CONF20)
[Confluence Community](#) (DISC)
[Confluence Extension](#) (CONFEXT)
[Confluence Hosted](#) (CSH)
[Crowd](#) (CROWD)
[Crowd Extension](#) (CROWDXT)
[Custom Plugin Packs](#) (aps)
[Demo for OpenText](#) (DFOT)
[Demo Lab](#) (DEMOLAB)
[Demonstration Space](#) (ds)
[Demos for Anthony](#) (DEMOTONY)
[Demo Space](#) (DEMOSPC)
[Dextrus Prosoft Collaboration](#) (DPC)
[Documentation](#) (ALLDOC)
[Documentation Staging](#) (DOCPRIV)
[Documentation Staging 2](#) (DOCPRIV2)
[EditLive Integration](#) (EDITLIVE)

[Ernst & Young Demonstration Space](#) (eyds)
[euansample.com](#) (EUAN)
[Evangelist](#) (Preacher)
[Example Intranet](#) (ei)
[EY Demo Space](#) (EY)
[IBM Collaboration](#) (IBM)
[I Like Cheese](#) (CHEESE)
[Javablogs News and Updates](#) (JAVABLOGS)
[jens](#) (jenstest)
[JIRA](#) (JIRA)
[JIRA Community Space](#) (JIRACOM)
[JIRA Extensions](#) (JIRAEXT)
[JIRA Spam Fighting](#) (JIRASPAM)
[Marketing Space](#) (MKT)
[Marketing Website Content](#) (MKTWEB)
[Morgan Stanley](#) (MOST)
[Page Zero](#) (PZERO)
[Patterns](#) (PAT)
[Polis](#) (pol)
[Public Communications](#) (PR)
[Radiowalker](#) (Radio)
[SAP Business Discussion](#) (SAPBD)
[SAP Hibernation](#) (SAPH)
[Test Space](#) (TEST)
[The Man In Blue](#) (TMIB)
[Translations](#) (TRANSLATION)
[User Group Sponsorship](#) (UGS)
[Videos](#) (VID)
[Wikis for Education](#) (WIKIED)
[Z Test Space](#) (ZTEST)

Known Bugs

There is a known bug that occurs whenever you enable or disable a plugin in Confluence 1.4-DR2. The error will appear to be 'null', but the following will appear in the logfiles:

```
[ERROR] Tue Jan 04 18:01:20 CST 2005 [com.atlassian.core.util.DateUtils]  
java.util.MissingResourceException: Can't find resource for bundle  
java.util.PropertyResourceBundle, key core.dateutils.minutes
```

This is issue [CONF-2513](#) and will be fixed in the next DR.

Release Notes 1.4-DR3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4-DR3 is the third development release in the cycle leading up to Confluence 1.4. It is the first step in a process of making the Confluence User Interface simpler, and easier to navigate.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

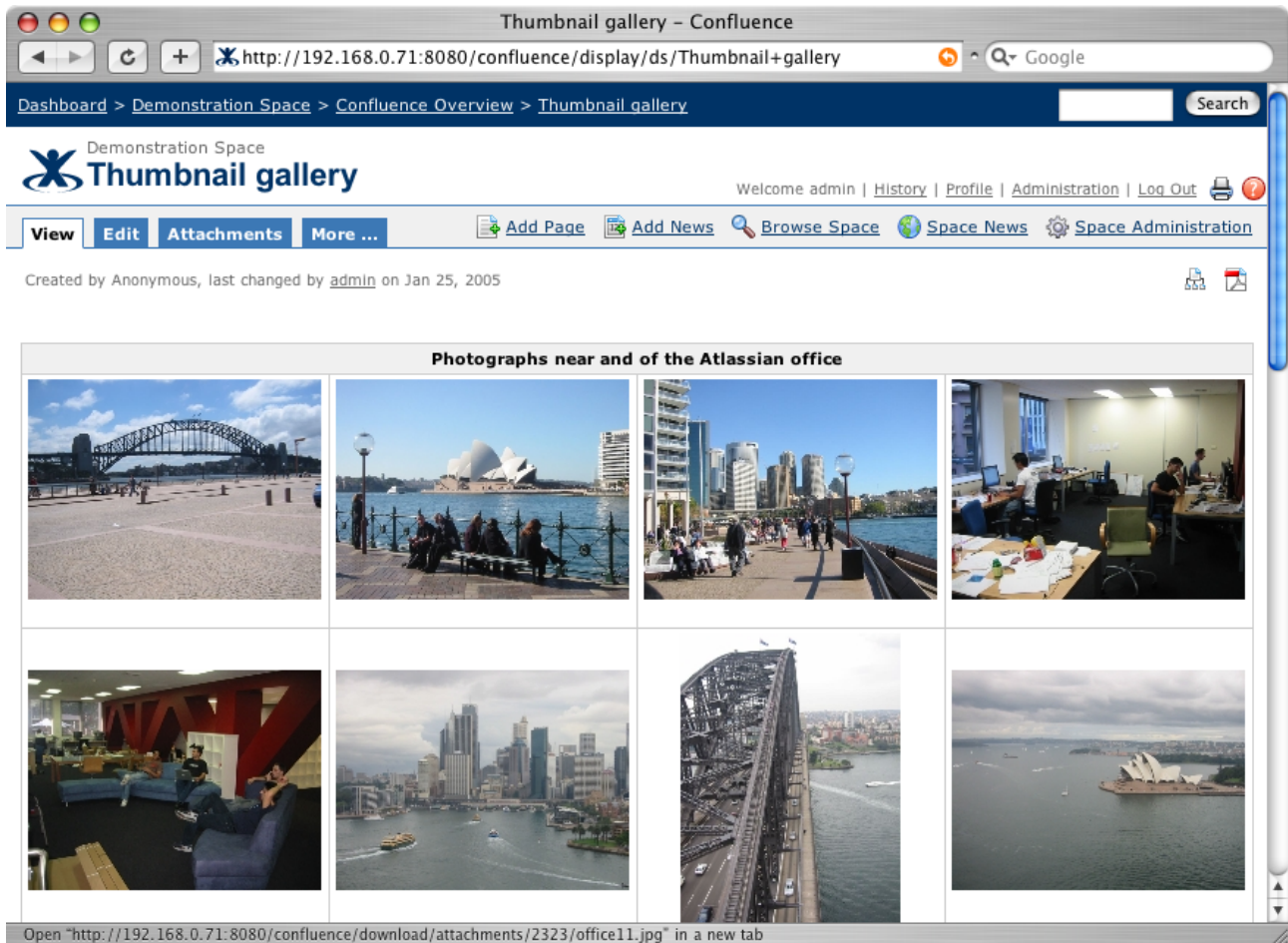
If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.4-DR3

User Interface Enhancements



Some of the most frequent feedback we get about Confluence is that while users like the wealth of features on offer, the interface is often overwhelmed by too much information and too many options, making Confluence difficult to navigate, and difficult to introduce to non-technical users. Confluence 1.4-DR3 is the first step in an attempt to present a cleaner, more useable design for Confluence, while still providing a powerful interface for experienced users.

i 1.4-DR3 is a developer release. As such, some of the changes to the interface are incomplete, and some may not make it into the final version. Please offer your feedback on [DISC:1.4 UI Discussion](#).

While the obvious way to get a look at the new interface is just to explore this site, here are a few screenshots that might help:

Confluence 1.4 Interface Changes
([view as slideshow](#))

More
Functional
Edit
Page
Interface

Simpler
Dashboard

Cleaner
(and
wider)
page
view

New-look
recently
updated
list for
spaces

New
attachment
management
interface

I'm also compiling a page to help people who are used to Confluence Classic, and might be a little lost in the new interface: [1.4 Interface - Where Did Everything Go?](#)

Known Bugs

A page has been created in the Discussion space to gather comments, suggestions, compliments and complaints about the new interface: [DISC:1.4 UI Discussion](#)

1.4 Interface - Where Did Everything Go?

This page last changed on May 17, 2005 by [exampleuser](#).

If you're used to the Confluence Classic interface, the new 1.4 interface might be a little hard to navigate at first. We think that the new design is a vast improvement, but it's inevitable that people who have used the application since its release will be wondering where some of the buttons they were used to have gone...

Where Did They Go...

- [Blogs?](#)
- [Rename Page?](#)
- [Move Page?](#)
- [Create Child Page?](#)
- [Page Locks?](#)
- [Page History? Short URL? Watch Page? Remove Page?](#)

Like it? Don't? Join the [discussion](#).

Cannot resolve external resource into attachment. Blogs?

By [incredibly popular demand](#), blogs have been renamed to "News" across the site. While blogs are all the rage at the moment (or, as my brother would say, very zeitgeisty), it's still far easier to explain "News" to someone familiar with blogs, than it is to explain blogs to someone who is familiar with news.



Cannot resolve external resource into attachment. Rename Page?

Rename page is no longer a separate function. Just edit the page and change the page title, and Confluence will rename all the links to the page for you.



Cannot resolve external resource into attachment. Move Page?

Move page is no longer a separate function. Just edit the page and change its space, and Confluence will

move the page to the new space for you, renaming any links to the page. If the page has children, you will be given the option to move all the children as well.

This screenshot shows the top navigation bar of a Confluence page. It includes tabs for 'View', 'Edit', 'Attachments (7)', and 'Info'. Below the tabs, the page title '1.4 Interface - Where Did Everything Go?' is displayed. To the right, the 'Parent Page' is 'Release Notes 1' and the 'Space' is 'Confluence Documentation'. An 'Insert Image' button is visible on the right. The main content area begins with the text 'If you're used to the Confluence Classic interface, the new 1.4 interface might be a little hard'.

Cannot resolve external resource into attachment. Create Child Page?

Whenever you select the "Add Page" link from the top of the page, your current page will be automatically inserted into the Parent Page box. We've found that this is the way most people use Confluence anyway.

This screenshot shows the 'Add Page' dialog box. At the top right, there are links for 'Browse Space' and 'Add Page'. The dialog has a 'Title' field and a 'Parent Page' dropdown menu. The 'Parent Page' dropdown is currently set to '1.4 Interface - Where Did Everything Go?'. Below the title field, it says 'or select a template page to start from'. At the bottom right, there are links for 'Insert Image' and 'Insert Link'.

Cannot resolve external resource into attachment. Page Locks?

Page locks have been renamed "Permissions" and moved to the bottom of the edit page. We found that most people didn't understand (or couldn't find) locks, and thus didn't understand that Confluence has page-level edit security.

This screenshot shows the edit interface of a Confluence page. At the top, the page title '1.4 Interface - Where Did Everything Go?' is highlighted. To the right, the 'Parent Page' is 'Release Notes 1' and the 'Space' is 'Confluence Documentation'. A 'Remove' button is visible. Below the title, there is a text area with the content 'If you're used to the Confluence Classic interface, the new 1.4 interface might be a little hard'. A checkbox for 'minor change, no notifications will be sent' is present. At the bottom, there are two dropdown menus: 'Restrict view to:' set to 'atlassian-developers' and 'Restrict edit to:' set to 'No restriction'.

Cannot resolve external resource into attachment. Page History? Short URL? Incoming Links? Hot Referrers?

All this information has been moved under the "Info" tab when you view a page.

Title:	1.4 Interface - Where Did Everything Go?	View Source
Author:	Charles Miller	Jan 25, 2005
Last Changed by:	Jens Schumacher	May 16, 2005
Tiny Link: (useful for email)	http://confluence.atlassian.com/x/XcAB	

Recent Changes

Since you last logged in:
[Jens Schumacher](#) made 1 change. ([view](#))

Time	Editor	
Jan 25, 2005 12:53	Charles Miller	view changes

Release Notes 1.4-DR4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4-DR4

Confluence 1.4-DR4 is the fourth development release in the cycle leading up to Confluence 1.4. In 1.4-DR4 the user interface continues to improve, and our new wiki->HTML renderer lands, fixing a large number of bugs (but probably introducing a few more)



1.4-DR4a

One of the bugs that was introduced in 1.4-DR4 caused the edit option to disappear completely from the Confluence interface for anyone who was not a global administrator. Because that issue rendered Confluence mostly unuseable, 1.4-DR4a has been released including a fix to that problem. 1.4-DR4a also includes the patch for [Confluence Security Advisory 2005-02-09](#).

We would like to remind everyone who downloads the developer releases that they are not fully stable.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.4-DR4

User Interface Enhancements

The user interface of Confluence continues to improve. A big thankyou to all the users who contributed feedback on DR3. While the changes between DR3 and DR4 aren't as radical as the last release, we've been able to polish up a lot of the edges, and make Confluence even easier and more pleasant to use.

We're still gathering feedback on the UI changes, add your input here: [DISC:1.4 UI Discussion](#)

Mail Archives

- You can now bulk-delete all mail within a space (mail deleted this way does not go to the trash, and can not be recovered later!)
- Pagination on the mail archives is a bit more sane: it doesn't try to tell you about every single page of mail in the archives.
- The mbox importer detects if you're trying to import something that isn't an mbox file, making you much less likely to break anything if you upload the wrong file.

Nofollow Support

As part of the effort to combat spam on wikis and blogs (Confluence being both), Google [came up with some markup](#) that will cause search-engines not to follow links. By removing the main benefit of wiki-spamming (increased search-engine PageRank), it's hoped that the noxious practice will stop being cost-effective, and eventually die out.

By default, all URLs inserted in a page (or in comments) will be given the nofollow tag. Inter-page links (i.e. [Documentation Home](#)) or shortcut links (i.e. [CONF-2622](#)) will not be tagged. If your wiki doesn't support public editing or commenting, or you just [disapprove of nofollow on principle](#), the site administrator can turn the feature off in General Configuration.

V2Renderer

Over the last few releases of Confluence, it has become apparent that the engine we were using to convert wiki text to HTML was starting to cause us problems. There were a growing number of bugs that we simply couldn't fix, because the nature of the engine meant that fixing one bug would cause ten worse bugs to spring up in its place. After a few false starts, we can now introduce 'v2Renderer', which fixes quite a few of these problems already, and promises to make fixing the rest of them much easier:

Atlassian JIRA (0 issues)										
T	Key	Summary	Assignee	Reporter	Pr	Status	Res	Created	Updated	Due

Because this is the first public release of v2Renderer, it's likely that there are some situations in which the markup of pages may change. We've been pretty careful, but users who have been making heavy use of undocumented (or accidental) features of the old markup may encounter situations in which the page displays differently to before. Please, please [report these problems to us](#), so that we can fix the renderer for the final release, or perhaps provide you with a script to painlessly convert your pages to a markup that works.



Renderer Bugs

If you file a bug about the v2Renderer, PLEASE make sure you put it in the Wiki/XHTML component: this makes finding all the relevant bugs so much easier for me. – [Charles Miller](#)

Macros

There is a new macro API that we will be rolling out for 1.4. However, there's a compatibility layer in place to make sure that most 1.3 macros will continue to function properly. Most macros written for Confluence 1.3 will continue to work in 1.4-DR4. Most of our macros are running without any changes at all, and many of the ones we did migrate were changed over in order to use the capabilities of the new engine to fix bugs.

We suggest that macro authors who are worried about compatibility test their macros with 1.4-DR4 and contact us as soon as possible to discuss how we can improve the compatibility layer before the final release, or help you migrate to the new API.

Known Bugs

The renaming of links when a page is moved or renamed is currently unreliable. This is a side-effect of the change in renderers, and will be fixed before the final version of 1.4 is released.

Release Notes 1.4-DR6

This page last changed on Mar 05, 2007 by [jnolen](#).

Confluence 1.4-DR6

Confluence 1.4-DR6 is the next development release in the cycle leading up to Confluence 1.4. In 1.4-DR6 we:

- introduce page-level view permissions,
- make Confluence radically more themeable,
- further improved the overall user interface and usability,
- add several interesting new plugin types,
- add file attachments to blog posts and user profile pages,
- let you customize Confluence logos at a space and global level, and
- help you keep track of all the email watches you might have set up in Confluence.

Phew! Got all that?

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.



Note for Oracle Users

Confluence 1.4-DR6 is currently not recommended for Oracle users, as it has not passed our test-suite against the Oracle database. This will (obviously) be fixed before we release Confluence 1.4.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).



If you upgrade to Confluence 1.4-DR6 you will need to rebuild your search indexes before search will function correctly. Look for "Rebuild Search Index" on the global Administration page.

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.4-DR6

See also: [Issues Resolved for 1.4-DR6](#)

Page Level Permissioning

A highly-requested feature, and the reason this DR took so long to get out, you can now hide pages from other users. The option for hiding pages can be found at the bottom of the page's "Edit" screen.

- You can hide a page so it is only visible to yourself, or only visible to members of groups you belong to.
- Once a page is hidden, all its child pages (and their children, and so on) are also hidden.
- A new space-level permission has been introduced to determine which users are permitted to hide pages.

Please note that it may be possible for users to learn the names of hidden pages, even if they can't see their content. So don't make a page called "We Hate Bob Smith" if Bob Smith has access to your wiki. Just make a page called "We hate..." and put Bob's name in the body. 😊

Improved Themes

While the overwhelming reaction to the User Interface changes we have made in the 1.4-DR series has been positive, it has sparked continuing discussions on the [user mailing list](#) about various aspects of the presentation of a Confluence site. From these discussions we have determined:

- Everyone wants something slightly different.
- Some people want something completely different.

In response, we've moved to vastly improve the level of themeability that Confluence offers. Almost all of the user interface elements have been pushed into customisable decorators, so if you don't like the tabs, you will be able to install a theme that removes them entirely! We're hoping to bring out some example themes with the 1.4 release that do just this, but for now you can read the documentation for the new decorators in the [Theme Plugins](#) documentation.

Plugin Improvements

To make Confluence more flexible, we're introducing more ways for advanced users to extend the system:

Uploadable Plugins

Confluence administrators can now upload new plugins through the administrative interface, and have them installed without restarting the server.

Search Extractor Plugins

Extractor plugins allow you to add custom information to Confluence's full-text index when Confluence content is saved or updated. The most obvious application for this plugin type is to allow you to index attachment formats that Confluence does not yet support, but more creative plugin authors might make use of this as a sneaky way to store and retrieve metadata about any content in the Confluence system. Documentation for Extractor plugins is coming soon.

XWork Plugins

XWork plugins allow you to add new XWork (Webwork 2) actions to Confluence. Advanced programmers can add entirely new behaviours to the application: take a look at the examples in [XWork-WebWork Plugins](#), in which we've implemented a rudimentary "Google Suggest"-like live search entry box for Confluence:

Servlet Plugins

Servlet plugins allow you to deploy servlets into Confluence dynamically – perfect for integrating Confluence with some legacy application that is only available as a servlet. See [Servlet Plugins](#) for an example.

Attachments for Blog Posts and User Profiles

You can now upload attachments to blog posts and user profiles, both frequently requested features. Users have the option to nominate one picture attached to their profile as their "profile picture", but we haven't quite decided what to do with this information yet. 😊

There is a new global permission to determine if users can attach files to their profile. This permission is not assigned by default, so you will need to explicitly give it to users if you want to enable this feature.

Customizing Logos at a Space and Global Level

Space and global administrators may now easily configure the image displayed as the Confluence logo. This can be done for each space, or at a global level, without having to actually edit a single file.

Keeping track of your Email Watches

A Notifications link on your profile displays a list of all currently configured email watches you might have set up on various spaces or pages. You can now delete them in one, central, place or simply visit them.

Bug fixes

All bug fixes made between Confluence 1.3.2 and Confluence 1.3.5 have been merged into the

developer release branch, fixing many annoying bugs including the crash on selecting "Next" in search results. See also: [Issues Resolved for 1.3.4](#), [Issues Resolved for 1.3.5](#).

Issues Resolved for 1.4-DR6

This page last changed on Mar 31, 2005 by [cmiller](#).

Issues resolved for 1.4-DR5

Atlassian JIRA (0 issues)				
T	Key	Summary	Status	Res

Issues resolved for 1.4-DR6

Atlassian JIRA (0 issues)				
T	Key	Summary	Status	Res

Release Notes 1.4-DR7

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4-DR7

Confluence 1.4-DR7 is the first release-candidate build of Confluence 1.4. In 1.4-DR7 we have resolved over 120 issues: mostly related to fixing bugs and polishing up the application for a stable release. We anticipate that DR7 will be the last major build before the stable 1.4 release.

DR7 is not a public release. It has been built and deployed onto <http://confluence.atlassian.com> as part of our internal quality-control process, but we have decided that the developer time required to make this a public beta release would be better directed towards continuing the push towards a final, stable 1.4 build.

Who should upgrade?

Since Confluence 1.4-DR7 is not publicly available, nobody should upgrade. The upgrade note below is just for completeness, so when we come to gather all these release notes together into a single note for 1.4, we don't miss the warning.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).



When you first start Confluence 1.4-DR7 after upgrading, the server may take a few minutes to become fully functional. This is because Confluence is rearranging information in the database so that it can be looked up more efficiently. This will only be done the first time Confluence is started after upgrading.

New Features in Confluence 1.4-DR7

The changes made between DR6 and DR7 are mostly correctness and polish issues - major feature development on Confluence 1.4 has been completed. A few notable changes however are:

- The space content tree is now updated dynamically, leading to much faster page-load times and much less load on the server (for large spaces, this page was turning into a reliable way to DOS Confluence). However, you must have a modern web browser with Javascript enabled for the tree to work. (A non-Javascript fallback will be included in 1.4-final - [CONF-3098](#))
- You can now customise the site's name alongside the logo
- The display and navigation of page history diffs has been improved significantly
- Webdav configuration has been reinstated to the same functionality as 1.3.5

- An "insert image" popup has been added to the page editing screen, that can select images from the page's attachments. There is also an Attachments tab in the "insert link" popup. Allowing file upload from these popups has not yet been implemented ([CONF-3099](#))
- Many improvements and fixes to email notifications
- Marking your change as a "minor edit" will prevent email notifications being sent
- The new [Component plugin](#) module adds new beans to the Spring context
- You can now uninstall plugins via the web interface
- The default theme has various keyboard shortcuts (see the tabs on this page)
- The [Include Page Macro](#) can now include pages from other spaces
- For developers, macros can now decide whether or not they have a body
- Report showing all attachments to pages in a space ([check it out!](#))
- Generally improved notifications including a much more usable "File Attached" notification
- "View wiki source" link, for all those source junkies...

And [much much more](#).

Release Notes 1.4-RC2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4 Release Candidate 2

 1.4-RC2 is now available for download [here](#).

Confluence 1.4-RC2 is (barring some absolute disaster) the final public developer build for Confluence 1.4. It incorporates all the changes that were deployed in the [private DR7 build](#), as well as around 60 new bug fixes and improvements.

Confluence 1.4-RC2 is being released to give Confluence customers the opportunity to test the upgrade path for their existing Confluence installation. By testing your migration with this pre-release, you can ensure that any problems you may experience will be fixed before the final 1.4 release, rather than having to rely on ad-hoc patches or wait for 1.4.1.

Who should upgrade?

While 1.4-RC2 is still pre-release software, and we do not recommend upgrading production Confluence sites until the release of 1.4-final, we would recommend any existing Confluence customer install this release on a test server, and try to import their existing Confluence data into it.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

 When you first start Confluence 1.4-RC2 after upgrading, the server may take a few minutes to become fully functional. This is because Confluence is rearranging information in the database so that it can be looked up more efficiently. This will only be done the first time Confluence is started after upgrading.

New Features in Confluence 1.4-RC2

The changes made between DR7 and RC2 are mostly correctness and polish issues - major feature development on Confluence 1.4 has been completed. A few notable changes however are:

- You can upload attachments while editing a page – from the "Insert Link" popup
- The dynamic content-tree degrades gracefully on unsupported browsers
- Many bugs related to PDF export (and images included in PDF exports) have been fixed
- Ü characters in page titles no longer confuse the database

- Text properties set via the `contentPropertyManager` can now be longer than 255 characters, fixing related bugs in the `{tasklist}` and `{excerpt}` macros
- The `{attachments}` macro can display the list of attachments inline within a page
- New [XML-RPC and SOAP plugin types](#) allow you to deploy web services dynamically into Confluence
- A potential connection leak that has been causing problems for Oracle users has been fixed.

And [much much more](#).

Release Notes 1.5-DR2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.5-DR2 is the first public development release leading up to Confluence 1.5. (Confluence 1.5-DR1 was an internal release only). Developer releases are a snapshot of our work in progress, allowing our customers to see what we're up to, and provide feedback

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features. Developer releases are not suitable for running on production systems.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.



Macro Compatibility

Incompatibilities exist that may cause Confluence not to start if custom macros are deployed. When upgrading to Confluence 1.5-DR2, be sure to remove any custom Macro plugins from your `$confluencehome/plugins` and `WEB-INF/lib` directories. These incompatibilities should be resolved before the final, stable release.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4 or higher, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 1.3.x or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 1.5-DR2

We've been pretty busy, but the four major new features you can find in 1.5-DR2 are:

- [WYSIWYG Editing](#)
- [Labels](#) for content
- A dynamic [RSS Builder](#)
- Change summaries

Consult JIRA for the [full list of issues resolved for 1.5-DR2](#). 1.5-DR2 also incorporates all the bug-fixes that were made between [TestTest](#).

WYSIWYG Editing



Browser Compatibility

The Confluence WYSIWYG editor is currently only compatible with Internet Explorer 6 on Windows, plus Mozilla and Firefox across platforms. Javascript must be enabled in the browser for the editor to function. Support for Safari under Mac OS X is currently not available. To track Safari compatibility, please follow this JIRA issue: [CONF-3864](#)

The WYSIWYG editor allows for Confluence pages to be edited directly through an editing GUI embedded in the web browser, without having to remember Confluence's wiki markup. It almost goes without saying that this has been our number one most requested features, and we're glad we can finally offer it!

Global administrators can enable WYSIWYG editing in the General Configuration screen of the site's preferences. They can also choose whether users are presented with the WYSIWYG editor by default, or whether users default to the old wiki markup text-field.



If WYSIWYG markup is enabled, but an individual user does not like the default set by the administrator, they are free to override it via a "make this my default" link that will appear on whichever editor is currently not your default.

For the "feature mad" amongst us, here are some neat things you can do with the WYSIWYG editor:

- Full screen view - really useful for editing large pages. Click Cannot resolve external resource into attachment. in the menu bar.
- Quickly switch between WYSIWYG and Wiki markup without a page refresh
- Change the size of your editing window to suit your browser. Your size preference is remembered across sessions. To change it, drag the handle in the bottom right hand corner of the editor.
- Undo and redo!

Labels for content

Another highly requested feature was the ability to categorise content within Confluence beyond the rigid heirarchy allowed by spaces and parent-child relationships between pages. To this end we have introduced labels.



Labels are simple one-word 'tags' that can be added to any page or blog-post the user has permission to edit. Labels can be used to categorise content, bookmark it, flag it for attention, or anything else you can think of.



A Tag By Any Other Name

Picking a name for labels wasn't easy. Google's [GMail](#) service calls them labels, while other collaborative categorisation systems such as [del.icio.us](#) and [Flickr](#) call them tags. We decided that 'label' was a more natural description. For more information about the philosophy behind labels and tags, check out the [Folksonomy page on Wikipedia](#)

Labels can be added to any page from the edit screen, as a space-separated list of words. If you are browsing the site with a modern, Javascript-enabled browser, you'll also be able to use the dynamic web UI to add labels while viewing the page through an interactive interface.



Once a page is labeled, then clicking on the label's name allows you to browse other pages with the same label, or view related labels that commonly occur on the same pages.

You can also view the space's most popular labels from the space browser, to get an idea of the most popular topics within the space.



Many other Confluence features interact with labels: they can be searched for through the search interface, the new RSS builder can filter pages by their label, and we're looking forward to building label support into Confluence's packaged macros, and even the dashboard.

Personal Labels

If you prepend `my:` to a label (for example, `my:todo` or `my:favourite`), then the label is a personal label – only visible to you. Personal labels allow you to tag content for your own purposes. You can browse your personal labels from your user profile. Any user can add their personal labels to any page, even when they don't have editing permission.



Personal Label Privacy

It is possible in Confluence 1.5-DR2 to see other people's personal labels in various views through the system. This is a known issue and in the final release, personal labels will be private to the user. (sharing personal labels at the user's discretion is also planned for the future)

Favourites

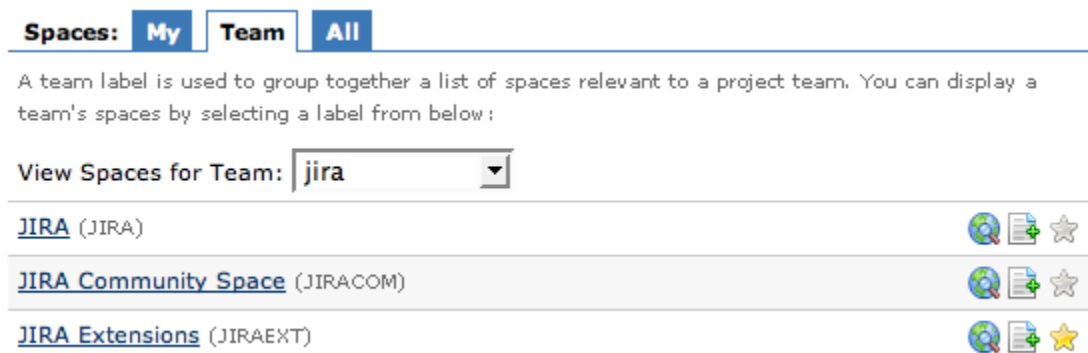
Favourites are a special personal label: `my:favourite` or `my:favorite`. Whenever you see the Cannot resolve external resource into attachment. icon, it means you can label this content as being your favourite, and whenever you see the Cannot resolve external resource into attachment. icon, it means that the content is currently in your list of favourites. You can view your favourites from the Labels tab of your user profile, but they come in handy for...

Labels and the Dashboard

Labels can be used on the Dashboard to create different views of the Confluence site. The list of spaces now offers the following tabs:

- My shows you spaces that you have labelled as a Favourite. You can label any space you see on the dashboard by clicking its Cannot resolve external resource into attachment. icon.
- Team allows space admins to dynamically create lists of spaces on particular topics (see below. This tab only appears if there are teams that the user can see)
- New shows any spaces that have been created in the last week (This tab only appears if there are new spaces)
- All shows all the spaces in the Confluence site

A "team" is a group of spaces that share a common team label. Spaces can be labeled from the Advanced tab of Browse Space.



As of Confluence 1.5-DR2, anyone can add space-level labels. This will be fixed in the final release.

The Recent Changes list on the dashboard will show only content that has been changed in the spaces that are currently listed in the space view. So if you are currently viewing the 'My' tab, only updates in

your favourite spaces will be shown on the dashboard.

If you are logged in, Confluence will remember your most recently selected tab and team on the dashboard.

Dynamic RSS Builder

A third highly-requested feature. Confluence has always provided a brace of useful [RSS](#) feeds, but the problem is that for every feed we provided, users wanted half a dozen more. The obvious answer is to let users build RSS feeds based on their own chosen criteria. You can access the RSS builder from the Confluence dashboard

Once in the builder, you can choose

- Which spaces to include in the feed
- Which types of content should be tracked
- Which [labels](#), if any, you are interested in
- How many items to include in the feed
- Whether you want a single RSS entry per page or one for each time the page is edited
- Whether you want an RSS 2.0 or Atom 0.3 feed
- Whether Confluence should require authentication to view the feed

Once you have decided what you want, Confluence will give you a URL to paste into your RSS reader. These URLs can be shared with other Confluence users, although they will only ever be allowed to see content that they have permission to view. If you have asked to authenticate, Confluence will require HTTP Basic Authentication, which is supported by most RSS readers.



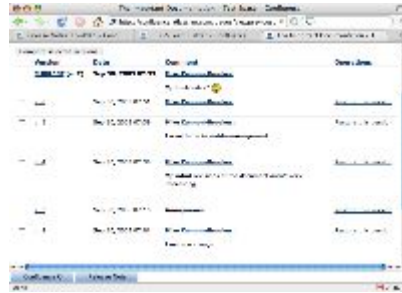
We've also taken the opportunity to improve the presentation of our RSS feeds - including a lot more information in each feed so you can follow your Confluence site entirely from your newsreader.



The Atom 1.0 draft has just been accepted as an IETF standard. Future versions of Confluence will be phasing out use of Atom 0.3 in favour of Atom 1.0

Change summaries

In a very late addition (added during our recent Fedex Day 2), Confluence now has change summaries. These allow you to add a comment to each edit that will appear in change histories, allowing you to keep a more complete record of how and why a particular page has been modified.



There is also a {change-history} macro to enable you to display a page's history within its body if you so desire.

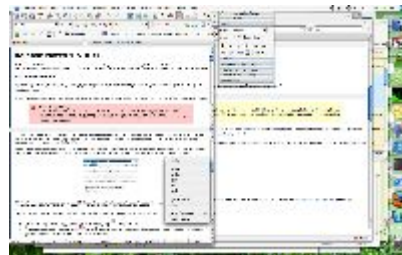
Other Things to Check Out

Embed Flash and Movies

You can now embed Flash content or movies (Quicktime or Windows Media) into a page as easily as you can an image: just attach the Flash or movie file to the page, then include it as you would include an image (!filename.mov!).

Export Pages as Word Documents

You can now export pages straight into Word from the Info tab. This is extremely useful for emailing around content to non-Confluence users, printing a document or just creating a backup in Word.



Improved Search Interface

Results returned from Confluence's search engine now have:

- Improved contextual results, showing the most important text around where your query was matched in the page
 - Contextual results for any attachment: see where a search was matched even inside PDF, Word, PowerPoint or Excel documents!
 - Search results for attachments give you more (and clearer) information about what the attachment is, and where it's from!search-result-fragments.png|thumbnail, align=center!
- Improved Gallery Macro

The gallery macro has been spruced up, and now has a slideshow view:

Confluence 1.5DR2 Screenshots
([view as slideshow](#))



These release notes exported to Word (even on a Mac!) - great for printing too.



The new RSS builder lets you construct RSS feeds of exactly the content you want.

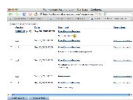
Screenshot of the new 1.5 WYSIWYG editor.



View page label interface showing autocomplete.

Improved search showing fragments from attachments, file sizes and types.

My personal labels! Only for me!



The new Dashboard space tabs, here showing the "jira" team tab and one favourite space.

A very basic (quite boring - sorry, it's late) example of change summaries.

Popular labels for a given space.



Alphabetically
organised
labels for
a given
space.

Also:

- Additions to the [Confluence Remote API](#) including:
 - Comment manipulation
 - Label manipulation
 - Attachment uploading and editing
 - Improved user- and permissions management
- Import and restore now have progress indicators
- Backup and restore use significantly less memory
- The embedded database has been upgraded to HSQL 1.8, which should be significantly more reliable
- Collapsed breadcrumbs now expand with a single mouse click

Known Bugs

Confluence 1.5-DR2 is a preview, not a full Confluence release, and as such there are a number of known bugs included in the release (at no extra cost!). Important bugs include:

- The left-navigation theme is currently broken
- The "make this my default editor" link does not always appear (try switching back and forth between views)
- The Info page may cause a Hibernate exception when its parent has page level permissions
- The space export may be unreliable, and does not properly back up labels.
- Incoming Trackback pings are not recognised
- Various WYSIWYG round-trip inconsistencies

table test

This page last changed on Oct 25, 2005 by [vidya](#).

Release Notes 2.0-RC1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.0-RC1 is the first release candidate for Confluence 2.0 (previously known as Confluence 1.5). It resolves almost 150 issues since the 1.5-RC2 release.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features. Developer releases are not suitable for running on production systems.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.3.x or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).



Important Notice

If, after you have upgraded Confluence, the "Recent Changes" list on the dashboard is empty, this may be because you need to re-build your site's search index. You can do this under Administration # Content Indexing # Rebuild Search Index

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 2.0-RC1

The 2.0-RC1 has largely concentrated on fixing bugs and polishing existing features. If you are upgrading from Confluence 1.4 or earlier, you should read the [1.5-DR2 Release Notes](#) for a description of the major new features in Confluence 2.0.

Consult JIRA for the [full list of issues resolved for 2.0-RC1](#).

Notable Features and Improvements

- You can now place markup such as bold or italics within a word if you are using the WYSIWYG editor

- The following characters are now permitted in page titles: ! & () * ~ \$ _ Pages can not, however, start with ~ or \$.
- The most recent change comment for a page is now included in the page's searchable text
- rel="nofollow" added to links to printable versions of pages, to prevent them from being indexed by search engines
- The Recent Changes list on the dashboard now correctly reflects whether you are viewing all spaces, a team, or your favourite spaces
- Further improvements to the edit page UI including:
 - Improved label editing
 - Inline page previewing
 - Hiding of lesser-used functions such as moving a page or editing page permissions
- Attachment downloads now support HTTP conditional get
- Space exports now include that space's labels and page-level properties
- Support for labels in the SOAP and XML-RPC remote APIs has been completed
- Determining if a user exists via the remote API is now supported

Release Notes 2.0-RC2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.0-RC2 is the second release candidate for Confluence 2.0 (previously known as Confluence 1.5). It resolves almost 80 issues since the 1.5-RC1 release.

Who should upgrade?

Development releases are snapshots of the ongoing Confluence development process. We make them available for customers who are willing to risk an unpolished release in order to have early access to new features. Developer releases are not suitable for running on production systems.

If you want to be running the most stable and most reliable version of Confluence, you should stick with the official, numbered releases.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.3.x or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).



Important Notice

If, after you have upgraded Confluence, the "Recent Changes" list on the dashboard is empty, this may be because you need to re-build your site's search index. You can do this under Administration # Content Indexing # Rebuild Search Index



Important Notice 2

If, after you have upgraded Confluence and you find the page breadcrumbs do not show the page's parents correctly, log into your site as administrator, then visit http://yoursite.example.com/admin/permissions/rebuild_ancestor_table.action (substituting your own site's URL, obviously) to rebuild the ancestor table (this will be fixed for the final release.

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New Features in Confluence 2.0-RC2

The 2.0-RC2 has largely concentrated on fixing bugs and polishing existing features. If you are upgrading from Confluence 1.4 or earlier, you should read the [1.5-DR2 Release Notes](#) for a description of the major new features in Confluence 2.0.

Consult JIRA for the [full list of issues resolved for 2.0-RC2](#).

Atlassian JIRA (0 issues)										
T	Key	Summary	Assignee	Reporter	Pr	Status	Res	Created	Updated	Due

Release Notes 2.3-DR1

This page last changed on Nov 13, 2006 by [cmiller](#).

Confluence 2.3-DR1 is the first public development release leading up to Confluence 2.3. Development releases are a snapshot of our work in progress, allowing our customers to see what we're up to.



Development Releases are Not Safe

Development releases are snapshots of the ongoing Confluence development process. As such:

- While we try to keep these releases stable, they have not undergone the same degree of testing as a full release.
- Features in development releases may be incomplete, or may change or be removed before the next full release.



No Upgrade Path

Because Development releases represent work in progress, we can not provide a supported upgrade path between DRs, or from any DR to the eventual final release. Thus, any data you store in a Confluence DR may not be able to be migrated to a future Confluence release.

Who should upgrade?

This development release is being made available specifically for Confluence plugin developers. The changes to the Confluence API discussed below mean that many plugins will need to be updated to work with Confluence 2.3.

For all production use and testing of Confluence, please use [the latest official release](#).



The bundled Tangosol library with this development release has a license which expires on August 31, 2006. This release will not operate after that date.

This release should not be used for testing a clustered deployment; the clustering user interface is not yet complete.

Upgrade Procedure

Follow the [normal upgrade instructions](#) to upgrade from Confluence 2.2.x to this release. We strongly recommend that you backup your confluence-home directory and database before upgrading!

If you are upgrading from Confluence 2.1.x or earlier, be sure to read the upgrade instructions in the [Confluence 2.2 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

New features in Confluence 2.3

In short, the new features of Confluence 2.3 are:

- Clustering support (not available in 2.3-DR1)
- People directory
- Bundled [Plugin Repository Client](#)

Architecture changes between Confluence 2.2 and 2.3-DR1

Summarised below are architectural changes that might be relevant to plugin developers. Please add a comment below if there is anything else that should be listed here.

We've kicked the Bucket!

Most of the functionality of Confluence's biggest internal library, bucket, has been split into three new components: atlassian-config, atlassian-spring and atlassian-event.

Where practical, the old interface is still available as deprecated classes and methods. However, some plugins will not compile unless modified to use the new package names.

Please refer to the source code or [Javadoc](#) for details on the new interface.

Tangosol Coherence replaces EhCache

Tangosol Coherence is now the caching library used by Confluence, both in clustered and non-clustered mode. To facilitate this, some of the caching APIs have been updated.

As mentioned above, the Tangosol license included with this release is specifically for testing purposes and will expire on August 31, 2006.

Bandana configuration stored in database

The Bandana Confluence configuration files previously stored in confluence-home are now stored in the database. An upgrade from a previous version will automatically move existing configuration settings to the database.

Release Notes 2.3-DR2

This page last changed on Nov 13, 2006 by [cmiller](#).

Confluence 2.3-DR2 is the second public development release leading up to Confluence 2.3. Development releases are a snapshot of our work in progress, allowing our customers to see what we're up to.

Who should upgrade?



Development Releases are Not Safe

Development releases are snapshots of the ongoing Confluence development process. As such:

- While we try to keep these releases stable, they have not undergone the same degree of testing as a full release.
- Features in development releases may be incomplete, or may change or be removed before the next full release.



No Upgrade Path

Because Development releases represent work in progress, we can not provide a supported upgrade path between DRs, or from any DR to the eventual final release. Thus, any data you store in a Confluence DR may not be able to be migrated to a future Confluence release.

This development release is being made available specifically for Confluence plugin developers. The changes to the Confluence API discussed below mean that many plugins will need to be updated to work with Confluence 2.3.

For all production use and testing of Confluence, please use [the latest official release](#).

This release should not be used for testing a clustered deployment; the clustering user interface is not yet complete.

Upgrade Procedure

Follow the [normal upgrade instructions](#) to upgrade from Confluence 2.2.x to this release. We strongly recommend that you backup your confluence-home directory and database before upgrading!

If you are upgrading from Confluence 2.1.x or earlier, be sure to read the upgrade instructions in the [Confluence 2.2 release notes](#).

Downloads

All development releases are available from [Development Releases](#) on the Atlassian website.

Things to look out for

- The Tangosol Coherence jars included in this DR are now fully licensed.
- The API for retrieving historical versions of content has changed.

Architecture changes between Confluence 2.3-DR1 and 2.3-DR2

Content history API changed

The `getPreviousVersions` method of `ContentEntityObject` has been removed, because it was insanely inefficient as soon as a piece of content started having lots of versions. It has been replaced with the following methods on the `ContentEntityManager`:

```
ContentEntityObject getPreviousVersion(ContentEntityObject ceo);
ContentEntityObject getNextVersion(ContentEntityObject ceo);
ContentEntityObject getOtherVersion(ContentEntityObject ceo, int version);
/**
 * Get a VersionHistorySummary for all previous versions of a ContentEntityObject, starting
with the current
 * content.
 *
 * @param ceo the entity object to return the version history of
 * @return the full version history of that object, as VersionHistorySummary objects.
 */
List getVersionHistorySummaries(ContentEntityObject ceo);
```

The `VersionHistorySummary` class defines a limited set of Content data that is relevant to viewing version histories.

Release Notes

This page last changed on Apr 26, 2007 by dave@atlassian.com.

The current version of Confluence is 2.5. Release notes for this version can be found [here](#). Links to [older release notes](#) are at the end of the page.

Confluence 2.5

Confluence 2.5 is the tenth release of Confluence. It introduces more flexible [page restrictions](#), and also includes a number of [minor fixes](#).

Read the [full release notes](#).

Older Release Notes:

Confluence 2.5

- [Release Notes 2.5](#)

Confluence 2.4

- [Release Notes 2.4.5](#)
- [Release Notes 2.4.4](#)
- [Release Notes 2.4.3](#)
- [Release Notes 2.4.2](#)

Confluence 2.3

- [Release Notes 2.3.3](#)
- [Release Notes 2.3.2](#)
- [Release Notes 2.3.1](#)
- [Release Notes 2.3](#)

Confluence 2.2

- [Release Notes 2.2.10](#)
- [Release Notes 2.2.9](#)
- [Release Notes 2.2.8](#)
- [Release Notes 2.2.7](#)
- [Release Notes 2.2.6a](#)
- [Release Notes 2.2.5](#)
- [Release Notes 2.2.4](#)
- [Release Notes 2.2.3](#)
- [Release Notes 2.2.2](#)

Confluence 1.4

- [Release Notes 1.4.4](#)
- [Release Notes 1.4.3](#)
- [Release Notes 1.4.2](#)
- [Release Notes 1.4.1](#)
- [Release Notes 1.4](#)

Confluence 1.3

- [Release Notes 1.3.6](#)
- [Release Notes 1.3.5](#)
- [Release Notes 1.3.4](#)
- [Release Notes 1.3.2](#)
- [Release Notes 1.3.1](#)
- [Release Notes 1.3](#)

Confluence 1.2

- [Release Notes 1.2.3](#)
- [Release Notes 1.2.2](#)
- [Release Notes 1.2.1](#)
- [Release Notes 1.2](#)

Confluence 1.1

- [Release Notes 1.1.2](#)
- [Release Notes 1.1.1](#)
- [Release Notes 1.1](#)

- [Release Notes 2.2.1](#)
- [Release Notes 2.2](#)

Confluence 2.1

- [Release Notes 2.1.5](#)
- [Release Notes 2.1.4](#)
- [Release Notes 2.1.3](#)
- [Release Notes 2.1.2](#)
- [Release Notes 2.1.1](#)
- [Release Notes 2.1](#)

Confluence 2.0

- [Release Notes 2.0.3](#)
- [Release Notes 2.0.2](#)
- [Release Notes 2.0.1](#)
- [Release Notes 2.0](#)

Confluence 1.0

- [Release Notes 1.0.3](#)
- [Release Notes 1.0.1](#)
- [Release Notes 1.0](#)

Release Notes 1.0

This page last changed on Mar 12, 2004 by [cmiller](#).

Confluence 1.0

Ring the bells. Break out the champagne. Paint the town red. Dance naked in the streets. Or at least that's what we'll be up to tonight, because we're finally releasing Confluence 1.0!

Confluence 1.0 represents the hard work and dedication of quite a few people. Obviously there's the development team: Ara, Armond, Charles, Dave, Mike and Ross, but there's also the JIRA team and the rest of the guys at Atlassian who have offered support, advice, and loud music. A huge thanks also goes out to everyone involved in the beta-testing program. Your real-world use of Confluence gave us invaluable suggestions and bug-reports, and we apologise for the times we've messed up your databases on the way.

We're pretty proud of all the cool stuff we've managed to fit into Confluence already, and we're looking forward to making it even better in forthcoming versions (Remember, a license entitles you to a year of upgrades).

The only sad moment for the day is that for the 1.0 release, we had to lose emoticons. The regular expression responsible for turning ☺ into a smiley-face was causing pages to take ten seconds to render. Commenting out the filter lowers the rendering time of even highly complex pages to a few hundred milliseconds. We promise, the smileys will return in a future version, faster and stronger than ever! Or if you don't mind the cost, you can re-enable them by uncommenting the `emoticonFilter` line in `wikiSubsystemContext.xml`

Users of late Release Candidate builds will notice a substantial improvement in performance as a result.

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New Features

For once, we managed to resist the urge to add any new features this week, since we were busy cleaning everything up for today's release.

Notable Bug-fixes

- We have verified that you can now use Confluence's internal datasources with MySQL (for users of RC5 or earlier, see the [upgrade section](#) below for information on how to change to the production-ready datasources)
- Fixed the database transaction problems that were causing problems with user/group management, page renaming and commenting
- [~user] links no longer place the context path in the link twice
- Fixed a rendering regression that caused text to be spaced incorrectly within panels
- The 404 error page no longer causes a NullPointerException
- The recent comments RSS feed returns a valid RSS version number
- The 'diff' link now works in HTML edit notification emails when Confluence is installed in a non-root context.

Outstanding Issues

- The Emoticon filter is currently shipped disabled, because it was causing page-load times to go through the roof [CONF-963](#)
- You can not complete the Confluence setup process if you have external user-management enabled. Set up Confluence before setting up external user-management. [CONF-950](#)
- It is possible to make a "create page" link to a page with invalid characters in its title (which will thus fail to be created) [CONF-810](#)
- If you are using PostgreSQL, please make sure you use the JDBC3 version of the Postgres JDBC drivers. Some users have encountered problems with the JDBC2 drivers.
- Links to images that are page-attachments are broken in email notifications [CONF-878](#)
- There continue to be problems with high-bit characters in pages when Confluence is deployed on Resin [CONF-569](#)

Upgrading from RC6

We haven't made any changes to the database schema, so you should just be able to install the new version of Confluence, point it at your existing confluenceHome directory, and carry on as before. I would, however, recommend making a backup before you upgrade, just in case.

If you:

1. have not gone through the Confluence database setup steps since Confluence 1.0RC5
2. are running the embedded HSQL database, or are connecting to a database directly (not through an Application Server Datasource)

Then you will need to add a few connection pooling properties to confluence.cfg.xml file in your confluenceHome directory. Edit the file, and insert the following somewhere in the <Properties> section:

If you do not fall into the category described above, or if you find these lines are already in the file, you do not need to do this!

```
<property name="hibernate.c3p0.max_statements"><![CDATA[0]]></property>
<property name="hibernate.c3p0.min_size"><![CDATA[0]]></property>
<property name="hibernate.c3p0.timeout"><![CDATA[30]]></property>
<property name="hibernate.c3p0.max_size"><![CDATA[4]]></property>
```

This will enable c3p0 connection-pooling, which is far more reliable than the default pooling that we were

using previously.

Notable Features from Previous Releases

Here's a quick retrospective of some of the cool things we have added to Confluence during the beta- and RC- releases. It is by no means comprehensive, but you can follow the links to the original release notes for an idea of just how busy we've been in recent months.

[Confluence 1.0a2](#) (November 6, 2003)

- Shortcut links allow you to create special URL Shortcuts to point to existing web services: i.e. [CONF-195](#)
- Undefined and Orphaned Pages reports
- Revert page to previous version

[Confluence 1.0a3](#) (December 5, 2003)

- Comments for pages
- Links in exported PDFs are internal links if the destination page has also been exported, external links otherwise
- Personal History popup keeps track of the pages you have visited
- Page Information screen lists all the incoming and outgoing links on a page
- Printable version of every page

[Confluence 1.0b1](#) (December 19, 2003)

- Pages that have changed since your last login are highlighted in the 'recent changes' list
- Pages can be organised in parent-child hierarchies, allowing for clearer organisation of pages within a space
- Page renaming refactors links to the page, wherever they may appear in the site
- Search works across all content in the site, including comments, space descriptions and user information
- A new permission was added for creating comments
- {color} macro for coloured text
- Parameters allowed on image links

[Confluence 1.0b3](#) (January 19, 2004)

- Beta2 was released a few days earlier, but we'd prefer not to talk about it.
- Searching works across PDF, HTML, XML and Word attachments
- The colour-scheme and page decorators can be configured across the site
- The site homepage is configurable
- Emoticons 😊
- New macros: {include}, {include-html}, {rss}, {search}, {jiraissues}, {junitreport}
- User profiles can be longer than 255 characters
- Much better handling of anonymous contributions

[Confluence 1.0b4](#) (January 26, 2004)

- [FatCow](#), our acceptance-testing framework was introduced to the world
- Confluence now supports chronologically organised content: blog posts
- You can now move pages between spaces, and have their links updated accordingly
- en – and em — dashes are supported
- You can link directly to attachments
- New macros: {blog-posts}, {anchor}, and an improved {rss} macro

[Confluence 1.0rc1](#) (February 6, 2004)

- XML-RPC and SOAP APIs allow you to programmatically interact with Confluence
- Trackback allows Confluence to notify other sites of links, and be notified by them
- User notifications on page and space editing were overhauled
- Look and Feel configuration was enabled individually for each space
- Linking to space descriptions and user profile pages directly is now possible: [DISC:](#), [Mike Cannon-Brookes](#)
- History popup tracks more than just pages

[Confluence 1.0rc2](#) (February 13, 2004)

- Improvements to the remote API
- RSS and HTML macros now use HTTP proxies if configured to

[Confluence 1.0rc5](#) (February 20, 2004)

- RC3, RC4 and RC5 were released within days of each other, in a flurry of mad bug-fixing
- Page templates can now be filled in in-line
- If a page is moved or renamed and you go to the URL it used to inhabit, Confluence will try to direct you to its new location
- Exported PDFs now incorporate the site's stylesheet

[Confluence 1.0rc6](#) (March 5, 2004)

- You can prevent people signing up, for private Confluence installations
- You can configure Confluence to mask user email addresses
- User management can now be shared with JIRA
- Page templates can now contain drop-down menus and text areas
- New macro: {html}

Issues Resolved for 1.0

This page last changed on Mar 12, 2004 by [cmiller](#).

Atlassian JIRA (36 issues)				
T	Key	Summary	Status	Res
	CONF-797	Provide documentation about shared user database (Jira+Confluence)	 Closed	FIXED
	CONF-219	Import from other wiki's	 Closed	FIXED
	CONF-1060	PDF Indexing	 Closed	INVALID
	CONF-764	Create jspwiki importer	 Closed	FIXED
	CONF-936	Page save and preview is slow for large pages with lots of markup	 Closed	FIXED
	CONF-944	Linking Images (thumbnailing / popups)	 Closed	DUPLICATE
	CONF-916	Joined Numbered Bullet Points	 Closed	FIXED
	CONF-551	export page is unusable for large spaces	 Closed	FIXED
	CONF-876	Possibility to hide email addresses	 Closed	FIXED
	CONF-913	Blog post results in the search page don't have edit and remove icons next to them	 Closed	FIXED
	CONF-899	Image attributes don't work when embedded in links	 Closed	FIXED
	CONF-943	Can not delete users under Postgres	 Closed	FIXED
	CONF-833	rss feed cannot read a confluence feed	 Closed	FIXED
	CONF-941	Access Administration.action results in a Page Not Found	 Closed	FIXED
	CONF-883	Security Management vs Group	 Closed	CANNOT REPRODUCE
	CONF-937	confluence-users User to group assignments don't	 Closed	DUPLICATE

	CONF-806	stick Email report shows incorrect # of comments on a topic	 Closed	FIXED
	CONF-904	java.lang.RuntimeException Caught an Ognl exception while getting property space	 Closed	CANNOT REPRODUCE
	CONF-933	Delegating user management to JIRA causes Exception	 Closed	FIXED
	CONF-919	commentrss.action returning rss 0.92	 Closed	FIXED
	CONF-1008	Cannot add page comments	 Closed	FIXED
	CONF-1057	Daily backup doesn't seem to do anything	 Closed	INVALID
	CONF-931	apostrophe followed by closing parenthesis rendered as wink emoticon	 Closed	FIXED
	CONF-918	Sticky "Add Comment" Textfield	 Closed	WON'T FIX
	CONF-917	Tables not getting formatted correctly within the lists!	 Closed	FIXED
	CONF-932	exporting table to PDF fails	 Closed	FIXED
	CONF-921	Regression: Spacing within a panel.	 Closed	FIXED
	CONF-924	[~username] links are wrong if Confluence is run through forwarding	 Closed	DUPLICATE
	CONF-896	Batch update row count wrong: 0	 Closed	CANNOT REPRODUCE
	CONF-1161	Must remove correct email adress from profile to prevent spam	 Closed	DUPLICATE
	CONF-897	[~profile] links place context name twice in link	 Closed	FIXED
	CONF-643	soap wsdl is broken (and you need to add a remote api component)	 Closed	FIXED
	CONF-946	NPE trying to rename the space home page	 Closed	FIXED
	CONF-940	Page edited email does not use full URL for 'View Changes'	 Closed	FIXED



[CONF-923](#)

[link](#)

[can't assign users to groups](#)



Closed

FIXED



[CONF-920](#)

[Paragrap spacing issues, Panel and after headings](#)



Closed

FIXED

Release Notes 1.0.1

This page last changed on Sep 14, 2006 by david.soul@atlassian.com.

Confluence 1.0.1

Over the course of the last month of supporting Confluence 1.0, there are a number of patches that we have been distributing to fix specific problems our users have encountered. Confluence 1.0.1 is a maintenance release into which all these patches have been integrated.

Who Should Upgrade?

All the issues that were resolved for this release are listed below. We have not snuck in any other changes: what you see here in the release notes is precisely what you will get. If you find something on the list that directly affects you, or that you feel justifies the effort of an upgrade, then do so. Otherwise, feel free to stick with 1.0.

Upgrade Procedure

If You Have Customised `osuser.xml`

If you have customised Confluence's user-management, for example to integrate it with LDAP or JIRA, you will have to integrate your changes to account for the caching OSUser providers we introduced in Confluence 1.0.1. See this document for more details: [Confluence Caching OSUser Provider](#). Updated instructions for integrating with JIRA user management are here: [Delegate user management to use JIRA logins](#)

Otherwise

To avoid the possibility of data-loss, you should back up your ConfluenceHome directory and your database before upgrading, and perform a full backup from within the application.

Changes in 1.0.1

See also [Issues Resolved for 1.0.1](#)

Direct Attachment Links

In response to a loud demand from users, links to attachments using the [^attachment.jpg] syntax will download the attachment file directly, instead of linking to an anchor in the destination page.

Sybase ASE Support

Confluence 1.0.1 resolves the following problems that were causing Confluence not to work with Sybase ASE 12.5.1:

- ORDER-BY mappings failing on Sybase ([CONF-1021](#))
- Can't add users under Sybase ([CONF-1022](#))
- Weird datatype error under Sybase ([CONF-1024](#))
- Sybase doesn't like complicated distinct selects (404 page fails) ([CONF-1025](#))
- Backup import fails under Sybase ([CONF-1063](#))

These bug-fixes may also improve Confluence's compatibility with other untested databases. They will not, however, have any effect on Confluence's operation against PostgreSQL, MySQL or HSQL.

Microsoft SQL Server Dialect in Setup Page

The Microsoft SQL Server database dialect was missing from the database setup page. It has now been added to the list. Confluence has not yet been tested on Microsoft SQL Server, and the usefulness of this option is not yet guaranteed. However, since the Sybase issues above are now resolved and SQL Server belongs to the same family as Sybase, it would be well worth a try.

JIRA User Provider Caching

Users who were linking their user management to JIRA's using the supplied provider were experiencing significant performance problems as a result. 1.0.1 introduces caching to the user provider, which should speed up these installations significantly.

Global Reports Visibility

Under Confluence 1.0, the global "undefined pages" and "orphaned pages" reports did not properly filter out pages that the user could not see. The user could not see the content of any page they did not have access to, but they could learn of the existence of (and names of) pages and spaces they were not permitted to see. This bug is fixed in 1.0.1

Locale-Independent Dates in Backup/Restore

In Confluence 1.0, dates were written into backup files using a localised representation of the month. As such, if you exported Confluence data from a server in one locale it might not import successfully into a server with a different Locale setting. Confluence 1.0.1 still recognises the 1.0 export format, but its own exports will write out dates in a locale-independent format.

As noted above, this means that data exported from Confluence 1.0.1 can not be imported successfully into Confluence 1.0.

Fix Browser Crash on Viewing Some Templates

Previously, if you created a template containing no variables, then anyone attempting to preview or use that template would have their browser hang in an infinite Javascript loop. Confluence 1.0.1 fixes this bug.

Typo Fixed on User Group Editing Page

A single-character change from "privilage" to "privilege".

Issues Resolved for 1.0.1

This page last changed on Apr 06, 2004 by cmiller.

Atlassian JIRA (16 issues)				
T	Key	Summary	Status	Res
	CONF-1007	Ability to specify attachment link behavior	 Closed	FIXED
	CONF-1065	Add Caching to JIRA user providers	 Closed	FIXED
	CONF-1025	Sybase doesn't like complicated distinct selects	 Closed	FIXED
	CONF-1020	Dates are localised on backup, lost on restore	 Closed	FIXED
	CONF-1021	ORDER-BY mappings failing on Sybase	 Closed	FIXED
	CONF-1043	Missing Dialect Class Name for Microsoft Sql Server	 Closed	FIXED
	CONF-1063	Backup import fails under Sybase	 Closed	FIXED
	CONF-1003	typo on edit user groups	 Closed	FIXED
	CONF-1028	JavaScript runs bananas when viewing Templates	 Closed	DUPLICATE
	CONF-1114	The emoticons don't seem to work....	 Closed	DUPLICATE
	CONF-1038	Template with no form fields can't be previewed	 Closed	FIXED
	CONF-1070	Users without permissions can see undefined pages	 Closed	FIXED
	CONF-1005	Script causing browser to hang	 Closed	DUPLICATE
	CONF-1055	"Global reports" visibility bug	 Closed	FIXED
	CONF-1022	Can't add a user under Sybase	 Closed	FIXED
	CONF-1024	Weird datatype error under Sybase	 Closed	FIXED

Release Notes 1.0.3

This page last changed on Jul 20, 2004 by mike@atlassian.com.

Confluence 1.0.3

Confluence 1.0.3 is another maintenance release, hopefully the last maintenance release we will need on the 1.0 branch before moving full steam ahead towards version 1.1. It fixes some bugs regarding the remote SOAP/XML-RPC API, the display of the 404 error page under Postgresql, and the display of the site's stylesheet under certain versions of Internet Explorer.

The Confluence development team are now working hard on 1.1, which will contain significant improvements and new features. Remember, a Confluence license entitles you to a year of upgrades, so if you buy 1.0.3 today, you'll be able to upgrade to 1.1 for no extra charge when the time comes.

See also: [Issues Resolved for 1.0.3](#)

Who should upgrade?

Confluence users should be running at least Confluence 1.0.2. Versions prior to 1.0.2 contain a bug that will cause their licenses to expire a month after the build date listed in the page footer, regardless of the true expiry date of the license. Versions 1.0.2 and later do not contain this bug. (Note: In the absence of this bug, only trial licenses ever expire. Purchased licenses for Confluence do not expire.)

All the issues that were resolved for this release are listed below. We have not snuck in any other changes: what you see here in the release notes is precisely what you will get. If you find something on the list that directly affects you, or that you feel justifies the effort of an upgrade, then do so. Otherwise, feel free to stick with 1.0.2

Upgrade Procedure

Confluence 1.0.3 contains no database or configuration file changes, so you should just be able to unpack it on top of your existing Confluence installation:

1. Shut down the Confluence server
2. Back up `confluence/WEB-INF/classes/confluence-init.properties`, and if you have customised it, `confluence/WEB-INF/classes/osuser.xml`
3. Unpack Confluence 1.0.3 in the same location as your existing Confluence installation
4. Restore the two files you backed up in step 1 to the 1.0.3 installation.
5. Start Confluence

To avoid the possibility of data-loss, you should back up your `ConfluenceHome` directory and your database before upgrading, and perform a full backup from within the application.

Changes in 1.0.3

Global RSS Feed Fixes

The global RSS feeds found on the Dashboard page were not being generated correctly: an extra ')' was being added to the end of links. This has been fixed in 1.0.3

Page Not Found Fix for Postgresql

Users running Confluence against a Postgresql database were encountering a system error whenever someone attempted to visit a page that did not exist. This has been fixed.

Remote API Fixes

Several outstanding issues with the remote API that were holding back the [TimTam|] client have been fixed. In addition a getVersion method has been added to allow client authors to determine which version of Confluence a server is running, and adjust their features to match. The full description of Confluence's remote API is here: [Remote API Specification](#)

- The WSDL file now respects the server's configured base URL, so SOAP can be used on servers that are behind a proxy.
- getPermissions now recognises when a user is in the confluence-administrators super-user group.
- storePage handles re-parenting a page correctly
- storePage will now allow a page to be renamed (all links to the page are automatically redirected)

Other Fixes

- You can now comment on a blog post when the title contains non-US-ASCII characters
- The bug that was causing some versions of Internet Explorer 6 to not display the site's stylesheet has been fixed

Issues Resolved for 1.0.3

This page last changed on Apr 30, 2004 by [cmiller](#).

Atlassian JIRA (14 issues)				
T	Key	Summary	Status	Res
	CONF-1123	Add getVersion to remote api	 Closed	FIXED
	CONF-1100	404 page dies under Postgresql	 Closed	FIXED
	CONF-1101	Global RSS feed links have extra)	 Closed	FIXED
	CONF-1091	storePage does not handle re-parenting correctly	 Closed	FIXED
	CONF-974	Store Page fails when page is renamed.	 Closed	FIXED
	CONF-1140	Remote API permissions not respecting "superuser" group	 Closed	FIXED
	CONF-1068	Can not comment on blog posts which title contain special characters	 Closed	FIXED
	CONF-1088	SOAP Service broken on confluence.at	 Closed	FIXED
	CONF-1186	Some versions of IE6 can't see the stylesheet	 Closed	FIXED
	CONF-1166	SOAP interface not using Base URL	 Closed	FIXED
	CONF-1083	Cannot Delete User from Group	 Closed	WON'T FIX
	CONF-1200	confluence-administrators Permissions check for commenting fails	 Closed	FIXED
	CONF-982	Page not found blows up with oracle dialect	 Closed	FIXED
	CONF-1118	Some SQL Exception raise randomly	 Closed	DUPLICATE

Release Notes 1.0a2

This page last changed on Jan 18, 2004 by [cmiller](#).

Confluence 1.0a2

Confluence 1.0a2 was released November 6, 2003.

New Features

- Shortcut links ([CONF-195](#) & [CONF-247](#)) - shortcut links enable you to easily make links to any 'web service' from within the syntax of a Confluence page. Simply specify your shortcut and the URL to link to (eg "google", "[http://www.google.com/search?q=\\$1](http://www.google.com/search?q=$1)") to add your own links. You could use this to link directly to JIRA installations, Google, intranets, searches or anything that has a 'URI' based interface.
- Revert page to a previous version ([CONF-32](#)) - revert to a previous version of any given page from the list of previous versions.
- Forgot password function ([CONF-88](#)) - retrieve your password if you happen to have forgotten it
- Report: undefined pages ([CONF-197](#)) - list of all pages which are linked to from other pages, but not defined.
- Report: orphaned pages ([CONF-198](#)) - shows all the pages which are never linked to (ie have content but no way to get to them).
- Interstitial help page after creating a space ([CONF-251](#))
- 'Notify me', and HTML/text email preferences, with HTML email content
- Links to non-exported pages are now maintained in exported PDFs (the links point back to the online Confluence installation)
- Custom Radeox macros can now be used within Confluence - this enables you to write your own macros to produce custom content
- XML import/export of a single space ([CONF-199](#)) - useful for porting spaces between installations
- XML import/export of a single page ([CONF-200](#)) - useful for creating pages automatically, or sync'ing pages between installations.
- Many other minor fixes, improvements and performance tweaks

Release Notes 1.0a3

This page last changed on Jan 18, 2004 by [cmiller](#).

Confluence 1.0a3

Confluence 1.0a3 was released December 5 2003

New Features

- Completely rearchitected around the [spring framework](#)
- Page comments ([CONF-235](#)) - users can now attach comments to a page.
- Email notification for new comments.
- Supports non-ASCII characters in page names ([CONF-297](#))
- Improved handling of internal and external links in exported PDFs
- Editing popup to help with inserting links (internal and external) into pages ([CONF-129](#))
- Personal history ([CONF-196](#)) - a popup window containing your recently visited pages.
- Page information screen ([CONF-270](#)) lists all the incoming and outgoing links for a page, and all attachments
- User profile UI has been enhanced ([CONF-172](#))
- Dashboard and Space summary pages have had a big UI overhaul)
- Brief help on Wiki notation now available on create and edit pages. ([CONF-295](#))
- Improved available help on various pages.
- Enhanced mail-server administration.
- All pages have a printable version accessible from the icon at the top-right of the page ([CONF-338](#))
- HTML and text email notifications have been greatly improved and are now much more useful. Links in HTML emails work seamlessly with online Confluence version.
- Many other minor fixes, improvements and performance tweaks

Release Notes 1.0b1

This page last changed on Jan 18, 2004 by [cmiller](#).

Confluence 1.0b1

Confluence 1.0b1 was released 19th December 2003.

That's right - we finally got it out the door! cheers from around the room erupt as developers across in the Atlassian offices crack open a beer.

New Features

- It's soooo much faster as we've implemented caching at multiple levels - trust me, it now flies in development. Here's hoping it flies for you too. (For those with a development bent, turn on profiling via the URL to see a beautiful profiling stack trace on stdout)
- The last login date is now tracked, pages and spaces changed since your last login are highlighted in green (as these are presumably pages you want to view), you can see a diff of the currently viewed page against the date you last logged in and there are various related reports of spaces/pages changed since your last login.
- Parent/child page hierarchies have been implemented. You can specify the parent for any pages and the ancestry is reflected in the breadcrumbs list. The full hierarchy is shown (including the current page's position) on the Page Information screen, and there is a related macro to show the children in various different types of trees (see the Notation Guide for details)
- Search has been completely overhauled - search now works across pages, comments and space descriptions and the results now display descriptions with highlighted search terms (this is really cool!)
- Page renaming and link refactoring now works across comments, space descriptions and pages - neat!
- The Notation Guide has been significantly improved with more useful examples, a list of the available macros and a tabbed interface. Also the edit/create pages now have a 'quick notation guide' to the most commonly used operations
- There is a new 'Create Comment' permission - so that you can make spaces which are publicly viewable/commentable, but not editable.
- The UI of the 'create link' and 'external link' links within a rendered page have been improved with subtle icons
- Page comments now have a sexy icon of their own, and can be shown/hidden at will. You can also permalink to any given comment and comments are fully indexed.
- Undefined and orphaned pages reports have been tightened significantly so that they now report truly undefined/orphaned pages
- You can create a list of URLs ignored from external referrers - this is useful where your server is known by multiple IP / domain name combinations, or you want to ignore all internal referrers (Admin / General configuration)
- `{color}` macro to colour blocks of text
- Logging in to Confluence now takes you to your intended destination, not the Dashboard
- There is an option to choose whether the default link for a space goes to the space homepage or the space summary (people internally and externally seem to be divided about which it should go to - so you can choose for yourselves)
- You can now edit and add SMTP servers through the web interface
- The administration interface has been completely overhauled and tightened
- Added a Mail Queue administration page

- Added a View System Information page
- Added a pretty error page, and the ability to submit bug reports (including exports) directly to us
- The permissions viewing and editing pages have been greatly simplified and improved across the application
- Confluence now has a licensing system, so you will need a license key to evaluate (these can be generated online as with JIRA).
- Image embedding can now include parameters (such as height, width, alignment etc) - see the Notation Guide for details.
- [https://](#) links are now treated just like [ftp://](#) and [http://](#) external links
- Various rendering bugs have been fixed.
- Many other minor fixes, improvements and performance tweaks

Release Notes 1.0b2

This page last changed on Jan 18, 2004 by [cmiller](#).

[I see dead pages!](#)

Confluence 1.0b2 was released on Friday January 16, 2004 with a major bug in its search indexing that caused it to index pages that no longer existed. It was replaced by 1.0b3 the next Monday.

See also: [Release Notes 1.0b3](#) and [Issues Resolved for 1.0b3](#)

Release Notes 1.0b3

This page last changed on Jan 19, 2004 by mike@atlassian.com.

Confluence 1.0b3

1.0b3 was released on January 19th, 2004. It replaces the short-lived 1.0b2 release, after 1.0b2 managed to escape into the wild with a bug in the search index that made it see pages that weren't there any more. Since 1.0b2 only existed for one weekend, the release-notes for both versions have been folded into a single document.

This is a massive release. Over 90 issues (new features, improvements and bug-fixes) were resolved between beta-1 and beta-3, with even more improvements made below the issue-tracking radar.

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1. [New Features](#)
2. [New Macros](#)
3. [Improvements](#)
4. [Notable Bug-fixes](#)
5. [Outstanding Issues](#)

See also: [Issues Resolved for 1.0b3](#)

New Features

Search Attachments

Attachments are now indexed for searching just like any other content in the Confluence space. Alongside text, HTML and XML attachments, Confluence will also index Word, RTF and PDF documents.

Configurable Look and Feel

The site administrators can now [customise the colour-scheme](#) of the Confluence installation. More advanced configuration can be done by [editing the site's templates](#) through a web interface, changing the appearance of the whole site. See [Customising Confluence](#) for examples and information.

Site Homepage

The site administrator can now set the site homepage for users who have not logged in: choosing from either the dashboard (the default behaviour in beta1 and before), or any of the Space homepages within the site.

Users who have logged in can choose their own site homepage in their user profile.

RSS Feed for New Comments

You can subscribe to all new comments added to a space using an [RSS](#) newsreader. (The link to the RSS feed can be found on the Space Summary page)

Emoticons



New Macros

- `{include}` – include the contents of one Confluence page within another (see [Include Page Macro](#) for more details)
- `{include-html}` – include the contents of an HTML document within a Confluence page (turned off by default. See [Enabling the html-include Macro](#) for more information)
- `{rss}` – include an external [RSS](#) feed (see [RSS Feed Macro](#) for details and example)
- `{search}` – include the results of a Confluence search (see [Search Macro](#) for details and example)
- `{jiraissues}` – integrate Jira issue reports with your Confluence site (see [JIRA Issues Macro](#) for details and example)
- `{junitreport}` – include JUnit test result data (see [JUnit Report Macro](#) for details and example)

Improvements

- Users' login names and full names are indexed for searching
- Users' profiles may now be longer than 255 characters, and are also indexed for searching
- Usernames are no longer case-sensitive
- Anonymous contributions are clearly labeled
- Users are warned if they are editing or commenting without having logged in
- Notification emails now link to the appropriate "diff" page, so you can quickly see what has changed
- Page diffs now highlight precisely what changed within each line: very useful when just one or two words change in a long paragraph
- Lists of child pages and links are sorted alphabetically
- Long lists of pages or search results are paginated
- Shortcut links can be given different link text in the same way as other links (e.g. [Search for Confluence on Google|confluence@google])
- Incoming links and "hot referrers" are listed in the sidebar of the page view
- Child pages are listed below the page contents in the page view

Notable Bug-fixes

- You no longer get the old page (or don't see the comment) immediately after editing or commenting on a page [CONF-453](#)
- Persistent login cookies no longer conflict with a JIRA installation on the same server [CONF-440](#)
- Persistent login cookies no longer fail for users with certain characters in their username [CONF-387](#)
- Notification emails no longer send out garbage for anonymous changes. [CONF-421](#)
- Users who are not logged in no longer see strange table titles [CONF-422](#)
- And [many more...](#)

Outstanding Issues

- You should restart Confluence immediately after finishing the initial setup steps, to avoid data loss [CONF-493](#)
- New-lines may not be drawn if the next line starts with whitespace [CONF-475](#)
- Emoticons are rendered inside {noformat} blocks [CONF-502](#)
- If you put a {children} macro after an {include} macro, it will list the children of the included page. [CONF-504](#)

Issues Resolved for 1.0b3

This page last changed on Jan 18, 2004 by [cmiller](#).

Atlassian JIRA (3 issues)				
T	Key	Summary	Status	Res
	CONF-497	Search includes old versions of pages	 Closed	FIXED
	CONF-495	Problem with incoming links	 Closed	FIXED
	CONF-496	Problem with rename	 Closed	FIXED

Issues resolved for 1.0b2

1.0b3 was a quick bug-fix release for 1.0b2, so here are the issues resolved in 1.0b2:

Atlassian JIRA (81 issues)				
T	Key	Summary	Status	Res
	CONF-304	Sitemesh/Velocity Integration	 Closed	FIXED
	CONF-429	Upgrade SiteMesh and use Velocity decorators	 Closed	FIXED
	CONF-410	Update confluence features list	 Closed	FIXED
	CONF-425	Upgrade to CVS HEAD of XWork / WebWork 2	 Closed	FIXED
	CONF-438	JUnit XML displaying macro !	 Closed	FIXED
	CONF-407	RSS feed for recently added comments	 Closed	FIXED
	CONF-483	{include:page} macro	 Closed	FIXED
	CONF-290	Configurable Look & Feel	 Closed	FIXED
	CONF-173	Remote editable space decorators	 Closed	FIXED
	CONF-420	Set "Site Homepage"	 Closed	FIXED
	CONF-307	Ability to search attachments	 Closed	FIXED
	CONF-437	External RSS macro!	 Closed	FIXED
	CONF-417	One-click bug submission	 Closed	DUPLICATE
	CONF-449	Macro for fetching/importing JIRA issues	 Closed	FIXED

	CONF-456	Global colour-scheme configuration	 Closed	FIXED
	CONF-418	Better handling of anonymous contributions	 Closed	FIXED
	CONF-412	Make usernames and user full names searchable	 Closed	FIXED
	CONF-388	Include user in "Recently Updated Pages"	 Closed	FIXED
	CONF-458	JIRA macro column selection	 Closed	FIXED
	CONF-462	Documentation for decorator editing	 Closed	FIXED
	CONF-394	Update links from other spaces when renaming pages	 Closed	FIXED
	CONF-431	Per word diffing	 Closed	FIXED
	CONF-443	Shortcuts should allow "my link name" like other links do	 Closed	FIXED
	CONF-457	Put nice colour-picker on colour customisation screen	 Closed	FIXED
	CONF-387	Move "incoming links" back to the page	 Closed	FIXED
	CONF-401	Parent child relationships should be thought about more	 Closed	FIXED
	CONF-371	Child pages invisible by default	 Closed	FIXED
	CONF-413	Add diff link to "page edited" email	 Closed	FIXED
	CONF-415	Make diffs highlight changes within a line.	 Closed	DUPLICATE
	CONF-397	Fix user profile so it can hold > 255 chars	 Closed	FIXED
	CONF-373	Upgrade to the Spring SessionInView filter	 Closed	FIXED
	CONF-419	Warn user if they're commenting/editing anonymously	 Closed	FIXED
	CONF-454	Improve the JUNIT macro	 Closed	FIXED
	CONF-477	Add emoticons to confluence	 Closed	FIXED

	CONF-471	Pagination for long lists (search is the first!)	 Closed	FIXED
	CONF-482	Page templates should be editable on the web interface and saved in exports	 Closed	FIXED
	CONF-421	NPE when sending notifications for anonymous user activity	 Closed	FIXED
	CONF-452	Permissions check for /signup.action always fails	 Closed	FIXED
	CONF-408	Escaped characters don't work as they should	 Closed	FIXED
	CONF-450	BackupJob does not have a Hibernate session	 Closed	FIXED
	CONF-392	Mistyped link syntax gets rendered weirdly	 Closed	FIXED
	CONF-406	Could not parse : Dec 19, 2003 : java.text.ParseException	 Closed	FIXED
	CONF-441	"my link name" links in tables don't work right	 Closed	FIXED
	CONF-433	No security checking in FileServerServlet!	 Closed	FIXED
	CONF-468	Link extraction should exclude {code} contents	 Closed	FIXED
	CONF-446	ampersand in links breaks them	 Closed	FIXED
	CONF-467	"Display Default Decorator" shows edited template, not default	 Closed	FIXED
	CONF-424	{children} macro barfs on removed child page	 Closed	FIXED
	CONF-488	Too much white space generated?	 Closed	FIXED
	CONF-494	Export from data originating in beta1 may be unimportable in beta2	 Closed	FIXED
	CONF-414	Replace all webwork.urlEncode with generalUtil.urlEncode	 Closed	FIXED

	CONF-393	(*boldme* does not work.	 Closed	FIXED
	CONF-435	Macros still run inside {noformat} block	 Closed	FIXED
	CONF-463	Path admin page still thinks it's a setup step	 Closed	FIXED
	CONF-481	Newly added comment doesn't appear when posted	 Closed	DUPLICATE
	CONF-411	Cancel button not working on Add Comment Dialog	 Closed	FIXED
	CONF-440	Confluence Login cookies conflict with JIRA	 Closed	FIXED
	CONF-383	Export space fails	 Closed	WON'T FIX
	CONF-486	Space descriptions can't contain links in their space	 Closed	FIXED
	CONF-453	"Add Page" permission checking is not consistent when logging in as anonymous	 Closed	FIXED
	CONF-451	Setting a homepage makes dashboard inaccessible.	 Closed	FIXED
	CONF-405	Usernames (while logging in or setting up a new account) shouldn't be considered as case sensitive	 Closed	FIXED
	CONF-409	Logging in anonymously & the UI display keys!	 Closed	FIXED
	CONF-485	Incoming links from space descriptions buggy	 Closed	FIXED
	CONF-442	line breaks (\\) don't work	 Closed	FIXED
	CONF-487	HTML emails contain #emailUserLink (mike)	 Closed	FIXED
	CONF-476	Editing personal information in user profile stops working	 Closed	FIXED
	CONF-470	Apostrophe double-encoded inside {code} block	 Closed	FIXED
	CONF-432	Exception when diffing added line	 Closed	FIXED

	CONF-479	Errors invisible on "rename page" form	 Closed	FIXED
	CONF-466	{{color}} macro messed up by surrounding {{monospace}} markup	 Closed	FIXED
	CONF-354	Can not use LDAPCredentialsProvider	 Closed	WON'T FIX
	CONF-439	Email password doesn't seem to work	 Closed	FIXED
	CONF-422	i18n text inside a webwork 2 component do not display (only their keys do) for anonymous users	 Closed	DUPLICATE
	CONF-459	' is converted into &#8217	 Closed	CANNOT REPRODUCE
	CONF-472	adding a comment does not display it right away	 Resolved	FIXED
	CONF-404	Undefined pages report misrenders when link source is a comment	 Closed	FIXED
	CONF-423	Should not be able to add ANYONE group to ADMINISTRATE Confluence/Space permissions	 Closed	FIXED
	CONF-384	Login cookie appears to be broken on confluence.atlassian.com:8080	 Closed	FIXED
	CONF-464	Standalone tomcat version is not working!	 Closed	FIXED
	CONF-447	Error automatically creating pages with illegal names	 Closed	FIXED

Release Notes 1.0b4

This page last changed on Jul 01, 2004 by [jnolen](#).

Confluence 1.0b4

To belatedly ring in the Year of the Code-Monkey, it's time for Confluence 1.0 beta 4. We've had some great feedback on the last few betas, thanks to everyone for [submitting bugs](#), and contributing to the [forums](#) and [discussion space](#).

Contents

1. [FatCow](#)
2. [New Features](#)
3. [New Macros](#)
4. [Improvements](#)
5. [Notable Bug-fixes](#)
6. [Outstanding Issues](#)

See also: [Issues Resolved for 1.0b4](#)

Atlassian FatCow

Along with 1.0b4, we're also releasing [FatCow](#): Functional Acceptance Testing for the Confluence Wiki. Styled after Ward Cunningham's [FIT](#) and Bob Martin's [Fittesse](#), FatCow allows you to define web-based acceptance tests in wiki notation, and then run them from inside Confluence. Here's [a tutorial](#) showing how to write a quick FatCow test suite that makes sure Confluence shows up on Google. 😊

FatCow is Open Source, and also serves as example code for anyone who wants to extend Confluence by writing their own macros (something that we'll be looking to make easier in future releases).

New Features

Blog Posts

Each space can now host a "blog" of pages that are organised by date, rather than just by title. This is pretty useful if you want to attach some kind of updating news to a space. The "create blog post" button can be found on the right-hand toolbar.

Blogging support is pretty basic right now: you can create posts, and you can include the most recent posts in a page using the {blog-posts} macro. Rest assured, we'll be piling on the features in the next few releases.

Move Pages Between Spaces

A much requested feature, our newest refactoring lets you move pages cleanly from one space to

another. We're using this already to maintain a private space where we stage documentation waiting to be transferred to the main documentation space.

Configurable Site Description

You can now change the text in the site description that appears on the user's dashboard: somewhere to put welcome messages or MOTDs. And, of course, it understands Confluence markup.

`#includePage("Page")` Velocimacro

For the decorator-editors, you can use this render the contents of a page anywhere inside a decorator. The page has to be in the space that the user is looking at, and if the page does not exist, nothing will be rendered.

New Macros

- `{blog-posts}` displays the most recent blog posts for a space.
- `{rss}` macro now has `maxEntries` and `titleBar` parameters.
- `{anchor}` macro allows you to create named anchors in a page (link to them with `[SPACE:page#anchor]`)

Improvements

- You can now draw en – and em — dashes.
- `mailto:` links are now drawn as just the email address, like so user@example.com
- the `{search}` macro now excludes the page it was included in from the search results
- you can also link to attachments using `#-anchors` `[SPACE:page#attachment.pdf]`
- you are given the opportunity to pick a template when creating a page from a link, and any entered page title survives picking a page template

Notable Bug-fixes

- Spurious error message about editing a stale version of a page have been squashed.
- No longer crashes when you add a user to certain groups.
- Some database queries have been rewritten to work around the fact that MySQL doesn't understand sub-selects.
- Diffs more reliably highlight changed words
- Several minor rendering problems to do with deeply nested lists have been fixed.
- and [many more...](#)

Outstanding Issues

- You should restart Confluence immediately after finishing the initial setup steps, to avoid data loss [CONF-493](#)
- New-lines may not be drawn if the next line starts with whitespace [CONF-475](#)
- Emoticons are rendered inside `{noformat}` blocks [CONF-502](#)

Issues Resolved for 1.0b4

This page last changed on Jan 27, 2004 by jnolen.

Atlassian JIRA (39 issues)				
T	Key	Summary	Status	Res
	CONF-460	FIT macros and integration	 Closed	FIXED
	CONF-501	&mdash; and &ndash; filters	 Closed	FIXED
	CONF-509	Site description	 Closed	FIXED
	CONF-291	Ability to move a pages between spaces	 Closed	FIXED
	CONF-192	Ability to link to attachments	 Closed	FIXED
	CONF-234	Blog posts	 Closed	FIXED
	CONF-531	Add Max Entries parameter to rss macro	 Closed	FIXED
	CONF-534	Search macro should exclude page it's included on	 Closed	FIXED
	CONF-544	add a titleBar=true false option to rss macro	 Closed	FIXED
	CONF-555	mailto links should look better	 Closed	FIXED
	CONF-554	Support emdash like Textile	 Closed	FIXED
	CONF-515	Home link on summary page goes to... summary.	 Closed	FIXED
	CONF-513	Form rules on 'Create Admin Account' during setup!	 Closed	FIXED
	CONF-507	SnipSnap import does not add users to confluence-users	 Closed	FIXED
	CONF-474	Don't get the chance to fill out variables	 Closed	FIXED
	CONF-543	Preview & Confirm is always telling me the page is outdated	 Closed	FIXED
	CONF-517	Back button "rollbacks" changes when previewing a page	 Closed	WON'T FIX
	CONF-535	Removing a page gives exception on	 Closed	FIXED

	CONF-529	MySQL template variables with an underscore in the name don't highlight properly	 Closed	FIXED
	CONF-505	Internal anchor links have the external link icon	 Closed	FIXED
	CONF-537	HTML export is broken	 Closed	FIXED
	CONF-528	jiraissues macro does not display due column	 Closed	FIXED
	CONF-516	Cannot add user to additional groups	 Closed	FIXED
	CONF-524	Edit Page Conflicts is buggy - often seems to detect conflicts which aren't there	 Closed	FIXED
	CONF-519	Lists only work to 4 levels	 Closed	FIXED
	CONF-504	{include} macro confuses {children} macro.	 Closed	FIXED
	CONF-567	Home link should take users to the home page	 Closed	FIXED
	CONF-508	Space description links don't take you to the space description	 Closed	FIXED
	CONF-445	JDBC error accessing undefined pages on mysql	 Closed	FIXED
	CONF-518	Deeper item in list can't be bold	 Closed	FIXED
	CONF-547	MySQL doesn't support sub-selects	 Closed	FIXED
	CONF-546	Hot Referrers includes editing links	 Closed	WON'T FIX
	CONF-510	'Browse Pages' does not show the recently modified pages (in green)...	 Closed	FIXED
	CONF-512	Confluence doesn't like it when I re-add a deleted child page	 Closed	FIXED
	CONF-566	Previewing multiple times while editing confuses the versioning system	 Closed	DUPLICATE
	CONF-522	Page-Space relation is corrupted after latest upgrade (blog	 Closed	FIXED

	CONF-526	related table modifications) Moving page doesn't break parent/child relationships	 Closed	FIXED
	CONF-444	JDBC error accessing orphaned pages on mysql	 Closed	FIXED
	CONF-523	Single word diff rendering is buggy	 Closed	FIXED

Release Notes 1.0rc1

This page last changed on Jul 20, 2004 by mike@atlassian.com.

Confluence 1.0rc1

It's Friday again, and that means it's time for us to release Murray; Confluence 1.0 Release Candidate 1.

RC1 marks the start of the feature-freeze as we plunge headfirst towards a stable 1.0 release. From now until 1.0-final we will be concentrating on fixing up the remaining bugs and polishing the interface. We are hoping that we won't need to send out a second release candidate, but we can't really make any promises until we've had a chance to go through the inevitable deluge of new issues that will follow this release.

Of course, this means that there are features you want to see in Confluence that won't make it into 1.0-final. [Keep those ideas and suggestions coming](#). Confluence isn't going to stop at 1.0 – we just had to draw a line somewhere or we'd end up perpetually in beta. We have no plans to slow down development after the first major release. Your Confluence licence includes a year of upgrades, and if you think Confluence is way cool now, it's just going to get better.

As always, before upgrading an existing Confluence installation, be sure to back up your data.

As you can see below, we've been busy the last two weeks. A hard-earned thirst needs a good cold beer.

Contents

1. [New Features](#)
2. [New Macros](#)
3. [Improvements](#)
4. [Notable Bug-fixes](#)
5. [Outstanding Issues](#)
6. [Database Changes from Beta4](#)

See also: [DOC:Issues Resolved for 1.0rc1](#)

New Features

Remote API

Cannot resolve external resource into attachment.

Confluence can now be browsed and edited remotely via SOAP or XML-RPC. [There are more details of the XML-RPC API here](#), while the SOAP WSDL can be downloaded from `$your_confluence_root$/rpc/soap/confluenceservice-v1.wsdl`. Throwing together a GUI client for Confluence is now [pretty easy](#), so feel free to embed Confluence support into your favourite editor, web browser or IDE.

Blogging Enhancements

The sketchy blogging support from Beta4 has been upgraded and overhauled. Enhancements include:

- The look and feel of blog pages has been greatly improved
- A "recent blog posts" list available from the Space Summary page
- Daily and monthly views for blog posts
- Blog posts can now be edited and deleted
- You can now link to blog posts using the internal link syntax. Blog posts are addressed by their posting-date and title, like so: [SPACEKEY:/2004/01/03/Blog Post Title]
- You can link to the daily views, too: [SPACEKEY:/2004/01/03/]
- RSS feeds are available for new blog posts, both globally (from the dashboard), and for each space (from the space summary page)

Also, anonymous users are no longer allowed to post blog entries. We couldn't really think of a use-case where anonymous blog-posts would be wanted, but if you can, let us know!

Configurable User Notification

With any knowledge-sharing application, it's important to keep informed as to what has changed. One way to do this is by subscribing to any of the [RSS](#) feeds offered by Confluence. Another is to have Confluence email you directly whenever there has been a change. Up 'til now, users have had to make do with the ad-hoc regular-expression based notifications that were put in for developers. With RC1, we now have a more fine-grained and user-friendly way to choose how you find out about changes to the site.

1. Each day, Confluence can email you a summary of any changes that have been made to the site in the past 24 hours. You can activate this feature in your user preferences.
2. You can subscribe to "watch" a page from the option in the right-hand operations menu. Whenever the page is modified, commented on, or a new attachment is added, you will receive an email. When you no longer want to watch the page, you can click the icon again to unsubscribe.
3. You can subscribe to watch an entire space from the option on the space summary page. This subscribes you to all pages in that space, and also notifies you when new pages are created.

Each user can now also choose whether or not they will be notified of changes they make themselves.

Trackbacks

While Confluence has always tracked links between pages within the Confluence site, it now has a way to track links to and from external sites: the Trackback API. In this way, a Confluence page can be informed when another site has mentioned it, and inform other sites that it has linked to them.

We have implemented the [Trackback](#) and [Trackback auto-discovery](#) APIs across pages and blog-posts. Trackback is a widely implemented API that allows web pages to notify each other of links. You can enable (or disable) trackbacks from the Confluence general administration page.

When Trackbacks are enabled, each Page and Blog Post within Confluence is set up to receive trackback pings, and contains the auto-discovery code to allow clients to automatically find out how to send those pings. Trackbacks that are received are listed in the right-hand sidebar of the page.

Also when Trackbacks are enabled, Confluence will perform auto-discovery on each outgoing link from a page to see if the destination is equipped to receive trackbacks, and send its own trackback ping.

Look forward to future versions of Confluence making very interesting use of this feature. 😊

Per-Space Look and Feel

The template-- and colour-scheme editing features that were available on a global basis in previous versions of Confluence can now be configured separately for each space, allowing you to apply a different look and feel to the various spaces within your Confluence site.

New Macros

- {panel} macro allows you to draw a shaded box containing some content

Improvements

- Import and Export should now be much faster, and use significantly less memory
- The user browser now has a search function, to make it possible to manage large numbers of users effectively
- Incoming links are no longer displayed on a page if the user is unable to view the page being linked from
- The {anchor}, {blog-posts}, {index} and {quote} macros are now documented properly.
- You can escape smileys by putting a backslash before their last character, to cause them not to be rendered as images :)
- You can now link to peoples' user profile pages with [~username] (e.g. [Charles Miller](#))
- You can now link to space homepages with [SPACEKEY:] (e.g. [TEST:](#))
- mailto: links have a nifty icon: user@example.com
- The History popup now tracks your visits to blog posts, space summaries and user profile pages
- Recent changes listings on the dashboard, user profile and space summary pages now includes changes to all content, not just pages.
- New Emoticons! (well, icons really)

(y)	(n)	(i)	(/)	(x)	(!)
					

Notable Bug-fixes

- Added HTML headers to detect and prevent RSS, HTML-Include and FatCow macros from being made to loop in on themselves. [CONF-525](#)
- The {anchor} macro, and [DOCPRIV:null] links now work as advertised. [CONF-616](#), [CONF-605](#)
- Fixed a divide-by-zero error in page diffs [CONF-584](#)
- Included javax.transaction libraries with release, to allow the WAR to run under Tomcat 5 [CONF-613](#)
- And many more rendering and stability fixes...

Outstanding Issues

- Still some problems with character encoding in page titles [CONF-569](#)
- HTML include macro interacts badly with other Radeox filters [CONF-549](#)

Database Changes from Beta4

New Tables

TRACKBACK and NOTIFICATION tables were introduced. These tables should be generated automatically when you first start RC1.

New column in the EXTRNLINKS table

- alter table EXTRNLINKS add column CONTENTTYPE varchar(255);

Constraint Change on LINKS Table

The "not null" constraint was removed from the DESTPAGETITLE column of the LINKS table. Consult your database documentation on how to alter your database for this change. For example:

- MySQL 3.23: alter table LINKS modify DESTPAGETITLE VARCHAR(255);
- PostgreSQL 7.3.2 alter table LINKS alter DESTPAGETITLE drop not null;

Issues Resolved for 1.0rc1

This page last changed on Feb 06, 2004 by [cmiller](#).

Atlassian JIRA (63 issues)				
T	Key	Summary	Status	Res
	CONF-579	Daily Notification Report	 Closed	FIXED
	CONF-540	Recent Blog Posts RSS feed	 Closed	FIXED
	CONF-559	Add Trackback support	 Closed	FIXED
	CONF-280	Implement VP Wiki API	 Closed	WON'T FIX
	CONF-626	Recent Blog Posts page	 Resolved	FIXED
	CONF-545	create a panel macro	 Closed	FIXED
	CONF-581	Notify me for this page	 Closed	FIXED
	CONF-591	Remote XML-RPC API	 Closed	FIXED
	CONF-615	Create SOAP API	 Closed	FIXED
	CONF-553	Link directly to user profile	 Closed	FIXED
	CONF-541	Blog Post Daily View	 Closed	FIXED
	CONF-538	Internal links to blog-posts	 Closed	FIXED
	CONF-465	Per-space colour schemes	 Closed	FIXED
	CONF-542	Blog Post Monthly View	 Closed	FIXED
	CONF-580	Notify me for this space	 Closed	FIXED
	CONF-561	Space specific decorators	 Closed	FIXED
	CONF-600	listpages.action should show a page count	 Closed	FIXED
	CONF-617	History popup now tracks viewing user info pages	 Closed	FIXED
	CONF-576	Blog page L&F needs to be more blog like	 Closed	FIXED
	CONF-583	Do not notify user of his own actions	 Closed	FIXED
	CONF-568	documentation for {anchor} macro missing	 Closed	FIXED
	CONF-601	I18n for execution threads that aren't triggered by web	 Closed	FIXED

	CONF-625	requests "Recent Changes" lists should include changes to all content types	 Closed	FIXED
	CONF-562	"New file attached" notification email	 Closed	FIXED
	CONF-558	nice icon for mailto: links	 Closed	FIXED
	CONF-506	Remove blurb from {jiraissues} header.	 Closed	FIXED
	CONF-557	Improve user browser	 Closed	FIXED
	CONF-578	Display of comment section remembered by page	 Closed	FIXED
	CONF-539	Edit/delete blog posts	 Closed	FIXED
	CONF-502	Need a way to escape smileys	 Resolved	FIXED
	CONF-582	exception when removing page	 Closed	CANNOT REPRODUCE
	CONF-552	search macro output is not updated	 Closed	FIXED
	CONF-573	Insert Link is broken	 Closed	FIXED
	CONF-475	New line disappears	 Closed	WON'T FIX
	CONF-564	Error deleting template	 Closed	CANNOT REPRODUCE
	CONF-609	Deny blog posting for anonymous users	 Closed	FIXED
	CONF-624	Prevent trackback autodiscovery from downloading just anything	 Closed	FIXED
	CONF-623	children Hierarchy macro fails if page is assigned to heirarchy later	 Closed	FIXED
	CONF-610	Pages with a parent are, by definition, not orphaned	 Closed	FIXED
	CONF-563	Incoming links displayed for pages you can't see	 Closed	FIXED
	CONF-588	Links in noformat macro broken	 Closed	FIXED
	CONF-572	ImportExportException	 Closed	FIXED
	CONF-570	Moving page doesn't update internal links	 Closed	FIXED
	CONF-612	Bug on "Moving Page"	 Closed	FIXED
	CONF-3286	CLONE -New line disappears	 Closed	CANNOT REPRODUCE

	CONF-622	Errors with new links	 Closed	FIXED
	CONF-621	Stack trace editing issue	 Closed	FIXED
	CONF-618	Can not setup with hsqdl	 Closed	FIXED
	CONF-620	Can't edit personal profile	 Closed	FIXED
	CONF-597	Templates feature doesnt seem to work in B3	 Closed	DUPLICATE
	CONF-571	Links in PDF export broken (contain www.atlassiannull.com/blah)	 Closed	FIXED
	CONF-590	When renaming a page name truncalates first letter of new link	 Closed	CANNOT REPRODUCE
	CONF-585	faulty rendering of anchor links	 Closed	FIXED
	CONF-613	javax.transaction not included in lib jars	 Closed	FIXED
	CONF-616	Links containing &#xxxx; entities are malformed	 Closed	FIXED
	CONF-536	Renaming backup files is dangerous	 Closed	FIXED
	CONF-574	missing velocity file for blog post preview	 Closed	FIXED
	CONF-584	page diff results in ArithmeticException	 Closed	FIXED
	CONF-525	RSS macro can loop on itself	 Closed	FIXED
	CONF-592	Changing parent page doesn't work	 Closed	FIXED
	CONF-605	Page anchors showing in links	 Closed	FIXED
	CONF-628	Can not choose custom backup path	 Closed	FIXED
	CONF-602	No notification email is sent!	 Closed	FIXED

Release Notes 1.0rc2

This page last changed on Feb 13, 2004 by [cmiller](#).

Confluence 1.0rc2

After a week of frantic bug-fixing, we have released Confluence 1.0 Release Candidate 2. Thanks everyone for reporting all the bugs they found in RC1. While we really hope you'll keep reporting anything you find that doesn't work, we're also hoping that there's a lot less to report now.

We have released RC2 because it's a lot more stable than RC1. We know a lot of you are already using Confluence in some kind of production capacity, and we don't want to keep you waiting for the important fixes that we put in this week.

Since we're in the middle of a feature freeze, there obviously aren't any new major features in this release, but there are a number of incremental improvements, and a lot of fixes.

But first, a...

WARNING

If you are upgrading from Confluence 1.0rc1, do not perform a backup of your data from within Confluence. There was a serious bug with RC1 that caused user permissions to be corrupted during data exports.

There have been no database changes between RC1 and RC2, so you should simply be able to run RC2 against your existing data without performing a backup/restore.

If you wish to back your data up safely before the upgrade, you will need to do so manually: shut down Confluence, make a copy of your Confluence home directory (as defined in `confluence-init.properties`, and if you are storing your data in something other than HSQL, use your database's native backup procedure.

Contents

1. [Improvements](#)
2. [Other Bug-fixes](#)
3. [Outstanding Issues](#)

See also: [Issues Resolved for 1.0rc2](#)

Improvements

- Remote XML-RPC and SOAP APIs now have a `getPermissions()` method
- `{noformat}` macro accepts a title parameter
- Page view and create links are no longer displayed if the user does not have permission to view or

create the destination page.

- When you create a page from viewing a previous page, you are given another chance to make that page the new page's parent.
- RSS and HTML include macros use HTML proxies if they are defined using the standard Java `http.proxyHost` and `http.proxyPort` system properties.
- Default session timeout is now 60 minutes
- Improvements to user browser and user profile page UI
- Shortcut link definitions are now backed up and restored

Notable Bug-fixes

Stability

We've done a lot of work tracking down the source of any exception and page error that has been reported to us, and fixing their causes. We've also made one or two improvements to the error reporting page, but we're hoping you won't see it nearly as often (if at all) any more.

Page Templates

The creation, editing and deletion of page templates should now be a lot more reliable and provide a smoother user experience.

Also

- You no longer have to restart Confluence after its initial setup [CONF-493](#)
- Performing a full data export no longer corrupts users' group membership data. [CONF-645](#)
- You can now link to profiles of users with an @ symbol in their usernames [CONF-639](#)
- Trying to create a page with illegal characters in its name no longer loses your page content on some browsers. [CONF-713](#)
- Tracback pings are now sent for URLs that are not surrounded by square brackets [CONF-708](#)
- And, of course, [many more...](#)

Outstanding Issues

The two major areas we still need to work on are the PDF export and the use of non-ASCII characters in pages (especially page titles). Handling of both are much better than they were a week ago, but there's still some work to do before they're completely reliable.

Issues Resolved for 1.0rc2

This page last changed on Feb 13, 2004 by [cmiller](#).

Atlassian JIRA (74 issues)				
T	Key	Summary	Status	Res
	CONF-589	Way to prevent a http URL from being rendered as a link	 Closed	FIXED
	CONF-255	Please please please. Support external (LDAP) groups.	 Closed	WON'T FIX
	CONF-532	Add title parameter to noformat macro (and you can rename it at the same time to 'block')	 Closed	FIXED
	CONF-714	RSS and HTML include macros should use proxies if defined	 Closed	FIXED
	CONF-642	Pages that have more than one version have different icon	 Closed	FIXED
	CONF-666	Remote APIs need a getPermissions() method	 Closed	FIXED
	CONF-668	Up default session timeout to 60 minutes	 Closed	FIXED
	CONF-654	Make double-encoding smarter	 Closed	FIXED
	CONF-636	anchor links to local page anchors classed as incoming link	 Closed	FIXED
	CONF-641	Improve user profile UI	 Closed	FIXED
	CONF-670	Javascript 'Make previous page into parent' link	 Closed	FIXED
	CONF-596	User friendly options for exporting a space	 Closed	DUPLICATE
	CONF-700	Create a page from a sub page should implicit include the parent page in the Create Page Dialogue	 Closed	FIXED
	CONF-646	Move "new blog	 Closed	FIXED

	CONF-697	post" away from "add child page" Edit my profile page help information is inconsistent	 Closed	FIXED
	CONF-640	Fix user browser UI	 Closed	FIXED
	CONF-701	Export page to PDF, click on generated link for page that doesn't exists...generates a NPE	 Closed	DUPLICATE
	CONF-687	Comments to blog posts that appear on the dashboard recently updated list are broken	 Closed	FIXED
	CONF-627	Link icons don't show up in PDFs	 Closed	FIXED
	CONF-716	SQL error removing user on Postgres	 Closed	FIXED
	CONF-656	emoticons path is wrong	 Closed	FIXED
	CONF-484	Some links in the documentation site are "create new page" links	 Closed	FIXED
	CONF-655	Upload attachment without specifying file should have nicer error	 Closed	FIXED
	CONF-631	SOAP service can't get started	 Closed	FIXED
	CONF-689	pdf export of page containing ndash (--) fails	 Closed	FIXED
	CONF-679	Blog RSS DTD gives 404	 Closed	FIXED
	CONF-708	External links that are not bracketed "[]" are not pinged for trackbacks	 Closed	FIXED
	CONF-690	italic text effect in link text broken	 Closed	FIXED
	CONF-659	Snipsnap Import Fails.	 Closed	FIXED
	CONF-662	Login required to browse spaces	 Closed	WON'T FIX
	CONF-703	Unable to create template of same name, after deleting original	 Closed	CANNOT REPRODUCE
	CONF-704	Template stops working once you've	 Closed	FIXED

	CONF-706	edited it once Recent updates lists gets page modifier wrong if anonymously edited.	 Closed	FIXED
	CONF-673	isUserWatchingSpace throws null pointer sometimes	 Closed	FIXED
	CONF-657	Various crashes with space-less links in user profiles	 Closed	FIXED
	CONF-639	[~username] link fails when username contains @	 Closed	FIXED
	CONF-647	Templates feature doesnt seem to work in RC1	 Closed	FIXED
	CONF-675	When running confluence under a non-default context, exporting PDF breaks	 Closed	DUPLICATE
	CONF-493	Confluence not fully set up until first restart	 Closed	FIXED
	CONF-674	Notifications not updated when a page is deleted	 Closed	FIXED
	CONF-648	Unable to set the name of a page using templates once a template is selected	 Closed	FIXED
	CONF-685	Attempting to export a non-perfect page as PDF breaks	 Closed	FIXED
	CONF-651	Viewing previos version diff "to previous" throws NullPointerExceptions	 Closed	FIXED
	CONF-684	Clicking on Previous Version -> Version gives NPE	 Closed	FIXED
	CONF-619	Upgrade from B3 to B4 gives InfrastructureException	 Closed	WON'T FIX
	CONF-633	Can't restore the extranet data locally	 Closed	WON'T FIX
	CONF-360	Edit Profile corrupts user record	 Closed	DUPLICATE
	CONF-683	PDF export fails on {children} macro	 Closed	FIXED
	CONF-699	Renaming page and only changing the	 Closed	FIXED

		case gives error message		
	CONF-695	Inconsistencies in remote soap api	 Closed	FIXED
	CONF-677	Exporting a page as PDF with macros results in "null"	 Closed	FIXED
	CONF-705	When creating a document with the template Java error occurs	 Closed	CANNOT REPRODUCE
	CONF-696	Wrong type of date returned incall to getPage and getPageHistory	 Closed	FIXED
	CONF-686	Servlet context added for export causing problem with mod_jk	 Closed	FIXED
	CONF-667	admin login doesn't work in Safari	 Closed	FIXED
	CONF-681	Rename problems (CONF-496) persist in pages made with previous versions	 Closed	FIXED
	CONF-635	Can not view the users which have their username start with capital !	 Closed	FIXED
	CONF-669	Exception clicking "New Blogs" link	 Closed	FIXED
	CONF-672	NPE with GlobalRSSFeed	 Closed	FIXED
	CONF-645	groups disappearing for users	 Closed	FIXED
	CONF-644	Cannot backup data	 Closed	FIXED
	CONF-691	Can't delete page templates that have been edited	 Closed	FIXED
	CONF-702	Export to PDF doesn't render all text correctly	 Closed	FIXED
	CONF-688	SOAP service has \$Proxy name	 Closed	FIXED
	CONF-713	Creating a page with bad characters in the title loses page content	 Closed	FIXED
	CONF-658	Panel, first list item not recognized, and not closing on multiple list items	 Closed	FIXED
	CONF-632	ClassCastException in BackupJob	 Closed	FIXED

	CONF-678	Exporting entire space gives ImportErrorException	 Closed	FIXED
	CONF-649	"Create Page" link displayed even when user can't create a page	 Closed	FIXED
	CONF-634	Shortcut/Interwiki links are not backed up and restored!	 Closed	FIXED
	CONF-711	NPE in Global "spaces report"	 Closed	FIXED
	CONF-349	Create page from template	 Closed	FIXED
	CONF-652	RSS feeds throw NullPointerExceptions	 Closed	FIXED
	CONF-698	Anonymous users cannot access the RSS feeds. Throws a NPE	 Closed	DUPLICATE

Release Notes 1.0rc5

This page last changed on Sep 18, 2004 by [timcolson](#).

Confluence 1.0rc5

It's time to release Confluence 1.0rc5 into the wild: it's the fourth Release Candidate since last Friday, and we're definitely getting close here. The last two release-candidates did not have their own release-notes, so these notes will also include things that were fixed for those versions.

Contents

1. [New Features](#)
2. [New Macros](#)
3. [Improvements](#)
4. [Notable Bug-fixes](#)
5. [Outstanding Issues](#)

See also: [Issues Resolved for 1.0rc5](#)

New Features

In keeping with our promise to not add any features during the Release Candidate process, we have been very restrained, and only added two new features 😊

Template Preview

Page templates have been given an overhaul: when filling in your template variables, you are presented with a template of the rendered page, with input fields where the variables will be inserted. If you have the same variable used in several places, the form will take care of keeping them all in synch.

Step 2: Fill in template variables

Choose values for the variables in this template. These values will be automatically inserted into the template for you in the correct locations.

New template (title)

By David Loeng (author)

February (month) 20th (day), 200 (year)

After a week of frantic bug-fixing, we have released Confluence 1.0 Release Candidate 2. Thanks everyone for reporting all the bugs they found in RC1. While we really hope you'll keep reporting anything you find that doesn't work, we're also hoping that there's a lot less to report now.

(from) - (to)

(from) - (to)

(from) - (to)

We have released RC2 because it's a lot more stable than RC1. We know a lot of you are already using Confluence in some kind of production capacity, and we don't want to keep you waiting for the important fixes that we put in this week.
Since we're in the middle of a feature freeze, there obviously aren't any new major features in this release, but there are a number of incremental improvements, and a lot of fixes.
Regards,

David Loeng (author)

Page Redirection

When you rename or move a page, the page's old URL will attempt to give users some clue as to where they should be looking: checking which pages have had this name in the past, or redirecting users to pages in another space with the same name.

In This Space
The page you were looking for may have been renamed to one of the following:  Ridiculous (Fish Space) And yet another page to add to the confusion  Before (Fish Space) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer euismod tellus et sem. Aliquam ullamcorper hendrerit arcu. Sed lacus odio, mattis ut, sollicitudin at, tincidunt vitae, magna. Integer aliquam nibh sed libero....
In Other Spaces
The page you were looking for may have moved to another space:  Cows (Bouncy Space) This is the page before it was renamed.

New Macros

- {weblogs} is a synonym for {blog-posts}

Improvements

- The user signup screen has a more friendly UI
- Exported PDFs now incorporate the site's stylesheet, and thus look a lot better.
- Confluence now has a useful "404" error page that gives the user some suggestions of how to find what they were looking for.
- An Administrators page, linked from the footer of each page, lists those users in the "confluence-admin" group. (If you don't want your address to be made public on this page, create an administrative group with some other name)
- The error you receive when you exceed your licensed user limit is more informative, and no longer directs users to email Atlassian. 😊
- The SnipSnap importer converts SnipSnap blog posts to Confluence blog posts.
- Several methods added to the XML-RPC and SOAP APIs for managing users and spaces. (See [DISC:Conf Remote API Additions](#))
- The Daily Report email is more informative and more readable
- Page comments and Parent/child relationships are maintained during HTML and PDF exports
- news: and nntp: URL schemes are now recognised in bracketed links

Notable Bug-fixes

Since RC2

- Links between pages now work when you have a context path other than / (oops!)
- The daily report email is no longer sent every minute (oops!)
- You can no longer download attachments without being logged in (OOPS!)
- Search results no longer highlight words that were terms in previous searches

Since RC3

- Page redirects now work properly under Orion 2.0.2

Since RC4

- Removing a user no longer causes their notifications to hang around and crash things
- Removing a blog post works, too
- Many fixes to PDF rendering and exporting
- Many fixes to handling of Latin character set (See outstanding issues below)
- Invalid macros now give a more informative error than "no group 3"
- The 404 error page no longer requires you to log in to view it
- Macros that generate HTML (page include, HTML include, JIRA, RSS, FatCow) bypass the remainder of the page processing, and so should have far fewer formatting errors now.
- User browser filter remembers your search across pages

Plus, of course, innumerable fixed to annoying crashing bugs across all three releases.

Outstanding Issues

Latin Characters under Resin

We've tested creating pages with non-ASCII titles and content across several different browsers and several different operating systems, and they seem to be working reliably now... except on Resin. This will be quite noticeable since confluence.atlassian.com itself is running under Resin, but we have so far been unable to come up with a solution that works on this application server.

For users who need this functionality, we suggest running under Tomcat.

- On MySQL, the "orphaned pages" report may include the space's homepage [CONF-766](#)
- Combining block macros with lists is dangerous [CONF-756](#)
- Under some circumstances, paragraph tags will not be closed [CONF-746](#)

Issues Resolved for 1.0rc5

This page last changed on Feb 20, 2004 by mike@atlassian.com.

Atlassian JIRA (35 issues)				
T	Key	Summary	Status	Res
	CONF-775	Add user management methods to remote API for administrators	 Closed	FIXED
	CONF-787	Allow news: and nntp: URL schemes in [links]	 Closed	FIXED
	CONF-788	Forced newline // should give <br clear="all"/>	 Closed	FIXED
	CONF-750	Improve the UI of the signup screen	 Closed	FIXED
	CONF-773	Make daily email a bit more readable	 Closed	FIXED
	CONF-499	Renaming a page should leave behind an HTTP redirect	 Closed	FIXED
	CONF-719	PDF Export Bookmark browser doesn't reflex parent/child page relationship	 Closed	FIXED
	CONF-755	create a ConfluenceException and throw when we have a user correctable error	 Closed	FIXED
	CONF-723	The parent/child relationships are not reflected in HTML exports!	 Closed	FIXED
	CONF-763	space scoped templates not showing up on Browse Templates page	 Closed	FIXED
	CONF-760	Error message for an unknown macro is misleading	 Closed	FIXED
	CONF-758	content-by-user macro broken	 Closed	FIXED
	CONF-781	NPE on 500 error response that contains no exception under	 Closed	FIXED

	CONF-745	Orion Panel, extra white space at top and extra extra when included	 Closed	FIXED
	CONF-751	Moving page edits space descriptions?	 Closed	FIXED
	CONF-729	renderContent generates bad html for images from blog macro & for attached images	 Closed	FIXED
	CONF-739	User browser filter not maintained in session	 Closed	FIXED
	CONF-774	Daily Email not picking up all of the changes in a day	 Closed	FIXED
	CONF-768	Logging in occasionally redirects user straight to the fourfour page :)	 Closed	FIXED
	CONF-757	PDF's show question marks instead of bulletin points	 Closed	DUPLICATE
	CONF-744	Exporting a page as PDF with {fatcontroller} breaks	 Closed	FIXED
	CONF-676	Exporting as a PDF, document with list items generates garbage in PDF	 Closed	FIXED
	CONF-779	Removing a user doesn't remove notifications	 Closed	FIXED
	CONF-710	Can not export a page (as PDF) while there are two anchors with the same name!	 Closed	FIXED
	CONF-777	Remote API does not incidate space comment or admin perms	 Closed	FIXED
	CONF-772	putting in bogus URL doesnt show 404, later 404 looks unwell	 Closed	FIXED
	CONF-782	Page doesn't get listed instantly	 Closed	CANNOT REPRODUCE
	CONF-752	ImmutableException when trying to reset	 Closed	CANNOT REPRODUCE

	CONF-771	password NPE on "recently updated pages report" on dashboard	 Closed	FIXED
	CONF-769	Getting a lot of these traces running RC4 under tomcat 4.1.27	 Closed	WON'T FIX
	CONF-767	html export zip appears empty as XP compressed folder	 Closed	WON'T FIX
	CONF-761	Watch this Space didn't work	 Closed	FIXED
	CONF-556	Import fails if export is from different database	 Closed	FIXED
	CONF-770	NPE in space look and feel action	 Closed	FIXED
	CONF-754	weblog macro broken in rc3 after a snipsnap import	 Closed	FIXED

Release Notes 1.0rc6

This page last changed on May 23, 2006 by david.soul@atlassian.com.

Confluence 1.0rc6

Confluence 1.0rc6 fixes more bugs. Lots of them. There aren't many new and interesting features to report, although we have implemented the much-requested ability to mask email addresses and prevent public signup. Mostly, we've been toiling away fixing the lots of little problems that are getting in the way of us calling Confluence truly worthy of the 1.0 label.

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1. [New Features](#)
2. [New Macros](#)
3. [Improvements](#)
4. [Notable Bug-fixes](#)
5. [Outstanding Issues](#)

See also: [Issues Resolved for 1.0rc6](#)

New Features

Private Confluence Configuration

In private mode, the only way to add users to Confluence is through the administrative interface: users can not sign up on their own. This way, you can prevent random passers-by from signing on to your Confluence installation. The site administrator can configure this in the general administration settings.

Email Address Privacy

Another much-requested feature, the site administrator has three options for email-address privacy:

- Public: just like pre-rc6, users email addresses are displayed publicly.
- Masked: email addresses are still displayed publicly, but masked in such a way to make it harder for spam-bots to harvest them.
- Private: only site administrators can see users' email addresses.

Administrators should be aware that even in private mode, anyone in the confluence-admin group will still be listed (with their email address) on the administrators page, although their addresses will be masked.

Share User Management with JIRA

For sites with both a Confluence and a JIRA installation, Confluence can be set up to delegate its user-management to JIRA. You can find [detailed instructions here](#).

Template Field Types

Templates now support drop-down menus and text-input areas.

@variablename|textarea(5,10)@ will give you a 5 x 10 text-area called 'variablename'.

@variablename|list(one,two,three,four)@ will give you a drop-down list called 'variablename', with options one, two, three and four.

Step 2: Fill in template variables

Choose values for the variables in this template. These values will be automatically inserted into the template for you in the correct locations.

Name of software:	postfix	(name)
Installed on:	mail	(server)
Installed by:	Charles Miller	(installer)

Configuration Notes

Follow the instructions for installing SASL authentication from [here|<http://ezine.daemonnews.org/200306/postfix-sasl.html>]

(notes)

New Macros

- The {html} will allow you to insert arbitrary HTML code into a page. This macro is turned off by default, as it is a security-risk on public systems. We only recommend you enable it on private or intranet-based Confluence installations where you trust your users not to write malicious HTML code. Here's a trivial example of its use:

```
{html}\n<p>This HTML is <b>inserted</b> into the page</p>\n{html\}
```

- The {junitreport} macro has an option: "reportdetails=failuresonly" that will cause it to only show details of tests that have failed. For example:
{junitreport:directory=[file:///var/tests](#)|reportdetail=failuresonly}

Improvements

- Users are now taken to their preferred homepage rather than the dashboard after logging in
- Text-fields in a template are disabled during preview and viewing
- Orphaned and Undefined page reports are now paginated
- Macros such as {code} or {noformat} are now made part of a list if they are placed adjacent to them

Notable Bug-fixes

- User->Group relationships should no longer disappear during manual or scheduled backups
- Search results no longer allow people to see content they might not be allowed to see
- Comments should no longer appear out of order on a page
- Moving a page between spaces no longer breaks #anchor links
- Many rendering fixes, some subtle, some not so
- Many stability fixes, especially regarding import and export

Outstanding Issues

Random MySQL Disconnections

If you are running Confluence against MySQL using Confluence's built-in datasource, the connection with the database server may be lost after long periods of inactivity. We are pretty sure we have a fix for this, but since the bug takes several hours to manifest, we were not able to test the fix before the release of rc6.

The good news is that if we are right, it will only require a quick edit of your configuration file to implement the fix. Further announcements will be made both on confluence.atlassian.com, and the confluence-user mailing-list.

In the meantime, the workaround is to not use Confluence's built-in datasource, but to configure Confluence to use your application-server's JNDI datasources instead. Instructions for doing this with Tomcat [can be found here](#), and if you need more help, don't hesitate to contact us at confluence-support@atlassian.com.

Latin Characters under Resin

We've tested creating pages with non-ASCII titles and content across several different browsers and several different operating systems, and they seem to be working reliably now... except on Resin. This will be quite noticeable since confluence.atlassian.com itself is running under Resin, but we have so far been unable to come up with a solution that works on this application server.

For users who need this functionality, we suggest running under Tomcat.

Also..

- On MySQL, the "orphaned pages" report may include the space's homepage [CONF-766](#)
- You can create a link to a page with an illegal title: prompting the user to create a page that can not exist [CONF-810](#)
- Trackbacks are not sent for shortcut links [CONF-888](#)

Issues Resolved for 1.0rc6

This page last changed on Mar 05, 2004 by [cmiller](#).

Atlassian JIRA (52 issues)				
T	Key	Summary	Status	Res
	CONF-786	Document running JIRA and Confluence on one standalone	 Closed	FIXED
	CONF-849	Delegate confluence user management to JIRA	 Closed	FIXED
	CONF-792	Private setup	 Closed	FIXED
	CONF-813	Mask/hide email preference	 Closed	FIXED
	CONF-868	Inline HTML Macro	 Closed	FIXED
	CONF-906	Users should be taken to their specified home page after successful login	 Closed	FIXED
	CONF-815	Disable textfields in template on viewing and preview	 Closed	FIXED
	CONF-808	Undefined and Orphanned pages are not getting paginated!	 Closed	FIXED
	CONF-812	Wording on signup page	 Closed	FIXED
	CONF-837	Have Junit report show failures only	 Closed	FIXED
	CONF-903	Some final really quick UI fixes?	 Closed	WON'T FIX
	CONF-905	It would be nice to be able to break up a list over several lines	 Closed	FIXED
	CONF-789	Allow Template variables to have types	 Closed	FIXED
	CONF-549	html-include macro broken	 Closed	FIXED
	CONF-756	Lists, and noformat blocks combination not working	 Closed	FIXED
	CONF-912	Templates barf on anchors with no context	 Closed	FIXED
	CONF-855	Change notification email links do not use full server path	 Closed	FIXED

	CONF-882	Browse pages does not show newly added pages until a page is deleted	 Closed	FIXED
	CONF-872	list items with russian symbols break list	 Closed	FIXED
	CONF-909	MySQL disconnects if configured for direct connection	 Closed	FIXED
	CONF-846	{noformat} renders spurious semicolon	 Closed	FIXED
	CONF-804	Daily Email says all edits are by Anonymous	 Closed	FIXED
	CONF-874	Auto backup is not working	 Closed	CANNOT REPRODUCE
	CONF-854	ParseException when trying to use rss / jiraissues macro	 Closed	WON'T FIX
	CONF-881	User/group relations vanish	 Closed	FIXED
	CONF-908	Input area to enter info in user profile is very small when using IE 6.0	 Closed	FIXED
	CONF-891	Comments appearing out-of-order	 Closed	FIXED
	CONF-860	Date / Time display in 12 hour format, without AM/PM	 Closed	FIXED
	CONF-826	Jira issues macro doesn't render correct title if it includes html tag	 Closed	FIXED
	CONF-873	Need to restart tomcat if confluence unused for a while	 Closed	DUPLICATE
	CONF-829	Licensing error appears on 'enter licence' screen	 Closed	FIXED
	CONF-910	Image attributes allow malicious javascript	 Closed	FIXED
	CONF-894	RSS feeds	 Closed	CANNOT REPRODUCE
	CONF-869	Crash on viewing own profile	 Closed	FIXED
	CONF-863	Inline images get garbled when exporting to PDF	 Closed	WON'T FIX
	CONF-798	Inter-page links in exported PDF wrong	 Closed	FIXED

	CONF-857	Blank Space on Enclosed {panel}	 Closed	FIXED
	CONF-870	Remove space fails with a SQL Integrity Contrain Violation	 Closed	FIXED
	CONF-746	HTML Paragraph not closed if starts with number colon	 Closed	FIXED
	CONF-682	Single letter phrase notation doesn't work	 Closed	FIXED
	CONF-821	{blog-posts} macro gives weird black/grey/black/grey stripes	 Closed	FIXED
	CONF-836	Primary key conflicts after an import	 Closed	FIXED
	CONF-871	faulty rendering of sequenced text effects	 Closed	FIXED
	CONF-841	Moving page between space borks #anchor links	 Closed	FIXED
	CONF-820	hibernate lazy instantiation problem on getRecentlyUpdatedContent() in ViewSpaceAction	 Closed	CANNOT REPRODUCE
	CONF-915	Bold not working inside a sub-numbered Bullet	 Closed	FIXED
	CONF-790	{noformat} inside bullets	 Closed	DUPLICATE
	CONF-902	Blog post macro recursion problem	 Closed	FIXED
	CONF-838	Template of email notifications for 'text' format doesn't exist.	 Closed	FIXED
	CONF-839	Group bases permissions doesn't work properly	 Closed	FIXED
	CONF-875	Unexpected end of input stream	 Closed	DUPLICATE
	CONF-828	Search results include restricted spaces	 Closed	FIXED

Release Notes 1.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Nymboida, Nym to his friends, is Confluence 1.1. He wants to be your friend.

Confluence 1.1 is the first major update to Confluence. It's faster, more reliable, and packed with new features. Thanks to our policy of a year's free upgrades, any current Confluence customer will be able to upgrade to 1.1 at no cost.

Current customers, or new users who wish to try out Confluence for 30 days can download either the standalone or WAR distributions from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Upgrading from 1.0.3a

Upgrading Confluence should be pretty easy: you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

- Users who have enabled external user-management by customising their `osuser.xml` file will need to read [this document](#) also.
- Users who have used MySQL or Postgresql with Confluence 1.0 should read [this document](#) which explains how to get rid of any extraneous triggers or indexes that might have been created.

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See also: [Issues Resolved for 1.1](#)

New Features

Macro Management

The biggest Nymboida new feature from an end user point of view is going to be the rewritten macro support.

Management - You can now enable and disable macros from this convenient (and very attractive) console. Macros are now grouped into libraries to make the management and creation of related macros simpler. Libraries can be installed, activated or deactivated as a single entity.

Cannot resolve external resource into attachment.

User Macros - We've also had a lot of requests from users for simple formatting macros: people who wanted their code snippets or notes to be formatted in a certain way. Confluence 1.1 contains a simple way for administrators to create new macros from within the application without a restart: defining a template that the macro will apply to its arguments or content. User macros are very handy for providing consistent formatting and layouts across your pages.

Cannot resolve external resource into attachment.

Custom Macros - Installation of new macro libraries is a breeze: simply drop the library .jar file inside the web application, restart Confluence, and your new macros will appear in the management console. Confluence 1.1 also includes a custom macro toolkit (with Task List example shown below) to help users build their own complex macros easily using Java.

Cannot resolve external resource into attachment.

More information:

- [DOC:Macro Management](#) - a guide to the Macro Management console
- [DOC:User Macros](#) - how to write User Macros
- [DOC:Custom Java Macros](#) - a guide (and worked example) for writing and distributing your own Java macros for Confluence

Attachments: versioning, comments and WebDAV support

Versioning - The number one feature request for Confluence 1.0 was versioned attachments. You ask, we deliver! 😊 Confluence can now have multiple versions of the same file attached to a page. It will keep a history of different versions of attachments, expandable dynamically.

Comments - Each attachment can now be accompanied with a comment describing why it is there, what it's about or the reason for it being attached. This is useful for tracking the differences between attachment versions, as well as for informing users as to why they should be interested in a particular file.

Cannot resolve external resource into attachment.

WebDAV - You can configure Confluence to store attachments in an external WebDAV server. This allows companies with an existing WebDAV infrastructure to give users alternative ways of accessing attachments and attaching files to Confluence pages.

Improvements to Page and Space Exports

- Exporting pages and spaces to PDF should be a great deal more reliable now. Whereas in Confluence 1.0, the export was likely to fail if the pages contained questionable markup, we now dynamically clean up each page before we export it.
- You can choose whether or not page comments are exported. Often you want to exclude comments if you want to send out a PDF of a page or publish a space as a website.
- The templates used to publish pages and spaces to HTML can be customised on a global and per-space basis. This makes it easy to publish a static website from the contents of a Confluence

space: customise your templates, choose which pages to export, and voila.

Customise Display of Blog Posts

The templates used to display blog posts (both individually and in lists) can be edited either globally, or on a per-space basis, in the same way as the site's main decorators are editable. Also, the interface for editing templates has improved and will continue to do so in future releases.

Page Locking

If you want to prevent another user from editing, deleting or renaming a page, you can now lock it. You may want to do this because certain pages in an otherwise public space (for example, front pages, disclaimers or copyright notices) must remain un-edited, or just because you're working on the page and don't want anyone else to interfere just yet.

Locking a page restricts editing to a single user (yourself), or members of a particular group. Anyone with the space administrative permission can override or delete a lock.

Oracle and Weblogic Support

We have made a concerted attack on the various issues that were making Confluence unreliable on Oracle and Weblogic, and we're pleased to report that both have been running just fine in testing. Most importantly, the bug that was preventing pages being saved to Oracle when they were over 4Kb in length has been fixed.

For details of what precisely was fixed, see:

- [The Weblogic support super-issue in JIRA](#)
- [The Oracle support super-issue in JIRA](#)

Search Powerpoint and Excel Attachments

Confluence already searches across attached Word, PDF and RTF documents, XML, HTML and any plain text file. This search support has now been expanded in Nymboida to include searching and indexing of all text within Microsoft Powerpoint presentations and Excel spreadsheets.

In addition, the new attachment comments are also searchable.

TinyURL

Every page has a unique, short URL displayed at the top of its Page Information page. This makes it easier to send colleague's the URLs for pages with long titles via email, instant message or IRC.

New and Improved Macros

New

- `{excerpt}` allows you to mark a portion of the page as its "excerpt". This has no effect on the page itself, but other macros (such as `{blog-posts}` and `{children}`) can use the excerpt as a short summary of the content of the page.
- `{excerpt-include}` includes one page's excerpt in another page.

Improved

- `{code}` macro supports coloured highlighting for several more languages: JavaScript, ActionScript, XML and SQL.
- `{code}` macro can have its title and border customised in the same way as the `{panel}` macro
- `{blog-posts}` takes an optional `time` parameter to indicate how far back it should look for blog posts. For example, `{blog-posts:time=7d}` will show all blog-posts within the last seven days
- `{blog-posts}` takes an optional `content` parameter to change the way the blog-posts are displayed. `content=excerpts` displays excerpts instead of the full content of the blog entry (using the `{excerpt}` macro if available, otherwise extracting the first few hundred characters of the post). `content=titles` displays the entries as a list of titles.
- `{children}` takes an optional `excerpts=true` parameter: if any of the children have an excerpt available, the first line will be displayed in the list.

Improvements

Improvements to the Markup Engine

Many improvements have been made to the Confluence markup parser, fixing niggling inconsistencies, and allowing many more combinations of effects. If you want to produce something like the following, you can:

Name	Value
Some code	<pre>public static void main(String[] args) { System.out.println("Hello World"); }</pre>
A list	• Item 1 • Item 2 • Item 3 • Item 4
A panel	I like cheese
	• Brie • Camembert • Gruyere

	• Cheddar

You can also center an image using `!image.gif|align=center!`

Improvements to Linking

- You can specify a link title (which appears in the mouse-over tooltip) by adding another section to the link: `[Link Body Text|Page Name|Link Title]`
- `[//foo/bar/baz.html]` will create a relative URL link to `/foo/bar/baz.html` on the same server as Confluence is running
- `file:` URL links work
- UNC-style links: `[\\SERVER\share\directory\file.doc]` will create a [file://](#) link to the file on an external share

Note: Some web browsers (specifically Mozilla) consider `file:` URLs to be a security hazard, and do not follow them.

And a whole lot more...

Here's the quick fire version of some of the other improvements we've made in this release:

- You can resize the recent changes lists on the dashboard and space summary pages. This change is persisted in your user preferences.
- UI state (whether comments or attachments are open, size of recent changes lists) persists between sessions for registered users.
- The maximum attachment size can be configured from the General Configuration administration page.
- Going to <http://yoursite.example.com/display> now brings up a list of spaces instead of an error page.
- The display of the space summary page is significantly faster.
- Newly created users don't show up on the dashboard recent changes list unless they edit their profiles.
- The word "Confluence" has been moved to the end of page titles instead of the beginning, making them easier to distinguish in tabs and bookmarks.
- There are more ways to navigate to the "recent blog posts" page for a space.
- Removing a user is significantly faster.
- Headings in pages are automatically turned into anchors with the same name.
- Creating a space now creates an index page as well as a home-page.

Notable Bug-fixes

It's hard to know where to start. We've fixed a lot of bugs across the whole application. If you want to know what's been fixed, you're probably best off [looking for yourself](#).

Two areas, however, have been improved enough to deserve special mention.

- PDF Export - as mentioned above, we've made the PDF export much, much more reliable than it once was. Where before a page or space may have confused the PDF converter into not working, it should now be able to handle any markup you throw up at it.
- International characters - Many issues related to the use of non-ASCII characters in page titles, links, page contents and RSS feeds have been resolved since Confluence 1.0. Our users in non-English-speaking countries should find Confluence a much more pleasant and seamless experience now than they may have before.

Issues Resolved for 1.1

This page last changed on Jun 09, 2004 by cmiller.

Atlassian JIRA (208 issues)				
T	Key	Summary	Status	Res
	CONF-978	Mark 1.0 as a Released Version in jira.atlassian.com	 Closed	FIXED
	CONF-1067	Documentation for Confluence Integration with Active Directory	 Closed	FIXED
	CONF-1132	Merge 1.0.x branch changes into HEAD	 Closed	FIXED
	CONF-956	Rev atlassian-confluence-extras to 1.1 in project.xml	 Closed	FIXED
	CONF-1255	Document 1.1 macro packaging and creation	 Closed	FIXED
	CONF-935	Document how to use LDAP authentication in Jira	 Closed	FIXED
	CONF-1254	Upgrade FatCow to be shipped as a 1.1 macro library	 Closed	FIXED
	CONF-1235	Attachment Improvements	 Closed	FIXED
	CONF-1230	Weblogic Support	 Closed	FIXED
	CONF-1258	Test PDF export!	 Closed	FIXED
	CONF-893	Syntax Highlighting for Java Script and Action Script	 Closed	FIXED
	CONF-1081	creating links within tables	 Closed	CANNOT REPRODUCE
	CONF-1151	Customise HTML export templates per-space	 Closed	DUPLICATE
	CONF-614	Ability to put a description next to an attachment and rename	 Closed	FIXED
	CONF-527	Attachment versioning	 Closed	FIXED
	CONF-1712	Get Blog posts via XML-RPC?	 Closed	FIXED
	CONF-794	Configurable permissions for Recent Changes	 Closed	FIXED
	CONF-660	Lock Pages and/or	 Closed	FIXED

	CONF-1150	sub pages Choose whether comments get exported or not	 Closed	FIXED
	CONF-1218	Center/middle alignment on images - how?	 Closed	FIXED
	CONF-1220	Resize "recent changes" list in dashboard and space summary page	 Closed	FIXED
	CONF-1211	Enhance blog-posts macro to expire old blog posts from view	 Closed	FIXED
	CONF-1263	Excerpt macro	 Closed	FIXED
	CONF-1307	Add comments to a Blog	 Closed	FIXED
	CONF-430	Template for exporting space / page	 Closed	FIXED
	CONF-802	WebDAV access to attachments	 Closed	FIXED
	CONF-608	Customise look and feel of blog posts	 Closed	FIXED
	CONF-1308	Build custom macro builder toolkit	 Closed	FIXED
	CONF-968	Custom Defined Macro's	 Closed	FIXED
	CONF-1213	Support UNC path linking syntax	 Closed	FIXED
	CONF-1178	Macro Enable / Disable switches	 Closed	FIXED
	CONF-1262	Blog titles macro	 Closed	FIXED
	CONF-1183	Oracle Support	 Closed	FIXED
	CONF-1184	Weblogic support	 Closed	DUPLICATE
	CONF-834	longer list of page updates	 Closed	FIXED
	CONF-952	Tiny URL support for Pages	 Closed	FIXED
	CONF-1141	Confusing page titles	 Closed	FIXED
	CONF-867	Ask if you want to overwrite if attaching file with same name as existing attachment	 Closed	WON'T FIX
	CONF-1032	Wiki markup guide doesn't describe named links	 Closed	FIXED
	CONF-712	Headings should automatically generate anchors	 Closed	FIXED
	CONF-692	Rename templates	 Closed	FIXED

	CONF-892	Syntax Highlighting for XML {code} macro	 Closed	FIXED
	CONF-1047	Hide "add comments" text box on print preview	 Closed	FIXED
	CONF-1035	Have the table markup allow multi line cells	 Closed	FIXED
	CONF-606	add title parameter to links (hrefs)	 Closed	FIXED
	CONF-1086	Make /display and /display/ aliases for /listspaces.action	 Closed	FIXED
	CONF-402	Improve links	 Closed	FIXED
	CONF-907	Timestamps on attachments	 Closed	FIXED
	CONF-929	White Space above a h1. header	 Closed	FIXED
	CONF-1108	how to create relative site hrefs?	 Closed	FIXED
	CONF-879	Customisable Maximum Attachment Size	 Closed	FIXED
	CONF-1192	Fix any possible wiki rednering/exporting flaws caused by invalid HTML, by applying JTidy	 Closed	FIXED
	CONF-845	Creating a space should create an index page	 Closed	FIXED
	CONF-1154	Allow linking to files on shared network drives	 Closed	FIXED
	CONF-1303	Trim length of outgoing links so they don't overflow	 Closed	FIXED
	CONF-1127	Remember UI state across sessions	 Closed	FIXED
	CONF-1015	Remote renderContent() method bugs	 Closed	FIXED
	CONF-1208	Add ability to start a numbered list at a specific starting value	 Closed	WON'T FIX
	CONF-1185	Only "view page" links should go by page title, rest by page ID	 Closed	FIXED
	CONF-827	Border around comments	 Closed	FIXED

	CONF-884	Shortcuts pages needs minor reworking	 Closed	FIXED
	CONF-1257	Index attachment comment	 Closed	FIXED
	CONF-1286	Make Excel spreadsheets searchable	 Closed	FIXED
	CONF-1051	Need icon to decorate attachment links	 Closed	FIXED
	CONF-694	Blog Management missing in API	 Closed	FIXED
	CONF-1267	Make blog display use inline decorators	 Closed	FIXED
	CONF-1259	Buttons at top and bottom	 Closed	FIXED
	CONF-1256	Add brief descriptions for all existing macros	 Closed	FIXED
	CONF-1187	Improve error message for trying to remove yourself from admin group	 Closed	FIXED
	CONF-1275	Dashboard recent updates lists irrelevant personal information entities	 Closed	FIXED
	CONF-1266	Add more links to the recent blog posts page	 Closed	FIXED
	CONF-1274	Allow user macros to be deleted	 Closed	FIXED
	CONF-1288	Make PowerPoint presentations searchable	 Closed	FIXED
	CONF-1122	User can import pages from arbitrary directories	 Closed	FIXED
	CONF-1250	Edit page and edit blog post links should use page id rather than page title	 Closed	DUPLICATE
	CONF-1224	Allow caption to be specified in {code} macro	 Closed	FIXED
	CONF-962	Recent updates list for space is very slow	 Closed	FIXED
	CONF-1064	Rewrite wiki -> link transformation code	 Closed	FIXED
	CONF-1144	Removing a user is very slow	 Closed	FIXED

	CONF-1226	Change number of entries in Dashboard:"Recently Updated"	 Closed	DUPLICATE
	CONF-1232	State attachment file name on "delete attachment" dialog	 Closed	FIXED
	CONF-2078	Add tiny URL support	 Closed	DUPLICATE
	CONF-945	Unrecognised macro {Weblog} created on start page by snipsnap import	 Closed	FIXED
	CONF-926	Improper link processing when CamelCase link style is turned on	 Closed	FIXED
	CONF-793	PDF export does not maintain spaces between links	 Closed	FIXED
	CONF-963	Emoticon filter kills page-rendering performance	 Closed	FIXED
	CONF-1044	parent page info lost after choosing a template	 Closed	DUPLICATE
	CONF-810	Page(link) creation process & the invalid characters in page title!	 Closed	FIXED
	CONF-1039	Mixed # and * items do not render correctly	 Closed	FIXED
	CONF-1058	Viewing profile of a user with no blog posts logs an NPE	 Closed	FIXED
	CONF-1036	Unable to link to URL's with single quote's as they are escaped	 Closed	FIXED
	CONF-1071	Text -format email notifications are HTML-formatted	 Closed	FIXED
	CONF-1084	Disabled users still get updates email	 Closed	FIXED
	CONF-1042	Export to PDF throws following exception	 Closed	FIXED
	CONF-1102	Deactivated users show up in manage users	 Closed	FIXED
	CONF-816	Exporting page with {children:all=true} breaks PDF export	 Closed	CANNOT REPRODUCE
	CONF-1103	Deactivated users should not show up	 Closed	FIXED

	CONF-1001	in the add permissions page PDF export removes newlines in {noformat}	 Closed	FIXED
	CONF-997	panel macro display incorrect border	 Closed	FIXED
	CONF-1098	Possible to add page names in the errors?	 Closed	FIXED
	CONF-1066	{children:depth=2} can generate a "create page" link	 Closed	FIXED
	CONF-1142	Can't generate hrefs to IRC	 Closed	FIXED
	CONF-1128	Titled links to attachments display filename instead	 Closed	FIXED
	CONF-1169	{include} macro fails with quotes	 Closed	FIXED
	CONF-1097	unescaped ampersands kill PDF export	 Closed	FIXED
	CONF-1165	PDF export throws exception	 Closed	DUPLICATE
	CONF-1124	MethodInvocationException thrown during space export	 Closed	FIXED
	CONF-1125	ImportExportException during space PDF export	 Closed	FIXED
	CONF-859	Lists not functioning inside of a Table	 Closed	FIXED
	CONF-1149	No easy way to insert literal \\	 Closed	FIXED
	CONF-1157	noformat inside tables	 Closed	FIXED
	CONF-992	{html-include} not being process before a table is outputted	 Closed	FIXED
	CONF-1182	back ticks cause line breaks in lists	 Closed	DUPLICATE
	CONF-1190	Export to PDF dies due to ampersand	 Closed	DUPLICATE
	CONF-1175	Write XML with spetial symbols: &, <, >, etc	 Closed	FIXED
	CONF-1194	List items ending with a tab misrender	 Closed	FIXED
	CONF-1094	UTF-8 characters (russians at least) breaks the table	 Closed	FIXED
	CONF-1173	Setup steps don't check any more	 Closed	FIXED
	CONF-1013	High unicode	 Closed	INVALID

	CONF-1289	characters not displaying properly getActiveUsers loads property set for Every Single User	 Closed	FIXED
	CONF-1030	code macro is totally screwed up when exported as PDF	 Closed	FIXED
	CONF-1313	Another strange problem editing pages	 Closed	FIXED
	CONF-1301	Create-this-page links aren't being stored	 Closed	INVALID
	CONF-1317	rss not well formed error	 Closed	FIXED
	CONF-1188	Apache XML-RPC library blows up on high-bit chars	 Closed	FIXED
	CONF-1079	korean language title link problem	 Closed	FIXED
	CONF-1180	Cannot delete page with accent in title	 Closed	FIXED
	CONF-1037	Errors with database - can not save in Oracle	 Closed	FIXED
	CONF-778	New remote API methods are not documented	 Closed	FIXED
	CONF-964	subsequent ampersands not rendered as entities	 Closed	FIXED
	CONF-970	Unable to export to PDF on Linux server VM	 Closed	FIXED
	CONF-1181	Parse exception in jiraissues	 Closed	FIXED
	CONF-1050	Changing server path does not change path in internal links	 Closed	FIXED
	CONF-1323	Error when the page title contains Chinese words	 Closed	FIXED
	CONF-995	Export cleanup	 Closed	FIXED
	CONF-1229	Link names not showing up for attachments	 Closed	FIXED
	CONF-1242	JIRA issue macro fails on certain URL	 Closed	DUPLICATE
	CONF-1236	Chinese characters garbled under Resin and Tomcat due to sitemesh bug	 Closed	FIXED

	CONF-976	File name with non us characters	 Closed	FIXED
	CONF-1199	KeyFactory provider still hardcoded to "SUN"	 Closed	FIXED
	CONF-842	Trackbacks seem to be being added multiple times	 Closed	FIXED
	CONF-1139	Regression: Next/Prev entry blog links still displayed on first/last blog	 Closed	FIXED
	CONF-1243	Need a safe way to make "Create" links for high-bit pages	 Closed	FIXED
	CONF-942	os_propertyentry table getting out of sync with os_user	 Closed	FIXED
	CONF-1027	New installation on Oracle 9i, errors in log	 Closed	FIXED
	CONF-1244	Create links pass potential parents between spaces	 Closed	FIXED
	CONF-1059	Nested lists break PDF export (smart quotes)	 Closed	FIXED
	CONF-1191	Export to XML dies due to ampersand	 Closed	DUPLICATE
	CONF-1277	Create page with template may have problems if parent page has non-ASCII title	 Closed	FIXED
	CONF-898	Cannot create pages with () in title	 Closed	FIXED
	CONF-951	page names ending is space are not properly linked	 Closed	FIXED
	CONF-1048	List items, panels and code:xml conflict	 Closed	FIXED
	CONF-1152	Duplicate pages with same name	 Closed	CANNOT REPRODUCE
	CONF-1056	Attachments with irregular characters (commons, pounds, spaces) fail to download	 Closed	FIXED
	CONF-877	Email search is case-sensitive	 Closed	FIXED
	CONF-1168	NullPointerException in LinkManager when renaming page	 Closed	FIXED

	CONF-1204	Multiple indexes in same DB column	 Closed	FIXED
	CONF-1216	Export space problem	 Closed	FIXED
	CONF-975	Linking and non-us characters	 Closed	FIXED
	CONF-1268	Can not rename page when it has links from a user profile	 Closed	FIXED
	CONF-959	Search results on user with no personal info results in visible velocity crap	 Closed	CANNOT REPRODUCE
	CONF-971	Stream type cannot be used in batching	 Closed	FIXED
	CONF-818	Hibernate lazy instantiation problem (in Oracle)	 Closed	FIXED
	CONF-1078	RSS Feed Error	 Closed	FIXED
	CONF-1167	Backups created on Windows can't restore on Unix.	 Closed	DUPLICATE
	CONF-1117	Restore from Backup Zip file cannot over 20+M bytes..	 Closed	FIXED
	CONF-1046	Missing text keys	 Closed	FIXED
	CONF-1709	New Links resolve to different project	 Closed	FIXED
	CONF-569	cannot use latin characters in page title	 Closed	FIXED
	CONF-1319	Save of blog comment breaks when preview is done first.	 Closed	FIXED
	CONF-1283	Renaming attachments screen is incorrect	 Closed	FIXED
	CONF-780	Confirming user deactivation takes forever?	 Closed	FIXED
	CONF-1011	Export to PDF stack trace	 Closed	FIXED
	CONF-1300	Watch this page without being logged-in	 Closed	FIXED
	CONF-1018	Wiki outgoing links are incorrectly reported (false positive)	 Closed	FIXED
	CONF-1278	Tables containing	 Closed	FIXED

	CONF-1316	form fields are messed up not permitted to view previous versions of page	 Closed	FIXED
	CONF-1148	Some page-related views fail on a renamed page	 Closed	FIXED
	CONF-1219	Confluence: The title you have entered contains invalid characters (...) (question mark)	 Closed	FIXED
	CONF-795	Signing up creates user profile page with Anonymous editor	 Closed	WON'T FIX
	CONF-1306	IE browser bug on 'page does not exist' page	 Closed	FIXED
	CONF-1310	Cannot remove page with problematic titles	 Closed	DUPLICATE
	CONF-1201	NPE when clicking on the previous versions link when viewing v.1 of a page	 Closed	CANNOT REPRODUCE
	CONF-1247	Confluence Crash on selecting Profile	 Closed	FIXED
	CONF-1270	Form templates don't work any more	 Closed	FIXED
	CONF-1012	NPE in Page template wizard	 Closed	CANNOT REPRODUCE
	CONF-1116	Potential Race condition	 Closed	FIXED
	CONF-1233	FileNotFoundException for default-formatting.properties on weblogic restart	 Closed	FIXED
	CONF-1170	Log4j.properties not being recognized in weblogic	 Closed	FIXED
	CONF-1174	Shouldn't need to escape things inside {code}	 Closed	FIXED
	CONF-993	Lose Parent page when selecting a template	 Closed	DUPLICATE
	CONF-981	RSS feed has a) in link	 Closed	FIXED
	CONF-949	Deploy to weblogic as a war causes load resrouce to fail	 Closed	FIXED

	CONF-1074	Can not setup the embedded database!	 Closed	FIXED
	CONF-822	Error adding child pages on Oracle	 Closed	FIXED
	CONF-1197	New line code (\\) around images not working in 1.0.3	 Closed	FIXED
	CONF-1126	ImportExportException caused by ClassCastException when doing Export Space as XML	 Closed	FIXED
	CONF-1320	Error drawing panel	 Closed	FIXED
	CONF-1312	Problem linking to an attachment whose name contains a special character	 Closed	FIXED
	CONF-1325	Wrong URL in daily summary	 Closed	FIXED
	CONF-1089	Results of getPermissions are incorrect	 Closed	FIXED
	CONF-927	Blogging Varies in Output depending on Link	 Closed	FIXED
	CONF-1280	Search macro results are borked	 Closed	FIXED
	CONF-1010	Space-level custom printable decorator broken	 Closed	FIXED
	CONF-1284	Link in format [my link name pagename^attachment.ext] shows attachment.ext	 Closed	FIXED
	CONF-888	Trackbacks are not sent for shortcut links	 Closed	FIXED
	CONF-911	Creating a child page with a template loses parent information	 Closed	FIXED
	CONF-979	Snipsnap Import Fails	 Closed	FIXED

Release Notes 1.1.1

This page last changed on Jun 21, 2004 by [jnolen](#).

Confluence 1.1.1 is a maintenance release that fixes some bugs regarding attachments, page links and notifications. Remember, a Confluence license entitles you to a year of upgrades, and this upgrade along with future updates will be free of charge.

Who should upgrade?

This release mainly fixes the bugs discovered in our recent 1.1 release. The major issues resolved are listed below, or you can see the full list [here](#). As some of the issues resolved have a significant impact on the user experience of Confluence, we recommend that anyone currently running 1.1 upgrade to 1.1.1.

Upgrade Procedure

1. Shut down the Confluence server
2. Back up `confluence/WEB-INF/classes/confluence-init.properties`, and if you have customised it, `confluence/WEB-INF/classes/osuser.xml`
3. Unpack Confluence 1.1.1 in the same location as your existing Confluence installation
4. Restore the two files you backed up in step 1 to the 1.1.1 installation.
5. Start Confluence

To avoid the possibility of data-loss, you should back up your `ConfluenceHome` directory and your database before upgrading, and perform a full backup from within the application.

Changes in 1.1.1

Attachment fixes

- Attachment versioning introduced a new table in Confluence that had a column whose name conflicted with some databases like Sybase
- Links to older version of attachments could not be accessed if the webapp was deployed with a context path
- Attaching files that contained '+' and '&' symbols caused certain pages in Confluence to break

These have been fixed in 1.1.1.

Notification fixes

Users opting to receive html formatted email received emails with the correct subject but no content. In addition, the "View Changes" link in the daily change email was broken. These are now fixed.

Email Server fixes

An upgrade to an email component used in Confluence in 1.1, caused an error to be displayed when users attempted to modify their email server settings. An upgrade has been added in 1.1.1 that will fix this

problem to save users from having to perform the fix manually.

Export to PDF fix

Spaces labelled with names containing an '&' symbol could not be exported to PDF. This has been fixed.

Wiki Notation fix

The notation for a horizontal ruler was changed to five dashes (up from 4) in 1.1. This stopped the ruler from showing. This has been changed back in 1.1.1.

Issues Resolved for 1.1.1

This page last changed on Jun 18, 2004 by jnolen.

Atlassian JIRA (25 issues)				
T	Key	Summary	Status	Res
	CONF-1391	Old versions of pages appear when you reindex	 Closed	FIXED
	CONF-1384	Redirect sometimes faster than previous txn commit	 Closed	FIXED
	CONF-1358	"VERSION" is a reserved word in a lot of databases (Attachment table	 Closed	FIXED
	CONF-1344	Confluence 1.1 Installation wizard - step 7 System Error	 Closed	FIXED
	CONF-1342	Restore exception: Bad SQL grammar [null] in task	 Closed	FIXED
	CONF-1341	'HibernateAccessor' ClobStringType requires active transaction sync exception	 Closed	FIXED
	CONF-1386	Problem afer Upgrade from 1.0.3 to 1.1	 Closed	FIXED
	CONF-1343	WAR release has wrong readme.txt etc	 Closed	FIXED
	CONF-1340	Url containing CamelCase words are not parsed properly	 Closed	FIXED
	CONF-1510	Mail Queued problem	 Closed	FIXED
	CONF-1388	.sh files in the standalone release aren't executable	 Closed	FIXED
	CONF-1387	URL for the non-tip version of an attachment is incorrect	 Closed	DUPLICATE
	CONF-1382	Notifications are missing content	 Closed	FIXED
	CONF-1380	Crash at creating new group	 Closed	FIXED
	CONF-1377	SEVERE Ognl exception in server logs	 Closed	FIXED

	CONF-1365	Wrong interaction between include and children macros	 Closed	FIXED
	CONF-1362	Restore just spins when file access is denied and attachment directories cannot be restored	 Closed	FIXED
	CONF-1361	Using Ampersand (&) in Space names breaks PDF export	 Closed	FIXED
	CONF-1357	Incorrect title is passed when page is created from the link	 Closed	FIXED
	CONF-1356	Reset Default Colour Scheme	 Closed	FIXED
	CONF-1352	Attachments with plus sign in file name cause an NPE when loaded	 Closed	FIXED
	CONF-1349	Links to attachments includes the ^ symbol	 Closed	FIXED
	CONF-1346	No such setting:webwork.ui.templateDir - When confluence is root web app	 Closed	FIXED
	CONF-1345	Moving page with linked attachment	 Closed	FIXED
	CONF-1335	horizontal ruler notation broken	 Closed	FIXED

Release Notes 1.1.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

This fixes an upgrade problem in 1.1.1 where users attempting to upgrade from 1.0.x directly to 1.1.1 encountered an "Upgrade Failed" error. Therefore, if you are still using a version older than 1.1, and am planning to upgrade, please upgrade to 1.1.2 to avoid this problem.

If you have already upgraded to 1.1.1 from 1.0.3a and cannot start Confluence due to the upgrade error, simply download 1.1.2 and upgrade to it. This should fix the problem.

If you have already upgraded successfully to 1.1.1 from 1.1 then you may safely ignore this upgrade.

Useful tips when upgrading from 1.0.3a

Upgrading Confluence should be pretty easy: you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

- Users who have enabled external user-management by customising their *osuser.xml* file will need to read [this document](#) also.
- Users who have used MySQL or Postgresql with Confluence 1.0 should read [this document](#) which explains how to get rid of any extraneous triggers or indexes that might have been created.

Release Notes 1.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Atlassian is proud to present Confluence 1.2, otherwise known as Swan, to the world. Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days can download either the standalone or WAR distributions from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Swan is the second major update to Confluence, and once again all existing customers can upgrade for free, thanks to the provision for one year of free upgrades in your license. You will find that Swan contains significant new features in the areas of user management, search and space browsing, as well as the usual raft of enhancements, bug fixes and things we just couldn't resist throwing in at the last minute.

In all, 109 issues were resolved between 1.1.2 and 1.2. You can see the full list here: [DOC:Issues Resolved for 1.2](#)

Looking towards the future, we are going to attempt to increase the frequency of releases. While having one release every three months makes for impressively long release notes, it also means that customers are often left waiting longer than might be necessary for important enhancements or bug-fixes.

Upgrading from 1.1.2

Upgrading Confluence should be pretty easy: you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

You will need to reindex your site after upgrading to enable some of the new site search features. You can do this from the "Rebuild Search Index" link on the Administration Console.

Site administrators upgrading from 1.1.2 or earlier should take particular note of the [changes to global and space permissions](#). Confluence should automatically upgrade old permissions to the new scheme when upgrading from or importing data from earlier versions, but it is a good idea to check that your spaces are still secure and accessible after the upgrade, just in case.

Upgrading from 1.0.3a

Users upgrading directly from 1.0.3a should also read the [Nymboida Release Notes](#) for caveats regarding the 1.0 -> 1.1 upgrade.

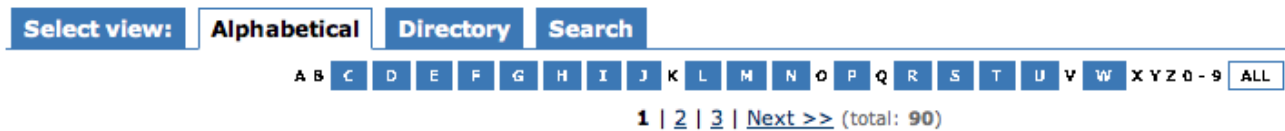
Contents

1. [New Features](#)
2. [Improvements](#)
3. [Notable Bug-fixes](#)

See also: [DOC:Issues Resolved for 1.1](#)

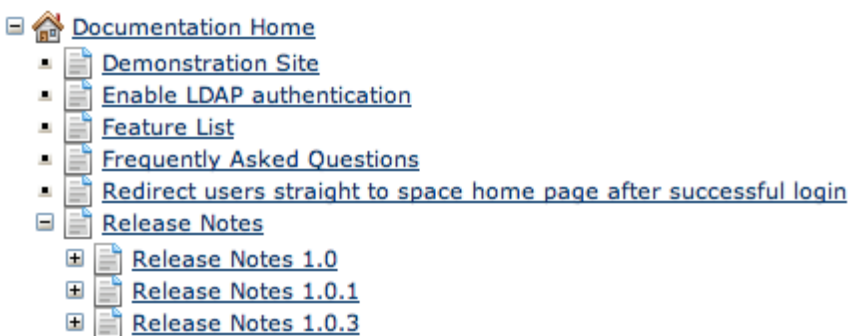
New Features

Page List Views



The old "list pages" screen has been enhanced, almost to the point of being unrecognisable. In its place, we now offer three ways to browse the contents of a space.

The Alphabetical View looks like the "list pages" screen from 1.1 and earlier, but it has been enhanced to allow you to find pages quickly by the first letter of their title.



The Directory View presents the contents of a space as a tree, allowing you to drill down the hierarchy of parent and child pages (You will need Javascript turned on to use this view).

The Search View presents Swan's enhanced search interface, already focused on the space you are looking at.

Image Thumbnails and Thumbnail Galleries



You can now display a thumbnail of any image attached to a page. Clicking on the thumbnail will pop up

a window containing the full-sized image. For example, the nice picture of the waterfall from my holiday in California was generated by the following wiki-markup.

```
!waterfall.jpg|align=right thumbnail!
```

In addition, the {gallery} macro will create a thumbnail gallery of all the images that are attached to the page the macro is included in. You can see an example of this macro in action here: [DOC:Thumbnail and Gallery Example](#).

The maximum sizes for thumbnails are configured in the General Configuration section of the Administrative Console.

Threaded Comments

Bowing to public demand, we have added the ability to arrange comments by thread: users may respond to a particular comment, and the comments will be arranged in accordance with who responded to what.

The default is still for comments to be presented as a flat list, but you can enable comment-threading in the General Configuration section of the Administrative Console.

Improvements

Enhanced Search

SEARCH:

[new search](#)

IN SPACE:

All Spaces

GROUP BY:

None

[Type](#)

[Space](#)

TYPE:



All content



[Pages](#)



[Comments](#)



[Blog posts](#)



[Attachments](#)



[Profiles](#)



[Space Descriptions](#)

MODIFIED:

Any date

[Today](#)

[Yesterday](#)

[Last Week](#)

[Last Month](#)

The site-search functionality of Confluence has been enhanced, both subtly behind the scenes, and quite obviously in front of them.

Behind the scenes, we now index more information such as attachment comments and filenames. We have improved the indexing of Powerpoint presentations so that more text is extracted from the Powerpoint file. We have also tweaked the ranking algorithms behind the search so that you are more likely to find the page (space, comment, blog post, attachment, user...) you are looking for.

More obviously, we have given the user a lot more control over searching with an intuitive user interface that allows you to limit searches by space, type of content, or date last modified, and to group search results by type and space.

The {search} macro has also been updated to take advantage of the new search features (the options are described more fully in the notation guide linked from Confluence's edit page):

```
{search:query=Confluence|maxLimit=5|spacekey=DISC|type=page}
```

New Permissions Interface

Groups

These are the permissions currently assigned to groups for this space.

		Make comments	Create & edit pages	Administrate space
 atlassian-staff	✓ can browse	✓	✓	✗
 confluence-administrators	✓ can browse	✓	✓	✓
 confluence-users	✓ can browse	✓	✗	✗

Grant browse permission to

Two of the biggest issues users have been having with permissions in Confluence were:

- The interface for setting permissions was confusing.
- It was hard to keep sites that allowed anonymous access below the workgroup license 25-user limit, especially if they used external user management.

Both of these issues have been fixed in Swan, but it has involved a slight change in the way permissions are checked. This should not be a problem for new Confluence users: the new system is easier to use than the old,. However, if you are upgrading from 1.1.2 or earlier, you should read [this document](#) to see what's different.

And a whole lot more...

Here's the quick fire version of some of the other improvements we've made in this release:

- The "double-click to edit" feature has been removed.
- Blog views now come with a monthly calendar showing nearby posts
- Macro libraries can now include images, or any other content the macro needs to serve over the web: look out for new example code in the macro documentation soon.
- Users can set their profile page to be their site homepage
- You can delete all referrer links that match your exclusion list (in General Configuration), to rid the site of referrer spam
- The site's administrative, search and editing pages are served with [robots exclusion meta tags](#) so that only the site's main content will be indexed by well-behaved search engines
- Restoring backups should be significantly faster for installations with many users
- Administrators can choose to restore backups from the filesystem instead of uploading them (important if your backup is quite large)
- Confluence now serves files with a proper Content-Length header, so browsers can display the download accurately
- CSS stylesheets are hidden in emails so they don't mess up Lotus Notes
- Export and backup filenames use a neater yyyyymmdd date format

Notable Bug-fixes

- Exports created on Windows can now be imported on Unix-like operating systems without having to fix the path separators
- Hyphens in page headings or anchors will no longer render strangely
- Restoring a backup during setup now properly generates the search indexes

- Page "short links" now respect the configured site URL, regardless of which URL the user is accessing the site from
- Strange Powerpoint files no longer choke the indexer
- Users with Admin privileges can now see the link to the Administration Console without being in the 'confluence-administrators' superuser group
- Space administrators can modify space templates without having global administrator privileges.
- User macros are now lower-cased by default
- It is now possible to change the case of a page title by renaming the page

Issues Resolved for 1.2

This page last changed on Aug 23, 2004 by [cmiller](#).

Atlassian JIRA (117 issues)				
T	Key	Summary	Status	Res
	CONF-1442	Use atlassian core's thread appender instead of confluence's	 Closed	FIXED
	CONF-1264	BOB: Run functional tests against Weblogic	 Closed	FIXED
	CONF-1393	Upgrade libraries	 Closed	FIXED
	CONF-765	Calendar for blog posts	 Closed	FIXED
	CONF-1130	Allow import/restore from server local filesystem	 Closed	FIXED
	CONF-1497	Option to scope searching	 Closed	DUPLICATE
	CONF-1539	"View in hierarchy" link from a page	 Closed	FIXED
	CONF-784	Inline image attachment as thumbnail	 Closed	FIXED
	CONF-785	Gallery Page Macro	 Closed	FIXED
	CONF-1695	Improve threaded comments L&F	 Closed	FIXED
	CONF-1668	Improve Administration Setup Paths page	 Closed	FIXED
	CONF-665	Warn if adding a space permission to user without USECONFLUENCE permission	 Closed	FIXED
	CONF-1239	Ability to clear Referrers	 Closed	FIXED
	CONF-1408	Restoration process take a long time updating indexes	 Closed	FIXED
	CONF-1487	Alphabetical, Directory and Search views for page listing	 Closed	FIXED
	CONF-985	Threaded Comments	 Closed	FIXED
	CONF-1490	Add "Hide Comments" link when comments are shown	 Closed	FIXED

	CONF-1529	Incorrect number of licensed users displayed	 Closed	FIXED
	CONF-817	Revisit UI for adding permissions	 Closed	FIXED
	CONF-1676	Email template fix for Lotus Notes 6.5	 Closed	FIXED
	CONF-1477	Change backup filenames to 2004-06-29 format	 Closed	FIXED
	CONF-1658	Zipped exports created on a Windows Confluence instance are not platform-independent	 Closed	FIXED
	CONF-961	Add "my profile" to the list of a user's available homepages	 Closed	FIXED
	CONF-809	Scope-base searches (on-site and via {search} macro)!	 Closed	FIXED
	CONF-1376	Allow macro libraries to include web-served resources	 Closed	FIXED
	CONF-1163	Put NOINDEX NOARCHIVE tags on administrative and search actions	 Closed	FIXED
	CONF-1359	Improve search	 Closed	FIXED
	CONF-1196	Add App Specific Exceptions to Remote API	 Closed	FIXED
	CONF-957	Quick Search should notice if you've typed in a page title	 Closed	FIXED
	CONF-1588	FileServerServlet doesn't serve file sizes	 Closed	FIXED
	CONF-480	Alphabet links in paged search results / page links	 Closed	FIXED
	CONF-1260	DHTML spaces control	 Closed	DUPLICATE
	CONF-1447	Index attachment names	 Closed	FIXED
	CONF-886	Hierarchy view as proper treeview	 Closed	FIXED
	CONF-1491	Double-click to edit page feature	 Closed	DUPLICATE
	CONF-1564	ClobStringType requires active transaction	 Closed	FIXED

	CONF-1682	synchronization Space keys are alphanumeric, not ASCII	 Closed	FIXED
	CONF-1205	Search results for velocity get truncated on wiki.opensymphony.com	 Closed	FIXED
	CONF-1692	Update Page fails in MailNotificationQueueItem.createFromTemplateFile	 Closed	DUPLICATE
	CONF-1417	jiraissues macro ignores the first entry in the columns parameter	 Closed	CANNOT REPRODUCE
	CONF-1710	Upgrade failed: Can't call commit when autocommit=true	 Closed	FIXED
	CONF-1617	Couldn't restore directory from backup error	 Closed	FIXED
	CONF-1486	i18n title shows up as hashes when exporting to PDF	 Closed	FIXED
	CONF-1524	Hyphen in Blog text causes corruption.	 Closed	FIXED
	CONF-1392	Import on initial setup doesn't index	 Closed	FIXED
	CONF-1501	Rebuilding Search Index take forever	 Closed	FIXED
	CONF-1423	View mail servers doesn't show From address, but Edit operation does.	 Closed	FIXED
	CONF-1612	Brackets "()" break rendering of headings	 Closed	FIXED
	CONF-1508	Very long headings render bad anchor tag	 Closed	FIXED
	CONF-1536	template.not.found - i18n message missing	 Closed	FIXED
	CONF-1292	Mail queue not updated with queued notification items	 Closed	FIXED
	CONF-1548	User History page with velocity bug?	 Closed	FIXED
	CONF-1419	Dates in a heading are not rendered correctly	 Closed	FIXED
	CONF-1045	Exports performed on Windows may have \ as path separator in zip	 Closed	DUPLICATE
	CONF-1659	Anchor links don't	 Closed	FIXED

		work in exported PDF's		
	CONF-1492	"short link" not respecting site URL	 Closed	FIXED
	CONF-1666	Deleting a group should delete that group's permissions	 Closed	FIXED
	CONF-1426	Please remove the double-click-starts-editing feature	 Closed	FIXED
	CONF-1471	Broken links in 'Confluence Notation Guide'	 Closed	FIXED
	CONF-1696	Must-fixes for search	 Closed	FIXED
	CONF-1701	Gallery macro prints \$thumb.attachment.comment under all thumbnails	 Closed	FIXED
	CONF-1430	Children macro choking on dashes in page names	 Closed	FIXED
	CONF-1690	Bad URL for "edit space homepage" in space created screen	 Closed	FIXED
	CONF-1121	Changing a word in a page shows wrong diff	 Closed	FIXED
	CONF-1684	Attachment search fails when limited by space	 Closed	FIXED
	CONF-1582	Links not rendered correctly using Remote render	 Closed	FIXED
	CONF-1440	Confluence still doesn't clean the temp directory	 Closed	WON'T FIX
	CONF-1454	h3 element rendering junk	 Closed	FIXED
	CONF-1407	Headers with Certain Characters	 Closed	FIXED
	CONF-1615	user suddenly gets system error messages	 Closed	FIXED
	CONF-1441	Special Characters in headers do not render properly	 Closed	FIXED
	CONF-1599	Children macro chokes on minus characters	 Closed	FIXED
	CONF-1630	View space permission description wrongly says that a user can edit a page	 Closed	FIXED

	CONF-1403	Date formats of jiraissues macro	 Closed	FIXED
	CONF-1439	TXT daily summary generate raw HTML	 Closed	DUPLICATE
	CONF-1431	Error commenting Blog	 Closed	RESOLVED LOCALLY
	CONF-1432	InfrastructureException after update	 Closed	RESOLVED LOCALLY
	CONF-1519	page anchor links break	 Closed	FIXED
	CONF-1550	Page Information: Incorrect Short URL if webapp context is not "/"	 Closed	CANNOT REPRODUCE
	CONF-1579	Exception when attaching a file	 Closed	FIXED
	CONF-1418	Spaces in File links not preserved on Wiki Export	 Closed	FIXED
	CONF-1428	cannot set page with unicode characters in title as parent page	 Closed	FIXED
	CONF-1445	Icons don't get exported in PDFs	 Resolved	FIXED
	CONF-1691	\$generalUtil.formatDate(page.lastModified, DateFormat.getDateInstance()) showing up all over the place	 Closed	FIXED
	CONF-1252	(Confluence Changes in the last 24 hours) has incorrect link to edit profile	 Closed	FIXED
	CONF-1468	Display of paragraphs in comment blocks not consistent	 Closed	FIXED
	CONF-1512	User Macros with upper-case characters ignored	 Closed	FIXED
	CONF-1350	Random PermissionCheckDispatcher crashes when viewing pages	 Closed	FIXED
	CONF-1650	Administrate tab only shows if user is in confluence-administrators	 Closed	FIXED
	CONF-1533	PowerPoint search not working (example included)	 Closed	FIXED
	CONF-1673	Importing into Swan seems to wipe space permissions	 Closed	FIXED
	CONF-1681	Only confluence	 Closed	FIXED

		admins can add and modify templates (space or global)		
	CONF-1369	Error when export page as PDF	 Closed	FIXED
	CONF-1326	Can't change mail format of daily summary messages.	 Closed	FIXED
	CONF-1249	Zip file creation problems	 Closed	FIXED
	CONF-1269	Export space (html) fails, if attached image missing	 Closed	FIXED
	CONF-1677	java.lang.IllegalAccess on PDF Export	 Closed	FIXED
	CONF-1146	Use of quotes in page name brings issues with it	 Closed	FIXED
	CONF-1452	rename page bug	 Closed	FIXED
	CONF-1480	URL returned from search is incorrect for attachements	 Closed	FIXED
	CONF-1574	Using % in page title causes error	 Closed	FIXED
	CONF-1507	Non-administrator users can perfrom some admin tasks	 Closed	FIXED
	CONF-1404	Empty error queue message incorrect	 Closed	FIXED
	CONF-1549	"Restore Page" restores entire confluence?	 Closed	FIXED
	CONF-1645	{excerpt-include} macro is documented with the wrong syntax	 Closed	FIXED
	CONF-1663	A small error in the	 Closed	FIXED
	CONF-1499	Wrong number of licensed users reported when anonymous access enabled	 Closed	DUPLICATE
	CONF-1228	Granting "anyone" use permission breaks with JIRA user management	 Closed	DUPLICATE
	CONF-1593	java.lang.ClassNotFoundException: weblogic.jdbc.extensions.WLConnection	 Closed	FIXED
	CONF-1662	NPE in Mail notification	 Closed	DUPLICATE
	CONF-1443	On doubleclick inside Add Comment editor new page is loaded	 Closed	FIXED

	CONF-1459	and comment is lost Special characters in "search" result in various problems	 Closed	WON'T FIX
	CONF-1535	Nullpointer exception on updating a page that is being watched by a new user	 Closed	FIXED
	CONF-1420	Bulleted list items from JSPWiki not converted when no space after *	 Closed	FIXED
	CONF-1699	Entering "*" as search string causes error.	 Closed	FIXED
	CONF-1401	Wrong document tree in exported PDF files	 Closed	FIXED
	CONF-1515	Special german characters (ä ö ü) not being exported to PDF properly	 Closed	FIXED

Permissions Changes in 1.2

This page last changed on Aug 23, 2004 by [cmiller](#).

For Swan, changes were made to the way Confluence manages and checks permissions. This document is a guide for anyone migrating from Confluence 1.1.2 or earlier describing why the changes were made, and what this means to existing Confluence installations.

Why Change?

There were two goals behind changing permissions in Confluence:

1. Fix a significant problem whereby users with external user management enabled could not also enable Confluence anonymous access without blowing out their 25-user workgroup license.
2. Make the user interface for assigning and viewing permissions easier to use and understand.

What Changed?

"Anyone" User Removed

In Confluence 1.1.3, there was an "Anyone" user, who represented anyone using the system, whether logged in or not.

This user was the source of the licensing problem, and no longer exists in Confluence 1.2

Anonymous Permissions Added

Confluence 1.2 has explicit permissions for anonymous users. These permissions are only granted to users who are not logged in.

There is nothing stopping an administrator granting some permission to anonymous users, but not granting it to logged-in users. This results in the slightly bizarre possibility that a user might be able to do more before logging in than they can after. Luckily, this is a pretty easy situation for administrators to avoid.

Enabling anonymous access has no effect on Confluence's user count for licensing purposes.

Guard Permissions Added

The roles of the "Use Confluence" and "View Space" permissions have been expanded so that now they are required permissions before a user or group can be granted any more rights.

Before a user has access to anything in the Confluence server, they must first have "Use Confluence" permission, and likewise before a user has access of any kind to a space, they must first have the "View Space" permission.

For licensing purposes, your number of users is equivalent to the number of non-anonymous users with the "Use Confluence" guard permission.

Migrating from 1.1 to 1.2

Migrating Automatically

When you upgrade from Confluence 1.1, or when you restore a backup created in 1.1 into Confluence 1.2, an upgrade task will run to automatically migrate your permissions to the new scheme, while keeping them consistent with your 1.1 security settings. The task will make the following changes:

- All "Anyone" permissions will be converted into two separate permissions: one for Anonymous access, and one for the confluence-users group. (If the confluence-users group does not exist, this step will be skipped)
- Any user or group with some global or space permission will also be granted the equivalent guard permission.

After starting up with the new version of Confluence, we suggest that you check that the permissions have migrated successfully. While we have tested the migration code, maintaining your site's security is important enough to warrant a double-check, just in case.

Migrating Manually

If the automatic migration does not complete successfully, which would most likely happen if you have removed the "confluence-users" group, you will need to perform the above steps manually, through the user administration interface.

Release Notes 1.2.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.2.1 is a maintenance release that fixes some bugs that users may have encountered using Confluence 1.2. It incorporates improvements to performance for large Confluence installations, and fixes bugs related to the remote API, over-use of disk space, and a few annoying errors users were experiencing when setting up a new Confluence instance.

1.2.1 is a free upgrade for all existing Confluence customers.

Who should upgrade?

The issues resolved below are all either fixes to problems that have effected small numbers of users, or improve areas of Confluence that may not be used in your installation. As such, we recommend you read through the release notes and decide whether this upgrade is necessary.

If 1.2 is working fine, and none of the issues below are bothering you, there is no need to upgrade.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Changes in 1.2.1

See also: [Issues Resolved for 1.2.1](#)

Remote API Fixes

- `getBlogEntries()` will no longer erroneously return SQL Timestamps instead of date objects — [CONF-1756](#)
- `getPage()` will now successfully retrieve a previous page version — [CONF-1721](#)
- `renderContent()` can now successfully render a page containing the `{blog-posts}` macro — [CONF-1717](#)

Setup Fixes

- Some users were encountering the following error during setup: "Unable to store Trigger with name: 'backupTrigger' and group: 'DEFAULT', because one already exists with this identification." This should no longer occur — [CONF-1760](#)
- Some users were encountering a `NullPointerException` in `org.apache.lucene.store.FSDirectory.create()` during setup when connecting to an external

datasource. This should no longer occur — [CONF-1767](#)

Performance and Efficiency Fixes

- Installations with large search indexes will no longer experience a performance degradation when saving content — [CONF-1759](#)
- Backups will no longer leave a redundant exploded copy of the files being backed up in the temp directory — [CONF-1752](#)
- Deleting a space was not deleting its attachments from the confluence home directory. This is now fixed — [CONF-1765](#)
- Thumbnails are now stored in their own directory, so they won't be included unnecessarily in backups — [CONF-1785](#)

Other Issues Resolved

- Confluence now generates significantly higher-quality image thumbnails (Thanks to Mike Aizatsky for the tip) — [CONF-1725](#)

 Note 

Unless you are running JDK 5.0 (which we do not recommend as it is still in pre-release), this improvement will only be visible if you are running Confluence on Mac OS X

- URLs longer than 255 characters will no longer cause an exception when saving a page — [CONF-1743](#)
- Pages with titles containing quotes no longer break PDF exports — [CONF-1719](#)
- Internet Explorer 6 SP2 will no longer corrupt zip-files downloaded from Confluence — [CONF-1669](#)

Issues Resolved for 1.2.1

This page last changed on Sep 09, 2004 by cmiller.

Atlassian JIRA (19 issues)				
T	Key	Summary	Status	Res
	CONF-1785	Move thumbnails out of attachments directory	 Closed	FIXED
	CONF-1825	"Log In" link should not be relative to server base URL	 Closed	FIXED
	CONF-1759	Don't optimise lucene index every time we add to it	 Closed	FIXED
	CONF-1752	Be more proactive about cleaning temp directory after backup	 Closed	FIXED
	CONF-1729	Error purging referrers	 Closed	CANNOT REPRODUCE FIXED
	CONF-1717	{blog-posts} macro isn't rendered during RPC renderContent call	 Closed	
	CONF-1743	URLs > 255 chars in a page kill page	 Closed	FIXED
	CONF-1669	Downloads corrupt in IE 6 XP SP2	 Closed	FIXED
	CONF-1775	Strange behaviour with deactivated users & JIRA user delegation	 Closed	FIXED
	CONF-1721	getPage for a prev version fails	 Closed	FIXED
	CONF-1719	Exporting a page with a quote in the title breaks space exporting	 Closed	FIXED
	CONF-1756	getBlogEntires marshalling bug	 Closed	FIXED
	CONF-1494	Quartz ObjectAlreadyExistsException exception on MS SQL Server	 Closed	DUPLICATE
	CONF-1760	Unable to store Trigger with name: 'backupTrigger' and group: 'DEFAULT', because one already exists with this identification.	 Closed	FIXED

	CONF-1592	SnipSnap import renames pages because of illegal title characters - but doesnt update the links	 Closed	FIXED
	CONF-1476	Attachments seem to randomly fail	 Resolved	FIXED
	CONF-1765	Deleting a space does not delete its attachments	 Closed	FIXED
	CONF-1767	NullPointerException in Lucene FSDirectory.create() during setup	 Closed	FIXED
	CONF-1725	Poor quality of thumbnails	 Closed	FIXED

Release Notes 1.2.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.2.2 is a maintenance release that fixes some bugs that users may have encountered using Confluence 1.2 and 1.2.1. It fixes problems with attachment downloading, text file imports and text-only emails.

1.2.2 is a free upgrade for all existing Confluence customers.

Who should upgrade?

Confluence 1.2.2 includes a fix for [CONF-1810](#). This bug will cause serious problems for anyone who attaches multiple versions of the same file to a Confluence page, corrupting subsequent downloads.

As such, Confluence 1.2.2 is a recommended upgrade for anyone running 1.2 or 1.2.1.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or 1.2.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Changes in 1.2.2

See also: [Issues Resolved for 1.2.2](#)

- The correct file size will now be stored for multiple versions of the same attachment, fixing a serious download corruption bug – [CONF-1810](#)
- Long {excerpt} blocks no longer overrun their database field – [CONF-1705](#)
- The {code} macro will no longer garble XML – [CONF-1829](#)
- Page diffs now escape HTML tags correctly – [CONF-1830](#)
- Fixed Postgresql error when you try to import text files that contain the nul (\0) character – [CONF-1739](#)
- "New Blog Post" icon in Page Operations URL now goes to the correct URL – [CONF-1848](#)
- "Next" link at the bottom of the alphabetical page listing now works – [CONF-1797](#)
- Text-formatted Confluence daily emails are now sent as text – [CONF-1724](#)
- The search input box on the "404 Not Found" page has been fixed – [CONF-1800](#)

Issues Resolved for 1.2.2

This page last changed on Sep 23, 2004 by [cmiller](#).

Atlassian JIRA (11 issues)				
T	Key	Summary	Status	Res
	CONF-1812	Modified user list was being confused with new user list for daily email notifications	 Closed	FIXED
	CONF-1731	Phrase searches are case-sensitive	 Closed	CANNOT REPRODUCE
	CONF-1739	java.lang.IllegalArgumentException: \0 not allowed during text file import	 Closed	FIXED
	CONF-1724	Confluence daily mails are HTML but wrong Content-type	 Closed	FIXED
	CONF-1797	"Next" link at bottom of alphabetical listing page is broken.	 Closed	FIXED
	CONF-1670	NullPointerException in setup restore step	 Resolved	FIXED
	CONF-1800	Search form on 404 page not working	 Closed	FIXED
	CONF-1848	"New Blog Post" icon in Page Operations (page.operations-icons) has incorrect URL.	 Closed	FIXED
	CONF-1830	Diff output is not HTML escaped	 Closed	FIXED
	CONF-1810	Uploading new version of attachment does not update file size in database	 Closed	FIXED
	CONF-1705	Long excerpts (>255 ch) kills page	 Closed	FIXED

Release Notes 1.2.3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.2.3 is a maintenance release that fixes some bugs that users may have encountered using the 1.2 series of Confluence. It fixes problems with Oracle support on Weblogic, thumbnail display, errors moving pages between spaces.

1.2.2 is a free upgrade for all existing Confluence customers.

Who should upgrade?

The issues resolved below are all either fixes to problems that have effected small numbers of users, or improve areas of Confluence that may not be used in your installation. As such, we recommend you read through the release notes and decide whether this upgrade is necessary.

Of particular note should be [CONF-1911](#) which might effect customers trying to use Confluence with Oracle under Weblogic, and [CONF-1914](#), a security issue where users may determine the names of attachments that they can not access.

If Confluence 1.2.2 is working fine for you, feel free to stick with it.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.2 or higher, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.1.2 or earlier, be sure to read the upgrade instructions in the [Confluence 1.2 release notes](#).

Changes in 1.2.3

See also: [Issues Resolved for 1.2.3](#)

- Oracle LOB handler now works correctly under Weblogic – [CONF-1911](#)
- Attachments are no longer listed in search results if the user is not permitted to download them – [CONF-1914](#)
- Tomcat no longer hijacks Confluence's logging – [CONF-1934](#)
- Incoming page links no longer listed multiple times – [CONF-1928](#)
- Comments in daily update report are now linked properly – [CONF-1904](#)
- Thumbnails and the gallery macro no longer draw images with width and height of 0 – [CONF-1861](#)
- Fixed a system error moving pages between spaces when they are linked to from a comment – [CONF-1851](#)
- Fixed a system error when removing an attachment – [CONF-1861](#)

Issues Resolved for 1.2.3

This page last changed on Oct 08, 2004 by cmiller.

Atlassian JIRA (28 issues)				
T	Key	Summary	Status	Res
	CONF-1817	Datasource issues	 Closed	FIXED
	CONF-1751	Add an "archive this backup" option to the manual backups	 Resolved	FIXED
	CONF-1928	Only list a referring page once	 Closed	FIXED
	CONF-1730	Incoming links are duplicated if the links are to different anchors	 Resolved	DUPLICATE
	CONF-1774	Renaming Home page causes system error	 Closed	HANDLED BY SUPPORT
	CONF-1622	Top re-edit button for Templates does not work	 Resolved	CANNOT REPRODUCE
	CONF-1913	Invalid key param throws NPE	 Closed	FIXED
	CONF-1581	RPC call to render does not render blog posts	 Resolved	CANNOT REPRODUCE
	CONF-1794	"Incoming Links" only works for links in correct case	 Resolved	DUPLICATE
	CONF-1911	Could not create Oracle LOB	 Closed	FIXED
	CONF-1869	The {gallery} macro generates 1 pixel thumbnails	 Closed	FIXED
	CONF-1904	New comments in daily change report not linked	 Closed	FIXED
	CONF-1603	Log4J configuration is ignored in stand-alone Confluence - and seems to be using jdk1.4 logging	 Resolved	WON'T FIX
	CONF-1933	NullPointerException when removing attachment	 Closed	FIXED
	CONF-1757	RPC exception returns html (500 page)	 Resolved	CANNOT REPRODUCE
	CONF-1851	Exception moving page between spaces	 Closed	FIXED

	CONF-1600	NullPointerException	 Resolved	CANNOT REPRODUCE
	CONF-1778	Directory view listing only shows space link	 Resolved	WON'T FIX
	CONF-1472	Repository corruption	 Resolved	INCOMPLETE
	CONF-1914	Unpermitted attachments are displayed in search results	 Closed	FIXED
	CONF-1905	Watch spaces does not send notifications unless "Notify on my actions" is checked	 Closed	CANNOT REPRODUCE
	CONF-1920	Importing from JSPWiki breaks some links	 Closed	FIXED
	CONF-1861	Thumbnails are referenced that can not be drawn	 Closed	FIXED
	CONF-1527	ClobStringType requires active transaction synchronization	 Closed	CANNOT REPRODUCE
	CONF-1934	Replace commons-logging usages with log4j	 Closed	FIXED
	CONF-1627	x Identical Incoming links are displayed x times	 Resolved	DUPLICATE
	CONF-1737	Gallery macro: no JDK image support	 Closed	WON'T FIX
	CONF-1626	Page title is changed to Error and Page Operations is blank	 Closed	INCOMPLETE

Release Notes 1.3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

[Atlassian Software](#) is proud to present Confluence 1.3 (otherwise known as Murrumbidgee). Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days can download either the standalone or WAR distributions from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Murrumbidgee is the third major update to Confluence (in less than nine months!), and once again we've raised the bar of what you should expect from a professional wiki. Confluence 1.3 looks better, performs better, installs more easily and does far more than it ever has before.

A big thanks to everyone who reported bugs, and offered suggestions over the last few months, especially everyone who helped by trying out our [Development Releases](#).

Upgrading from 1.2.3

Upgrading Confluence should be pretty easy: you can find instructions here. We strongly recommend that you backup your confluence.home directory and database before upgrading!

You will need to reindex your site after upgrading to enable some of the new site search features. You can do this from the "Rebuild Search Index" link on the Administration Console.

Also, we've added a bunch of space-level permissions since 1.2. While our upgrade process should make sure everyone has the same permissions after the upgrade as they did before, it's a good idea to check to make sure nothing has been missed.



Oracle Users

If you are connecting Confluence to an Oracle database, it is very important that you read this before upgrading: [Oracle and Confluence 1.3](#)

Upgrading from 1.1.2 or Earlier

Users upgrading from an earlier version of Confluence should check the release-notes of the other major Confluence releases:

- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Contents

- [New Features](#)
- [New Macros](#)
- [Improvements](#)
- [Notable Bug-fixes](#)

See also: [Doc:Issues Resolved for 1.3](#)

New Features

Many of the features added to Confluence 1.3 are of interest only to site administrators. To get an idea of what's changed from the perspective of a user, you should read [What's New in 1.3](#)

Mail Archiving

Location: [Dashboard](#) > [BUGTRAQ](#) > [Mail Archive](#) > MySQL Authentication Bypass

Subject: MySQL Authentication Bypass

From: NGSSoftware Insight Security Research

Date: Oct 22, 2004

NGSSoftware Insight Security Research Advisory

Name: MySQL Authentication Bypass / Buffer Overflow

Systems Affected: MySQL 4.1 prior to 4.1.3, and MySQL 5.0.

Severity: High

Vendor URL: <http://www.mysql.com>

Author: Chris Anley [chris@ngssoftware.com]

Date of Advisory: 1st July 2004

Confluence is a collaboration tool. When communication happens through Confluence, it gets archived, indexed and interlinked so the whole team can benefit from the information. But what happens to communication that happens via email? At best it gets hidden away in the corner of one team member's inbox, at worst it just falls into nowhere.

Now, you can put that mail into Confluence as well.

Each Confluence space has a mail archive. You can import mail directly by uploading an mbox file, or you can have Confluence regularly poll a POP mailbox for new mail. Once mail is imported into Confluence it can be browsed chronologically or by thread, and searched using Confluence's powerful full-text search functionality.

[Entire Thread](#)

Re: PaceDateModified Dare Obasanjo <kpako@yahoo.com>

The real question is why you'd be looking for "last modified" information from an entry in the first place when atom:updated exists.

↳ **Re: PaceDateModified** Eric Scheid <eric.scheid@ironclad.net.au>

Why? When you two versions of the same entry, and they both have the same atom:updated value, yet they are different in content. How do you determine which is the most recently modified? e.

↳ **Re: PaceDateModified** Robert Sayre <mint@franklinmint.fm>

The definition of atom:updated holds the answer to that question--it doesn't matter.
Robert Sayre

↳ **Re: PaceDateModified** Dare Obasanjo <kpako@yahoo.com>

The one you fetched most recently from the feed. Is this a trick question?

↳ **Re: PaceDateModified** Eric Scheid <eric.scheid@ironclad.net.au>

that's not a good assumption to make as to which is most recently modified.
lots of things can go wrong to break that assumption. e.

The threading and searching functionalities within Confluence are more powerful, and more useable than most dedicated mail archives that you will find online! For more information about Confluence's mail support, read the [Mail Archiving FAQ](#).

Themes

Space Theme

Global Look and Feel

Use the globally configured look and feel. You can customise colour-schemes and layouts manually.

☐ **No Theme**

Choose a Theme

Assign a look and feel from an installed theme plugin. This theme will override any manually configured colour-schemes or layouts.

☒ **Clean Anonymous** — Only show menus and toolbars to users who are logged in.

☐ **Left Navigation** — Draw a navigation menu on the left-hand side

Confirm

It is now possible to package a particular Confluence look and feel into a theme. Themes can be dropped into a Confluence installation, after which they will be available for global or space administrators to customise the look and feel of the site.

Themes are built using the new plugin architecture that has been built into Confluence: for more details on how to create your own theme, see [DOC:Theme Plugins](#).

The Trash Can

Trash

The trash stores all deleted pages or blog posts. You can restore or purge deleted pages from this screen.

☐ **Purge all** - permanently remove all items from the trash can.

Page Title (Space)	Operations
 Test Page with attachment	Restore Purge

One of the most popular feature-requests, it is now possible to undelete pages, mail and blog-posts. When content is deleted from a space it is moved to that space's trash can. Space administrators can restore deleted pages, or consign them to oblivion.

More Granular Space Permissions

Groups

These are the permissions currently assigned to groups for this space.

	View	Pages			Blog Posts		Comments		Attachments		Space	
		Create	Export	Remove	Create	Remove	Create	Remove	Create	Remove	Export	Admin
 atlassian-developers												
 atlassian-staff												
 confluence-administrators												
 confluence-users												

[Edit Permissions](#)

Another of our most popular feature-requests, we've divided up the space permissions so administrators have more control over what users can and can not do.

New Emoticons

Emoticon	Name	Syntax
	add	(+)
	forbidden	(-)
	help	(?)
	idea on	(on)
	idea off	(off)
	star	(*)
	red star	(*r)
	green star	(*g)
	blue star	(*b)
	yellow star	(*y)

Because you can never have enough neat-looking graphics.

Macros

- {note}, {information}, {warning} and {tip} macros let you add coloured notes to your page.
- The {section} and {column} macros give you an alternative to wiki-markup tables
- The {jiraportlet} macro allows you to embed a JIRA 3 portlet into a Confluence page
- The {excerpt} macro has an optional hidden=true parameter to hide the contents of the excerpt within the page
- The {excerpt-include} macro has an optional nopanel=true parameter to display the excerpt without any decoration
- The {jiraissues} macro has an optional count=true parameter to display only the number of issues found, not the details of those issues. It also has an optional cache=off parameter to ensure that a list of Jira issues will refresh on each request.
- The {blog-posts} macro consistently displays blog-posts in reverse chronological order
- The {search} macro can be limited to particular types of content
- The [notation guide](#) has been reorganised to be more friendly to users who don't know what a macro is

Improvements

Referrer Management

Manage Referrers

External Referrers:	On Off
Excluded External Referrer Prefixes:	
	Add
	☐ Purge All
	1 2 3 Next >> (total: 41)
	http://brunelnetwork.com/ (del purge)
	http://victorfisher.blogspot.com (del purge)
	http://steepress-theme.com/ (del purge)
	http://victorfisher.blogspot.com (del purge)
	http://cndr.wikiqa.com/ (del purge)

For public sites, referrer management has been vastly improved in Confluence 1.3, with a new management screen, the ability to block unwanted referrers right from where they are displayed, and the ability to turn off referrer tracking with a single click.

Setup Wizard

The Confluence setup wizard has been rewritten from the ground up. We've made it task-oriented, and stripped it back to just the stuff you need to get Confluence running. The result is a much smoother, much faster installation.

User Interface

We've made a lot of improvements to Confluence's user interface. You'll notice some improvements on the Dashboard, making it easier to see exactly what's changed recently. You'll notice some huge changes to the space summary/space administration section of the site.

Backups

- You can now exclude attached files from your backups. Of course, this means you have to back up your attachment directory separately, but if you already have a good backup regime for your filesystem (and can thus restore attachments separately), it means your Confluence data backups will take a lot less space
- We now include important system configuration in your backups, so that when you restore a site from backup, it will work the same way as it did when you backed it up.

Indexing

We have improved the way we index content within Confluence, which means your searches are even more likely to find the right result.

If the primary language of your Confluence site is not English, you should change the "Indexing Language" preference in Confluence's General Configuration.

Site Performance

We've identified a number of places that were slowing down the performance of Confluence sites, from the dashboard to the spaces list page, to the search indexer, to the storing of referrers. Confluence should now perform faster than ever.

Also...

- Pages in an export are now in alphabetical, not creation order.
- The remote API can be accessed by anonymous users (this must be turned on in General Configuration)
- When previewing a page, you can continue editing without having to go back to the edit page
- You can link to anything in Confluence if you know its ID in the database (currently this is how you must link directly to mail) using the following link format: [\$1234]
- You can link to anything relative to the root of the Confluence installation (useful for pointing to parts of the site that can't otherwise be linked) using three leading slashes: [///pages/editpage.action?pageId=1234]
- A whole lot more that we've forgotten...

Notable Bug Fixes

We resolved a lot of issues between Confluence 1.2.3 and Confluence 1.3. The best way to see what

we've fixed is to ask JIRA, the world's best issue-tracker: [Issues Resolved for 1.3](#)

Issues Resolved for 1.3

This page last changed on Nov 30, 2004 by cmiller.

Atlassian JIRA (257 issues)				
T	Key	Summary	Status	Res
	CONF-2241	1.3 Release Tasks	 Closed	FIXED
	CONF-1953	Library upgrade: TextMining	 Closed	FIXED
	CONF-2185	Task Macro should be installed in default build of Conf.	 Closed	FIXED
	CONF-1958	EDITSPACE permission is confusingly named now that it's really "create page"	 Closed	FIXED
	CONF-1964	Make the capitalisation of TrackBack consistent	 Resolved	FIXED
	CONF-1948	Library upgrade: HTTP Client	 Resolved	FIXED
	CONF-1950	Library upgrade: Seraph	 Closed	FIXED
	CONF-1952	Library upgrade: WebWork	 Closed	FIXED
	CONF-2022	Improve unit testing on attachments being exported	 Closed	FIXED
	CONF-2032	Library upgrade: EHCACHE	 Resolved	FIXED
	CONF-2048	Library upgrade: Hibernate 2.1.6	 Closed	FIXED
	CONF-1949	Library upgrade: Spring	 Resolved	FIXED
	CONF-1951	Library upgrade: Sitemesh upgrade	 Resolved	FIXED
	CONF-1955	Library upgrade: Lucene	 Resolved	FIXED
	CONF-1954	Library upgrade: PDFBox	 Closed	FIXED
	CONF-1878	Plugin-ify Confluence macros	 Resolved	FIXED
	CONF-1877	Incorporate atlassian-plugins module into Confluence	 Closed	FIXED
	CONF-2138	Confluence has performance issue that the frontend Apache Proxy did not get response	 Closed	HANDLED BY SUPPORT

	CONF-2292	sometimes. revise 'Setting up Confluence'	 Closed	FIXED
	CONF-2286	back out fix on ConfluenceAuthenticator which forced to lower case	 Closed	FIXED
	CONF-2278	Link API docs from everywhere	 Closed	FIXED
	CONF-2244	Get DamageControl UATs running again	 Closed	FIXED
	CONF-2288	Upgrade wiki.theserverside.com and remove referrers	 Closed	FIXED
	CONF-2267	Document Blog-entry macro	 Closed	FIXED
	CONF-2061	Create demo content for first-time users	 Closed	FIXED
	CONF-2248	Remove paths from admin	 Closed	FIXED
	CONF-2247	Remove dummy.gif	 Closed	FIXED
	CONF-2280	Test FatCow on 1.3 final	 Closed	FIXED
	CONF-2269	Document gallery macro	 Closed	FIXED
	CONF-2243	Merge 1_2_STABLE into HEAD	 Closed	FIXED
	CONF-2255	Check unit tests are running 100%	 Closed	FIXED
	CONF-2249	Base URL admin	 Closed	FIXED
	CONF-2226	Add JIRA portlet macro	 Closed	FIXED
	CONF-2242	Remove 1.2.4 from JIRA. Check issues fixed in HEAD.	 Closed	FIXED
	CONF-2069	Improve final setup screen	 Resolved	FIXED
	CONF-2149	Add not-yet-configured warnings to confluence admin console	 Closed	FIXED
	CONF-2067	Remove paths configuration from setup	 Closed	FIXED
	CONF-2013	Search Interface for Mail	 Resolved	FIXED
	CONF-2096	Link to single message	 Closed	FIXED
	CONF-2119	Add Mail Operations menu	 Closed	FIXED
	CONF-2053	Add delete mail functionality	 Closed	FIXED

	CONF-2052	Add delete mail permission	 Closed	FIXED
	CONF-2055	Notify of unviewed mail matches in search	 Closed	FIXED
	CONF-2051	Index messageid column in database	 Closed	FIXED
	CONF-2057	Display attachments in view mail page	 Closed	FIXED
	CONF-2054	Add Mail icon to spaces list on dashboard	 Closed	FIXED
	CONF-2012	View Single Mail	 Closed	FIXED
	CONF-2018	Test mail accounts	 Closed	FIXED
	CONF-1974	POP mailbox polling	 Closed	FIXED
	CONF-2058	Database checking added to setup	 Resolved	FIXED
	CONF-2068	Data setp in setup - demo, no data, import	 Closed	FIXED
	CONF-2014	Mail Browser	 Closed	FIXED
	CONF-2024	Remove mails from "recent changes" lists	 Closed	FIXED
	CONF-2016	Mail Account Management	 Resolved	FIXED
	CONF-1972	Mail domain objects/manager/dao	 Resolved	FIXED
	CONF-2015	Extract Attachments	 Closed	FIXED
	CONF-1976	Mail indexing	 Closed	FIXED
	CONF-1136	Radical idea, archive external email in Confluence	 Resolved	FIXED
	CONF-1894	Confluence needs a note macro	 Resolved	FIXED
	CONF-2224	Improve JIRA macros	 Closed	FIXED
	CONF-1654	Ability to add extra colour settings to a colour scheme	 Resolved	FIXED
	CONF-2220	Self-documenting macros	 Closed	FIXED
	CONF-2221	Limit remote API search by space/date/content types	 Closed	FIXED
	CONF-2256	Layout macros to enable people to create complex page layouts	 Resolved	FIXED
	CONF-1871	Include default demo space as a new	 Closed	FIXED

	CONF-2195	install option Create system link capability	 Closed	FIXED
	CONF-2212	Add preference to disable remote API	 Closed	FIXED
	CONF-1610	Count {include:Page} as a link to "Page"	 Closed	FIXED
	CONF-2110	Link to any content object by ID	 Resolved	FIXED
	CONF-2029	Lucene indexing queue	 Resolved	FIXED
	CONF-2059	Threading and Related Mail	 Resolved	FIXED
	CONF-1992	Retrieve page by space key and page title	 Resolved	FIXED
	CONF-1375	How about more complex permission?	 Closed	FIXED
	CONF-1965	Confluence Mail Archive	 Resolved	FIXED
	CONF-1856	Decorator Themes	 Resolved	FIXED
	CONF-1870	Access key for edit	 Resolved	FIXED
	CONF-1586	Allow referrers to be turned off	 Closed	FIXED
	CONF-1779	Make exporting a permission	 Closed	FIXED
	CONF-851	Deleted Pages - Need a 'recycle bin'	 Closed	FIXED
	CONF-1052	Remove "Path" section of admin config	 Resolved	FIXED
	CONF-1631	Page Edition / Preview should be in one	 Resolved	FIXED
	CONF-2028	Space summary recently updated panel should show new comments, blogs, etc	 Closed	DUPLICATE
	CONF-2271	Add "nopanel" parameter to excerpt-include macro	 Closed	FIXED
	CONF-2139	Make full thread view not a popup	 Closed	FIXED
	CONF-2270	Add "hidden" parameter to excerpt macro	 Resolved	FIXED
	CONF-2148	'browse templates' in admin. screen breaks with the admin decorator	 Closed	FIXED

	CONF-1740	When text file import fails, report name of file that died.	 Closed	FIXED
	CONF-1221	When previewing a page, display edit box below the preview	 Closed	FIXED
	CONF-2245	Allow macros to choose which page documentation occurs on	 Closed	FIXED
	CONF-2211	Improve referrer links performance	 Resolved	FIXED
	CONF-2210	Fix Setup UI for select db connection type	 Closed	FIXED
	CONF-1999	Move "Start watching this space" next to the RSS icon - and make it just an icon (use the tooltip for description)	 Closed	FIXED
	CONF-1578	Remove/Delete Space should be on "Spaces" page	 Closed	FIXED
	CONF-2151	Indicate where a thread continues back or forward in mail view	 Closed	FIXED
	CONF-1793	Handle things better if we get an error loading confluence.cfg.xml	 Resolved	FIXED
	CONF-2197	Reorganise Notation Guide	 Closed	FIXED
	CONF-1639	Anonymous SOAP and XML-RPC access	 Closed	FIXED
	CONF-2201	Remove space link in spacelist.vm has 'Add Page' title text on the img	 Closed	FIXED
	CONF-2049	Setup Wizard Improvements	 Closed	FIXED
	CONF-2223	Improve mail excerpting slightly	 Closed	FIXED
	CONF-2094	excerpt on mail search result contains return path	 Resolved	FIXED
	CONF-2182	Improve performance of getSpace(key)	 Closed	FIXED
	CONF-1176	When moving an page, it should not select the first	 Closed	FIXED

	CONF-2193	project Mail archive graphic and description should be placed on initial Content pane in Space Summary	 Closed	FIXED
	CONF-2209	Ensure that setup UI is consistent	 Resolved	FIXED
	CONF-2046	Exclude attachments from backup	 Closed	FIXED
	CONF-2194	Index macro to display excerpts	 Closed	FIXED
	CONF-1261	Simplify the setup wizard	 Closed	FIXED
	CONF-2114	Sort home-page drop down in edit space alphabetically	 Closed	FIXED
	CONF-1237	Hide unsupported databases in setup pick-list.	 Closed	FIXED
	CONF-2125	Search performance improvements	 Resolved	FIXED
	CONF-2172	Remove "pool size" setting from database setup	 Closed	FIXED
	CONF-1435	Allow attachments to be backed up separately	 Resolved	FIXED
	CONF-1700	Calendar L&F not integrated with the rest of Confluence	 Resolved	FIXED
	CONF-2160	Speed up spaces list page	 Closed	FIXED
	CONF-2050	Improve Mail for DR4	 Resolved	FIXED
	CONF-2000	Make all of "Create a new blog post" url-ified	 Closed	FIXED
	CONF-2044	Hook email address hiding preference into mail display	 Resolved	FIXED
	CONF-2109	Display relative times in "recent updates" lists	 Closed	FIXED
	CONF-2004	Change "Remove Blog Post" icon to trashcan icon used for "Remove Page"	 Resolved	FIXED
	CONF-2019	jiraissue macro now takes a cache='on' or 'off' argument	 Closed	FIXED
	CONF-1605	Long Blog titles dont wrap very well	 Closed	FIXED
	CONF-1946	Make help icon point	 Resolved	FIXED

	CONF-1330	to manual on c.a.c Make blog-posting a separate permission	 Resolved	FIXED
	CONF-1865	Provide navigation options for screen after creating a new template	 Resolved	FIXED
	CONF-1764	Improve UI for permissions editing	 Closed	FIXED
	CONF-1674	Add JIRA-style user-picker component	 Closed	FIXED
	CONF-1891	Permissions Screen suggestion	 Resolved	WON'T FIX
	CONF-1928	Only list a referring page once	 Closed	FIXED
	CONF-1864	Don't escape shortcut links if no parameters	 Closed	FIXED
	CONF-1562	Seperate Space Summary and Space Administration	 Closed	FIXED
	CONF-1551	Editing a blog post is a little difficult to find. Not intuitive.	 Closed	FIXED
	CONF-1513	Help for user macros in interface	 Closed	FIXED
	CONF-1862	Add the (?) emoticon	 Closed	FIXED
	CONF-1858	Noisy dashboard 1	 Closed	FIXED
	CONF-1720	Blog calendar has no Next/Previous month links	 Closed	FIXED
	CONF-1661	NPE using TaskList Macro	 Resolved	FIXED
	CONF-2756	The backup that doesnt!	 Resolved	FIXED
	CONF-1481	NPE calling Search function on conf.atlas.com	 Resolved	FIXED
	CONF-2297	test permission being carried through by the demo space	 Closed	FIXED
	CONF-2186	&s break links in Confluence	 Closed	INVALID
	CONF-1941	Site homepage setting not being honoured / not available	 Resolved	FIXED
	CONF-1198	search is not working with non-ascii characters	 Closed	FIXED
	CONF-1687	<a href"="">{blog-posts} wrong	 Resolved	FIXED

	CONF-2216	sort order when using "time" parameter friendly meg size is not being set in velocity var. (admin - backup and restore)	 Closed	FIXED
	CONF-2170	Upgrade from DR3 to DR4 broke shortcut links on confluence.atlassian.com	 Closed	FIXED
	CONF-1853	Gallery macro error when previewing create page	 Resolved	FIXED
	CONF-1895	Please upgrade Tomcat used for building standalone distribution	 Closed	FIXED
	CONF-1787	embedded tab characters break {{code}} filter	 Closed	FIXED
	CONF-1947	cannot remove myself from list	 Closed	INCOMPLETE
	CONF-1919	Tasklist Macro renders as null in preview mode	 Closed	DUPLICATE
	CONF-1766	Backup not saving to absolute location	 Closed	FIXED
	CONF-2047	NullPointerException when viewing "New or Updated Pages Since Last Login" report when session has timed out	 Closed	FIXED
	CONF-2020	Confluence won't allow Groups with upper case letter names	 Closed	FIXED
	CONF-1966	export 32 pixel gif missing on Space Summary - Content	 Closed	FIXED
	CONF-1789	{content-by-user} Macro shows items in Restricted Spaces	 Closed	FIXED
	CONF-1828	When emoticon used as link text, outgoing link section is garbled	 Closed	FIXED
	CONF-1887	Nullpointer on Global Admin View Templates link	 Closed	FIXED
	CONF-1849	OgnlException setting property	 Closed	FIXED

	CONF-1838	'style' After creating user, go to user details page	 Closed	FIXED
	CONF-2311	Atlassian stops getting mail if it can't parse one message	 Closed	FIXED
	CONF-2165	Single-page XML exports can be imported without a space	 Closed	FIXED
	CONF-2306	xerces-2.1.1.jar is corrupt	 Resolved	FIXED
	CONF-1996	JUnit Macro not rendering	 Closed	FIXED
	CONF-1803	MethodInvocationExc when clicking on a linked page	 Closed	FIXED
	CONF-1287	"400 Bad Request" response when viewing page with quotes in title on Orion	 Closed	FIXED
	CONF-2198	Thumbnail size settings lost on 1.2.3 -> 1.3-DR5 upgrade	 Closed	FIXED
	CONF-2124	PDF Space Export includes deleted page	 Closed	FIXED
	CONF-2074	Can create duplicate user by appending space to an existing username	 Closed	FIXED
	CONF-1933	NullPointerException when removing attachment	 Closed	FIXED
	CONF-1886	Browse templates breaks space colour scheme	 Closed	FIXED
	CONF-1555	Edit My Profile alignment is off	 Closed	FIXED
	CONF-1827	Javascript errors on unknown page links	 Closed	FIXED
	CONF-2171	Incoming Links vanished from page-operations	 Closed	FIXED
	CONF-1970	bucket.search.lucene Cannot update index	 Closed  Closed	FIXED
	CONF-1415	jiraissues macro custom icons break	 Closed	FIXED
	CONF-2112	Newlines in user macros are removed when Confluence is	 Closed	FIXED

	CONF-2169	restarted Need to patch the "duplicate page" bug	 Resolved	FIXED
	CONF-2157	Character encoding issues in archiving Mail messages	 Closed	FIXED
	CONF-2106	junitreport macro doesn't work, you need to add 'fatcow'	 Closed	FIXED
	CONF-1543	Accented characters treated as line break	 Closed	FIXED
	CONF-1935	External URLs in links over max length cause exception on save	 Closed	FIXED
	CONF-2196	Search macro does not search mail	 Closed	FIXED
	CONF-1438	Not supported RSS feeds	 Resolved	CANNOT REPRODUCE
	CONF-766	Search for orphaned pages shows spaces' home pages	 Closed	FIXED
	CONF-2161	Export page HTML has both upper & lower case space id	 Closed	FIXED
	CONF-1354	rename doesn't find "include" references	 Closed	FIXED
	CONF-2173	Backup restore breaks mail	 Closed	FIXED
	CONF-2176	Email footers have errors	 Closed	FIXED
	CONF-1667	Headers that contain international characters and numbered bullets cannot be linked to	 Resolved	FIXED
	CONF-1875	wrong title when comparing page revisions	 Resolved	FIXED
	CONF-2092	Confluence doesn't allow creating pages, which have the name of one of the blog posts	 Resolved	FIXED
	CONF-2102	POP mail box not being automatically polled	 Closed	FIXED
	CONF-1424	Setting 'User email visibility' doesn't restored from backup	 Closed	FIXED
	CONF-1557	Wrong URL causes IllegalStateException	 Resolved	FIXED
	CONF-2082	History: View	 Closed	FIXED

	CONF-2083	Changes to previous version compares wrong versions	 Closed	FIXED
	CONF-1552	Deleting a version of an attachment deletes all versions	 Closed	FIXED
	CONF-1854	Wonky alignment in edit blog post if post is very short	 Resolved	FIXED
	CONF-1824	The new space permissions page doesnt use my colors	 Closed	FIXED
	CONF-1899	leading space returned from excerpt macro	 Resolved	CANNOT REPRODUCE
	CONF-1583	search index of attachments breaks when editing page	 Closed	FIXED
	CONF-2206	Searching particular PPT fails	 Closed	FIXED
		Repair setup process - demo content && installed successful links to demo content homepage		
	CONF-2363	Rebuild Index run forever	 Closed	FIXED
	CONF-2236	Unable to build search query: null	 Closed	FIXED
	CONF-2150	Next and previous links in mail broken when context path is /	 Closed	FIXED
	CONF-2199	Errors upgrading from 1.2 -> 1.3 under MySQL: net.sf.hibernate.PropertyAccessException: exception setting property value with CGLIB	 Closed	FIXED
	CONF-2133	User data not wiped out after delete	 Closed	FIXED
	CONF-1973	Setup Step 6. admin creation possible with incorrect db configuration	 Closed	FIXED
	CONF-1425	On upgrade 1.1 -> 1.1.1 Confluence freezes on some time.	 Resolved	CANNOT REPRODUCE
	CONF-1672	jira-issues macro fails for URLs containing brackets	 Closed	FIXED
	CONF-2045	Help tip on	 Closed	FIXED

	CONF-948	permissions editing page inaccurate Internal links don't work if a page is included using the #includePage macro	 Closed	FIXED
	CONF-2143	Thread comments pref lost on DR3->DR4 upgrade	 Closed	CANNOT REPRODUCE
	CONF-2163	Greek Support for Quick Search	 Closed	FIXED
	CONF-2192	Password field for creating a mail account is plain textfield	 Closed	FIXED
	CONF-1873	Database error when using embedded HSQL database on Tomcat 5	 Closed	FIXED
	CONF-2141	Graceful error message upon reaching attachment filesize limit.	 Closed	FIXED
	CONF-2009	"Create Space" should have "Finish" button instead of "Next>>"	 Closed	FIXED
	CONF-1251	\$baseurl showing up in notification emails	 Closed	FIXED
	CONF-1618	Pages are exported in creation, not alphabetic order	 Resolved	FIXED
	CONF-2084	Restore Page Results in Listing of Every Version	 Closed	FIXED
	CONF-2158	Restore setup step does not validate existence of file	 Closed	FIXED
	CONF-925	Create admin account step in Setup dies with an ungraceful DuplicateEntityException	 Resolved	FIXED
	CONF-1868	Nullpointer when clicking "Global Templates" from Administration	 Closed	FIXED
	CONF-1019	Signup fails if server is not restarted after upgrade and restore	 Resolved	FIXED
	CONF-2159	Fix merge comment in setupdbchoice.vm	 Closed	FIXED
	CONF-2147	Installation of Demo content does not	 Resolved	FIXED

		bring up a demo				
		content welcome				
		screen on custom				
		installation				
	CONF-2036	Task list macro bug	 Closed	DUPLICATE		
	CONF-1826	cannot add new	 Resolved	FIXED		
		spaces or update				
		existing ones				
	CONF-2002	"Deleted" pages still	 Resolved	FIXED		
		show up in				
		"Undefined Pages"				
		Report				
	CONF-2037	Removing a space	 Resolved	FIXED		
		doesn't unindex all				
		its content				
	CONF-1758	Page store should	 Resolved	DUPLICATE		
		still succeed even if				
		indexing fails				
	CONF-1980	Sometimes, we get	 Closed	FIXED		
		the wrong thing back				
		from				
		HibernatePageDao.getPageById()				
	CONF-2111	Upgrade task dies if	 Closed	FIXED		
		confluence-mail.cfg.xml				
		not found				
	CONF-1090	Backup doesn't save	 Closed	FIXED		
		configuration				
	CONF-1713	PDF Document not	 Closed	FIXED		
		closed during				
		re-index				
	CONF-1641	Error viewing	 Closed	FIXED		
		decorator includes				
	CONF-1718	view default	 Closed	FIXED		
		decorator broken				
	CONF-2207	Repair setup process	 Closed	FIXED		
		- demo content &&				
		installed successful				
		links to demo				
		content homepage				
	CONF-1814	Still need	 Closed	FIXED		
		confluence-admin				
		group to access				
		<a document="" href="/admin pages</td><td></td><td></td></tr><tr><td>	CONF-2042	When export page	 Closed	FIXED
		ad PDF,it opens in				
		the browser,not				
		download				
	CONF-1889	Breadcrumbs and	 Closed	FIXED		
		titles in the Space				
		Summary region are				
		inconsistent				
	CONF-1977	Unable to edit Global	 Closed	FIXED		
		Templates with				
		administrate				

	CONF-2235	confluence permissions Could not initialize proxy - the owning Session was closed	 Closed	RESOLVED LOCALLY
	CONF-1834	Space summary does not show new comments	 Closed	FIXED
	CONF-2043	Properties text not appearing in notification email (html)	 Closed	FIXED
	CONF-1761	Going to a short URL for page in non-public space gives internal error without login	 Resolved	FIXED
	CONF-1857	Rename Page doesnt update {include} macros	 Resolved	DUPLICATE
	CONF-2081	simple display url: spaceKey/ fails	 Closed	FIXED
	CONF-1823	Excluded External Referrer Prefixes	 Resolved	FIXED
	CONF-1872	Fix default list pages view	 Closed	FIXED
	CONF-1892	Setup is complete - bad URL linking to new instance of Confluence	 Resolved	FIXED
	CONF-1867	improper encoding in confluence.cfg.xml	 Closed	FIXED
	CONF-1888	New global template reports 'Undefined Space' in breadcrumb	 Closed	FIXED
	CONF-1537	ResourceNotFoundException when viewing Site Decorator for a Space	 Closed	FIXED
	CONF-1409	Restore doesn't restore space colours	 Closed	FIXED

What's New in 1.3

This page last changed on Dec 01, 2004 by [cmiller](#).

Many of the changes between Confluence 1.2 and 1.3 are really of interest only to Confluence administrators. Here we detail the changes that will be important to all Confluence users.

Cannot resolve external resource into attachment. The Trash

Previously, when you deleted a page or blog post, it was unrecoverable. In 1.3, deleting a page moves it to the Trash. Space administrators can retrieve pages from the trash, or purge them forever. If a page has been deleted (or you have deleted a page by mistake), contact a space administrator to get it back.

Cannot resolve external resource into attachment. Note Macros

There are new macros for inserting coloured notes into a page:

{note}:



This is a note

A note tells you about something that may be important to you.

{tip}:



This is a tip

A tip tells you something you might not have thought of yourself.

{info}:



This is informative

Info was an excuse to have a blue note.

{warning}:



Beware!

Warnings can be dangerous if overused, because people start ignoring them.

For more information, check out [the notation guide](#).

Cannot resolve external resource into attachment. Mail Archiving

Confluence now includes the capability to store email. This allows you to store mailing-list archives, or records of conversations amongst your team inside Confluence. Mail archiving must be set up by a space administrator.

Have a look at [an individual mail], or [the view of an entire mail thread](#) (We are using confluence.atlassian.com to keep [archives of the confluence-user mailing list](#)).

Searched for **excerpt AND macro** in **Confluence Documentation** excluding **Mail**.
Also found **15 matches** in **Mail**. [Include these matches](#).

All mail is indexed, but by default we exclude it from search results because the volume of email can often overwhelm the content of the Confluence site. When you do a search, you might see this reminder that there could be an answer to your question in the email archives:

To link to an email from a Confluence page, you must find the numeric ID of that mail from the end of its URL, and put that in your link like so: [\$12572], which Confluence will draw like this: [\$12572]

Cannot resolve external resource into attachment. Improved JIRA Macros

The {jiraissues} macro has two new optional parameters:

- count=true makes the macro only return the number of issues matched by your filter, not the whole list of issues
- cache=off makes the macro retrieve the filter results from JIRA every time the page is loaded, ensuring the results are accurate. (Be careful if the filter returns a lot of results, though, you don't want to overload your servers)

There is a new {jiraportlet} macro that allows you to retrieve any portlet from a server running JIRA 3, and display it in a Confluence page, like so:

Lead:											
Reports: Open Issues Road Map Change Log Popular Issues Calendar Labels											
Open Issues: (By Priority)	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>										
Filter Issues:											
- All - Outstanding - Unscheduled - Most important	- Resolved recently - Added recently - Updated recently										

For more information, check the [notation guide](#)

Cannot resolve external resource into attachment. Easy Column Layout

You can use the {section} and {column} macros to organise your page into columns. This is especially useful when you combine it with the {jiraportlet} macro: you can arrange a Confluence page just like a JIRA dashboard!

Here's a simple two-column layout:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam fermentum vestibulum est. Cras rhoncus. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Sed quis tortor. Donec non ipsum. Mauris condimentum, odio nec porta tristique, ante neque malesuada massa, in dignissim eros velit at tellus. Donec et risus in ligula eleifend consectetur. Donec volutpat eleifend augue. Integer gravida sodales leo. Nunc vehicula neque ac erat. Vivamus non nisl. Fusce ac magna. Suspendisse euismod libero eget mauris.	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam fermentum vestibulum est. Cras rhoncus. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Sed quis tortor. Donec non ipsum. Mauris condimentum, odio nec porta tristique, ante neque malesuada massa, in dignissim eros velit at tellus. Donec et risus in ligula eleifend consectetur. Donec volutpat eleifend augue. Integer gravida sodales leo. Nunc vehicula neque ac erat. Vivamus non nisl. Fusce ac magna. Suspendisse euismod libero eget mauris.

For more information, check the [notation guide](#)

Cannot resolve external resource into attachment. Other Things

- Take a look at how the [space summary page](#) has been reorganised
- If you hit alt-E on any wiki page or blog post (ctrl-E if you're using a Mac), you'll be taken to the edit page.
- If you start a link with three slashes, you can link to something relative to the root of the Confluence installation. This is useful for creating links to pages that are part of Confluence, such as [the dashboard](#) ([///]), or [the space list](#) ([///spaces/listspaces.action]).
- The {excerpt} macro can take a hidden=true parameter to hide the contents of the excerpt within the page
- The {excerpt-include} macro can take a nopanel=true parameter to display the excerpt without any decoration or tables

Release Notes 1.3.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3.1 is a maintenance release that fixes some bugs that users may have encountered using Confluence 1.3.

1.3.1 is a free upgrade for all existing Confluence customers.

Who should upgrade?

Confluence 1.3.1 fixes a number of bugs that were found in Confluence 1.3. However, none of the bugs that were fixed were considered critical or likely to cause data-loss. Administrators should only upgrade Confluence if they are affected by (or feel they would be affected by) one of the issues resolved by this release.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Changes in 1.3.1

See also: [Issues Resolved for 1.3.1](#)

- Preferences for hiding or masking email addresses are no longer ignored on some screens – [CONF-2352](#)
- The plugin manager will no longer fail with an error when trying to return a plugin to its default state after activating or deactivating it – [CONF-2396](#)
- Disabling hot referrers in the referrer manager screen now works as expected – [CONF-2397](#)
- The save option has been restored to the comment preview screen – [CONF-2321](#)
- Deleting a blog post or a page no longer leaves possible orphaned comments in recent changes lists – [CONF-2323](#)
- Also, some edge cases in the setup wizard were fixed, the demonstration content was tidied up, and a few minor UI issues were resolved.

Issues Resolved for 1.3.1

This page last changed on Dec 19, 2004 by [cmiller](#).

Atlassian JIRA (24 issues)				
T	Key	Summary	Status	Res
	CONF-2390	Demo space needs to be prepared (again) for point and dev. releases	 Closed	FIXED
	CONF-2277	Put API docs online	 Closed	FIXED
	CONF-2319	Add cache=true or false details for jiraissues macro to notation guide	 Closed	FIXED
	CONF-2380	Sort user group names alphabetically in 'Edit Groups' screen	 Closed	FIXED
	CONF-1987	remove cvs author tags from source build	 Closed	FIXED
	CONF-2302	Viewing email is disallowed if POP boxes aren't configured	 Closed	CANNOT REPRODUCE
	CONF-2391	Remove mail should remove associated attachments	 Closed	FIXED
	CONF-2397	Hot referrers switch not working	 Closed	FIXED
	CONF-2396	Error activating macro	 Closed	FIXED
	CONF-2361	Email hiding preferences ignored	 Closed	FIXED
	CONF-2389	demonstration space has two broken links	 Closed	FIXED
	CONF-2366	Wording: "Your password successfully changed"	 Closed	FIXED
	CONF-5460	CLONE -Wording: "Your password successfully changed"	 Closed	FIXED
	CONF-2314	demo-site exportDescriptor.properties contains @BUILD_DATE@	 Closed	FIXED
	CONF-2317	note/warning/info/tip macro icons not showing up in	 Closed	FIXED

	CONF-2321	notation help Comment preview no longer lets you submit comment	 Closed	FIXED
	CONF-2334	Long "word" in post can make summary too wide in dashboard	 Closed	FIXED
	CONF-2386	External user management flag does not disble user management links	 Closed	FIXED
	CONF-2323	Deleting a blog post doesn't delete its comment	 Closed	FIXED
	CONF-2304	Imported email is logged into catalina.out	 Closed	FIXED
	CONF-2400	investigate reported problem when restoring data during the setup	 Closed	FIXED
	CONF-2320	Restore backup option in setup is represented incorrectly in setup step menu	 Closed	FIXED
	CONF-2362	Preview shouldn't jump you down to the edit area	 Closed	FIXED
	CONF-2310	Erraticity in state of applicationConfig	 Closed	FIXED

Release Notes 1.3.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3.2 is a maintenance release which includes 30 bug fixes and improvements that users may have requested using Confluence 1.3.

1.3.2 is a free upgrade for all existing Confluence customers.

Who should upgrade?

We recommend that all 1.3.x users upgrade to Confluence 1.3.2 . It includes, among other things, the fix of a memory leak which had been occurring in our error monitoring (see below or [CONF-2540](#)); if you have been encountering performance issues within Confluence, this could be of benefit.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or 1.3.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Changes in 1.3.2

See also: [Issues Resolved for 1.3.2](#)

We've closed 30 issues, so we will not name them all. Among the most prominent in the list are:

- A memory leak in our collection of logging events as a threadlocal, see [CONF-2540](#).
 - Consistent UI handling for editing and previewing blogs and comments, see [CONF-2479](#) and [CONF-2470](#)
 - Improved IO handling when building exports, see [CONF-2510](#)
 - Better cleaning up attachments when pages are removed, see [CONF-2567](#)
- etc ...

Issues Resolved for 1.3.2

This page last changed on Jan 21, 2005 by nick@atlassian.com.

Atlassian JIRA (25 issues)				
T	Key	Summary	Status	Res
	CONF-2308	Verify oracle upgrade from 1.2 -> 1.3	 Resolved	FIXED
	CONF-2355	Bandana upgrade error 1.2 -> 1.3	 Closed	CANNOT REPRODUCE
	CONF-2536	Markers around variable content of each page.	 Closed	FIXED
	CONF-2566	Import from disk should have a browse filesystem button	 Closed	INVALID
	CONF-2479	Comment preview should mirror Page preview	 Closed	FIXED
	CONF-2540	Ensure limit on ThreadLocalAppender for Log4J	 Closed	FIXED
	CONF-2490	Error while trying to draw the last-n pages!	 Closed	CANNOT REPRODUCE
	CONF-2567	Removing a page should remove its attachments	 Closed	FIXED
	CONF-2495	editmyprofile.action should blow up if you're not logged in	 Closed	FIXED
	CONF-2414	XML-RPC methods are not allowed to return void	 Closed	FIXED
	CONF-2484	html renders in recently updated	 Closed	FIXED
	CONF-2470	Blog title with illegal character loses blog entry	 Closed	FIXED
	CONF-2413	display the user friendly alias for the system link in page summary	 Closed	FIXED
	CONF-2420	disable change password link in profile	 Closed	FIXED
	CONF-1771	Shortcut links containing an '@' do not work	 Closed	FIXED
	CONF-2426	There is no	 Closed	FIXED

	CONF-2507	documentation for userlister	 Closed	FIXED
	CONF-2552	rss macro creates bad links when feed doesn't contain links	 Closed	FIXED
	CONF-2442	Check for existence of attachments before trying to delete attachments	 Resolved	DUPLICATE
	CONF-2458	attachments names with spaces get messed up	 Resolved	FIXED
	CONF-2449	MS SQL Server connection string wrong	 Closed	FIXED
	CONF-2488	Unsupported Database setup option does not let you pick a hibernate dialect	 Closed	FIXED
	CONF-2418	Import/Restore fails: truncation error	 Closed	FIXED
	CONF-2324	Creating a blog post with bad characters in the title loses page content	 Closed	FIXED
	CONF-2441	Limit length of traceback links on blog pages	 Closed	FIXED
		Notation guide error	 Closed	FIXED

Release Notes 1.3.4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3.4 is a maintenance release which includes a few important bug fixes for anyone running Confluence. These release-notes include information about the (briefly available) 1.3.3 version of Confluence, which 1.3.4 has superseded.

1.3.4 is a free upgrade for all existing Confluence customers.

Who should upgrade?

We recommend that all 1.3.x users upgrade to Confluence 1.3.4. For customers running 1.3.2 and earlier, it includes a fix to the security issue described in [Confluence Security Advisory 2005-02-09](#), and it thus an important upgrade for anyone who is still running an un-patched system.

For customers running 1.3.3, the upgrade is also recommended as this version fixes [CONF-2740](#), a regression in 1.3.3 which could cause referrer and traceback data to disappear.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 or 1.3.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Changes in 1.3.4

See also: [Issues Resolved for 1.3.4](#)

Since only five bug-fixes were made for this release, here is a quick run-down.

- The patch for the security issue described in [Confluence Security Advisory 2005-02-09](#) has been applied to 1.3.4
- A regression in 1.3.3 that caused traceback and referrer data to be lost has been fixed – [CONF-2731](#)
- An intermittent ClassCastException when viewing blog-posts has been fixed – [CONF-1671](#)
- The image cache for Apache FOP is now cleared between exports, preventing a case where the wrong version of an attachment may end up in a PDF export – [CONF-2647](#)
- A spurious "Connection already closed" log message in the JIRA user management bridge no longer occurs [CONF-2656](#)

Issues Resolved for 1.3.4

This page last changed on Feb 14, 2005 by [cmiller](#).

Issues resolved for 1.3.3

Atlassian JIRA (6 issues)				
T	Key	Summary	Status	Res
	CONF-2438	Do not send daily update email if no updates have taken place	 Closed	CANNOT REPRODUCE
	CONF-2554	Jira integration database connection issue	 Resolved	DUPLICATE
	CONF-2550	Missing resourcebundle, fails long running task	 Closed	FIXED
	CONF-2656	FATAL [user.providers.jira.JiraJdbcProfileProvider] Unable to close connection: Connection is closed.	 Closed	FIXED
	CONF-2647	PDF Export does not pick up image updates.	 Closed	FIXED
	CONF-2624	Exception occurred inside setter of com.atlassian.confluence.links.OutgoingLink.destinationPageTitle during import	 Resolved	FIXED

Issues resolved for 1.3.4

Atlassian JIRA (3 issues)				
T	Key	Summary	Status	Res
	CONF-2740	Referrers not showing	 Closed	FIXED
	CONF-2731	Trackbacks display error \$generalUtil.wordwrap(\$tbl.title, 32)	 Closed	FIXED
	CONF-1671	Possible ClassCastException in Blog.getDatePath	 Resolved	FIXED

Release Notes 1.3.5

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3.5 is a maintenance release which fixes a number of bugs found in earlier 1.3.x Confluence releases. Some areas improved in this release are space export/import, search and LDAP user management. 1.3.5 is also the first Confluence version to be successfully tested against Resin 3.0: see below for the special steps you need to take to get it running.

1.3.5 is a free upgrade for all existing Confluence customers.

Who should upgrade?

We recommend that all 1.3.x users upgrade to Confluence 1.3.5. For customers running 1.3.2 and earlier, it includes a fix to the security issue described in [Confluence Security Advisory 2005-02-09](#), and it thus an important upgrade for anyone who is still running an un-patched system.

For customers running 1.3.4, the upgrade is also recommended as this version fixes [CONF-2750](#), a regression in 1.3.4 that made it impossible to page through search results.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 – 1.3.4, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.2.3 or earlier, be sure to read the upgrade instructions in the [Confluence 1.3 release notes](#).

Changes in 1.3.5

Resin 3.0 Compatibility

Confluence 1.3.5 is the first Confluence version to be successfully tested against Resin 3.0.12. Customers wishing to run Confluence under Resin 3 should read the special instructions at [Known Issues for Resin 3.x](#)

Issues Resolved

- Paging through search results no longer results in an error. [CONF-2750](#)
- Space export and import now performs much more reliably. [CONF-2678](#)
- Setup wizard no longer complains about an incomplete setup if you restore a backup from disk. [CONF-2637](#)
- Special characters in search no longer cause parser to explode. [CONF-2527](#), [CONF-2532](#), [CONF-2728](#), [CONF-2735](#)...
- Attachment filenames containing spaces are no longer truncated when downloading using Firefox. [CONF-2739](#)

- For the full list of fixes, see [Issues Resolved for 1.3.5](#)

Issues Resolved for 1.3.5

This page last changed on Mar 01, 2005 by cmiller.

Atlassian JIRA (33 issues)				
T	Key	Summary	Status	Res
	CONF-1000	Get Confluence working on Resin 3.x	 Closed	FIXED
	CONF-2781	Backups and Restore MUST WORK	 Closed	FIXED
	CONF-2318	Space Summary - Admin main page should have icons and explanations as per Content	 Resolved	WON'T FIX
	CONF-2788	Preview doesnt show page title	 Resolved	FIXED
	CONF-2527	Searching for ***... BANG!	 Closed	FIXED
	CONF-2739	File names are truncated when accessing attachments	 Resolved	FIXED
	CONF-2769	returning a null if referring content is not a space and walking into a NPE	 Closed	FIXED
	CONF-2750	Error viewing Next >> search results	 Closed	FIXED
	CONF-2728	Leading Wildcard "*searchterm" leads to exception in search	 Closed	FIXED
	CONF-2764	Database Dialect always shows up as N/A in system dump	 Closed	FIXED
	CONF-2532	"System Error" when searching for ~username	 Closed	FIXED
	CONF-2086	Problem deploying on Jboss under SuSe or FreeBSD	 Resolved	FIXED
	CONF-2678	Demo Space import fails	 Resolved	DUPLICATE
	CONF-2837	Broken mail configuration makes admin console inaccessible	 Resolved	FIXED
	CONF-2415	Pages with long titles are inaccessible	 Resolved	FIXED
	CONF-2634	Confluence import creates two velocity	 Resolved	FIXED

		directories instead of one (breaking decorators)			
	CONF-2751	Exported space fails import	 Resolved	FIXED	
	CONF-2737	LDAP and non LDAP user login at Confluence	 Closed	FIXED	
	CONF-2779	RemoteSpaceSummary has NPE if key is not set	 Resolved	FIXED	
	CONF-2768	User management with LDAP ignores users registered only in Confluence	 Closed	FIXED	
	CONF-2819	Linked pages in "Move Page" screen contains bogus spaces (\$content.space.name)	 Closed	FIXED	
	CONF-2762	Content link dies if target is a comment.	 Resolved	FIXED	
	CONF-1509	All '/display/' links redirect to login page for Resin 3.0.8	 Closed	FIXED	
	CONF-2561	LazyInitializationException deleting a user	 Resolved	FIXED	
	CONF-2655	Special characters break search	 Closed	FIXED	
	CONF-2637	Tried to finish setup but had not run through the whole wizard?	 Resolved	FIXED	
	CONF-2322	NPE in jiraissues macro	 Resolved	FIXED	
	CONF-2387	quick search breaks when the [character is used	 Closed	FIXED	
	CONF-1511	Confluence forces login on every page view (Resin 3.0 incompatibility)	 Resolved	FIXED	
	CONF-2627	Can't thumbnail a file called attachments.png	 Resolved	FIXED	
	CONF-2735	Search error on confluence.atlassian.com	 Closed	FIXED	
	CONF-2771	MappingException in ReferralTaskQueue	 Resolved	FIXED	
	CONF-2820	Error when paging through search results	 Resolved	DUPLICATE	

Release Notes 1.3.6

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.3.6 is a special maintenance release for customers who are using Confluence with an Oracle database. It contains a number of fixes, originally developed for [Confluence 1.4](#), to Confluence's behaviour against Oracle databases.

1.3.6 is available as a free upgrade for all existing Confluence customers from the [archive download page](#).

Who should upgrade?

We recommend that customers skip Confluence 1.3.6 and upgrade to [Confluence 1.4](#). Confluence 1.4 includes a great many new features and bug-fixes that are not included in 1.3.6. We do, however, recognise that 1.4 is a significant upgrade and some customers wish to continue with Confluence 1.3 for the time being.

Confluence 1.3.6 is recommended only for Confluence customers who:

- are not yet ready to upgrade to Confluence 1.4, and
- are running Confluence with an Oracle database

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.3 – 1.3.4, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Changes in 1.3.6

Confluence 1.3.6 addresses a number of situations in which Confluence could lock up, consume additional resources, or fail to perform backup or restore operations against an Oracle database.

Release Notes 1.4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

[Atlassian Software](#) is proud to present Confluence 1.4 (otherwise known as Hunter). Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days can download either the standalone or WAR distributions from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Hunter is the fourth major update to Confluence, and the biggest yet in terms of new features and improvements both visible to the user or hidden "under the hood". Between 1.3.5 and 1.4, we resolved a massive 480 issues.

A big thanks to everyone who reported bugs, and offered suggestions over the last few months, especially everyone who helped by trying out our [Development Releases](#).

See also: [Issues Resolved for 1.4](#)

Contents

- [Upgrading](#)
- [Migration](#)
- [New Features](#)
- [Notable Bug Fixes](#)
- [Outstanding Bugs](#)

Upgrading From a Previous Version of Confluence

Upgrading Confluence should be pretty easy: you can find instructions here. We strongly recommend that you backup your confluence.home directory and database before upgrading!

Upgrading from 1.3.5

Because of the significant UI changes between 1.3 and 1.4 (see [below](#)), we highly recommend disabling any themes or UI customisations before upgrading Confluence.

After upgrading to 1.4, administrators will need to rebuild the site's search-index to ensure all the new search features are enabled. Do this from the Content Indexing section of the global administration menu.



Upgrade Migration

The database migration tasks that must be run to upgrade Confluence from 1.3 to 1.4 may take several minutes to run. During this time, Confluence will be unavailable.



Confluence License Expiration

A commercial Confluence license entitles you to a year of free upgrades. As such, Confluence 1.4 is the first release of Confluence to which some customers may not be able to upgrade.

If you were issued your Confluence license before May 24th 2004, you will not be able to upgrade to Confluence 1.4. Confluence 1.4 will refuse to run with any license issued before this date, and you will be required to downgrade to a previous Confluence version.

Upgrading from 1.2.3 or Earlier

Users upgrading from an earlier version of Confluence should check the release-notes of the other major Confluence releases:

- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Migration

The best place to find out about the new features available in Confluence 1.4 is by checking out our [What's New in Confluence 1.4](#) pages. However, there are a few features of specific interest to Confluence administrators that will be mentioned here:

v2Renderer

The engine by which Confluence converts wiki-text to HTML has been rewritten from scratch for Confluence 1.4. This was necessary, as the complexity of Confluence's markup was overwhelming the capabilities of the previous engine and leading to an increasing number of bugs, some of which had the potential to bring down the entire server.

v2Renderer is in every way more powerful (and better, more predictable) than the previous engine, and has undergone a lot of testing to make sure that it renders wiki pages the same way as its predecessor. However, pages that made use of bugs or undocumented features in the original engine may no longer render the same in 1.4 as they did in 1.3. If you come across something that is a bug or a missing feature in the new renderer, please file an [issue in JIRA](#).

One side-effect of the new renderer is that custom Java macros written for Confluence 1.3 and earlier may not be compatible with Confluence 1.4 (although most should continue to function). For more information, macro authors should read [this document](#)

New User Interface

In response to a lot of feedback from customers and users of Confluence, the User Interface has undergone a major overhaul between Confluence 1.3 and 1.4. While the changes are mostly self-explanatory, and we believe the new interface is significantly easier for everyone to use and understand than its predecessor, it may be a good idea to make the following resource available to your users as part of the transition: [1.4 Interface - Where Did Everything Go?](#)

Because of the substantial changes to the interface, themes and UI customisations made for Confluence

1.3 and earlier are not compatible with Confluence 1.4, and should be disabled before you upgrade.

Blogs have become News

Also in response to a lot of feedback, blogs in Confluence have now been renamed to news. We feel this makes it a lot easier to explain them to new and non-technical Confluence users. None of the functionality of blogs has been changed, just the name. 😊

New Features

Confluence 1.4 has a lot of cool new stuff. Over the next week we'll be releasing a new section of the Confluence website that will examine the new features in detail. Stay tuned.

Notable Bug Fixes

We resolved a lot of issues between Confluence 1.3.5 and Confluence 1.4. The best way to see what we've fixed is to ask JIRA, the world's best issue-tracker: [Issues Resolved for 1.4](#)

Outstanding Bugs

Some bugs were introduced during the Confluence 1.4 development cycle that we could not fix in time for the final release. Of note are:

- Index rebuilding may fail on multi-processor systems (for a workaround, see [CONF-3168](#))
- You can not install an XWork plugin by uploading through the web interface, it must be copied into WEB-INF/lib ([CONF-3184](#))
- Uploading a malformed plugin through the web interface may make other plugins cease to function ([CONF-3183](#))
- Under certain circumstances, the mbox mail import may fail against Oracle databases ([CONF-3284](#))
- The Insert Image and Insert Link popups jump the cursor to the top of the text input area on browsers other than Internet Explorer ([CONF-3232](#))

Once again, if you find any bugs in Confluence, or have any feature suggestions, you can report them online in [JIRA](#).

Issues Resolved for 1.4

This page last changed on May 24, 2005 by cmiller.

Atlassian JIRA (500 issues)				
T	Key	Summary	Status	Res
	CONF-2722	Upgrade Confluence to atlassian-extras-0.6	 Closed	FIXED
	CONF-1399	Clean up use of PageContext so it's consistent	 Resolved	FIXED
	CONF-2669	merge 1.3.2 and HEAD	 Closed	FIXED
	CONF-3152	Test Confluence with velocity template caching turned on	 Resolved	FIXED
	CONF-2529	Tech Debt: document current list of macros in Notation guide	 Closed	FIXED
	CONF-2598	userlist for online reporting - documented and jarred	 Closed	FIXED
	CONF-2474	Put the 1.3 Conf. API back up on the website	 Closed	FIXED
	CONF-2456	Reinstate WebDav admin	 Closed	FIXED
	CONF-2365	clean up CVS tree - get rid of event2 OR event/types/admin	 Resolved	FIXED
	CONF-2644	move src/etc/custommacro code to src/etc/plugins	 Closed	FIXED
	CONF-2436	Move licensing private key from confluence-extras to atlassian-extras	 Closed	FIXED
	CONF-3254	Plug in XML-RPC storeBlogEntry method	 Resolved	FIXED
	CONF-3263	Confluence 1.4 Release Bender	 Closed	WON'T FIX
	CONF-3116	Write documentation for page level permissions.	 Resolved	FIXED
	CONF-1984	Enable load/performance testing	 Closed	FIXED

	CONF-3142	Check string size returned by Oracle.	 Resolved	FIXED
	CONF-2528	Tech Debt: port old event system to new event system	 Resolved	FIXED
	CONF-3047	Merge branch 1_3 stable	 Closed	FIXED
	CONF-2795	Check CaSe issues on attachments	 Closed	FIXED
	CONF-3062	Restore edit tab to blogs	 Closed	FIXED
	CONF-2489	Allow direct JDBC connection to Oracle	 Closed	FIXED
	CONF-2962	WebDAV review - umbrella task	 Resolved	FIXED
	CONF-3040	AttachmentManyCreate Must Die!	 Resolved	FIXED
	CONF-2695	Investigate and fix PDF export errors	 Closed	FIXED
	CONF-3155	Ensure all new macros are in the notation guide	 Resolved	FIXED
	CONF-2388	Find a way to automate inclusion of clean demo-site.zip	 Closed	FIXED
	CONF-2556	Confluence needs a reminder that support and upgrades will elapse	 Closed	FIXED
	CONF-3000	Pluginize the remote API.	 Resolved	FIXED
	CONF-2976	Performance review	 Resolved	FIXED
	CONF-3048	Refactor spacedefault.vmd into space.vmd, using specific modes for what spacedefault.vmd wants to achive	 Resolved	FIXED
	CONF-2987	Theme Brainstorming day	 Resolved	FIXED
	CONF-2993	Deal with upcoming license expirations	 Closed	FIXED
	CONF-2800	Change the logo and name on the dashboard	 Resolved	FIXED
	CONF-2402	Upgrade c3p0 to 0.8.5 pre9	 Resolved	FIXED
	CONF-1885	Confluence Detailed Feature List	 Resolved	FIXED
	CONF-2582	Moving tree of pages	 Closed	HANDLED BY SUPPORT

	CONF-2645	Error Restoring Data after switching to SQL Sql server db logs	Closed	FIXED
	CONF-3026	logs	Closed	FIXED
	CONF-2372	Requesting Plugin for Remote API (SOAP) features	Resolved	FIXED
	CONF-2705	Add Interface to edit permissions	Resolved	FIXED
	CONF-2698	Functional Tests	Resolved	FIXED
	CONF-2818	create indexing upgrade task	Resolved	FIXED
	CONF-2984	'set to dials to ten' pages	Resolved	FIXED
	CONF-2983	'set to dials to ten' spaces	Resolved	FIXED
	CONF-2681	Be able to add an archive from a local file path, rather than upload using a Browse button	Closed	FIXED
	CONF-2986	'set to dials to ten' comments	Resolved	FIXED
	CONF-2990	toolbar theme	Resolved	WON'T FIX
	CONF-2982	'set to dials to ten' testing - links in page	Resolved	FIXED
	CONF-2115	Macros choose their render mode	Resolved	FIXED
	CONF-2714	Create upgrade task to update ContentLock Table	Resolved	FIXED
	CONF-2465	login message text macro	Closed	FIXED
	CONF-2467	recently updated list macros	Resolved	FIXED
	CONF-2464	welcome text message macro	Closed	FIXED
	CONF-2469	space details and space summary info to macro	Closed	FIXED
	CONF-2468	create a space button macro	Closed	FIXED
	CONF-2463	space list macro	Closed	FIXED
	CONF-2466	global reports macros	Closed	FIXED
	CONF-2773	Move all new UI presentation logic into decorators	Closed	FIXED
	CONF-2825	add versioning information for blogposts in UI	Closed	FIXED

	CONF-2981	ensure indexes are present where needed on Confluence db schema	 Resolved	FIXED
	CONF-3216	Bulk delete of mail contains broken references	 Resolved	FIXED
	CONF-3199	Fix download pages	 Closed	FIXED
	CONF-2782	Create page only themes for 'tabbed' and 'simple' themes	 Closed	FIXED
	CONF-2704	Add icon for pages you can not view	 Resolved	FIXED
	CONF-2776	Build task for themes in maven.xml (just as for macros/plugins)	 Closed	FIXED
	CONF-2700	Hide search results for pages you can't see	 Resolved	FIXED
	CONF-2699	All permissioning code must be updated	 Resolved	FIXED
	CONF-3197	What's New in 1.4?	 Resolved	FIXED
	CONF-3201	Fix 'about' page	 Resolved	FIXED
	CONF-3203	Screenshots	 Resolved	FIXED
	CONF-2457	Document the setup of WebDav	 Closed	FIXED
	CONF-2980	profile the performance of the new renderer	 Resolved	FIXED
	CONF-2373	Remote API Feature Request	 Resolved	FIXED
	CONF-2985	'set to dials to ten' users	 Resolved	FIXED
	CONF-2978	analyse sql queries used by dashboard.	 Resolved	FIXED
	CONF-2979	analyse sql used by view page	 Resolved	FIXED
	CONF-3200	Finish role-specific pages	 Resolved	FIXED
	CONF-2988	Left Hand Nav.	 Resolved	FIXED
	CONF-3262	Check what happens when upgrading with out-of-date license	 Closed	FIXED
	CONF-3198	Personal License Information	 Resolved	FIXED
	CONF-2203	Trigger backups via remote API	 Closed	FIXED
	CONF-2697	Page Level Permissions	 Resolved	FIXED

	CONF-2676	Add support for Personal Licenses (2 user)	 Closed	FIXED
	CONF-2889	XWork plugin type	 Resolved	FIXED
	CONF-2572	addPermissionToSpace	 Closed	FIXED
	CONF-2573	deleteUser	 Closed	FIXED
	CONF-800	Add Attachments to user profile page	 Resolved	FIXED
	CONF-2599	Delete all mail from a space	 Closed	FIXED
	CONF-2622	Support rel="nofollow" for external links	 Closed	FIXED
	CONF-2454	Investigate space id rewriting	 Closed	CANNOT REPRODUCE
	CONF-2977	Customize application title	 Closed	FIXED
	CONF-1474	Link to "special" pages	 Closed	FIXED
	CONF-191	Allow macros to listen for system events	 Closed	FIXED
	CONF-2791	Instant Messaging presence indicators: Yahoo! ICQ and AIM	 Resolved	FIXED
	CONF-2597	Who is on-line	 Closed	FIXED
	CONF-2462	System information macros	 Resolved	FIXED
	CONF-2218	it would be great if you could move attachments	 Closed	FIXED
	CONF-1351	Allow attaching multiple files from the same screen	 Resolved	DUPLICATE
	CONF-2857	Add "lastModified" parameter to search macro	 Resolved	FIXED
	CONF-2877	Search indexing plugins	 Resolved	FIXED
	CONF-1998	Need to be able to attach files (images!) to blog posts	 Closed	FIXED
	CONF-2574	deleteUserFromGroup	 Closed	FIXED
	CONF-1145	Ability to add multiple files	 Closed	FIXED
	CONF-2299	Hot keys for 'add' and 'preview'	 Closed	FIXED
	CONF-2575	deleteGroup	 Closed	FIXED
	CONF-2772	Move everything into a decorator - fully customizable look	 Closed	FIXED

	CONF-1538	and feel Customisable Logo support	 Closed	FIXED
	CONF-2723	'Inform me of Pages that I am watching' option on Profile	 Closed	FIXED
	CONF-2890	Servlet plugin type	 Resolved	FIXED
	CONF-2453	spring-bean plugin module type	 Closed	FIXED
	CONF-520	"minor edit" button	 Closed	FIXED
	CONF-2631	List all attachments for a space	 Closed	FIXED
	CONF-3076	attachments macro	 Resolved	FIXED
	CONF-2571	getSpaceLevelPermissions	 Resolved	FIXED
	CONF-2943	attachments macro	 Resolved	FIXED
	CONF-661	Dynamically Load Macro without restarting Confluence	 Resolved	FIXED
	CONF-2347	Add auditing for Admin and basic space/page CUD operations	 Closed	FIXED
	CONF-832	Move page hierarchy	 Closed	FIXED
	CONF-2097	V2Renderer	 Resolved	FIXED
	CONF-7086	CLONE -Export Page Hierarchy	 Resolved	DUPLICATE
	CONF-1807	Add macro for pulling number of issues from JIRA rather than issue list	 Resolved	FIXED
	CONF-2367	Add gzip filter to response, configurable in Bandana settings	 Closed	FIXED
	CONF-2864	(y) thumbs up image needs a transparent background	 Resolved	FIXED
	CONF-2496	refactor action-centric UI mutating code to a UserInterfaceFacade	 Closed	FIXED
	CONF-988	Need a war build script like Jira	 Closed	FIXED
	CONF-2973	footer text should use the phrase 'enterprise wiki'	 Resolved	FIXED
	CONF-2329	Store daily report preference as a notification	 Resolved	FIXED
	CONF-2770	Ship standalone with	 Closed	FIXED

	CONF-1493	directory listings turned off Convert bare anchor links to remove hash sign	 Resolved	FIXED
	CONF-2315	Make confluence logo transparent	 Resolved	FIXED
	CONF-2621	viewing Blog Posts should always display a calendar	 Closed	FIXED
	CONF-1110	have a free personal edition (localhost only)?	 Resolved	FIXED
	CONF-2641	Better mail archive page	 Closed	FIXED
	CONF-2607	Deactivate automatic polling of mail accounts	 Closed	FIXED
	CONF-3090	Add exportSpace and backup option for SOAP and rpc	 Closed	FIXED
	CONF-3102	Support wildcards on space-level attachment list filter	 Resolved	FIXED
	CONF-2520	Page operations -> Edit UI component	 Resolved	FIXED
	CONF-1195	Add user permissions to the SpaceSummary	 Closed	FIXED
	CONF-2354	Replace all PNG icons with gifs	 Resolved	FIXED
	CONF-1768	Add new Blog Post's Content to Notification Email	 Resolved	FIXED
	CONF-2960	Do not display space key in any list of pages within browse space	 Closed	FIXED
	CONF-1297	Horizontally scalable layout	 Resolved	FIXED
	CONF-2949	Refactor event hierachy to avoid repetition of code in child classes	 Resolved	FIXED
	CONF-2632	Do not import a mail message if it matches an existing message-id in the same space	 Closed	FIXED
	CONF-3008	Add ability to uninstall plugins	 Closed	FIXED
	CONF-2623	Improve file attachemented email notifications	 Resolved	FIXED

	CONF-2944	Quick link to "search in all spaces" on a space-limited search	 Closed	FIXED
	CONF-2947	Add remoteIP and remoteHost info to SecurityEvent	 Closed	FIXED
	CONF-1960	Improve error message for an offline database	 Closed	INVALID
	CONF-2867	Macros can choose if they need a body or not.	 Resolved	FIXED
	CONF-2969	Page info. reports pages' parent and children	 Resolved	FIXED
	CONF-2358	Rename "blog_post" to "News"	 Resolved	FIXED
	CONF-2615	Usability issue: hard to move pages.	 Resolved	FIXED
	CONF-2873	Links at end of sentences can include extra periods	 Resolved	FIXED
	CONF-2994	Email notifications improved	 Resolved	FIXED
	CONF-2497	Dashboard recently updated should use Excerpt tag	 Closed	INVALID
	CONF-2915	Confluence's directory structure is not versioned	 Resolved	DUPLICATE
	CONF-2968	Add html anchor in page preview	 Closed	FIXED
	CONF-2360	Tooltip for space-only links should use space title not space key	 Closed	FIXED
	CONF-791	Improve insertion of images when editing pages	 Resolved	FIXED
	CONF-2893	XMLRPC interfaces allow creation of invalid spaces	 Closed	FIXED
	CONF-1106	Provide a 'view as source' link when navigating wikis	 Closed	FIXED
	CONF-1772	Versioned attachment links are confusing to non-technical users	 Closed	FIXED
	CONF-1750	the way of the link. - javascript usage	 Closed	FIXED
	CONF-2144	Clean up ConfluenceSetup	 Closed	FIXED
	CONF-1693	Better parent	 Resolved	FIXED

	CONF-2964	selection Include macro can now reference pages in other spaces.	 Resolved	FIXED
	CONF-2100	Add Creator to page byline	 Closed	FIXED
	CONF-2404	System plugins that can not be disabled	 Resolved	FIXED
	CONF-2970	Content tree should display in an expanded form	 Closed	FIXED
	CONF-1565	Packaged distribution should expand to confluence-version	 Closed	FIXED
	CONF-2357	Mark confluence daily backups and make date ISO compliant for sortability	 Resolved	FIXED
	CONF-2325	Indexing on Large Installations	 Closed	FIXED
	CONF-2787	only show Hibernate's DDL output on stdout if log4j is set to DEBUG priority	 Closed	FIXED
	CONF-2868	Reinstate webdav configuration	 Closed	DUPLICATE
	CONF-2925	Watch page UI confusing if you are watching a space	 Closed	FIXED
	CONF-1859	Noisy dashboard 2	 Closed	FIXED
	CONF-2010	Noisy dashboard 3 - remove "Create a Space"	 Closed	FIXED
	CONF-2113	Add the ability to add attachments from the edit screen.	 Closed	FIXED
	CONF-862	Show Differences between Separate Versions	 Resolved	FIXED
	CONF-3099	Allow attachment upload from the "Insert link" and "Insert image" popups on page edit	 Resolved	FIXED
	CONF-3230	Clear old messages off mail error queue	 Resolved	FIXED
	CONF-2732	Remove EmailTemplate table	 Closed	FIXED
	CONF-3037	Why the single attachment option for every "Attach	 Resolved	FIXED

	CONF-2881	more files" click? What to do when upon a "Cancel" request	 Resolved	FIXED
	CONF-2926	Put permissions UI on "Create page" page	 Resolved	FIXED
	CONF-2583	Add getChildren() method to remote API	 Closed	FIXED
	CONF-2025	Blog Attachments	 Closed	FIXED
	CONF-2600	Add an insert image link next to "Insert Link" link	 Closed	FIXED
	CONF-2920	Upgrade c3p0	 Closed	FIXED
	CONF-3061	Let users select individual blogposts to watch	 Closed	FIXED
	CONF-1542	Show original user and last update by user for each page	 Resolved	FIXED
	CONF-2316	Can't create a new blog post from the recent blog posts page	 Closed	FIXED
	CONF-2995	Improve Conf. Documentation	 Resolved	FIXED
	CONF-2939	Back up plugins directory	 Resolved	FIXED
	CONF-3162	Plugin list should be ordered alphabetically	 Closed	FIXED
	CONF-3150	Paginate search results inside insert link popup	 Closed	FIXED
	CONF-3107	RPC test suite needs improving	 Closed	FIXED
	CONF-3236	Allow {children} macro to list the space's root pages	 Resolved	FIXED
	CONF-3023	View all blog posts, not only most recent.	 Resolved	FIXED
	CONF-2967	Change pool size of multi-threaded indexer depending on queue size (lucene)	 Resolved	FIXED
	CONF-2619	Fix demo site ... bad link on Confluence Overview - features other wikis do not have	 Closed	FIXED

	CONF-3098	Make content tree work for unsupported browsers	 Closed	FIXED
	CONF-2854	If LDAP provider fails to authenticate, do not fall back on local osuser auth	 Closed	FIXED
	CONF-2905	investigate current indexes created on content table in Confluence	 Closed	FIXED
	CONF-2560	Repair/replace PropertySet's Hibernate provider / provide upgrade task in Confluence for text/string meta data	 Resolved	FIXED
	CONF-3132	Thumbnailing should display image name	 Resolved	FIXED
	CONF-2188	Customized Application Title.	 Closed	FIXED
	CONF-3245	Ugly long path display	 Resolved	FIXED
	CONF-3214	Make an object's default text content more easy to manipulate in search extractor chain	 Resolved	FIXED
	CONF-2264	Edit comment on attachments	 Closed	FIXED
	CONF-2514	Dogfood: Demonstrate Confluence theme plug-ins	 Resolved	FIXED
	CONF-2937	Document all junitreport options	 Resolved	FIXED
	CONF-2961	Page diff.s need to be fixed - follow J. Nolan's advice for best wiki diffing strategy	 Closed	FIXED
	CONF-1715	Move some page operations to page info	 Resolved	FIXED
	CONF-2629	Moving a page to another space should move the children	 Closed	FIXED
	CONF-938	Page level access permissions / security	 Resolved	FIXED
	CONF-2668	Parent Page field	 Resolved	FIXED

	CONF-2688	blanked out after preview/template Setup Administrator fails	 Closed	FIXED
	CONF-2687	Image attachments on an {include}'d page are broken	 Closed	FIXED
	CONF-1601	List rendering results in unexpected indenting	 Resolved	INVALID
	CONF-1482	More than one CamelCase link in a single line	 Resolved	FIXED
	CONF-1798	Can not supply arguments (i.e. thumbnail) to image in a list	 Resolved	FIXED
	CONF-2513	java.util.MissingResourceException: Can't find resource for bundle java.util.PropertyResourceBundle, key core.dateutils.minutes	 Closed	CANNOT REPRODUCE
	CONF-2181	Invalid character in new blog entry results in losing text entered	 Closed	FIXED
	CONF-3277	mail accounts always connect to server using port 110	 Closed	FIXED
	CONF-2613	PowerPoint indexing error	 Closed	WON'T FIX
	CONF-2626	The parent page picker allows you to choose illegal parents	 Closed	FIXED
	CONF-3052	Edit blog post link inconsistent	 Closed	FIXED
	CONF-2166	CamelCase not consistent	 Resolved	FIXED
	CONF-3053	Notifications not obeying page-level permissions	 Resolved	FIXED
	CONF-2792	AIM presence macro points to fishbowl.pastiche.org	 Resolved	FIXED
	CONF-3033	trackbacks broken - \$generalUtil.wordWrap(\$tbl.title, 32)	 Closed	FIXED
	CONF-3156	Can not delete a blog post that has notifications	 Resolved	FIXED
	CONF-3195	Can't create child page with security	 Closed	FIXED

	CONF-3270	turned on Trashed pages have downloadable attachments	 Closed	FIXED
	CONF-2897	Dashboard forgetting how many items in recently displayed	 Closed	FIXED
	CONF-3114	anchor macro gives NPE	 Resolved	FIXED
	CONF-3044	Upgrade fails with Sybase	 Closed	FIXED
	CONF-2693	space breaks include macro	 Resolved	FIXED
	CONF-3035	help doc.s not showing on edit-preview page	 Closed	FIXED
	CONF-2824	Case-insensitive attachment filename fix breaks existing mixed-case attachments	 Resolved	FIXED
	CONF-2845	NullPointerException in ListNewOrUpdatedPagesAction	 Resolved	FIXED
	CONF-2214	[name link^attachment] gets broken if I move link to a new space	 Closed	FIXED
	CONF-2822	Restore setup step will accept space-only imports	 Closed	FIXED
	CONF-2473	HTML bug in preview page	 Closed	FIXED
	CONF-2500	XML page heirarchy export not functioning correctly	 Closed	INVALID
	CONF-2963	Page related macros should work with page permissions	 Closed	FIXED
	CONF-2748	'View page in hierarchy' does not anchor on selected page in tree view	 Closed	FIXED
	CONF-2724	Tasklist crashes when task item has link	 Resolved	FIXED
	CONF-3146	Regression: Robots exclusion tags	 Resolved	FIXED
	CONF-3224	(find more) mail search does not cater for null \$address.personal	 Resolved	FIXED
	CONF-2379	Export space screen shows incorrect sort	 Resolved	FIXED

	CONF-3267	order Section / column macros still have borders	 Resolved	FIXED
	CONF-2942	Parent page blanking out (regression)	 Closed	FIXED
	CONF-3229	Authentication with LDAP password only	 Closed	FIXED
	CONF-2101	XML escape characters in space titles break PDF export	 Resolved	FIXED
	CONF-3194	The "breadcrumbs" demo is broken	 Closed	FIXED
	CONF-3228	Picture not showing properly on Profile page	 Resolved	FIXED
	CONF-3225	Illeagal chars allowed on attachement rename.	 Closed	FIXED
	CONF-3178	Search is broken - returning incorrect results via rpc and ridiculous results via the UI	 Resolved	FIXED
	CONF-2946	Space export doesn't show content tree	 Resolved	FIXED
	CONF-3133	LiveSearch macro - close link and esc. shortcut inconsistent	 Closed	FIXED
	CONF-2807	"<" and ">" (french ") breaks list rendering	 Resolved	FIXED
	CONF-2345	Sender not properly displayed when containing international characters	 Resolved	FIXED
	CONF-3209	bucket.core.InfrastructureException: java.lang.NoClassDefFoundError	 Closed	FIXED
	CONF-2660	verify that notifications are sent out when none are requested	 Closed	FIXED
	CONF-2805	Space specific decorators, within themes, will not work as inline decorators	 Closed	FIXED
	CONF-2886	Searching for pages using the page pop-up fails	 Resolved	CANNOT REPRODUCE
	CONF-3289	Print page shows	 Resolved	FIXED

	CONF-3180	wrong logo Rename of "Home" fails if new name contains umlaut characters	 Closed	FIXED
	CONF-3161	Anonymous user trying to edit page causes exception.	 Resolved	FIXED
	CONF-2916	Searching anonymously brings back no results	 Resolved	FIXED
	CONF-2928	Page Info screen does not display inherited restrictions	 Resolved	FIXED
	CONF-3093	View link points wrongly on diff page	 Resolved	FIXED
	CONF-2638	Indexing on attachments during install fails	 Closed	FIXED
	CONF-2892	Lock Page fails to present editing by other users	 Resolved	HANDLED BY SUPPORT
	CONF-2951	Can't update daily report setting	 Resolved	FIXED
	CONF-2894	Notifications list incorrect editors	 Resolved	FIXED
	CONF-3091	NPE importing attachments during initial setup	 Resolved	FIXED
	CONF-2749	Content tree is greedy for resources	 Closed	FIXED
	CONF-3279	Add attachment anchor link shouldn't show if you can't add attachments	 Resolved	FIXED
	CONF-2903	nullpointer on Demo Site in DOC space - clicking on Info	 Resolved	CANNOT REPRODUCE
	CONF-3029	Restoring a single Space from 1.3.1 to 1.4-DR6 fails	 Closed	FIXED
	CONF-2759	Loading "Spaces" page really slow	 Closed	WON'T FIX
	CONF-2628	User macros are listed in random order	 Closed	FIXED
	CONF-2941	Weird unrendered comments	 Resolved	FIXED
	CONF-3223	Can not deleteAll mail when attachment exists.	 Resolved	FIXED
	CONF-2674	Import of space - data integrity violated and user's	 Closed	FIXED

	CONF-2950	locked out Page diffs are broken	 Closed	FIXED
	CONF-3051	Edit pop account page has no \$i18n helper	 Resolved	FIXED
	CONF-3159	View space attachments can break	 Resolved	DUPLICATE
	CONF-3151	{children:depth=2} is listing the same page twice	 Resolved	WON'T FIX
	CONF-3143	i18n bug on notifications page	 Resolved	FIXED
	CONF-3218	file.inaccessible: incorrect message key in mail import.	 Resolved	FIXED
	CONF-3217	Email with no subject can not be viewed.	 Resolved	FIXED
	CONF-3163	Cant add files to users profile although I belong to a group that has Global permission to attach files	 Closed	FIXED
	CONF-3257	gallery macro is page-specific	 Closed	FIXED
	CONF-3244	HTML tag in page - Invalid XML export	 Resolved	FIXED
	CONF-3252	Disabled pop account should remain disabled after editing.	 Resolved	FIXED
	CONF-3311	Restore fails	 Closed	FIXED
	CONF-3491	Table and List Syntax Don't Co-Operate	 Closed	FIXED
	CONF-3160	Invalid plugins can be uploaded	 Closed	FIXED
	CONF-2518	Strange Lucene exception during reindex	 Closed	FIXED
	CONF-1680	Page Referrencing [...] in tasklist doesn't work	 Resolved	FIXED
	CONF-2733	attachment with 'action' in the name results in PermissionCheckDispatcher error	 Closed	FIXED
	CONF-3278	Borders not displayed for tables in wiki preview	 Resolved	FIXED

	CONF-2902	Space search is broken	 Closed	FIXED
	CONF-2811	Blog comments appear in global summary, but not in space summary	 Resolved	FIXED
	CONF-3117	Images don't render in PDF exports of pages	 Resolved	FIXED
	CONF-3222	Userpicker on Edit Space Permissions does not work	 Closed	FIXED
	CONF-3158	NullPointerException on space attachments list	 Resolved	DUPLICATE
	CONF-3112	C.A.C. page crashes on view	 Resolved	FIXED
	CONF-3213	trim whitespace when editing page titles	 Closed	FIXED
	CONF-3077	No error text when you choose a dud parent page	 Resolved	FIXED
	CONF-3068	java.lang.ClassCastException on Page Info page	 Resolved	FIXED
	CONF-3015	Page restrictions/permissions not honoured by remote API	 Resolved	FIXED
	CONF-2883	Contents of the temp directly (i.e. backups/exports) not sufficiently protected	 Closed	FIXED
	CONF-3172	Cannot upgrade on existing ORACLE Database	 Resolved	FIXED
	CONF-2935	New comment notifications don't contain the new comment	 Resolved	FIXED
	CONF-3219	Import local mbox without specifying a file results in NPE.	 Resolved	FIXED
	CONF-3273	wiki content styles override styles in included html	 Closed	FIXED
	CONF-2726	unrelated symbols(instead of space between words and symbols like "&" generated in h1.	 Resolved	FIXED
	CONF-3271	attachment link in	 Closed	FIXED

	CONF-2837	search results follows a non-existent anchor Broken mail configuration makes admin console inaccessible	 Resolved	FIXED
	CONF-1633	Formatting characters in shortlinks are processed leading to rendering errors	 Resolved	FIXED
	CONF-3276	Change password tab should be hidden if external user management is enabled	 Resolved	FIXED
	CONF-1390	Images with HTML attributes don't render correctly in numbered lists	 Resolved	FIXED
	CONF-2620	Space list in 404 page broken	 Resolved	FIXED
	CONF-2477	NPE in mail retrieval	 Closed	FIXED
	CONF-1982	Exporting names with commas appears to break	 Resolved	FIXED
	CONF-1968	Noformat macro should ignore backslashes	 Resolved	FIXED
	CONF-1896	Template breaks table structure	 Resolved	FIXED
	CONF-1604	Link Rendering is broken by markup in URL	 Resolved	FIXED
	CONF-2570	stacktrace when Anonymous user hits attach file	 Closed	FIXED
	CONF-2858	atlassian-mail.cfg.xml saves as wrong character set	 Resolved	FIXED
	CONF-2034	Incorrect rendering of code tag after a bullet with ' ' in the code	 Resolved	FIXED
	CONF-1450	{noformat} macro doesn't work properly	 Resolved	FIXED
	CONF-3010	URL with / in it confuses PermissionCheckDispatcher	 Closed	FIXED
	CONF-2183	Move Page icon and Rename Page icon are identical	 Closed	FIXED

	CONF-2301	Trying to import non-mbox file as an mbox file causes mayhem	 Closed	FIXED
	CONF-3240	Insert image popup doesn't consider png files images	 Resolved	FIXED
	CONF-2309	Wacky notifications when files are attached	 Closed	FIXED
	CONF-3063	find page notifications broken in notif.s manager	 Closed	FIXED
	CONF-3067	Adding a non-existent user to space should report error	 Closed	FIXED
	CONF-2504	confluence.atlassian.com Mail getting Archived repeatedly	 Closed	FIXED
	CONF-1405	Error when table is created right above bullets with a "\\" in between	 Resolved	FIXED
	CONF-3113	Escaped square brackets show up in Undefined Pages Report	 Resolved	FIXED
	CONF-2808	"Page Not Found" breadcrumbs	 Closed	FIXED
	CONF-2896	Excerpt macro does not hide text	 Resolved	FIXED
	CONF-3057	Adding attachments that are empty causes java.lang.ArrayIndexOutOfBoundsException	 Closed	FIXED
	CONF-2804	Green highlighting for new attachments is wrong when multiple attachments are added	 Resolved	FIXED
	CONF-1903	Exclude "Index" from "Recently Changed Pages" rss feed	 Closed	FIXED
	CONF-2763	Borders in note macro	 Resolved	FIXED
	CONF-2747	PGP signatures or long unbroken text stalls Confluence	 Closed	CANNOT REPRODUCE
	CONF-3147	Deleting comments leads to weird search result	 Closed	CANNOT REPRODUCE
	CONF-3131	fix content indexing page UI	 Resolved	FIXED

	CONF-1833	Exceptrts limited to 255 characters	 Resolved	FIXED
	CONF-3111	Possible connection leakage when session.flush() fails	 Resolved	FIXED
	CONF-3268	pages, comments, and attachments are not reindexed when page is restored from trash	 Closed	FIXED
	CONF-2719	The excerpt doesn't expand the tags inside	 Closed	FIXED
	CONF-3056	\$helper.spaceName displayed on Historical Page view.	 Resolved	FIXED
	CONF-2332	mixed case usernames are resolved in a confusing manner after creation	 Closed	FIXED
	CONF-2633	Analysis script for Contegix	 Closed	WON'T FIX
	CONF-2901	Confluence can store null terminators ('\0')	 Closed	RESOLVED LOCALLY
	CONF-2777	missing property core.dateutils.minutes	 Resolved	FIXED
	CONF-3006	Device out of space error is being hidden...	 Closed	FIXED
	CONF-2730	Table in a second list is not rendered	 Resolved	FIXED
	CONF-2448	Search results shows same page twice	 Closed	CANNOT REPRODUCE
	CONF-3022	Attaching image to blog post brings brings NPE	 Closed	CANNOT REPRODUCE
	CONF-2972	Regression: Blog comments missing	 Resolved	FIXED
	CONF-2342	Exception after Hot Referral purge	 Closed	FIXED
	CONF-3119	On page info, showall link should only appear if there are hidden links.	 Resolved	FIXED
	CONF-3188	Emoticons don't show up in exported PDFs	 Closed	FIXED
	CONF-2775	Database connection is not closed and transaction isn't ended	 Closed	FIXED
	CONF-3258	ImageRendererComponent	 Closed	CANNOT

	CONF-3251	is page-specific Editing pop account should hash out password.	 Resolved	REPRODUCE FIXED
	CONF-3190	Mail archive not sorted correctly	 Resolved	FIXED
	CONF-3060	confluence progressively results in hung pages for certain pages	 Closed	FIXED
	CONF-1995	Confluence Changes in the last 24 hours is Empty	 Closed	FIXED
	CONF-3672	Certain keywords lead to weird search result, most produce duplicate results	 Closed	FIXED
	CONF-1478	Search of numbers yields no result	 Closed	FIXED
	CONF-2710	How do I edit a page in 1.4DR4	 Resolved	FIXED
	CONF-2659	Restore export of a space causes HibernateException: Reading backup xml file failed. Repeat, bounce Tomcat and all *seems* OK	 Closed	FIXED
	CONF-2431	import macro incorrectly parses links to anchors	 Resolved	FIXED
	CONF-1804	Broken HTML notification for certain email client due to extra "/>Confluence" in base href	 Closed	FIXED
	CONF-1697	{code:xml} formats some XML entities incorrectly	 Resolved	FIXED
	CONF-2606	Problem with URL encoded content within {html}	 Resolved	FIXED
	CONF-1453	Corrupt table header after bulletins	 Resolved	FIXED
	CONF-2364	The "information" emoticon is upside-down	 Resolved	FIXED
	CONF-1525	hn. corrupts line breaks	 Resolved	FIXED
	CONF-1338	Page exports do not contain images	 Resolved	FIXED
	CONF-1607	Pipe " " character breaks rendering of	 Resolved	FIXED

	CONF-1217	list URL containing asterisks is interpreted as bold	 Resolved	FIXED
	CONF-2348	Shortcut rendering errors	 Resolved	FIXED
	CONF-2682	Online help missing from global admin general config screen	 Closed	FIXED
	CONF-1883	{noformat} issue with first line of text.	 Resolved	FIXED
	CONF-1799	Second list in a table won't be rendered as a list	 Resolved	FIXED
	CONF-1092	Wrong paragraph markup	 Closed	FIXED
	CONF-2433	Setting email to hidden makes archived mail addresses MORE visible	 Closed	FIXED
	CONF-2451	PDF export fails when HTML macro is used	 Resolved	CANNOT REPRODUCE
	CONF-2104	excerpt from included page used, not main one.	 Resolved	FIXED
	CONF-1918	System error when changing the formatting from UTF-8 to UTF-32	 Resolved	FIXED
	CONF-1570	Still trouble with non-ASCII characters in page names	 Closed	FIXED
	CONF-2383	atlassian-velocity needs upgrading, dependencies on atlassian-core broken	 Closed	FIXED
	CONF-2450	Error deleting space - integrity constraint between NOTIFICATIONS and CONTENT	 Resolved	FIXED
	CONF-2476	Null pointer on template creation (also a null without exception in 500 page on template edit)	 Closed	FIXED
	CONF-2762	Content link dies if target is a comment.	 Resolved	FIXED

	CONF-2344	ensure that German responses to email (AW:) are threaded	 Closed	FIXED
	CONF-2836	Auto-paragraph breaks not working due to "heading" tags.	 Resolved	FIXED
	CONF-2863	Template values can not contain \$	 Closed	FIXED
	CONF-2601	TokenMap can leak memory	 Closed	INVALID
	CONF-2832	Base URL warning points to obsolete path settings screen	 Resolved	FIXED
	CONF-3274	Space Permissions Page unusable on narrow browser widths	 Resolved	FIXED
	CONF-2823	'Undefined Pages' lists user profile links	 Closed	FIXED
	CONF-2924	Handling of '-' in anchor macro and links	 Resolved	FIXED
	CONF-3169	Search results include attachments of deleted pages	 Closed	FIXED
	CONF-2910	Regression: Recent Changes expansion state no longer remembered	 Resolved	FIXED
	CONF-3210	Daily email status not displayed on user profile	 Resolved	FIXED
	CONF-2485	Odd looking content hangs confluence	 Closed	FIXED
	CONF-2515	PDF Export: hyperlinking within an exported parent to child page is not internal	 Resolved	FIXED
	CONF-3074	Error running scheduled backup	 Resolved	FIXED
	CONF-2134	No e-mail notifications are sent	 Closed	FIXED
	CONF-2472	eval license expiry time not displayed	 Closed	CANNOT REPRODUCE
	CONF-2461	wrong URL encoding of non-ASCII chars when redirected to space homepage	 Resolved	FIXED
	CONF-2671	Restore setup step doesn't list directory contents properly	 Closed	FIXED
	CONF-3101	Crash on list	 Resolved	FIXED

	CONF-3177	attachments page Change color scheme throws exception	 Closed	FIXED
	CONF-3182	Template breadcrumb rendering issue	 Closed	FIXED
	CONF-3007	Page Permissions do not extend to attachments	 Resolved	FIXED
	CONF-2635	index key too long - os_propertyentry when MySQL	 Closed	WON'T FIX
	CONF-2516	Servlet context listeners not Websphere 5.1 compatible	 Resolved	FIXED
	CONF-2409	Unable to render Velocity Template	 Resolved	FIXED
	CONF-3024	Move page and move page hierarchy should respect page level permissions	 Closed	FIXED
	CONF-3105	If cookies disabled, login fails but shows content page	 Closed	FIXED
	CONF-3291	Ellipsis in {noformat} is formatted.	 Resolved	FIXED
	CONF-2375	Left navigation theme broken	 Closed	WON'T FIX
	CONF-2335	error when using {include: } macro within a comment	 Closed	FIXED
	CONF-2927	Template entry params can confuse tables.	 Resolved	FIXED
	CONF-2300	Restore/Backup Mask	 Closed	FIXED
	CONF-3175	SAXParseException when trying to export Confluence using 1.4 RC1 or RC2	 Closed	FIXED
	CONF-2509	Checking off one tasklist item incorrectly checks off same item in other task lists	 Resolved	FIXED
	CONF-3174	Missing viewdefaultdecorator resource file in 1.4-RC2	 Resolved	FIXED
	CONF-3096	{code:none} gives	 Resolved	FIXED

	CONF-3179	error in 1.4DR6 Ancestor table not built when importing data	 Resolved	FIXED
	CONF-3171	dashboard, not default site homepage, as user homepage	 Closed	INVALID
	CONF-3189	NullPointerException deleting mail from a space	 Resolved	FIXED
	CONF-3269	RemoveDocumentIndex encounters NPE (entire document built just to access the doc. handle)	 Closed	FIXED
	CONF-2765	Growing Memory Usage leads to Errors	 Resolved	FIXED
	CONF-2352	hardcoded column names in the jira bridge are incorrectly cased and fail on Sybase	 Closed	FIXED
	CONF-840	Non-daemon threads prevent clean server shutdown	 Closed	FIXED
	CONF-2539	Mail archiving & blogs not listed as being enabled on list of spaces	 Closed	FIXED
	CONF-2564	{info}, {tip}, etc.. break lists	 Resolved	FIXED
	CONF-1385	cannot create 2nd bullet list inside the table cell	 Resolved	FIXED
	CONF-3013	No field error when adding a blog post with no title	 Closed	FIXED
	CONF-2557	Recently Updated list doesn't escape html tags	 Closed	FIXED
	CONF-2035	Ellipsis character incorrectly inserted when using code tag	 Resolved	FIXED
	CONF-2729	NullPointerException when trying to view attachments	 Closed	FIXED
	CONF-2189	If you preview a page with a bad title, there's no 'back' and you lose your work	 Closed	FIXED
	CONF-2475	Hot referrers bug in building priority	 Closed	FIXED

	CONF-3025	order for display Visual layout problems with IE5.5	 Closed	RESOLVED LOCALLY
	CONF-2721	Attachments tab always fails. Can choose links on page to download OK.	 Closed	FIXED
	CONF-2793	Log Levels on JBoss/Jetty seem screwed	 Closed	WON'T FIX
	CONF-1017	Back button after preview destroys edits	 Closed	FIXED
	CONF-2498	The tasklist macro does not work on a user profile page	 Resolved	FIXED
	CONF-3129	template structured content breaking - Description @VAR textarea(10 x 80) @ 	 Resolved	INVALID
	CONF-1842	CamelCase link rendering regressions	 Resolved	FIXED
	CONF-2546	Use of both style="..." in generated HTML breaks third-party CSS.	 Resolved	FIXED
	CONF-2483	Table + macro inside bug!	 Resolved	FIXED
	CONF-3126	Space permissions broken in search in 1.4 DR7	 Closed	FIXED
	CONF-3196	Printable HTML pages have many things they don't need	 Closed	FIXED
	CONF-2544	Children macro bugs	 Closed	WON'T FIX
	CONF-3312	restore 1.4RC4 -> 1.4 xml parsing error	 Resolved	FIXED
	CONF-2907	Space look and feel options in space admin broken	 Closed	FIXED
	CONF-3069	\$helper object not available on Edit colour scheme settings page.	 Closed	FIXED
	CONF-2519	Funky bug in diffing tables	 Closed	FIXED
	CONF-3085	Error in search inside imported space	 Closed	DUPLICATE
	CONF-934	Weblogic Authenticator is missing from	 Closed	FIXED

	CONF-3009	deployment Attachment links	 Closed	FIXED
	CONF-2423	broken for mail atlassian-core now uses resourcebundle for DateUtils - missing for LongRunningTask	 Resolved	CANNOT REPRODUCE
	CONF-3157	Backup imports complaining about PropertySetItem fields	 Resolved	FIXED
	CONF-2806	Theme specified resources are not associated with the decorator	 Closed	FIXED
	CONF-2643	NullPointerException on "More" of page with outgoing links	 Closed	FIXED
	CONF-3049	Multiple Page.keys in classpath	 Resolved	FIXED
	CONF-3226	Deleted pages still show up in Tree View	 Resolved	FIXED
	CONF-2685	header in {blog-post} macro	 Resolved	FIXED
	CONF-2934	No buildable plugins in 1.4DR6 releases!	 Resolved	FIXED
	CONF-3014	Blog calendar is not on the far right	 Resolved	CANNOT REPRODUCE
	CONF-2534	Exporting a subset of a space utilizes attachments from the whole space	 Closed	FIXED
	CONF-3241	Mail creation date should mirror the emails creation date.	 Resolved	FIXED
	CONF-2735	Search error on confluence.atlassian.com	 Closed	FIXED
	CONF-2752	Next button crashes on search results	 Resolved	DUPLICATE
	CONF-2918	ViewSpacePermissions throws LazyInitializationException	 Closed	CANNOT REPRODUCE
	CONF-2834	Export to PDF reference to profile is wrong ("file:///root-context/username")	 Resolved	FIXED
	CONF-2690	Export/Restore of space inserts blank lines in pages	 Closed	FIXED
	CONF-3108	Comment preview loses threading info	 Resolved	FIXED
	CONF-3173	Exception trying to	 Closed	FIXED

	CONF-3012	view site default layouts Page properties are lost when upgrading to DR6	 Resolved	FIXED
	CONF-3215	Confluence's "recently-updated" macro is not sorted by date.	 Resolved	FIXED
	CONF-3148	attachments: could not be queried successfully	 Closed	FIXED

Release Notes 1.4.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4.1 is a maintenance release that resolves some issues users may have encountered using Confluence 1.4. Issues include an occasional failure to display Confluence pages, Oracle and MySQL database issues, and a slow memory-leak.

1.4.1 is a free upgrade for all customers who purchased their Confluence license after June 2nd, 2004.

Who should upgrade?

Confluence 1.4.1 is a recommended upgrade for all users of Confluence 1.4, as it addresses a memory-leak which, while slow, would progressively degrade Confluence's performance and ultimately cause the server to exhaust available memory.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.3.6 or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).

Changes in 1.4.1

See also: [Issues Resolved for 1.4.1](#)

- A slow memory leak has been fixed. ([CONF-3347](#))
- An issue where Confluence pages would intermittently only display their header when loading has been resolved. ([CONF-3295](#))
- Confluence will now deploy reliably on MySQL 4.1 with UTF-8 encoding. ([CONF-3306](#))
- Several issues regarding Confluence's use of the Oracle database have been resolved.
- A recurring bug preventing PNG images from being exported to PDF on some application servers has been fixed. ([CONF-731](#))
- Inconsistencies with custom colour-schemes have been resolved ([CONF-3314](#))

Issues Resolved for 1.4.1

This page last changed on Jun 02, 2005 by cmiller.

Atlassian JIRA (16 issues)				
T	Key	Summary	Status	Res
	CONF-3306	Update os-propertyset key size to ensure that it works with mysql	 Resolved	FIXED
	CONF-2720	Tasklist should allow for unnamed list	 Closed	FIXED
	CONF-3128	Links to Attachment disappeared in exported HTML page	 Resolved	FIXED
	CONF-3255	Links in the {children} macro are mis-rendered in exported PDFs	 Resolved	CANNOT REPRODUCE
	CONF-3400	Pages with edit-permissions are indexed as if they have view permissions	 Resolved	FIXED
	CONF-731	PNG images (as well as some of the emoticons which are PNG) can not be exported as PDF!!	 Resolved	FIXED
	CONF-3314	Custom color scheme not applied to spacelist	 Closed	FIXED
	CONF-3315	RemoveOldCommentV upgrade task fails on MySQL (and other case sensitive databases)	 Closed	FIXED
	CONF-1478	Search of numbers yields no result	 Closed	FIXED
	CONF-2672	Error while generating PDF	 Closed	FIXED
	CONF-3347	Memory leak caused by registering Webwork actions with Spring	 Resolved	FIXED
	CONF-3284	Mail import failing on oracle.	 Resolved	FIXED
	CONF-3304	Non-profit footer too long	 Resolved	FIXED
	CONF-3303	NPE in link macro?	 Resolved	FIXED
	CONF-783	Icons and images don't get exported in	 Resolved	FIXED



[CONF-3295](#)

[PDFs](#)

[Page mysteriously
fails to load,
sometimes](#)



Resolved

FIXED

Release Notes 1.4.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4.2 is a maintenance release that resolves some issues users may have encountered using previous Confluence 1.4 releases. 1.4.2 introduces Websphere and DB2 compatibility, and fixes issues related to content indexing and the mail queue.

1.4.2 is a free upgrade for all customers who purchased their Confluence license after June 30th, 2004.

Who should upgrade?

Confluence 1.4.2 is a bugfix release. Customers should consult the list of issues resolved for this release to decide whether it is worth their while upgrading. Since this release includes a number of important performance and reliability fixes for content indexing, anyone who relies on Confluence's search functionality should consider upgrading.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4 or 1.4.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.3.6 or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).

Database Connection Pool Changes

Dependent on the size of your Confluence installation, the new re-indexing task may use up to 10 database connections simultaneously. As such, you may need to increase the size of your database connection pool in order to allow Confluence to continue to operate during and after rebuilding the search index.

If Confluence has been set up to use direct JDBC connections, then you will find the setting for Confluence's connection pool size in *confluence.cfg.xml* in your confluence home directory. Confluence should update this value automatically when you upgrade, so after starting up Confluence 1.4.2 for the first time, you should check to make sure it has been updated to 15 connections, as seen below:

```
<property name="hibernate.c3p0.max_size">15</property>
```

If Confluence has been configured to use a datasource supplied by the application server, you should ensure the application server is configured to supply Confluence with sufficient connections to run.

Changes in 1.4.2

See also: [Issues Resolved for 1.4.2](#)

- Confluence has now been tested on Websphere 5.1.1.3 (see [Known Issues for Websphere](#))
- Confluence has now been tested against DB2 8.1 (Linux and Windows)
- The mechanism by which Confluence rebuilds its full-text search index has been rewritten to be significantly less memory-intensive (but may be 10-15% slower). [CONF-3340](#)
- An issue that could cause comments or attachments to be removed from the search index when a page was edited has been resolved. [CONF-3489](#)
- An issue that could cause index rebuilding to fail (especially on multi-processor systems) has been resolved. [CONF-3168](#)
- Issues related to the size and reliability of the mail queue were resolved. [CONF-3334](#) [CONF-3474](#)
- An exception when creating global templates was fixed. [CONF-3386](#)
- Some Javascript errors that were being flagged on Internet Explorer no longer occur. [CONF-3422](#), [CONF-3482](#)
- Exporting a space to HTML via XML-RPC now succeeds. [CONF-3401](#)
- Creating a blog post via XML-RPC now succeeds. [CONF-3412](#)
- ALL CAPS WORDS are no longer linked when CamelCase linking is activated. [CONF-3361](#)
- The display of user attachments does not break when the user has not yet set a profile. [CONF-3420](#)

Issues Resolved for 1.4.2

This page last changed on Jun 29, 2005 by [cmiller](#).

Atlassian JIRA (35 issues)				
T	Key	Summary	Status	Res
	CONF-3001	Website improvements	 Resolved	FIXED
	CONF-3474	The Mail Queues Error Queue gets Filled with Mail Exceptions	 Closed	FIXED
	CONF-3204	Proof-read, clear and deploy	 Resolved	FIXED
	CONF-3294	Make Navigation Consistent	 Resolved	FIXED
	CONF-3202	Make front page spiffy	 Resolved	FIXED
	CONF-3341	Support DB2 (Windows/Linux)	 Resolved	FIXED
	CONF-3705	Don't show comments text area in print view	 Resolved	FIXED
	CONF-3354	Turn off logging when exporting to PDF	 Closed	FIXED
	CONF-3340	Reindexing shouldn't load all objects into memory at once	 Resolved	FIXED
	CONF-3413	Incomplete i18n properties for core.dateutils.DateUtils	 Resolved	FIXED
	CONF-3386	Creating global template throws null pointer exception in getSpaceName	 Resolved	FIXED
	CONF-3473	Cannot un-check "Macro has a body" flag	 Closed	FIXED
	CONF-3361	CamelCase behaves much differently in 1.4.1 than 1.3.5	 Resolved	FIXED
	CONF-3348	Blogpost preview shows Dashboard > Undefined Space > \$helper.getText("action.name")	 Closed	FIXED
	CONF-3489	Indexing a page removes the indexes for the comments on attachments belonging to the page	 Resolved	FIXED

	CONF-1467	PDF Export of page with large image breaks	 Closed	FIXED
	CONF-3405	Servlet plugins not covered by standard confluence servlet filters	 Resolved	FIXED
	CONF-3412	storeBlogEntry() fails with NullPointerException if a publishDate is not set	 Resolved	FIXED
	CONF-3422	JavaScript error when creating a page from link in undefined pages list	 Resolved	FIXED
	CONF-2568	Unable to create blog post - bad sql grammar exception (DB2)	 Resolved	FIXED
	CONF-3482	Javascript error in IE when clicking on non-existent page link	 Resolved	FIXED
	CONF-1478	Search of numbers yields no result	 Closed	FIXED
	CONF-1738	Problem sending email notification can cause email flooding	 Resolved	CANNOT REPRODUCE
	CONF-3334	Default email MIME type is not valid	 Closed	FIXED
	CONF-3420	Attachments tab sometimes shows a macro instead of (0)	 Resolved	FIXED
	CONF-3410	Mail stops sending, MailExceptions in stdout.log, all mail moves to Error Queue	 Closed	DUPLICATE
	CONF-3375	Livesearch macro rendering (breaks panels for one)	 Closed	FIXED
	CONF-3379	Typo on no permissions page	 Resolved	FIXED
	CONF-3401	Exporting a space to HTML via XML-RPC results in a ClassCastException	 Resolved	FIXED
	CONF-3377	Upgrade issue from 1.3 to 1.4.1 with DB2	 Resolved	FIXED
	CONF-1234	Websphere 5.1 installation problems	 Closed	FIXED

	CONF-3680	Problem with turkish characters. New line starts while it is not supposed to be with turkish characters.	 Closed	FIXED
	CONF-3443	Upgrade bug on Sybase: Column not NULL by default	 Closed	FIXED
	CONF-3381	\$body always defined for user macros	 Resolved	FIXED
	CONF-3391	Invalid formatting in space.vmd of URL links to blog comments in News Items page if non-ascii characters present in blog title	 Resolved	FIXED

Release Notes 1.4.3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4.3 is a maintenance release that resolves some issues users may have encountered using previous Confluence 1.4 releases. 1.4.3 introduces a new SOAP service provider, and fixes issues related to incoming link tracking, notifications management, serving resources from dynamically loaded plugins, and much more.

1.4.3 is a free upgrade for all customers who purchased their Confluence license after August 17th, 2004.

Who should upgrade?

Confluence 1.4.3 is a bugfix release. While Atlassian recommends customers always run the most recently available stable Confluence release, customers should consult the list of issues resolved to decide whether it is worth their while upgrading.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4 to 1.4.2, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 1.3.6 or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).

Changes in 1.4.3

See also: [Issues Resolved for 1.4.3](#)

Remote API Changes

Confluence now ships with an second SOAP provider running Apache Axis, alongside the existing Glue SOAP provider. This is the first step towards migrating entirely to Axis as our sole SOAP provider over the next few major Confluence releases. If you use Confluence's SOAP API, you should read [this document](#) for information about the migration process and timeframe.



All SOAP clients that worked with Confluence 1.4.2 will continue to work with Confluence 1.4.3 with no change.

Other changes made to the remote API:

- A condition under which SOAP faults could be masked by HTML error pages on some application servers was resolved. ([CONF-3043](#))
- Deleting a page via the remote API now places that page in the trash. ([CONF-3403](#))
- Adding space level permissions to a user through the remote API now works as expected. ([CONF-3596](#))

Other Changes and Fixes

- A bug that would cause a page's most recent editor to change when the page was previewed has been fixed ([CONF-3424](#))
- A bug that could cause a page's incoming links not to be displayed has been fixed ([CONF-3509](#))
- A bug that could cause "Watch this space" not to function has been fixed ([CONF-3510](#))
- A bug that could cause Confluence to run out of available file descriptors when exporting a space has been fixed ([CONF-3517](#))
- A bug that could cause an email notification to be sent regarding a page that was restricted by page-level permissions has been fixed ([CONF-3573](#))
- The attachment upload form in the "Insert Image" is more robust against error ([CONF-3677](#), [CONF-3676](#))
- Searching for a page in the Parent Page Picker Popup now functions as expected ([CONF-3364](#))
- Deleting a user now correctly deletes their email notifications ([CONF-3619](#))
- Restoring a page from the trash now re-adds that page's comments to the search index ([CONF-3564](#))
- Attachment links are now not rendered if the user can not view the attachment due to page level permissions ([CONF-3553](#))
- The list of recently edited pages in a user's profile is now more accurate ([CONF-2430](#))
- Plugins uploaded through the web interface can now correctly serve [downloadable resources](#) ([CONF-3387](#))
- The {recently-updated} macro and recent blogs pages now work under JDK 1.5 ([CONF-3528](#), [CONF-3601](#))
- The {section} macro's "border" property now works correctly ([CONF-3736](#), [CONF-3433](#))
- The {noformat} macro now has a "nopanel" parameter that will suppress drawing a background or border ([CONF-3656](#))
- Several issues regarding the {tasklist} macro were fixed ([CONF-3622](#), [CONF-3633](#), [CONF-3632](#))
- The {dynamictasklist} macro no longer breaks PDF exports ([CONF-3513](#))
- The informational macros no longer center their text when viewed in Internet Explorer ([CONF-3537](#))
- Links are now parsed in the title of a {panel} macro ([CONF-3560](#))
- The string ?!?! is no longer interpreted by the Wiki/HTML renderer as a broken image

See also: [Issues Resolved for 1.4.3](#)

Issues Resolved for 1.4.3

This page last changed on Aug 17, 2005 by [cmiller](#).

Atlassian JIRA (50 issues)				
T	Key	Summary	Status	Res
	CONF-3658	Create axis soap service alongside glue service	 Resolved	FIXED
	CONF-3670	Restrict the number of top level pages shown in the {children} macro.	 Resolved	FIXED
	CONF-801	Support different sortings of page children	 Resolved	FIXED
	CONF-3656	Add option to suppress panel in noformat macro	 Resolved	FIXED
	CONF-3654	Edit panel and buttons disappear when previewing a global template	 Closed	FIXED
	CONF-3424	Canceling edit after preview changes last editor	 Resolved	FIXED
	CONF-3601	Ognl exception while getting property blogPosts	 Resolved	DUPLICATE
	CONF-3505	ClassCastException in Recently Updated Macro	 Closed	FIXED
	CONF-1843	Confluence doesn't reconnect to database after MySQL is restarted	 Closed	FIXED
	CONF-3736	SectionMacro:border= not responding.	 Resolved	FIXED
	CONF-3676	insert image popup shows upload form even though the user does not have permissions.	 Closed	FIXED
	CONF-3620	Bad action - after send forgot password	 Closed	FIXED
	CONF-3619	Deleting user does not delete there notifications.	 Resolved	FIXED
	CONF-3577	Need to handle multiple "watches" / "notifications"	 Resolved	FIXED

	CONF-3632	gracefully. Duplicate tasklist macro items cause SQL duplicate key exception on restore	 Closed	FIXED
	CONF-3564	Comments are not re-indexed when a page is restored from the trash	 Resolved	FIXED
	CONF-3575	The actual order of pages in a PDF Space export does not follow the same order of the index	 Closed	FIXED
	CONF-1324	Username can't have uppercase characters	 Resolved	FIXED
	CONF-3633	Tasklist macro allows duplicate items if items contain trailing spaces	 Closed	FIXED
	CONF-3711	Page Picker search results are always empty	 Closed	FIXED
	CONF-3403	Delete page via SOAP api doesnt put it in the Trash	 Resolved	FIXED
	CONF-3507	Creating a page containing the RSS macro may cause the server to hang against DB2	 Resolved	FIXED
	CONF-2430	User Profile's 'Recently Edited' items list is wrong.	 Resolved	FIXED
	CONF-1749	lotus notes emails screwy	 Closed	FIXED
	CONF-3677	500 Internal Server Error wehn submitting empty upload form in insert image popup	 Resolved	FIXED
	CONF-3612	Incoming links went south?	 Resolved	FIXED
	CONF-3560	Links are not parsed in title of panel macro	 Resolved	FIXED
	CONF-3513	Error while exporting space in PDF (Possibly due to dynamictyasklist macro)	 Resolved	FIXED
	CONF-3553	Link to attachment on restricted page	 Resolved	FIXED

	CONF-3227	displays "401 Unauthorized" error Cannot type "?!?" characters without 404 image renderings	 Resolved	FIXED
	CONF-1478	Search of numbers yields no result	 Closed	FIXED
	CONF-3510	Watch this space link doesn't toggle, adds multiple subscriptions	 Resolved	FIXED
	CONF-3572	confluence:docs maven target does not create javadoc for the com.atlassian.renderer packages.	 Resolved	FIXED
	CONF-3596	Adding space permissions for a user via XML-RPC instead adds permissions for a group	 Resolved	FIXED
	CONF-3503	If an attachment is created with a null (rather than empty) comment, setting a new one causes an NPE	 Resolved	FIXED
	CONF-3530	Information Macros center content text when rendered in IE	 Resolved	FIXED
	CONF-3641	Administration link: closing a tag typo	 Closed	FIXED
	CONF-3433	border=true attribute in {section} tag turns on or off borders of tables in section but does not put border around section	 Resolved	FIXED
	CONF-3428	Using {recently-updated} macro under JDK 1.5.0	 Resolved	DUPLICATE
	CONF-3364	When adding a page and designating its parent, searching for a page does not work.	 Resolved	FIXED
	CONF-2287	RPC: removing a non-existent space results in a 'No	 Resolved	FIXED

	CONF-3537	permission to remove spaces' XmlRpcSxception	 Resolved	FIXED
	CONF-3608	Info macros have centered text on IE6.	 Resolved	FIXED
	CONF-3538	Remove all uses of EqualsBuilder	 Resolved	WON'T FIX
		{panel} macro does not respond to properties unless a title is specified.		
	CONF-3509	Incoming links are broken	 Resolved	FIXED
	CONF-3492	Granting a user/group export space permission actually grants "admin space" permission	 Closed	DUPLICATE
		Daily backup date format and prefix being set after bandana has been saved		
	CONF-3506	Plugin resources not served when plugin installed in \${confluence.home}/plugins	 Resolved	FIXED
		Security issue with 'watching'		
	CONF-3387	Unclosed file handles.	 Resolved	FIXED
	CONF-3573		 Resolved	FIXED
	CONF-3517		 Resolved	FIXED

Release Notes 1.4.4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 1.4.4 is a maintenance release that resolves some issues users may have encountered using previous Confluence 1.4 releases. 1.4.4 fixes a number of issues, including many related to the reliability of uploaded plugins

1.4.4 is a free upgrade for all customers who purchased their Confluence license after September 23rd, 2004.

Who should upgrade?

Confluence 1.4.4 is a bugfix release. While Atlassian recommends customers always run the most recently available stable Confluence release, customers should consult the list of issues resolved to decide whether it is worth their while upgrading.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence versions between 1.4 and 1.4.3, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 1.3.6 or earlier, be sure to read the upgrade instructions in the [Confluence 1.4 release notes](#).

Changes in 1.4.4

Uploaded Plugin Fixes

Prior to Confluence 1.4.4, plugins containing Spring components, XWork actions or velocity templates could not be uploaded through the web interface, and needed to be installed manually in `WEB-INF/lib`. Confluence 1.4.4 fixes these issues.

Database Indexes

Confluence 1.4.4 now correctly creates database indexes on a clean installation. If you are upgrading an existing Confluence instance, you should consult [Performance Tuning](#) for information on indexes that can improve Confluence's performance significantly.

Other Changes and Fixes

See: [Issues Resolved for 1.4.4](#)

Issues Resolved for 1.4.4

This page last changed on Sep 25, 2005 by cmiller.

Atlassian JIRA (47 issues)				
T	Key	Summary	Status	Res
	CONF-3980	Spelling error "hiearchy: on moving/renaming pages between spaces	 Closed	FIXED
	CONF-3220	Document the dangers of turning external user management off	 Resolved	FIXED
	CONF-4793	Link to news item	 Closed	ANSWERED
	CONF-3658	Create axis soap service alongside glue service	 Resolved	FIXED
	CONF-3989	AttachmentViewEvent	 Resolved	FIXED
	CONF-3411	login page should display alternative content if user is already logged in	 Resolved	DUPLICATE
	CONF-2132	Include recent changes as a macro	 Closed	FIXED
	CONF-2999	Fix release process	 Resolved	FIXED
	CONF-3973	Logo doesnt link to user's "home" - instead hard-links to dashboard	 Resolved	FIXED
	CONF-3895	When editing an existing page, clicking the Choose Page image to select a Parent Page causes a Javascript error in both IE and Mozilla	 Resolved	FIXED
	CONF-4015	Component plugins are not removed from the spring context when disabled.	 Resolved	FIXED
	CONF-3905	Colour of Breadcrumb text cannot be configured	 Closed	FIXED
	CONF-3988	Missing #comments and #addcomment anchors when viewing page	 Resolved	FIXED

	CONF-3664	Deactivate user link does not display when viewing a user's profile	 Closed	FIXED
	CONF-3838	Export Space to XML may produce "Too many open files" error	 Closed	FIXED
	CONF-4107	Page titles containing ? may not be linked to on some application servers	 Closed	FIXED
	CONF-3969	Welcome greeting color not using colour scheme colours	 Resolved	FIXED
	CONF-3184	XWork actions in uploaded plugins do not work	 Resolved	FIXED
	CONF-4000	View system info shows "1 , 1 hour, 55 minutes, 53 seconds" as the system uptime.	 Resolved	FIXED
	CONF-3610	Exported space (pdf or html) always has blank 'Available Pages' section	 Closed	FIXED
	CONF-3971	Layout off on Themes page	 Resolved	FIXED
	CONF-3800	Start watching this space	 Closed	FIXED
	CONF-3843	includePage macro does not work when called from an inline decorator	 Closed	FIXED
	CONF-4782	Missing Apostrophe in Page Permission Error Message	 Closed	DUPLICATE
	CONF-3059	User Management Delegated to JIRA	 Resolved	FIXED
	CONF-3567	Umlauts and page-titles - few work, many don't.	 Closed	FIXED
	CONF-3855	DuplicateNotifications breaks on MySQL 3	 Resolved	FIXED
	CONF-3970	wrong icon on Plain Website theme	 Closed	FIXED
	CONF-3884	Could not execute action	 Closed	ANSWERED
	CONF-3383	[file:// links break with \	 Resolved	WON'T FIX
	CONF-3878	Uploading macros via web interface is	 Resolved	FIXED

	CONF-3288	broken JavaScript error in IE when re-editing a blog post	 Resolved	FIXED
	CONF-3805	MAILTO Links on PDF export are broken	 Closed	DUPLICATE
	CONF-3758	%span% markup should be removed from notation guide.	 Closed	FIXED
	CONF-3781	HTTPS Links on PDF export are broken	 Resolved	FIXED
	CONF-3860	Broken "attached" link in Confluence demo space	 Closed	FIXED
	CONF-3997	Job DEFAULT.indexQueueFlushJob threw an unhandled Exception	 Closed	FIXED
	CONF-3790	Broken links to pages with non-ASCII titles	 Resolved	FIXED
	CONF-3797	Resoruces not loading for plug-ins	 Resolved	FIXED
	CONF-3803	News and Comments	 Closed	FIXED
	CONF-3858	Unnecessary db hits in ViewPageAction	 Closed	FIXED
	CONF-4024	SQL run by DuplicateNotificationsCleanupUpgradeTask gives syntax error on MySQL	 Resolved	DUPLICATE
	CONF-2780	Missing database indexes and slow performance	 Resolved	FIXED
	CONF-3886	XMLRPC API storePage ignores parentId=0	 Resolved	FIXED
	CONF-3849	Email and News updated	 Closed	FIXED
	CONF-3893	Email containing no body generates exception.	 Closed	FIXED
	CONF-3325	Attachment and Anchor links appear on undefined pages list	 Closed	FIXED

Release Notes 2.0

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

[Atlassian Software](#) is proud to present Confluence 2.0 (otherwise known as Yarra). Yarra is the result of five months of solid work by the Confluence team, and we're really glad to be able, finally, to share it with the world. Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days, can download Confluence from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Yarra is the fifth major update to Confluence. Among the improvements in Confluence 2.0 are an easy-to-use WYSIWYG editor for writing pages, labels for categorising them, and a powerful RSS builder for keeping track of what's new.

Confluence 2.0 is a free upgrade for any customer who purchased their Confluence license after November 16th, 2004. If the maintenance period of your license has expired, or is about to expire, why not [contact our friendly sales staff](#) and get it renewed? It's the only way to keep up with all the great new features we're adding.

A big thanks to everyone who reported bugs and offered suggestions over the last few months, especially everyone who helped by trying out our [Development Releases](#). Also, congratulations to the Socceroos for getting Australia into the World Cup for the first time in 32 years. It almost makes up for losing the Ashes.

See also: [Issues Resolved for 2.0](#)

Contents

- [Upgrading](#)
- [Migration](#)
- [New Features](#)
- [Notable Bug Fixes](#)
- [Outstanding Bugs](#)

Upgrading From a Previous Version of Confluence

Upgrading Confluence should be pretty easy: you can find instructions here. We strongly recommend that you backup your `confluence.home` directory and database before upgrading!



Upgrades from 1.4.2 and earlier

If you are upgrading from Confluence 1.4.2 or earlier, you may experience problems with some space-related functionality (see [CONF-4765](#)), such as adding a space as a favourite. To work around this, please restart the Confluence instance after the upgrade. This will be fixed in Confluence 2.0.2.

Important Migration Notes



Macro/Plugin Compatibility

Necessary changes were made to the Confluence rendering subsystem during the development of Confluence 2.0 that may render some third-party plugins (especially macros) inoperable. If you upgrade Confluence and find that macros or plugins are not operating correctly, try removing all files from [confluence-home]/plugins and restarting Confluence.



HSQL 1.8 Upgrade

If you are using the embedded HSQL database, it is possible that Confluence will not be able to automatically upgrade your data. If this happens, Confluence 2.0 will refuse to start, and you will be directed to the following Confluence page which contains instructions on how to upgrade the database manually: [Upgrading From HSQL 1.7.1 to 1.8](#)



SSO update

If you are using some third-party Seraph authenticator with Confluence, or have written your own, you should read [CONF-4581](#) before upgrading. Confluence now uses the Seraph defined login.link.url property to define its login link urls, which may cause issues with authenticators that relied on Confluence's previous, incorrect behaviour.



Weblogic Performance

Confluence 2.0 may perform very badly under Weblogic. There is a workaround for this problem described in [CONF-4634](#), and a full fix IS included in 2.0.1.



JDK 1.5

If you are running Confluence 2.0 on the JDK 1.5, you will need to download some additional dependencies as described in [CONF-4643](#). A full fix is included in a 2.0.1.



MySQL 5

If you are running Confluence 2.0 on the MySQL 5 database, you may encounter some problems. One fix is described [here](#).

Upgrading from 1.4.4

After upgrading to 2.0, administrators will need to rebuild the site's search-index to ensure all the new search features are enabled. Do this from the Content Indexing section of the global administration menu.

Upgrading from 1.3.5 or Earlier

Users upgrading from an earlier version of Confluence should check the release-notes of the other major Confluence releases:

- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

New Features

The four major new features in Confluence 2.0 are:

- [Rich Text Editing](#)
- [Labels](#) for content
- New [Dashboard Features](#) for managing sites with large numbers of spaces.
- A dynamic [RSS Builder](#)

..but there's a [lot more](#) on top of that.

Rich Text Editing



Browser Compatibility

The Confluence Rich Text editor is currently only compatible with Internet Explorer 6 on Windows, plus Mozilla and Firefox across platforms. Javascript must be enabled in the browser for the editor to function. Support for Safari under Mac OS X is currently not available. To track Safari compatibility, please follow this JIRA issue: [CONF-3864](#)

It almost goes without saying that the most highly requested feature in Confluence has been the ability to create pages without having to learn wiki markup. We're glad we can finally offer a powerful "what you see is (pretty much) what you get" rich text editor built into Confluence, making it easier for anyone to contribute to the site.



The WYSIWYG editor is enabled when you install or upgrade to Confluence 2.0. Global Administrators can disable the editor if they want to stick with pure wiki markup, and can also choose which editor users should be presented with by default. (The setting is under "General Configuration" in the administrative console). Users can also choose which editor they prefer simply by clicking on the "Make this my default editor" link that appears on the edit screen.

For the "feature mad" amongst us, here are some neat things you can do with the WYSIWYG editor:

- Full screen view - really useful for editing large pages. Click Cannot resolve external resource into attachment. in the menu bar.
- Quickly switch between WYSIWYG and Wiki markup without a page refresh
- Change the size of your editing window to suit your browser. Your size preference is remembered across sessions. To change it, drag the handle in the bottom right hand corner of the editor.
- Undo and redo!

Labels

Another highly requested feature was the ability to categorise content within Confluence beyond the rigid heirarchy allowed by spaces and parent-child relationships between pages. To this end we have introduced labels: simple one-word 'tags' that can be added to any page or blog-post the user has permission to edit. Labels can be used to categorise content, bookmark it, flag it for attention, or anything else you can think of.

 A Tag By Any Other Name

Picking a name for labels wasn't easy. Google's [GMail](#) service calls them labels, while other collaborative categorisation systems such as [del.icio.us](#) and [Flickr](#) call them tags. We decided that 'label' was a more natural description. For more information about our choice, see [Labels vs Keywords](#) on our [new Developer Blog](#) and for more on the overall philosophy behind labels and tags, check out the [Folksonomy page on Wikipedia](#).



Labels can be added to any page from the edit screen, or through a dynamic interface right when you're viewing a page.



Once a page is labeled, then clicking on the label's name allows you to browse other pages with the same label, or view related labels that commonly occur on the same pages.

You can also view the space's most popular labels from the space browser, to get an idea of the most popular topics within the space.



Personal Labels

If you prepend `my:` to a label (for example, `my:todo` or `my:favourite`), then the label is a personal label - only visible to you. Personal labels allow you to tag content for your own purposes: for example to keep track of pages you feel need your attention, or that contain information you refer to frequently. You can browse your personal labels from your user profile. Any user can add their personal labels to any page, even when they don't have editing permission.



Favourites

Favourites are a special personal label: `my:favourite` or `my:favorite`. Whenever you see the Cannot resolve external resource into attachment. icon, it means you can label this content as being your favourite, and whenever you see the Cannot resolve external resource into attachment. icon, it means that the content is currently in your list of favourites. You can view your favourites from the Labels tab of your user profile, or keep track of them on your dashboard.

Label-Aware Macros

Many existing macros have been improved to allow you to filter content based on labels: including the `{recent-pages}`, `{recently-updated}` and `{blog-posts}` macros. We've also added macros that provide more information about labels and labelled content:

- `{related-labels}` gives a list of labels that might be related to a page
- `{listlabels}` lists all the labels in a space
- `{contentbylabel}` lists content that has a particular label
- `{recently-used-labels}` lists labels that have been recently added or applied
- `{navmap}` draws a nice-looking table of links to pages with a particular label

Dashboard Features

The Confluence dashboard has been improved to make it easier for you to keep track of only those spaces you are interested in: a big improvement for Confluence sites with large numbers of spaces. The list of spaces is now divided into four tabs (although all four may not be visible):

- All shows you all spaces
- My shows you all spaces you have marked as your favourites (you can mark a space as your favourite from the All tab by clicking on the Cannot resolve external resource into attachment. icon)
- Team shows you all the available 'teams', and the spaces that have been assigned to them
- New shows you any space that has been added in the last week

The recently updated content list on the dashboard will reflect the spaces in your chosen tab. So if you're

looking at the My tab, the dashboard will only be showing you the recent updates in your favourite spaces.

The screenshot shows the 'Team' tab in the Jira Spaces interface. Below the tabs, there is a text area explaining that a team label is used to group spaces relevant to a project team. A dropdown menu is set to 'jira'. Below this, a list of spaces is shown: 'JIRA (JIRA)', 'JIRA Community Space (JIRA.COM)', and 'JIRA Extensions (JIRAEXT)'. Each space has a globe icon, a document icon with a plus sign, and a star icon.

RSS Builder

Once in the builder, you can choose



We've also taken the opportunity to improve the presentation of our RSS feeds - including a lot more information in each feed so you can follow your Confluence site entirely from your newsreader.

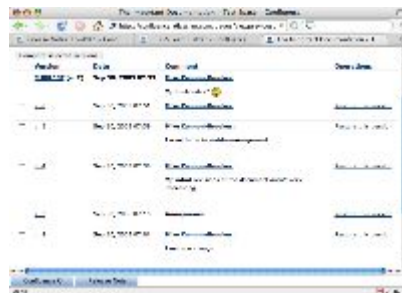


The Atom Working Group has blessed the final Atom 1.0 standard, and are recommending that all applications remove support for Atom 0.3. However, as of the release of Confluence 2.0, there is no stable Atom 1.0 library from which we could generate feeds. In some future release of Confluence, Atom 0.3 support will be removed in favour of Atom 1.0.

Other New Features

Record "Change Comments" When Editing a Page

There is now a field on the edit screen for recording a "change comment" when you edit a page. These comments are stored in the page history, and can be used to keep a more complete history of why a page has been edited.

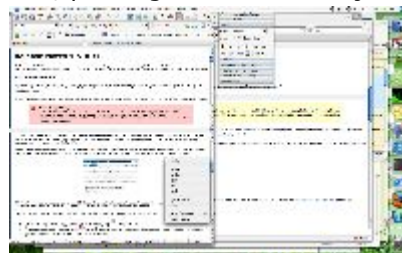


Embed Flash and Movies

You can now embed Flash content or movies (Quicktime or Windows Media) into a page as easily as you can an image: just attach the Flash or movie file to the page, then include it as you would include an image (!filename.mov!).

Export Pages as Word Documents

You can now export pages straight into Word from the Info tab. This is extremely useful for emailing around content to non-Confluence users, printing a document or just creating a backup in Word.



Copy Pages

Also on the Info tab is a "Copy" link that allows you to clone a page in a single click - including making copies of any attachments.

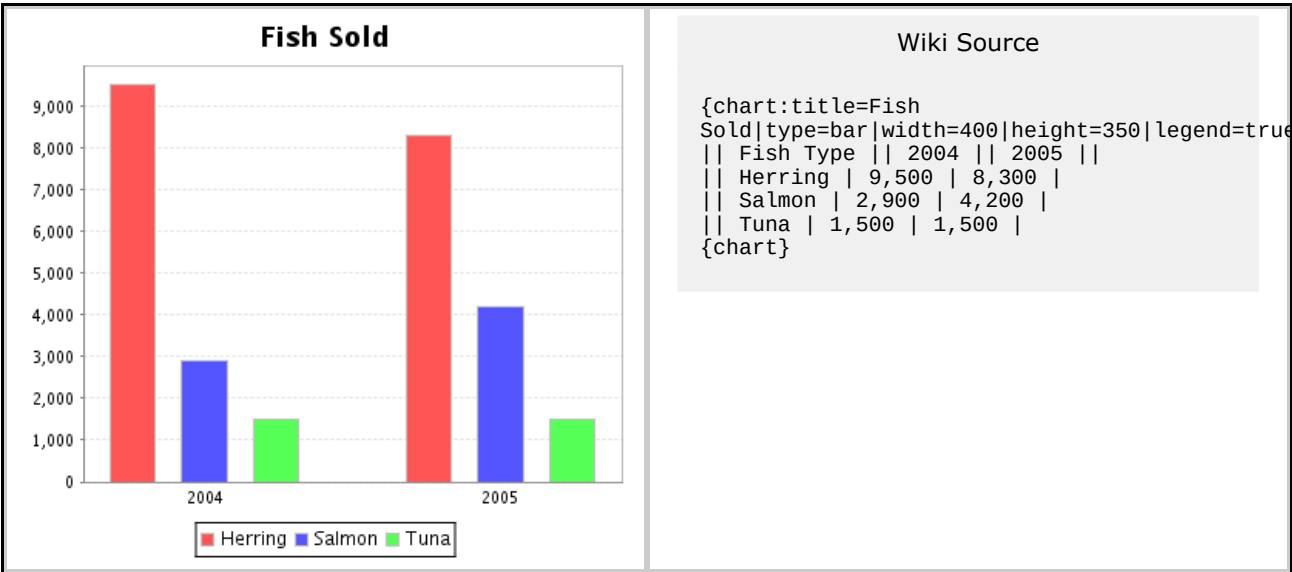
Improved Search Interface

Results returned from Confluence's search engine now have:

- Improved contextual results, showing the most important text around where your query was matched in the page
- Contextual results for any attachment: see where a search was matched even inside PDF, Word, PowerPoint or Excel documents!
- Search results for attachments give you more (and clearer) information about what the attachment is, and where it's from!search-result-fragments.png|align=center!

Chart Plugin

The [Chart Macro](#) is now shipped with Confluence, allowing you to dynamically generate neat looking charts like this:



Improved Gallery Macro

The gallery macro has been spruced up, and now has a slideshow view:

Confluence 2.0 Screenshots
([view as slideshow](#))



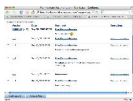
Popular labels for a given space.



Alphabetically organised labels for a given space.



Some release notes exported to Word (even on a Mac!) - great for printing too.



The new

A very



Screenshot

Dashboard
space
tabs, here
showing
the "jira"
team tab
and one
favourite
space.

basic
(quite
boring -
sorry, it's
late)
example
of change
summaries.

of the new
2.0 rich
text editor



Improved
search
showing
fragments
from
attachments,
file sizes
and types.

The new
RSS
builder
lets you
construct
RSS feeds
of exactly
the
content
you want.

View page
label
interface
showing
autocomplete.



My
personal
labels!
Only for
me!

Additions to the Remote API

Additions to the [Confluence Remote API](#) include:

- Comment manipulation
- Label manipulation
- Attachment uploading and editing
- Improved user- and permissions management



Confluence now uses version 2.0 of the Apache XML-RPC library. Java XML-RPC clients using earlier versions of the Apache XML-RPC libraries (i.e. 1.3 or earlier) may experience problems with responses containing non-ASCII data.

Also...

- You can download all the attachments on a page in a single zip-file
- Import and restore now have progress indicators
- Backup and restore use significantly less memory
- The embedded database has been upgraded to HSQL 1.8, which should be significantly more reliable
- Collapsed breadcrumbs now expand with a single mouse click

Notable Bug Fixes

We resolved a lot of issues between Confluence 1.4.4 and Confluence 2.0. The best way to see what we've fixed is to ask JIRA, the world's best issue-tracker: [Issues Resolved for 2.0](#)

Outstanding Bugs

Some bugs were introduced during the Confluence 2.0 development cycle that we could not fix in time for the final release. Of note are:

- Some pernicious Javascript errors when changing styles in the rich text editor under Internet Explorer
- The rich text editor may not perfectly handle complex pages with structural macros
- Attachments containing high-bit characters in their filenames may not be correctly retrieved by Confluence

Once again, if you find any bugs in Confluence, or have any feature suggestions, you can report them online in [JIRA](#).

The Confluence 2.0 Team

Development 😊

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Well that's all folks - if you're still reading - thank you for getting this far!



To keep up with all the latest developments in the next 2.1 release (codenamed: Bogan) - subscribe to our [developer blog](#).

Issues Resolved for 2.0

This page last changed on Nov 17, 2005 by [cmiller](#).

Atlassian JIRA (493 issues)				
T	Key	Summary	Status	Res
	CONF-3595	Evaluate usage of second level caches	 Closed	FIXED
	CONF-3787	Document changes to {children} macro	 Closed	FIXED
	CONF-4030	Make #labelLink velocity macro handle personal labels properly	 Closed	FIXED
	CONF-3627	Release-notes warning about Atom 0.3	 Resolved	FIXED
	CONF-3233	Fix unit test resources.	 Resolved	FIXED
	CONF-2958	Improve RSS - see sub-tasks	 Resolved	FIXED
	CONF-4210	Javadoc for bucket and renderer needs to be published alongside Confluence Javadoc	 Resolved	FIXED
	CONF-3176	create app.server/database specific file(s) to be included	 Resolved	FIXED
	CONF-3817	Ensure 1.5 is compatible with 1.4 macros	 Resolved	FIXED
	CONF-3667	Package OSUser source with source release	 Resolved	FIXED
	CONF-4025	New model for labels	 Resolved	FIXED
	CONF-4062	Get the nightly build running on 05	 Closed	FIXED
	CONF-4558	Include new chart plugin for Conf 2.0	 Resolved	FIXED
	CONF-4385	Backport user management performance fixes to Conf 1.4.4	 Resolved	FIXED
	CONF-4103	Remove modify layout functionality from space administrators	 Closed	FIXED
	CONF-3535	userlist macro plugin code supplied by Scott Frederick	 Resolved	FIXED

		needs to be reviewed and incorporated into 1.4.x codebase.			
	CONF-4154	Can't figure out how to detect whether users exists from remote API	 Resolved	FIXED	
	CONF-4393	Unable to create new child pages after upgrading from 1.4.3 to 2.0-RC1	 Resolved	RESOLVED LOCALLY	
	CONF-4471	Move Page Fail!!!	 Closed	FIXED	
	CONF-3750	fix broken i18n text properties	 Resolved	FIXED	
	CONF-3738	fix broken i18n text properties	 Resolved	FIXED	
	CONF-3740	rename listlabels-heatmap.action to something more appropriate.	 Resolved	INVALID	
	CONF-3476	Give different channels different titles	 Resolved	FIXED	
	CONF-3739	review the content on the page.	 Resolved	FIXED	
	CONF-2998	Create an 'uber' feed for content in Confluence	 Closed	FIXED	
	CONF-3120	Add the entry date to the rss feed	 Resolved	FIXED	
	CONF-2996	Configure an RSS feed	 Closed	FIXED	
	CONF-4138	Upgrade task to add column for versioned comments to the database	 Resolved	FIXED	
	CONF-3481	Cleanly handle invalid requests	 Closed	FIXED	
	CONF-4052	Notify users that using versions of Apache XML-RPC earlier than 2.0 may cause issues with UTF-8 characters	 Resolved	FIXED	
	CONF-3742	check I18N support for label servlet	 Resolved	WON'T FIX	
	CONF-3766	support space limiting	 Resolved	FIXED	
	CONF-3751	review the content on the page.	 Resolved	FIXED	
	CONF-3833	permissions update.	 Resolved	FIXED	
	CONF-3786	Editor info. is not	 Resolved	FIXED	

	CONF-3741	cached by the browser	 Resolved	FIXED
	CONF-4283	update classification of labels in heatmap.	 Resolved	FIXED
		Create database upgrade task to remove existing "Create Space" and "Administrate" global permissions for anonymous users		
	CONF-2974	Backup creation should iterate through requires objects, not load them all into Hibernate session	 Resolved	FIXED
	CONF-2975	Divide & Conquer on import	 Resolved	FIXED
	CONF-3693	WYSIWYG - insert wiki markup into wysiwyg view	 Closed	FIXED
	CONF-3958	all-labels macro	 Closed	FIXED
	CONF-3776	User labels	 Resolved	FIXED
	CONF-4090	Preview tab instead of button, move update and cancel buttons	 Closed	FIXED
	CONF-3768	Add label functionality to blog posts, the same as for pages.	 Resolved	FIXED
	CONF-3769	Personal label browser	 Resolved	FIXED
	CONF-3891	Add by-label filtering to the {recent-pages} macro	 Closed	FIXED
	CONF-1936	WYSIWYG Editor!	 Resolved	FIXED
	CONF-1498	RSS feeds of updated pages do not say who updated the page	 Resolved	FIXED
	CONF-4089	Intra-word character formatting in wiki markup	 Resolved	FIXED
	CONF-3954	List labels in search results for labelled content	 Resolved	FIXED
	CONF-331	Insert table wizard	 Resolved	FIXED
	CONF-3684	Manipulate labels through the remote API	 Closed	FIXED

	CONF-2537	RSS feed for everything in a given space	 Closed	FIXED
	CONF-4017	Configurable dashboard space list	 Closed	FIXED
	CONF-3515	please add storeAttachment() or addAttachment() functionality to xml-rpc	 Resolved	DUPLICATE
	CONF-4205	Sort Children in List Pages - Tree View (by title)	 Closed	FIXED
	CONF-3763	Search results should list the labels exactly matched in the search query.	 Closed	FIXED
	CONF-3721	New macro: {labelled-content} to show the content labelled by the a specified label or set of labels.	 Closed	FIXED
	CONF-3449	List labels within a space.	 Closed	DUPLICATE
	CONF-4088	Support quote, noformat, panel and code macros as drop-down styles	 Resolved	FIXED
	CONF-3909	Add multiple space permissions in a single remote call	 Resolved	FIXED
	CONF-3947	All labels view for label browser	 Resolved	FIXED
	CONF-521	Change summary input box on edit page	 Resolved	FIXED
	CONF-3951	Fix personal labels tab UI	 Closed	FIXED
	CONF-593	Use HTTP authentication for RSS feeds	 Resolved	DUPLICATE
	CONF-3587	Support Atom 0.3	 Resolved	FIXED
	CONF-3625	RSS Auto-discovery	 Resolved	FIXED
	CONF-3523	Record when a label is applied.	 Resolved	FIXED
	CONF-3522	Label servlet	 Resolved	FIXED
	CONF-3479	Add getActiveUsers(), deactivate/activateUser() remote API methods	 Resolved	FIXED
	CONF-3949	Give global label browser same UI as	 Resolved	FIXED

		space level label		
		browser		
	CONF-2899	Comment manipulation methods	 Resolved	FIXED
	CONF-3912	Slap a progress indicator onto import/restore	 Resolved	FIXED
	CONF-3753	Support adding / removing user labels from the ui	 Closed	FIXED
	CONF-3957	related-labels macro	 Resolved	FIXED
	CONF-168	Favourite pages	 Closed	FIXED
	CONF-4332	Limit dashboard recent changes by team	 Resolved	FIXED
	CONF-3906	Macro to create navigation map from labeled pages {navigation-map}	 Closed	FIXED
	CONF-2727	Add tags for pages, like del.icio.us and Tecnorati	 Resolved	FIXED
	CONF-991	Embedded Flash Movies (similar to embeded images)	 Resolved	FIXED
	CONF-3955	List related labels in search results if search terms match a label	 Closed	FIXED
	CONF-3722	Update the Remote API to support labels.	 Resolved	FIXED
	CONF-4106	Add userExists() method to remote API	 Closed	DUPLICATE
	CONF-4124	Include labels in space export	 Resolved	FIXED
	CONF-3956	recent-labels macro	 Resolved	FIXED
	CONF-3084	Allow Same Flexibility for Images as for Links	 Resolved	DUPLICATE
	CONF-1295	Clone page	 Closed	FIXED
	CONF-2339	No "Navigate Out" Warning When Editing Pages	 Closed	FIXED
	CONF-4630	Microsoft Word Export	 Resolved	FIXED
	CONF-1227	Single Click "Changes"	 Resolved	FIXED
	CONF-1746	Exclude spaces from "recently updated"	 Resolved	FIXED

	CONF-3890	Add by-label filtering to the {blog-posts} macro	 Resolved	FIXED
	CONF-2931	Copy page	 Closed	FIXED
	CONF-3720	New macro: {popular-labels} to display the most popular labels	 Resolved	FIXED
	CONF-3836	Need content for the What are Labels info panel.	 Resolved	FIXED
	CONF-4245	Implement some level of conflict detection and resolution when concurrent page edits are detected.	 Resolved	FIXED
	CONF-3950	Give user profile tabs consistent look and feel	 Closed	FIXED
	CONF-4309	Index attachments last.	 Resolved	FIXED
	CONF-604	provide page diffs in rss feed	 Resolved	FIXED
	CONF-4238	Reduce the restriction on permitted characters in page titles	 Resolved	FIXED
	CONF-3728	Related labels to be displayed on the view labels page.	 Resolved	FIXED
	CONF-3940	Add "slideshow" mode to gallery macro	 Closed	FIXED
	CONF-3965	Change the trashcan icon to the unlock icon for removing permission restrictions from pages.	 Resolved	FIXED
	CONF-3944	Improve space label browser	 Closed	FIXED
	CONF-1518	Login for reading RSS feeds	 Closed	FIXED
	CONF-3508	Allow anonymous users to post news items	 Resolved	DUPLICATE
	CONF-4037	Implement image map support for the graphviz macro	 Resolved	FIXED
	CONF-4235	Add content status to RemotePage bean	 Resolved	FIXED
	CONF-3984	Create servlet version of	 Resolved	FIXED

	CONF-3372	tiny_mce_gzip.php Make SpaceCommentRssFeedAction work efficiently	 Resolved	FIXED
	CONF-3937	Change email notification subject lines	 Closed	FIXED
	CONF-3939	Improve look of gallery macro	 Closed	FIXED
	CONF-1940	Add SpaceAware interface	 Resolved	FIXED
	CONF-4013	Properly package HSQL cleaner and write docs	 Resolved	FIXED
	CONF-3961	Fix notifications UI	 Closed	FIXED
	CONF-3941	Improve add label UI on view page	 Closed	FIXED
	CONF-4190	Move version comment in notification emails	 Resolved	FIXED
	CONF-3943	Improve label display on "page info" page	 Resolved	FIXED
	CONF-3770	Displaying labelled content needs to support blogposts and spaces (space descriptions).	 Closed	FIXED
	CONF-864	Including a missing page should work like missing links	 Resolved	FIXED
	CONF-4189	Include change summary in RSS feed.	 Closed	INVALID
	CONF-3668	Upgrade to HSQL 1.8	 Resolved	FIXED
	CONF-4129	Add method to get BlogPosts without the use of an ID	 Resolved	FIXED
	CONF-3832	Support sticky spaces when viewing labels.	 Closed	FIXED
	CONF-638	Option to make space homepage the recent blogposts page	 Resolved	FIXED
	CONF-4208	Limit recent updates list "since" dates to one level of precision	 Resolved	FIXED
	CONF-2501	Backup export memory requirements shouldn't scale linearly with the DB	 Resolved	FIXED

	CONF-3946	size Make popular labels heatmap scale down to small number of labels	 Closed	FIXED
	CONF-4163	Label Usability Improvements	 Closed	FIXED
	CONF-4299	Lazy-load label-modification Javascript	 Resolved	FIXED
	CONF-3338	Introduce new Link for embedded images	 Resolved	FIXED
	CONF-4244	Change the "Watch this space" icon on a page to a three-state button	 Closed	FIXED
	CONF-2482	globalcommentrss.action	 Resolved	FIXED
	CONF-2481	globalrss.action feed does not include comments	 Resolved	FIXED
	CONF-3712	Use whitespace to delimit labels.	 Resolved	FIXED
	CONF-3637	Login redirects are sometimes confusing	 Resolved	FIXED
	CONF-4139	Create a link to the PPlugin Library on the plugin page	 Resolved	FIXED
	CONF-3752	Update the UI for adding/removing labels from content	 Closed	FIXED
	CONF-3960	List labels in news summaries	 Resolved	FIXED
	CONF-4142	Update version comment.	 Resolved	FIXED
	CONF-3818	Lowercase all labels.	 Resolved	FIXED
	CONF-3777	clean up the concept of labelName.	 Resolved	FIXED
	CONF-4117	Support conditional get for attachments	 Resolved	FIXED
	CONF-3710	Support 'suggested labels'	 Resolved	FIXED
	CONF-3581	Provide direct undelete link on deleted page	 Resolved	FIXED
	CONF-4016	Add labels to the space export	 Resolved	FIXED
	CONF-3086	Hyperlink other protocols (e.g. notes://) automatically	 Resolved	FIXED
	CONF-3926	XML-RPC/SOAP interface needs a	 Resolved	FIXED

	CONF-4070	way to remove space permissions Make search return summarized excerpts matching query	 Closed	FIXED
	CONF-3548	Remove the quick search default to search only in the current space	 Resolved	FIXED
	CONF-3748	Dashboard customization using labels.	 Closed	WON'T FIX
	CONF-3450	Make breadcrumb depth configurable	 Resolved	FIXED
	CONF-3806	Add a "showid=false" option to the IM presence macros.	 Resolved	FIXED
	CONF-4289	Version comments should be indexed for inclusion in searches	 Resolved	FIXED
	CONF-3945	Redesign popular labels page	 Closed	FIXED
	CONF-3959	Label-enable spaces-list macro	 Closed	FIXED
	CONF-3952	Strip my: prefix from labels in the personal label browser	 Closed	FIXED
	CONF-3948	Improve label drill-down view	 Resolved	FIXED
	CONF-3953	Improve Confluence search UI	 Closed	FIXED
	CONF-4143	Set WYSIWYG editing on by default for new installations.	 Resolved	FIXED
	CONF-3942	Improve label UI on edit page	 Resolved	FIXED
	CONF-4240	RSS feed needs be version 2.0 instead of 0.92	 Closed	FIXED
	CONF-4202	News post calendar sholdn't link to before or after the first/last news post.	 Closed	FIXED
	CONF-4278	Page history change comments render with extraneous paragraphs	 Resolved	FIXED
	CONF-4050	Make right hand column of label views do something useful	 Closed	FIXED

	CONF-4203	Tell search engines not to index printable version of pages	 Resolved	FIXED
	CONF-3990	Introduce whitespace into wiki text for readability where possible	 Resolved	FIXED
	CONF-3975	No way to set "No Logo" at space level	 Resolved	FIXED
	CONF-4053	Update left navigation theme to be up to standard	 Resolved	FIXED
	CONF-4379	Label incorrect when editing Attachment Maximum Size (KB) in General Configuration	 Resolved	FIXED
	CONF-4362	Create page does not look anything like the edit page.	 Closed	FIXED
	CONF-3193	Consolidate recently-updated handling	 Resolved	FIXED
	CONF-4302	Provide user feedback when lucene query results inaccurate because a full re-index is in progress.	 Resolved	FIXED
	CONF-4372	Add a "view most recent change" link to current version of the page	 Resolved	FIXED
	CONF-4118	Sort groups alphabetically on Manage Groups page	 Resolved	FIXED
	CONF-3981	Database performance tuning required	 Resolved	FIXED
	CONF-2904	Recently updated feeds should include new attachments	 Resolved	FIXED
	CONF-4382	Add getOutputType() method to RenderContext	 Resolved	FIXED
	CONF-4390	Add "Show Titles Only" parameter to the RSS macro.	 Resolved	FIXED
	CONF-4581	Improve SSO support: use seraph correctly to aid SSO modifications.	 Resolved	FIXED
	CONF-1625	Allow Adding an	 Closed	DUPLICATE

		Attachment via RPC calls		
	CONF-3541	Add adding attachments to the RemoteAPI.	 Resolved	FIXED
	CONF-4629	Ability to download all attachments on a page	 Resolved	FIXED
	CONF-2131	Associate blog post with category or page	 Resolved	FIXED
	CONF-3910	Sort attachments by name.	 Resolved	FIXED
	CONF-3972	Left Navigation Theme.... ugly ugly	 Resolved	FIXED
	CONF-3552	Add edit user functionality to the RemoteAPI.	 Resolved	FIXED
	CONF-3055	Make attachment name searchable	 Closed	FIXED
	CONF-4092	Setting site title - shown in browser title bar	 Closed	FIXED
	CONF-3871	Add Update, Preview, Cancel buttons to top of page being edited.	 Closed	FIXED
	CONF-4869	Disable Trackback by default	 Resolved	FIXED
	CONF-3666	Comment creation times should include AM/PM	 Resolved	WON'T FIX
	CONF-4516	Meta tagging and improved indexing	 Closed	FIXED
	CONF-2569	Support RSS 2.0	 Resolved	FIXED
	CONF-3247	extend breadcrumbs, remove ellipsis	 Resolved	FIXED
	CONF-630	Put a direct "unsubscribe" link in notification emails.	 Resolved	FIXED
	CONF-4426	Recently-updated: Display full names instead of usernames	 Resolved	FIXED
	CONF-4180	Logo management page tries to download the logo over http rather than access filesystem.	 Closed	FIXED
	CONF-4342	Mailto: links with aliases do not work	 Resolved	FIXED
	CONF-4056	Unable to re-enable daily backups	 Resolved	FIXED

	CONF-3845	Adding a label that contains a '%' results in the error message "Please enter a label."	 Closed	FIXED
	CONF-2313	Recently added RSS feed is returning incorrect results	 Resolved	FIXED
	CONF-3686	Viewing the space labels page for an undefined space throws an exception	 Resolved	FIXED
	CONF-3685	Viewing the space labels page when there are no labels defined throws an exception	 Resolved	FIXED
	CONF-3518	Upgrade from 1.3.5 on postgres fails with the property upgrade task.	 Resolved	FIXED
	CONF-4422	Viewing content of a label results in overlap of recent/popular labels panels.	 Closed	FIXED
	CONF-3571	WYSIWYG seems to add a bunch of crud to the browser history	 Resolved	FIXED
	CONF-4423	Labels do not show up under Page "Info" tab	 Resolved	FIXED
	CONF-4131	Insert Link and Insert Image Wysiwyg Popups fail under IE	 Resolved	FIXED
	CONF-3328	Images not exported as part of PDF?	 Resolved	FIXED
	CONF-3299	User macros no longer acknowledge \$param1-N	 Closed	WON'T FIX
	CONF-3115	RSS feed is not compatible with Mozilla Thunderbird 1.0.2	 Resolved	FIXED
	CONF-3442	Jtidy 4aug2000r7-dev doesn't handle some entities correctly	 Resolved	FIXED
	CONF-4498	Unsaved changes popup does not appear in Firefox 1.5b2	 Resolved	FIXED

	CONF-4253	Rich Text editor should not interpret text as Wiki code	 Closed	FIXED
	CONF-3882	Exposed velocity markup on 404 possible redirects page	 Closed	FIXED
	CONF-4132	RSS Feed for 'new page' has extra heading line	 Closed	FIXED
	CONF-3831	Add getPermTypes to each of the actions as appropriate.	 Resolved	INVALID
	CONF-4209	Space "recent news" is in wrong order	 Closed	FIXED
	CONF-3932	After deleting a plugin, \$selectedPlugin.name appears as the plugin title.	 Closed	FIXED
	CONF-3565	Searching for attachments with uppercase characters in the name returns no results	 Closed	FIXED
	CONF-4492	Anchor links inside included pages are broken	 Resolved	FIXED
	CONF-3988	Missing #comments and #addcomment anchors when viewing page	 Resolved	FIXED
	CONF-3516	periodic tasks can have multiple concurrent instances, when they should have only one	 Resolved	FIXED
	CONF-4051	Apache XML-RPC has issues encoding and decoding UTF-8 characters sent via the XML-RPC interface	 Resolved	FIXED
	CONF-4032	Incorrect username when reactivating user with UTF-8 characters	 Resolved	FIXED
	CONF-4438	NullPointerException with recently-updated macro in preview	 Closed	FIXED
	CONF-3838	Export Space to XML	 Closed	FIXED

	CONF-4173	may produce "Too many open files" error	 Closed	FIXED
	CONF-4044	Welcome message too close to spaces list	 Resolved	FIXED
	CONF-4027	Cancelling a user reactivation when there are UTF8 characters in the name results in an error	 Resolved	FIXED
	CONF-4250	Removing a user with UTF-8 characters in the name displays an encoded username	 Closed	FIXED
	CONF-4049	Upgrade PDFBox to 0.7.2	 Resolved	FIXED
	CONF-4247	Encoding problems with XMR label API	 Resolved	FIXED
	CONF-4472	Licensing check stops the world - potentially for a long time.	 Resolved	FIXED
	CONF-4282	jiraissues macro is broken in Preview mode	 Resolved	FIXED
	CONF-4192	Remove the ability for anonymous users to be assigned "Create Space" and "Administrate" global permissions	 Closed	FIXED
	CONF-4500	Undefined Pages Report incorrectly shows links to blog-posts as undefined pages....	 Resolved	FIXED
	CONF-1879	Rich text fullscreen not working	 Resolved	FIXED
	CONF-3930	Renaming attachments does not update links properly	 Resolved	FIXED
	CONF-4187	Labels are not removed even though they are not attached to any object.	 Resolved	FIXED
	CONF-3723	Loads of errors generating PDF of page when viewing	 Closed	FIXED

	CONF-3083	someones profile, you see the RSSBuilder tab. Trackback incoming pings ignored	 Resolved	FIXED
	CONF-2517	Many, many HandleLockExpiry warnings during backup	 Closed	FIXED
	CONF-4336	In PDF exported documents, links to pages with spaces in their names don't work	 Resolved	FIXED
	CONF-4352	WYSIWYG styles broken.	 Resolved	FIXED
	CONF-4461	Error when setting default to rich text format	 Closed	FIXED
	CONF-4339	page not exported unless parent is exported	 Resolved	FIXED
	CONF-4191	CLONE -NullPointerException in threading -clone	 Closed	FIXED
	CONF-2691	properly report date on message	 Resolved	DUPLICATE
	CONF-3919	NPE when renaming pages due to a conflict	 Resolved	FIXED
	CONF-3692	Remote API can not handle permissions for anonymus users	 Resolved	FIXED
	CONF-4148	Table broken after switching between wiki markup and rich text	 Resolved	FIXED
	CONF-4077	Can't create a template	 Resolved	DUPLICATE
	CONF-3966	Version in page change notification email are incorrect.	 Closed	FIXED
	CONF-4185	Backup Admin config / ui borked after upgrade	 Resolved	FIXED
	CONF-4114	Add Label XHR does not work on Safari	 Resolved	FIXED
	CONF-4170	Recent Changes view ignores page-level permissions for attachments	 Closed	FIXED
	CONF-4184	View Profile borked "Fatal exception	 Closed	FIXED

	CONF-3457	caught while processing tag, com.opensymphony.webwork.views.jsp.ui.ComponentTag"	 Resolved	FIXED
	CONF-4115	Confluence should prompt user to login on create page	 Closed	FIXED
	CONF-4007	No space links in labels returned by XHR in add UI	 Resolved	FIXED
	CONF-4215	DuplicateNotifications on UpgradeTask sql statement fails on HSQL	 Resolved	FIXED
	CONF-4159	Trying to embed an attachment of type .ico asks for a plugin	 Resolved	FIXED
	CONF-4164	Undefined error when using the insert link popup but not setting a link value.	 Resolved	FIXED
	CONF-4237	Link popup does not take selection into account	 Resolved	INVALID
	CONF-4448	RSS does not show diffs if you subscribe to see all updates	 Resolved	FIXED
	CONF-4188	Insert link popup does not highlight current tab	 Resolved	FIXED
	CONF-4286	Adding a New Page after navigating (history) diffs - results in an uncaught NPE (500 error)	 Resolved	FIXED
	CONF-4443	Cannot export Confluence 1.4 User Guide to PDF	 Resolved	INVALID
	CONF-4319	Safari crashes frequently while browsing site	 Resolved	FIXED
	CONF-4269	{children:first=X} breaks if the number of children is less than X	 Resolved	FIXED
	CONF-4179	Word curly quotes / high characters not corrected	 Resolved	FIXED
	CONF-4277	build.bat in war distribution is broken	 Resolved	FIXED
		Bandana dies and brings Confluence down with it when defrosting bad	 Resolved	FIXED

	CONF-4381	objects "View Change" link is wrong	 Resolved	FIXED
	CONF-4386	contentbylabel macro doesn't display any results when there are no content types defined	 Resolved	FIXED
	CONF-4363	Missing error message when adding a page with a parent that is in the trash.	 Resolved	FIXED
	CONF-4394	The link to populate a page from a template is missing on c.a.c.	 Closed	FIXED
	CONF-4396	Setting colours in Firefox doesn't work well	 Resolved	FIXED
	CONF-4397	Orphaned pages query does not work when there is no space home page defined	 Resolved	FIXED
	CONF-3030	All emails sent to Confluence have their formatting completely stripped.	 Closed	DUPLICATE
	CONF-4361	RSS Feed created using new Feed Builder not working	 Resolved	FIXED
	CONF-4508	Insert Image on New Page	 Resolved	FIXED
	CONF-4439	Recently updated content macro shouldn't show space names for one space	 Resolved	FIXED
	CONF-4501	[object Error] occured	 Closed	FIXED
	CONF-4415	lobject.ext! disappears in editor	 Closed	FIXED
	CONF-4590	Syntax error on declaration of .successBox in main-action.css	 Resolved	FIXED
	CONF-4511	Dynamic tasklist fails when added to a user profile with ClassCastException.	 Resolved	FIXED
	CONF-4603	Browse space should remember when the	 Closed	FIXED

	CONF-4604	"News" tab was selected Exporting a page to word that contains a non-ascii character results in a page title exportword.action.	 Closed	FIXED
	CONF-4484	Rich text editing fails on tomcat 5.5	 Resolved	FIXED
	CONF-4593	Pages imported from in batch from text files do not show up in alphabetical listing	 Closed	FIXED
	CONF-4627	Switching from rich text to preview to markup mode results in loss of data	 Resolved	FIXED
	CONF-4626	Switching from wiki markup to rich text mode results in loss of data	 Resolved	FIXED
	CONF-4440	Recently updated list with wrong mail-attachment links	 Resolved	ANSWERED
	CONF-1835	i18n broken for user names	 Resolved	FIXED
	CONF-4404	NPE Permission Check Dispatcher	 Resolved	FIXED
	CONF-3986	NPE Error determining permissions for url /users/removeattachmentonprofile.action	 Closed	DUPLICATE
	CONF-4940	Page can be set as its own parent page, resulting in data corruption	 Resolved	FIXED
	CONF-4544	Missing escaping on link's	 Closed	FIXED
	CONF-4619	reproducible System error during Export Page as PDF	 Resolved	FIXED
	CONF-3839	printable page is showing content that we do not want.	 Closed	FIXED
	CONF-3600	Table loses borders when inside a section	 Resolved	FIXED
	CONF-3567	Umlauts and page-titles - few work, many don't.	 Closed	FIXED
	CONF-3350	Can't link to attachments from news items	 Closed	FIXED

	CONF-4564	jiraissues macro bug in img src	 Closed	FIXED
	CONF-3362	Anonymous user cannot create blog posts in a space despite being granted the proper permissions.	 Resolved	FIXED
	CONF-4343	View Mail Archive page does not render 'from addresses' with unicode characters correctly	 Closed	FIXED
	CONF-5588	RSS items have incorrect title for added comments	 Resolved	FIXED
	CONF-4080	Space favourites button dies if space has no SpaceDescription	 Closed	FIXED
	CONF-3414	FileServerServlet IllegalStateException	 Resolved	FIXED
	CONF-2305	Velocity logs to confluence main directory, not logs	 Resolved	FIXED
	CONF-4194	Livsearch renders with \$webwork directives.	 Resolved	FIXED
	CONF-4453	Failed to import from 1.5-DR2 to 2.0-RC1	 Resolved	FIXED
	CONF-3835	Having wiki markup as a user's default when Wysiwyg is enabled dies horribly	 Resolved	FIXED
	CONF-3885	Lists in tables break wysiwyg	 Resolved	FIXED
	CONF-4331	Lazy-loaded Javascript crashes Safari	 Resolved	FIXED
	CONF-3696	ClassCastException when hitting the insert/edit link on the wysiwyg editor.	 Resolved	FIXED
	CONF-3927	CSS Servlet does not work on Orion 2.0.2	 Resolved	FIXED
	CONF-3288	JavaScript error in IE when re-editing a blog post	 Resolved	FIXED
	CONF-4239	Embedded images fail to resolve correctly when using the {include} macro.	 Resolved	CANNOT REPRODUCE
	CONF-3792	HTML in junitreport	 Resolved	FIXED

		macro failure		
		messages is not		
		escaped		
	CONF-3704	Link inserter does not correctly insert mail links	 Resolved	FIXED
	CONF-3494	Problems in ConfluenceLoginInterceptor	 Resolved	FIXED
	CONF-4029	Label links returned through XMR editing are linked to global label page, not space	 Closed	FIXED
	CONF-3749	indexing of labels	 Resolved	FIXED
	CONF-4344	NPE in getSuggestedLabels()	 Resolved	FIXED
	CONF-3103	Encoding issue - Norwegian char in user name	 Resolved	FIXED
	CONF-4212	Notation Guide off screen	 Resolved	FIXED
	CONF-3846	Cannot preview comments on blog posts	 Resolved	FIXED
	CONF-4437	Saving from preview doesn't update content	 Closed	FIXED
	CONF-4026	Creating a user with UTF-8 characters does not redirect to user page	 Resolved	FIXED
	CONF-3764	Label breadcrumbs should read Dashboard > Labels > <labelname>	 Resolved	FIXED
	CONF-2816	An item was expired by the cache while it was locked error during restore	 Resolved	FIXED
	CONF-4384	Page info "Label" panel should indicate that the page has not been labelled if there are no labels.	 Resolved	FIXED
	CONF-4375	Jira issues macro: inconsistent display of issues count.	 Resolved	FIXED
	CONF-4057	Bug Comments a blogpost	 Closed	DUPLICATE
	CONF-4377	Page loading STILL pauses at labels area	 Closed	FIXED
	CONF-4149	500 internal server error after clicking link on JIRA	 Resolved	FIXED

	CONF-4048	community space Cancelling setting the password of a user with UTF8 characters in the username results in an invalid username error	 Resolved	FIXED
	CONF-4374	Comments: Textarea disappears in IE	 Resolved	FIXED
	CONF-3879	Adding a label containing # will truncate the label with no error message	 Closed	FIXED
	CONF-4043	Cancelling a user deactivation when there are UTF8 characters in the name results in an error	 Resolved	FIXED
	CONF-4376	There is no Action mapped for namespace /labels and action name autoCompleteLabelslist	 Closed	FIXED
	CONF-4126	When applying a style, the cursor needs to be repositioned at the end of the text WITHIN the style.	 Resolved	FIXED
	CONF-3683	Viewing a label that no longer exists throws an exception instead of an error page	 Resolved	FIXED
	CONF-4301	Error rendering macro: java.lang.RuntimeException: no terms in field modified - cannot determine sort type	 Resolved	FIXED
	CONF-4270	Links to mail attachments in recently-updated list are broken	 Resolved	FIXED
	CONF-4398	View/Edit page problems 2.0rc1	 Resolved	FIXED
	CONF-3104	Mail display removes important blanks	 Resolved	FIXED
	CONF-4246	Wysiwyg selection -- there are many places you can't get	 Resolved	FIXED

	CONF-4425	the cursor to Search does not find a page	 Resolved	FIXED
	CONF-4395	A link to automatically create a page with a template no longer works	 Closed	ANSWERED
	CONF-3897	Links to attachments not working in pdf exports	 Resolved	FIXED
	CONF-4001	Nullpointer exception on removeattachmentonprofile.action	 Resolved	FIXED
	CONF-4259	Viewing emails with unwrapped text forces page background to go wonky	 Closed	FIXED
	CONF-3868	Editing News attachments causes error about non-existing page	 Resolved	FIXED
	CONF-4069	Parent page popup dies if only one visible space	 Closed	DUPLICATE
	CONF-3968	Add/edit page fails with JTidy error	 Resolved	FIXED
	CONF-3873	'Insert Link' to a page with quotes	 Resolved	FIXED
	CONF-3778	License expiry warning can not be disabled (link doesn't work)	 Resolved	FIXED
	CONF-4368	PDF export icon vanishes on page view on conf.at.com	 Resolved	FIXED
	CONF-3316	CLONE -Escaped square brackets show up in Undefined Pages Report	 Resolved	DUPLICATE
	CONF-4098	Users without appropriate permissions should not see Delete attachment button on user's profile page	 Closed	FIXED
	CONF-3392	Errors deploying Confluence on Oracle 8i - INNER JOIN hardcoded in Confluence classes	 Closed	FIXED

	CONF-3928	Space template names should be unique to the space, not globally unique.	 Resolved	FIXED
	CONF-3994	User profile links are incorrectly prefixed with the old space name when a page is moved.	 Resolved	FIXED
	CONF-4168	SECURITY BUG - Watching a space / page gives you notification (inc. content) even if you do not have view rights	 Closed	FIXED
	CONF-3501	MySQL OS_PROPERTYENTRY fix breaks upgrade for users with existing values in the "entity_key" column exceeding 200 characters in length	 Resolved	FIXED
	CONF-4165	Remove the popup menu in WYSIWYG	 Resolved	FIXED
	CONF-4155	Spaces created anonymously are not accessible by anonymous users	 Closed	WON'T FIX
	CONF-1931	Unable to edit user profile	 Resolved	FIXED
	CONF-4310	Notation guide on edit page leaves whitespace on the right	 Resolved	FIXED
	CONF-2510	PDF and HTML export fails due to 'too many open files' exception	 Resolved	FIXED
	CONF-4311	Deleting a user doesn't unindex PersonalInformation	 Resolved	FIXED
	CONF-4479	Comment Error in Rich Text	 Closed	FIXED
	CONF-4412	There is no Action mapped for namespace /conf/pages and action name diffpages	 Closed	FIXED
	CONF-3614	Licensing needs to be dependant on release date, not	 Resolved	FIXED

	CONF-4242	build date, otherwise customer can not build from source. Using form field markup page template causes exception	 Resolved	FIXED
	CONF-4409	CSS code broken, adding space label reveals issue with body color	 Resolved	FIXED
	CONF-4464	Error in RSS Feed	 Resolved	FIXED
	CONF-4444	ClassCastException on RSS feeds	 Resolved	FIXED
	CONF-4490	Formatting lost with {code} element	 Resolved	FIXED
	CONF-4547	Text colour does not change existing colour of text	 Resolved	FIXED
	CONF-4605	News calender navigation broken	 Resolved	FIXED
	CONF-4566	Remote API call "getServerInfo" call requires admin permission	 Resolved	FIXED
	CONF-3979	DB2 clob columns default to 255.	 Resolved	FIXED
	CONF-4555	No Navigation on Left Navigation Theme	 Resolved	FIXED
	CONF-4568	Tables inside {section:border=false} has no border	 Closed	FIXED
	CONF-4588	"Download All" function doesn't work	 Resolved	FIXED
	CONF-4601	Update the use of webwork.i18n.encoding to use the value of settingsManager.getDefaultEncoding().	 Resolved	FIXED
	CONF-4509	user profile can't have attachment	 Closed	FIXED
	CONF-4562	Usernames are duplicated when switching between wysiwyg and wiki markup.	 Resolved	FIXED
	CONF-4530	User macro expands into text after changing from rich text to wiki markup	 Closed	DUPLICATE
	CONF-4628	No result defined for action com.atlassian.confluence.pages.actions.PageNotFoundAction	 Resolved	FIXED

	CONF-4145	and result error Link images at the end of lines are moved to the next line when created	 Closed	FIXED
	CONF-3470	Dynamic Tasklist throws ClassCastException on profile page	 Resolved	FIXED
	CONF-3456	Javascript problem. In IE, when editing / creating a page, the first active field is not focused.	 Resolved	OBSOLETE
	CONF-4465	User profile picture bugs	 Resolved	FIXED
	CONF-4297	Macros depending on a page do not work when you preview before the page has been created	 Closed	FIXED
	CONF-3824	Label edit button crashes Safari	 Resolved	FIXED
	CONF-2525	JSPWiki import throws ClassNotFoundException	 Resolved	FIXED
	CONF-3819	Text formatting breaks when formatted text includes smart quotes	 Resolved	FIXED
	CONF-4300	Demo site needs to be indexed.	 Resolved	FIXED
	CONF-4280	Regression: user must use correct case when inlining image attachments	 Closed	FIXED
	CONF-4045	Editing a user with UTF8 characters in the username results in an invalid username error	 Resolved	FIXED
	CONF-4146	Installation does not index demonstration space	 Resolved	DUPLICATE
	CONF-4046	Cancelling the edit user details form with UTF8 characters in the username results in an invalid username error	 Resolved	FIXED
	CONF-4218	Info, Warning, Hint, etc panels no longer process wiki markup	 Resolved	FIXED

	CONF-4223	in the title Grid on table not visible inside a panel	 Resolved	FIXED
	CONF-4054	Make servlet context available to determine location of home directory	 Resolved	FIXED
	CONF-4031	Incorrect username when deactivating user with UTF-8 characters	 Resolved	FIXED
	CONF-4006	support -Dhttp.nonProxyHost setting	 Resolved	FIXED
	CONF-3635	Timed Resource Pool caused Confluence to crash	 Closed	CANNOT REPRODUCE
	CONF-4019	Moving a page, then moving it back doesn't update links properly	 Resolved	FIXED
	CONF-3860	Broken "attached" link in Confluence demo space	 Closed	FIXED
	CONF-4468	Legacy RSS feeds have no titles	 Closed	FIXED
	CONF-4355	Page name truncation is too severe	 Resolved	FIXED
	CONF-4298	Subscribe to daily updates preference cannot be saved	 Resolved	FIXED
	CONF-3830	Exception when deleting a space after deleting a user with granted view space permissions	 Resolved	FIXED
	CONF-3333	OutOfMemoryError	 Resolved	FIXED
	CONF-4162	Viewing pages info page causes Lazy loading exception for parent page with page permissions	 Resolved	FIXED
	CONF-4350	Can not create blank page	 Resolved	FIXED
	CONF-3785	Page in space without view permissions returns Page Permissions error page	 Resolved	FIXED
	CONF-3875	Creating multiple lines in a table cell in Rich Text doesn't convert to Markup	 Resolved	FIXED

	CONF-3709	properly Recently Updated in space doesn't work	 Closed	FIXED
	CONF-4406	XML-RPC Search appears to be broken.	 Resolved	FIXED
	CONF-4534	Creating blog-posts with the same name on the same day - you cant edit or delete them	 Closed	FIXED
	CONF-3867	Previous page lost when redirected to login page	 Resolved	FIXED
	CONF-3309	Radeox compatibility {table} macro broken	 Closed	FIXED
	CONF-4018	HandleProfileAttachment does not handle UTF-8 encoded usernames correctly	 Resolved	FIXED
	CONF-4161	NullPointerException in threading	 Closed	FIXED
	CONF-4021	Restricted page attachments when logged out gives page not found not login required	 Resolved	FIXED
	CONF-4341	Info page incorrectly shows inherited edit permissions	 Resolved	FIXED
	CONF-4457	Profile attachments tab does not show up for other users	 Resolved	FIXED
	CONF-3329	Image not correctly linked in html export.	 Resolved	FIXED
	CONF-4338	Search macro explodes if you specify a max # of results, but there are fewer than that many matches	 Resolved	FIXED
	CONF-1832	Creator in RSS not present?	 Closed	FIXED
	CONF-4424	image tag broken for attached images in page comments	 Resolved	FIXED
	CONF-2578	UserAccessor.getGroup will return non-null whenever a user exists with name foo	 Resolved	FIXED
	CONF-4047	Changing the password of a user	 Resolved	FIXED

	CONF-3617	with UTF8 characters in the username results in an invalid username error	 Closed	FIXED
	CONF-4028	Attachment links in search results point to non-existent pages	 Closed	FIXED
	CONF-4254	ConcurrentModificationException adding a lot of labels through the XMR interface	 Closed	FIXED
	CONF-4254	On Safari, the page jumps around when you click one of the edit tabs	 Resolved	FIXED
	CONF-3880	Labels queries do not run on DB2.	 Resolved	FIXED
	CONF-4272	Personal info attachments have visible \$velocity junk in search results	 Resolved	FIXED
	CONF-4285	Version comments have surrounding paragraph tags when not necessary	 Resolved	FIXED
	CONF-3570	Clicking on preview in WYSIWYG mode causes NPE	 Resolved	FIXED
	CONF-3825	Label delete UI non-functional	 Resolved	FIXED
	CONF-4262	Uploading attachments to certain pages causes "Attachment links can only be added to page and news items" error	 Resolved	FIXED
	CONF-4445	Spaces drop-down is empty	 Resolved	FIXED
	CONF-4431	inserting images in wysiwyg broken	 Resolved	FIXED
	CONF-4496	When editing, the base of the confluence page is included in the WYSIWYG editor pane.	 Resolved	FIXED
	CONF-3139	Validate space restore request before proceeding	 Resolved	FIXED
	CONF-4524	Security flaw in labeling	 Closed	FIXED
	CONF-4169	Export to word link	Resolved	FIXED

	CONF-4261	not showing for everyone Links to emoticon images on the insert emoticon popup are broken	 Resolved	FIXED
	CONF-4166	WYSIWYG editor doesn't find links inside macros	 Resolved	FIXED
	CONF-4195	Nesting in search results is unclear	 Resolved	FIXED
	CONF-4172	Team tab doesn't show any spaces if it's defaulting to a tag	 Resolved	FIXED
	CONF-3066	Editing a page's content and title creates 2 new versions.	 Closed	FIXED
	CONF-4171	Fix wording when there's only one new space	 Closed	FIXED
	CONF-3821	DefaultLabelManager's getMostPopularLabels does not put labels in correct order	 Resolved	FIXED
	CONF-3834	Errors swapping between markup and wysiwyg for large pages	 Resolved	FIXED
	CONF-4354	Can't create blank pages on c.a.com	 Resolved	FIXED
	CONF-3976	Missing image in Full Notation Guide	 Closed	FIXED
	CONF-2888	Recent changes information incorrect	 Resolved	FIXED
	CONF-4119	Content properties are not exported and/or restored in XML backup	 Resolved	FIXED
	CONF-4167	Link editor doesn't insert remote links properly	 Resolved	FIXED
	CONF-4391	View change link redirects to an invalid page	 Closed	DUPLICATE
	CONF-4200	Export Page alignment problem	 Resolved	FIXED
	CONF-4436	PDF export fails on pageid > 999	 Closed	FIXED
	CONF-4351	Need to cleanup logs before releasing.	 Resolved	FIXED
	CONF-4158	Error message for missing images isn't	 Resolved	FIXED

	CONF-4201	very friendly When expanded the breadcrumbs elipsis, the browser jumps down the page	 Resolved	FIXED
	CONF-4474	Accessing user profile picture from Dashboard results in a "Not Permitted" page	 Resolved	FIXED
	CONF-3307	Recently updated macro doesn't show comments	 Resolved	FIXED
	CONF-4127	Make this my default link for editor doesn't recognise unset preference	 Resolved	FIXED
	CONF-4476	Rich text editor scrambles tables with line breaks	 Closed	ANSWERED
	CONF-4181	Re-indexing causes "maximum open cursors exceeded"	 Closed	FIXED
	CONF-4506	View changes and URL	 Closed	DUPLICATE
	CONF-4523	WYSIWYG underline lost in comment	 Resolved	FIXED
	CONF-4480	Original text disappears in Modify News	 Resolved	FIXED
	CONF-4549	RenamePositionUpgrader broken	 Closed	FIXED
	CONF-4477	Confluence 2.0RC1 causes constant reloading in firefox 1.5 beta 2	 Resolved	FIXED
	CONF-4606	Dashboard RSS feed autodiscovery the wrong way around	 Resolved	FIXED
	CONF-4552	Comment delete protection spams logs	 Resolved	FIXED
	CONF-4467	Tabs in "Administration Content Indexing" do not remember state.	 Resolved	FIXED
	CONF-4512	dynamictasklist macro in page causes formatting macros to not work	 Resolved	FIXED
	CONF-4035	Removing a label causes a JS error if a page has a dynamic	 Resolved	FIXED

	CONF-4525	task list on it Viewing mail with a parameter causes an error on Orion 2.0.2	 Resolved	FIXED
	CONF-3931	Listing pages with a label shows trashed items	 Closed	CANNOT REPRODUCE
	CONF-4481	"SyntaxError: unterminated string literal" When change to wiki markup	 Closed	FIXED

Release Notes 2.0.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.0.1 is a maintenance release that resolves some issues users may have encountered using Confluence 2.0. In particular, this includes issues relating to failures to upgrade and javascript problems.

2.0.1 is a free upgrade for all customers who purchased their Confluence license after November 28th, 2004.

Who should upgrade?

Confluence 2.0.1 is a recommended upgrade for all users who have not yet upgraded to 2.x and for those users of 2.0 that are encountering [issues fixed](#) in this release.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 1.4, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.4.4 or earlier of Confluence, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.0.1

See also: [Issues resolved for 2.0.1](#)

- Javascript failing with a class not found. ([CONF-4643](#))
- Confluence 2.0 hangs on weblogic. ([CONF-4634](#))
- Disabling WYSIWYG editor causes AJAX error in Preview mode. ([CONF-4745](#))
- Ancestors table hangs on to foreign key relationships if it can't be deleted. ([CONF-4700](#))

Issues resolved for 2.0.1

This page last changed on Nov 27, 2005 by daniel@atlassian.com.

Atlassian JIRA (42 issues)				
T	Key	Summary	Status	Res
	CONF-4612	Add RSS Autodiscovery to the results pages of the feed builder	 Resolved	FIXED
	CONF-4598	replace PermissionCheckDispatcher with PermissionHelper	 Resolved	DUPLICATE
	CONF-4292	Sort page tree pages alphabetically	 Resolved	FIXED
	CONF-4678	Provide users with license screen to enter a new license if their existing one has expired	 Closed	FIXED
	CONF-4748	Mail importer should strip out illegal characters in attachment filenames	 Closed	FIXED
	CONF-4642	Login page shows 'You do not have permission to access null'. null??	 Resolved	FIXED
	CONF-4653	{blog-posts: x} returns Error while trying to draw the last-n pages!	 Resolved	FIXED
	CONF-4646	global-reports macro doesn't render properly	 Resolved	FIXED
	CONF-4659	No body macros are duplicated when switching between WIKI and WYSIWYG editing.	 Closed	CANNOT REPRODUCE
	CONF-4665	Space list drop down listbox in Link selector has empty string options	 Closed	FIXED
	CONF-4680	Cycling between WIKI and WYSIWYG shows out of date data.	 Resolved	FIXED
	CONF-4682	NullPointerException when saving a page	 Resolved	FIXED

	CONF-4689	with content pasted from MS Word storeBlogEntry method via XML-RPC throws invalid argument exception	 Closed	FIXED
	CONF-4699	Remove WYSIWYG checkbox from the user profile.	 Resolved	FIXED
	CONF-4654	Exception while getting property calendarForThisMonth	 Resolved	FIXED
	CONF-4749	Line breaks missing for the display of code macros in exported pdf pages	 Closed	FIXED
	CONF-4533	Macros with forms interfere with "Save" and "Cancel" buttons in WYSIWYG editor	 Resolved	FIXED
	CONF-4578	blog-posts macro only shows news items from current month	 Resolved	FIXED
	CONF-4639	Image popup window wrong size?	 Resolved	FIXED
	CONF-4634	Confluence 2.x hangs on weblogic.	 Resolved	FIXED
	CONF-4737	Newlines being stored as version comments	 Resolved	FIXED
	CONF-4668	Switching between Rich Text and Wiki Markup tabs sucks links that follow tables into the table itself	 Resolved	FIXED
	CONF-4661	blog-posts macro time parameter doesn't work as expected	 Resolved	FIXED
	CONF-4526	Do not remove blank lines after headings when switching between WYSIWYG and RichText.	 Resolved	FIXED
	CONF-4700	Ancestors table hangs on to foreign key relationships if it can't be deleted	 Resolved	FIXED
	CONF-4561	RSS feed for pages marked "favourite"	 Resolved	FIXED
	CONF-4666	viewrecentblogposts.action no longer displays	 Closed	DUPLICATE

	CONF-4702	calendar for navigation. Anonymous users are offered link to edit 'Space Labels' in space where permissions for this space are restricted to 'view' only. Clicking the 'edit' link throws exception	 Resolved	FIXED
	CONF-4667	{blog-posts:x} macro displays only news items that were created or edited after upgrading to v2.0	 Resolved	FIXED
	CONF-4719	1.3.5 backup can't be restored to 2.0 at config time, but can be restored later.	 Resolved	FIXED
	CONF-4745	Disabling WYSIWYG editor causes AJAX error in Preview mode	 Resolved	FIXED
	CONF-4698	Confluence claims that a restore has been completed even though the restore is still running in the background.	 Resolved	FIXED
	CONF-4643	Basic functions not working on JDK 1.5	 Resolved	FIXED
	CONF-4631	Ampersand not handled correctly when switch between renderers	 Resolved	FIXED
	CONF-4650	WYSIWYG bug with inner phrases	 Resolved	FIXED
	CONF-4487	Dynamic search and dynamic tasks macros don't work well placed together	 Resolved	FIXED
	CONF-4388	Empty headings should contain a half space, so they can be selected	 Resolved	FIXED
	CONF-4641	Strange screen if you delete a comment twice	 Resolved	FIXED
	CONF-4714	Sync SOAP / XML-RPC API for addAttachment.	 Resolved	FIXED

	CONF-4720	Duplicate Notification upgrade task is failing.	 Resolved	FIXED
	CONF-4649	Update the chart macro to the latest version (1.2)	 Resolved	FIXED
	CONF-4768	Exception thrown while accessing "News"	 Closed	DUPLICATE

Release Notes 2.0.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.0.2 is a maintenance release that resolves a security issue, along with various issues users may have encountered using Confluence 2.0.1.



A security flaw as described by the [Confluence Security Advisory 2005-12-05](#) has been identified to exist in Confluence 1.4.x and 2.0.x. This has been fixed in 2.0.2. We recommend to all customers that they either upgrade to 2.0.2 or follow the instructions provided on the [Confluence Security Advisory 2005-12-05](#) to patch there installation.



The release of Firefox 1.5 resulted in new bugs and issues with the Rich Text editor. Therefore every version of Confluence up to 2.0.2 isn't very compatible with this browser in terms of Rich Text editing.

Confluence 2.0.3 will feature an updated version of the editor which will solve most of the problems with Firefox 1.5 ([CONF-4809](#)).

2.0.2 is a free upgrade for all customers who purchased their Confluence license after December 5th, 2004.

Who should upgrade?

Confluence 2.0.2 is a recommended upgrade for all users as it contains a security patch for the [Confluence Security Advisory 2005-12-05](#). If you are unable to upgrade to 2.0.2, then please see [Confluence Security Advisory 2005-12-05](#) for details on how to patch your installation.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.0, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.4.4 or earlier of Confluence, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)

Changes in 2.0.2

See also: [Issues resolved for 2.0.2](#)

- Search results page needs to XML encode the query string provided by the user ([CONF-4825](#)).
- Recently updated does not list any items ([CONF-4770](#)).
- CamelCase linking interferes with rendering of attachment link ([CONF-3447](#)).
- Umlaute in links are causing encoding problems with the Rich Text editor ([CONF-4775](#)).
- Disabled accounts still receive (blank) daily reports ([CONF-4802](#)).

Issues resolved for 2.0.2

This page last changed on Dec 04, 2005 by daniel@atlassian.com.

Atlassian JIRA (21 issues)				
T	Key	Summary	Status	Res
	CONF-4672	NullPointerException when adding space as favourite	 Resolved	ANSWERED
	CONF-4810	Make a note in the 2.0.2 release notes about problems with WYSIWYG editor on Firefox 1.5 for the Mac	 Closed	FIXED
	CONF-4151	Allow sorting of attachments	 Resolved	FIXED
	CONF-3272	Allow attachments to be ordered by date, size and name in the attachments macro	 Resolved	FIXED
	CONF-4786	Need to support UNICODE characters in MSSQL server.	 Resolved	FIXED
	CONF-2790	Images in historical versions of pages are not rendered	 Resolved	FIXED
	CONF-4770	recently updated does not list any items	 Closed	RESOLVED LOCALLY
	CONF-3447	CamelCase linking interferes with rendering of attachment link	 Resolved	FIXED
	CONF-3923	CamelCase linking breaking image rendering if image titled "ThisIsAnImage.jpg"	 Resolved	FIXED
	CONF-4771	editor does not work in firefox 1.5	 Closed	HANDLED BY SUPPORT
	CONF-4775	Umlaute in links are causing encoding problems with the Rich Text editor	 Resolved	FIXED
	CONF-4750	Contentbylabel macro does not work if there is no space separating label names	 Resolved	FIXED
	CONF-4804	Contentbylabel macro separates	 Resolved	FIXED

	CONF-4799	labels by spaces rather than commas Extra "<" in labels-include.vm causes problems with page loading	 Resolved	FIXED
	CONF-4802	Disabled accounts still receive (blank) daily reports	 Closed	FIXED
	CONF-4469	Favorites Pages shows only 5 page!!	 Resolved	FIXED
	CONF-4807	Cannot sort attachments by name	 Resolved	FIXED
	CONF-4825	Search results page needs to XML encode the query string provided by the user.	 Resolved	FIXED
	CONF-4765	Space Descriptions may not have their Space ID set, causing problems when the space is referenced	 Resolved	FIXED
	CONF-4766	LazyInitializationException in ResourceUpgradeTask	 Closed	FIXED
	CONF-4776	Upgrade tasks do not flush the cache after updating content	 Resolved	FIXED

Release Notes 2.0.3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.0.3 is a maintenance release. It contains a upgrade of the WYSIWYG editor and numerous bug fixes.

2.0.3 is a free upgrade for all customers who purchased their Confluence license after December 12th, 2004.

Who should upgrade?

Confluence 2.0.3 is a recommended upgrade for all users who are having problems with the WYSIWYG editor. This release contains an upgrade to the WYSIWYG module that contains numerous bug fixes.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.0, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 1.4.4 or earlier of Confluence, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)

Changes in 2.0.3

See also: [Issues resolved for 2.0.3](#)

- Upgrade to TinyMCE 2.0.1 ([CONF-4808](#))
- Backup restore progress monitor does not refresh during restore, making it look like the backup is hanging ([CONF-4895](#))
- Information leak when accessing url directly ([CONF-4794](#))
- Personal labels showing up on the {contentbylabel} macro ([CONF-4894](#))

Issues resolved for 2.0.3

This page last changed on Dec 11, 2005 by daniel@atlassian.com.

Atlassian JIRA (23 issues)				
T	Key	Summary	Status	Res
	CONF-4880	Wrong SQL-Statement in JiraJdbcProfileProvider?	 Resolved	FIXED
	CONF-4875	Modify Standalone Tomcat configuration to stop NotSerializableException	 Resolved	FIXED
	CONF-4819	Increase size of search box	 Resolved	FIXED
	CONF-4893	Hide "Add Content" Links in Left Navigation Theme if user does not have permissions to add any kind of content.	 Resolved	FIXED
	CONF-4846	Update jfreechart to 1.0.0	 Resolved	FIXED
	CONF-4843	Object and Embedd tag parameters for embedded objects in a page are missing quotes.	 Resolved	FIXED
	CONF-4752	Parent page lost when creating page with template	 Resolved	FIXED
	CONF-4837	RSS feedbuilder link hided when Tableless Theme selected	 Resolved	FIXED
	CONF-4835	Warn if page exists even when user lacks view/edit page permission	 Resolved	FIXED
	CONF-4808	Upgrade to TinyMCE 2.0.1	 Resolved	FIXED
	CONF-4894	Personal labels showing up on the {contentbylabel} macro.	 Resolved	FIXED
	CONF-4510	Selecting text colour in WYSIWYG causes previous text to change colour	 Resolved	FIXED
	CONF-4889	"Citation" markup is not converted between Rich Text and Markup modes	 Resolved	FIXED

	CONF-4895	Backup restore progress monitor does not refresh during restore, making it look like the backup is hanging.	 Resolved	FIXED
	CONF-4822	{navmap} doesn't respect server base url	 Resolved	FIXED
	CONF-4891	Remove duplicate results from the {contentbylabel} macro.	 Resolved	FIXED
	CONF-4849	Image Resource Problems - working in 1.4.4 and broken in 2.0.2	 Resolved	FIXED
	CONF-4809	Rich Text editor doesn't display the WYSIWYG content the first time the edit page is loaded (Firefox 1.5 MAC)	 Resolved	FIXED
	CONF-4824	Switching quickly between Rich Text and WikiMarkup / Preview causes content to disappear	 Resolved	FIXED
	CONF-4820	Cannot apply strikethrough to links in rich text editor	 Resolved	FIXED
	CONF-4685	Fullscreen button freezes IE and reports error in Firefox	 Resolved	FIXED
	CONF-3604	java.io.NotSerializableException: org.apache.log4j.Logger	 Resolved	FIXED
	CONF-4794	Information leak when accessing url directly	 Resolved	FIXED

Release Notes 2.1

This page last changed on Nov 30, 2006 by dave@atlassian.com.

Atlassian is happy to offer our customers an early Christmas present: Confluence 2.1 (otherwise known as [Bogan](#)). Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days, can download Confluence from the Atlassian website:

<http://www.atlassian.com/software/confluence>

Bogan is the Sixth major update to Confluence, offering vastly improved LDAP integration through our new atlassian-user library, as well as introducing the much-requested autosave feature to protect you from losing your precious edits.

Upgrading from 2.0

Upgrading Confluence should be pretty easy: you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!



Plugin Compatibility

Any plugin written for Confluence 2.0 and earlier that interfaces with the User system will need to be updated for Confluence 2.1. Plugin developers can find more information on the [Atlassian developer blog](#)



LDAP Integration Configuration Changes

Customers who have already integrated Confluence with LDAP through the OSUser LDAP providers will need to make changes to their `osuser.xml` file before upgrading. You can find full details here: [Special LDAP Integration Note for users upgrading to Confluence version 2.1.x or higher](#)



OSUser or Seraph Customisations

Customers who have performed their own customisations on OSUser or Seraph within Confluence must be sure to test their changes with Confluence 2.1 before upgrading any production system. While we have tried to maintain backwards compatibility, the integration of atlassian-user may adversely affect existing customisations.

Upgrading from 1.4 and earlier

Users upgrading directly from 1.4 or earlier should also read the [2.0 Release Notes](#) for caveats regarding the 1.4 -> 2.0 upgrade.

Contents

1. [New Features](#)
2. [Improvements](#)
3. [Notable Bug-fixes](#)

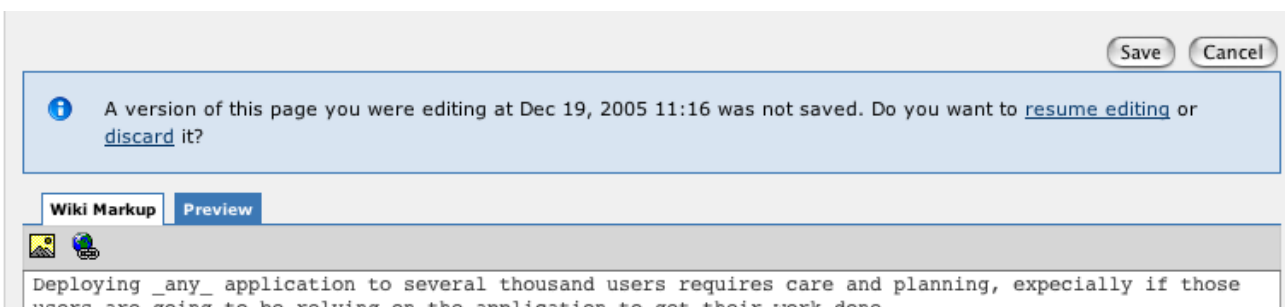
See also: [DOC:Issues Resolved for 2.1](#)

New Features

Autosave

If you've used wikis for long enough, you know the pain of losing a long, involved editing session to a browser crash, session timeout, or just not thinking and clicking on a link to another page. As of Confluence 2.1, this is no longer a problem: the most you'll lose is half a minute of your work.

Every thirty seconds (this interval is configurable by the global administrator), the browser will save your unfinished edit to the server. This autosave will hang around until you either hit the "Save" or "Cancel" button yourself, even if the server is restarted. So if you lose your changes, all you have to do is navigate back to the edit page, and will be given the chance to begin editing again where you left off.



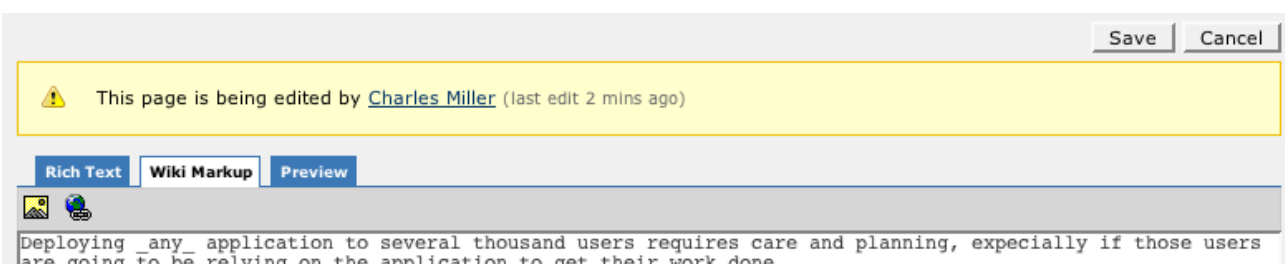
You can view your outstanding autosaved documents from your profile under the "Drafts" tab.

This page lists all your drafts. A draft is created when you make changes to a page. Should you be prevented from saving your changes, you can resume editing the draft version here.

Title		Last Saved Date	Operations
	Configuring a Large Confluence Installation	2005-12-19 23:16:04.962	Resume editing Delete
	Release Notes 2.1	2005-12-19 23:20:17.25	Resume editing Delete

Concurrent Edit Warnings

A useful side-effect of autosave is that now Confluence has an accurate way of measuring who is editing which page. If two people start editing the same page at the same time, Confluence will display a warning message telling you who else is editing the page. You can then negotiate between yourselves who gets to save first.



Even better, Confluence will let you know how long it was since the other editor made any changes to the page, so if somebody has just left their browser open on the edit page for a couple of hours, you'll know you can sneak your changes in while they're asleep. 😊

User Management

Confluence 2.1 sees the landing of our new atlassian-user user management library. Most Confluence customers will not see any significant change from this move, but for anyone looking to integrate Confluence with an external user-base (especially LDAP), atlassian-user is a big step forward.

Confluence can now integrate fully with an LDAP directory server, without the previously annoying practice of having to mirror the users and groups locally on Confluence: [DEV:Confluence LDAP Documentation Index](#)

Improvements

Performance

A lot of work was done improving the performance of the Confluence dashboard and edit pages, especially for customers who may have thousands of spaces and hundreds of thousands of pages in their Confluence installation. Both of these pages should now respond significantly faster.

Other

- You can now manually set the MIME type under which embedded objects should be served – [CONF-4906](#)
- The system info and error pages include more information about your database configuration – [CONF-4957](#)
- ~~Email attachments no longer show up on the recently updated list~~ (this seems to have regressed in the final release) – [CONF-4684](#)
- Added an icon mapping for sub-tasks in the jiraissues macro – [CONF-4921](#)
- Allow attached Windows Bitmap files to be displayed as embedded resources – [CONF-4922](#)

Notable Bug-fixes

Confluence 2.1 includes all bug-fixes that were made up to Confluence 2.0.3, and also includes fixes for the following issues:

- Preview now works correctly when rich text editor is disabled – [CONF-4935](#)
- Info tab no longer shows incoming links from pages in the trash – [CONF-4815](#)
- Trying to set a page as its own parent now presents a validation error instead of a system error – [CONF-4941](#)
- Confluence no longer removes every second character from the filenames of email attachments – [CONF-4938](#)
- JiraJdbcProfileProvider problems reliably accessing profile information from JIRA resolved – [CONF-4933](#)

- Unresolved images now replaced with placeholders in WYSIWYG editor – [CONF-4929](#)
- Removing the {excerpt} macro from a page now deletes the excerpt – [CONF-4918](#)

The Confluence 2.1 Team

Development 😄 Tom Davies Jeremy Higgs David Loeng Charles Miller Daniel Ostermeier Jens Schumacher	Atlassian-User 💡 Nick Faiz Documentation 😊 Vidya Madabushi Oversight & ~~Mis-management~~ 😊 Mike Cannon-Brookes Scott Farquhar

Issues Resolved for 2.1

This page last changed on Dec 19, 2005 by [cmiller](#).

Atlassian JIRA (42 issues)				
T	Key	Summary	Status	Res
	CONF-4335	Upgrade task - osuser2hibernate	 Closed	DUPLICATE
	CONF-4227	Replace group select menus with a GroupPicker	 Closed	DUPLICATE
	CONF-4692	Grouppicker should replace select menus of groups	 Closed	FIXED
	CONF-4711	Formalize set up procedure r.e. existing users and existing groups in a delegation	 Closed	FIXED
	CONF-4859	Broken page table structure in Edit mode after upgrade from 1.4.4 to 2.0.1	 Closed	FIXED
	CONF-4693	GroupPicker in edit space perms	 Closed	FIXED
	CONF-4696	GroupPicker in global admin permissions	 Closed	FIXED
	CONF-4694	GroupPicker in page permissions form	 Closed	FIXED
	CONF-4232	Create new rdbms structure for a Hibernate implementation of Atlassian User	 Closed	FIXED
	CONF-1193	Warn when page is concurrently edited by multiple users	 Closed	FIXED
	CONF-4233	Create utility to move Entites from OSUser tables into Atlassian User tables.	 Closed	FIXED
	CONF-973	Autosave of editing box	 Closed	FIXED
	CONF-4217	Add GMail style auto-save when editing new or existing pages	 Resolved	FIXED
	CONF-4499	SmartListManager performance degrades as the number of groups	 Closed	FIXED

	CONF-4234	increases Global Export should only export users in Confluence's database.	 Closed	FIXED
	CONF-1806	Merge Feature for Pages that Were Edited at the Same Time	 Resolved	FIXED
	CONF-4688	PagerPaginationSupport must retrieve more results for build more pages	 Closed	FIXED
	CONF-4229	UserPicker should use the new query system and the PagingIterator	 Closed	FIXED
	CONF-4906	Allow syntax to override the file MIME type in embedded objects	 Resolved	FIXED
	CONF-4236	Activate/deactive user now manipulates the user's relation to USE_CONFLUENCE permission	 Closed	FIXED
	CONF-4957	Include Database driver information on the "System Info" and error pages	 Resolved	FIXED
	CONF-4965	Improve dashboard performance	 Resolved	FIXED
	CONF-4966	Improve edit page performance	 Resolved	FIXED
	CONF-4735	All spaces a user can see should be retrieved with one query	 Resolved	FIXED
	CONF-4763	add a user picker to global perm.s page	 Closed	FIXED
	CONF-4230	PermissionDelegates are stored via keys based on class names	 Closed	FIXED
	CONF-4921	Jiraissues does not have an icon mapping for subtasks	 Resolved	FIXED
	CONF-4922	Windows bitmap files not recognised by the embedded resource renderer	 Resolved	FIXED
	CONF-4760	Edit groups for user	 Closed	FIXED

	CONF-4932	brings up a null pointer	 Closed	DUPLICATE
	CONF-4933	Image Linking Broken	 Resolved	FIXED
	CONF-4941	JiraJdbcProfileProvider incorrectly accesses user profile information.	 Resolved	FIXED
	CONF-4929	IllegalArgumentException when setting page as its own parent page	 Resolved	FIXED
	CONF-4935	Unresolved Image Links are replaced in WYSIWYG mode	 Resolved	FIXED
	CONF-4947	Preview is not working when richeditor is disabled.	 Resolved	FIXED
	CONF-4967	Unsaved changes in the rich text editor should disregard whitespace	 Resolved	FIXED
	CONF-3396	JIRA + LDAP OSUser integration not supported	 Closed	FIXED
	CONF-3629	AJAX doesn't work with Safari v2 on mac	 Closed	FIXED
	CONF-4504	Format tags in to word	 Resolved	FIXED
	CONF-4918	Unable to embed resource	 Resolved	FIXED
	CONF-4815	excerpt in page, still shows in children even after the except macro was removed	 Resolved	FIXED
	CONF-4938	Info tab of a page displays incoming links from deleted pages	 Resolved	FIXED
	CONF-4938	Names of mail attachments are wrong	 Closed	FIXED

Release Notes 2.1.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.1.1 is a maintenance release that resolves some issues users may have encountered using Confluence 2.1, including issues related to user management, the editing UI and email notifications.

2.1.1 is a free upgrade for all customers who purchased their Confluence license after December 24th, 2004.

Who should upgrade?

Due to the severity of the issues that it resolves, Confluence 2.1.1 is a recommended upgrade for all Confluence customers.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.0.3 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.1.1

See also: [Issues resolved for 2.1.1](#)

- Users can not change their passwords [CONF-5005](#)
- Cursor jumps to the beginning of the rich text editor periodically [CONF-4993](#)
- Change comments not being displayed correctly [CONF-4979](#)
- Email notifications do not correctly report the user who made the change [CONF-4973](#)
- Pages can not be created or saved in some custom atlassian-user or OSUser configurations [CONF-4978](#)

Issues resolved for 2.1.1

This page last changed on Dec 27, 2005 by [cmiller](#).

Atlassian JIRA (9 issues)				
T	Key	Summary	Status	Res
	CONF-4984	Children macro gives bad error message when page not found	 Resolved	FIXED
	CONF-4973	Some notifications are not reporting the user	 Resolved	FIXED
	CONF-4979	Comments are being rendered literally as \$page.renderedVersionComment	 Resolved	FIXED
	CONF-4978	Useraccounts are read-only when using LDAP user management	 Resolved	FIXED
	CONF-4988	JiraJdbcPropertySet is read only	 Closed	FIXED
	CONF-4980	Autosave in rich text resets cursor	 Closed	FIXED
	CONF-4993	The cursor jump to beginning of first line when you stop typing a few seconds in the wysiwyg editor	 Resolved	FIXED
	CONF-5005	Users can not change there passwords.	 Resolved	FIXED
	CONF-4974	Concurrent modification exception in SimpleDisplayServlet	 Resolved	FIXED

Release Notes 2.1.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.1.2 is a maintenance release that resolves some issues users may have encountered using Confluence 2.1.1 or earlier, including issues related to page editing, Javascript errors in Firefox and Safari and PDF exports.

2.1.2 is a free upgrade for all customers who purchased their Confluence license after January 12th, 2005.

Who should upgrade?

Confluence 2.1.2 fixes a number of bugs found in Confluence 2.1.1 and earlier. Customers are recommended to upgrade if they are experiencing any of the issues fixed in this release.

Upgrade Procedure



If you are using MySQL, please apply the patch detailed in this bug report <http://jira.atlassian.com/browse/CONF-5153>. That is, please download 2.1.2, extract it, and copy the above mentioned patch into the unpacked 2.1.2 distribution and then go about your upgrade. We will be releasing a version with this patch bundled soon.

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.1 or 2.1.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.0.3 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.1.2

See also: [Issues resolved for 2.1.2](#)

Improvements

- JiraPortlet macro now has an optional "baseurl" parameter for when Confluence accesses JIRA from a different URL to regular users – [CONF-4897](#)
- Children listed at the bottom of pages are now sorted alphabetically – [CONF-4878](#)

- Confluence warns space administrators when they permit anonymous access to a space, but global anonymous access is disabled – [CONF-4898](#)

Bugs Fixed

- NS_ERROR_NOT_AVAILABLE popup no longer appears when editing certain pages in Firefox – [CONF-5038](#)
- "Error converting parameters" popup no longer appears when editing certain pages in Safari – [CONF-4976](#)
- Edit page no longer returns NoSuchElementException error under some circumstances – [CONF-5007](#)
- "Last week" and "Last month" searches no longer fail when time period spans the new year – [CONF-5056](#)
- News items marked as favourites are now listed on the dashboard – [CONF-4998](#)
- Mail attachments no longer show up in recent changes on dashboard – [CONF-4684](#)
- PDF Export no longer fails with error parsing background-color attributes – [CONF-5026](#)
- Anonymous users do not cause a crash when exporting a space – [CONF-5129](#)
- Disabling a servlet plugin no longer causes a NullPointerException – [CONF-5021](#)
- Notification emails no longer prepend the site's context path twice to certain URLs – [CONF-5024](#)
- It is now possible to move a page between spaces and change its parent in the same operation – [CONF-5103](#)
- Dashboard favourite selection now works in Opera 8.5 – [CONF-5012](#)
- Username links no longer cause a NullPointerException in certain configurations – [CONF-5028](#)

Issues resolved for 2.1.2

This page last changed on Jan 13, 2006 by cmiller.

Atlassian JIRA (38 issues)				
T	Key	Summary	Status	Res
	CONF-5090	Change landing URL for 'get license' link during setup	 Resolved	FIXED
	CONF-5017	Add the file.encoding system property to the system info page.	 Closed	FIXED
	CONF-5020	List of child pages should be sorted alphabetically	 Resolved	DUPLICATE
	CONF-4878	the children listing on the bottom of the page should sort the child pages alphabetically	 Resolved	FIXED
	CONF-4898	Warn users when granting anonymous users space access without granting then user-confluence access	 Resolved	FIXED
	CONF-4897	Using JIRA base-URL for JIRAPORTLET and JIRAISSUES links	 Resolved	FIXED
	CONF-4971	export space returns zip file with Space Details only	 Resolved	FIXED
	CONF-5008	NPE getChangesSinceLastEdit Error getting changes since last edit:	 Resolved	FIXED
	CONF-5059	Link to 'discard' draft does not discard draft unless clicked twice.	 Resolved	FIXED
	CONF-5026	Crash generating PDF from the online documentation	 Resolved	FIXED
	CONF-5046	Line separating drafts under 'User Profile' breaking up when draft is without a title	 Closed	FIXED
	CONF-4998	News items don't appear in favorite	 Resolved	FIXED

	CONF-5012	pages section Dashboard favourite space selection dies in Opera 8.5 (and perhaps other versions too)	 Resolved	FIXED
	CONF-5028	Linked user name Wiki tag crashes Confluence	 Closed	FIXED
	CONF-5024	Notification emails are adding an additional confluence directory (contextPath) in certain URL's	 Closed	FIXED
	CONF-5089	System info page is showing \$action.getDatabaseDriverName()	 Resolved	FIXED
	CONF-5087	Confusing alert message when you have a draft on page create	 Resolved	FIXED
	CONF-5100	Anonymous comment warning image does not respect the context path	 Resolved	FIXED
	CONF-5109	UserSessionExpiryList incompatible with certain application servers	 Closed	FIXED
	CONF-5082	Changes to the length of "Recently Updated" list on dashboard.action page is lost immediately after visiting another page	 Closed	FIXED
	CONF-5126	Warning icon in the concurrent editing message does not respect the context path	 Resolved	FIXED
	CONF-5118	Drafts tab is not visible in the user profile when external user management is enabled	 Resolved	FIXED
	CONF-4996	NullPointerException when searching for users via the Manage User Administration screen	 Resolved	FIXED

	CONF-5141	Upgrade stalls on AdditionalIndexes1UpgradeTask	 Closed	FIXED
	CONF-5129	IllegalArgumentException when exporting a space as the anonymous user	 Resolved	FIXED
	CONF-5154	User picker in Edit Space Permissions page is only accessible by super users	 Closed	FIXED
	CONF-4976	Drafts JavaScript error when editing page on Safari	 Resolved	FIXED
	CONF-5011	Javascript error on AJAX heartbeat	 Resolved	DUPLICATE
	CONF-5103	When moving a page, you can't change space and parent in same step	 Resolved	FIXED
	CONF-5021	NullPointerException when disabling a servlet plugin	 Resolved	FIXED
	CONF-5056	Search by "Last Week" and "Last Month" fail in the new year.	 Resolved	FIXED
	CONF-5119	Email format in Profile and notifications pages should be consistent	 Resolved	FIXED
	CONF-5052	Explicit background colours break PDF export	 Resolved	FIXED
	CONF-4829	Pop-up page for inserting links doesn't size properly	 Closed	FIXED
	CONF-5007	Edit Page returns System Error	 Resolved	FIXED
	CONF-5038	wysiwyg-javascript exception	 Resolved	FIXED
	CONF-6194	NS_ERROR_NOT_AVAILABLE Editing space layouts edits the main layout instead	 Closed	DUPLICATE
	CONF-4684	I don't want email attachments (e.g. digital sigs) to show up in the 'recently updated' list	 Resolved	FIXED

Release Notes 2.1.3

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.1.3 is a maintenance release that resolves some issues users may have encountered using Confluence 2.1.2 or earlier, including issues related to Rich Text editing, LDAP user management, restoring to MySQL, and Unicode on MS SQL Server

2.1.3 is a free upgrade for all customers who purchased their Confluence license after January 23rd, 2005.

Who should upgrade?

Confluence 2.1.3 fixes a number of bugs found in Confluence 2.1.2 and earlier. Customers are recommended to upgrade if they are experiencing any of the issues fixed in this release.

Confluence is a recommended upgrade for all customers using Confluence's new atlassian-user LDAP user management with dynamic group mappings. For more information see [USER-95](#)

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.1 to 2.1.2, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.0.3 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.1.3

See also: [Issues resolved for 2.1.3](#)

Improvements

- You can now suppress camel-case linking with `{nl:CamelCaseWord}` – [CONF-3700](#)
- Confluence RSS macro is now compatible with Google News RSS – [CONF-4892](#)
- The `{contentbylabel}` macro supports a wider range of options – [CONF-5137](#)

Bugs Fixed

- Many fixes related to Rich Text editing, and switching between Rich Text and Wiki Markup editing.
- Further PDF export fixes – [CONF-4930](#)
- The upload option in the attachments macro works – [CONF-5127](#)
- Fixed a bug where Word exports would open in the wrong application – [CONF-5163](#)
- Handling of situation where site exceeds its licensed user limit and then removes users is improved – [CONF-5208](#)
- Restoring a site to MySQL now properly removes and re-creates database tables – [CONF-5153](#)
- Confluence now uses correct NVARCHAR type for multibyte text in MS SQL Server – [CONF-5204](#)

Issues resolved for 2.1.3

This page last changed on Jan 22, 2006 by cmiller.

Atlassian JIRA (37 issues)				
T	Key	Summary	Status	Res
	CONF-5173	Add License ID to View License Page	 Resolved	FIXED
	CONF-5204	Merge SQLServerIntIDialect from confluence 2.0 stable branch to HEAD and confluence 2.1 stable	 Resolved	FIXED
	CONF-3783	Strike through does not work for links	 Resolved	FIXED
	CONF-3700	Suppression of CamelCase link generation for certain words	 Resolved	FIXED
	CONF-5380	Allow Editing mode to be a preference	 Resolved	ANSWERED
	CONF-4892	Google News RSS requires a user agent for access	 Resolved	FIXED
	CONF-5212	Display database connection URL/datasource information on the system info page	 Resolved	FIXED
	CONF-5211	Handle datasource driver exceptions on the system info page gracefully	 Resolved	FIXED
	CONF-5208	You have exceeded the maximum number of users for your license error	 Closed	FIXED
	CONF-5190	Catch all errors that may be thrown from a macro	 Resolved	FIXED
	CONF-5137	Add more options to contentbylabel macro	 Closed	FIXED
	CONF-5127	Option 'upload' does not work for the attachment macro	 Closed	FIXED
	CONF-5169	SearchEntitiesAction displays \$user.name, \$user.fullName, \$user.email instead	 Resolved	FIXED

		of the proper values when searching for a group		
	CONF-5167	Links with an apostrophe fails to render	 Resolved	FIXED
	CONF-4260	JTidy removes empty divs, spans	 Resolved	FIXED
	CONF-4960	Mixing ordered and unordered lists confuses WYSIWYG at times	 Resolved	FIXED
	CONF-5077	JTidy error message when saving edited page	 Resolved	FIXED
	CONF-5153	Error restoring on MySQL	 Resolved	FIXED
	CONF-4251	User management has design flaw !!	 Resolved	FIXED
	CONF-5342	User Picker throws xwork ConfigurationException	 Resolved	FIXED
	CONF-5165	Ampersands and backslashes multiply...	 Resolved	FIXED
	CONF-4681	Daily notification email displays wrong date.	 Resolved	FIXED
	CONF-4915	WYSIWYG editor not accepting certain edits on Save	 Resolved	FIXED
	CONF-4624	Losing html macro contents in Rich Text editor	 Closed	DUPLICATE
	CONF-4865	Rich Text editor can mangle horizontal rule tag ('----')	 Resolved	FIXED
	CONF-4896	Table containing heading is broken by WYSIWYG editor.	 Resolved	FIXED
	CONF-4847	Using header notation and the children macro on the same line brings up a JavaScript alert	 Resolved	FIXED
	CONF-5042	Link contents not changed when a link is edited directly	 Resolved	FIXED
	CONF-4493	{code} element produces syntax errors when trying to preview	 Closed	CANNOT REPRODUCE
	CONF-5049	Bad behaviour of the Wysiwyg editor with	 Resolved	FIXED

	CONF-5201	paragraphs HTML produced when newline typed in table cell doesn't produce correct markup	 Resolved	FIXED
	CONF-3351	Sign-up takes 20 minutes to load	 Resolved	FIXED
	CONF-4930	Error trying to export confluence 2.0 documentation to PDF	 Resolved	DUPLICATE
	CONF-5163	Export a page as a word document opens exportword.action in IE instead of pagename.doc	 Closed	FIXED
	CONF-5233	Cross-site scripting vulnerability in the full name user profile field	 Closed	FIXED
	CONF-5182	Swicthng between Rich Text and Wiki Markup loses content between {html} macro tags	 Resolved	FIXED
	CONF-4874	Image popup shows \${lang_conf_ok} and \${lang_conf_cancel} after you have attached an image.	 Resolved	CANNOT REPRODUCE

Release Notes 2.1.4

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.1.4 is a maintenance release that resolves some issues users may have encountered using Confluence 2.1.3 or earlier. Confluence 2.1.4 fixes more than 55 issues, including bugs related to space import/export, the WYSIWYG editor, page breadcrumbs, and many more

2.1.4 is a free upgrade for all customers who purchased their Confluence license after February 16th, 2005.

Who should upgrade?

Confluence 2.1.4 fixes a number of bugs found in Confluence 2.1.3 and earlier. Customers are recommended to upgrade if they are experiencing any of the issues fixed in this release.

Confluence is a recommended upgrade for all customers using Confluence's new atlassian-user LDAP user management, as it fixes important issues related to user login validation.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from an earlier Confluence 2.1 release, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!



If you are running a Sybase or Microsoft SQL Server database, please replace `confluence/WEB-INF/classes/com/atlassian/confluence/upgrade/UpgradeUtils.class` with [this version](#) before upgrading.

You should also install this if your upgrade fails with the message: Session is currently disconnected

If you are upgrading from Confluence 2.0.3 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.1.4

More than 55 issues were resolved between 2.1.3 and 2.1.4. For the complete list, see: [Issues resolved for 2.1.4](#)

Note about markup for embedded content

A bug was fixed in 2.1.4 that previously allowed spaces as attribute separators in embedded content wiki markup ([CONF-5406](#)). This means `!image.jpg|alt=Great pic!` now works correctly, but `!image.jpg|border=1 alt=test!` doesn't. The correct and documented way to write the latter continues to be `!image.jpg|border=1,alt=test!`.

Improvements

- `{livesearch}` macro results can now be limited to a particular space – [CONF-3432](#)
- A setting was added to General Configuration to control the maximum number of attachments that can be uploaded at once – [CONF-5447](#)
- A setting was added to General Configuration to enable or disable GZip content encoding – [CONF-5257](#)
- "Insert Link" and "Insert Image" now work correctly on Safari in OS X 10.4.4 and later – [CONF-5435](#)
- A draft is automatically saved when moving from 'Edit' to 'Preview' – [CONF-5366](#)
- A `getPermissionsForUser` method was added to the remote API to allow administrators to retrieve the permissions of particular users – [CONF-5439](#)

Notable Bugs Fixed

- Many fixes related to the maintenance of the ancestors table while moving or renaming pages, which may have resulted in the misplacing of page breadcrumbs or inherited page-level permissions – [CONF-5104](#), [CONF-5243](#), [CONF-5244](#)
- Many fixes related to Rich Text editing, including the handling of tables and whitespace – [CONF-5299](#), [CONF-5231](#), [CONF-5492](#), [CONF-5294](#), [CONF-5324](#), [CONF-5247](#), [CONF-5362](#), [CONF-5265](#)
- Space import no longer overwrites part of global configuration – [CONF-5370](#)
- Confluence no longer tries to create indexes with names bigger than DB2 can handle – [CONF-5316](#)
- "Insert Link" and "Insert Image" no longer erase contents of edit field in Safari on OS X 10.4.4 and later – [CONF-5329](#)
- Links from the `{labels}` macro are now space-relative – [CONF-5346](#)
- 🚩 emoticons no longer mistaken for embedded image markup – [CONF-3369](#)
- "Profile:" no longer mistaken as the start of a file: URL

Issues resolved for 2.1.4

This page last changed on Feb 16, 2006 by [cmiller](#).

Atlassian JIRA (68 issues)				
T	Key	Summary	Status	Res
	CONF-5263	Modify encoding test to UPPER and LOWER results in the database	 Resolved	FIXED
	CONF-5403	Slow edit page load time	 Closed	FIXED
	CONF-5401	Slow dashboard due to getPermittedEntities()	 Closed	FIXED
	CONF-4546	Modifying livesearch plug-in to search by space, pages, documents.	 Closed	FIXED
	CONF-5257	Add gzip response encoding to general configuration	 Resolved	FIXED
	CONF-5290	Display enabled plugins in the error page	 Resolved	FIXED
	CONF-5366	Ensure a draft is saved when flipping between Edit and Preview	 Resolved	FIXED
	CONF-4353	Open source the standard Confluence plugins and macros	 Resolved	FIXED
	CONF-5382	Remove hand-coded 'style' attributes from generated HTML	 Resolved	FIXED
	CONF-5435	Support 'insert link' and 'insert image' on Safari	 Closed	FIXED
	CONF-5439	New getPermissions method for remote API to return permissions for a given user to a space	 Closed	FIXED
	CONF-3282	Conflue needs hasPermission RPC	 Closed	FIXED
	CONF-5303	Using JIRA base-URL for JIRAISSUES links	 Resolved	FIXED
	CONF-5447	Create UI for maxAttachmentsInUI setting	 Closed	FIXED

	CONF-3432	Allow option in livesearch to limit search to a specific space	 Resolved	FIXED
	CONF-5770	Allow enabling/disabling the WYSIWYG-Editor per User	 Resolved	FIXED
	CONF-5250	rich text editor corrupts tables with bullets and newlines	 Resolved	FIXED
	CONF-5249	Bug in HandleProfileAttachmentsAction.isPermitted()	 Closed	FIXED
	CONF-5244	Page breadcrumbs get out of sync when moving pages between spaces	 Resolved	FIXED
	CONF-5265	Weird modifications done by the Rich Text editor	 Resolved	FIXED
	CONF-5266	Type the word *Profile:* it gets messed up	 Resolved	FIXED
	CONF-5294	Existing anchor links are converted to page links by Rich Text editor	 Resolved	FIXED
	CONF-5262	NullPointerException when include macro references an invalid space	 Resolved	FIXED
	CONF-5241	Getting ClassCast Exception when using seraph-paths.xml to secure additional directories in confluence webapp	 Closed	FIXED
	CONF-5304	Space Index always shows even restricted pages	 Resolved	FIXED
	CONF-5326	breadcrumb for when you view the "drafts" tab from your profile is wrong.	 Resolved	FIXED
	CONF-5349	In the plain website theme, users with edit permission should see the standard Confluence interface.	 Closed	FIXED
	CONF-5327	{spaces} tag	 Resolved	FIXED

	CONF-5331	renders an error in Preview during editation rss: Error parsing RSS feed after editing General Configuration	 Resolved	FIXED
	CONF-5293	Embedded images do not contain full URL in Word exports	 Resolved	FIXED
	CONF-5235	Blog/News headings style setting forces color to black	 Resolved	FIXED
	CONF-5299	WYSIWYG space-adding errors	 Resolved	FIXED
	CONF-5321	WSYIWYG editor is introducing spaces	 Resolved	FIXED
	CONF-5247	WYSIWYG editor replaces "src" with "xsrc" in code snippets	 Resolved	FIXED
	CONF-4687	System error clicking on view change	 Closed	FIXED
	CONF-5200	Anchor Link deleted when using WYSIWYG editor.	 Resolved	FIXED
	CONF-5406	Embedded content properties split on spaces as well as commas	 Resolved	FIXED
	CONF-5399	Alt tags on images are broken	 Resolved	FIXED
	CONF-5329	"Insert Link" feature clears whole edit area in Safari	 Resolved	FIXED
	CONF-5434	Remote calls to getPermissions() fail if user is not superuser	 Closed	FIXED
	CONF-5387	When a Site Homepage is set to a Space in General Config, user profiles set to Dashboard don't go to the dashboard but to the Site Homepage	 Closed	FIXED
	CONF-5474	Unable to edit page with html markup	 Resolved	FIXED
	CONF-5346	Labels macro links aren't space relative	 Resolved	FIXED
	CONF-5487	NullPointerException listing users of LDAP group	 Closed	FIXED

	CONF-5492	table mangled by rich text editor	 Resolved	FIXED
	CONF-5503	exporting a space from a test server and importing to a live system replaced the site welcome message on the live system	 Resolved	DUPLICATE
	CONF-5370	Space Export/Import transfer global bandana and conf/*	 Resolved	FIXED
	CONF-5448	page version numbers off by 1 in "page edited" HTML email	 Resolved	DUPLICATE
	CONF-5521	Failed to upgrade from 2.1.3 to 2.1.4	 Closed	DUPLICATE
	CONF-5316	On upgrade from 2.0 to 2.1.3 failed to create two indexes since names longer than 18 chars.	 Resolved	FIXED
	CONF-5464	Group Picker only shows first 49 groups with no option for paging	 Resolved	FIXED
	CONF-5243	Ancestors table gets out of sync when moving pages to another space	 Resolved	FIXED
	CONF-5340	Change URL has wrong version number in update email	 Resolved	FIXED
	CONF-5252	Group search shows 10 groups, but no page controls	 Resolved	FIXED
	CONF-5498	Breadcrumbs showing wrong path after page with children moved	 Closed	FIXED
	CONF-5659	attachment link is incorrect...	 Resolved	FIXED
	CONF-5681	Links to attachments break when page re-edited	 Resolved	DUPLICATE
	CONF-5104	Page level permissions set on a page are not updated on page move	 Closed	FIXED
	CONF-5313	Watch Mail View Changes link	 Resolved	FIXED

	CONF-5352	incorrect Class Cast Exception on Blog versioning	 Closed	FIXED
	CONF-5324	loosing anchor links	 Resolved	FIXED
	CONF-5410	Text-only notification email of new blog post does contain unresolved velocity variable	 Resolved	FIXED
	CONF-3369	(!) emoticon sometimes interpreted as image link	 Resolved	FIXED
	CONF-5362	Anonymous user Edit & immediate Cancel produces NullPointerException	 Resolved	FIXED
	CONF-5355	Cannot store unicode characters in Site Welcome Message	 Closed	FIXED
	CONF-6162	Crashed editing a page. (initially nothing special happening from my point of view. repeatable every time I edit this page now)	 Resolved	FIXED
	CONF-5107	NullPointerException on edit page	 Closed	FIXED
	CONF-5210	Adding lines in bullet lists breaks things	 Resolved	FIXED

Release Notes 2.1.5

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.1.5 is a maintenance release that resolves some issues users may have encountered using Confluence 2.1.4 or earlier.

Confluence 2.1.5 fixes around 50 issues, including a number of fixes for LDAP support, the WYSIWYG editor, and other areas.

2.1.5 is a free upgrade for all customers who purchased their Confluence license after March 16th, 2005.



Confluence 2.1.5 has a problem which disables the rich text editor link dialog. Please replace the file `WEB-INF/classes/com/atlassian/confluence/user/actions/PagePickerAction.properties` with this file: [PagePickerAction.properties](#)

This is fixed in 2.1.5a.

Known Issues in 2.1.5a

Anonymous users may get a Javascript error under some circumstances. See [CONF-5765](#) for details and a patch.

When using LDAP user management, changing passwords for local users won't work. See [CONF-5775](#) for details and a patch.

Who should upgrade?

Confluence 2.1.5 fixes a number of bugs found in Confluence 2.1.4 and earlier. Customers are recommended to upgrade if they are experiencing any of the issues fixed in this release.

Confluence is a recommended upgrade for all customers using Confluence's new atlassian-user LDAP user management, as it fixes important issues related to LDAP integration.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from an earlier Confluence 2.1 release, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 2.0.3 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)

- [Release Notes 1.1](#)

Changes in 2.1.5

More than 48 issues were resolved between 2.1.4 and 2.1.5. For the complete list, see: [Issues resolved for 2.1.5](#)

Improvements

- LDAP queries are cached to improve performance - [CONF-5288](#)
- Administrators can insert custom HTML on every Confluence page, see Administration, Custom HTML - [CONF-5350](#)
- Tables created in the rich text editor don't have non-breaking spaces added to each cell - [CONF-5044](#)
- News improvements - Info tab available including list of version, News can be exported as PDF - [CONF-1989](#), [CONF-5582](#), [CONF-5594](#)

Notable Bugs Fixed

- Anchor, user profile and attachment links now round-trip properly in the rich text editor - [CONF-5678](#)
- Paging of LDAP users works properly - [CONF-5438](#)
- Servlet plugins can be disabled - [CONF-5598](#)
- Forgotten username emails work again - [CONF-5530](#)
- User profiles fixes with LDAP - [CONF-5225](#), [CONF-5549](#)

Issues resolved for 2.1.5

This page last changed on Mar 15, 2006 by tom@atlassian.com.

Atlassian JIRA (56 issues)				
T	Key	Summary	Status	Res
	CONF-5549	The facility to operate on the LDAP profile (based on AtlassianUser) not only in the ReadOnly mode	 Closed	FIXED
	CONF-5350	Ability to add stuff to every page on Confluence (e.g., omniture tracking)	 Resolved	FIXED
	CONF-1989	No blog entry versioning?	 Resolved	FIXED
	CONF-5582	Display "Info" tab for News/Blog posts	 Resolved	FIXED
	CONF-5594	Export of news as PDF	 Closed	FIXED
	CONF-5044	Do we need &nbsp; in table cells?	 Resolved	FIXED
	CONF-5621	Include latest release of chart macro	 Closed	FIXED
	CONF-5513	Unserializable objects in the session: bucket.search.lucene.SearchWordsLister	 Closed	FIXED
	CONF-4791	Error generating PDF when the title contains a '&' .	 Closed	FIXED
	CONF-5488	Site Welcome Message (unicode) changed to question marks after restarting server	 Closed	FIXED
	CONF-5517	Confluence 2.1.4 fails to compile due to missing maven dependencies	 Resolved	FIXED
	CONF-5511	Upgrade from 2.0.3 to 2.1.4 fails on ReduceIndexNameLengthUpgradeTask for index sp_permusername_idx	 Resolved	FIXED
	CONF-5530	Forgotten username doesn't work	 Resolved	FIXED
	CONF-5497	NPE ErrorQueuedTaskQueue	 Closed	FIXED

	CONF-5584	Page restrictions UI doesn't update correctly	 Resolved	FIXED
	CONF-5591	Breadcrumb expansion does not work on left-nav theme	 Resolved	FIXED
	CONF-5601	Merge performance is incredibly bad on long pages	 Resolved	FIXED
	CONF-5598	Servlet plugins do not disable or uninstall	 Resolved	FIXED
	CONF-5225	User profiles not editable with LDAP user management	 Closed	FIXED
	CONF-5609	ClassCastException on Membership Check	 Closed	FIXED
	CONF-5605	Users with no groups still receive daily update emails	 Closed	FIXED
	CONF-5651	Gallery macro thumbnails height and width attributes are sometimes -1	 Resolved	FIXED
	CONF-5561	DWREngine failure in IE and	 Closed	FIXED
	CONF-5654	Page titles with a period '.' breaks	 Resolved	FIXED
	CONF-5547	The error by adding new group when using LDAP (based on AtlassianUser)	 Closed	FIXED
	CONF-5662	make ALT+s submit the comment form	 Resolved	FIXED
	CONF-5630	Advanced page is not displaying Space Labels	 Resolved	FIXED
	CONF-5658	Typist's error: missing single quote	 Closed	FIXED
	CONF-5664	Can't create multiple space labels on space admin	 Resolved	FIXED
	CONF-5673	Demonstration space has broken link on Thumbnail page	 Resolved	FIXED
	CONF-5679	Local user accounts cannot login if LDAP or Active Directory server is down	 Closed	FIXED
	CONF-5687	Jira Issues macro seems to a 4 issues when using the	 Resolved	FIXED

	CONF-5525	'count' argument Error formatting macro: navmap: java.lang.ClassCastException	 Closed	FIXED
	CONF-5693	Unknown Group error on setting page level permission	 Closed	FIXED
	CONF-5695	NullPointerException thrown from MergedPager	 Closed	FIXED
	CONF-5438	Pagination of users is buggy beyond the 10th paged result	 Resolved	FIXED
	CONF-5699	Missing image button in rich text editor when adding a new comment	 Closed	FIXED
	CONF-5709	ClassCastException when trying to fetch members	 Closed	FIXED
	CONF-5562	Name of file downloads doesn't work for non-ASCII characters	 Resolved	FIXED
	CONF-5675	Fetching Mail leads into exception	 Resolved	FIXED
	CONF-5730	Create external link in WYSIWYG does not work	 Resolved	FIXED
	CONF-5746	System error when trying to set permissions for a space	 Resolved	FIXED
	CONF-4614	When downloading Multi-byte named attachments, Its character is broken.	 Resolved	FIXED
	CONF-5777	WYSIWYG Linking Pop-up Does Not Work - specifying link and clicking OK results in nothing	 Closed	FIXED
	CONF-3645	Malformed links in Daily Change Email	 Resolved	FIXED
	CONF-5578	Mail Import FAIL	 Closed	FIXED
	CONF-5105	When using LDAP, In "Manage Users" fullname is incorrectly displayed sometimes..	 Closed	FIXED
	CONF-5288	LDAP user and group queries need to cache	 Resolved	FIXED

	CONF-5537	Breadcrumbs in wrong order	 Closed	FIXED
	CONF-5545	Edit Profile tab missing for ldap users	 Closed	FIXED
	CONF-5678	corrupted anchor link on round trip in create or copy page	 Resolved	FIXED
	CONF-6151	Link Properties in Rich Text Mode Not Working	 Closed	HANDLED BY SUPPORT
	CONF-5500	Cancelling of the Copy page function returns users to a blank page	 Resolved	FIXED
	CONF-5437	Text +like this+ should use the sematic <ins> rather than <u>.	 Closed	WON'T FIX
	CONF-6571	CLONE -Page titles with a period '.' breaks	 Resolved	CANNOT REPRODUCE
	CONF-5533	Access denied on URL returned by remote API exportSpace()	 Resolved	FIXED

Release Notes 2.2

This page last changed on Sep 07, 2006 by david.soul@atlassian.com.

Atlassian is proud to announce the release of Confluence 2.2, otherwise known as [Shoalhaven](#). Existing customers who wish to upgrade, or new users who wish to try out Confluence for 30 days, can download Confluence from the Atlassian website: <http://www.atlassian.com/software/confluence>

Shoalhaven is the seventh major update to Confluence (in two years!). It introduces 'personal spaces', support for localisation/internationalisation, CAPTCHA spam protection, a multitude of new extension points for plugin developers, a simpler LDAP configuration syntax, and more.

Upgrading from 2.1

Upgrading Confluence should be pretty easy: you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!



MySQL Driver Support

For users using MySQL with Confluence 2.2 (or higher), please ensure that you are using the latest (3.1.12) MySQL Java Connector. Earlier versions of the MySQL connector have a bug which may prevent Confluence from upgrading successfully. ([more information below](#))



LDAP Authentication

If you are currently using LDAP authentication through OSUser (that is, you adjusted your `osuser.xml` file), please do not upgrade to 2.2. This feature is currently unavailable and an issue has been filed for it [here](#). This issue has been resolved in Confluence 2.2.1.



User Management Bug

You must apply the patch attached on this [bug report](#) to be able to create users in this version. This issue has been resolved in Confluence 2.2.1.



Index Rebuilding

Upgrading to 2.2 will trigger a rebuild of Confluence's search index. This will cause certain features such as search, the dashboard and RSS feeds to behave unpredictably for up to a few minutes after upgrading.



LDAP Integration Configuration Changes

The configuration file syntax for `atlassian-user` has changed. Customers who configured Confluence 2.1 to use `AtlassianUser` LDAP integration must follow the instructions [on this page](#).



Anonymous Permission Changes

The way that anonymous permissions are applied to users who have logged in has changed. Administrators should understand how they have changed [below](#) before upgrading.



Plugin Loading Changes

Prior to Confluence 2.2, it was possible for an outdated plugin, or a plugin with unsatisfied dependencies, to break the entire plugin subsystem. Confluence 2.2 is much more careful about loading plugins, and isolating them if they break. This may, however, cause Confluence to refuse to load an entire plugin, simply because one of its contained plugin modules will not load.

Upgrading from 2.0 and earlier

Users upgrading directly from 2.0 or earlier should also read the [2.1 Release Notes](#) for caveats regarding the 2.0 -> 2.1 upgrade.

Contents

1. [New Features](#)
2. [Improvements](#)
3. [Notable Bug-fixes](#)
4. [Important note for MySQL users](#)

See also: [DOC:Issues Resolved for 2.2](#)

New Features

Personal Spaces

Two of the most frequent questions we get from Confluence customers have been: "How do I give my users their own wiki?" and "How do I give my users their own blog?" It seems everybody needs a little Personal Space.



The screenshot shows a Confluence user profile for Charles Miller. The breadcrumb navigation at the top reads: [Dashboard](#) > [People](#) > [Charles Miller](#) > [Home](#). Below the navigation is a profile card for Charles Miller with a profile picture and the title 'Home'. A tabbed interface below the profile card shows 'View', 'Edit', 'Attachments (0)', and 'Info' tabs, with 'View' being the active tab. The content area displays the following information:

- Added by [Charles Miller](#), last edited by [Charles Miller](#) on Apr 11, 2006
- Labels: [homepage](#), [atlassian](#) [EDIT](#)
- I work for [Atlassian](#) as the Confluence lead developer. I've been a Java developer s
- My email address is charles@atlassian.com
- I have a weblog called [The Fishbowl](#).

Personal spaces belong to particular users, and rather than being listed on the dashboard, are available from the user's profile. (Future versions of Confluence will feature a 'people browser' to make it easier to discover the interesting personal spaces on your server). They can contain pages and news items like any other space, be searched and browsed. They can be kept private, or opened up so the whole world can view and edit them, just like global spaces.

Your **personal space** is your own private workspace within Confluence.

You can optionally let other people **view** or **contribute** to it.

Who can contribute to your personal space?

You can customize these permissions once the space is created.

Choose who can **view** content:

- ☒ **Me**
- ☒ **Registered users - anyone logged into Confluence**
- ☐ **Anonymous - anyone, logged in or not**

Choose who can **contribute** (create and edit) content:

- ☒ **Me**
- ☐ **Registered users - anyone logged into Confluence**
- ☐ **Anonymous - anyone, logged in or not**

Choose Theme

To change the theme of this space, select one below.



☒ **Default Theme**

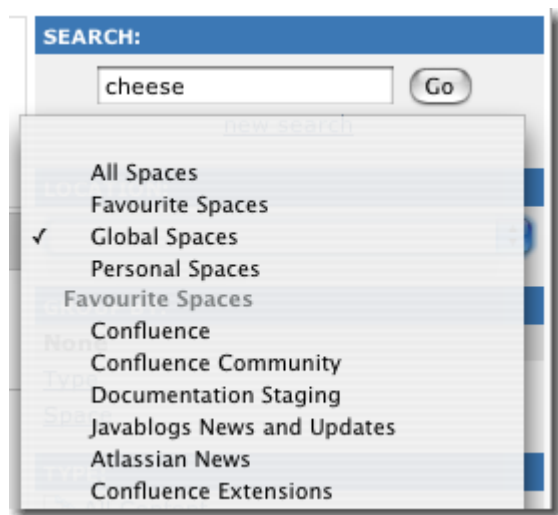
Use the globally configured look and feel. You can customise colour schemes and layouts manually.



☐ **Left Navigation Theme**

Provides a navigation bar on the left hand side of the screen.

Confluence's search and RSS builder interfaces have been updated to make it easy to choose whether you're interested in personal spaces or not.



Oh, and if you create a personal space, don't forget to upload (or choose) your own profile picture, so people can see who you are.

Edit ProfileLabelsWatchesDrafts

Your profile picture is used as the icon for your personal space, and to represent choose from one of our standard icons.

Choose a Profile Picture: These are the profile pictures you have uploaded.



Save

Cancel

Upload a Profile Picture: Upload your own profile picture. Profile pictures will be automatically resized to 48 x 48 pixels.

Choose File

no file selected

Upload

Default Icons: You can also select a profile picture from one of these default icons.



Localisation/Internationalisation

Confluence now supports drop-in [language packs](#) to change the language of the user interface. The global administrator can select a default language for the entire site, while individual users can set their preferred language in their preferences.

No language packs are currently available, but we are currently working with our global partners so we can begin to provide translations. If you are interested in translating Confluence into another language, you can find instructions on building a language pack here: [Language Pack Plugins](#).

CAPTCHA Support

wronger

Please type the word appearing in the picture.

Many of the more public Confluence wikis have been suffering at the hands of spammers. CAPTCHA support adds the familiar 'type in this word' question to signup, edit and comment forms, to defeat

automated spamming bots. You can turn on CAPTCHA from the global administrative console, and also choose which users will, or will not be subject to the spam check.

Captcha: **ON** | [OFF](#)

Exclusions

By default, captchas are shown to only anonymous users. This streamlines the editing process for trusted, signed in users.

Exclude from captchas:

☒ **No one (everyone will see captchas)**

☐ **Signed in users**

☐ **Members of the following groups**

Save

Plugin Improvements

Each version of Confluence is more customisable than the last. One of the most exciting things to come from our recent [plugin competition](#) was learning just how creative our plugin developers are, and discovering more ways we can help them add features to Confluence.

- [Job Plugins](#) and [Trigger Plugins](#) allow you to schedule periodic tasks to run within Confluence
- [Web UI Plugins](#) allow plugin developers to add new links, buttons and tabs to the Confluence interface, and make it easier for theme developers to stay up to date with changes to the Confluence UI.
- [Code Formatting Plugins](#) allow you to plug support for new languages into the `{code}` macro (or override the existing language support with something better).

We've also made a number of improvements to the plugin system, including:

- Making sure that a single 'rogue' plugin can't bring down the whole plugin subsystem.
- Enabling 'conditional get' for plugin resources, so browsers don't download them again and again.
- Fixing problems that may occur when a servlet or component plugin is reloaded or upgraded. (With many thanks to Dan Hardiker of [Adaptavist](#).)

New atlassian-user Configuration Syntax

As promised, we have cleaned up the configuration file syntax for our atlassian-user user management library. This should make it much easier to configure Confluence to use external user repositories such as LDAP. You can find details of the new configuration file format here: [Add LDAP Integration With Group Management](#)

Improvements

Permissions Changes

In Confluence 2.1 and earlier, permissions that were assigned to Anonymous users were not automatically assigned to logged-in users, leading to the confusing situation where you could view a page when not logged in, but not view it when you were logged in.

In Confluence 2.2 and later, permissions that are assigned to the Anonymous user are also assigned to all logged in users. The sole exception to this rule is the global Use Confluence permission, which must still be explicitly granted to any user who wishes to log in. (This exception is necessary due to licensing restrictions).

Search

With help from Kelvin Tan, we've overhauled much of the underlying infrastructure of Confluence's search engine. Search in Confluence should now be more efficient, and some searches that were problematic before (such as wildcard* searches) now work as you would expect them to.

LDAP Performance

Confluence's performance against external LDAP user repositories should now be significantly faster.

Other

- The General Configuration screen is much better organised
- You can choose a space's initial permissions and theme when you create it
- The left-navigation theme has improved
- Themes may now be packaged with icons that will be displayed in the theme selector (see the screenshot of the "create personal space" screen above for an example)
- Confluence Standalone is now packaged with Tomcat 5.5
- Atom feeds are now generated to the Atom 1.0 standard
- The back-end storage of attachment files has been changed to resolve a number of problems that were caused when the underlying filesystem did not support the character-set of the attachment filename

Important note for MySQL users

For users using MySQL with Confluence 2.2 (or higher), please ensure that you are using the latest (3.1.12) MySQL Java Connector. Earlier versions of the MySQL connector have a bug which is triggered by improvements in Confluence 2.2. These earlier connector versions will result in an error being recorded in your logs on upgrade (and will result in unstable operation of Confluence)

```
ERROR [hibernate.tool.hbm2ddl.SchemaUpdate] execute could not complete schema update
```

You can download the latest MySQL connector from the [MySQL Java Connector 3.1 download page](#). Please be sure that you remove any older versions of the connector from your application server.

The Confluence 2.2 Team

Development and Support 😊

Tom Davies
Jeremy Higgs
David Loeng
Charles Miller
Daniel Ostermeier
Christopher Owen
Matt Ryall
Jens Schumacher

Oversight & ~~Mis-management~~ 😊

Mike Cannon-Brookes
Scott Farquhar

Issues Resolved for 2.2

This page last changed on Apr 27, 2006 by cmiller.

Atlassian JIRA (77 issues)				
T	Key	Summary	Status	Res
	CONF-1470	Add Tomcat HTTPS connector commented out in Standalone	 Resolved	FIXED
	CONF-5351	Upgrade Confluence Standalone to use Tomcat 5.5	 Resolved	FIXED
	CONF-5843	Disable Glue servlet on JRockit	 Resolved	FIXED
	CONF-5209	Review the 2.2 Release Impact document	 Resolved	FIXED
	CONF-5155	move bucket cache manager into its own package	 Resolved	WON'T FIX
	CONF-3725	Plugin Package and Module Configurations	 Closed	FIXED
	CONF-193	Confluence services	 Closed	FIXED
	CONF-3724	Pluggable Menus	 Resolved	FIXED
	CONF-1315	Internationalization	 Resolved	FIXED
	CONF-577	Tie blogs in with user profiles	 Closed	FIXED
	CONF-1080	Personal Space	 Closed	FIXED
	CONF-5477	Add support for localisation of help tips sidebar	 Closed	FIXED
	CONF-6002	Throw an event on user searches	 Closed	FIXED
	CONF-4273	Plugins hooking into the admin UI	 Resolved	FIXED
	CONF-4861	Review the writing/export of files to disk using content IDs, instead of filenames	 Closed	FIXED
	CONF-5057	Allow for manually flushing the Confluence caches.	 Resolved	FIXED
	CONF-5172	Change object id generation to be cluster friendly.	 Resolved	FIXED
	CONF-5470	RSS feeds don't honour page	 Closed	CANNOT REPRODUCE

	CONF-4399	permissions? Make Plugins configurable from the admin interface	 Closed	DUPLICATE
	CONF-5613	Add new plugin events	 Closed	FIXED
	CONF-5834	Clean up General Configuration	 Resolved	FIXED
	CONF-5847	Add authentication to discoverable RSS feeds when user is logged in	 Resolved	FIXED
	CONF-5846	Add feed icon to pages with discoverable RSS	 Closed	FIXED
	CONF-5854	Move Atom feeds to Atom 1.0	 Resolved	FIXED
	CONF-5780	Make /admin/ redirect to /admin/console.action	 Closed	FIXED
	CONF-5739	Create personal spaces via remote API	 Resolved	FIXED
	CONF-5738	Add ability to upload profile photos via the remote API	 Resolved	FIXED
	CONF-5741	Convert space to personal space via Remote API	 Resolved	FIXED
	CONF-5022	Remove EHCACHE specific implementations from Confluence.	 Resolved	FIXED
	CONF-5903	Logged in users should inherit access rights of anonymous users.	 Closed	DUPLICATE
	CONF-5917	Add pluggable formatters to the code macro	 Closed	FIXED
	CONF-5905	Confluence 2.2 - feedback	 Resolved	FIXED
	CONF-5977	Parent Page field in page Edit screen is clearly too small for comfortable editing	 Resolved	FIXED
	CONF-3208	Allow attachments to be stored in the database	 Resolved	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables	 Closed	FIXED

	CONF-4860	sharing the same name as any of Confluence's tables Use an attachment's content ID instead of filename when writing to disk	 Resolved	FIXED
	CONF-2471	Unix backup fails to restore on windows when attachment filenames contain accented characters	 Resolved	FIXED
	CONF-4974	Concurrent modification exception in SimpleDisplayServlet	 Resolved	FIXED
	CONF-5205	Admin license details link hangs	 Resolved	FIXED
	CONF-5214	Searching for multiple user using the user-filter is currently not possible	 Resolved	FIXED
	CONF-3183	Broken Plug-ins are fatal	 Resolved	FIXED
	CONF-5529	User profile attachments are not deleted when the user is removed	 Resolved	FIXED
	CONF-5528	User profile pictures are stored twice in the one upload	 Resolved	FIXED
	CONF-4953	Giving Anonymous Access does not give logged in user permission	 Resolved	FIXED
	CONF-5422	Anonymous access permissions are not inherited - logged in users don't even share anonymous access privileges	 Closed	DUPLICATE
	CONF-5598	Servlet plugins do not disable or uninstall	 Resolved	FIXED
	CONF-3326	Uploading a modified plugin with the same name does not update velocity template	 Closed	FIXED
	CONF-4903	Plugin keys must be lowercase	 Closed	FIXED
	CONF-4478	plugins cannot use capitalization in their	 Closed	FIXED

	CONF-5724	names Create page doesn't use space logo	 Resolved	FIXED
	CONF-5418	Plugin resource servlet does not provide headers necessary for caching	 Resolved	FIXED
	CONF-5868	XML import adds leading newline to CDATA fields	 Resolved	FIXED
	CONF-5116	Non-breaking space html entities showing up in search result page	 Resolved	FIXED
	CONF-2948	Attachments unreliable due to file-names	 Resolved	FIXED
	CONF-5580	Searching by username and fullname fails	 Resolved	FIXED
	CONF-5653	Space import doesn't set mail 'From' address	 Resolved	FIXED
	CONF-5918	Standalone package has apps in the webapp directory	 Resolved	FIXED
	CONF-5912	Xwork actions fail due to being unable to load the class from the plugin	 Resolved	FIXED
	CONF-5943	Livesearch results print out {searchresultwithexcerpt}	 Resolved	FIXED
	CONF-5710	When inserting image onto a page via WYSIWIG Editor -> "Insert/Edit Image" icon, the "ok" and "cancel" buttons are no longer visible when there are too many image attachments	 Resolved	FIXED
	CONF-5526	Favourites (spaces and pages) are lost on site restore	 Closed	FIXED
	CONF-5989	Layout all screwed up on Preview	 Resolved	FIXED
	CONF-5995	Attachments show up as anonymous on dashboard	 Resolved	FIXED
	CONF-6046	Switching between rich text editor and	 Closed	OBSOLETE

	CONF-5951	wiki editor breaks markup Attachment file names can be set to an empty string	 Resolved	FIXED
	CONF-5909	japanese character search input does not send correct query	 Resolved	FIXED
	CONF-5056	Search by "Last Week" and "Last Month" fail in the new year.	 Resolved	FIXED
	CONF-5585	Moving a page should also move children pages	 Resolved	FIXED
	CONF-5915	The Space dropdown in the Move Page box on Edit view is not alphabetical	 Resolved	FIXED
	CONF-5761	Manage groups reports only 100 members per group for LDAP groups	 Resolved	FIXED
	CONF-5754	Accessing an unauthorized download directly returns a "401 Unauthorized" page, rather than "Page Not Found"	 Resolved	FIXED
	CONF-5987	Entering a task with a % in {dynamictasklist} will make the page unusable	 Resolved	OBSOLETE
	CONF-4879	Navigation map macro throws NullPointerException when there are no labels	 Closed	DUPLICATE
	CONF-4777	Login does not redirect to last page location	 Resolved	FIXED
	CONF-3168	Lucene reindexing fails and goes to 100% CPU on multi-processor systems	 Resolved	ANSWERED
	CONF-7025	Add Page with no title gives no error and does not save	 Resolved	FIXED
	CONF-4503	Problems with special characters in	 Closed	FIXED

[file names](#)

Release Notes 2.2.1

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.2.1 is a maintenance release that resolves some issues users may have encountered using Confluence 2.2, including issues related to LDAP user management, i18n, personal spaces and drafts.

2.2.1 is a free upgrade for all customers who purchased their Confluence license after May 18th, 2004.

Who should upgrade?

Confluence is a recommended upgrade for all customers using Confluence with external LDAP user management. All other customers should consult the list of issues resolved, and determine if this release is necessary for their own deployments.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!



Draft Table Upgrade

Upgrading Confluence to 2.2.1 will cause all autosaved 'drafts' to be deleted from the database. Be sure everyone has saved their work before upgrading!



Confluence 2.2.1 and 2.2.1a

The current version available for download is 2.2.1a. 2.2.1 was originally released with an old version of the atlassian-plugins library, which caused the plugin fixes listed below not to be included in the release. Confluence 2.2.1a resolves that problem.



PageChildrenMacro IndexOutOfBoundsException error

Customers who downloaded 2.2.1 or 2.2.1a before the official announcement may encounter an error when using the {children} macro to view the children of other pages in the same space. There is a patch for this issue attached to [CONF-6197](#)

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.1

For a complete list, see: [Issues resolved for 2.2.1](#)

External User Management

- Creating a new user will no longer cause a primary key violation on some Confluence installations. [CONF-6092](#)
- Fixed a regression where authentication against an external LDAP server via the old OSUser integration layer did not function. [CONF-6052](#)
- Fixed a possible ClassCastException on viewing a user's profile. [CONF-6021](#)

Plugins

Note: Due to a scheduling error, these fixes were not included in Confluence 2.2.1, but are in the supplementary 2.2.1a release.

- Component plugins are now correctly unregistered when they are removed. [CONF-4041](#)
- Plugins may now contain and reference dependent jar files. Thanks to Dan Hardiker of [Adaptavist](#) for the patch. [PLUG-8](#)
- Installing an older version of an already-installed plugin no longer causes an error. [PLUG-12](#)
- Removing an uploaded plugin no longer causes it to be deactivated the next time it is installed. [PLUG-13](#)

General Stability

- Confluence can now store drafts for spaces with long (>20 character) keys. [CONF-6010](#)
- Attachments stored in MySQL databases will no longer be silently truncated to 64KB. [CONF-6120](#)
- Global language setting is now saved correctly. [CONF-6027](#)
- Missing attachment data no longer causes PDF export to crash. [CONF-6063](#)
- Misleading "attachment missing" errors are no longer logged after a space import. [CONF-6026](#)

Improvements

- A Javascript alert warns users if they have left the CAPTCHA field blank. [CONF-5984](#)
- A link to the logged-in user's personal space is included on every page (from their full name). [CONF-6056](#)
- The {children} macro can now show the children of pages in another space. [CONF-5986](#)

Issues resolved for 2.2.1

This page last changed on May 17, 2006 by cmiller.

Atlassian JIRA (47 issues)				
T	Key	Summary	Status	Res
	CONF-5986	Show children of a page from another space	 Closed	FIXED
	CONF-6056	Link personal spaces from a user's name on the top right hand side	 Resolved	FIXED
	CONF-6096	Don't placeFocus() on edit pages	 Resolved	FIXED
	CONF-5984	Javascript warning if captcha is not filled in	 Closed	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-6018	NullPointerException in recently updated macro for annymous use when profiling is enabled.	 Closed	FIXED
	CONF-6019	Language pack plugin directory not included - no build.xml file	 Resolved	FIXED
	CONF-6024	"No more results" error when running atlassian-user migration JSP	 Closed	FIXED
	CONF-6021	View User Profile throws ClassCastException	 Resolved	FIXED
	CONF-6022	Unique Index Violations	 Closed	DUPLICATE
	CONF-6026	Attachment filename fixer on space import attempts to fix filenames of attachments from other spaces	 Closed	FIXED
	CONF-6027	Global language setting not honoured	 Closed	FIXED

	CONF-5966	uploadspacelogo.action throws exception	 Resolved	FIXED
	CONF-6039	NullPointerException in PermittedPagesScope	 Closed	FIXED
	CONF-6040	ClassCastException when viewing page information	 Closed	FIXED
	CONF-6013	Unable to specify the publishDate of a blog entry using the SOAP API	 Resolved	FIXED
	CONF-6023	Error starting up Confluence 2.2	 Closed	FIXED
	CONF-6025	NullPointerException in HibernateProfileProvider.getPropertySet	 Closed	FIXED
	CONF-6061	Spaces or international characters in usernames causes a 404 page when trying to view the preferences page	 Closed	FIXED
	CONF-6063	PDF export throws error when attachment data is missing	 Resolved	FIXED
	CONF-6075	Cannot create personal space if username contains international characters	 Closed	FIXED
	CONF-5407	Entering a value containing a '\$' dollar sign for a page template variable throws IllegalArgumentException	 Resolved	FIXED
	CONF-6081	'Add comment' link is startlingly close to page body text at times - may confuse some users	 Resolved	FIXED
	CONF-6087	Templates throw error when variables contain certain strings	 Resolved	FIXED
	CONF-6048	Repeating italic and bold markers (_ , *) in the same line makes the view gets confused (display some text as bold,	 Closed	FIXED

	CONF-6107	some as italic, and some marks) Attachments are not included in backup when stored in database	 Resolved	FIXED
	CONF-6065	Duplicated versions in page version history	 Resolved	WON'T FIX
	CONF-6010	Drafts spacekey column length restricted to 20 causing BatchUpdateException	 Resolved	FIXED
	CONF-6110	CLONE -LDAP Authentication via OSUser is broken	 Closed	FIXED
	CONF-6050	System error clicking next on manage users	 Resolved	FIXED
	CONF-6092	Cannot create new user due to primary key violation or unique constraint error	 Closed	FIXED
	CONF-6120	Attachments truncated to 64k in MySQL database storage	 Resolved	FIXED
	CONF-6176	Servlet Plugins don't unload	 Resolved	FIXED
	CONF-4676	Can't disable "Script executing and show flash macro" plugin.	 Resolved	FIXED
	CONF-6197	{children} macro fails with IndexOutOfBoundsException when viewing children of another page in the same space.	 Resolved	FIXED
	CONF-6052	LDAP Authentication via OSUser is broken	 Closed	FIXED
	CONF-4041	Uploaded component plugins aren't unregistered when the plugin is uninstalled	 Resolved	FIXED
	CONF-5283	dynamictasklist tasks cannot be in Japanese (and presumably can't contain any multi-byte	 Closed	FIXED

	CONF-6125	characters) Spaces in Login Name cause the User preferences Link to break.	 Closed	FIXED
	CONF-6123	Invalid user search term throws NPE	 Resolved	FIXED
	CONF-6028	upgrade from 2.1 -> 2.2 fails	 Closed	FIXED
	CONF-6124	Changing the main decorator within a space updates the global main decorator as well	 Closed	FIXED
	CONF-6083	Active directory users cannot login to Confluence after a certain time	 Resolved	FIXED
	CONF-6045	Can not create new users after importing Confluence 2.1.5 full-export into 2.2	 Resolved	DUPLICATE
	CONF-6268	Edit page with code macro displays error instead of code text	 Resolved	FIXED
	CONF-6073	Attachments can be renamed to an already existing attachment name	 Resolved	FIXED
	CONF-6293	'Undefined Pages' shows link tips	 Resolved	FIXED

Release Notes 2.2.10

This page last changed on Nov 30, 2006 by [cmiller](#).

Confluence 2.2.10 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2. 2.2.10 resolves an assortment of issues that were reported by customers.

2.2.10 is a free upgrade for all customers who purchased their Confluence license after November 30th, 2005.

Who should upgrade?

Confluence 2.2.10 is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading.

If you are running Confluence 2.2.8, but do not wish to upgrade to 2.2.10, we strongly recommend installing the patch attached to [CONF-6908](#) to resolve an issue related to re-indexing performance.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x version, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.10

2.2.10 resolves over 40 issues. All these issues are listed below:

Atlassian JIRA (44 issues)				
T	Key	Summary	Status	Res
	CONF-5489	Trackbacks are broken	 Resolved	FIXED
	CONF-7092	Section/Column is broken for fixed-width columns	 Resolved	FIXED
	CONF-6853	Page and Space decorators need a catch all mode for \$context and \$mode	 Resolved	FIXED
	CONF-7387	Possible to create user from XML RPC with null fullname	 Closed	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-7181	The link table can have rows with spurious space keys inserted	 Resolved	FIXED
	CONF-7163	SQL problem with deleting users	 Resolved	FIXED
	CONF-6741	BucketPropertySetItem belonging to deleted page breaks space import	 Resolved	FIXED
	CONF-6913	Images don't export to PDF if capitalization is wrong	 Resolved	FIXED
	CONF-2921	Daily emails list user login names not full names	 Resolved	FIXED
	CONF-6995	Rich text editor inserts images with no space between text and '!'	 Resolved	FIXED
	CONF-7035	Draft form can be submitted with multiple space keys	 Closed	FIXED
	CONF-7038	User with null email address breaks daily report job	 Resolved	FIXED
	CONF-7050	labelString attribute doesn't restrict RSS feeds	 Resolved	FIXED
	CONF-7061	Some digest notification links	 Resolved	FIXED

	CONF-7034	don't include the base URL	 Resolved	FIXED
	CONF-7030	problem with embedding mpeg and mp4 within page contentbylabel macro throws Java errors when used in BLOG or COMMENT objects	 Resolved	FIXED
	CONF-4801	include cancel button for comments	 Resolved	FIXED
	CONF-7134	groupSearchAllDepths and userSearchAllDepths not respected	 Resolved	FIXED
	CONF-7132	Clicking 'add' on the permissions administration screen when there is nothing to add should result in a validation error	 Resolved	FIXED
	CONF-7282	"Create Personal Space" can create Space with NULL name	 Closed	FIXED
	CONF-7305	For comments, first CAPTCHA word fails	 Resolved	FIXED
	CONF-7285	Moving attachment to another page clobbers authors of previous versions	 Resolved	FIXED
	CONF-7322	Jiraissues macro doesn't show icons or timestamps	 Resolved	FIXED
	CONF-7189	Export to PDF & broken {attachment} macro links	 Resolved	FIXED
	CONF-6835	wrong mouse tool tip text	 Resolved	FIXED
	CONF-6936	ConfigureSpaceLogoA affected by attachment size	 Resolved	FIXED
	CONF-6950	Export to PDF using icon=false in templates results in PDF with each word on it's own line	 Resolved	FIXED
	CONF-6969	Favorites listing on Personal Labels page -- paging broken	 Resolved	FIXED
	CONF-6991	Can't link to image	 Resolved	FIXED

		attachments stored on other pages from within comments (but it works in preview of the comment)			
	CONF-7000	Mail sender shows as null in RSS feeds	 Resolved	FIXED	
	CONF-7006	After un-installing plugin notification is incorrect	 Resolved	FIXED	
	CONF-7058	{dynamictasklist} macro: Problem deleting last item	 Resolved	FIXED	
	CONF-7016	Restricting a page to an invalid group shows misleading error	 Resolved	FIXED	
	CONF-7085	Editing lists in tables with WYSIWYG adds extra indent asterisk (*) to list	 Resolved	FIXED	
	CONF-7101	Draft merge failure logging is too verbose	 Resolved	FIXED	
	CONF-6983	Global Statistics Plugin - incorrect SQL statement	 Resolved	FIXED	
	CONF-7145	Pagination of user labels fails when context path is used	 Resolved	FIXED	
	CONF-7249	DefaultMailAccountManagerClosedStore error throws object reference instead of useful toString	 Resolved	FIXED	
	CONF-7178	"Recently Updated" list size on dashboard resets to 10 on each visit to dashboard	 Resolved	FIXED	
	CONF-7270	Update blog post remotely doesn't save history	 Resolved	FIXED	
	CONF-7366	Cancelling create page workflow	 Resolved	FIXED	
	CONF-8272	Confluence - What's This? link near page restrictions note brings up error	 Resolved	FIXED	
	CONF-6833	hardcoded http request in {dynamictasklist} macro	 Resolved	FIXED	

Release Notes 2.2.2

This page last changed on Jun 29, 2006 by david.soul@atlassian.com.

Confluence 2.2.2 is a maintenance release that resolves some issues users may have encountered using Confluence 2.2, including issues related to PDF generation, internationalisation, backup/restore and more.

2.2.2 is a free upgrade for all customers who purchased their Confluence license after May 31st, 2005.

Who should upgrade?

Confluence 2.2.2 resolves [CONF-6237](#), a bug related to the backup and restore of personal spaces. As such it is a recommended upgrade for customers wishing to restore or import data containing personal spaces. Other users should consult the list of resolved issues, and determine if the upgrade is necessary for their installation.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 or 2.2.1, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.2

Over 25 issues were resolved between Confluence 2.2.1 and 2.2.2. For a complete list, see: [Issues resolved for 2.2.2](#)

Backup/Restore

- An issue was resolved that could cause personal spaces to be imported incorrectly from backups. Existing backup files are still valid, the error was only during the re-importing process – [CONF-6237](#)

PDF Export

- PDF exports can now be generated for pages containing non-latin characters. To enable these

- exports you will need to provide Confluence with the correct font – [CONF-1457](#)
- PDF exports created in Confluence are now properly searchable, both in Confluence ([CONF-1360](#)) and in Adobe Acrobat ([CONF-4529](#))

Other

- (UI) Fixed a Javascript error when saving a page with CAPTCHA disabled – [CONF-6221](#)
- (User management) Resolved an error when deleting a non-empty group – [CONF-6082](#)
- (i18n) Resolved issues with hard-coded English text in various places – [CONF-6202](#)
- (i18n) Resolved issues with internationalisation keys showing up in the permissions guide – [CONF-6053](#)

Issues resolved for 2.2.2

This page last changed on Jun 01, 2006 by cmiller.

Atlassian JIRA (26 issues)				
T	Key	Summary	Status	Res
	CONF-5910	Allow support for Japanese license keys in 2.2.1.	 Resolved	FIXED
	CONF-1457	PDF export of unicode pages	 Closed	FIXED
	CONF-6119	Default !embed! rendering to if we can't determine the mime type	 Closed	FIXED
	CONF-1360	Generated PDF is not searchable	 Closed	FIXED
	CONF-6260	Dashboard favourites should link to /label/my:favourite	 Resolved	FIXED
	CONF-6064	Hide PDF export link when viewing historical page version	 Closed	FIXED
	CONF-6203	Missing Linked Pages	 Closed	FIXED
	CONF-6202	More Missing Strings (Notation Guide)	 Closed	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-6118	IllegalStateException when creating a space that already exists	 Closed	CANNOT REPRODUCE
	CONF-6211	Including a slash at the end of the personal space URL does not work.	 Resolved	FIXED
	CONF-6219	Spelling error in "page conflict" messages	 Closed	FIXED
	CONF-6221	Javascript error "captchaTextField has no properties" when saving edits and CAPTCHA is	 Closed	FIXED

	CONF-6132	disabled. Editing a page with the Rich Text Editor breaks picturized links.	 Resolved	FIXED
	CONF-5979	CAPTCHA gets confused when you're editing two pages at once.	 Closed	FIXED
	CONF-6082	Exception when deleting group with members	 Closed	FIXED
	CONF-6116	Single page PDF export fails	 Resolved	NOT A BUG
	CONF-6158	Personal spaces appear on recently updated, even when the personal space is not accessible	 Closed	FIXED
	CONF-6237	Restore loses defaults to "global" in the field "spacetype" in the "space" table	 Closed	FIXED
	CONF-6251	Error thown user email value is not set	 Resolved	FIXED
	CONF-6185	\$item in daily summary mail as author of anonymous comment	 Resolved	FIXED
	CONF-2547	Paths to internal images are incorrect on export.	 Resolved	FIXED
	CONF-5631	SMTP is broken in the stand-alone config	 Closed	FIXED
	CONF-6262	License partner not checked on upgrade	 Closed	FIXED
	CONF-4529	Generated PDFs are not searchable	 Closed	FIXED
	CONF-6053	Permission guide link gives garbage screen	 Resolved	FIXED

Release Notes 2.2.3

This page last changed on Jun 14, 2006 by [cmiller](#).

Confluence 2.2.3 is a maintenance release that resolves some issues users may have encountered using Confluence 2.2, including issues related to LDAP user management, installation, backup/restore and more. This release also includes a patch for a serious security issue regarding global permissions.

2.2.3 is a free upgrade for all customers who purchased their Confluence license after June 8th, 2005.

Who should upgrade?

Confluence 2.2.3 resolves a security bug related to unauthorised modification of global permissions. As such this release is a recommended upgrade for all customers.

For users of older versions of Confluence who do not wish to upgrade, a patch for this issue will be available shortly.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2, 2.2.1 or 2.2.2, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.3

As part of a new process for pushing out bug fix releases more quickly, this release follows just a week after the release of 2.2.2. Six issues were resolved between Confluence 2.2.2 and 2.2.3. For a complete list, see: [Issues resolved for 2.2.3](#)

Global Permissions

- A security problem was identified where unauthorised users could modify global permissions. For more information, including details on how to patch previous Confluence versions, please see [the security advisory](#)

Backup/Restore

- An issue was resolved where attachments were not imported from space exports. Existing backup files are still valid, the error was only during the re-importing process – [CONF-6286](#)

External user management

- Queries to LDAP repositories are now correctly escaped, so user and group names may contain commas – [USER-106](#)

Other

- (UI) Fixed parent link in preview of new page – [CONF-6275](#)
- (authentication) Fixed incorrect redirect from login when base URL contained an extra slash – [CONF-6261](#)
- (installation) Improved error handling during Confluence setup – [CONF-6276](#)

Issues resolved for 2.2.3

This page last changed on Jun 08, 2006 by mryall.

Atlassian JIRA (10 issues)				
T	Key	Summary	Status	Res
	CONF-6286	Importing post-2.2 space export does not correctly import attachments	 Resolved	FIXED
	CONF-6070	sAMAccountName vs display names in confluence LDAP integration	 Closed	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-6558	LDAP queries do not escape special characters correctly	 Resolved	FIXED
	CONF-6276	Setup ignores exceptions thrown by LDAP group manager getGroup()	 Resolved	FIXED
	CONF-6275	Links in preview mode do not work when creating a page	 Resolved	FIXED
	CONF-6261	LoginAction does not generate correct original URL from Referer if base URL ends with a slash	 Resolved	FIXED
	CONF-6288	Welcome text not displayed on homepage	 Closed	FIXED
	CONF-6350	Welcome message resetting to default	 Resolved	DUPLICATE
	CONF-6331	Security problem in permission editing	 Resolved	FIXED

Release Notes 2.2.4

This page last changed on Jun 22, 2006 by [cmiller](#).

Confluence 2.2.4 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2.

2.2.4 is a free upgrade for all customers who purchased their Confluence license after June 22nd, 2005.

Who should upgrade?

Confluence 2.2.4 is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 - 2.2.3, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.4

We are currently trialling a process of more frequent bugfix releases, to make fixes available as soon as possible to those people who want them. 2.2.4 resolves six issues:

See also: [Issues Resolved for 2.2.4](#)

User Interface

- The "Space Admin" tab is no longer displayed to non-administrators. (Even though the tab was visible, non-administrators could still not access any of the administrative functions) [CONF-6385](#)
- Personal spaces are no longer listed in the space picker in the feed builder [CONF-6830](#)
- Attempts to create news items with invalid characters now fail with the correct error message

[CONF-6358](#)

Performance

- The velocity manager is no longer loaded twice, saving memory. [CONF-6355](#)
- The velocity cache now expires templates that have not been recently used, potentially saving memory. [CONF-6339](#)

Developer API

- Putting pages into, and removing them from the trash now trigger the correct events within Confluence [CONF-6353](#)

Issues Resolved for 2.2.4

This page last changed on Jun 22, 2006 by [cmiller](#).

Atlassian JIRA (9 issues)				
T	Key	Summary	Status	Res
	CONF-6353	Add trashed and restore events for pages and news	 Closed	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-6355	Wasting memory - Velocity is loaded twice	 Closed	FIXED
	CONF-6380	Personal spaces appear in space picker (feed builder)	 Closed	FIXED
	CONF-6385	Space admin tab is visible to non-space admins	 Resolved	FIXED
	CONF-6358	Error creating news	 Resolved	FIXED
	CONF-6339	Velocity cache never gets cleared	 Resolved	FIXED
	CONF-6449	No email address in LDAP causes page editing/movement to fail if user is watching	 Resolved	FIXED
	CONF-6879	An error occurs when creating an RSS Feed.	 Resolved	FIXED

Release Notes 2.2.5

This page last changed on Jun 29, 2006 by dhardiker@adaptavist.com.



Release notes are to follow ...

Issues Resolved

Atlassian JIRA (19 issues)										
T	Key	Summary	Assignee	Reporter	Pr	Status	Res	Created	Updated	Due
	CONF-6859	Removing permission to upload attachments still leaves ability to upload attachments from the Page Editor Area.	Don Brown	Brendan Patterson		Closed	DUPLICATE	Aug 24, 2006	Sep 07, 2006	
	CONF-6485	Exception when attaching new image in rich text editor insert image popup	Dave Loeng	Matt Ryall		Resolved	FIXED	Jun 30, 2006	Sep 07, 2006	
	CONF-6423	Merge algorithm reliably destroys Umlauts	Unassigned	Thomas Wana		Resolved	FIXED	Jun 22, 2006	Jun 27, 2006	
	CONF-6419	Base URL derived from request includes unnecessary port 443	Unassigned	Matt Ryall		Resolved	FIXED	Jun 22, 2006	Jun 22, 2006	
	CONF-6410	Reportlet URL munging doesn't work	Unassigned	Matt Ryall		Resolved	FIXED	Jun 21, 2006	Jun 21, 2006	

	properly for links with single quotes	Unassigned	Tom Davies		 Closed	FIXED	Jun 20, 2006	Jun 21, 2006
	CONF-64041-Excluded mail count_no longer works	Unassigned	Charles Miller		 Closed	FIXED	Jun 18, 2006	Jul 24, 2006
	CONF-63892-Make more indexing language options available in General Configuration	Unassigned	Meeraj Jhanji		 Closed	FIXED	Jun 18, 2006	Jun 22, 2006
	CONF-63794-Search for Japanese strings should not include partial matches	Matt Ryall	Mike Cannon-Brookes		 Resolved	FIXED	Jun 05, 2006	Jun 22, 2006
	CONF-63044-Add Attachment link shows without permission	Unassigned	Chris Schumacher		 Resolved	FIXED	May 23, 2006	Jul 20, 2006
	CONF-62723-Global custom color scheme is not used by spaces	Unassigned	Chris Schumacher		 Resolved	FIXED	May 23, 2006	Jul 20, 2006
	CONF-61894-Trying to navigate past the 10th page in Manager Users throws an exception	Unassigned	Chris Schumacher		 Closed	FIXED	May 17, 2006	Jun 27, 2006
	CONF-61700-Delete Icon (trash)	Unassigned	Moam Field		 Resolved	FIXED	May 16, 2006	Sep 06, 2006

	can) functionality not immediately obvious to end users							
	CONF-6148 System error viewing drafts	Unassigned	Bob Swift		 Resolved	FIXED	May 12, 2006	Jul 11, 2006
	CONF-5848 Log-post + label that doesn't exist results in all news shown	Unassigned	Agnes Ro Paul Pavlidis		 Resolved	FIXED	Apr 03, 2006	Jul 05, 2006
	CONF-5437 Text + like this+ should use the sematic <ins> rather than <u>	Unassigned	Matt Ryall		 Closed	WON'T FIX	Feb 07, 2006	Jun 25, 2006
	CONF-4434 MAP/Exchange support in mail archive	Unassigned	Robert Christenson		 Closed	FIXED	Oct 27, 2005	Nov 16, 2006
	CONF-3905 Support accessing the POP account via SSL	Unassigned	Daniel Ostermeier		 Closed	FIXED	Sep 01, 2005	Jul 10, 2006
	CONF-3613 Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as	Unassigned	Dave Loeng		 Closed	FIXED	Jul 21, 2005	Jan 11, 2007

	any of Confluence's tables CONF-2258 enable IMAPS and POPS	Unassigned	Mike Cannon-Brookes		 Closed	FIXED	Nov 25, 2004	Nov 16, 2006

Release Notes 2.2.6a

This page last changed on Jul 13, 2006 by dhardiker@adaptavist.com.

Confluence 2.2.6a is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2.

2.2.6a is a free upgrade for all customers who purchased their Confluence license after June 22nd, 2005.

Who should upgrade?

Confluence 2.2.6a is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading. Customers running Confluence 2.2.5 should upgrade, as 2.2.6a fixes a security problem which could allow an unauthorised user to modify space mail box configuration. Only version 2.2.5 is affected by this vulnerability. Customers running 2.2.5 who don't wish to upgrade can follow [these instructions](#) to patch the vulnerability.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 - 2.2.3, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.6a

We are currently trialling a process of more frequent bugfix releases, to make fixes available as soon as possible to those people who want them. 2.2.6a resolves 20 issues.

A few of the issues are noted below, see [Issues Resolved for 2.2.6a](#) for a complete list.

User Interface

- The rich text editor allows underlining to be removed, and lists in tables are better behaved.

[CONF-6450](#), [CONF-6508](#)

- Users with capital letters in their names can watch pages and spaces. [CONF-6489](#)

LDAP

- LDAP users can be removed from local Confluence groups. [CONF-6131](#)
- The 'Change Password' link is no longer shown when LDAP is enabled. [CONF-6360](#)

Performance

- Indexing performance has been improved. [CONF-6465](#)

2.2.5 Security Patch

This page last changed on Jul 12, 2006 by tom@atlassian.com.

This patch fixes a minor security vulnerability regarding the administration of space mail accounts. It affects only Confluence 2.2.5.

To install this patch please download the three files attached to this page, stop Confluence and copy them to your WEB-INF/classes/com/atlassian/confluence/mail/actions directory, where they will replace the existing files. Then start Confluence.

	Name	Size	Creator	Date	Comment	
	RemoveMailAccountAction.class	1 kb	Tom Davies	Jul 12, 2006		Edit Remove
	EditMailAccountAction.class	6 kb	Tom Davies	Jul 12, 2006		Edit Remove
	AddMailAccountAction.class	5 kb	Tom Davies	Jul 12, 2006		Edit Remove

Issues Resolved for 2.2.6a

This page last changed on Jul 12, 2006 by tom@atlassian.com.

Atlassian JIRA (26 issues)				
T	Key	Summary	Status	Res
	CONF-6493	Invalid keyword or missing delimiter error	 Closed	FIXED
	CONF-5548	Concurrent use of inner groups and group based on LDAP (based on AtlassianUser)	 Closed	FIXED
	CONF-6200	Please allow editing of links and email addresses included in the ConfluenceActionSupport.properties file	 Resolved	FIXED
	CONF-6562	Increase the number of groups shown on the Manage Groups screen	 Resolved	FIXED
	CONF-3034	Confluence renderer should render markup within words (w o r d s)	 Resolved	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-4721	Image and link insertion dialogs are fixed size and don't scroll	 Resolved	FIXED
	CONF-6519	google maps plugin fails in IE	 Closed	FIXED
	CONF-6563	Referrers not showing on info page, even when referrers turned on	 Resolved	FIXED
	CONF-6489	User is not marked as watching a page or space if their username contains capital letters	 Closed	FIXED
	CONF-6515	plugin manager	 Closed	FIXED

	CONF-6518	should ignore/log unknown module types Space list macro does not update user interface state when requested tab is not available	 Resolved	FIXED
	CONF-6497	BeanInfo introspection cache not being cleared on webapp shutdown.	 Resolved	FIXED
	CONF-6499	Site Homepage Default incorrectly set	 Closed	FIXED
	CONF-6292	Cannot login when a user belongs to more than 100 groups	 Resolved	FIXED
	CONF-6450	Unable to remove underlining via the Rich text editor.	 Closed	FIXED
	CONF-6465	Major reindexing performance regression	 Resolved	FIXED
	CONF-6475	Confluence should upgrade to the latest version of the CombinedCachingServlet once JRA-10504 has been resolved	 Resolved	FIXED
	CONF-6473	Redirect to default homepage of a space after signup	 Closed	FIXED
	CONF-6476	Decimal Number Format in General Config cannot be updated	 Resolved	FIXED
	CONF-6131	Cannot remove LDAP user from local confluence group	 Resolved	FIXED
	CONF-6508	WYSIWYG Editor problem when editing bulleted list within a table cell	 Resolved	FIXED
	CONF-5333	Export to Word doesn't work with Japanese	 Resolved	FIXED
	CONF-6616	attachment Error in Linking Window using Insert/Edit Link button while edit page	 Closed	FIXED
	CONF-6709	Character is not shown...	 Resolved	DUPLICATE



[CONF-7093](#)

[EmbeddedRenderer
incorrectly](#)



Resolved

FIXED

Release Notes 2.2.7

This page last changed on Jul 28, 2006 by christopher.owen@atlassian.com.

Confluence 2.2.7 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2.

2.2.7 is a free upgrade for all customers who purchased their Confluence license after July 28th, 2005.

Who should upgrade?

Confluence 2.2.7 is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 - 2.2.3, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.7

We are currently trialling a process of more frequent bugfix releases, to make fixes available as soon as possible to those people who want them. 2.2.7 resolves 23 issues.

A few of the issues are noted below, see [Issues Resolved for 2.2.7](#) for a complete list.

Task List Macro

- Tasks with the same name in different lists are now distinguished. [CONF-5809](#)

User Management

- The manage groups page can now display an unlimited number of groups. [CONF-6458](#)
- Users that belong to more than 100 groups are now always able to login. [CONF-6292](#)

PDF Export

- Exporting pages to PDF which include other pages will now have correct links and not lose images. [CONF-1155](#)

Internationalisation

- Tree view of page hierarchy will not be truncated when using multi-byte character sets. [CONF-5872](#)

Issues Resolved for 2.2.7

This page last changed on Jul 28, 2006 by christopher.owen@atlassian.com.

Atlassian JIRA (23 issues)				
T	Key	Summary	Status	Res
	CONF-6458	MAX_GROUP in EditUserGroupsAction Class is bad	 Resolved	FIXED
	CONF-5809	Tasks with same name in different lists aren't distinguished	 Resolved	FIXED
	CONF-6610	The personal / favourite labels paging actions are broken (or missing)	 Resolved	FIXED
	CONF-5815	Jiraissues mappings don't support status with umlaut (internationalised text)	 Resolved	FIXED
	CONF-6580	Curly-brace tags with nothing between them get mangled when switching to WYSIWYG editing.	 Closed	FIXED
	CONF-6573	group names should be URL-encoded when used in links...	 Closed	FIXED
	CONF-6365	Postgres error in alphabetical page views on confluence.atlassian.com	 Resolved	FIXED
	CONF-6598	Empty profiles in search results repeat the previous search excerpt	 Resolved	FIXED
	CONF-6601	German Umlauts in page titles	 Resolved	FIXED
	CONF-6607	DB2 error when BLOB data too large (Confluence page)	 Closed	FIXED
	CONF-6596	Posting comments with new images fails silently without permission to upload files	 Resolved	FIXED
	CONF-6632	Display labels in search results	 Closed	FIXED
	CONF-6615	Plus (+) in page	 Resolved	FIXED

	CONF-5872	name is stripped In Tree View of List Pages, page name is not displayed when we use Korean characters.	 Resolved	FIXED
	CONF-6650	Attachments Tab in Browse Space only displays first 100 attachments to a space	 Resolved	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-7093	EmbeddedRenderer incorrectly	 Resolved	FIXED
	CONF-6569	Users with view page permission but not edit page permission can remove view page restriction of a page	 Closed	FIXED
	CONF-6590	Max attachment size affects uploadplugin.action	 Closed	FIXED
	CONF-6641	Edit Space Permissions footer layout broken	 Resolved	FIXED
	CONF-6644	Page renaming should only trigger minor edits in referring pages	 Resolved	FIXED
	CONF-6031	Following the "Include these Matches" link in a Site Search displays a page which includes "Searched for blah in \$inSpace"	 Resolved	FIXED
	CONF-6599	Blog/news posts should show labels	 Resolved	FIXED

Release Notes 2.2.8

This page last changed on Sep 04, 2006 by tom@atlassian.com.

Confluence 2.2.8 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2.



Confluence 2.2.8 has slower indexing than previous versions. There is a fix for that regression here: [CONF-6908](#)

2.2.8 is a free upgrade for all customers who purchased their Confluence license after August 8th, 2005.

Who should upgrade?

Confluence 2.2.8 is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 - 2.2.3, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.8

We are currently trialling a process of more frequent bugfix releases, to make fixes available as soon as possible to those people who want them. 2.2.8 resolves 22 issues.

A few of the issues are noted below, see [Issues Resolved for 2.2.8](#) for a complete list.

- Exporting a space as HTML now creates an index page which includes all the pages in the export. [CONF-6670](#)
- Timeouts can be set for HTTP requests made from Confluence to RSS feeds and JIRA instances.

[CONF-6697](#)

- RSS Autodiscovery works in Safari. [CONF-4607](#)
- When a group is deleted, space permissions for the group are now correctly removed. [CONF-6733](#)
- Change default background colour from grey to white. [CONF-6733](#)
- Non-breaking spaces are handled correctly when indexing. [CONF-6685](#)
- Rich text editor respects leading spaces in noformat macro. [CONF-6527](#)

Issues Resolved for 2.2.8

This page last changed on Aug 08, 2006 by tom@atlassian.com.

Atlassian JIRA (25 issues)				
T	Key	Summary	Status	Res
	CONF-6689	Broken link in View License Page	 Resolved	FIXED
	CONF-6697	Allow configuration of timeouts for any http request made by Confluence	 Resolved	FIXED
	CONF-6733	Error when editing permissions for a space	 Resolved	FIXED
	CONF-6527	Rich text editor loses leading spaces in first line after 'noformat' tag.	 Resolved	FIXED
	CONF-4607	RSS Autodiscovery doesn't show up on Safari RSS	 Resolved	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-6668	Contact administrators page broken \$getText("no.admins") instead of message appears	 Resolved	FIXED
	CONF-6685	Index Tokenizer should treat '&nbsp;' as space	 Resolved	FIXED
	CONF-6686	User not redirected to restricted page they were trying to view	 Closed	FIXED
	CONF-6690	Blog calendar for July 2006 doesn't show enough rows	 Resolved	FIXED
	CONF-6699	Improve 'Too many users' message on License page	 Closed	FIXED
	CONF-6694	RSS feed macro doesn't show date/time on its	 Resolved	FIXED

	CONF-6701	items while its help menu show them. Quotes around image parameters produce invalid HTML	 Resolved	FIXED
	CONF-6700	Javascript errors on global permissions and space permissions pages	 Resolved	FIXED
	CONF-6740	LDAP user with CN equal to user name hides following group members in group display	 Closed	FIXED
	CONF-6741	BucketPropertySetItem belonging to deleted page breaks space import	 Resolved	FIXED
	CONF-6731	Dashes in links incorrectly rendered	 Resolved	FIXED
	CONF-6675	Deadlock during user creation	 Resolved	FIXED
	CONF-7093	EmbeddedRenderer incorrectly	 Resolved	FIXED
	CONF-6776	Viewing LDAP groups in Manage Groups	 Closed	FIXED
	CONF-6727	Site has grey background	 Closed	FIXED
	CONF-6122	When turning on atlassian-user logging Passwords get logged in plaintext	 Resolved	FIXED
	CONF-6649	When moving an entire tree of pages to another space, links with different case than linked pages have old space's name prefixed to them	 Resolved	FIXED
	CONF-6730	Breadcrumb wrapping disrupts left navigation layout in small windows	 Resolved	FIXED
	CONF-7054	Use of Draft results in Configuration Exception - "There is no Action mapped for namespace /pages and action name edit\$parameters.draftType"	 Resolved	FIXED

Release Notes 2.2.9

This page last changed on Sep 14, 2006 by david.soul@atlassian.com.

Confluence 2.2.9 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.2. 2.2.9 resolves an indexing performance regression introduced in 2.2.8, and includes fixes for external user management, and MaxDB and Sybase compatibility.

2.2.8 is a free upgrade for all customers who purchased their Confluence license after September 9th, 2005.

Who should upgrade?

Confluence 2.2.9 is a minor bugfix release. Customers should consult the list of issues resolved in this release to determine if it is worth their while upgrading.

If you are running Confluence 2.2.8, but do not wish to upgrade to 2.2.9, we strongly recommend installing the patch attached to [CONF-6908](#) instead to resolve an issue related to re-indexing performance.

Customers still running Confluence 2.2.2 or earlier are recommended to upgrade, as a significant security vulnerability was resolved in Confluence 2.2.3

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from Confluence 2.2 - 2.2.3, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

If you are upgrading from Confluence 2.1.5 or earlier, please check the release-notes of the other major Confluence releases:

- [Release Notes 2.2](#)
- [Release Notes 2.1](#)
- [Release Notes 2.0](#)
- [Release Notes 1.4](#)
- [Release Notes 1.3](#)
- [Release Notes 1.2](#)
- [Release Notes 1.1](#)

Changes in 2.2.9

2.2.8 resolves approximately 25 issues. See [Issues Resolved for 2.2.9](#) for a complete list. A few of the issues are noted below.

External user management:

- LDAP users are no longer given the option to change their passwords in Confluence – [CONF-6144](#)
- External users belonging to more than 100 groups can log in successfully – [CONF-6292](#)
- External users can be removed from local groups – [CONF-6832](#)

Database Compatibility

- 'Review restricted pages' report now succeeds on MaxDB – [CONF-6849](#)
- Fixed Sybase error when removing a space – [CONF-6715](#)

Indexing

- A re-indexing performance regression introduced in 2.2.8 has been resolved – [CONF-6908](#)
- Advanced search queries for specific index fields now work as expected – [CONF-6714](#)
- Errors in text extractors no longer cause index queue flushing to fail – [CONF-6857](#)

Issues Resolved for 2.2.9

This page last changed on Sep 11, 2006 by [cmiller](#).

Atlassian JIRA (25 issues)				
T	Key	Summary	Status	Res
	CONF-6773	Improve validation of character encoding	 Resolved	FIXED
	CONF-6820	Reindexing fails if temp directory doesn't exist	 Closed	FIXED
	CONF-6908	Rebuilding index gets progressively slower or fails	 Resolved	FIXED
	CONF-5852	Can't select a page as a link via the search	 Resolved	FIXED
	CONF-5869	Search result paging is broken for 'Add Link' dialog in Rich Text editor	 Resolved	FIXED
	CONF-6881	Possible deadlock in DefaultDraftManager	 Resolved	FIXED
	CONF-6292	Cannot login when a user belongs to more than 100 groups	 Resolved	FIXED
	CONF-6144	Change password screen should be disabled for LDAP users (or read only users)	 Resolved	FIXED
	CONF-6889	Changing permissions on the page changes last modifier	 Resolved	FIXED
	CONF-6844	Cannot resume editing of news posts	 Resolved	FIXED
	CONF-6874	Content author without matching user record throws NullPointerException in DefaultFeedBuilder	 Resolved	FIXED
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED

	CONF-6496	Null Pointer Exception when uploading images	 Closed	FIXED
	CONF-6921	Velocity macro not expanded	 Resolved	FIXED
	CONF-6914	Catch the zip-too-large-for-VM error and explain it	 Resolved	FIXED
	CONF-6741	BucketPropertySetItem belonging to deleted page breaks space import	 Resolved	FIXED
	CONF-6783	BODYCONTENT clob column creation fails in DB2	 Resolved	FIXED
	CONF-6695	RSS feed for non-existing space throws exceptions	 Resolved	FIXED
	CONF-6832	Cannot remove LDAP user from local confluence group	 Resolved	FIXED
	CONF-6715	Sybase error when removing space	 Resolved	FIXED
	CONF-6714	Confluence Lucence Search Terms broken	 Closed	FIXED
	CONF-6963	Cannot start Confluence after configuring LDAPDynamicGroupAdaptor	 Resolved	FIXED
	CONF-7093	EmbeddedRenderer incorrectly	 Resolved	FIXED
	CONF-6717	Column widths specified without % render as pixel length in IE but percent in Firefox	 Resolved	FIXED
	CONF-6779	Blog navigation calendar malfunctions on date with more than one post	 Resolved	FIXED

Release Notes 2.3

This page last changed on Apr 19, 2007 by ivan@atlassian.com.

After [much hard toil from the Confluence developers](#) we are happy, nay ecstatic, to announce the availability of Confluence 2.3 (known affectionately as [Snowy](#)). Snowy is the eighth major update to Confluence. It supports clustered deployment as '[Confluence Massive](#)', and introduces a people directory, activity statistics plugin, personal timezone preferences, and the ability to access Confluence via the Metaweblog and WebDAV APIs.

Confluence 2.3 is a free upgrade for any customer who purchased Confluence after January 4th, 2006.

Upgrading from Confluence 2.2.x

Upgrading Confluence should be fairly straightforward: you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Installation Notes



Known Issues and Patches

Please read the [Known Issues and Patches](#) section of the release-notes before installing Confluence 2.3.

These issues were resolved with a new maintenance release of [Confluence 2.3.1](#)

Contents

1. [New Features](#)
2. [Improvements](#)

See also: [Issues Resolved for 2.3](#)

New Features

Confluence Massive

Confluence is now a clusterable application. This means that it is possible to run multiple Confluence servers behind a load-balancer, to provide high availability, and to scale Confluence beyond the capacity of a single server.

Confluence Massive uses [Tangosol Coherence](#) to share data between nodes (and many other things

besides).

If you are thinking of running Confluence in a cluster, and need to know what is required and how it works, you can read [Clustering in Confluence](#).

You can find instructions for installing a Confluence cluster here: [Confluence cluster installation](#).



Cluster Licensing

Confluence Massive clustering is only enabled if you have a clustered licence. For information on purchasing clustered Confluence licences, please check our [pricing page](#), or contact [our friendly sales team](#).

The People Directory

In version 2.2 ([Shoalhaven](#)), we added personal spaces to Confluence. Because of the potential for the proliferation of personal spaces we kept them off the Dashboard and search results by default, but this made it quite hard to find people in a Confluence site.

The screenshot shows the 'People Directory' page in Confluence. At the top right, there is a navigation bar with links: 'Welcome Charles Miller | History | Preferences | Administration |'. The main heading is 'People Directory'. Below it is a section 'Favourite People' which lists three users: Agnes Ro, Anton Mazkovoï, and Ben Naftzger, each with a profile picture, a star icon, and icons for email and personal space. Below this is a search bar with a dropdown menu set to 'Show: All People | People with Personal Spaces'. The search bar contains a search input field and a 'Search' button. Below the search bar is a grid of user profiles. Each profile includes a profile picture, the user's name, and icons for star, email, and personal space. The profiles shown are: Adrian Makohon, Agnes Ro, Alyce Tinyow, Andreas Knecht, Anthony Rethans, Anton Mazkovoï, Ben Kuo, Ben Naftzger, and Brendan Patterson.

The [People Directory](#), which you can find linked from the bottom of the Dashboard, gives you a way to browse through the other people who use a Confluence instance, their profiles and personal spaces.

If you find people whose personal spaces you want to follow, you can mark them as favourites from the people directory. This will add their personal spaces to your 'My' tab on the Dashboard, and will also make sure they're included when you search or make RSS feeds from your favourite spaces.

Spaces: **My** **Team** **All**

Agnes' Space (~agnes@atlassian.com)			
Anton's space (~anton)			
Atlassian Foundation (FOUNDATION)			
Atlassian Intranet (ATLINT)			
Atlassian University (ATLUNI)			
Bamboo (BAMBOO)			

Activity Tracking

The [activity plugin](#) lets you know what's happening in Confluence: how many pages are being visited or edited in each space or across the whole site, which spaces or pages are the busiest, who are the most prolific editors.



You can view activity statistics for a space in Browse Space, or globally from the administration console.

The plugin also provides macros that allow you to embed usage data into a Confluence page: {usage}, {popular} and {topusers}.

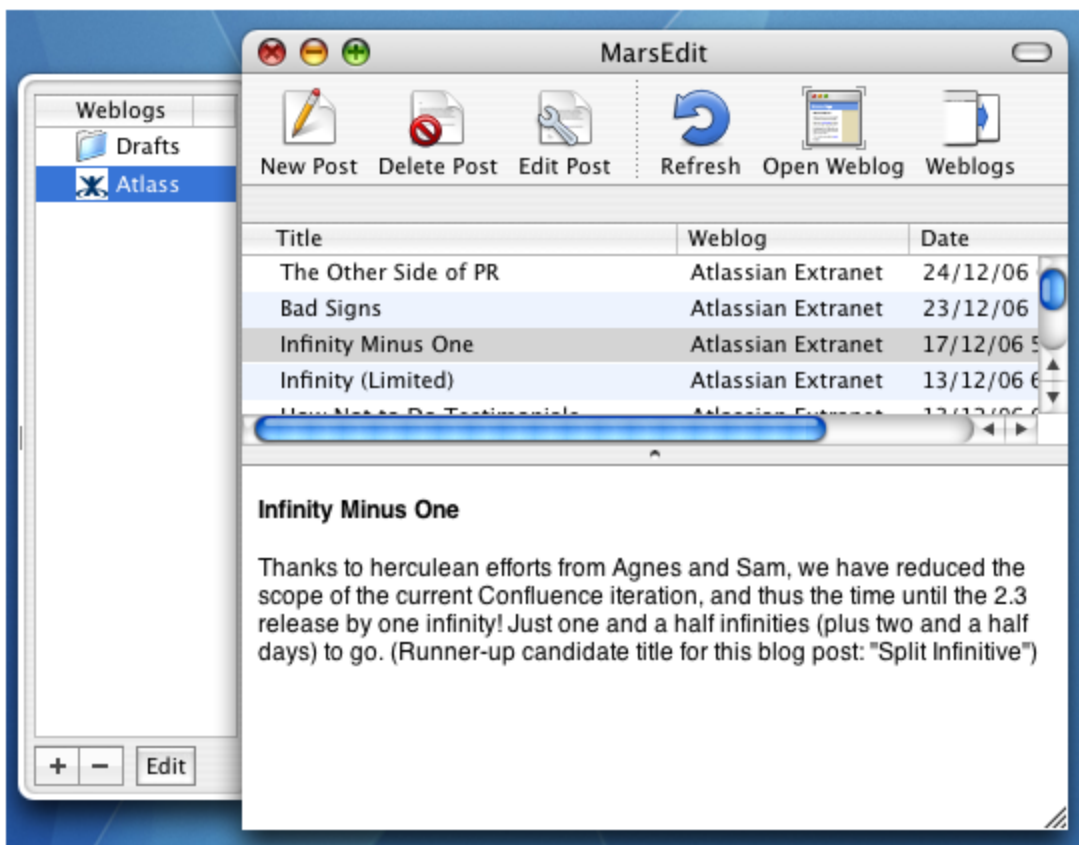
Most popular content (Views)

1.  [Confluence Documentation Home](#) (2262)
2.  [Set JAVA_HOME variable in Windows](#) (1180)
3.  [Confluence Installation Guide](#) (687)
4.  [Remote API Specification](#) (467)
5.  [User Macros](#) (436)
6.  [Installing Confluence Standalone](#) (385)
7.  [JIRA Issues Macro](#) (370)
8.  [Administrators Guide](#) (353)
9.  [Dynamic Tasklist Macro](#) (335)
10.  [Frequently Asked Questions](#) (320)

 Activity tracking does not work in a cluster, and will be disabled for clustered deployments. We're working on making the activity tracker clusterable in a future release. You can follow this issue in JIRA: [CONF-7520](#)

Blogger and MetaWeblog API Support

Confluence 2.3 bundles the [Blogging RPC Plugin](#). This allows users to manage their News in Confluence using one of the many available blogger-compatible desktop clients.

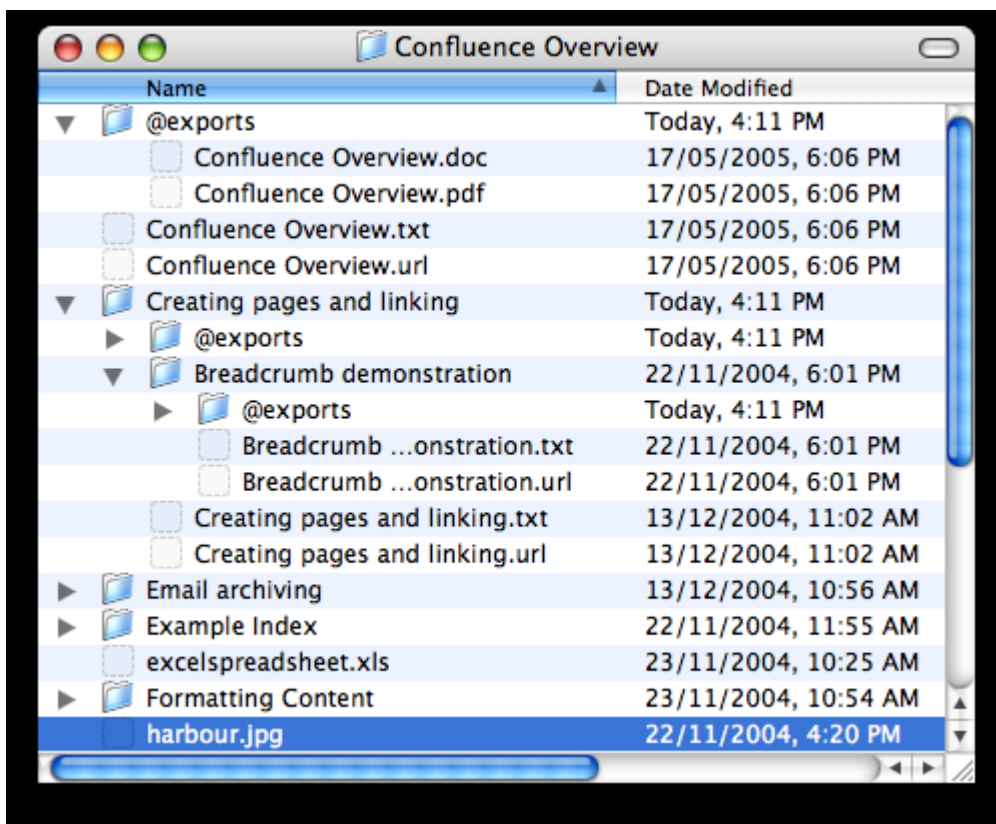


You can read more about this plugin, including instructions for setting up various blogging clients for use with Confluence, on [the plugin information page](#).

WebDAV Client Support

The Confluence WebDAV plugin allows users to mount Confluence as a shared drive, using the WebDAV protocol.

This provides a familiar interface for anyone who uses Confluence as a repository for files: you can browse your wiki straight from Windows Explorer or the Mac Finder; view Word or PDF versions of pages; upload attachments and edit attachments in place; create, edit and move pages.



For more information on the WebDAV plugin, check out: [WebDAV Plugin](#)

WebDAV is supported natively in Windows XP (as "Web Folders") and Mac OS X, although there are third-party clients that may provide different functionality or compatibility. We have a [compatibility matrix](#) if you're interested.



Experimental

WebDAV client support is currently [experimental](#), and is disabled by default. You can turn it on from the Plugin management page in the global administration console.

Improvements

Plugins

- Adaptivist's fantastic [Plugin Repository Client](#) is bundled with Confluence.
- [User Macro Plugins](#) allow you to share user macros more easily.
- [Lifecycle Plugins](#) allow you to hook into Confluence startup and shutdown.
- Events are now produced when themes are applied, or colour-schemes modified.
- Confluence now ships with 'bundled' plugins that are installed when Confluence is installed, but are not hard-coded into the application (so they can be upgraded without upgrading Confluence).
- Plugin resources now set Last-Modified and ETag headers properly, so they can be conditionally retrieved by browsers.
- Confluence is now built entirely using Maven 2. More on this soon.

Other Changes

- Users can now [choose](#) to have dates and times displayed in their own timezone instead of the server's - [CONF-1026](#).
- Most Confluence configuration data has been moved from the filesystem into the database.
- The [Clickr Theme](#) is bundled with Confluence.
- HTML exports are more reliable for sites with non-ASCII page titles - [CONF-4862](#).
- You can now get users from multiple LDAP repositories at the same time (or different search paths in the same LDAP repository) - [CONF-6034](#).
- [Shortcut links](#) can now have the substitution string in the middle of the URL ([CONF-3246](#)), and have custom display text and titles ([CONF-514](#)).
- User macros are more flexible: you can configure how macro bodies are pre-rendered ([CONF-2293](#)), and you can also specify that a user macro generates wiki markup instead of HTML ([CONF-3780](#)).
- Pages with large numbers of attached images no longer eat up too many database connections - [CONF-6393](#).
- When creating an RSS feed with the [feed builder](#), you can choose whether to see full content, diffs, or both - [CONF-6321](#).
- Searches now default to AND rather than OR for combining search terms - [CONF-5874](#).
- The login page no longer prompts you to log in when you're already logged in. - [CONF-6843](#).
- Support for the Nintendo Wii.
- Various improvements to performance that should result in a faster display of pages, and fewer problems for servers with large numbers of space permissions.
- Many static resources in Confluence are cached more effectively, so browsers have to retrieve CSS and Javascript files significantly less often - [CONF-7212](#).

Known Issues and Patches

- Confluence 2.3 was originally accidentally shipped with three testing-only language packs. Since Sunday January 14th, the language packs have been removed from the distribution, but if you downloaded Confluence before that date they will be present. These language packs are machine translations, and are not intended for use on production systems (unless you're a native German speaker and really want a good laugh). If you downloaded an affected copy of Confluence and want to remove these packs, delete `de_DE-1.0.jar`, `ja_JP-1.0.jar` and `ru_RU-1.0.jar` from `confluence/WEB-INF/lib`.
- You need to apply this patch to enable LDAP user integration : [CONF-7585](#)
- If you have problems restoring backups please apply the patch included in this issue: [CONF-7584](#)
- Due to class name changes, if you're upgrading from an existing system running:
 1. MySQL - you need to edit `confluence.home/confluence.cfg.xml` and replace

bucket.dialect.MySQLDialect with **com.atlassian.hibernate.dialect.MySQLDialect**. More information in this issue: [CONF-7579](#)

2. DB2 - you need to edit `confluence.home/confluence.cfg.xml` and replace **bucket.dialect.DB2Dialect** with **com.atlassian.hibernate.dialect.DB2Dialect**. More information in this issue: [CONF-7690](#)

- Log file `atlassian-confluence.log` is not presently generated. Please see these [instructions](#) for enabling it.

The Confluence 2.3 Team

Development Tom Davies Samuel Le Berrigaud David Loeng Charles Miller Christopher Owen Agnes Ro Matt Ryall Jens Schumacher Don Willis	Maven Mavens Michael Mekaail Tony Truong Oversight & Mis management Mike Cannon-Brookes Scott Farquhar

And one was there, a stripling on a small and weedy beast,
He was something like a racehorse undersized,
With a touch of Timor pony — three parts thoroughbred at least —
And such as are by mountain horsemen prized.
He was hard and tough and wiry — just the sort that won't say die —
There was courage in his quick impatient tread;
And he bore the badge of gameness in his bright and fiery eye,
And the proud and lofty carriage of his head.

- The Man from Snowy River, A. B. 'Banjo' Paterson

FileAppender log4j.properties

This page last changed on Jan 22, 2007 by ivan@atlassian.com.

The 2.3 log4j.properties file doesn't specify a file for the FileAppender (because the necessary lines haven't been uncommented). Hence the log files normally generated via the file appender, logs/atlassian-confluence.log, is presently missing?

If you experience this situation and see errors in the logs such as:

```
log4j:WARN File option not set for appender [confluencelog].
log4j:WARN Are you using FileAppender instead of ConsoleAppender?
log4j:ERROR No output stream or file set for the appender named [confluencelog].
```

- Please uncomment the following lines in the **log4j.properties** file located under confluence/WEB-INF/classes and restart Confluence (ie remove the #'s)

```
#log4j.appender.confluencelog.File=${catalina.home}/logs/atlassian-confluence.log
#log4j.appender.confluencelog.MaxFileSize=20480KB
#log4j.appender.confluencelog.MaxBackupIndex=5
```

Relevant resources

[Confluence 2.3 Release Notes](#)

Issues Resolved for 2.3

This page last changed on Dec 28, 2006 by [cmiller](#).

Atlassian JIRA (158 issues)				
T	Key	Summary	Status	Res
	CONF-6106	Document cluster configuration	 Resolved	FIXED
	CONF-6406	Ensure upgrade tasks for decorators are working.	 Closed	FIXED
	CONF-6595	Update CGLIB to 2.0.2	 Resolved	FIXED
	CONF-6035	User and Group caches need to be aware of the repository they are caching for	 Closed	FIXED
	CONF-7488	excerpt-include doesn't work with news pages	 Resolved	FIXED
	CONF-6102	Make upgrade system work properly in a cluster	 Resolved	FIXED
	CONF-6104	Cluster admin screen	 Resolved	FIXED
	CONF-6271	Create new plugin bundling system that will allow for user upgrades	 Resolved	FIXED
	CONF-1540	Centralised blogs page	 Resolved	FIXED
	CONF-1033	Confluence Usage Statistics?	 Resolved	FIXED
	CONF-6321	Allow Feedbuilder to choose to see content, diff, both, or none.	 Resolved	FIXED
	CONF-1554	Make Confluence clusterable	 Closed	FIXED
	CONF-7196	Add events for look and feel changes	 Resolved	FIXED
	CONF-6710	User macro plugin module type	 Resolved	FIXED
	CONF-7083	AccessLogFilter should log remote host	 Resolved	FIXED
	CONF-1026	Display times in user's timezone	 Resolved	FIXED
	CONF-3431	Confluence as a WebDav Server	 Resolved	FIXED
	CONF-4281	Conditional-get for plugin resources	 Resolved	FIXED

	CONF-3780	User macros should be able to call macro plugins and user macros	 Resolved	FIXED
	CONF-847	Error Pages should refer to SITE ADMINISTRATORS	 Resolved	FIXED
	CONF-5354	Left hand menu should remember what's open	 Resolved	FIXED
	CONF-6564	Referral queue holding on to Hibernate sessions	 Resolved	FIXED
	CONF-4862	Use a page's content ID as the filename when exporting as HTML	 Resolved	FIXED
	CONF-7702	Leftnav theme should not add background colours to headers h2 to h4	 Resolved	FIXED
	CONF-6034	Multiple LDAP repositories	 Closed	FIXED
	CONF-6503	Improve and simplify cache statistics page	 Closed	FIXED
	CONF-3337	Allow configuration of default search	 Resolved	DUPLICATE
	CONF-4638	Uploaded plugin classes are inaccessible from other plugins	 Resolved	FIXED
	CONF-3519	Support "Edit attachment via WebDAV"	 Closed	FIXED
	CONF-6100	Add caching to database-backed Bandana	 Resolved	FIXED
	CONF-6103	Move all non-bootstrap configuration out of confluence.cfg.xml	 Resolved	FIXED
	CONF-514	Shortcut Links should have title & display values	 Resolved	FIXED
	CONF-7528	Error page should ask users to contact Confluence administrator	 Resolved	FIXED
	CONF-6323	Add warning to Setup Wizard's "Create Empty Database" when there's existing data	 Resolved	FIXED
	CONF-4565	Add overflow control	 Closed	FIXED

	CONF-6375	to pre and code blocks via CSS Remove usernames from people directory	 Resolved	FIXED
	CONF-6420	Uninstall bad plugins, enforce module load order, enable/disable modules themselves	 Closed	FIXED
	CONF-5874	Search should use AND logic by default	 Resolved	FIXED
	CONF-4955	Confluence users should inherit permissions from the anonymous user	 Resolved	FIXED
	CONF-6319	Make sure Change Comment is shown in RSS view.	 Resolved	FIXED
	CONF-3888	Blog post macro: add support for showing blog posts from multiple spaces.	 Resolved	FIXED
	CONF-6588	css: auto overflow for .preformatted	 Closed	DUPLICATE
	CONF-3613	Problem installing on Oracle schema when other schemas in the same database have one or more tables sharing the same name as any of Confluence's tables	 Closed	FIXED
	CONF-7212	Improve caching of static resources	 Resolved	FIXED
	CONF-7552	typo in RSS feed screen - 'Attachmends' should be 'Attachments'	 Resolved	FIXED
	CONF-6688	Bundle the Confluence Repo Client created by Dan Hardiker to offer a plugin download&install interface	 Resolved	FIXED
	CONF-6726	Move default-formatting.properties from filesystem to database	 Resolved	FIXED
	CONF-6805	Increase Standalone performance with	 Resolved	WON'T FIX

		platform-specific		
		Apache Tomcat		
		Portable Runtime		
		Project library		
	CONF-6968	Add tab for personal spaces to dashboard	 Resolved	FIXED
	CONF-7101	Draft merge failure logging is too verbose	 Resolved	FIXED
	CONF-7097	Rename permission Administrate Confluence to Administer Confluence	 Resolved	FIXED
	CONF-6663	Make the "Visit page outside Confluence" tooltip more user customisable	 Resolved	FIXED
	CONF-7251	Plugins need to link stylesheet manually if space-specific colour scheme is to be used	 Resolved	FIXED
	CONF-3246	Shortcut links, append-only limitation	 Resolved	FIXED
	CONF-6678	Tab from comment writing should go to Post button	 Resolved	FIXED
	CONF-7314	Error page (500page.jsp) should suggest Confluence admin to create support case	 Resolved	FIXED
	CONF-6393	Attachment loading scalability improvement	 Resolved	FIXED
	CONF-3281	HTML export of a space - links on pages always resolve locally, even if the linked page was not exported	 Resolved	FIXED
	CONF-4322	Icons missing in HTML-Export of space	 Resolved	FIXED
	CONF-5556	Can not add groups with commas in the name to space permissions	 Resolved	FIXED
	CONF-7386	LoginFilter does not redirect to absolute destinations correctly	 Resolved	FIXED

	CONF-6517	NullPointerException in AbstractUserProfileAction.getPersonalSpaceKey	 Resolved	FIXED
	CONF-6527	Rich text editor loses leading spaces in first line after 'noformat' tag.	 Resolved	FIXED
	CONF-5496	Rich text link edit dialog has problems with links where the link text is different to the link markup when there is no alias	 Resolved	FIXED
	CONF-7392	Non labelable content inherits labels from previous hit in search results	 Resolved	FIXED
	CONF-7381	CLONE -Export of page which includes other pages loses images	 Resolved	FIXED
	CONF-5781	Certain PNG images in pages cause corrupt PDF exports for pre Java 1.5	 Closed	DUPLICATE
	CONF-1881	Default search behaviour should be "AND" for multi-term search	 Resolved	FIXED
	CONF-7407	System Error: Confluence cannot be started on Vista with Java 6 RC	 Resolved	FIXED
	CONF-7408	Personal spaces listed under "global spaces" in search space drop-down	 Closed	FIXED
	CONF-5930	Restore a backup from the filesystem: bucket.core.InfrastructureException: java.lang.OutOfMemoryError	 Resolved	FIXED
	CONF-7358	Plugin resource downloads fail if they use a plugin key in the URL	 Resolved	FIXED
	CONF-5489	Trackbacks are broken	 Resolved	FIXED
	CONF-1155	Export of page which includes other pages loses images	 Resolved	FIXED
	CONF-7419	Daily notification emails blank from confluence.atlassian.com	 Resolved	FIXED

	CONF-6059	Confluence breaks with cglib error on JDK 1.6	 Resolved	FIXED
	CONF-7420	Livesearch doesnt work any more and throws exception	 Resolved	DUPLICATE
	CONF-6105	Fix import/export of database-backed Bandana settings	 Resolved	CANNOT REPRODUCE
	CONF-5919	Setup should display error when database user does not have permissions to create tables	 Resolved	FIXED
	CONF-7424	Typos on excerpt macro in Notation Guide	 Closed	FIXED
	CONF-7413	Popular labels macro shows empty bulleted list	 Resolved	FIXED
	CONF-5964	Thumbnail etags and last modified data derived from related image	 Resolved	FIXED
	CONF-6133	WYSIWYG mode is turnig space:page link like test:Döner to emoticon and a corrupted link	 Resolved	FIXED
	CONF-2293	Markup disallowed in macros?	 Resolved	FIXED
	CONF-6926	SQL Macro does not work on the extranet	 Resolved	FIXED
	CONF-7428	Livesearch macro throws exception when spacekey not specified	 Resolved	FIXED
	CONF-6366	People with personal spaces do not appear in people directory search	 Closed	FIXED
	CONF-6345	Seemingly random people listed as favourites in the people directory	 Closed	FIXED
	CONF-5642	Incorrect html links in Export Space	 Resolved	FIXED
	CONF-6385	Space admin tab is visible to non-space admins	 Resolved	FIXED
	CONF-6402	Thumbnails are not regenerated when attachments change	 Resolved	FIXED
	CONF-6408	Make plugin modules	 Resolved	FIXED

	CONF-3331	state aware Export process is not able to export thumbnails.	 Resolved	FIXED
	CONF-7433	Indenting does not work for bullet lists in rich text editor	 Resolved	DUPLICATE
	CONF-6339	Velocity cache never gets cleared	 Resolved	FIXED
	CONF-6431	Tree view in browse space fails with NPE	 Resolved	FIXED
	CONF-6418	People Directory number of found users does not match the number of actual users displayed	 Closed	FIXED
	CONF-6432	Dynamic tasklist atlassian-plugin.xml lists components in the wrong order	 Closed	FIXED
	CONF-5955	Old version of cglib 2.0 creates problems with Java 2 security in WebSphere 5.1	 Resolved	FIXED
	CONF-1852	We don't index user details	 Resolved	FIXED
	CONF-6317	WebUI plugins are unable to properly display the I18N-value of the link name	 Resolved	FIXED
	CONF-6891	Formatting Content on Confluence demonstration space	 Resolved	FIXED
	CONF-6876	grammer mistake Temp directory cleanup job should be separate to BackupJob	 Resolved	FIXED
	CONF-6657	HTML Export: Duplicate attached images	 Resolved	FIXED
	CONF-6665	Sort order broken on space attachments page	 Resolved	FIXED
	CONF-4773	Long running task view should display a red bar when the task fails, not green bar.	 Resolved	FIXED
	CONF-7181	The link table can have rows with spurious space keys	 Resolved	FIXED

	CONF-7189	inserted Export to PDF & broken {attachment} macro links	 Resolved	FIXED
	CONF-7195	CAPTCHA uses a predictable temp file	 Resolved	FIXED
	CONF-7363	Clicking on a news attachment from recently updated list takes you to an incorrect page	 Resolved	FIXED
	CONF-4219	Can not render wiki content as inline text using user macros	 Resolved	FIXED
	CONF-6701	Quotes around image parameters produce invalid HTML	 Resolved	FIXED
	CONF-6728	Confluence app server restart throws away Date/Time format settings	 Resolved	FIXED
	CONF-6773	Improve validation of character encoding	 Resolved	FIXED
	CONF-6675	Deadlock during user creation	 Resolved	FIXED
	CONF-6695	RSS feed for non-existing space throws exceptions	 Resolved	FIXED
	CONF-6655	Cannot serialise custom objects defined in plugins using Bandana	 Resolved	FIXED
	CONF-6843	Login page should tell you clearly if you're already logged in	 Resolved	FIXED
	CONF-6935	Remote API method getPermissions() only returns "modify" for space admins	 Resolved	FIXED
	CONF-5143	Html Export doesn't include images when the image isn't stored within the page itself	 Resolved	FIXED
	CONF-6973	Thumbnail does not get downloaded on the first time it is viewed	 Resolved	FIXED
	CONF-1956	Umlaut in space title	 Resolved	FIXED

	CONF-2416	breaks PDF export Content Sorting in exported space PDF	 Resolved	FIXED
	CONF-5336	HTML Export fails to redirect URL attachments to the "locally" exported directory structure	 Resolved	FIXED
	CONF-7005	Flush All Caches link broken	 Resolved	FIXED
	CONF-6995	Rich text editor inserts images with no space between text and '!'	 Resolved	FIXED
	CONF-6999	Search not finding specific page	 Closed	DUPLICATE
	CONF-7035	Draft form can be submitted with multiple space keys	 Closed	FIXED
	CONF-7038	User with null email address breaks daily report job	 Resolved	FIXED
	CONF-7014	XStream introspection cache not cleared when plugin upgraded	 Resolved	FIXED
	CONF-7050	labelString attribute doesn't restrict RSS feeds	 Resolved	FIXED
	CONF-6998	Related matches in other spaces displaying illogical count	 Resolved	FIXED
	CONF-7061	Some digest notification links don't include the base URL	 Resolved	FIXED
	CONF-7059	If you install a plugin compiled against the wrong java version, you can't uninstall it.	 Resolved	FIXED
	CONF-7015	Bandana table not found on upgrade to Confluence 2.3-dev	 Resolved	FIXED
	CONF-7060	Plugin Repo doesn't place nicely with clustering	 Resolved	FIXED
	CONF-7126	Oops on EAC staff home info page	 Resolved	FIXED
	CONF-6084	Captcha is not shown on reply-to comment form	 Resolved	FIXED
	CONF-7134	groupSearchAllDepths and	 Resolved	FIXED

	CONF-7218	userSearchAllDepths not respected "View Conflict" link on drafts page results in ClassCastException	 Closed	CANNOT REPRODUCE
	CONF-7467	Confluence slow - looking up space permissions	 Resolved	HANDLED BY SUPPORT
	CONF-7305	For comments, first CAPTCHA word fails	 Resolved	FIXED
	CONF-7319	Cannot cancel space removal	 Resolved	FIXED
	CONF-7323	Content properties not removed when associated content is deleted	 Resolved	FIXED
	CONF-7336	Space import fails on content properties without associated content	 Resolved	FIXED
	CONF-7322	Jira issues macro doesn't show icons or timestamps	 Resolved	FIXED
	CONF-7337	Clickr plugin: ClassCastException changing tabs from attachments to edit on a blog post.	 Resolved	FIXED
	CONF-7341	BaseAttachmentContent missing or moved in 2.3-dr2	 Resolved	FIXED
	CONF-7197	No difference between modified and created RSS feed status	 Resolved	FIXED
	CONF-7286	RSS Feeds listed under the Advanced > RSS Feeds section don't work	 Resolved	FIXED
	CONF-7373	Cannot rename a page with a link to itself	 Resolved	FIXED
	CONF-7018	Cannot delete space mysql	 Resolved	FIXED
	CONF-7117	not all LDAP groups shown	 Resolved	FIXED
	CONF-7352	Attachment versions not working	 Resolved	FIXED
	CONF-4671	web.xml 2.4/Resin 3.x Schema Violation	 Resolved	FIXED
	CONF-4679	Scheduled tasks should not be started before or	 Resolved	FIXED



[CONF-6817](#)

[during an upgrade](#)
[Missing localization](#)
[strings for Notation](#)
[Guide](#)

 Closed

FIXED



[CONF-4958](#)

[HTML export fails to](#)
[include all](#)
[attachments](#)

 Resolved

FIXED

Release Notes 2.3.1

This page last changed on Jan 22, 2007 by [mryall](#).

Confluence 2.3.1 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.3.

2.3.1 is a free upgrade for all customers who purchased their Confluence license after January 23rd, 2006.

Who should upgrade?

Confluence 2.3.1 is a bugfix release which resolves some significant issues in Confluence 2.3. Customers running Confluence 2.3 should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.3 and wishing to upgrade should use this version also.

Significant issues for customers upgrading to Confluence 2.3

- LDAP integration: Confluence 2.3 shipped with a broken user migration script for customers wishing to integrate LDAP servers with their Confluence installation. 2.3.1 ships with a fixed version of this script which can also be obtained from CONF-7585
- Upgrading with MySQL: Customers using Confluence with MySQL may have had difficulty upgrading their instances to Confluence 2.3. This issue has been resolved in 2.3.1.

Significant issues for existing Confluence 2.3 users

- Backup import: Confluence 2.3 users wishing to import backups into their Confluence instance should upgrade to 2.3.1 or apply the patch listed against CONF-7584

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Changes in 2.3.1

2.3.1 resolves 20 issues. All these issues are listed below:

Atlassian JIRA (21 issues)				
T	Key	Summary	Status	Res
	CONF-1643	Comments to pages should be wrapper to make sure they fit in the page	 Resolved	FIXED
	CONF-7222	Create user does not trim() usernames	 Resolved	FIXED
	CONF-7483	Mail notification templates contain un-internationalised text	 Resolved	FIXED
	CONF-7489	Uninstalling a bundled plugins causes stack trace	 Resolved	FIXED
	CONF-7534	Cluster setup workflow could be improved	 Resolved	FIXED
	CONF-7546	Page Comparison information shown is wrong / missing	 Resolved	FIXED
	CONF-7556	Javascript in create space page disables checkbox without un-checking it	 Resolved	FIXED
	CONF-7562	Login link on forgot password page redirects to an error after logging in	 Resolved	FIXED
	CONF-7573	Dashboard Exception with Space List macro	 Closed	FIXED
	CONF-7574	User Preferences results in an empty screen	 Resolved	FIXED
	CONF-7575	Confluence 2.3 - "Vor kurzem Aktualisiert" instead of "Recently Updated"	 Resolved	FIXED
	CONF-7578	Missing text <code>\${generalUtil.buildDateString}</code>	 Resolved	FIXED
	CONF-7580	Testing language packs made it into the final build... again.	 Closed	FIXED
	CONF-7581	Missing Europe/London timezone causes runtime errors	 Resolved	FIXED

	CONF-7584	Restore backup fails with "Import failed. null" error	 Closed	FIXED
	CONF-7585	osuser2atluser.jsp throws JasperException	 Closed	FIXED
	CONF-7589	Upgrade to 2.3 with MySQL causes error - Dialect class not found:	 Resolved	FIXED
	CONF-7597	bucket.dialect.MySQLDialect View changes not showing on 2.3	 Resolved	FIXED
	CONF-7611	Send a notification to any page / space watchers when an attachment, blogpost, comment, page is removed	 Resolved	FIXED
	CONF-7630	Cannot edit layout decorators more than once	 Resolved	FIXED
	CONF-7679	Jiraissues macro does not display dates	 Resolved	FIXED

Release Notes 2.3.2

This page last changed on Feb 20, 2007 by [sleberrigaud](#).

Confluence 2.3.2 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.3.1



Warning for LDAP users

Confluence 2.3.2 has a serious bug that prevents it from working with LDAP servers. Please use [Confluence 2.3.3](#) instead.

2.3.2 is a free upgrade for all customers who purchased their Confluence license after February 12th, 2006.

Who should upgrade?

Confluence 2.3.2 is a bugfix release which resolves some significant issues in Confluence 2.3.1. Customers running Confluence 2.3.1 and 2.3 should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.3 and wishing to upgrade should use this version also.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Changes in 2.3.2

2.3.2 resolves 22 issues. All these issues are listed below:

Atlassian JIRA (22 issues)				
T	Key	Summary	Status	Res
	CONF-6371	New line not persistent between Rich TextT and Wiki Markup	Resolved	FIXED
	CONF-6494	Comment display	Closed	FIXED

	CONF-7335	with the ' (apostrophe) when adding an attachment. livesearch macro spaceKey parameter value is case sensitive	 Resolved	FIXED
	CONF-7410	Calendar plugin doesn't work in Clickr theme	 Resolved	FIXED
	CONF-7608	Can't 'upgrade' bundled plugins with the Plugin Repository	 Resolved	FIXED
	CONF-7654	Custom colour scheme for spaces will not apply	 Resolved	FIXED
	CONF-7658	Updates to global colour scheme are not shown in spaces until restart	 Resolved	FIXED
	CONF-7663	Searches return no results after initial index of upgraded data, until content is updated	 Resolved	FIXED
	CONF-7688	Confluence should handle users without full names (from external user management)	 Closed	FIXED
	CONF-7690	Upgrade fails for DB2 due to incorrect dialect	 Resolved	FIXED
	CONF-7751	Url Encode spacekey	 Resolved	FIXED
	CONF-7753	Duplication of invalid links while saving a page in Rich Text Editor	 Resolved	FIXED
	CONF-7798	More non-internationalized text on blogposts macro	 Resolved	FIXED
	CONF-7799	Page restrictions don't always show up in brose space, page permissions.	 Resolved	FIXED
	CONF-7802	LDAP support doesn't work in cluster	 Resolved	FIXED
	CONF-7807	{code} macro sometimes loses whitespace in Wysiwyg	 Resolved	FIXED

	CONF-7808	Threads getting stuck in HitTrackingLocalCache, possible synchronisation problem	 Resolved	FIXED
	CONF-7813	People Directory throws NullPointerException	 Resolved	FIXED
	CONF-7815	Some DBs incorrectly use Postgres lower casing	 Resolved	FIXED
	CONF-7834	Remove the people directory link from dashboard when share mode is on	 Resolved	FIXED
	CONF-7843	Restoring a site backup can set cluster nodes to use file system attachment storage	 Closed	FIXED
	CONF-7858	LDAP pooling defaults are not appropriate	 Resolved	FIXED

Release Notes 2.3.3

This page last changed on Feb 14, 2007 by ivan@atlassian.com.

Confluence 2.3.3 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.3.2

2.3.3 is a free upgrade for all customers who purchased their Confluence license after February 14th, 2006.

Who should upgrade?

Confluence 2.3.3 is a bugfix release which resolves some significant issues in Confluence 2.3.2. Customers running Confluence 2.3.2, 2.3.1 and 2.3 should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.3 and wishing to upgrade should use this version also.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#). We strongly recommend that you backup your `confluence.home` directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Changes in 2.3.3

2.3.3 resolves 4 issues. All these issues are listed below:

Atlassian JIRA (4 issues)				
T	Key	Summary	Status	Res
	CONF-5701	RSS macro ignores 'nonProxyHosts' JVM property	 Resolved	FIXED
	CONF-6986	Most Plugin Themes require name and description i18n	 Resolved	FIXED
	CONF-7855	Previewing a copied page (before saving) doesn't work	 Resolved	FIXED



[CONF-7862](#)

[Illegal value for
java.naming.referral
property](#)



Closed

FIXED

Release Notes 2.4

This page last changed on Mar 13, 2007 by christopher.owen@atlassian.com.

The Atlassian Confluence team is proud to present to you Confluence 2.4.2! What happened to 2.4 and 2.4.1? Let's just say we gave them a good workout.

Confluence 2.4 is the ninth release of Confluence. It introduces much awaited support for editable comments, the ability to mail a page to groups of users and includes the usual slew of fixes since the last stable release.

Confluence 2.4 is the first in a series of frequent, small releases planned for the first half of 2007, that will help us get the functionality you want from Confluence, faster. For more information on our new release schedule, you might want to read [this blog post](#).

Confluence 2.4.2 is a free upgrade for any customer who purchased Confluence after March 13th, 2006.

Upgrading from Confluence 2.2.x and 2.3.x

Upgrading Confluence should be fairly straightforward: you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Contents

1. [New Features](#)
2. [Improvements](#)

See also: [Issues Resolved for 2.4.2](#)

New Features

Editable Comments

Say so long! to those annoying typos and ill-structured sentences as comments in Confluence are now editable. Comments may be edited by the original author or the administrator for the space in which the comment was posted.

All that said I massively prefer OSX to Windows, and I consider it a great platform (until the hardware dies 5 minutes after the warranty expires). However, like Don, I **did** go Mac, and I **did** go back. It's worth bearing in mind that "[Every OS Sucks](#)".

Posted by [Steve Smith](#) at [Mar 13, 2007 13:39](#) | [Reply To This](#)

Sorry, don't want to sound like a raving zealot but:

Configurability: I'm not a Linus-style "everything must be configurable" zealot, but for God's sake can I please at least have window-select-on-mouseover.

Probably not because that would break OS X's common menu bar at the top of the screen idiom.

Single workspace: OSX is unusable without Desktop Manager

I found getting comfortable with Expose annuls this problem.

Posted by [Christopher Owen](#) at Mar 13, 2007 16:18; last updated at [Mar 13, 2007 17:57](#) | [Edit](#) | [Reply To This](#)

[Add Comment](#)

Confluence has a ten minute grace period after the comment is posted in which updates will not be flagged in the user interface. This is in acknowledgment of the fact that most edits within this period are for correcting minor typos and formatting which will not impact the flow of conversation.

For more information, see the Confluence user guide: [Editing a Comment](#)

Page Mailing

Confluence 2.4 ships with the Mail Page plugin allowing users to conveniently send the contents of a Confluence page to other interested parties. You can easily specify who you want the page mailed to by using a combination of:

- Email addresses
- Confluence user names
- Confluence group names

For security reasons, the Mail Page plugin is disabled by default. If you want to use this feature, an administrator will have to [enable it](#). There must also be a mail server configured in the Confluence instance for this operation to be available.

View
Edit
Attachments (4)
Info
Browse Space
Add Page
Add News

Recipients:

E-mail address(es)
user@example.org

Confluence Group(s)
confluence-administrators

Confluence User(s)
jkirk

Subject:
An overview of Confluence

Notes:

Format:

☒ HTML
☐ Text - No formatting or images

Next
Cancel

This operation is reached via a page's Info tab.

Tiny Link: (useful for email) <http://localhost:8080/x/E4>

Export As: [PDF](#) | [Word](#)

Operations: [E-mail](#) [Copy](#)

For more information, see the Confluence user guide: [E-mailing a Page](#)

Improvements

- The People Directory no longer shows inactive users ([CONF-7771](#))
- Log messages now have more context such as the URL of the page being displayed and the name of the logged in user ([CONF-7878](#))

The Confluence 2.4 Team

Development Tom Davies Matthew Jensen Samuel Le Berrigaud David Loeng Charles Miller Christopher Owen Agnes Ro Matt Ryall Don Willis	Oversight & ~~Mis~~ management Mike Cannon-Brookes Scott Farquhar

Release Notes 2.4.1

This page last changed on Mar 13, 2007 by christopher.owen@atlassian.com.

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Confluence 2.4.2 is a free upgrade for any customer who purchased Confluence after March 13th, 2006.

Upgrading from Confluence 2.2.x and 2.3.x

Upgrading Confluence should be fairly straightforward: you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

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The Confluence 2.4 Team

Development Tom Davies Matthew Jensen Samuel Le Berrigaud David Loeng Charles Miller Christopher Owen Agnes Ro Matt Ryall Don Willis	Oversight & ~~mis~~ management Mike Cannon-Brookes Scott Farquhar

Release Notes 2.4.2

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The Confluence 2.4 Team

Development Tom Davies Matthew Jensen Samuel Le Berrigaud David Loeng Charles Miller Christopher Owen Agnes Ro Matt Ryall Don Willis	Oversight & ~~Mis~~ management Mike Cannon-Brookes Scott Farquhar

Issues Resolved for 2.4.2

This page last changed on Mar 13, 2007 by christopher.owen@atlassian.com.

Atlassian JIRA (33 issues)				
T	Key	Summary	Status	Res
	CONF-7925	SQLException on Sybase and SQL Server - Invalid column name 'creationDate'	 Closed	FIXED
	CONF-7815	Some DBs incorrectly use Postgres lower casing	 Resolved	FIXED
	CONF-7788	Insert link dialog doesn't search properly	 Resolved	FIXED
	CONF-8045	Can't delete template with previous version	 Closed	FIXED
	CONF-8014	To provide easier configuration between Crowd and Confluence the attached crowd-ehcache.xml file will need to be added to the confluence release	 Resolved	FIXED
	CONF-7953	CSS and Javascript not loaded in Websphere 6.1.0.5	 Resolved	FIXED
	CONF-7939	Confluence atlassian-user.xml has typo for Crowd integration.	 Resolved	FIXED
	CONF-7895	Feed builder only builds private feeds	 Resolved	FIXED
	CONF-7878	Add RenderContext information to exceptions that filter through the Wiki Renderer	 Resolved	FIXED
	CONF-7843	Restoring a site backup can set cluster nodes to use file system attachment storage	 Closed	FIXED
	CONF-7770	Add ability to select a space group in the create space form	 Resolved	FIXED

	CONF-7768	Add "Groups" tab in space list macro on dashboard for Space Groups	 Resolved	FIXED
	CONF-7757	Add importSpace method to RPC interfaces	 Resolved	FIXED
	CONF-7690	Upgrade fails for DB2 due to incorrect dialect	 Resolved	FIXED
	CONF-7663	Searches return no results after initial index of upgraded data, until content is updated	 Resolved	FIXED
	CONF-7608	Can't 'upgrade' bundled plugins with the Plugin Repository	 Resolved	FIXED
	CONF-5391	Links in news items to attachments in normal pages do not work	 Closed	FIXED
	CONF-5194	Provide a way to mail to User Groups or Individual from a wiki page	 Resolved	FIXED
	CONF-1062	Email page	 Resolved	FIXED
	CONF-830	Editable comments	 Resolved	FIXED
	CONF-8018	Page list template renders broken page title when greater than 64 characters	 Resolved	FIXED
	CONF-7989	Fix display for my favourite labels - \$webwork.htmlEncode(\$textUtils.trimToEndingChar(\$page.realTitle, 60))	 Resolved	FIXED
	CONF-7926	Template Lists Fail with Non-English Characters	 Closed	FIXED
	CONF-7854	Error deleting template that has been edited	 Resolved	FIXED
	CONF-7786	Exclude space group from space export	 Resolved	FIXED
	CONF-7783	Don't include user profiles in daily changed reports in shared mode	 Resolved	FIXED
	CONF-7771	People directory should not display inactive users	 Resolved	FIXED
	CONF-7769	Update atlassian-extras	 Resolved	FIXED

	CONF-7661	dependency to 0.7.32 README files in confluence-2.3 have URLs that refer to non-existent pages	 Resolved	FIXED
	CONF-4550	Macro that can render Mathematical Formulae	 Resolved	FIXED
	CONF-8032	Use HTML id instead of empty named anchors in headings	 Resolved	FIXED
	CONF-8029	Outdated event listener interface warning should be logged at a lower priority	 Resolved	FIXED
	CONF-7095	Text for the key "licenseexpired.explanation" not being displayed	 Resolved	FIXED

Release Notes 2.4.3

This page last changed on Mar 21, 2007 by [mjensen](#).

Confluence 2.4.3 is a maintenance release that resolves an assortment of issues users may have encountered using Confluence 2.4.2

2.4.3 is a free upgrade for all customers who purchased their Confluence license after March 22nd 2006.

Who should upgrade?

Confluence 2.4.3 is a recommended upgrade release which resolves some significant issues in Confluence 2.4.2. Customers running older versions of Confluence should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.4 and wishing to upgrade should use this version also.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#).

We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Changes in 2.4.3

2.4.3 resolves 15 issues. All these issues are listed below:

Atlassian JIRA (15 issues)				
T	Key	Summary	Status	Res
	CONF-6058	Group picker for page restrictions silently hides non-member groups, may need clarifying sentence added	 Resolved	FIXED
	CONF-6505	Comment index entries do not inherit	 Closed	FIXED

	CONF-6907	permissions correctly New license types footers	 Resolved	FIXED
	CONF-7416	LazyInitializationException on page create preview when page contains un-resolveable embedded image	 Closed	FIXED
	CONF-7564	'Advanced' space tab should show 'personal space' icon instead of 'user profile' icon	 Closed	FIXED
	CONF-7717	Rich text editor breaks shortcut links with custom titles	 Resolved	FIXED
	CONF-7725	IllegalStateException "zip file closed" occurring in plugins	 Closed	FIXED
	CONF-7898	AttachmentsSoapService getAttachmentData doesn't close inputStream	 Resolved	FIXED
	CONF-7922	Personal Edition - "Evaluate Confluence" Link Broken At Bottom Of All Pages	 Closed	FIXED
	CONF-8001	When using LDAP with a cluster, a user cannot log into the second node if they previously logged into the first node	 Resolved	FIXED
	CONF-8039	Create Space form gives option of anonymous access, even when not enabled globally	 Resolved	FIXED
	CONF-8048	REGRESSION: "View Change" link missing	 Closed	FIXED
	CONF-8050	zip_src from tiny mce served without caching headers on extranet	 Resolved	FIXED
	CONF-8056	Disabled upgraded bundled plugins are reenabled on startup	 Resolved	FIXED
	CONF-8077	Attachment file names not HTML encoded in attachment list	 Resolved	FIXED

Release Notes 2.4.4

This page last changed on Apr 01, 2007 by [mjensen](#).

Confluence 2.4.4 is a recommended upgrade release that resolves issues users may have encountered using Confluence 2.4.3 or earlier.

2.4.4 is a free upgrade for all customers who purchased their Confluence license after March 30th 2006.

Who should upgrade?

Confluence 2.4.4 is a recommended upgrade release that resolves issues users may have encountered using Confluence 2.4.3 or earlier. Customers running older versions of Confluence should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.4 and wishing to upgrade should upgrade directly to 2.4.4.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#).

We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Source Release

Please note that the source release for 2.4.4 is currently unavailable. We have scheduled a fix for this which should be included in 2.4.5. Please see [CONF-8007](#) for more details.

Changes in 2.4.4

2.4.4 resolves 17 issues. All these issues are listed below:

Atlassian JIRA (18 issues)				
T	Key	Summary	Status	Res
	CONF-6490	PDF export breaks with angle brackets inside comments	 Resolved	FIXED
	CONF-7711	Only latest page history comment is shown in page history	 Resolved	FIXED
	CONF-7774	Global Activity link on Space Activity page is not correct	 Resolved	FIXED
	CONF-7775	Cross site scripting - action name not escaped in group picker	 Resolved	FIXED
	CONF-7776	Cross site scripting - space key not escaped in listpages-alphaview	 Resolved	FIXED
	CONF-7777	Cross site scripting - destination not escaped on login	 Resolved	FIXED
	CONF-7778	page error message Cross site scripting - on POST, title not escaped in createpage-entervariables	 Resolved	FIXED
	CONF-8065	Cross Site Scripting issue when integration RSS feeds	 Resolved	FIXED
	CONF-8101	XSS on "Site Search"	 Resolved	FIXED
	CONF-8108	Attempted Space Removal caused a database exception.	 Resolved	FIXED
	CONF-8124	"Space Activity" XSS hole and Exception throwing	 Resolved	FIXED
	CONF-8143	Avatar upload - no HTML tags encoding in filenames	 Resolved	FIXED
	CONF-8144	XSS on User Search	 Resolved	FIXED
	CONF-8145	View mail thread icon link navigates to blank page	 Resolved	FIXED
	CONF-8159	Enable comment content layout to be editable in admin	 Resolved	FIXED
	CONF-8162	Rich text editor fails to load because ConfluenceTinyMCEServlet doesn't notice base	 Closed	FIXED



[CONF-8167](#)

[URL changes](#)
[Previous page](#)
[versions view lists](#)
[current revision](#)
[twice](#)



Resolved

FIXED



[CONF-8178](#)

[Download links](#)
[broken for](#)
[Confluence 2.4.4](#)



Closed

FIXED

Release Notes 2.4.5

This page last changed on Apr 13, 2007 by christopher.owen@atlassian.com.

Confluence 2.4.5 is a maintenance release that resolves issues users may have encountered using Confluence 2.4.4 or earlier.

2.4.5 is a free upgrade for all customers who purchased their Confluence license after April 12th 2006.

Who should upgrade?

Confluence 2.4.5 is a recommended upgrade release which resolves some significant issues in Confluence 2.4.4. Customers running older versions of Confluence should review the list of resolved issues below, and upgrade if this release fixes any problems with their current Confluence installation.

Customers running releases older than 2.4 and wishing to upgrade should upgrade directly to 2.4.5.

Upgrade Procedure

Upgrading Confluence should be pretty easy. If you are upgrading from another Confluence 2.2.x or Confluence 2.3 version, you can find [instructions here](#).

We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Changes in 2.4.5

2.4.5 resolves these issues:

Atlassian JIRA (10 issues)				
T	Key	Summary	Status	Res
	CONF-5756	After moving a page with attachments to a new Space, the attachments are listed in the old Space not on the new Space	 Resolved	FIXED
	CONF-6461	Can see other Users	 Resolved	FIXED

		Profile/Personal Spaces hybrid in Recently Updated even if you dont have permissions to view them.		
	CONF-7606	Incorrect associated <label> tags on administration page	 Resolved	FIXED
	CONF-7832	Documenation on adding a template to a space is not up to date for 2.3	 Resolved	FIXED
	CONF-8007	Fix confluence source release	 Resolved	FIXED
	CONF-8078	Error page if new password doesn't match Crowd password validation	 Resolved	FIXED
	CONF-8125	References to scriptaculous files are wrong	 Resolved	FIXED
	CONF-8185	Cached TinyMCE Servlet doesn't handle BaseURL Changes or Multi-homed environment	 Resolved	FIXED
	CONF-8228	On/off list components have inappropriate HTML IDs	 Resolved	FIXED
	CONF-8393	Plugin repository client 2.0.2 fails to update plugins	 Resolved	FIXED

Release Notes 2.5

This page last changed on Apr 29, 2007 by christopher.owen@atlassian.com.

The Atlassian Confluence team is proud to present Confluence 2.5. Confluence 2.5 is the tenth release of Confluence. It introduces more flexible [page restrictions](#), and also includes a number of [minor fixes](#).

Confluence 2.5 is a free upgrade for any customer who purchased Confluence after April 27th, 2006.

Upgrading from Confluence 2.2 and later

Upgrading Confluence should be fairly straightforward: you can find [instructions here](#). We strongly recommend that you backup your *confluence.home* directory and database before upgrading!

Upgrading from Confluence 2.1 and earlier

Users upgrading directly from 2.1 or earlier should also read the [2.2 Release Notes](#) for caveats regarding the 2.1 -> 2.2 upgrade.

Introducing flexible page restrictions

[Page restrictions](#) give you the ability to choose who may read and/or edit any given page.

By popular request, page restrictions have been enhanced and can now be [assigned](#) to multiple people and/or groups:

Restrictions: NONE

☐ Restrict viewing of this page

☒ Restrict editing of this page

Choose me

Choose users

Choose groups

Enter user/group name(s):

Add

No viewing restrictions set on this page

Editing restricted to:

anton

[Remove](#)

adrian

[Remove](#)

agnes

[Remove](#)

anthony

[Remove](#)

Other significant issues resolved

Dynamic task list JRE incompatibilities

Many customers have been prevented from upgrading the Java runtime hosting their Confluence instance due to [CONF-4082](#), an issue which would prevent existing dynamic task lists from working with the new JRE. This issue has been resolved in Confluence 2.5 allowing dynamic task list users to upgrade and downgrade between Java versions without experiencing conversion exceptions.

contentbylabel macro supports AND condition

You may now use the operator=AND parameter with the contentbylabel macro to select pages that have all of the supplied labels. ([CONF-4969](#))

The Confluence 2.5 Team

Development Tom Davies Matthew Jensen Samuel Le Berrigaud David Loeng Charles Miller Christopher Owen Agnes Ro Matt Ryall Don Willis	Oversight & ~~mis~~ management Mike Cannon-Brookes Scott Farquhar

Issues Resolved for 2.5

This page last changed on Apr 25, 2007 by christopher.owen@atlassian.com.

Atlassian JIRA (35 issues)				
T	Key	Summary	Status	Res
	CONF-5159	Draft saving incorrectly encodes characters in Safari	 Resolved	FIXED
	CONF-4082	ConversionException on dynamic tasklist after JDK version change	 Resolved	FIXED
	CONF-8393	Plugin repository client 2.0.2 fails to update plugins	 Resolved	FIXED
	CONF-8321	Implement setting page permissions thru XML-RPC and SOAP	 Resolved	FIXED
	CONF-8301	recently-updated throws NullPointerException when no pages with label found	 Resolved	FIXED
	CONF-8282	Newline collapsing between horizontal rule and the following element screws things up	 Resolved	FIXED
	CONF-8275	Info macros help not internationalized	 Resolved	FIXED
	CONF-8259	Anonymous user should not be allowed to set page permissions	 Closed	FIXED
	CONF-8255	Links of PDF export from Confluence Space are all web links instead of local links	 Resolved	FIXED
	CONF-8242	create-space-button macro throws NPE when using preview	 Resolved	FIXED
	CONF-8221	Using page mailing, page link is not ok for news	 Resolved	FIXED
	CONF-8206	Confluence jar shipped in standalone lib directory	 Resolved	FIXED
	CONF-8205	Custom SQL query	 Resolved	FIXED

	CONF-8111	on ancestors table breaks Firebird Livesearch throws exception if search term contains spaces	 Resolved	FIXED
	CONF-8043	Better Crowd Integration (from a user's perspective)	 Resolved	FIXED
	CONF-7974	Anonymous additons are attributed to \$page.creatorName in text update notifications	 Resolved	FIXED
	CONF-7893	Link to Plugin Repository is 'plugin.repository.link'	 Resolved	FIXED
	CONF-7333	Blank line between bullets is lost	 Resolved	FIXED
	CONF-5783	Markup with emoticon should have whitespace around it	 Resolved	FIXED
	CONF-5080	Administrators cannot restrict View/Edit of a page to a group that the administrator does not belong	 Resolved	FIXED
	CONF-4969	contentbylabel macro should support AND condition	 Resolved	FIXED
	CONF-3701	Allow selection of multiple users and multiple groups (or both) for page level permissions	 Resolved	FIXED
	CONF-8403	The code macro inserts a new line at its end	 Resolved	FIXED
	CONF-8330	user X moving a page created by user Y triggers a notification for each child in heirarchy, attributed to user Y	 Resolved	FIXED
	CONF-8297	Attachments macro doesn't list previous versions of attachments when "old" property is set to true	 Resolved	FIXED
	CONF-8285	HTML Blogpost navigation have a	 Resolved	FIXED

	CONF-8283	trailing '}' in the space link. remove comment notification wrongly claims that the comment author is the comment remover	 Resolved	FIXED
	CONF-8278	Create Space Button disables embedded images	 Resolved	FIXED
	CONF-8271	Confluence tries to index non text files as text, e.g. .wnk files crunch search	 Resolved	FIXED
	CONF-8250	JIRA issues macro should use nofollow for refresh and main title link	 Resolved	FIXED
	CONF-7966	'add comment' and 'remove comment' notification do not link to the page that the comment was attached to	 Resolved	FIXED
	CONF-7912	Rich Text Editor: Bullets and text in a table cell	 Resolved	FIXED
	CONF-5799	Hide trash when user can't remove page	 Resolved	FIXED
	CONF-5334	Hovering over the tabs in the editor view causes page to scroll on IE	 Resolved	FIXED
	CONF-5134	Blogpost macro - order by created date only	 Resolved	FIXED

Release Notes_1.0.1

This page last changed on Apr 06, 2004 by [jnolen](#).

Confluence 1.0.1

Over the course of the last month of supporting Confluence 1.0, there are a number of patches that we have been distributing to fix specific problems our users have encountered. Confluence 1.0.1 is a maintenance release into which all these patches have been integrated.

Who Should Upgrade?

All the issues that were resolved for this release are listed below. We have not snuck in any other changes: what you see here in the release notes is precisely what you will get. If you find something on the list that directly affects you, or that you feel justifies the effort of an upgrade, then do so. Otherwise, feel free to stick with 1.0.

Upgrade Procedure

If You Have Customised `osuser.xml`

If you have customised Confluence's user-management, for example to integrate it with LDAP or JIRA, you will have to integrate your changes to account for the caching OSUser providers we introduced in Confluence 1.0.1. See this document for more details: [Confluence Caching OSUser Provider](#). Updated instructions for integrating with JIRA user management are here: [Delegate user management to use JIRA logins](#)

Otherwise

To avoid the possibility of data-loss, you should back up your ConfluenceHome directory and your database before upgrading, and perform a full backup from within the application.

Changes in 1.0.1

See also [Issues Resolved for 1.0.1](#)

Direct Attachment Links

In response to a loud demand from users, links to attachments using the [^attachment.jpg] syntax will download the attachment file directly, instead of linking to an anchor in the destination page.

Sybase ASE Support

Confluence 1.0.1 resolves the following problems that were causing Confluence not to work with Sybase ASE 12.5.1:

- ORDER-BY mappings failing on Sybase ([CONF-1021](#))
- Can't add users under Sybase ([CONF-1022](#))
- Weird datatype error under Sybase ([CONF-1024](#))
- Sybase doesn't like complicated distinct selects (404 page fails) ([CONF-1025](#))
- Backup import fails under Sybase ([CONF-1063](#))

These bug-fixes may also improve Confluence's compatibility with other untested databases. They will not, however, have any effect on Confluence's operation against PostgreSQL, MySQL or HSQL.

Microsoft SQL Server Dialect in Setup Page

The Microsoft SQL Server database dialect was missing from the database setup page. It has now been added to the list. Confluence has not yet been tested on Microsoft SQL Server, and the usefulness of this option is not yet guaranteed. However, since the Sybase issues above are now resolved and SQL Server belongs to the same family as Sybase, it would be well worth a try.

JIRA User Provider Caching

Users who were linking their user management to JIRA's using the supplied provider were experiencing significant performance problems as a result. 1.0.1 introduces caching to the user provider, which should speed up these installations significantly.

Global Reports Visibility

Under Confluence 1.0, the global "undefined pages" and "orphaned pages" reports did not properly filter out pages that the user could not see. The user could not see the content of any page they did not have access to, but they could learn of the existence of (and names of) pages and spaces they were not permitted to see. This bug is fixed in 1.0.1

Locale-Independent Dates in Backup/Restore

In Confluence 1.0, dates were written into backup files using a localised representation of the month. As such, if you exported Confluence data from a server in one locale it might not import successfully into a server with a different Locale setting. Confluence 1.0.1 still recognises the 1.0 export format, but its own exports will write out dates in a locale-independent format.

As noted above, this means that data exported from Confluence 1.0.1 can not be imported successfully into Confluence 1.0.

Fix Browser Crash on Viewing Some Templates

Previously, if you created a template containing no variables, then anyone attempting to preview or use that template would have their browser hang in an infinite Javascript loop. Confluence 1.0.1 fixes this bug.

Typo Fixed on User Group Editing Page

A single-character change from "privilage" to "privilege".

Confluence Setup Guide

This page last changed on Jan 01, 2007 by david.soul@atlassian.com.

Users should complete the [Confluence Installation Guide](#) before continuing.

Standalone Setup Wizard	Custom Installation
The Standard Installation is recommended if you are: • a new Confluence user • evaluating Confluence The Standard Installation installs Confluence with an embedded database, and some demonstration content that will get you working with Confluence as quickly and easily as possible. You may upgrade to another type of database later on.	The Custom Installation is recommended if you want to combine one or more of the following options: • store data in your own database, rather than the embedded HSQL database • install Confluence without the demonstration content • restore a previous Confluence instance (using a backup) The Custom Installation provides you with more options during setup, allowing you to connect to an external database, restore content from a previous Confluence backup, or choose not to load the demonstration content.

Security Warning

Disable external access to your Confluence server temporarily while installing Confluence. Until Confluence is completely set up, it is not secured and anyone can configure it. You should set up Confluence in a secure environment, and only open it up to external access once setup is completed.

Licensing

Don't have a licence yet?

- New users can [get a free multi-user Evaluation licence](#) or two-user [Personal licence](#) immediately
- For enterprise, non-profit, open source and educational licences, see [Confluence Licencing and Pricing](#)
- Existing users can retrieve their key from the [Licence Viewer](#)
- If you can't find your key or are having problems, contact sales@atlassian.com

NEXT

Perform [Standalone Setup Wizard](#) or [Custom Installation](#)

OTHER TOPICS

[License will not validate.](#)
[Documentation Home](#)

Custom Installation

This page last changed on Aug 11, 2006 by david.soul@atlassian.com.

Custom Installation - Choosing a Database Configuration

Step One:

Copy and paste the license key and click 'Custom Installation'

Step Two:

Select one of these two options:

- Embedded database: Confluence will use an embedded database (Hypersonic SQL). This is recommended only for evaluation or demonstration. To ensure your data is kept safe and consistent, we recommend production deployments of Confluence using an external database. You can however, migrate to another database later on, if you wish.

If you select this option, you are now ready to start [using Confluence](#):

- External Database: Deploy Confluence against one of these compatible databases. Select it from the drop-down menu and click 'External Database'.
 - PostgreSQL
 - MySQL
 - Oracle 8i
 - Oracle 9i/10g
 - Microsoft SQL Server
 - Sybase Ase
 - DB2
 - Unsupported Database

[Proceed with an external database](#)

Setup Steps

- ☒ 1. Install license.
- ☒ 2. Configure database.
- ☐ 3. Load content.
- ☐ 4. Create administrator.
- ☐ 5. Setup is complete.

Choose a Database Configuration

Choose where Confluence should store its data

Embedded Database

The embedded database will allow Confluence to operate without an external database. This is **recommended for evaluating and demonstrating Confluence**, but production systems should consider an external database for improved scalability and reliability. (This option will create an HSQL database in the Confluence Home directory).

Embedded Database >>

External Database

If you wish to store your Confluence data in an external database, choose it from the list of supported databases. This is **recommended for production systems**.

If your database is not listed in the menu, you may configure an "Unsupported Database", but be aware that Confluence may not run reliably.

PostgreSQL

External Database >>

NEXT :

Proceed with an [External Database](#)

RELATED TOPICS

[Standalone Setup Wizard](#)
[Configuration Guide](#)
[Documentation Home](#)

External Database

This page last changed on Jan 14, 2007 by ivan@atlassian.com.

Character Encoding

We strongly recommend character encoding to be consistent among participating entities in your system : the database, application server and web application.

Before setting up your database, please ensure that you read about [configuring character encoding](#)

Custom Installation - Connecting to your database.

Select one of these options:

- Standard Database Connection
- Datasource Connection

1. Standard Database Connection:

This uses a standard JDBC database connection. Connection pooling is handled within Confluence. You will need to know:

- The Java class name for the appropriate database driver.
- The JDBC URL for the database you will be connecting to.
- A valid username and password for that database.
- The size of the connection pool Confluence should maintain (If in doubt, just go with the default provided)
- What kind of database you're connecting to (so you can tell Confluence which "dialect" it needs to speak)

The first two will depend on the JDBC driver, and will be found in the documentation for your database.

You will also need to put the appropriate database driver "jar" file in the server's classpath. For the standalone version, this means copying the jar file into the **common/lib** directory.

Setup Standard Database

Driver Class Name:	com.mysql.jdbc.Driver
Database URL:	jdbc:mysql://localhost/confluence?autoReconnect=true
User Name:	
Password:	
Next >>	

2. Datasource Connection

This asks the Java application server for a database connection. You will need to have configured a datasource into your application server, and know:

- The JNDI name of the datasource, as configured in the application server. Note, some servers will have JNDI names like jdbc/datasourcename, others will be of the form java:comp/env/jdbc/datasourcename. Consult your application-server documentation.
- What kind of database you're connecting to (so you can tell Confluence which "dialect" it needs to speak)

Setup Datasource Connection

If "java:comp/env/jdbc/DatasourceName" doesnt work, try "jdbc/DatasourceName" (or vice versa)

Datasource Name:

NEXT :

[Load Content for the Site](#)

RELATED TOPICS

[Custom Installation](#)

[Confluence Setup Guide](#)

[Confluence 2.0 User Guide](#)

[Documentation Home](#)

Load Content for the site

This page last changed on Mar 16, 2007 by ivan@atlassian.com.

Load Content

If you are evaluating or demonstrating Confluence, or are introducing Confluence to users who are new to the idea of a Wiki, we **recommend the example site** as the best way to become acquainted with what Confluence can do for you. More experienced users will want to start with an empty site, or restore a backup of their own.

■ Example Site

Recommended: Load the Demonstration Space to begin working with Confluence immediately.

[Example Site >>](#)

■ Empty Site

Start with an empty site. After finishing the setup you will need to create at least one space before you can add any content of your own.

[Empty Site >>](#)

■ Restore From Backup

Use data from a previous installation of Confluence. If you are upgrading or replicating Confluence you will probably want to select this option.

[Restore From Backup >>](#)

Please select one of the options:

- Example site : This option will load Confluence's Demonstration site. Select this if you are a new user as a way of familiarising yourself with Confluence and what it can do for you.
- Empty site : Select this option if you are already familiar with Confluence. You will need to create at least one space before you can starting adding content to the site.
- [Restore from Backup](#) : Select this option if you want to use data from a previous installation

NEXT:

Start [Using Confluence](#)

RELATED TOPICS

[Importing from JSPwiki](#)
[Confluence 2.0 User Guide](#)
[Documentation Home](#)

Restoring from Backup During Setup

This page last changed on Oct 16, 2006 by ivan@atlassian.com.

Use this option to restore data into a new instance of Confluence.

There are two ways to restore data from a backup file during [setup](#):

Administration > Backup & Restore option

1. To restore data from a zipped backup,

1. Browse for the relevant daily backup file.
2. Check 'Build Index' to build data index (for search).
3. Click 'Upload and Restore'.

2. To restore a backup from the file system

This is recommended if you have:

- a very large daily backup file (greater than 100MB) OR
- a daily backup file that is already on the server and doesn't require uploading

1. Copy the backup file into the restore directory inside your confluence home folder and then refresh the page. You should now see your backup file appear in the box underneath the heading Restore a backup from the filesystem.
2. Click 'Restore'.

Screenshot : Restoring Data

Restore Data

There are two ways you can restore a backup:

- ◆ **Upload a zipped backup to Confluence**

To be able to search your data an index needs to be built. You can postpone this for later by unchecking the box below.

☒ Build Index

OR

- ◆ **Restore a backup from the filesystem:**

Recommended if you have a large backup file.

Backups must be copied into the C:\data\viddul\restore directory.

No files in directory

There are currently no files in the restore directory. You will need to copy your backup here first.

☒ Build Index

NEXT :

Start [Using Confluence](#)

RELATED TOPICS

[Custom Installation](#)
[Documentation Home](#)

Standalone Setup Wizard

This page last changed on Jan 01, 2007 by david.soul@atlassian.com.

This guide is intended for users who have already [installed Confluence standalone](#).

Stage One. Insert Licence Key

You will need to retrieve your licence key. You can get the key from the email address you registered for your evaluation, or through the [Licence Viewer](#).

Copy and paste your license key and click 'Standard Installation'. The Standard Installation is recommended for evaluating users. It uses an embedded database.

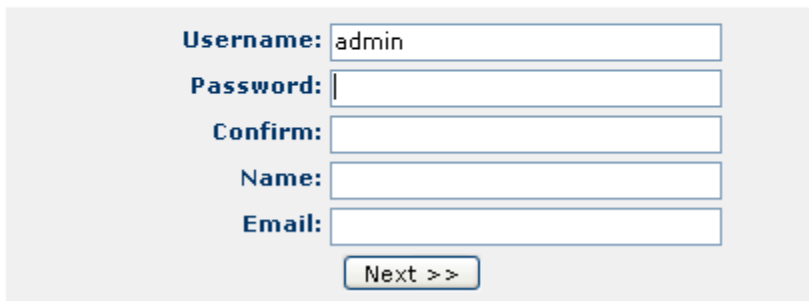
Stage Two. Create Confluence Administrator

You must create an administrator to add more users, create spaces, and setup Confluence further. For more information on users, groups and permissions, see the [Security Overview](#).

Setup Confluence Administrator

Please configure the administrator account for this Confluence installation.

■ Configure Account



Username:

Password:

Confirm:

Name:

Email:

In the form displayed, enter a username, password, and email address for an administrator account, then click Next.

The next screen will show your Dashboard with demonstration content for you to browse. Congratulations, you are now ready to start adding content and users to Confluence!

NEXT

Browse the [Confluence User Guide](#)

RELATED TOPICS

[Custom Installation](#)
[Documentation Home](#)

Content Anonymiser for Data Backups

This page last changed on Dec 28, 2006 by david.soul@atlassian.com.



A [Jira data anonymiser](#) is also available.

Atlassian may request a copy of entities.xml file from a customer's exported zip file, in order to diagnose database corruption, or find a bug in Confluence.

If your data is confidential, you can run this program over your entities.xml file, removing all your data, leaving only the structure of the export.

To do this:

1. Download the two files attached to this page.
2. Extract the entities.xml file from your zipped backup file to the same directory as the two files.
3. Use the command prompt to go to the directory where all three files are located
4. To create cleaned.xml, Linux users should run the command

```
java -cp dom4j-1.4-full.jar:exportcleaner.jar com.atlassian.confluence.util.ExportCleaner entities.xml cleaned.xml
```

Windows users should use

```
java -cp dom4j-1.4-full.jar;exportcleaner.jar com.atlassian.confluence.util.ExportCleaner entities.xml cleaned.xml
```

5. Attach cleaned.xml to the [support ticket](#)

Database Configuration

This page last changed on Jan 05, 2007 by david.soul@atlassian.com.

This document provides information on configuring an external database.

Database Selection

Production instances of Confluence should use an external database. The default hSQL database has a risk of unrecoverable data loss due to not being [transaction-safe](#).

Corruption is occasionally encountered after sudden power loss and can usually be corrected using [this data recovery procedure](#). hSQL is still suitable for evaluation purposes, but the risk can only be eliminated by switching databases. External databases may also provide superior speed and scalability. Below is more information on selecting an external database.

- [List Of Supported Databases](#)
- [Known Issues For Supported Databases](#)

Database Setup

Setup instructions are shown below; click on a database to review the setup guide and any known issues.

MySQL

[Database Setup For mySQL](#)
[Known Issues for MySQL](#)

PostgreSQL

[Database Setup For Any External Database](#)
[Known Issues for PostgreSQL](#)

Oracle

[Database Setup for Oracle](#)
[Known Issues For Oracle](#)

SQL Server

[Database Setup for SQL Server](#)
[Known Issues For SQL Server](#)

DB2

[Known Issues for DB2](#)

Sybase Database

[Known Issues for Sybase Database](#)

Other databases should use [Database Setup For Any External Database](#).

Optimise Database Performance

To improve database responsiveness:

- [Improving Database Performance](#)
- [Known Issues For Supported Databases](#)

Database Troubleshooting

For solving database-related problems:

- [Troubleshooting External Database Connections](#)
- [Troubleshooting the Embedded Database \(hSQL DB\)](#)
- [Interpreting DB2 Error Codes](#)
- [Known Issues For Supported Databases](#)

Obtain technical support from [Troubleshooting & Technical Support](#)

Database Setup Guides

This page last changed on Jan 05, 2007 by david.soul@atlassian.com.

- [Database Setup For Any External Database](#)
- [Database Setup For mySQL](#)
- [Database Setup for Oracle](#)
- [Database Setup for SQL Server](#)

Database Setup For Any External Database

This page last changed on Mar 27, 2007 by ivan@atlassian.com.

If you are using Confluence in a production environment, data should be stored in an external database. The embedded database is bundled for evaluation purposes and does not offer full transactional integrity in the event of sudden power loss.

This document outlines migrating your Confluence data from the embedded database to a more robust database such as Postgres or SQL Server. The following databases have their own guides:

- [MySQL Guide](#)
- [Oracle Guide](#)
- [SQL Server](#)

Migration Instructions

[Install Confluence](#) if you have not done so already. You also need to install the following on the Confluence server:

- Database administration tool, for example [DBVisualizer](#)
- JDBC database drivers
- The database server (unless accessed remotely)

The instructions refer to two particular directories:

- The *<Confluence Installation Directory>* is the directory where you unpacked the Standalone Confluence download.
- The *<Confluence Home Directory>* is the directory where Confluence stores its data, which you set by editing the `confluence-init.properties` file in *Confluence Installation Directory/confluence/WEB-INF/classes*

Stage 1 - Database Setup

Create the schema and setup permissions:

1. Visit the [Database Configuration](#) page to review any known issues and database setup for your database.
2. Create a new schema using the [correct database encoding](#).
3. Create a user with full access to read/write access to the Confluence schema, including the ability to create tables.
4. If the database only permits users to login from approved hosts (eg localhost), grant database access permission for the Confluence server.
5. If the database is hosted remotely to the Confluence server, setup any firewall permissions.
6. Test the connection by using the database administration tool installed on the Confluence server to login to the database.

Stage 2 - Create Backups

To keep any existing Confluence content:

1. If you are already using an external database, use your database administration tool to create a full database backup.
2. Manually create an XML backup of Confluence under Administration -> Backup & Restore. If you have less than 100MB of attachments, check 'Backup attachments' when creating the backup. If you have over 100MB of attachments, you should not check the 'Backup attachments' and instead you should manually copy the /attachments directory in your Confluence home to a backup location. This attachments directory will later be copied into the new home directory.
3. Download the backup file to a backup location.

Stage 3 - Database Connection Setup

Setup Confluence's database connection:

1. Stop Confluence
2. The JDBC database drivers for your database must be available to the application server. You can skip this step if the drivers are already loaded
 - a. Copy the database driver JAR file into the lib directory. In Confluence Standalone this directory is /confluence/WEB-INF/lib other application servers will use a different path
 - b. If the application server does not support dynamic library loading, stop your application server
3. Create a new Confluence home directory
4. Open WEB-INF/classes/confluence-init.properties file in your Confluence installation and change the confluence.home property to point to this new Confluence home directory.
5. Start up Confluence. You should be presented with the Confluence setup wizard. Enter your licence information
6. Select custom install
7. Select a database from the drop down list
8. Select Direct JDBC and then enter the username, password and database driver of the new database
9. If you created a Confluence backup earlier and wish to restore it, import it into Confluence
10. Once the wizard is complete, if you did not check the 'Backup attachments', copy the backed up /attachments directory into the new Confluence home

Done! Your old Confluence data should now be imported to your new database.

Database Setup For mySQL

This page last changed on Apr 04, 2007 by tom@atlassian.com.

Confluence should use an external database for production usage, as the embedded database does not offer full transactional integrity in the event of sudden power loss. Confluence Standalone with mySQL is well-tested and easily configured for production.

This document outlines setting up Confluence with the open-source [MySQL database](#) on Microsoft Windows, migrating across any existing content. To migrate to another database such as Oracle, follow [this guide](#) instead.

Migration Instructions

Install the following software:

1. [Install Confluence](#) if you have not done so already.
2. Install the mySQL MySQL 'Community' Database Server, version 4.1.x, from the [mySQL download page](#). This install includes mySQL Administrator. We don't currently support MySQL 5.
3. Download the latest [mySQL Connector/J driver](#), version 3.1 or newer.

The instructions refer to two particular directories:

- The *Confluence Installation Directory* is the directory where you unzipped the Confluence install download.
- The *Confluence Home Directory* is the directory where Confluence stores its data, which you set by editing the `confluence-init.properties` file in *Confluence Installation Directory/confluence/WEB-INF/classes*

Stage 1 - mySQL Database Setup

To create the database and user privileges:

1. Start the MySQL Administrator and use it connect to the mySQL database server. If you are running mySQL for the first time and are unsure of the login settings, just click OK to connect using the defaults.
2. Go to User Administration and click the 'New User' button at the bottom of the window.
3. Call the user 'confluenceuser' and give them a password, click 'Apply Changes'.
4. Right click on the name 'confluenceuser' and choose 'Add Host From Which The User Can Connect' from the pop-up menu. Enter the host 'localhost'.
5. Go to Catalogs, right click in the schema list at the bottom of the left hand column of the window, and select 'Create New Schema' from the pop-up menu. Call the new Schema 'confluencedb'.
6. Go back to User Administration, click on 'confluenceuser' text, not the icon. Then select the 'localhost' which appears under 'confluenceuser' . Now go to the Schema Privileges tab located on the RHS of the window. Here select [confluencedb](#), and make sure the user has all privileges assigned to them by clicking the '<<' button to move the privileges from the 'Available' to the 'Assigned' list. Click "Apply Changes".

Stage 2 - For Users With Existing Data Only

This stage is only required if you have existing Confluence content you wish to transfer:

1. Manually create an XML backup of Confluence under Administration -> Backup & Restore. If you have less than 100MB of attachments, check 'Backup attachments' when creating the backup. If you have over 100MB of attachments, you should not check the 'Backup attachments' and instead you should manually copy the /attachments directory in your Confluence home to another location. This attachments directory can then be copied into the new home directory as describe later
2. Download the backup file to a backups folder
3. Stop Confluence
4. Open your Confluence home directory and copy the plugins subdirectory to the backups folder

Stage 3 - Database Connection Setup

To switch to using the external database:

1. Stop Confluence
2. Edit *Confluence Installation Directory*/WEB-INF/classes/confluence-init.properties and change the confluence.home property to point to a new directory. e.g. if you had

```
confluence.home=c:/confluencedata
```

You could change it to:

```
confluence.home=c:/confluencedata_mysql
```

This is your new *Confluence Home Directory*. (The name doesn't have to end in _mysql – that's just an example)

3. Copy the file mysql-connector-java-3.1.xx-bin.jar from the directory where you unpacked Connector/J to *Confluence Installation Directory*/WEB-INF/lib. (the xx depends on exactly which version you download – MySQL updates the version number from time to time)
4. Start Confluence and set up the new configuration
 - a. You'll be asked for your licence key again. Enter it, and click the 'Custom Installation' button.
 - b. Under the 'External Database' heading, choose MySQL from the dropdown list and click the 'External Database' button.
 - c. On the next page, click the 'Direct JDBC' button.
 - d. Change the database URL by changing the database name 'confluence' to 'confluencedb', so the URL looks like this: jdbc:mysql://localhost/confluencedb?autoReconnect=true
 - e. Enter confluenceuser in the User Name field, and the password you chose earlier in the Password field
 - f. Click the Next button. If you get the error message Could not successfully test your database: : Server connection failure during transaction. Due to underlying exception: 'java.sql.SQLException: Access denied for user 'confluenceuser'@'localhost' (using password: YES)' verify that you have properly given the confluenceuser user all the right permissions when connecting from localhost

Stage 4 - For Users With Existing Data Only

To re-import your backup and plugins:

1. At the 'Load Content' page, choose 'Restore From Backup', browse for the backup you created and restore it. Otherwise choose either the example or empty site as you wish.
2. Stop Confluence
3. Open your backups folder and copy the plugins subdirectory to the new Confluence home directory

Done!

Related Documents

[Configuring Database Character Encoding](#)
[Known Issues for MySQL](#)

Database Setup for Oracle

This page last changed on Apr 15, 2007 by ivan@atlassian.com.

This guide covers deploying Confluence standalone 2.2 or later against an Oracle database, and is also applicable to the WAR version. For older Confluence versions, please follow [these instructions](#).

This database can only be setup by an Oracle database administrator. If you are not a DBA, you should not attempt this guide.

Oracle has a [history of being extremely difficult to setup](#). If you do not have access to an experienced Oracle DBA in your organisation, you are recommended to select any [free, scalable and easy-to-install alternative](#) rather than proceeding with Oracle. Users evaluating Confluence are recommended to start with an alternative database and only consider migrating to Oracle after approval from their DBA. Atlassian's technical support for Oracle setup difficulties will also reflect the high minimum skill requirements for attempting an Oracle setup.

Database Setup Information

This setup guide must be used in conjunction with the list of [Known Issues For Oracle](#). Please review that page before continuing.

Schema Requirements

Confluence must be deployed to a schema in it's own, separate Oracle instance. This avoids a Hibernate bug triggered by the existence of duplicate tablenamees in other schemas, outlined [here](#).

Database Incompatibilities

Oracle 9i and later are supported, please upgrade any older versions prior to installing Confluence.



Database driver update may be required

For all versions of Oracle, you must upgrade to the latest 10g drivers. Check the latest compatible version [here](#). We highly recommend to use the thin drivers.

Please check that your version of Oracle does not have any known issues:

Oracle Version	Oracle Driver	Issue	Solution
Any	Pre 10g	Driver incompatibilities	Upgrade to latest 10g drivers if compatible
Pre 9	Any	Earlier DBs not compatible	Upgrade DB to 9.x or later
9.0.1.0	Any	DB not compatible	Upgrade DB to 9.0.2.6 or later
10g	10.1.0.3.0	Drivers not compatible	Upgrade drivers to

		with Tomcat 5.5	10.1.0.4.0 or later

Deploying Against Oracle

Complete the instructions for [installing Confluence standalone](#), then return to this document instead of proceeding to the Confluence Setup Guide.

Database Preparation

Tailor these instructions to your particular database version:

1. Perform any necessary database or driver upgrades. Download the [latest compatible database drivers](#)
2. Create a separate instance of Oracle and apply any configuration tasks.
3. Create a Confluence user configuration and grant access permissions.

Adding a Datasource to Tomcat

1. Open <INSTALL>/conf/server.xml for editing.
2. Locate the section Host -> Context

```
<Host name="localhost" debug="0" appBase="webapps" unpackWARs="true" autoDeploy="false">
  <Context path="" docBase="../confluence" debug="0" reloadable="true">
    <!-- Logger is deprecated in Tomcat 5.5. Logging configuration for Confluence is
specified in confluence/WEB-INF/classes/log4j.properties -->
    <Manager className="org.apache.catalina.session.PersistentManager"
saveOnRestart="false"/>
  </Context>
</Host>
```

3. Paste in the Resource section provided, prior to Manager as shown

```
<Host name="localhost" debug="0" appBase="webapps" unpackWARs="true" autoDeploy="false">
  <Context path="" docBase="../confluence" debug="0" reloadable="true">
    <!-- Logger is deprecated in Tomcat 5.5. Logging configuration for Confluence is
specified in confluence/WEB-INF/classes/log4j.properties -->

    <Resource
      name="jdbc/confluence"
      auth="Container"
      type="javax.sql.DataSource"
      driverClassName="oracle.jdbc.driver.OracleDriver"
      url="jdbc:oracle:thin:@hostname:port:sid"
      username="<username>"
      password="<password>"
      connectionProperties="SetBigStringTryClob=true"
      maxActive="25"
      maxIdle="5"
      maxWait="10000"
    />

    <Manager className="org.apache.catalina.session.PersistentManager"
saveOnRestart="false"/>
  </Context>
</Host>
```

4. Change the username and password to match the Oracle login.
5. Change url to match hostname, port and sid of the Oracle server. Sid stands for the schema

name. For example:

```
jdbc:oracle:thin:@example.atlassian.com:1521:confluencedb
```

6. If required, choose different maxActive and maxIdle values. These set how many total database connections will be allowed at one time, and how many will be kept open even when there is no database activity.

Configure Confluence Datasource Access

Confluence must be configured to use this datasource:

1. Edit the file <INSTALL>/confluence/WEB-INF/web.xml
2. Go to the end of the file and just before </web-app>, insert the following:

```
<resource-ref>
<description>Connection Pool</description>
<res-ref-name>jdbc/confluence</res-ref-name>
<res-type>javax.sql.DataSource</res-type>
<res-auth>Container</res-auth>
</resource-ref>
```

3. Locate the Oracle JDBC database drivers for JDK 1.4, which comes bundled with your database. We recommend using the thin drivers only. Copy ojdbc14.jar to the <INSTALL>/common/lib directory.

Confluence Setup Wizard

Now Confluence is ready to attempt to connect to Oracle:

1. Startup Confluence using <INSTALL>/bin/startup.bat or <INSTALL>/bin/startup.sh
2. Insert your licence and select External Database.
3. Select Datasource Connection using your Oracle version.
4. Enter java:comp/env/jdbc/confluence for the name of the datasource.

Confluence should now deploy using the Oracle database specified. Please read this [comment](#) on Oracle database optimisation.

Generic Oracle Configuration Tips

Websphere and Oracle

If you are planning to run Confluence on a Websphere application server and Oracle database, you should read the information on [Known Issues for Websphere](#).

24-hour time format with Oracle 8i

We have received a report from a user that when an Oracle 8i database is configured to use 24-hour time as the default format, an exception like this may occur:

005-12-06 13:23:20 Loading root WebApplicationContext

2005-12-06 13:24:34 StandardContext[]: Exception sending context initialized event to listener instance of class com.atlassian.confluence.util.ConfluenceContextLoaderListener

org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'userAccessor' defined in class path resource [applicationContext.xml]: Can't resolve reference to bean 'userAccessorTarget' while setting property 'target'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'userAccessorTarget' defined in class path resource [applicationContext.xml]: Can't resolve reference to bean 'spacePermissionManager' while setting property 'spacePermissionManager'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'spacePermissionManager' defined in class path resource [securityContext.xml]: Can't resolve reference to bean 'spacePermissionManagerTarget' while setting property 'target'; nested exception is org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'spacePermissionManagerTarget' defined in class path resource [securityContext.xml]: Initialization of bean failed; nested exception is org.springframework.jdbc.UncategorizedSQLException: (Hibernate operation): encountered SQLException [Cannot create PoolableConnectionFactory]; nested exception is org.apache.commons.dbcp.SQLNestedException: Cannot create PoolableConnectionFactory

...

org.apache.commons.dbcp.SQLNestedException: Cannot create PoolableConnectionFactory, cause:

java.sql.SQLException: ORA-00604: error occurred at recursive SQL level 1

ORA-12705: invalid or unknown NLS parameter value specified

One symptom of this problem is that Confluence may refuse to start after midday.

The workaround is to go to 'General Configuration' and set the default time format to "HH:mm".

Database Setup for Oracle (Pre Confluence 2.2)

This page last changed on Jun 26, 2006 by david.soul@atlassian.com.



This document is out of date

This documentation applies to Confluence 2.1.x or older. If you have Confluence 2.2.x or newer, please refer to [Database Setup for Oracle](#)



Please note, we strongly recommend you install Confluence on a schema in a brand new database on your Oracle server. If this cannot be accommodated, be aware that Confluence may not install or operate properly. For more details on this limitation please see the issue filed [here](#).

This installation assumes you are using the standalone version of Confluence and Oracle 9i. We have not tested against older versions of Oracle, but have been told that it should work against Oracle 8i provided you use the latest 9i drivers.



Note that some users have found that 9.0.1.0 does not work, while 9.0.2.6 does.

If you are using 10g you should use the 10.1.0.4.0 drivers – the 10.1.0.3.0 drivers don't work when using a Tomcat 5.5 datasource, as the connection returned is a T4CConnection instead of the OracleConnection which Spring is expecting.

1. Adding a datasource to Tomcat

Versions before 5.5

- Edit the `conf/server.xml` file in your Tomcat installation
- Find the following lines:

```
<Context path="" docBase="../confluence" debug="0" reloadable="true">
<Logger className="org.apache.catalina.logger.FileLogger" prefix="atlassian-confluence."
suffix=".log" timestamp="true"/>
```

- Directly after the `<Logger.../>` line, (before the next `</Context>` line), insert the following:

```
<Resource name="jdbc/Confluence" auth="Container" type="javax.sql.DataSource"/>
<ResourceParams name="jdbc/Confluence">
<parameter>
<name>factory</name>
<value>org.apache.commons.dbcp.BasicDataSourceFactory</value>
</parameter>
<parameter>
<name>maxActive</name>
<value>20</value>
</parameter>
<parameter>
<name>maxIdle</name>
<value>10</value>
</parameter>
<parameter>
<name>maxWait</name>
<value>10000</value>
</parameter>
<parameter>
<name>username</name>
```

```

<value>yourusername</value>
</parameter>
<parameter>
<name>password</name>
<value>yourpassword</value>
</parameter>
<parameter>
<name>driverClassName</name>
<value>oracle.jdbc.driver.OracleDriver</value>
</parameter>
<parameter>
<name>url</name>
<value>jdbc:oracle:thin:@hostname:port:oracle-sid</value>
</parameter>
</ResourceParams>

```

- You may want to choose different maxActive and maxIdle values: these are how many total database connections will be allowed at one time, and how many will be kept open even when there is no database activity
- Replace the username and password parameters with the correct values for your database
- In the url parameter, replace the word 'oracle-sid' with the name of the database your confluence data will be stored in. Obviously also change the hostname and port.

Versions 5.5 and later

In Tomcat 5.5 the configuration format has changed. The data source resource should be defined like this:

```

<Resource
name="jdbc/Confluence"
auth="Container"
type="javax.sql.DataSource"
driverClassName="oracle.jdbc.driver.OracleDriver"
url="jdbc:oracle:thin:@<hostname>:<port>:<sid>"
username="<username>"
password="<password>"
connectionProperties="SetBigStringTryClob=true"
maxActive="25"
maxIdle="5"
maxWait="10000"
/>

```

2. Configure the Confluence to be aware of this datasource

- Edit confluence/WEB-INF/web.xml in your confluence installation
- Go to the end of the file and just before </web-app>, insert the following:

```

<resource-ref>
<description>Connection Pool</description>
<res-ref-name>jdbc/confluence</res-ref-name>
<res-type>javax.sql.DataSource</res-type>
<res-auth>Container</res-auth>
</resource-ref>

```

- Copy the ojdbc14.jar to the common/lib directory (this jar is the oracle jdbc thin driver for JDK 1.4. It comes bundled with your Oracle 9i database). We recommend using the thin drivers only.

3. Confluence setup wizard

- Startup confluence using bin/startup.bat or startup.sh
- Run through the setup process and when asked to choose a database type: choose Datasource Connection
- Enter in java:comp/env/jdbc/confluence for the name of the datasource and select the oracle 9 dialect.
- Complete the setup and that's it!

Database Setup for SQL Server

This page last changed on Feb 20, 2007 by david.soul@atlassian.com.

To run Confluence using the SQL Server, you must create a database table and user, download the database drivers and insert the connection details.

1. Review [Known Issues For SQL Server](#)
2. Identify Character Encoding
To identify which character encoding to use, check the encoding used by your [application server](#) and [Confluence](#) now. All three must use compatible encoding. For example, the default SQL Server encoding of USC-2 is compatible with UTF-8.
3. Create Database Table
As an SQL administrator, create a new table. If you set your application server and Confluence to use an encoding incompatible with USC-2, specify that character encoding for the table.
4. Create SQL User Account
As an SQL administrator, create a new user account for Confluence. Provide full create, read and write permissions for the table. Note that Confluence must be able to create its own schema.
5. Install Database Drivers
SQL Server users are strongly recommended to install the [JTDS JDBC drivers](#). Copy the driver file `jtds-<version>.jar` into your standalone's `common/lib` directory. If you are configuring a datasource to connect to your MS SQL server database, you may find this page helpful: <http://jtds.sourceforge.net/faq.html>
6. Start Confluence and visit the home URL (eg <http://localhost:8080>) to start the Confluence Setup Wizard and select a Custom Install, insert the relevant connection information.
7. When prompted for a driver class name in the database setup step enter:

```
net.sourceforge.jtds.jdbc.Driver
```

8. When prompted for the jdbc url, the format to use is:

```
jdbc:jtds:sqlserver://<server>:<port>/<database>
```

Improving Database Performance

This page last changed on Jan 05, 2007 by david.soul@atlassian.com.

Configuring Database Indexing



This was done specifically for Oracle 9i but the indexing should work with all other DB's if you remove 'bitmap' from the indexes which use it, and remove the parallel clauses.

The work request is followed here : <http://jira.atlassian.com/browse/CONF-2780>

Thanks to Michael Thorpe for this work

Confluence performance can be improved by adding the following indexes :-



Create Indexes

```
create index CONTENT_IDX1 on CONTENT( SPACEID );
create index CONTENT_IDX2 on CONTENT( MAILSPACEID ); Confluence 1.4.x only
create index CONTENT_IDX3 on CONTENT( BLOGSPACEID ); Confluence 1.4.x only
create bitmap index CONTENT_IDX4 on CONTENT( CONTENTTYPE );
create index CONTENT_IDX5 on CONTENT( PARENTID );
create index CONTENT_IDX6 on CONTENT( TITLE );
create index INKS_IDX1 on LINKS( CONTENTID );
create index LINKS_IDX2 on LINKS( DESTSPACEKEY );
```

Also, ensure that all statistics are upto date for the Confluence schema (Hibernate does not ensure that stats are gathered) by using

```
DBMS_STATS.GATHER_SCHEMA_STATS
```

And yet more indexes (These reduced physical IO by 80% on our database) :-



Create Indexes

```
CREATE INDEX CONTENT_IDX7 ON CONTENT (PREVVER)
PARALLEL ( DEGREE 4 INSTANCES 1 );

CREATE BITMAP INDEX CONTENT_IDX9 ON CONTENT (CONTENT_STATUS);

CREATE INDEX CONTENT_IDX8 ON CONTENT (PAGEID)
PARALLEL ( DEGREE 4 INSTANCES 1 );

CREATE INDEX EXTRNLNKS_IDX1 ON EXTRNLNKS (CONTENTID)
PARALLEL ( DEGREE 4 INSTANCES 1 );
```

```
CREATE INDEX ATTACHMENTS_IDX1 ON ATTACHMENTS (PAGEID)
PARALLEL ( DEGREE 4 INSTANCES 1 );
```

```
CREATE INDEX SPACEPERMISSIONS_IDX1 ON SPACEPERMISSIONS (SPACEID)
PARALLEL ( DEGREE 2 INSTANCES 1 );
```

And one more



Create Indexes

```
CREATE INDEX CONTENT_IDX10 ON CONTENT (USERNAME)
```

This one may also help (from [Charles Miller](#))



Create Indexes

```
CREATE INDEX PROPERTY_IDX1 ON OS_PROPERTYENTRY (ENTITY_ID)
```

Also, if your database supports function-based indexes (more about Oracle function based indexes [here](#)), this might help:



Create Indexes

```
create index CONTENT_IDX11 on CONTENT( lower(TITLE) );
```

Known Issues For Supported Databases

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

[Configuring Database Character Encoding](#)

[Known Issues for DB2](#)

[Known Issues for MySQL](#)

[Known Issues For Oracle](#)

[Known Issues for PostgreSQL](#)

[Known Issues For SQL Server](#)

[Known Issues for Sybase Database](#)

Configuring Database Character Encoding

This page last changed on Mar 14, 2007 by don.willis@atlassian.com.

The database used with Confluence should be configured to use the same character encoding as Confluence. The recommended encoding is Unicode UTF-8.

There are two places where character encoding may need to be configured:

- when creating the database
- when connecting to the database (JDBC connection URL or properties).

The configuration details for each type of database are different. Some examples are below.

JDBC connection settings

MySQL

Append "useUnicode=true to your JDBC URL:

```
jdbc:mysql://hostname:port/database?autoReconnect=true&useUnicode=true
```

Creating a UTF-8 database

MySQL

```
CREATE DATABASE confluence CHARACTER SET utf8 COLLATE utf8_general_ci;
```

Use the **status** command to obtain database character encoding information.


```
mysql> CREATE DATABASE confluence CHARACTER SET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected (0.03 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| confluence |
| confluencedb |
| mysql |
| test |
+-----+
4 rows in set (0.00 sec)

mysql> use confluence;
Database changed
mysql> status;
-----
mysql Ver 14.7 Distrib 4.1.21, for Win32 (ia32)
Connection id: 10
Current database: confluence
Current user: root@localhost
SSL: Not in use
Using delimiter: ;
Server version: 4.1.21-community-nt
Protocol version: 10
Connection: localhost via TCP/IP
Server characterset: utf8
Db characterset: utf8
Client characterset: latin1
Conn. characterset: latin1
TCP port: 3306
Uptime: 6 hours 21 min 44 sec
```

For more information see the [MySQL documentation](#).

PostgreSQL

```
CREATE DATABASE confluence WITH ENCODING 'UNICODE';
```

Or from the command-line:

```
$ createdb -E UNICODE confluence
```

For more information see the [PostgreSQL documentation](#).

For PostgreSQL running under Windows

Please note that international characters sets are only fully supported and functional when using PostgreSQL 8.1 and above under Microsoft Windows.

For PostgreSQL running under Linux



Please make sure you check the following to ensure proper handling of international characters in your database

When PostgreSQL creates an initial database cluster, it sets certain important configuration options based on the host environment. The command responsible for creating the PostgreSQL environment `initdb` will check environment variables such as `LC_CTYPE` and `LC_COLLATE` (or the more general `LC_ALL`) for settings to use as database defaults related to international string handling. As such it is important to make sure that your PostgreSQL environment is configured correctly before you install Confluence.

To do this, connect to your PostgreSQL instance using `psql` and issue the following command:

```
SHOW LC_CTYPE;
```

If `LC_CTYPE` is set to either "C" or "POSIX" then certain string functions such as converting to and from upper and lower case will not work correctly with international characters. Correct settings for this value take the form `<LOCALE>.<ENCODING>` (`en_AU.UTF8` for example).

If your `LC_CTYPE` is incorrect please check the [PostgreSQL documentation for information on configuring database localisation](#). It is not easy to change these settings with a database that already contains data.

Updating existing database to UTF-8

MySQL database with existing data



Before proceeding with the following changes, please backup your database.

This example shows how to change your database from latin1 to utf8.

1. Dump the database to a text file using `mysqldump` tool from the command-line :
`mysqldump -p --default-character-set=latin1 -u <username> --skip-set-charset confluence > confluence_database.sql`
2. Open the SQL file in a text editor and change all character sets from 'latin1' to 'utf8'
3. `cp confluence_database.sql confluence_utf8.sql`
4. Encode all the latin1 characters as UTF-8:
`recode latin1..utf8 confluence_utf8.sql` (Recode utility available from <http://directory.fsf.org/recode.html>)

In MySQL:

1. `DROP DATABASE confluence;`
2. `CREATE DATABASE confluence CHARACTER SET utf8 COLLATE utf8_general_ci;`

Finally, reimport the UTF-8 text file:

1. `mysql -p --default-character-set=utf8 --max_allowed_packet=64M confluence < /home/confluence/confluence_utf8.sql`

To support large imports, the parameter '`--max_allowed_packet=64M`' used above sets the maximum

size of an SQL statement to be very large. In some circumstances, you may need to increase it further, especially if attachments are stored in the database.

Testing database encoding

See [Troubleshooting Character Encodings](#) for a number of tests you can run to ensure your database encoding is correct.

Related Documentation

[Known Issues for MySQL](#)

Known Issues for DB2

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

DB2 Does Not Support Unicode Character By Default

To support the Unicode character set, create your database like this:
For 8.2.2 or later:

```
db2 create database <name> using codeset utf-8 territory us pagesize 8 k
```

Before 8.2.2

```
db2 create database <name> using codeset utf-8 territory us
db2 drop tablespace userspace1
db2 create bufferpool bufpool8k <number of pages> pagesize 8 k
db2 create tablespace userspace1 pagesize 8 k managed by database using \ (file \<location>\'
    <number of pages>\) bufferpool bufpool8k
```

The territory may not be important when using UTF-8, but it must be included.

DB2 Does Not Support Transaction Logging Of BLOBs Larger Than 1GB

<http://publib.boulder.ibm.com/infocenter/db2luw/v8/index.jsp?topic=/com.ibm.db2.udb.doc/ad/c0006327.htm>

"With their potentially large size, LOBs can slow down the performance of your database system significantly when moved into or out of a database. Even though DB2 does not allow logging of a LOB value greater than 1 GB, LOB values with sizes approaching 1 GB can quickly push the database log to near capacity. An error, SQLCODE -355 (SQLSTATE 42993), results from attempting to log a LOB greater than 1 GB in size. The lob-options-clause in the CREATE TABLE and ALTER TABLE statements allows users to turn off logging for a particular LOB column. Although setting the option to NOT LOGGED will improve performance, changes to the LOB values after the most recent backup are lost during roll-forward recovery."



Although one could set the length for the CustomClobType in BodyContent.hbm.xml field length to larger sizes, say 2^{31} to allow storing of BLOBs up to the size of 2 Gb, DB2 maximum length can only be set to 2^{30} , 1GB.

```
<property name="body" type="com.atlassian.confluence.core.persistence.hibernate.CustomClobType"
update="true" insert="true"
    column="BODY" length="1073741824" />
```

Configuring Database Character Encoding

Refer to [Configuring Database Character Encoding](#).

Related Links

[Interpreting DB2 error codes](#)

Interpreting DB2 error codes

This page last changed on Aug 01, 2006 by david.soul@atlassian.com.

When DB2 dies, it'll dump its error codes out in the SQL Exception:

```
DB2 SQL error: SQLCODE: -803, SQLSTATE: 23505
```

You can find the meaning of the error code from the db2 command prompt with "? sqlxxxx" where xxxx is the SQLCODE from the error message:

```
[db2inst1@matilda db2inst1]$ db2 ? sql-803

SQL0803N One or more values in the INSERT statement, UPDATE
statement, or foreign key update caused by a DELETE
statement are not valid because the primary key, unique
constraint or unique index identified by
"<index-id>" constrains table "<table-name>" from
having duplicate rows for those columns.

Explanation:

The INSERT or UPDATE object table "<table-name>" is constrained
by one or more UNIQUE indexes to have unique values in certain
columns or groups of columns. Alternatively, a DELETE statement
on a parent table caused the update of a foreign key in a...

(and so on for about three more pages of text...)
```



You may also like to use the [SQL Message Finder](#) to find information about iSeries SQL messages. You can search by message ID, SQLCODE, or SQLSTATE value. You can also select an SQLSTATE class code.

There is also an online reference for [SQL Messages and Codes](#) which is quite useful.

Known Issues for MySQL

This page last changed on Mar 26, 2007 by [mjensen](#).

Configuring Database Character Encoding

To prevent problems with character encoding, for consistency, we recommend to use Unicode character encoding UTF-8 among all the entities of your system. See [Configuring Database Character Encoding](#) for more details.

MySQL Storage Engine

The Default storage engine for MySQL is MyISAM. This storage engine does not support Foreign Key constraints. This may cause data corruption and is not recommended for use.

You can set the default Storage Engine for MySQL by passing the '--default-storage-engine=InnoDB' option when starting mysql.

For more information see: <http://dev.mysql.com/doc/refman/4.1/en/storage-engines.html>.

MySQL JDBC Drivers

For users using MySQL with Confluence 2.2 (or higher), please ensure that you are using the [latest](#) (3.1.14) MySQL Java Connector. Earlier versions of the MySQL connector have a bug which is triggered by improvements in Confluence 2.2. These earlier connector versions will result in an error being recorded in your logs on upgrade (and will result in unstable operation of Confluence)

```
ERROR [hibernate.tool.hbm2ddl.SchemaUpdate] execute could not complete schema update
```

You can download the latest MySQL connector from the [MySQL Java Connector 3.1 download page](#). Please be sure that you remove any older versions of the connector from your application server.

Don't use the debug version of these drivers (the jar file ending in '-g.jar'). This requires extra configuration, see [Installing the Driver and Configuring the CLASSPATH](#)

If you get a connection error: Access denied for user 'confluenceuser'@'localhost.localdomain' this may be because 127.0.0.1 resolves to 'localhost.localdomain' in your environment. Create a user 'confluenceuser@localhost%' to match any domain starting with localhost.

MySQL and Character encoding:

When specifying a character encoding as part of your mysql connection url (eg: &characterEncoding=utf8), it is important to ensure that the specified encoding is compatible with the

default encoding used by your database. Note: if you do not specify a `characterEncoding` on the connection url, the connection will default to the servers default character set.

Full details of MySQLs character support is available here:

<http://dev.mysql.com/doc/mysql/en/charset.html>



There are known issues with MySQL 3.x and Unicode characters. Please see [MySQL 3.x Character Encoding Problems](#)

Confluence installation Hangs

If the confluence installation hangs after creating the mysql jdbc connection, try setting the jdbc property `useServerPrepStmts` to false.

Example:

```
jdbc:mysql://localhost/confluence?autoReconnect=true&useServerPrepStmts=false
```

This issue is known to happen on Ubuntu and Mysql 4.1.x.

Find a list of MySQL related configuration hints below:

MySQL Connector-J 3.1.10 bug.

If you are wondering why a large number of '!' marks are appearing in your log files, it is likely to be caused by <http://bugs.mysql.com/bug.php?id=11629>.

BadSqlGrammarException and character encoding exceptions using MySQL Connector-J 3.1.10

User reports that adding a `"useOldUTF8Behavior=true"` parameter to the JDBC URL allowed Confluence to work with this driver.

DataIntegrityViolationException when running MySQL 5

Running MySQL 5 as the database for Confluence is currently not a supported configuration. However, if it is used, the following exception may occur in the logs:


```
org.springframework.dao.DataIntegrityViolationException: (Hibernate operation): data integrity
violated by SQL ''; nested exception is
java.sql.BatchUpdateException: Data too long for column 'boolean_val' at row 1
```

A temporary fix for this is to manually modify the boolean_val column in the OS_PROPERTYENTRY table, so that it is of type bit(8). Note that this won't allow you to restore a backup, as the first thing the restore does is rebuild the DB.

```
java.sql.SQLException: Invalid authorization specification
```

Some users reported problems getting MySQL running under Tomcat, throwing an exception similar to the following:

```
Connection failed to open on the JDBC URL: java.sql.SQLException: Invalid authorization
specification, message from server: "Access denied for user:
'your_username@localhost.localdomain' (Using password: YES)"
```

However, it is still possible to easily connect to MySQL from the shell and from PhpMyAdmin.

The problem seems to be a [known bug](#) and seems to be related to the hostname portion in mysql:users.

I figured out the problem. Changing "host" in mysql:users to "127.0.0.1" enabled Confluence to access the database.

Therefore instead of granting permissions using the following command:

```
GRANT ALL PRIVILEGES ON .* to 'example'@'localhost.localdomain' identified by '<the
password>';
FLUSH PRIVILEGES;
```

you should use:

```
GRANT ALL PRIVILEGES ON .* to 'example'@'127.0.0.1' identified by '<the password>';
FLUSH PRIVILEGES;
```

You can do it this way, but it seems you should ensure that the canonical host name is the first item in the /etc/hosts line for 127.0.0.1. Make sure it's not localhost.localdomain but localhost. e.g.:

```
127.0.0.1    localhost localhost.localdomain myfunkyboxname anotheralias.foobar.com
```

And then make sure you use the same thing, i.e. localhost in the GRANT line and the JDBC URL. Inconsistency across these things is the root problem (and perhaps we can blame the JDBC Driver?)



This information is just as useful for JIRA as Confluence.

Max Allowed Packet Size Exceeded

If you are using MySQL 4 and prior, you may come across a problem with **max_allowed_packet** size.

```
ERROR [sf.hibernate.util.JDBCExceptionReporter] logExceptions Packet for query is too large
(1259485 > 1048576). You can change this value on the server by setting the max_allowed_packet'
variable.
```



In MySQL 3.23, the largest possible packet is 16MB, due to limits in the client/server protocol. In MySQL 4.0.1 and up, the limit is 1GB.

To resolve this problem, you need to increase the value for **max_allowed_packet**

Prior MySQL 4.0, use this syntax instead:

```
shell> mysqld --set-variable=max_allowed_packet=16M
```

From MySQL 4.0, use this syntax

```
shell> mysql --max_allowed_packet=32M
```

For more information, please refer to MySQL manual:

<http://mysql.bigbiz.com/doc/refman/4.1/en/packet-too-large.html>

Duplicate Key Exception During Import

When upgrading to MySQL from another database, such as HSQL, importing the site backup often fails with an error like this:

```
Duplicate key or integrity constraint violation message from server:
```

Such errors occur because usually MySQL evaluates unique key constraints and primary key constraints in a case insensitive way. So if you have a space with the key "sp" and another with the key "SP", MySQL will refuse to add the second one.

This problem is avoidable by setting the [collation](#) on the database to be case sensitive.

Setting the MySQL Collation to be case insensitive

MySQL uses collations for sorting data and for evaluating uniqueness.

To set the collation to case insensitive when using utf8, use this command:

```
CREATE DATABASE confluence CHARACTER SET utf8 COLLATE utf8_bin;
```

Note: The collation must be compatible with the character set. The name of the database in the example is confluence.

To alter the collation on an existing database using utf8, use this command:

```
ALTER DATABASE confluence CHARACTER SET utf8 COLLATE utf8_bin;
```

Note: The collation must be compatible with the character set. The name of the database in the example is confluence.

For further information see the [MySQL documentation on character sets on collations](#).

Known Issues For Oracle

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

Use Oracle with thin Oracle 10g JDBC drivers

We recommend you to use the following configuration to run Confluence with Oracle:

- Regardless of what version of the Oracle database you are using, you should use the Oracle 10g JDBC drivers. (Note: Oracle 10g JDBC drivers will not work with Oracle 8.1.6 see [Oracle FAQ](#))
- We highly recommend to use the thin drivers.

Also see:

Websphere and Oracle

If you are planning to run Confluence on a Websphere application server and Oracle database, you should read the information on [Known Issues for Websphere](#).

24-hour time format with Oracle 8i

We have received a report from a user that when an Oracle 8i database is configured to use 24-hour time as the default format, an exception like this may occur:

```
005-12-06 13:23:20 Loading root WebApplicationContext

2005-12-06 13:24:34 StandardContext[]: Exception sending context initialized event to listener
instance
of class com.atlassian.confluence.util.ConfluenceContextLoaderListener

org.springframework.beans.factory.BeanCreationException: Error creating bean with name
'userAccessor' defined in class path resource [applicationContext.xml]:
Can't resolve reference to bean 'userAccessorTarget' while setting property 'target';
nested exception is org.springframework.beans.factory.BeanCreationException: Error creating
bean with name 'userAccessorTarget' defined in class path
resource [applicationContext.xml]: Can't resolve reference to bean 'spacePermissionManager'
while setting property 'spacePermissionManager';
nested exception is org.springframework.beans.factory.BeanCreationException: Error creating
bean with name 'spacePermissionManager' defined in class path resource [securityContext.xml]:
Can't resolve reference to bean 'spacePermissionManagerTarget' while setting property 'target';
nested exception is org.springframework.beans.factory.BeanCreationException:
Error creating bean with name 'spacePermissionManagerTarget' defined in class path resource
[securityContext.xml]: Initialization of bean failed;
nested exception is org.springframework.jdbc.UncategorizedSQLException: (Hibernate operation):
encountered SQLException [Cannot create PoolableConnectionFactory];
nested exception is org.apache.commons.dbcp.SQLNestedException: Cannot create
PoolableConnectionFactory

...

org.apache.commons.dbcp.SQLNestedException: Cannot create PoolableConnectionFactory, cause:

java.sql.SQLException: ORA-00604: error occurred at recursive SQL level 1
```

ORA-12705: invalid or unknown NLS parameter value specified

One symptom of this problem is that Confluence may refuse to start after midday.

The workaround is to go to 'General Configuration' and set the default time format to "HH:mm".

Configuring Database Character Encoding

Refer to [Configuring Database Character Encoding](#).

Known Issues for PostgreSQL

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

Database Performance Issue on PostgreSQL 7

There is an issue in versions of PostgreSQL prior to 8.0 that causes the database to do a full table scan rather than an index lookup for many of the database queries performed by Confluence. This will cause Confluence to slow significantly the more data it has stored.

While we fully support Confluence on PostgreSQL 7, we highly recommend upgrading to version 8.0 or higher for this reason.

Configuring Database Character Encoding

Refer to [Configuring Database Character Encoding](#).

Known Issues For SQL Server

This page last changed on Sep 18, 2006 by david.soul@atlassian.com.

Unicode Characters Not Supported By Default

Problem

Non-ASCII characters will not be displayed by Confluence.

Reason

The default SQL Server dialect uses column types that do not support Unicode, specifically the char, varchar and text column types. See [CONF-4786](#) for details.

Solution

To add Unicode support, use the Unicode SQL Server dialect which uses nchar, nvarchar and ntext column types. Unicode SQL Server dialect has the downside of halving the maximum length of each column from 8000 characters to 4000, as every char is stored in two bytes.

Enable Unicode SQL Server dialect on a new setup, perform these steps prior to 'Stage 3 - Database Connection Setup' of the [Database Setup For Any External Database](#):

1. Open the mssql.properties file within your Confluence installation folder
2. Comment the line: dialect=net.sf.hibernate.dialect.SQLServerDialect
3. Uncomment the line: #dialect=net.sf.hibernate.dialect.SQLServerIntIDialect
4. Start the Confluence Setup Wizard

For existing SQL Server instances wishing to enable Unicode support:

1. From Confluence, create an XML site backup
2. From your DBA tool, create a full backup of the Confluence schema contents
3. Stop Confluence
4. Move your home directory
5. Drop all tables from the Confluence schema
6. Change the dialect to Unicode using the above instructions
7. Follow the 'Stage 3 - Database Connection Setup' of [Database Setup For Any External Database](#) to setup the connection again and import the XML backup
8. Once the Setup Wizard is complete, stop Confluence
9. Copy any customised content and plugins from your old home directory into the new home directory
10. Start Confluence

This will not restore previously stored Unicode characters.

Use jTDS Driver 1.0.3 Or Later For JDBC Connection - Reason 1

Problem

When using jTDS driver 1.0.2 or earlier, Confluence may freeze when performing certain functions, and you see a warning like the one displayed below:

```
\[ERROR\] ActionSupport - \-An error occured while storing the requested page\!  
<org.springframework.jdbc.UncategorizedSQLException: (Hibernate operation): encountered  
SQLException  
\[The amount of data read from the stream is not = length.\]; nested exception is  
java.sql.SQLException: The amount of data read from the stream is not = length.>
```

This can occur with jTDS driver 1.0.2 but is fixed in 1.0.3 - see the [jTDS homepage](#) . It will prevent backups from succeeding and lock access to the database when viewing certain pages.

Solution

Upgrade to jTDS driver 1.0.3 or later from the [jTDS download page](#).

Use jTDS Driver 1.0.3 Or Later For JDBC Connection - Reason 2

Problem

When using MS SQL Server without the jTDS drivers, you may receive an error similar to:

```
net.sf.hibernate.LazyInitializationException: Exception initializing proxy:  
\[com.atlassian.confluence.spaces.SpaceDescription#5\  
  at net.sf.hibernate.proxy.LazyInitializer.initializeWrapExceptions(LazyInitializer.java:64)  
  at net.sf.hibernate.proxy.LazyInitializer.getImplementation(LazyInitializer.java:164)  
  ...  
Caused by: java.sql.SQLException: \[Microsoft\]\[SQLServer 2000 Driver for JDBC\]ResultSet can  
not re-read row data for column 2.  
  at com.microsoft.jdbc.base.BaseExceptions.createException(Unknown Source)  
  at com.microsoft.jdbc.base.BaseExceptions.getException(Unknown Source)  
  at com.microsoft.jdbc.base.BaseResultSet.validateColumnIndex(Unknown Source)  
  at com.microsoft.jdbc.base.BaseResultSet.getLong(Unknown Source)  
  at com.microsoft.jdbc.base.BaseResultSet.getLong(Unknown Source)  
  at org.jboss.resource.adapter.jdbc.WrappedResultSet.getLong(WrappedResultSet.java:338)  
  at net.sf.hibernate.type.LongType.get(LongType.java:18)  
  at net.sf.hibernate.type.NullableType.nullSafeGet(NullableType.java:62)  
  at net.sf.hibernate.type.NullableType.nullSafeGet(NullableType.java:53)  
  at net.sf.hibernate.type.ManyToOneType.hydrate(ManyToOneType.java:61)  
  at net.sf.hibernate.loader.Loader.hydrate(Loader.java:686)  
  at net.sf.hibernate.loader.Loader.loadFromResultSet(Loader.java:627)  
  at net.sf.hibernate.loader.Loader.instanceNotYetLoaded(Loader.java:586)  
  at net.sf.hibernate.loader.Loader.getRow(Loader.java:501)  
  at net.sf.hibernate.loader.Loader.getRowFromResultSet(Loader.java:213)  
  at net.sf.hibernate.loader.Loader.doQuery(Loader.java:281)  
  at net.sf.hibernate.loader.Loader.doQueryAndInitializeNonLazyCollections(Loader.java:133)  
  at net.sf.hibernate.loader.Loader.loadEntity(Loader.java:911)  
  at net.sf.hibernate.loader.Loader.loadEntity(Loader.java:931)  
  at net.sf.hibernate.loader.EntityLoader.load(EntityLoader.java:59)  
  at net.sf.hibernate.loader.EntityLoader.load(EntityLoader.java:51)  
  at net.sf.hibernate.persister.EntityPersister.load(EntityPersister.java:419)
```

We use a component in Confluence called Hibernate. According to [Hibernate Documentation](#) there may be issues with the Microsoft JDBC drivers resulting in the error you are seeing.

Solution

Upgrade to jTDS driver 1.0.3 or later from the [jTDS download page](#). You may also consider alternative SQL Server drivers listed on the [Hibernate page](#).

Configuring Database Character Encoding

When creating the database schema, the database character encoding must be compatible with the

application and Confluence character encoding as described in [Configuring Database Character Encoding](#). If setting MS SQL to use UTF-8 is not an option, you can create a schema that uses UCS-2 encoding, and have the application and Confluence use UTF-8 encoding.

Known Issues for Sybase Database

This page last changed on Mar 20, 2007 by don.willis@atlassian.com.

Find below a list of tips relating to using Sybase with Confluence

Confluence and JIRA shared user base management fails due to wrong casing of database columns and names.

- See [Override properties in JIRA to Confluence Bridge](#)

Configuring Database Character Encoding

Refer to [Configuring Database Character Encoding](#)

Case sensitivity issues

All versions of Confluence 2.3 require a patch in order to work with Sybase. This is downloadable from <http://jira.atlassian.com/browse/CONF-7925>.

List Of Supported Databases

This page last changed on Apr 17, 2007 by [ktran](#).



Confluence is bundled with a pre-configured HSQL database for evaluation purposes only.

For [safe production use](#), it must be configured to use one of the following databases:

Fully Supported

- PostgreSQL 8+
- MySQL 4.1+ ([MySQL 5 is unsupported](#))
- Oracle 10g+
- DB2 8.2+

Supported [With Minor Workarounds](#)

- PostgreSQL 7.1+
- Oracle 8i, 9i or later
- Microsoft SQL Server 2000+
- Sybase ASE 12.5.1+

If you have no preference, [PostgreSQL](#) is scalable, free and easy to setup. For database setup information, see [Database Configuration](#).

Migrate to an External Database

This page last changed on Mar 21, 2007 by dave@atlassian.com.

This document outlines how to migrate your data from your existing database to another database.

You should only use this method when moving from the embedded DB to an external DB, or from one type of external DB to another (e.g. Oracle to Postgres). If you are simply moving your DB from one server to another you can just change the JDBC URL in <confluence.home>/confluence.cfg.xml (if you are using a direct JDBC connection) or in the definition of your datasource (if you are connecting via a datasource).

Step One : Backing up your data

1. Create a backup of your existing data. This is done from the Administration Console. Instructions on how to create a backup can be found [here](#).
2. Shut down and backup the [Confluence Home Directory](#).
3. If you are already using an external database, please make a backup of it using the utilities that were installed with it.

Step Two : Configuring the Confluence Home Directory

1. Create a new Confluence Home Directory. You can place this directory anywhere you like and give it a name of your choice.
2. Open WEB-INF/classes/confluence-init.properties file in your Confluence installation and change the confluence.home property to point to this new Confluence Home Directory.

Step Three : Setting up Confluence with the new database.

If your databases are not already configured for Confluence, refer to [Database Configuration](#) to setup your database access.

1. Make sure that the JDBC drivers for your database are available to the application server. If you don't already have the JDBC driver, please download one from [here](#).
2. Make sure that your database is using a case-sensitive collation. Please see this issue for more details: <http://jira.atlassian.com/browse/CONF-7917>
3. If you are running the standalone version of Confluence, copy your JDBC database driver (a .jar file), into the confluence-install/common/lib folder.
4. Start up Confluence. You will see the [Confluence Setup Wizard](#).
5. Select 'Custom Install'.
6. Select your database from the drop down list.
7. Select 'Direct JDBC' and then enter the details of the new database you want to migrate to.
 Read the documentation on [Custom Installation](#) for more detailed explanation.
8. When prompted, restore the contents of the backup you made in Step One into the new Confluence site

You old Confluence data will now be imported to your new database.

RELATED TOPICS

[Configuration Guide](#)

[Migrate to an External Database](#)



[Administrators Guide Home](#)



[Confluence Documentation Home](#)

Database JDBC drivers

This page last changed on Jan 01, 2007 by david.soul@atlassian.com.

Below you can find a link to the JDBC drivers for all currently supported databases. You will need to make the driver available to your application server.

JDBC driver download links -

- [PostgreSQL](#) - Download the JDBC 3 driver version specific to your PostgreSQL version
- [MySQL](#)
- [Oracle](#)
- [DB2](#)
- [Microsoft SQL Server 2000](#) - Link goes to recommended jTDS JDBC drivers
- [Sybase ASE](#)

Troubleshooting External Database Connections

This page last changed on Jan 10, 2007 by david.soul@atlassian.com.

The Atlassian Database Check Utility

A common administration issue when configuring Confluence is identifying database connectivity problems. The [helper JSP](#) can isolate database connectivity issues. It simply checks whether you can connect to a database with your application server. If your application server cannot connect to the database, Confluence certainly will not.

Purpose:

- Check that your application server can successfully query your database (either via immediate JDBC connectivity or a Datasource in the context of your application server).
- Pinpoint problems in your configuration which may occur if the above is failing.

Functionality:

- Check that a JDBC Driver can be loaded into memory and view what is already loaded.
- Connect to a JDBC URL and do a 'select 1' from the database.
- Find a DataSource in the JNDI environment and do the above.
- View the System classpath (to ensure that the JDBC jar file is there).

Using the Utility

If you have already setup Confluence completely

1. Download [testdatabase.jsp](#) to 'MY-CONF-INSTALL-PATH\confluence'
2. Restart Confluence
3. Go to <http://MY-CONF-SERVER:MY-CONF-PORT/testdatabase.jsp>
4. Check that your database driver is loaded into memory. If not, check the system classpath for the JDBC driver file, and that the driver is in the confluence-install/common/lib folder as per the [instructions](#)
5. Enter the DB settings Confluence is using and test the database. If an error appears, check that the db service is running, the location matches, and that any users specified actually exist with the right login and permissions. You may be able to find a workaround by googling the error.

If you cannot setup Confluence because of an error in 'Configuring Database'

1. Record the DB settings you are using for your direct JDBC or datasource connection in the 'Configure Database' step of your setup
2. Download [testdatabase.jsp](#) to 'MY-CONF-INSTALL-PATH\confluence'
3. Rename 'MY-CONF-INSTALL-PATH\confluence\WEB-INF\web.xml' to 'backup web.xml' (This disables redirection)
4. Restart Confluence
5. Go to <http://MY-CONF-SERVER:MY-CONF-PORT/testdatabase.jsp>

6. Check that your database driver is loaded into memory. If not, check the system classpath for the JDBC driver file, and that the driver is in the confluence-install/common/lib folder as per the [instructions](#)
7. Enter the DB settings you recorded and test the database. If an error appears, check that the db service is running, the location matches, and that any users specified actually exist with the right login and permissions. You may be able to find a workaround by googling the error.
8. After correcting the error, rename 'MY-CONF-INSTALL-PATH\confluence\WEB-INF\backup web.xml' back to 'web.xml'

Notes

This JSP is bundled in Confluence 1.2.4 and onwards. It can be used with earlier versions quite easily. If you use this utility, please let us know ways in which we could improve it or leave helpful hints for others here.

Troubleshooting the Embedded Database (hSQL DB)

This page last changed on Jul 06, 2006 by ivan@atlassian.com.

```
java.sql.SQLException: User not found: SA
```

Also see <http://hsqldb.sourceforge.net/doc/guide/ch01.html#N101C2> .

HSQldb periodically must update its files to represent changes made in the database. In doing so, it must delete the current conflencedb.data file on the filesystem (beneath conf.home/database) and replace it with a new one.

If an administrator issues a shutdown on Confluence in this period, data can be lost, and is typically noticed by the error message, when starting Confluence up again, of 'User not found: SA' .

Users encountering this problem should seek to restore backups, contained in the backup directory beneath confluence.home. If daily backups have been turned off, and no other copy of data remains, the data is lost.



HSQldb should not be used as a production database. It is included for evaluation purposes only.

Hibernate logging

It can be useful to [enable detailed Hibernate logging](#) when debugging problems with HSQL.

Upgrading From HSQL 1.7.1 to 1.8

This page last changed on Feb 21, 2007 by rosie@atlassian.com.

If you have received an error message while upgrading Confluence which said "HSQL Database needs to be cleaned. Please run HSQL17To18PreUpgradeCleaner.", and referred you to this page, you need to do the following:

1. Shut down Confluence
2. Open a command window.
3. Change your directory to the directory you set as your confluence.home directory.
4. Execute the following command: `java -jar <confluence install directory>/hsqldbcleaner/hsqldbcleaner.jar`
5. Start Confluence -- the upgrade will now work.



Don't run this unless asked to by Confluence - it won't work

Guide to using Apache Tomcat's Virtual Hosts

This page last changed on Nov 26, 2006 by [mryall](#).

Introduction

Sometimes it is necessary to have Tomcat serve different applications on the same context path, but different host names. Most commonly, this is when trying to use a simple [mod_proxy configuration](#) with Apache.

Tomcat configuration

Tomcat allows [name-based virtual hosting](#), where the hostname of the request determines which application processes it. The following configuration shows how two virtual hosts can be configured for Jira and Confluence on the same Tomcat instance:

Confluence application server URL	http://confluence-app-server.internal.example.com:8080/
JIRA application server URL	http://jira-app-server.internal.example.com:8080/

Below is a minimal configuration of Tomcat's server.xml which configures separate hosts for JIRA and Confluence on the URLs above.

```
<Server port="8005" shutdown="SHUTDOWN">
  <Service name="Catalina">
    <Connector port="8080" />
    <Engine name="Catalina" defaultHost="confluence-app-server.internal.example.com">

      <Host name="confluence-app-server.internal.example.com" appBase="webapps">
        <Context path="" docBase="/opt/webapps/confluence-2.2/confluence"/>
        <Logger className="org.apache.catalina.logger.FileLogger"/>
      </Host>

      <Host name="jira-app-server.internal.example.com" appBase="webapps">
        <Context path="" docBase="/opt/webapps/jira-3.6.1/jira.war"/>
        <Logger className="org.apache.catalina.logger.FileLogger"/>
      </Host>

    </Engine>
  </Service>
</Server>
```

Points to note:

- the HTTP connector is accessible on port 8080, as per the URLs above
- the AJP connector is not included in this minimal configuration. If you want to [mod_jk](#) with this configuration, you need to ensure you add it.
- in the Engine, the Confluence host is configured as the default host. The default host is used if the request doesn't contain a Host header, or is accessed by a name the server doesn't recognise.
- because the above configuration uses [name-based virtual hosting](#), you need to have entries in your DNS server for "confluence-app-server" and "jira-app-server" that point to the application server

More information

After doing this, you can configure [Apache virtual hosts](#) to map subdomains like `jira.example.com` and `confluence.example.com` to your application.

How to dump Active Directory data to a file

This page last changed on Jun 05, 2006 by [jnolen](#).

You can extract all the data present in your Active Directory onto a file using the following command (please ensure you are logged in with sufficient rights to do this)

```
csvde -f test.csv
```

This command will perform a CSV dump of every entry in your Active Directory server. You should be able to see the full DN's of users and groups.

Known Issues with Enterprise or Webhosting environments

This page last changed on May 23, 2006 by david.soul@atlassian.com.

When you attempt to run Confluence, you may get the following error:

```
java.security.AccessControlException: access denied (java.lang.RuntimePermission
accessDeclaredMembers)
    at
    java.security.AccessControlContext.checkPermission(AccessControlContext.java(Compiled Code))
        at java.security.AccessController.checkPermission(AccessController.java(Compiled Code))
        at java.lang.SecurityManager.checkPermission(SecurityManager.java(Compiled Code))
```

Some of the libraries Confluence relies on to function make use of features of the Java language that may be restricted by Java security policies. This does not normally cause any problems: the default security configuration of most application servers will happily run Confluence. However, in some shared-hosting or enterprise environments, security settings may be such that Confluence can not function.

The permissions required by Confluence to run are detailed in the sample policy file below. You may need to give this information to your systems administrator so that they can be deployed with the Confluence application.

```
grant codeBase "file:${catalina.home}/webapps/confluence/-" {
    permission java.security.AllPermission;
};

grant {
    permission java.lang.RuntimePermission "accessDeclaredMembers";
    permission java.lang.reflect.ReflectPermission "suppressAccessChecks";
    permission java.lang.RuntimePermission "defineCGLIBCClassInJavaPackage";
};
```

List Of Supported Operating Systems

This page last changed on Mar 05, 2007 by ivan@atlassian.com.

Supported

- Windows
- Linux
- Mac OS X
- Solaris
- AIX
- Unix

Any OS that support J2EE 1.4

Managing Application Server Memory Settings

This page last changed on Apr 13, 2007 by david.soul@atlassian.com.

The minimum and maximum JVM heap space allocated to the application server affects performance. Confluence administrators may wish to modify this value from the defaults [depending on their server load](#). This document only provides guidelines rather than rules, so administrators optimising for performance should use this document as a starting point only.

Testing For Optimum Memory Settings

Bigger is not always better for heap size. When optimising memory settings, consider starting by setting the maximum heap size to 1/4 the available physical memory on the server and setting the minimum to 1/2 of the maximum heap. Avoid setting the minimum and maximum to be the same since server load is normally variable. Being able to use less memory under low load results in slightly improved performance as garbage collections can be made smaller.

Testing Resources

- Enable the `verbosegc` JVM parameter to assist in determining the memory size that minimises overall garbage collection
- Use [Page Request Profiling](#) to gauge end-user performance

Determine Minimum Memory

Experiment with setting a lower minimum such as 1/10 of the maximum heap. Identify how much memory is required while under minimum load and set the minimum to that value. It is important to have Confluence use the minimum memory necessary, because garbage collection performance is dependent on the memory usage. Having an unnecessarily high minimum memory setting will degrade performance during GC operations.

Determine Maximum Memory

Experiment with different maximum memory settings with the `verbosegc` JVM parameter enabled to determine GC performance. Memory usage is most likely to be maximised under peak load, and when [creating a site XML backup](#). Confluence memory may visibly increase while it is generating an XML backup.

- If you normally perform manual XML site backups on your server, test your maximum memory requirements by performing a site XML backup while the server is under maximum load
- If you do not create manual XML site backups, simply monitor the server while under maximum load

The maximum memory should be the total memory while in this state plus a buffer of at least 15%, taking into account how your garbage collection performs. Never set maximum memory to a value above 85-90% of the available physical server memory as this results in disk paging. Always leave 10-15% of available physical server memory unallocated to allow for OS background processes.

Applying Memory Settings

Users of the EAR/WAR version set their memory in their application server. For Confluence Standalone,

the heap space is set in the Confluence install directory.

- Windows users edit .../bin/setenv.bat
- Other OS users edit .../bin/setenv.sh

The relevant parameter is

```
JAVA_OPTS="-Xms128m -Xmx256m ... "
```

Where -Xms is the minimum and -Xmx is the maximum memory available to Apache Tomcat.

Related Topics

- [Fix 'Out of Memory' errors by increasing available memory](#)
- [Server Hardware Requirements Guide](#)
- [Performance Tuning](#)
- [Troubleshooting Slow Performance Using Page Request Profiling](#)

Modify Confluence Interface Text

This page last changed on Nov 08, 2006 by [jnolen](#).

All Confluence UI text is contained in a single Java properties file. This file can be modified to change the default text, and also to translate Confluence into [other languages](#) than English.

The UI text file is `ConfluenceActionSupport.properties`. From your Confluence install directory:

```
\confluence\WEB-INF\classes\com\atlassian\confluence\core\ConfluenceActionSupport.properties
```

The file contains name=value strings, and supports variable insertion such as

```
user.greeting=Welcome, {0}
```

For more information on replacing values, check out [Translating ConfluenceActionSupport Content](#). Note that plugins store their text internally, so you must modify plugin text individually.

Steps For Modification

1. Stop Confluence
2. Under your install direcorey, open
`\confluence\WEB-INF\classes\com\atlassian\confluence\core\ConfluenceActionSupport.properties`
3. Search for the text you wish to modify, replace it and save
4. Start Confluence

Common Modifications

- Rename 'Dashboard' by searching for Dashboard. To change "Dashboard" to "My Portal", change `dashboard.name=Dashboard` to `dashboard.name=My Portal`

Paddle

This page last changed on Jan 10, 2007 by ivan@atlassian.com.

Paddle is a tool that will test the LDAP or Active Directory settings in your `atlassian-user.xml`.

from a customer

Really, REALLY glad you had the paddle tool so I didn't spend too much time beating my head on that one, BTW

You will not need to have Confluence running to run this tool. The steps are:

1. [Download](#) into a directory where you have permissions to create files
2. Copy your `atlassian-user.xml` into that directory
3. Run

```
java -jar paddle-<insert version>.jar
```

This is an example of a successful run:

```
#####
LDAP Support Tool version 1.1
#####
Connection to LDAP/Active Directory Server at ldap://192.168.0.86:389 SUCCESSFUL.
-----
TEST 1: Search and list 10 users
-----

User: CN=Administrator
Member of:
  (1) CN=Schema Admins
  (2) CN=Enterprise Admins
  (3) CN=Domain Admins
  (4) CN=Group Policy Creator Owners

User: CN=Guest
  Does not belong to any LDAP groups.

User: CN=SUPPORT_388945a0
Member of:
  (1) CN=HelpServicesGroup

User: CN=IUSR_MALTSHOVEL
  Does not belong to any LDAP groups.

User: CN=IWAM_MALTSHOVEL
Member of:
  (1) CN=IIS_WPG

User: CN=ASPNET
  Does not belong to any LDAP groups.

User: CN=krbtgt
```

Does not belong to any LDAP groups.

User: CN=John\, Smith

Member of:

- (1) CN=Domain Users
- (2) CN=Sales and Marketing

User: CN=Matt Ryall

Member of:

- (1) CN=Enterprise Admins
- (2) CN=Domain Admins

User: CN=Justin Koke

Member of:

- (1) CN=Domain Controllers
- (2) CN=Enterprise Admins

Found more than 10 results.

TEST 2: Search and list 10 groups

Group: CN=HelpServicesGroup

Members:

- (1) CN=SUPPORT_388945a0,CN=Users,DC=ad,DC=atlassian,DC=com

Group: CN=TelnetClients

No members in this group.

Group: CN=IIS_WPG

Members:

- (1) CN=S-1-5-20,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com
- (2) CN=S-1-5-6,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com
- (3) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com
- (4) CN=IWAM_MALTSHOVEL,CN=Users,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005SQLBrowserUser\$MALTSHOVEL

Members:

- (1) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005MSSQLServerADHelperUser\$MALTSHOVEL

Members:

- (1) CN=S-1-5-20,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005SQLAgentUser\$MALTSHOVEL\$MSSQLSERVER

Members:

- (1) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005MSSQLUser\$MALTSHOVEL\$MSSQLSERVER

Members:

- (1) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005MSFTEUser\$MALTSHOVEL\$MSSQLSERVER

Members:

- (1) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005MSOLAPUser\$MALTSHOVEL\$MSSQLSERVER

Members:

- (1) CN=S-1-5-18,CN=ForeignSecurityPrincipals,DC=ad,DC=atlassian,DC=com

Group: CN=SQLServer2005NotificationServicesUser\$MALTSHOVEL

No members in this group.

Found more than 10 results.

Pull down RSS Feeds through a Proxy

This page last changed on Aug 05, 2005 by david.soul@atlassian.com.

To make Confluence aware of your proxy, you need to start it up with a system parameter.

If you are using Tomcat, you can add this to the catalina.bat/sh file:

```
JAVA_OPTS=-Dhttp.proxyHost=yourProxyHostAddressHere
```

Running Confluence behind Apache

This page last changed on Apr 03, 2007 by rosie@atlassian.com.

Introduction

Running Confluence behind a web server should be done for performance reasons in high-load environments. In general, web server caching and thread management is far superior to that provided by your application server's HTTP interface.

To run Confluence behind the [Apache httpd web server](#), there are two main configuration options: mod_jk or mod_proxy.

Connection type	Features
mod_proxy (also known as reverse proxy)	• recommended connection method • simple HTTP proxy to application server • works with all application servers • if application paths are consistent, there is minimal load on the web server
mod_jk (also known as AJP)	• uses the AJP binary protocol • provides failover (and load balancing, which Confluence doesn't support) • only works with some application servers (typically Tomcat) • if application paths are consistent, there is some load on the web server to translate requests to AJP
Features common to both mod_proxy and mod_jk	
• application paths must be consistent to avoid complex and slow URL rewriting • works with name-based virtual hosting, both on web server and app server • web server keeps a pool of connections to application server	

Mod_proxy documentation

- [Using Apache with mod_proxy](#) is the main documentation for this configuration.
- If you want to set up the common configuration of JIRA and Confluence virtual hosts, you can use [Apache's virtual hosts](#) with separate application servers, then [Tomcat's virtual hosts](#) to run both applications on a single instance of Tomcat.

Mod_jk documentation

- [Using Apache with mod_jk](#) is the main documentation for this configuration.

- You can follow a similar method to the `mod_proxy` documentation above for setting up virtual hosts in Apache and Tomcat, if required.

Mod_jk2 not supported

The misleadingly-named `mod_jk2` is an older method of connecting to Tomcat from Apache. Since `mod_jk2` is [no longer supported by the Apache Foundation](#), we do not support this configuration, and are not updating our [mod_jk2 documentation](#). `Mod_jk2` also has unresolved problems with Unicode URLs; you need to use either `mod_proxy` or `mod_jk` for international characters to work correctly in Confluence.

Other related documentation

- [Apache and Apache Connector Tips](#)
- [Using the \(older\) mod_jk2 connector](#)
- [Configuring Tomcat's URI encoding](#)
- [Adding SSL for Secure Logins and Page Security](#)

Using Apache with mod_jk

This page last changed on May 24, 2006 by [mryall](#).

Introduction

The Apache web server is often used in front of an application server to improve performance in high-load environments. Mod_jk allows request forwarding to an application via a protocol called AJP. Configuration of this involves enabling mod_jk in Apache, configuring a AJP connector in your application server, and directing Apache to forward certain paths to the application server via mod_jk.

Mod_jk is sometimes preferred to [mod_proxy](#) because AJP is a binary protocol, and mod_jk supports fallback and load balancing (although Confluence does not yet work in a load-balanced environment).

The scope of this documentation is limited to configuring the AJP connector in Tomcat 5.x. Other application servers may support AJP connectors; please consult your application server documentation for instructions on how to configure it.

The configuration below assumes your Confluence instance is accessible on the same path on the application server and the web server. For example:

Externally accessible (web server) URL	http://www.example.com/confluence/
Application server URL (HTTP)	http://app-server.internal.example.com:8080/confluence/

The AJP connection of the application server is set to: app-server.internal.example.com:8009.

Configuring mod_jk in Apache

The standard distribution of Apache does not include mod_jk. You need to download it from the [JK homepage](#) and put the mod_jk.so file in your Apache modules directory.

```
# Put this after the other LoadModule directives
LoadModule jk_module modules/mod_jk.so

# Put this in the main section of your configuration (or desired virtual host, if using Apache
virtual hosts)
JkWorkersFile conf/workers.properties
JkLogFile logs/mod_jk.log
JkLogLevel info

JkMount /confluence worker1
JkMount /confluence/* worker1
```

Configuring workers.properties

Create a new file called 'workers.properties', and put it in your Apache conf directory. (The path for workers.properties was one of the configuration settings above.)


```
worker.list=worker1

worker.worker1.host=app-server.internal.example.com
worker.worker1.port=8009
worker.worker1.type=ajp13
```

Tomcat 5.x configuration

In Tomcat 5, the AJP connector is enabled by default on port 8009. An absolutely minimal Tomcat server.xml is below for comparison. The relevant line is the Connector with port 8009 – make sure this is uncommented in your server.xml.

```
<Server port="8005" shutdown="SHUTDOWN">
  <Service name="Catalina">

    <!-- Define a HTTP/1.1 Connector on port 8080 -->
    <Connector port="8080" />

    <!-- Define an AJP 1.3 Connector on port 8009 -->
    <Connector port="8009" protocol="AJP/1.3" />

    <Engine name="Catalina" defaultHost="localhost">
      <Host name="localhost" appBase="webapps">
        <Context path="/confluence" docBase="/opt/webapps/confluence-2.2/confluence"/>
        <Logger className="org.apache.catalina.logger.FileLogger"/>
      </Host>
    </Engine>
  </Service>
</Server>
```

Points to note:

- the Connector on port 8009 has protocol of "AJP/1.3". This is critical.
- the Context path of the Confluence application is "/confluence". This must match the path used to access Confluence on the web server.
- we recommend keeping your application Contexts outside the server.xml in Tomcat 5.x. The above example includes them for demonstration only.

Improving the performance of the mod_jk connector

The most important setting in high-load environments is the number of processor threads used by the Tomcat AJP connector. By default, this is only 15, and you should increase it to match Apache's maxThreads setting (256 by default):

```
<Connector port="8009" minProcessors="5" maxProcessors="256" protocol="AJP/1.3" />
```

Ensuring UTF-8 compatibility

If you have problems downloading attachments with non-ASCII characters in the filename, add the following to your Apache configuration:

```
JkOptions +ForwardURISCompatUnparsed
```

And specify UTF-8 as the URIEncoding in the AJP connector configuration:

```
<Connector port="8009" protocol="AJP/1.3" URIEncoding="UTF-8" />
```

These settings are discussed further on [Configuring Tomcat's URI encoding](#).

More information

The [Tomcat JK website](#) has complete documentation on workers.properties and Apache configuration. You can also find information there on how to use mod_jk with IIS.

Alternatives

If you're not happy with mod_jk, or find it too difficult to configure, you can:

- use [mod_proxy](#), which works with any application server, and together with mod_proxy_html allows complex URL rewriting to deal with different application paths on the web server and the application server.

Using Apache with mod_proxy

This page last changed on Mar 23, 2007 by [ktran](#).

This page describes how to integrate Confluence into an Apache website, using mod_proxy. There are some common situations where you might do this:

- You have an existing Apache-based website, and want to add Confluence to the mix (eg. <http://www.example.com/confluence>).
- You have two or more Java applications, each running in their own application server on different ports, eg. <http://localhost:8080/confluence> and <http://localhost:8081/jira>. By setting up Apache with mod_proxy, you can have both available on the regular HTTP port (80), eg. at <http://www.example.com/confluence> and <http://www.example.com/jira>. If you are running JIRA and Confluence, we recommend this setup. It allows each app to be restarted, managed and debugged separately.

This page describes how to configure mod_proxy. We describe two options:

- If you want a URL like <http://www.example.com/confluence/>, go to the [simple configuration](#).
- If you want a URL like <http://confluence.example.com/>, go to the [complex configuration](#).

Simple configuration

Set the context path

First, set your Confluence application path (the part after hostname and port) correctly. Say you want Confluence available at <http://www.example.com/confluence/>, and you currently have it running at <http://localhost:8080/>. The first step is to get Confluence available at <http://localhost:8080/confluence/>.

To do this in Tomcat (bundled with Confluence), edit `conf/server.xml`, locate the "Context" definition:

```
<Context path="" docBase="../confluence" debug="0" reloadable="true">
```

and change it to:

```
<Context path="/confluence" docBase="../confluence" debug="0" reloadable="true">
```

Then restart Confluence, and ensure you can access it at <http://localhost:8080/confluence/>

Configure mod_proxy

Now enable mod_proxy in Apache, and proxy requests to the application server by adding the example below to your Apache `httpd.conf` (note: the files may be different on your system; the [JIRA docs](#) describe the process for Ubuntu/Debian layout):

```
# Put this after the other LoadModule directives
LoadModule proxy_module /usr/lib/apache2/modules/mod_proxy.so
LoadModule proxy_http_module /usr/lib/apache2/modules/mod_proxy_http.so

# Put this in the main section of your configuration (or desired virtual host, if using Apache
virtual hosts)
ProxyRequests Off
ProxyPreserveHost On

<Proxy *>
    Order deny,allow
    Allow from all
</Proxy>

ProxyPass /confluence http://localhost:8080/confluence
ProxyPassReverse /confluence http://localhost:8080/confluence
<Location /confluence>
    Order allow,deny
    Allow from all
</Location>
```

Note to Windows Users

It is recommended that you specify the absolute path to the `mod_proxy.so` and `mod_proxy_http.so` files.

Set the URL for redirection

You will need to modify the `server.xml` file in your tomcat's conf directory and set the URL for redirection.

Locate this code segment

```
<Connector port="8080" maxHttpHeaderSize="8192"
    maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
    enableLookups="false" redirectPort="8443" acceptCount="100"
    connectionTimeout="20000" disableUploadTimeout="true" />
```

And append the following segment:

```
<Connector port="8080" maxHttpHeaderSize="8192"
    maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
    enableLookups="false" redirectPort="8443" acceptCount="100"
    connectionTimeout="20000" disableUploadTimeout="true"
    proxyName="www.example.com" proxyPort="80"/>
```

Replace `www.example.com` with the URL you wish to be redirected to.

Complex configuration

A complex configuration involves using the `mod_proxy_html` filter to modify the proxied content en-route. This is required if the Confluence path differs between Apache and the application server. For example:

Externally accessible (Apache) URL

<http://confluence.example.com/>

Application server URL

<http://app-server.internal.example.com:8080/confluence/>

Notice that the application path in the URL is different in each. On Apache, the path is /, and on the application server the path is /confluence.



For this configuration, you need to install the [mod_proxy_html module](#), which is not included in the standard Apache distribution.

Alternative solutions are discussed below.

```
# Put this after the other LoadModule directives
LoadModule proxy_module modules/mod_proxy.so
LoadModule proxy_http_module modules/mod_proxy_http.so
LoadModule proxy_html_module modules/mod_proxy_html.so

<VirtualHost *>
    ServerName confluence.example.com

    # Put this in the main section of your configuration (or desired virtual host, if using
    Apache virtual hosts)
    ProxyRequests Off
    ProxyPreserveHost On

    <Proxy *>
        Order deny,allow
        Allow from all
    </Proxy>

    ProxyPass / http://app-server.internal.example.com:8080/confluence
    ProxyPassReverse / http://app-server.internal.example.com:8080/confluence

    ProxyHTMLURLMap /confluence/ /

    <Location />
        Order allow,deny
        Allow from all
    </Location>
</VirtualHost>
```

The ProxyHTMLURLMap configuration can become more complex if you have multiple applications running under this configuration. The mapping should also be placed in a Location block if the web server URL is a subdirectory and not on a virtual host. The [Apache Week tutorial](#) has more information how to do this.

More information

- The [mod_proxy_html site](#) has documentation and examples on the use of this module in the complex configuration.
- [Apache Week has a tutorial](#) that deals with a complex situation involving two applications and ProxyHTMLURLMap.
- [Using Apache with virtual hosts and mod_proxy](#) shows how to configure the special case where you want JIRA and Confluence running on separate application servers on virtual host subdomains.

Alternatives

If Tomcat is your application server, you have two options:

- use [mod_jk](#) to send the requests to Tomcat
- use [Tomcat's virtual hosts](#) to make your Confluence application directory the same on the app server and the web server, removing the need for the URL mapping.

If your application server has an AJP connector, you can:

- use [mod_jk](#) to send the requests to your application server.

Using Apache with virtual hosts and mod_proxy

This page last changed on May 23, 2006 by david.soul@atlassian.com.

Introduction

The Apache web server is often used in front of an application server to improve performance in high-load environments. Mod_proxy simply redirects requests for certain URLs to another web server, so it typically requires no additional configuration on the application server.

This page documents a very common configuration request: configuring JIRA and Confluence on two Apache virtual hosts, running on different application servers. This is just a special case of [mod_proxy configuration](#).

You can use virtual hosts in your application server if you want to run JIRA and Confluence on the same application server. There is a [sample configuration for Tomcat](#) you can use after configuring Apache.

Apache configuration

For this configuration to work properly, the application paths must be the same on both the application servers and the web server. For both JIRA and Confluence below, this is /.

JIRA external URL	http://jira.example.com/
JIRA application server URL	http://jira-app-server.internal.example.com:8080/
Confluence external URL	http://confluence.example.com/
Confluence application server URL	http://confluence-app-server.internal.example.com:8080/

Add the following to your Apache httpd.conf:

```
# Put this after the other LoadModule directives
LoadModule proxy_module /usr/lib/apache2/modules/mod_proxy.so
LoadModule proxy_http_module /usr/lib/apache2/modules/mod_proxy_http.so

# Put this with your other VirtualHosts, or at the bottom of the file
NameVirtualHost *
<VirtualHost *>
    ServerName confluence.example.com

    ProxyRequests Off
    <Proxy *>
        Order deny,allow
        Allow from all
    </Proxy>

    ProxyPass / http://confluence-app-server.internal.example.com:8080/
    ProxyPassReverse / http://confluence-app-server.internal.example.com:8080/
    <Location />
        Order allow,deny
        Allow from all
    </Location>
</VirtualHost>
<VirtualHost *>
    ServerName jira.example.com

    ProxyRequests Off
```

```
<Proxy *>
    Order deny,allow
    Allow from all
</Proxy>

ProxyPass / http://jira-app-server.internal.example.com:8080/
ProxyPassReverse / http://jira-app-server.internal.example.com:8080/
<Location />
    Order allow,deny
    Allow from all
</Location>
</VirtualHost>
```

Points to note:

- ProxyPass and ProxyPassReverse directives send traffic from the web server to your application server.
- The application path is the same on the application server and on the web server (both are /).
- Because the above configuration uses [name-based virtual hosting](#), you must configure your DNS server to point both names (jira.example.com, confluence.example.com) to your web server.

More information

For different ways to configure mod_proxy, see [Using Apache with mod_proxy](#).

If you use Tomcat, [mod_jk](#) provides a different way of connecting Apache via AJP. You can also use the above configuration with just one application server if you use [Tomcat's virtual hosts](#).

Set JAVA_HOME variable in Windows

This page last changed on Nov 20, 2006 by david.soul@atlassian.com.

After you [install the Java Development Kit](#) in Windows, you must set the JAVA_HOME variable to the install directory.



Common Problem

Some users have only installed the Java Runtime Environment (JRE). You need either a Java Development Kit (JDK) or J2SE Software Development Kit (SDK). If you would like to confirm that you have the right version, you can check the Java install path. Unless you changed the path during installation, Java will be installed to a subdirectory under C:\Program Files\Java, for example C:\Program Files\Java\jdk1.5.0_02

Open C:\Program Files\Java and confirm the install path is for a JDK or SDK. JRE installs are not suitable, and have an install directory beginning with jre. The numbers after the jre are not relevant. Example JREs are:

✗ jre1.3.0_02

✗ jre1.4.0_02

SDK and JDK installs are suitable. Their install directory begins with jdk or j2sdk, the numbers after are not relevant. Example JDK and SDKs are:

✓ jdk1.5.0_02

✓ j2sdk1.5.0_09

Any install directory starting with jdk or j2sdk is valid. If you cannot see an installed JDK or SDK, install the JDK now from the [JDK download site](#)

Stage 1. Locate Install Directory

If you already know the install path for the Java or Software Development Kit, go to Stage 2. Otherwise, find the install path by following these instructions:

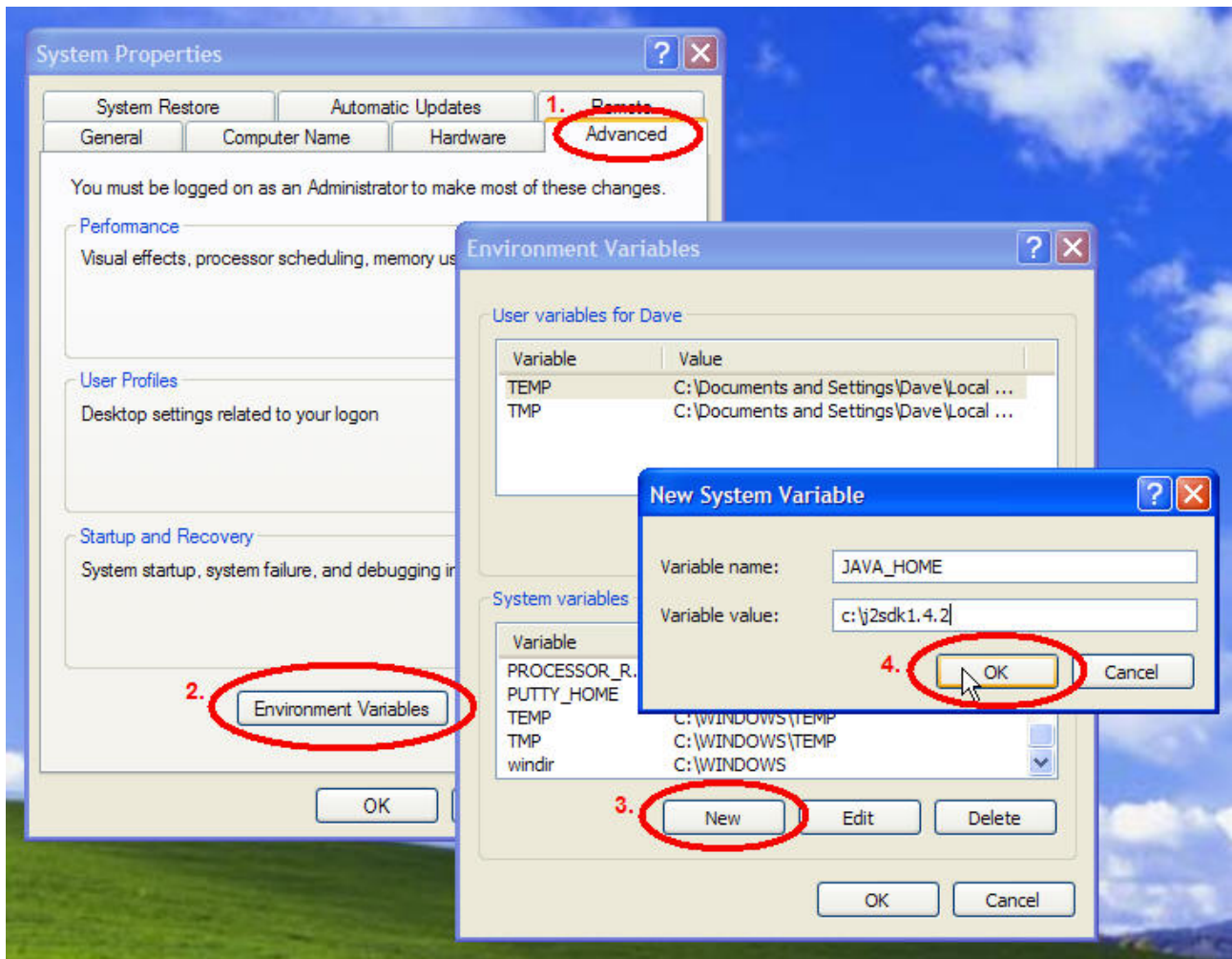
1. Unless you changed the install path for the Java Development Kit during installation, it will be in a directory under C:\Program Files\Java. Using Explorer, open the directory C:\Program Files\Java
2. Inside that path will be one or more subdirectories such as jdk1.5.0_08. If you just installed the Java Development Kit, it will be installed to the newest directory, which you can find by sorting by date. For example, it may be installed in C:\Program Files\Java\jdk1.5.0_08. This is the install path.

Stage 2. Apply Setting

Once you have identified the JDK install path:

1. Right click on the My Computer icon on your desktop and select properties

2. Click the Advanced Tab
 3. Click the Environment Variables button
 4. Under System Variable, click New
 5. Enter the variable name as JAVA_HOME
 6. Enter the variable value as the install path for the Development Kit
 7. Click OK
 8. Click Apply Changes
 9. If you are running Confluence as a EAR/WAR rather than the Standalone, you may need to restart your application server
- This diagram shows setting the JAVA_HOME variable to an install path of c:/j2sdk1.4.2



If you came here from [Installing Confluence Standalone](#), go back and begin Stage 3.

RELATED PAGES

- [Installing Confluence Standalone](#)
- [Start Tomcat as a Windows Service](#)
- To set JAVA_HOME on Linux - [Installing Confluence in Linux](#)

Setting up Confluence with IIS

This page last changed on Mar 21, 2007 by ernest@atlassian.com.

This page describes how to install Confluence stand-alone with IIS using the Apache jk connector.

Install IIS

Follow these [instructions for installing IIS](#)

After installation is complete you should be able to go to <http://localhost/iishelp/iis/misc/default.asp> in your browser and see the IIS getting started page.

Install Confluence Standalone

Do a normal Confluence install, after which you should be able to use confluence normally through the URL <http://localhost:8080>

Configure Tomcat

Add another connector to your server.xml file, directly after the existing Connector tag

```
<Connector port="8009" enableLookups="false" redirectPort="8443" protocol="AJP/1.3" />
```

Then start Confluence, in the logs/catalina.YYYY-MM-DD.log file you should see:

```
INFO: Starting Coyote HTTP/1.1 on http-8080
7/09/2006 14:40:04 org.apache.jk.common.ChannelSocket init
INFO: JK: ajp13 listening on /0.0.0.0:8009
7/09/2006 14:40:04 org.apache.jk.server.JkMain start
INFO: Jk running ID=0 time=0/31&nbsp;   config=null
```

Configure the Tomcat Connector

These instructions are based on the [Tomcat Connector, IIS Configuration documentation](#).

1. Download the isapi_redirect.dll from here:
http://www.apache.org/dist/tomcat/tomcat-connectors/jk/binaries/win32/jk-1.2.21/isapi_redirect.dll
and put it in a directory c:/ajp_iis (the name of the directory isn't important, but if you use a different one make sure to take account of this in the instructions which follow)
2. Create a isapi_redirect.properties file in the same directory as you put the DLL. You can use this [sample isapi_redirect.properties file](#) if you have used ajp_iis as the directory name.
3. Create workers.properties and uriworkerman.properties files. You can use the [sample workers.properties](#) file and the [sample uriworkerman.properties](#) file.

4. Create an empty file named `rewrites.properties` in `c:/ajp_iis`
5. Enable the plugin within IIS

1	Using the IIS management console (Internet Services Manager in Administrative Tools), add a new virtual directory to your IIS web site. The name of the virtual directory must be <code>jakarta</code> , as it must correspond with the first part of the <code>extension_uri</code> setting specified in the registry. Its physical path should be the directory where you placed <code>isapi_redirect.dll</code> (in the example it is <code>c:\iis_ajp</code>). When creating this new virtual directory, give it execute access.
2	Using the IIS management console, add <code>isapi_redirect.dll</code> as a filter to your IIS web site. To do this, right click on the Web Sites icon from the left hand pane of the Internet Services Manager (or IIS management console), select Properties and then the ISAPI Filters tab. The name of the filter should reflect its task, for example <code>confluence</code> , and its executable must be the full path to the <code>ajp isapi redirector DLL</code> , that is <code>c:\iis_ajp\isapi_redirect.dll</code>
3	Restart IIS (stop and start the IIS service - not just the web server -- do this by right-clicking on 'Local Computer' in the IIS Manager and choosing All Tasks, Restart IIS...). Ensure that the <code>confluence</code> filter is marked with a green up arrow verifying that it is loaded and initialized correctly. If the <code>ajp redirector</code> did not initialize properly, check the log file for errors messages (<code>C:\ajp_iis\ajp_plugin.log</code>).

You can now go to <http://localhost> and see the Confluence Dashboard.

Other Configuration

If you want to run Confluence on a named context, rather than the root context (i.e. access it via <http://host/confluence/> instead of just <http://host>) you need to:

1. Change the path attribute of the Context tag in `server.xml` from `""` to `"/confluence"`.
2. Change the line `'/=ajp13w'` in `uriworkermap.properties` to `'/confluence/*=ajp13w'`

Note that `'http://host/confluence'` gives a 404 error, but `'http://host/confluence/'` works

Troubleshooting

If you have problems, look in the System Event Log, the `c:\iis_ajp\ajp_plugin.log` and your confluence

logs.

When requesting support for IIS configuration problems, please include:

1. A zip of your logs directory
2. A zip of your c:\iis_ajp directory
3. Your conf/server.xml file
4. A screen shot of the Virtual Directory tab of the Properties window for your 'jakarta' virtual directory.
5. A screen shot of the ISAPI Filters tab of the Properties window of your 'Web Sites' icon.

Setting Up Public Access

This page last changed on Aug 14, 2005 by [jnolen](#).

Granting of permissions to use Confluence can be done on the basis of membership of a group, to a particular user, or to the "Anonymous" user. There is not an actual user named "Anonymous", it is just a name for a category of granted permissions.

In the security administration of Confluence, the "Anonymous" user includes all logged-in users, and anonymous users who have not logged in. That is, if you allow the "Anonymous" user to do something, you are allowing all users to do it.

To enable public access to a confluence space, you must give Anonymous the following permissions:

- The global "Use Confluence" permission. This permission determines if a user can access the Confluence installation at all, and is set by the site administrator in Administration->Global Permissions
- The relevant permissions in any space that is to be made public. The "Anonymous" user must have at least the "View Space" permission for a space to be publicly accessible. You set these permissions in the Space Summary Cannot resolve external resource into attachment. -> Permissions Cannot resolve external resource into attachment.

While these two permissions are the bare minimum necessary for public access to a space, you may wish to give "Anonymous" additional permissions if you want a space to allow anonymous comments, or anonymous editing.

We severely warn against giving the "Anonymous" user any administrative privileges, either within a space, or especially globally over the Confluence instance. Giving administrative privileges to untrusted users may lead to a serious security compromise of your site.

Setup a mail session in standalone version

This page last changed on Jan 02, 2007 by christopher.owen@atlassian.com.

1. Add the following to your web.xml file (insert it just before </web-app>):

```
<resource-ref>
  <description>Test description</description>
  <res-ref-name>mail/Session</res-ref-name>
  <res-type>javax.mail.Session</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

2. Add the following to your server.xml file (anywhere inside the <context ...> tags)

```
<Resource name="mail/Session" auth="Container" type="javax.mail.Session"/>
<ResourceParams name="mail/Session">
  <parameter>
    <name>mail.smtp.host</name>
    <value>mail.example.com</value>
  </parameter>
  <parameter>
    <name>mail.smtp.port</name>
    <value>25</value>
  </parameter>
</ResourceParams>
```

```
<Resource name="mail/Session" auth="Container" type="javax.mail.Session"
mail.smtp.host="mail.example.com" mail.smtp.port="25" />
```

You only need to specify the mail.smtp.port parameter if you are using a non-standard port for SMTP.

3. Restart the server. Go to create SMTP mail server screen. For JNDI location, enter:

```
java:comp/env/mail/Session
```

Start Confluence automatically on system startup

This page last changed on Oct 17, 2006 by david.soul@atlassian.com.

Confluence can be configured to start automatically on system startup, allowing it to recover automatically after a reboot.

[Start Confluence automatically on Linux & Unix](#)

[Start Confluence automatically on OS X using launchd](#)

[Start Confluence automatically on Windows as a Service](#)

Start Confluence automatically on Linux & Unix

This page last changed on Oct 29, 2006 by [mryall](#).

If your Unix machine uses init.d to start server processes you can use this script to start Tomcat.

```
#!/bin/sh
# chkconfig: 3 60 30
# description: Starts and stops Tomcat (running as root)

mode=$1

export TOMCAT_HOME=/usr/local/java/tomcat
export CATALINA_HOME=/usr/local/java/tomcat
export JAVA_HOME=/usr/local/java/jdk1.4

case "$mode" in
  'start')
    # Start daemon
    su -c "$TOMCAT_HOME/bin/catalina.sh $mode" root
    ;;
  'stop')
    # Stop daemon. We use a signal here to avoid having to know the
    # root password.
    $TOMCAT_HOME/bin/catalina.sh $mode
    ;;
  *)
    # usage
    echo "usage: $0 start|stop"
    exit 1
    ;;
esac
```

You will need to modify TOMCAT_HOME, CATALINA_HOME and JAVA_HOME to match your configuration. CATALINA_HOME and TOMCAT_HOME should be set to the same path – TOMCAT_HOME was the Confluence 2.1 variable, and CATALINA_HOME is for Confluence 2.2.

Related Topics

[Start Confluence automatically on system startup](#)

Start Confluence automatically on OS X using launchd

This page last changed on Oct 17, 2006 by david.soul@atlassian.com.

[launchd](#) is the OS X component which manages long running processes - daemons or services.

Apple has an [introduction to launchd](#).

There's a mismatch between how launchd expects a daemon to behave, and how the default startup scripts for Tomcat (the application server used by the stand-alone Confluence distribution) operate. Launchd expects the process it starts to run forever, but 'catalina.sh start' starts the JVM to run Tomcat and then exits. Tomcat provides 'catalina.sh stop' to cleanly shut down Tomcat by connecting to a socket which Tomcat listens on, but launchd stops daemons by sending them a signal, which simply kills the process immediately if no specific handling is included.

To match Tomcat to launchd we need to write a wrapper shell script, which we add to \$CATALINA_HOME/bin:

```
#!/bin/bash

function shutdown()
{
    date
    echo "Shutting down Confluence"
    $CATALINA_HOME/bin/catalina.sh stop
}

date
echo "Starting Confluence"
export CATALINA_PID=/tmp/$$

# uncomment to increase Tomcat's maximum heap allocation
# export JAVA_OPTS=-Xmx512M $JAVA_OPTS

. $CATALINA_HOME/bin/catalina.sh start

# allow any signal which would kill a process to stop Tomcat
trap shutdown HUP INT QUIT ABRT KILL ALRM TERM TSTP

echo "Waiting for `cat $CATALINA_PID`"
wait `cat $CATALINA_PID`
```

This shell script starts Tomcat, and then waits for the process to complete, so launchd is happy that Tomcat is still running. It also installs a signal handler, which calls the shutdown() function to cleanly shut down Tomcat when launchd signals the script.

You can try this script manually - start it, watch Confluence start, and then type ctrl-C, and see Confluence shut down cleanly (note that it won't shut down cleanly if Tomcat hasn't started yet - it takes a few seconds for Tomcat to start listening on the shutdown socket).

We also need a launchd .plist, to tell launchd how to start Tomcat:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST 1.0//EN"
```

```

"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Disabled</key>
  <false/>
  <key>EnvironmentVariables</key>
  <dict>
    <key>CATALINA_HOME</key>
    <string>/Users/tomd/conf/confluence-2.1.3-std</string>
    <key>JAVA_HOME</key>
    <string>/Library/Java/Home</string>
  </dict>
  <key>Label</key>
  <string>com.atlassian.confluence</string>
  <key>OnDemand</key>
  <false/>
  <key>ProgramArguments</key>
  <array>
    <string>/Users/tomd/conf/confluence-2.1.3-std/bin/launchd_wrapper.sh</string>
  </array>
  <key>RunAtLoad</key>
  <true/>
  <key>ServiceDescription</key>
  <string>Confluence</string>
  <key>StandardErrorPath</key>
  <string>/Users/tomd/conf/confluence-2.1.3-std/logs/launchd.stderr</string>
  <key>StandardOutPath</key>
  <string>/Users/tomd/conf/confluence-2.1.3-std/logs/launchd.stdout</string>
  <key>UserName</key>
  <string>tomd</string>
</dict>
</plist>

```

This file needs to be placed in /Library/LaunchDaemons, which is the location for system-wide services which are not part of base OS X.

There are a number of things to note about this plist:

1. The path to your Confluence installation has to be explicitly specified in four places. I don't know if there's a better solution to this.
2. JAVA_HOME is set to use the default JDK. On 10.4.4 this is 1.4.2, if you want to use 1.5 you would need to change JAVA_HOME to /System/Library/Frameworks/JavaVM.framework/Versions/1.5.
3. You need to change the UserName to the user you want Tomcat to run as.

To start and stop Confluence manually you use the commands:

```

cd /Library/LaunchDaemons
sudo launchctl load -w confluence.plist
and
sudo launchctl unload -w confluence.plist

```

I confess that I don't understand the semantics of launchctl start/stop - stopping a daemon seems to kill the process, but then launchd immediately restarts it.

Related Topics

[Start Confluence automatically on system startup](#)

Start Confluence automatically on Windows as a Service

This page last changed on Oct 18, 2006 by ivan@atlassian.com.

Reasons For Hosting Confluence As A Service

If you are hosting Confluence on a Windows-based server, installation as a Windows Service offers these advantages:

- Automated Confluence recovery after server restart
- Improved troubleshooting through logging server output to file

The guide below applies only to Confluence 2.2.0 onwards on Windows. Windows users running older versions should use the [Start Confluence automatically on Windows as a Service \(Pre 2.2\)](#) guide.

Installing Confluence Standalone As A Service

From your Windows-based server running Confluence 2.2 standalone or later:

1. Open a command prompt in the <CONFLUENCE-INSTALL>/bin directory
2. Confirm that the JAVA_HOME variable is set to the JDK base directory with the command

```
echo %JAVA_HOME%
```

Note that any directory in the path with spaces (eg. C:\Program Files) must be converted to its eight-character equivalent (eg. C:\Progra~1)

3. Install the service with default settings with the command

```
service.bat install Confluence
```

4. In addition, to have the service start automatically when the server starts, run

```
tomcat5 //US//Confluence --Startup auto
```

5. If you have a less than a 512 meg of memory, skip this step. For users with large Confluence installs, you can increase the maximum memory Confluence can use (default will already be 256MB). For example, you can set the maximum memory to 512 megs using

```
tomcat5 //US//Confluence --JvMx 512
```

6. If you do not have any JVM parameters you pass to your freestanding version of Confluence, you can skip this step. If you do, add them to the service using

```
tomcat5 //US//Confluence ++JvmOptions="-Djust.an.example=True"
```

7. For any further configuration, check out the [Tomcat Windows Service How-To](#) guide
8. Go to Control Panel -> Administrative Tools -> Services -> Apache Tomcat Confluence and right click on Properties to verify the settings are correct
9. If you wish to run the service a non-administrator user for security, or if you are using network drives for backups, attachments or indexes, you can run the service as another user. To change users, open the Apache Tomcat Confluence properties, go to the "Log On" tab and enter their

username and password. Go to Control Panel -> User Accounts and confirm that the user has write permissions for the %CATALINA_HOME%, index and database directories. Note that any network drives must be specified by UNC and not letter mappings (eg. \\backupserver\jira not z:\jira)

 Confluence is now be installed as a service, but will not automatically start up until the next server reboot

10. Start the Confluence service with the command

```
net start Confluence
```

Controlling Confluence As A Service

The Confluence service can be controlled from the command prompt

- Stop Confluence with

```
net stop Confluence
```

- Uninstall the Confluence service with

```
service.bat remove Confluence
```

Troubleshooting Confluence While Running As A Service

When investigating memory issues or bugs, it may be useful to view Confluence's Garbage Collection information. To turn on the verbose garbage collection, use the command

```
tomcat5 //US//Confluence ++JvmOptions="-Xloggc:<CONFLUENCE-INSTALL>\logs\atlassian-gc.log"
```

Related Topics

[Start Confluence automatically on system startup](#)

Start Confluence automatically on Windows as a Service (Pre 2.2)

This page last changed on Oct 17, 2006 by david.soul@atlassian.com.

Reasons For Hosting Confluence As A Service

If you are hosting Confluence on a Windows-based server, installation as a Windows Service offers these advantages:

- Automated Confluence recovery after server restart
- Improved troubleshooting through logging server output to file



The guide below applies only to versions of Confluence earlier than version 2.2.0. Users of 2.2.0 or newer should use the [Start Confluence automatically on Windows as a Service](#) guide.

Installing Confluence Standalone As A Service

From your Windows-based server running Confluence 1.5 or earlier:

1. Open a DOS prompt
2. Set the CATALINA_HOME variable to the Confluence Standalone root directory (that containing the bin and confluence director):

```
C:\> set CATALINA_HOME=c:\progra~1\confluence-1.3.5-standalone
```

If a directory in the path has spaces (eg. 'C:\Program Files\..'), please convert it to its eight-character equivalent.

3. Ensure the JAVA_HOME variable is set to the JDK base directory, with echo %JAVA_HOME%.
4. Run the following command, all on one line (or [download it](#)):

```
'%CATALINA_HOME%\bin\tomcat.exe" -install Confluence  
'%JAVA_HOME%\jre\bin\server\jvm.dll"  
-Djava.class.path="%CATALINA_HOME%\bin\bootstrap.jar;%JAVA_HOME%\lib\tools.jar"  
-Dcatalina.home="%CATALINA_HOME%" -Xms128m -Xmx256m  
start org.apache.catalina.startup.BootstrapService  
-params start -stop org.apache.catalina.startup.BootstrapService -params stop -out  
'%CATALINA_HOME%\logs\stdout.log" -err "%CATALINA_HOME%\logs\stderr.log"
```

Once you've run this command successfully, you can start Confluence by running the following command

```
C:\> net start Confluence
```

Alternatively you can pull up the Windows Services page and start the service from there.



You will need to ensure that the %CATALINA_HOME%*, index and database directories are all writeable by the user the service is running as.

Confluence should now be installed as a service, but will not automatically start up until the next server reboot.

The Confluence service can be uninstalled with:

```
'%CATALINA_HOME%\bin\tomcat.exe" -uninstall Confluence
```

Troubleshooting SQL Exceptions

This page last changed on Jul 21, 2006 by [jnolen](#).

If you get an exception similar to one of the following:

```
org.springframework.dao.DataIntegrityViolationException: (HibernateTemplate): data integrity
violated by SQL ''; nested exception is java.sql.BatchUpdateException: Duplicate entry '1234'
for key 1
    at
org.springframework.jdbc.support.SQLStateSQLExceptionTranslator.translate(SQLStateSQLExceptionTranslator.jav
caused by: java.sql.BatchUpdateException: Duplicate entry '1234' for key 1
    at com.mysql.jdbc.ServerPreparedStatement.executeBatch(ServerPreparedStatement.java:647)
```

or

```
(HibernateTemplate): data integrity violated by SQL ''; nested exception is
java.sql.BatchUpdateException: ORA-00001: unique constraint (CONFLUENCE.SYS_C0012345) violated
```

This document will outline the steps to take to increasing logging on your system. This additional logging will help us work out the cause of this error.

To enable this additional logging:

1. open `confluence/WEB-INF/classes/log4j.properties` and uncomment the following lines. The double `##` lines are comments, leave them intact.

```
## log hibernate prepared statements/SQL queries (equivalent to setting 'hibernate.show_sql' to
'true')
#log4j.logger.net.sf.hibernate.SQL=DEBUG, confluencelog
#log4j.additivity.net.sf.hibernate.SQL=false

## log hibernate prepared statement parameter values
#log4j.logger.net.sf.hibernate.type=DEBUG, confluencelog
#log4j.additivity.net.sf.hibernate.type=false
```



If you can not locate these lines in your `log4j.properties` file, please add them to the end of it.

2. restart Confluence
3. redo the steps that led to error
4. zip up your logs directory and attach your support ticket
5. if you are using Oracle and got a constraint error, please ask your DBA what table and column that constraint (that is, `CONFLUENCE.SYS_C0012345`) refers to and add that information to your support ticket.
6. open `confluence/WEB-INF/classes/log4j.properties` again and remove the 4 lines you added in step 1 (the additional logging will impact performance and should be disabled once you have completed this procedure).

Upgrading Confluence

This page last changed on Apr 04, 2007 by [ganand](#).

This document outlines the procedures you need to follow to upgrade from one version of Confluence to another. You can download the latest version of Confluence from [here](#).



Before you begin

Always check the [release notes](#) for the version of Confluence you are installing for upgrade instructions specific to that version.



Only users with valid licence may perform the upgrade.

Step One: 1. Backing up



We strongly recommend that you backup your Confluence home and install directories. If you are using an external database, you should perform a manual database backup before proceeding.

Things you need to backup

- Confluence Home Directory
- Your database - If you are not using the embedded database
- `osuser.xml` - If you running Confluence 2.0 or earlier and have your user management delegated to JIRA or any other user management system.
The `osuser.xml` file is located in the `WEB-INF/classes` directory.
- `server.xml` - If you are running Confluence Standalone, and have modified your `server.xml` file (for example to add a datasource).
The `server.xml` file is located in the `Conf` directory.
- `WEB-INF/lib` directory - If you have deployed any themes, macros or other plugins.

Step Two: Things you need to check ...

- Check out the [Configuration Guide](#) for your application server and database, to make sure there isn't anything extra you need to do to get Confluence running
- Especially, Resin 3 users should remember they need to [update web.xml](#)

Step Three: Performing the upgrade



Please note, if you are upgrading from a 1.x version to a 2.x version of Confluence, you must use Method Two.

There are two ways to perform the upgrade:

Method One

Pointing the new webapp to existing Confluence home

1. unzip the new release into a new directory (e.g. 'confluence-2.4.3-std').



If you have downloaded the WAR version and are using Tomcat, you need to update either your `confluence.xml` or `server.xml` to point to the location of the new version. Else, if you have deployed Confluence by copying it to your Tomcat webapps directory, please do not copy the new version over your existing install, as this may cause old files from previous versions to be left behind causing unpredictable problems. Instead, remove the old version first from webapps and then copy the new one in.

2. change the `confluence-init.properties` file to point to your existing confluence home directory (make sure you've already backed this up)
3. if you are not using the embedded database, remember to copy over the jdbc driver jar. In a stand-alone configuration, it needs to go in `confluence-X.Y.Z-std/common/lib`.
4. restart the application server



This method is the most convenient and will allow you to reuse your existing Confluence home directory and database.

Method Two

Exporting and Restoring to a Brand New Instance

1. From Confluence, go to Administration -> Backup & Restore and create a manual backup that includes attachments.
2. Create the new, separate install directory. We recommend including the version number in the install directory ie `..\\confluence<VERSION>` and that users avoid putting spaces in the install path. Windows users may wish to use `C:\\confluence\\conf2.2.0` (set it to the version you downloaded).
3. Download the Confluence standalone version and setup a [new installation of Confluence](#), create a new clean database and proceed with setup wizard.
4. when asked to restore existing data, specify the backup created in step 1
5. if you have made modifications to your `osuser.xml` file, this is the time to shutdown your confluence instance, copy the `osuser.xml` file into the `WEB-INF/classes` directory and start up Confluence.



- If you are unsuccessful with upgrading using the first method outlined above, you may give this approach a go. Occasionally, starting afresh will fix the problem.
- If you are upgrading from a version older than 2.0, we recommend using this method to obtain significant performance improvements from indexes we added in the 2.0 release (these indexes will not get added if you upgrade using the first method)

Post-install Notes

- If you're happy with the new version, you can remove the old Confluence directory.
- If you have delegated user management to JIRA and are running Confluence 2.0 or earlier, read the release notes to see if `osuser.xml` has been updated. If it has, you will have to move your changes over from your old `osuser.xml` to the new one or copy your old `osuser.xml` into the `WEB-INF/classes` directory and just override the one there.
- Remember to restore the `server.xml` or plugin jar files you backed up earlier.
- If you have previously installed Confluence/Tomcat as a Windows service, you may have to uninstall and reinstall the service, as described [here](#).
- If you're using AtlassianUser LDAP integration, remember to copy over your old `atlassianUserContext.xml` file over to the `confluence/WEB-INF/classes` in the new version.
- You should re-download the latest version of each plugin you are using from the [Confluence Extension space](#)

RELATED TOPICS

- If you are planning to upgrade Confluence and would like to use a different application server, please review the [Application Server Configuration guide](#)
- If you running Confluence on a cluster, please see [Upgrading a Confluence Cluster](#)

 [Administrators Guide Home](#)  [Confluence Documentation Home](#)

Weblogic - Troubleshooting

This page last changed on May 23, 2006 by [jnolen](#).

Confluence sends its log output to standard out, so by default Weblogic does not record it.

To redirect Confluence's log output to a file follow these instructions [Redirecting System.out and System.err to a File](#)

Webserver Configuration

This page last changed on Feb 01, 2006 by [vidya](#).

- [Apache and Apache Connector Tips](#)
- [Configure Web Proxy Support for Confluence](#)

Apache and Apache Connector Tips

This page last changed on Apr 28, 2005 by [vidya](#).

The speed of downloading attachments is extremely slow. We are experiencing the following speeds

Large file served directly through Apache: 15000 KB/sec

Large file served directly from Tomcat HTTP connector: 14500 KB/sec

Large file served from Confluence (using Apache/mod_jk/Tomcat): 84 KB/sec

You can see that the file served from Confluence is ~176 times slower!

Solution

We upgraded mod_jk from version 1.2.8 to 1.2.10 and the download speed improved significantly to ~12000 KB/sec.

Configure Web Proxy Support for Confluence

This page last changed on Mar 20, 2007 by don.willis@atlassian.com.

Overview

Some of Confluence's macros, such as {rss} and {jiraissues} need to make web requests to remote servers in order to retrieve data. If Confluence is deployed within a datacentre or DMZ, it may not be able to access the Internet directly to make these requests. If you find that the {rss} macro does not work, ask your network administrator if Confluence needs to access the Internet through a web proxy.

Configuring Proxy Support

Proxy support is configured by passing certain system properties to the Java Virtual Machine on startup. These properties are defined by Sun here:

<http://java.sun.com/j2se/1.4.2/docs/guide/net/properties.html>

- http.proxyHost (default: <none>)
- http.proxyPort (default: 80 if http.proxyHost specified)
- http.nonProxyHosts (default: <none>)

http.proxyHost and http.proxyPort indicate the proxy server and port that the http protocol handler will use.

http.nonProxyHosts indicates the hosts which should be connected too directly and not through the proxy server. The value can be a list of hosts, each seperated by a |, and in addition a wildcard character (*) can be used for matching. For example: -Dhttp.nonProxyHosts="*.foo.com|localhost".

Configure HTTP proxy with authentication

- http.proxyUser = username
- http.proxyPassword = secret

Reference: [source](#)

Please consult your application server documentation for how to provide system properties to the Java runtime, or to a particular application server. Some examples of how to start up different application servers with these system properties set are:

AppServer	Startup script	Variable to edit	Example
Orion	n/a	n/a	java -Dhttp.proxyHost=proxy.example.c -Dhttp.proxyPort=3128 orion.jar -userThreads

Tomcat	bin/catalina.sh, bin\catalina.bat	JAVA_OPTS	set JAVA_OPTS="-Dhttp.proxyHost=prox -Dhttp.proxyPort=3128" (Windows), or export JAVA_OPTS="-Dhttp.proxyHost=prox -Dhttp.proxyPort=3128" (Unix)
Tomcat Service	n/a	n/a	When using a sevice to start tomcat, JVM parameters must be set using special syntax. See Start Confluence automatically on Windows as a Service .
Weblogic	\$BEA_HOME/domain/<domain>/startWebLogic.sh	JAVA_OPTIONS	export JAVA_OPTIONS="\$JAVA_OPTIONS -Dhttp.proxyHost=proxy.example.c -Dhttp.proxyPort=3128"
JBoss 3.2.x	bin/run.sh	JAVA_OPTS	export JAVA_OPTS="-Dhttp.proxyHost=prox -Dhttp.proxyPort=3128"

NTLM Authentication

Confluence does not currently support NTLM authentication, and can not identify itself to a proxy server in this way.

Confluence Main FAQ

This page last changed on Jan 14, 2007 by david.soul@atlassian.com.

Questions By Topic

[LDAP](#)

[JIRA User Integration](#)

[Plugin Development](#)

[RSS Feeds](#)

[Site Backup & Restore](#)

[JIRA Issues Macro](#)

Installation Troubleshooting

Solutions to common issues with [installing Confluence](#). Review your logs by opening the Confluence install directory and checking the `/logs/catalina.out` and `/logs/catalina.out` files for errors described below. Click on a problem to show the solution.

Confluence window closes immediately when started

An error is preventing Confluence from starting.

1. Open a command prompt. On Windows, do this by clicking on your Start menu, then click Run. In the Run box, type `cmd` and press OK
2. From the command prompt, go to your Confluence install directory
3. Go into the `bin` subdirectory
4. Run `startup.bat` and read the error message
5. Find the solution to that error below

Confluence won't start - `java.lang.NoClassDefFoundError IntraHibernateAttachmentCopier`

If you are seeing `"java.lang.NoClassDefFoundError: com/atlassian/confluence/pages/persistence/dao/hibernate/AbstractHibernateAttachmentDao$IntraHibernateAttachmentCopier"`, you have unzipped Confluence using a program that cannot handle long filenames. You must delete your install directory and go back to the point in the instructions that covers unzipping Confluence using a third-party unzip program.

Confluence won't start - Exception in thread "main" `java.lang.NoClassDefFoundError: ...`

If <http://localhost:8080> goes to an error page when you run Confluence, go to the install directory and find the `/logs/catalina.out`. If this file contains a single line error starting with `"Exception in thread "main" java.lang.NoClassDefFoundError"`, your install path may contain spaces. The solution is to rename your install directory path so that there are no spaces, then restart Confluence.

Confluence won't start - Error creating Confluence Home directory

The confluence.home variable specified in confluence-init.properties cannot be created. To fix this, edit /confluence/WEB-INF/classes/confluence-init.properties and check the path specified exists. Make sure all the directory slashes use / and that the # has been removed. If you're stuck, try using confluence.home=c:/confluence/data

Confluence won't start - JAVA_HOME environment variable is not defined correctly

You have not installed the Java Development Kit, or not set the %JAVA_HOME% to the directory of the JDK. You should re-check your steps in Stage 2.

Confluence won't start - Port 8080 is in use

If you have another Tomcat running on the same machine, you must edit <INSTALL>/conf/server.xml and change both 8080 and 8005 to ports that do not conflict with your other Tomcat instance according to [these instructions](#).

Confluence won't start - Error creating bean with name 'scheduler'

You will need to [adjust your system time](#).

Confluence won't start - Error registering bean with name 'fileSystemAttachmentDataDao'

If you did not use one of the [recommended unzipping tools](#), and happened to use for instance the default Windows XP extractor, one of the classes required for starting up Confluence may not be located due to the lengthy file-path. This is due to the reason that the default Windows tool silently fails to extract files with long names. We suggest you to use other tools such as WinZIP and 7zip and redo the deployment process.

Cause:

```
org.springframework.beans.factory.BeanDefinitionStoreException: Error registering bean with name
'fileSystemAttachmentDataDao' defined in class path resource applicationContext.xml: Class that bean
class com.atlassian.confluence.pages.persistence.dao.FileSystemAttachmentDataDao depends on not
found; nested exception is java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrategy
at
org.springframework.beans.factory.xml.DefaultXmlBeanDefinitionParser.parseBeanDefinition(DefaultXmlBeanDefinitionParser.java:100)
caused by: java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrategy
at java.lang.Class.forName0(Native Method)
```

Confluence starts but localhost:8080 times out

Check the server logs for errors. If you are running Confluence Standalone on Windows, error messages will be printed to the console window that opened when you ran startup.bat. On Unix systems, Confluence will log messages to logs/catalina.out.

Confluence starts but localhost:8080 goes to Tomcat start homepage

The CATALINA_HOME environment variable is set to another instance of Tomcat. You should run shutdown.sh, remove the CATALINA_HOME reference to the other Tomcat version, and run startup.sh again.

Confluence starts but logins fail at login screen

If you try to login with the correct username and password but are always returned to the login screen without any error messages, and you are running [Zone Alarm](#), please check that it is not blocking the Confluence server

Post-Install Troubleshooting

If your problem is in an area covered in Questions by Topic, please check there instead.

[Cannot install Confluence due to 'NullPointerException in DefaultPluginManager' error](#)
[Cannot register Confluence due to 'License you entered was not valid' error](#)
[Cannot send email due to 'javax.mail.NoSuchProviderException' SMTP error](#)
[Confluence content or attachments are randomly lost](#)
[Confluence stops responding after some time](#)
[Confluence Unix and X11 Dependencies](#)
[Confluence will not start - CommandBridge ClassNotFoundException](#)
[Confluence won't start with "Error creating Home directory"](#)
[Custom HTML broken in Look and Feel after saving invalid HTML](#)
[Dynamic tasklist macro edits fail with ConversionException after JDK upgrade](#)
[Edit page fails with 'DataIntegrityViolationException... Violation of PRIMARY KEY constraint'](#)
[Fix '404' errors in Space tree view](#)
[Fix 'Error using thumbnails - No image support in Java runtime'](#)
[Fix 'java.lang.UnsupportedClassVersionError... Unsupported major.minor version 49.0'](#)
[Fix 'Out of Memory' errors by increasing available memory](#)
[Fix 'Page Not Found' errors for pages with spaces in the title](#)
[Fix 'Too many open files' error on Linux by increasing filehandles](#)
[Fix JavaScript browser errors](#)
[PDF export fails on Linux with UnsatisfiedLinkError](#)
[Search is not finding my data AND the indexing process does not appear to be completing](#)
[Troubleshooting Character Encodings](#)
[Troubleshooting HTTPS or SSL-related problems](#)
[View page containing Chart macro throws 'NoClassDefFoundError'](#)
[What browsers are supported? I cannot see the Rich Text Editor in my browser](#)

General Questions

[Add Spell Checking To Confluence](#)
[Can Confluence retrieve search results from other sites?](#)
[Can I use CamelCaseLinks like they do on WardsWiki?](#)
[Can Users Edit Individual Sections Within a Page?](#)
[Change default font size in Confluence](#)
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[Copy Or Rename A Space](#)
[Disable public account signups](#)
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[Enable user access logging](#)
[How do I change the space key?](#)
[How does Confluence differ from a wiki?](#)
[Installing Confluence Standalone](#)
[Redirect users to a page on login](#)
[Retrieve file attachments from a backup](#)
[Setup email notifications of page updates](#)
[Share users and groups between Confluence and JIRA](#)
[Start Confluence automatically on system startup](#)
[Where does Confluence store all its data?](#)

Is your question unanswered? Try searching using the Search box in the top right corner of the page. If you can't find your answer, visit [Confluence Support](#) and 'Create New Issue' for a support ticket. You may need to sign up for a free account first.

Copy Or Rename A Space

This page last changed on Apr 19, 2007 by david.soul@atlassian.com.

Currently Confluence does not support renaming or copying spaces through the user interface. You may wish to vote towards these feature requests:

- [Clone an entire space](#) will enable duplication of every page, news and comment plus space themes and colour schemes
- [Copy a page hierarchy between existing spaces](#)

Manually Clone Or Rename A Space

It is possible to manually clone or rename a space by modifying an XML backup of the target space.

Notes

- May require manually updating external links to that space
- The instructions have been confirmed for Confluence 2.2 onwards. Users running older versions are recommended to upgrade Confluence before continuing
- Where examples are given, they involve changing `oldkey:Old Space Name` into `newkey:New Space Name`
- When importing a space export for a space that already exists, the previous space content will be overwritten
- Read the process in full before beginning

Stage 1: Rename Space

1. Select a new, unique space key and name for the second space. Space keys may only consist of ASCII letters or numbers (A-Z, a-z, 0-9) and no empty spaces are allowed in the key
2. Clone your production Confluence instance to a test server on another computer now. You should now have a production server and test server both containing the same data and can avoid the risk of corrupting your production Confluence instance
3. On the test server, login as an administrator
4. Go to Browse Space -> Advanced -> Export Space and export the target space as XML including attachments.

Export Space - template

Advanced

- [Space Details](#)
- [Orphaned Pages](#)
- [Undefined Pages](#)

Export

 **Export Space**

Subscribe

- [RSS Feeds](#)
- [Start watching this space](#)

Export content within this space in PDF, XML, or HTML format.

1. First, select your desired export format:

Export Format

- ☐ export-html
- ☐ PDF Output
- ☒ XML Output

Other Options

- ☒ Include comments
- ☒ Backup Attachments (for XML export only)

2. Then select the pages you want to export: [Check All](#) - [Clear All](#)

Pages to export:

- ☒  [Home](#)
- ☒  [Template Page](#)

Export

Cancel

5. Save the space backup
6. Open the space backup file with a zip file editor and find the file entities.xml
7. Edit entities.xml in a text editor
8. Do a 'Search & Replace' on the old space name as shown below. Swap out Old Space Name and New Space Name for the actual names

Search For	Replace With
[CDATA[Old Space Name]	[CDATA[New Space Name]

9. Do a 'Search' for any occurrences of the old space name that occur in user content. You may wish to replace some or all of these references with the new space name. Replace Old Space Name and New Space Name with the actual names

Search For
Old Space Name

10. Do four 'Search & Replaces' on each of the references to the old space key as shown below. Swap out oldkey and newkey for the actual keys

Search For	Replace With
[oldkey]	[newkey]
spaceKey=oldkey	spaceKey=newkey
[oldkey:	[newkey:
key=oldkey]	key=newkey]

11. Save the modified entities.xml
12. Overwrite the original entities.xml in the space backup with the modified version
13. Login to the test instance as a Confluence administrator
14. Go to Administration -> Backup & Restore. Under 'Upload a zipped backup to Confluence', browse to select to the modified space backup. Check the 'Build index' option and select 'Upload & Restore'

15. Once the restore process has completed, access the new space and test that you can access pages, embedded links and attachments. Any error in this step indicates that your search and replace was performed incorrectly and you should to retry from step 2

Stage 2: Restore On Production

1. Backup your production instance now
2. Login to the production instance as a Confluence administrator
3. Go to Administration -> Backup & Restore. Under 'Upload a zipped backup to Confluence', browse to select to the modified space backup. Check the 'Build index' option and select 'Upload & Restore' If any data loss occurs as a result of using this workaround, immediately revert to the backup
4. Once the restore process has completed, access the new space and test that you can access pages, embedded links and attachments. If any error occurs during this step, revert to the site backup
5. If renaming a space, you can delete the old space by going to Browse Space -> Space Admin -> Remove Space. Click OK to remove the old space

Stage 3: Rename Space References

Links in other spaces to the old space will remain unchanged. If you are renaming a space, you will need to change these links to point to the new space. Users who are copying a space can leave the links pointing to the original space by skipping this stage.

Changing these links depends on if you want to change every link, or only some. If not all links must be changed or you are unwilling to stop your production instance, this must be done by editing each page individually. If all links must be changed, follow the instructions below.

1. Create a site XML backup including attachments from Administration -> Backup & Restore
2. Save the site XML backup file
3. Stop the production instance
4. Create two copies of the site backup. Keep one copy as the original, unmodified backup, the other will be modified. Rename the backups so that it is clear which is being modified.
5. Open the copy for modification and edit `entities.xml`
6. Do four 'Search & Replaces' on each of the references to the old space key as shown below. Swap out `oldkey` and `newkey` for the actual keys

Search For	Replace With
[oldkey]	[newkey]
spaceKey=oldkey	spaceKey=newkey
[oldkey:	[newkey:
key=oldkey]	key=newkey]

7. Save the updated `entities.xml` back into the modified site XML backup file
8. Start the production instance
9. Import the modified site XML backup from Administration -> Backup & Restore. If you have any problems, revert to the original unmodified backup and redo the links manually instead

Done.

How do I change the space key?

This page last changed on Mar 11, 2007 by david.soul@atlassian.com.

See [Copy Or Rename A Space](#).

How Do I?

This page last changed on Feb 02, 2006 by [vidya](#).

[Add Spell Checking To Confluence](#)

[Can Confluence retrieve search results from other sites?](#)

[Change default font size in Confluence](#)

[Change listen port for Confluence Standalone](#)

[Copy Or Rename A Space](#)

Add Spell Checking To Confluence

This page last changed on Apr 26, 2007 by david.soul@atlassian.com.

Confluence has no inbuilt support for spell checking. You may wish to [vote for Confluence to add it's own spell checking](#) or add spell checking to your browser instead:

- [Add spell checking to Internet Explorer](#)
- Install the [Firefox browser](#) with inbuilt spell checking

Backup FAQ

This page last changed on Feb 15, 2007 by david.soul@atlassian.com.

For answers on [Site Backup and Restore](#), click a query below.

[Backup will not import](#)

[Can XML backups be deleted automatically?](#)

[Does running a daily XML backup slow performance?](#)

[How can I reduce the space taken up by automatic backups](#)

[Can Confluence be restored from a backup minus attachments?](#)

[Are there any scripts for backup creation and restore?](#)

Backup will not import

See [Troubleshooting failed XML site backups](#)

Can XML backups be deleted automatically?

Windows users must manually delete any backup files. Linux users can insert a nightly or weekly automation script or cron similar to the following:

```
ls -t <path to your backup dir>/* | tail +6 | xargs -i rm {}
```

Does running a daily XML backup slow performance?

There is a minor slowdown every time the backup is performed, usually nightly between 2am and about 2.10am. If the performance hit is significant, you can [switch to an external backup process](#) for large instances.

How can I reduce the space taken up by automatic backups

Switch to a manual backup process according to the 'Backups For Large Instances' section of [Site Backup and Restore](#), which will give you more control over disk usage.

Can Confluence be restored from a backup minus attachments?

Yes, as long as the attachments have been backed up are the same time. Refer to [Site Backup and Restore](#).

Are there any scripts for backup creation and restore?

Check out [User Submitted Backup & Restore Scripts](#)

Change default font size in Confluence

This page last changed on Nov 20, 2006 by david.soul@atlassian.com.

There is no way to modify the default font size from the user interface, so you will need to customise Confluence's CSS manually. This can be modified in your Confluence install directory under `\confluence\WEB-INF\classes\styles\site-css.vm`

The first entry is:

```
body, p, td, table, tr, .bodytext, .stepfield {  
    font-family: Verdana, arial, sans-serif;  
    font-size: 11px;  
    line-height: 16px;  
    color: #000000;  
    font-weight: normal;  
}
```

By changing the value of the `font-size` field, you will be able to increase or decrease the base font size shown in the browser.

Disable public account signups

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

How do I prevent just anyone from being able to sign up for new accounts?

Confluence gives you the option to enable or disable "public signup". If you want to restrict your site to a particular set of users, you can easily disable public signup from the 'General Configuration' section of the Administration Console.

See [Enabling or Disabling Public Signup](#).

RELATED TOPICS

[1.1 Concepts](#) (Crowd)

[2. Managing Directories](#) (Crowd)

[FAQ Home](#)

Enable public anonymous access

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

How do I configure Confluence for public-anonymous access?

There are two different permissions that need to be set to allow anonymous access to a Confluence site. First, the 'Anonymous' user needs the global "Use Confluence" permission, secondly you need to give 'Anonymous' permissions in each space you want to make public. Full instructions can be found [here](#).

RELATED TOPICS

[Security Overview](#)

[Users and Groups](#)

[Confluence Main FAQ](#)

Enable user access logging

This page last changed on Nov 27, 2006 by ivan@atlassian.com.

Generate a basic log indicating which users are accessing which pages in Confluence. Application servers are able to log the requested URL, but they cannot determine the currently logged in user. This log is not currently formatted to be accessible to web log analysis tools such as AwStats as it lacks a host and get method, so must be viewed manually.

Similar to [JIRA](#), Confluence has a built-in access logging mechanism, which shows the user and URL invoked. To enable it, you need to modify a couple of configuration files and restart Confluence.

Configuring the AccessLogFilter

There is a simple AccessLogFilter in Confluence than can be enabled via log4j.properties and web.xml.

You need to uncomment these lines in log4j.properties:

```
log4j.category.com.atlassian.confluence.util.AccessLogFilter=INFO, confluencelog
log4j.additivity.com.atlassian.confluence.util.AccessLogFilter=false
```

And enable the filter in web.xml by removing the comments around these lines:

```
<filter-mapping>
  <filter-name>AccessLogFilter</filter-name>
  <url-pattern>/display/*</url-pattern>
</filter-mapping>
```

Enabling this AccessLogFilter will result in logging information being stored in the standard confluence log files.

Advanced configuration

After this is working, you could redirect the access log to a different file by adding a new RollingFileAppender at the top of log4j.properties:

```
log4j.appender.accesslog=org.apache.log4j.RollingFileAppender
log4j.appender.accesslog.Threshold=DEBUG
log4j.appender.accesslog.File=${catalina.home}/logs/atlassian-confluence-access.log
log4j.appender.accesslog.MaxFileSize=20480KB
log4j.appender.accesslog.MaxBackupIndex=5
log4j.appender.accesslog.layout=com.atlassian.confluence.util.PatternLayoutWithStackTrace
log4j.appender.accesslog.layout.ConversionPattern=%d %p [%c{4}] %M %m%n
```

To enable this logger, you need to add 'accesslog' to the log4j.rootLogger property, and change the

AccessLogFilter logger line from 'confluencelog' to 'accesslog'.

The web.xml url-pattern given above only matches page views (/display/*). You could change the url-pattern, or duplicate the entire filter-mapping to log access for different kinds of access (/admin/* for admin functions, /pages/* for edits and creates, etc. Note that /pages/editpage.action* doesn't work).

What is logged

The format produced is the following values separated by spaces:

1. Username or '-' if no user
2. URL
3. VM free memory at start of request (in KB)
4. Change in free memory after request is finished (in KB)
5. Time taken for request (in ms).

The above may be preceded by additional log4j-generated text, depending on the log4j pattern which is configured.

Another option: Google Analytics

[Google Analytics](#) can be easily integrated with Confluence for access tracking.

After signing up, copy the Javascript and paste it into the 'Before end of <body>' section of Administration, Custom HTML. This will put the Javascript on every page generated by Confluence.

This might not work correctly if your users are behind a firewall or authenticated proxy.

I can not find the "Rich Text" editor. Is the editor part of Confluence 1.4.3?

This page last changed on Feb 02, 2006 by [vidya](#).

I can not find the "Rich Text" editor. Does Confluence 1.4.3. contain the Editor?

The Rich Text Editor (aka WYSIWYG editor) is available in Confluence 2.0 and upwards. Rich Text editing is enabled by default.

If you wish to upgrade your Confluence installation, instructions can be found [here](#).

RELATED TOPICS

[Enabling Rich Text Editing Option](#) (Confluence)

[Making Rich Text Editing default](#) (Confluence)

[FAQ Home](#)

Migrate Confluence from one database to another

This page last changed on Jan 10, 2007 by david.soul@atlassian.com.

How do I migrate Confluence from one database to another?

First perform an XML backup of your Confluence site. You can do this from the Administration > Backup and Restore page.

Once you've made the backup file, you can set up a new Confluence instance from scratch against your new database and restore the backup that you just created. Detailed instructions can be found [here](#).

RELATED TOPICS

[Configuration Guide](#) (Confluence)

[Migrate to an External Database](#) (Confluence)

[FAQ Home](#)

Redirect users to a page on login

This page last changed on Oct 06, 2006 by david.soul@atlassian.com.

Can I set Confluence to redirect users to a space homepage immediately after login?

Yes. You can direct users to any of the space homepages when they login to the site This is configured by a site administrator from the Administration Console. Instructions on how to do this can be found [here](#).

RELATED TOPICS

[Administration Guide](#)

[Customising Space Homepage](#)

[FAQ Home](#)

Setup email notifications of page updates

This page last changed on Oct 06, 2006 by david.soul@atlassian.com.

Confluence sends notifications of changes to spaces or pages to users who are watching pages. Users choose to watch pages or spaces, an administrator does not force notifications upon them.



There is one way to automatically have users watch a given page or news item. The [Autowatch Plugin](#) can be set up to have anyone who contributes to a space watch the content they have contributed to. Eg. if they comment on a page, they will be set to watch that page for further updates. This should be used with care.

For Users

As a user, to set up a watch on a specific page or space, follow [CONF20:Watching a Page](#) or [CONF20:Watching a Space](#)

For Administrators

As an administrator, if you want to configure confluence to send notifications and test that it is working, follow these instructions:

1. Set up a mail server at Administration -> Mail servers. See [DOC:Configuring a Server for Outgoing Mail](#).
 - Make sure you use "Send Test Email" to check that the server is working. Check that you get the test email in your inbox.
2. Go to your profile (using the Preferences link) and click Edit Profile -> Email Preferences, then enable Notify On My Action. (Otherwise you'll have to use multiple users. By default confluence does not send you notifications for your own changes.) See [CONF20:Managing Watches](#)
3. While editing your profile, make sure you have an email address configured. See [DOC:Configuring a Server for Outgoing Mail](#)
4. Go to a page you wish to get notifications about.
5. Click the Envelope icon in the top right corner to "watch" that page. See [CONF20:Watching a Page](#).
6. Edit the Page.
7. Either wait a while or: Go to Administration -> Mail Queue. Click "Flush Mail Queue". See [DOC:The Mail Queue](#).
8. Check your email.

Share users and groups between Confluence and JIRA

This page last changed on Oct 06, 2006 by david.soul@atlassian.com.

How do I share users and groups between Confluence and [JIRA](#)?

To save your having to enter users into both JIRA and Confluence, you can configure Confluence to use JIRA's user database.

Instructions on how to do this can be found [here](#).

RELATED TOPICS

[Delegate user management to use JIRA logins](#) (Confluence)

[Migrating users from Confluence to JIRA](#) (Confluence)

Where does Confluence store all its data?

This page last changed on Feb 02, 2006 by [vidya](#).

Where does Confluence store all its data?

Attachments, extensions and configuration files are stored in the Confluence Home Directory that is configured when Confluence is first installed. All remaining data resides in the configured database.

See [Important directories and files](#) for more information.

RELATED TOPICS

[Important Directories and Files](#) (Confluence)

[FAQ Home](#)

Installation Troubleshooting FAQ

This page last changed on Mar 25, 2007 by david.soul@atlassian.com.

Solutions to common issues with [installing Confluence](#). Review your logs by opening the Confluence install directory and checking the `/logs/catalina.out` and `/logs/catalina.out` files for errors described below. Click on a problem to show the solution.

Confluence window closes immediately when started

An error is preventing Confluence from starting.

1. Open a command prompt. On Windows, do this by clicking on your Start menu, then click Run. In the Run box, type `cmd` and press OK
2. From the command prompt, go to your Confluence install directory
3. Go into the `bin` subdirectory
4. Run `startup.bat` and read the error message
5. Find the solution to that error below

Confluence won't start - `java.lang.NoClassDefFoundError IntraHibernateAttachmentCopier`

If you are seeing `"java.lang.NoClassDefFoundError: com/atlassian/confluence/pages/persistence/dao/hibernate/AbstractHibernateAttachmentDao$IntraHibernateAttachmentCopier"` you have unzipped Confluence using a program that cannot handle long filenames. You must delete your install directory and go back to the point in the instructions that covers unzipping Confluence using a third-party unzip program.

Confluence won't start - Exception in thread "main" `java.lang.NoClassDefFoundError: ...`

If <http://localhost:8080> goes to an error page when you run Confluence, go to the install directory and find the `/logs/catalina.out`. If this file contains a single line error starting with `"Exception in thread "main" java.lang.NoClassDefFoundError"`, your install path may contain spaces. The solution is to rename your install directory path so that there are no spaces, then restart Confluence.

Confluence won't start - Error creating Confluence Home directory

The `confluence.home` variable specified in `confluence-init.properties` cannot be created. To fix this, edit `/confluence/WEB-INF/classes/confluence-init.properties` and check the path specified exists. Make sure all the directory slashes use `/` and that the `#` has been removed. If you're stuck, try using `confluence.home=c:/confluence/data`

Confluence won't start - `JAVA_HOME` environment variable is not defined correctly

You have not installed the Java Development Kit, or not set the %JAVA_HOME% to the directory of the JDK. You should re-check your steps in Stage 2.

Confluence won't start - Port 8080 is in use

If you have another Tomcat running on the same machine, you must edit <INSTALL>/conf/server.xml and change both 8080 and 8005 to ports that do not conflict with your other Tomcat instance according to [these instructions](#).

Confluence won't start - Error creating bean with name 'scheduler'

You will need to [adjust your system time](#).

Confluence won't start - Error registering bean with name 'fileSystemAttachmentDataDao'

If you did not use one of the [recommended unzipping tools](#), and happened to use for instance the default Windows XP extractor, one of the classes required for starting up Confluence may not be located due to the lengthy file-path. This is due to the reason that the default Windows tool silently fails to extract files with long names. We suggest you to use other tools such as WinZIP and 7zip and redo the deployment process.

Cause:

```
org.springframework.beans.factory.BeanDefinitionStoreException: Error registering bean with name
'fileSystemAttachmentDataDao' defined in class path resource applicationContext.xml: Class that bean
class com.atlassian.confluence.pages.persistence.dao.FileSystemAttachmentDataDao depends on not
found; nested exception is java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrateg
at
org.springframework.beans.factory.xml.DefaultXmlBeanDefinitionParser.parseBeanDefinition(DefaultXmlBeanDefinition
caused by: java.lang.NoClassDefFoundError:
com/atlassian/confluence/pages/persistence/dao/FileSystemAttachmentDataDao$FileSystemAttachmentNamingStrateg
at java.lang.Class.forName0(Native Method)
```

Confluence starts but localhost:8080 times out

Check the server logs for errors. If you are running Confluence Standalone on Windows, error messages will be printed to the console window that opened when you ran startup.bat. On Unix systems, Confluence will log messages to logs/catalina.out.

Confluence starts but localhost:8080 goes to Tomcat start homepage

The CATALINA_HOME environment variable is set to another instance of Tomcat. You should run shutdown.sh, remove the CATALINA_HOME reference to the other Tomcat version, and run startup.sh again.

Confluence starts but logins fail at login screen

If you try to login with the correct username and password but are always returned to the login screen without any error messages, and you are running [Zone Alarm](#), please check that it is not blocking the Confluence server

JIRA Issues Macro FAQ

This page last changed on Jan 04, 2007 by david.soul@atlassian.com.

For problems relating to the [JIRA Issues Macro](#), click on your query below for the solution.

Issues Appear Out Of Date

Using cache with this macro it can be that you have stale data in you table. You can force a refresh of the table by clicking the Refresh button in the top-right hand corner of the table.

Cannot Access Issues When JIRA Uses HTTPS

Check out [Troubleshooting HTTPS or SSL-related Problems](#).

'Error Rendering Macro' or No Issues Are Displayed or Not All Issues Are Displayed

You must append a JIRA username and password to your JIRA issues filter URL. That JIRA user must also have permission to view the all issues returned by the filter, otherwise they will be omitted. Please append the os_username and os_password as described below so that

jiraissues:url=<http://host.com/secure/IssueNavigator.jspa?...> becomes

jiraissues:url=http://host.com/secure/IssueNavigator.jspa?...&os_username=MYUSERNAME&os_password=MYPASSWORD

where MYUSERNAME and MYPASSWORD are a JIRA login.

'Error rendering macro: java.io.IOException: Could not download'

You may need to configure Confluence to [acknowledge your proxy server](#) before it is able to download the feed.

'Error rendering macro: java.io.IOException: Error on line -1: Premature end of file'

Did you select an existing JIRA filter? If you did, your issues filter URL will end with

.../12345/SearchRequest-12345.xml where 12345 is any number. You should retry using a new and unsaved filter.

Issue icons are not displayed

Check that you are using the [correct macro version for JIRA](#).

New User FAQ

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

The main FAQ is [Confluence Main FAQ](#). For new users:

[Can I use CamelCaseLinks like they do on WardsWiki?](#)

[Can Users Edit Individual Sections Within a Page?](#)

[How does Confluence differ from a wiki?](#)

[Where does Confluence store all its data?](#)

Can Confluence retrieve search results from other sites?

This page last changed on Feb 21, 2007 by david.soul@atlassian.com.

Confluence cannot easily index external sites due to [technical reasons](#), but there are two alternatives:

1. [Embed External Pages Into Confluence](#)
2. [Replace Confluence Search](#)

Technical Reasons

Confluence indexes pages using a customised [Lucene](#) search engine that returns matching pages, mail and blog posts for which the searcher has view permission. It would require significant source code modifications to enable Confluence to process search results from external pages, as the indexing process has been customised to utilise internal Confluence metadata. Note that users can still [index content from new attachment filetypes](#).

Embed External Pages Into Confluence

If you only have a small number of external sites to index, you may prefer to enable the [HTML-include Macro](#) and use it embed the external content inside normal Confluence pages.

Replace Confluence Search

Use your own programmer resources to replace Confluence's internal search with a crawler that indexes both Confluence and external sites. This advanced option is easier than modifying the internal search engine. It requires removing Confluence internal search from all pages and replacing the internal results page with your own crawler front-end.

1. Setup a replacement federated search engine to index the Confluence site, as well as your other sites, and provide the results that way. You would need to host a web crawler, such as these [open-source crawlers](#). Note that you can perform a search in Confluence via the [remote API](#)
2. Replace references to the internal search by [modifying the site layout](#) so that it links to your search front-end
3. Host another site containing the search front-end. You may wish to insert it into a suitable context path in your application server so that it appears to be from a path under Confluence. Tomcat sets Confluence's paths from the Confluence install\confluence\WEBINF\web.xml file.

Can I use CamelCaseLinks like they do on WardsWiki?

This page last changed on Feb 02, 2006 by [vidya](#).

Can I use CamelCaseLinks like they do on WardsWiki?

Yes you can. Camelcasing is not enabled by default but a site administrator can easily enable it from the administration screens.

See [Enabling CamelCase linking](#).

RELATED TOPICS

[CamelCase linking](#)

[FAQ Home](#)

Can Users Edit Individual Sections Within a Page?

This page last changed on Nov 19, 2006 by [cmiller](#).

Some wiki software allows the editing of sections within a page (sectional editing). This functionality is currently not available in Confluence, but we are looking to include it in a future release. This issue is being tracked on the Confluence JIRA project: [CONF-5913](#).

In the meantime, for pages that are getting long enough to be hard to edit in a single block, you can get an approximation of sectional editing by using the `{include}` macro. For example:

```
h3. [Section One] ([edit|///pages/editpage.action?spaceKey=SPACE&pageTitle=Section One])
{include:Section One}
h3. [Section Two] ([edit|///pages/editpage.action?spaceKey=SPACE&pageTitle=Section Two])
{include:Section Two}
```

The links to the edit pages can be simplified by using the `{link-to:page edit}` macro available in David Peterson's [Linking Plugin](#).

Technical Stuff

The problem lies in the complexity of Confluence's wiki markup. We made a couple of proof-of-concept implementations of sectional editing as part of our "[Fedex Day](#)" program, and while it's quite easy to come up with a solution that works with 90% of pages, there are a lot of edge-cases where it's actually quite hard to determine precisely where a given section starts and finishes.

Next time we perform a significant overhaul of our wiki markup processing engine, we'll be looking specifically to add functionality that will make sectional editing work properly.

How does Confluence differ from a wiki?

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

How does Confluence differ from a wiki?

Essentially, Confluence is a [wiki](#). Our aim was to build an application that was built to the requirements of an enterprise knowledge management system, without losing the essential, powerful simplicity of the wiki in the process.

From the wiki, we took the following lessons:

- It should be easy for anyone to create and edit pages
- It should be easy for anyone to link pages together
- It should be easy to see what has changed recently
- The site should be searchable
- Users should have the tools to organise and group pages without having any particular structure imposed upon them

On top of that, we added professional features, such as the partitioning of content into separately managed spaces, user- and group-based access control, automated refactoring, PDF exporting, searchable attachments, a comprehensive remote API, easy installation and a professional and easy-to-use presentation; all wrapped up in Atlassian's "Legendary Service".

RELATED TOPICS

More about Confluence on [Atlassian's website](#)

More about [wikis](#)

[FAQ Home](#)

Troubleshooting FAQ

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

The main FAQ is [Confluence Main FAQ](#). For troubleshooting:

[Cannot install Confluence due to 'NullPointerException in DefaultPluginManager' error](#)
[Cannot register Confluence due to 'License you entered was not valid' error](#)
[Cannot send email due to 'javax.mail.NoSuchProviderException' SMTP error](#)
[Confluence content or attachments are randomly lost](#)
[Confluence stops responding after some time](#)
[Confluence Unix and X11 Dependencies](#)
[Confluence will not start - CommandBridge ClassNotFoundException](#)
[Confluence won't start with "Error creating Home directory"](#)
[Custom HTML broken in Look and Feel after saving invalid HTML](#)
[Dynamic tasklist macro edits fail with ConversionException after JDK upgrade](#)
[Edit page fails with 'DataIntegrityViolationException... Violation of PRIMARY KEY constraint'](#)
[Fix '404' errors in Space tree view](#)
[Fix 'Error using thumbnails - No image support in Java runtime'](#)
[Fix 'java.lang.UnsupportedClassVersionError... Unsupported major.minor version 49.0'](#)
[Fix 'Out of Memory' errors by increasing available memory](#)
[Fix 'Page Not Found' errors for pages with spaces in the title](#)
[Fix 'Too many open files' error on Linux by increasing filehandles](#)
[Fix JavaScript browser errors](#)
[PDF export fails on Linux with UnsatisfiedLinkError](#)
[Search is not finding my data AND the indexing process does not appear to be completing](#)
[Troubleshooting Character Encodings](#)
[Troubleshooting HTTPS or SSL-related problems](#)
[View page containing Chart macro throws 'NoClassDefFoundError'](#)
[What browsers are supported? I cannot see the Rich Text Editor in my browser](#)

Cannot install Confluence due to 'NullPointerException in DefaultPluginManager' error

This page last changed on Oct 30, 2006 by david.soul@atlassian.com.

Identifying The Error

If Confluence will not start due to an error:

```
java.lang.NullPointerException
    at
    com.atlassian.plugin.DefaultPluginManager.setEnabledModuleDescriptorsByClass(DefaultPluginManager.java:495)
    ...
```

Check your Confluence log files for a database listener error reporting that the SID is unknown. On standalone, the log file to check is `atlassian-confluence.log` in the `logs` directory of your Confluence install, for example `C:\confluence-2.2.9-std\logs\atlassian-confluence.log`. Scroll to the bottom of the file and search or browse for a "Listener refused" error such as:

```
Caused by: java.sql.SQLException: Listener refused the connection with the following error:
ORA-12505, TNS:listener does not currently know of SID given in connect descriptor
The Connection descriptor used by the client was:
my.dbserver.com:1522:myschema
```

This example was thrown on an Oracle database, where `my.dbserver.com` was the database server, and `myschema` was the Oracle SID. Your error may be different.

Fixing The Error

You will need to modify your database connection URL specified in the Resource for your database. On standalone, this is in the `server.xml` file in the `conf` directory of your confluence install, for example `C:\confluence-2.2.9-std\conf\server.xml`. An example connection URL is:

```
jdbc:oracle:thin:@my.dbserver.com:1521:myschema
```

This example has a server hostname of `my.dbserver.com` and a schema ID of `myschema`.

If your connection URL is missing the `@` symbol before the server hostname, add it and restart. If the `@` symbol is present, check that the schema ID is correct. Oracle users can check the SID of their database in the Oracle `tnsnames` file.

Cannot install Confluence due to missing demo-site.zip

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

I am trying to install Confluence but the demo-site.zip is missing?

There are some cases where the unzip utility used to unzip the Confluence download will recursively unzip all contained zip files. The demo-site.zip should be located in the WEB-INF\classes\com\atlassian\confluence\setup directory. If it has been extracted, you will see an entities.xml file in this directory instead.

RELATED TOPICS

[Confluence Setup Guide](#)

[FAQ Home](#)

Cannot register Confluence due to 'License you entered was not valid' error

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

If this happens, please check your logs. The following message may appear:

```
2006-03-19 16:32:05,969 ERROR [atlassian.license.decoder.LicenseDecoder] String) Exception
looking up public key: null
java.security.spec.InvalidKeySpecException
    at gnu.java.security.provider.DSAKeyFactory.engineGeneratePublic(java.security.spec.KeySpec)
    (/usr/lib/libgcj.so.6.0.0)
    at java.security.KeyFactory.generatePublic(java.security.spec.KeySpec)
    (/usr/lib/libgcj.so.6.0.0)
    at com.atlassian.license.decoder.LicenseDecoder.getPublicKey(java.lang.String) (Unknown
Source)
    at
com.atlassian.license.decoder.LicenseDecoder.getLicense(com.atlassian.license.LicensePair,
java.lang.String) (Unknown Source)
    at com.atlassian.license.LicenseManager.setLicense(java.lang.String, java.lang.String)
(Unknown Source)
    at com.atlassian.confluence.setup.actions.SetupLicenseAction.validateLicense() (Unknown
Source)
    at com.atlassian.confluence.setup.actions.SetupLicenseAction.validate() (Unknown Source)
```

If you see this, you are most likely using GCJ/Kaffe, which sometimes has problems running Confluence. Please try using the [Sun JDK](#).

Cannot send email due to 'javax.mail.NoSuchProviderException' SMTP error

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

When Confluence tries to send mail, I get a "javax.mail.NoSuchProviderException: smtp" error.

The technical explanation is that you have two different versions of Sun's Javamail libraries in your application classpath. When Confluence tries to send an email, Java gets confused as to which version of the library it should be using, and falls over. If (and only if) you are encountering this error, try removing the Javamail-1.3.jar and activation-1.0.1.jar files from the confluence/WEB-INF/lib directory of your Confluence installation, and restarting the server. The problem should go away.

RELATED LINKS

[This issue at Atlassian's forum](#)

[FAQ Home](#)

Confluence content or attachments are randomly lost

This page last changed on Jan 03, 2007 by david.soul@atlassian.com.

Problem

Attachments, pages or attachments have been deleted from a Confluence instance, possibly over an extended period of time.

Probable Cause

A user has experienced this problem when downloading an offline copy of their Confluence instance using Webcopier.

WebCopier follows every link in Confluence using an aggressive [spidering](#) strategy that includes automatic posting of confirmation forms. When WebCopier is run over a page, it follows the remove attachment or page link and performs the equivalent of clicking the OK button on the 'Are you sure you want to remove...?' dialog. If Webcopier has authenticated itself as a user with delete permission for that content, it will then be removed.

Detection

[Enable user access logging](#) and identify the username deleting content by searching the access log for suspicious requests to `dorremoveattachmentonpage.action` or `removepage.action`

Notes

Webcopier must be used on a Confluence site by an authorised Confluence user for the above problem to occur. For a spider to delete content, it must be provided with the credentials of a Confluence user with the delete privilege and set to blindly post confirmation prompts.

Confluence protects against updates from automated spiders, such as those that would trawl a public instance of Confluence, by requiring that updates to Confluence content are posted via a form. Search spiders and other crawlers avoid populating and submitting forms for precisely this reason and at present, Webcopier is the only spider reported to submit confirmation forms by default.

Confluence stops responding after some time

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

I am using MySQL, and after a while Confluence stops working with database errors.

MySQL's JDBC drivers have an annoying default behaviour where if a connection is idle for a certain amount of time (by default, eight hours), it is closed. Since Confluence uses a connection pool, this means that pooled connections die if they are not used within a certain time period.

The solution is to append `?autoReconnect=true` to the end of your database's JDBC URL.

- If you are using JNDI data-sources, you will do this in your application server's configuration files.
- If you have configured Confluence to access the database directly, you will need to manually edit the `hibernate.connection.url` property in the `confluence.cfg.xml` file in your `confluence.home` directory. After you have changed the URL in this file, restart Confluence.

Note

In Confluence versions 1.0RC5 and before, there was a bug that manifested when you used Confluence to connect directly to a MySQL database instead of going through a datasource configured in the application-server under which Confluence runs. Unfortunately the symptoms of the bug were identical to the much more common problem above, so it took us a little longer to find the problem than we should have.

So long as you specify `autoReconnect=true`, Confluence 1.0RC6 and later should remain connected to your MySQL database indefinitely.

RELATED TOPICS

[Configuration Guide](#)

[FAQ Home](#)

Confluence will not start - CommandBridge ClassNotFoundException

This page last changed on Jan 10, 2007 by ivan@atlassian.com.

Problem

While running Confluence under an application server such as JBoss or Jetty, Confluence fails on startup with the exception below.

```
2007-01-01 12:00:00,000 ERROR [org.jboss.deployment.MainDeployer] Could not create deployment:
file:/opt/.../deploy/confluence.war/
org.jboss.ws.WSException: java.lang.ClassNotFoundException:
com.thoughtworks.selenium.outbedded.CommandBridge
    at
    org.jboss.ws.server.WebServiceDeployerJSE.isWebserviceDeployment(WebServiceDeployerJSE.java:161)
    at org.jboss.ws.server.WebServiceDeployer.create(WebServiceDeployer.java:101)
    at org.jboss.ws.server.WebServiceDeployerJSE.create(WebServiceDeployerJSE.java:66)
    at
    org.jboss.deployment.SubDeployerInterceptorSupport$XMBeanInterceptor.create(SubDeployerInterceptorSupport.java:
    at org.jboss.deployment.SubDeployerInterceptor.invoke(SubDeployerInterceptor.java:91)
    at org.jboss.mx.server.Invocation.invoke(Invocation.java:88)
    at org.jboss.mx.server.AbstractMBeanInvoker.invoke(AbstractMBeanInvoker.java:264)
    at org.jboss.mx.server.MBeanServerImpl.invoke(MBeanServerImpl.java:659)
    at org.jboss.mx.util.MBeanProxyExt.invoke(MBeanProxyExt.java:210)
    at $Proxy40.create(Unknown Source)
```

Solution

Comment out the Selenium servlet.

1. Stop the application server
2. Open web.xml and remove the tags below

```
<servlet>
    <servlet-name>SeleneseServletSpike</servlet-name>
    <servlet-class>com.thoughtworks.selenium.outbedded.CommandBridge</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>SeleneseServletSpike</servlet-name>
    <url-pattern>/selenium-driver/driver</url-pattern>
</servlet-mapping>
```

Related

[Known Issues for JBoss](#)

[Known Issues for Jetty](#)

Confluence won't start with "Error creating Home directory"

This page last changed on Jan 02, 2007 by david.soul@atlassian.com.

To fix this issue that prevents Confluence from starting up, open the file `/confluence/WEB-INF/classes/confluence-init.properties` and check that at the bottom, `confluence.home` is specified to an empty, valid directory. Use the backslash (eg `c:/data`) and ensure there is write access to the directory. When changing the directory, save the file and restart the application server.

Custom HTML broken in Look and Feel after saving invalid HTML

This page last changed on Jan 02, 2007 by david.soul@atlassian.com.

In the Administration->Look and Feel->Custom HTML, I've edited the Custom HTML and due to some broken tags I wasn't able to 'Save' the customization when I try editing it again. The save button no longer show up in edit mode.

You will need to remove all the customized HTML and run `/admin/doeditcustomhtml.action` on your Confluence instance. Please note that this operation will permanently remove the previous custom HTML.

Dynamic tasklist macro edits fail with ConversionException after JDK upgrade

This page last changed on Jan 03, 2007 by david.soul@atlassian.com.

Problem Description

If you are using the [Dynamic Tasklist Macro](#) and have upgraded the Confluence server to JDK1.5 or later, editing any tasklist content throws an exception with error cause:

```
com.thoughtworks.xstream.converters.ConversionException: Cannot construct  
java.util.Collections$SynchronizedRandomAccessList:
```

Cause

A change to the Java API in version 1.5, specifically the `Collections.SynchronizedRandomAccessList` method, makes old dynamic tasklist data inaccessible after upgrading.

Full details at [CONF-4082](#).

Workarounds

Choice 1 - Revert To JDK 1.4

Until CONF-4082 can be patched, reverting to JDK 1.4 will re-enable all tasklist content.

1. Stop Confluence
2. Revert the Confluence server to the JDK version on which the tasklist content was created. The JDK used is the version set by your `JAVA_HOME` parameter, so users can change this value to the old JDK path to use that JDK again. ([Guide to changing the JAVA_HOME parameter on Windows](#))

Choice 2 - Migrate To JDK 1.5

If users wish to move to JDK 1.5 before CONF-4082 is patched, they must manually transfer the tasklist content across.

1. Backup your Confluence instance
2. Stop Confluence
3. Revert the Confluence server to the JDK version on which the tasklist content was created. The JDK used is the version set by your `JAVA_HOME` parameter, so users can change this value to the old JDK path to use that JDK again. ([Guide to changing the JAVA_HOME parameter on Windows](#))
4. Start Confluence
5. From your browser, visit the dynamic tasklist page
6. Manually copy and paste the text of each task and that task status to an external text editor
7. From the external text editor, save the list of task text and status
8. From your browser, delete the dynamic tasklist from the page
9. Repeat for each dynamic tasklist in your Confluence instance until all tasklist content has been

stored and the macros deleted

10. Stop Confluence
11. Revert to the newer JDK by altering the JAVA_HOME parameter
12. Start Confluence
13. Restore each dynamic tasklist

Edit page fails with 'DataIntegrityViolationException... Violation of PRIMARY KEY constraint'

This page last changed on Jan 02, 2007 by david.soul@atlassian.com.

Error

When trying to edit or save a page, an error screen is shown and the page is not updated.

```
org.springframework.dao.DataIntegrityViolationException: (HibernateTemplate): data integrity
violated by SQL '';
nested exception is java.sql.SQLException: Violation of PRIMARY KEY constraint
'PK_CONTENT__5DCAEF64'. Cannot insert duplicate key in object 'CONTENT'
...
```

Cause

Confluence is deployed twice in the application server. The Confluence install should only be manually deployed via `confluence.xml` or `server.xml`. If the Confluence install directory is under an application server directory which is being auto-deployed, such as under the Tomcat `webapps` directory, Confluence will be deployed a second time.

Solution

The Confluence install directory referenced by `confluence.xml` or `server.xml` must be moved to a directory outside of the application server, so that it is no longer auto-deployed. See the instructions for [installing the Confluence EAR WAR edition](#).

Fix '404' errors in Space tree view

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

I am getting "404" errors in the Space tree view

If you are browsing a space and looking at the "tree view", 404 errors may appear (or it will display "Loading...") if the base url of your Confluence instance is not set (or is set incorrectly).

You can fix this by going to Administration -> General Configuration, and making sure that the "Base URL" setting is set to the correct address/domain name and path.

If you allow multiple domains or sub-domains to be used to access a Confluence installation, you should ideally have them redirect to a single domain or sub-domain that matches the settings in General Configuration.

RELATED TOPICS

[Configuring the Server Base URL](#)

[FAQ Home](#)

Fix 'Error using thumbnails - No image support in Java runtime'

This page last changed on Jan 07, 2007 by ivan@atlassian.com.

I am trying to use thumbnails, and I get the message: "This Confluence installation can not generate thumbnails: no image support in Java runtime"

On some Java installations (i.e. Unix without X11), you need to pass an additional parameter to Java when you are starting up to tell it how to use its image-manipulation libraries - to run in a headless mode, thus appending `-Djava.awt.headless=true` option. Getting thumbnail support working in this configuration depends on your application server.

Confluence Standalone or Apache Tomcat

As a Windows Service:

1. Open a command prompt in the Confluence `install\bin` directory
2. Execute `tomcat5 //US//Confluence ++JvmOptions="-Djava.awt.headless=true"`

On Windows:

1. Edit the file Confluence `install\bin\setenv.bat`
2. Modify the line `set JAVA_OPTS` line by appending `-Djava.awt.headless=true`, for example set `JAVA_OPTS=%JAVA_OPTS% -Xms128m -Xmx256m -Djava.awt.headless=true`

On Linux:

1. Edit Confluence `install\bin\setenv.sh` and add the `'-Djava.awt.headless=true'` parameter. For example `JAVA_OPTS="-Xms128m -Xmx256m $JAVA_OPTS -Djava.awt.headless=true "`
2. If you are using Fedora Linux, you will also need to install the `xorg-x11-deprecated-libs` package. (See: https://bugzilla.redhat.com/bugzilla/show_bug.cgi?id=130239)

Other Application Servers

For other application servers, you will need to append the `java.awt.headless=true` parameter to the `JAVA_OPTS`. If you need help with a particular server, please [lodge a support request](#).

RELATED TOPICS

[Configuration Guide](#)
[FAQ Home](#)

Fix 'java.lang.UnsupportedClassVersionError... Unsupported major.minor version 49.0'

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

On starting Confluence, do you see an `UnsupportedClassVersionError` error that causes Confluence to close, similar to the one below?

```
Cause:
some.plugin.class.here: java.lang.UnsupportedClassVersionError: some/plugin/class/here
(Unsupported major.minor version 49.0)
```

This is caused by installing a plugin that requires a newer version of Java than the version you have currently installed. You can either install the latest JDK, or uninstall the plugin:

Install The Latest JDK

1. Visit the [Java Downloads](#) page.
2. Locate JDK 5.0 Update 8, the option without NetBeans or Java EE, and select 'Download'
3. Check the 'Accept' box for the License Agreement
4. Under the Windows Platform, select the 'Windows Offline Installation, Multi-language' version
5. Begin downloading the executable
6. Once downloaded, run the installer. You will need to remember the directory you install the JDK to.
7. Windows users follow the instructions to [Set JAVA_HOME variable in Windows](#). This will set your `JAVA_HOME` environment variable to the directory you just installed the JDK in. The default directory is under `C:\Program Files\Java`.

Uninstall Problem Plugin

One of the plugins you just installed will be the cause of the problem. Plugins are installed as JAR files, which you can manually remove. Your error message contains a plugin class that indicates which plugin is causing the problem. Known plugins are:

Plugin Class	Plugin
<code>org/swift/confluence/table/CsvMacro</code>	Table Plugin

The plugin JAR file will be in one of the following Confluence plugin directories:

Confluence Home/plugins

Confluence Install/confluence/WEB-INF/lib

To locate the plugin JAR and remove it:

1. Visit the plugin page and locate the Download section
2. Find the filename of the JAR file by checking the download URL for the plugin
3. Locate the JAR file in one of the Confluence plugin directories
4. Remove the plugin JAR file
5. Start Confluence

Fix 'Out of Memory' errors by increasing available memory

This page last changed on Apr 20, 2007 by [ganand](#).

I am getting Out of Memory errors, how can I allocate more memory to tomcat?

Since the default memory setting usually is around 64 or 128MB (256MB in Confluence 2.2 and later), you might have to adjust the settings to run a bigger Confluence instance with sufficient memory. Users running Confluence as a service please refer to the [Start Confluence automatically on Windows as a Service](#) page. For users running Tomcat standalone, you will have to change the following settings:

Confluence 2.2 or later (Tomcat 5.5)

Do not set your memory using CATALINA_OPTS this is overridden by JAVA_OPTS.

On Linux

- In the unpacked Confluence standalone directory, edit the file bin/setenv.sh
- Edit the line beginning with JAVA_OPTS= substituting new values for -Xms (starting memory) and -Xmx (maximum memory)
- Leave the rest of the options in that line unchanged

An example of a minimal setting for a large system - max heap size is set to 1Gb :

```
JAVA_OPTS="-Xmx1024m $JAVA_OPTS -Djava.awt.headless=true "
```

On Windows

- In the unpacked Confluence standalone directory, edit the file bin/setenv.bat
- Edit the line beginning with set JAVA_OPTS= substituting new values for -Xms (starting memory) and -Xmx (maximum memory)
- Leave the rest of the options in that line unchanged

Confluence 2.1 and earlier (Tomcat 4.0)

On Linux

Edit the file \$TOMCAT_HOME/bin/ **startup.sh** and insert the following line, substituting for the desired value, eg. Bash Shell:

```
export CATALINA_OPTS="-Xms(min heap)m -Xmx(max heap)m"
```

The line you add should go just before the line starting exec "\$PRGDIR...

On Windows

Edit the file \$TOMCAT_HOME\bin\ **startup.bat** and insert or alter the following line, substituting for the desired values:

```
set CATALINA_OPTS=-Xms(min heap)m -Xmx(max heap)m
```

For example if you want to allocate a minimum heap size of 256MB and a max heap size of 512MB you will have to write the following on Windows:
set CATALINA_OPTS=-Xms256m -Xmx512m

The line you add should go just before the line starting call "%EXECUTABLE%"...

If you are running tomcat 5.5 via tomcat.exe, you can update the heap size by running tomcatw.exe and setting the required values via the Java tab.

Other Notes

On OS X

If you are using the 'serveradmin start appserver' to start and stop tomcat, then you will need to update /usr/share/servermgrd/bundles/servermgr_appserver.bundle/Contents/Resources/run.sh

Permanent Generation Size

If you get the error message: java.lang.OutOfMemoryError: PermGen space this means that you have exceeded Java's fixed 64Mb block for loading class files. You will need to add the argument -XX:MaxPermSize=128m to CATALINA_OPTS, in addition to any argument you use to set the heap size.

Please refer to this [link](#) for more information.

RELATED TOPICS

[Managing Application Server Memory Settings](#)

[Application Server Configuration](#)

[FAQ Home](#)

Tomcat [JVM options](#) and [Modify the Default JVM Settings](#)

[Logging A Thread Dump](#)

Fix 'Page Not Found' errors for pages with spaces in the title

This page last changed on Oct 18, 2006 by david.soul@atlassian.com.

If you are getting "Page Not Found" errors when trying to view pages with spaces in the titles, and are using WebSphere, we recommend updating your WebSphere instance to 5.1.1 (with fixpack 3) or above. This is a bug in prior versions, and is fixed in fixpack 3.

See [IBM's list of fixes for Websphere 5.1](#).

Fix 'Too many open files' error on Linux by increasing filehandles

This page last changed on Feb 15, 2007 by ivan@atlassian.com.

When system performance on Linux is affected by using too many file descriptors, usually an error can be seen in the log file '(Too many open files)'. Although this affects the entire system, it is a fairly common problem.



[Confluence 2.3](#) was released and the issue with using too many file handles was resolved via utilisation of compound indexing.

To obtain the current maximum number of file descriptors, use 'cat /proc/sys/fs/file-max'. For comparison, an out-the-box ubuntu system has file-max set to 205290.

Increase Total File Descriptors For System

To prevent Confluence from running out of filehandles you need to make sure that there are enough file handles available at the system level, and that the user you are running Confluence as is allowed to use enough file handles:

Run the command `sysctl -a`. If this is less than 200000, increase the number of file handles by editing `/etc/sysctl.conf` and changing the property `fs.file-max` to 200000. If there isn't a value set already for this property, you need to add the line `fs.file-max=200000`.

Then run `sysctl -p` to apply your changes to your system.

Increase Total File Descriptors For User

Linux also limits the number of files that can be open per login shell. To change this limit for the user that runs the Confluence service you will need to adjust the user limit configuration.

For PAM enabled systems

For Linux systems running [PAM](#) you will need to adjust `/etc/security/limits.conf`

The format of this file is `<username> <limit type> <item> <value>`.

For example to set the limit for the user `confservice` the following line would be used:

```
confservice hard nofile 5000
```

Other systems

For other Linux systems the file responsible for setting limits is `/etc/limits`

To replicate the setting given in the previous example the line would be:

```
confservice N 5000
```

To Count Total File Descriptors Used By Confluence

To get the total number of handles that are used by Confluence:

1. Locate the Confluence ProcId by identifying the Java process with `{'ps axwwwu | grep java'}}`
2. Either run `ls -la /proc/<pid>/fd`, or use the `lsof` (LiSt Open Files) command `lsof -p <pid of Confluence process>`. For a Confluence ProcID of 460, use:

```
$ lsof -p 460 | wc -l
```

When getting support for this error

If you are encountering the `Too many open files` error within Confluence and this advice does not help, please accompany any support request with the output of `lsof -p <PID of Confluence process>`, taken at the time of the error, so that the support engineer can determine precisely which file descriptors are being held open.



To address this issue we have modified the `bonnie.jar` to switch the indexing to use compound index that uses less file handles. Please see [CONF-7401](#) for details. To use this patched jar please follow the following steps:

1. Download the patched jar file [bonnie-2006.03.30-patched.jar](#)
2. Shut down your server.
3. Copy the jar file into your `<Confluence-Install>/WEB-INF/lib` directory. Note: Ensure that there is only one `bonnie.jar` in this directory.
4. Delete the `<Confluence-Home>/index` directory.
5. Restart your server
6. [Rebuild the index](#) manually

Alternatively, please upgrade your instance to Confluence 2.3 via following [these instructions](#).

Fix JavaScript browser errors

This page last changed on Dec 12, 2006 by don.willis@atlassian.com.

If your web browser is complaining about JavaScript errors or functions not being defined, then it is possible that you are not retrieving the latest versions of pages from your Confluence instance.

To fix this, you need to clear your browser cache. Follow the instructions for your particular browser:

- [Internet Explorer](#)
- Firefox - Open the Preferences -> Privacy -> Click on the "Clear Cache" button
- Safari - Go to the Safari menu -> Clear Cache

If the errors mention "NS_ERROR_NOT_AVAILABLE" then it is most likely due to [CONF-5091](#). Unfortunately there is no fix for that issue at this stage.

Another possible cause of javascript errors is interference by antivirus software. For example, it has been reported that NOD32 antivirus software can attempt sanitation of some confluence javascript when that javascript is served by IIS.

If you are still having problems, please [create a support request](#).

PDF export fails on Linux with UnsatisfiedLinkError

This page last changed on Jan 02, 2007 by [cmiller](#).

PDF exports fails on Linux with an UnsatisfiedLinkError

You need to install the X11 libraries for your Linux distribution. See [Confluence Unix and X11 Dependencies](#).

RELATED TOPICS

[Configuration Guide](#)

[FAQ Home](#)

Resolve Missing Attachments in Confluence

This page last changed on Dec 12, 2006 by david.soul@atlassian.com.

If users find that some attachments are missing for pages, they should:

1. Right click on [findattachments.jsp](#) and save it to the Confluence server's installation directory under /confluence/admin/
2. Restart Confluence
3. Visit <http://MYINSTANCE/admin/findattachments.jsp> where MYINSTANCE is your Confluence base URL
4. Request the 'Missing attachment report'
5. Attach the result to a new [support ticket](#)

RSS Feed FAQ

This page last changed on Mar 01, 2007 by david.soul@atlassian.com.

Solutions to common issues with [RSS Feeds](#) and the [RSS Feed Macro](#). Click a query below for the solution.

Force authentication for public feeds

For instances with anonymous access enabled, you can force user authentication when [creating the feed](#) by checking 'Authorised'. If anonymous access is disabled, all feeds will require user authentication.

Fix "Could not retrieve - Not Permitted"

You must append a valid login to Private Feeds as described in the Usage section of the [RSS Feed Macro](#).

Fix "Unable to retrieve - Connection refused: connect"

The URL is invalid. If the link appears correct, confirm that you can access Confluence. Paste the feed into a third-party RSS feed reader and confirm that it can access it. If it cannot, your firewall settings may be blocking access to Confluence. For example, your server may be configured to block outgoing requests.

Fix "Could not download: - Connection timed out (errno:238)"

The feed source may be offline, or the firewall may be blocking access either between the Confluence server and your computer. Confirm that you can access the feed URL from your browser. If it cannot, your firewall settings may be blocking access to Confluence. For example, your server may be configured to block outgoing requests.

Fix "Error formatting macro: rss: java.lang.NullPointerException"

The link is not a valid feed, so check your URL. If stuck, you can recreate internal Confluence feeds [Using the RSS Feed Builder](#).

Create an RSS feed for mail from only specified mail accounts

This is not possible, but you can vote towards [tagging incoming mail with labels on arrival](#). Once tagged, feeds could monitor all new mail with that label.

Is it possible to delete a feed?

No, as RSS feeds are based on the view permissions for pages and spaces. RSS is an extension of normal page viewing functionality, so if you can view a page, you can receive an RSS feed for it. The only way to remove the an RSS feed is to prevent all access to a page for that user, so no content will be delivered.

Search is not finding my data AND the indexing process does not appear to be completing

This page last changed on Oct 03, 2006 by david.soul@atlassian.com.

Search is not finding my data AND the indexing process does not appear to be completing. What's happening?

If you are not seeing pages returned by the search that you expect to be returned, it's most likely that the indexing is not running correctly (either not running or failing). You can check the status of the index processing via the Administration Console > Content Indexing link.

Why could indexing be failing? The indexing process is multi-threaded and therefore has a tendency to consume a lot of resources when running an initial index or reindexing the entire site. So, what can do wrong?

- Some systems do not like the multi-threaded index process. You can set the index process to use only a single thread by setting `bucket.indexing.threads.fixed=1`
- The index process may also block if there are insufficient available database connections. Increasing the number of connections from 15 to 30 will help in this situation.

See the [Content Index Administration](#) page.

RELATED TOPICS

[8.1 Locating Important Directories and Files](#)

[FAQ Home](#)

View page containing Chart macro throws 'NoClassDefFoundError'

This page last changed on Jan 02, 2007 by david.soul@atlassian.com.

I am getting an error message about NoClassDefFoundError when using the Chart macro

The following error may appear when viewing certain pages where the [Chart Macro](#) is used:

```
Caused by: java.lang.NoClassDefFoundError
at org.jfree.chart.ChartFactory.createAreaChart(ChartFactory.java:874)
at com.atlassian.confluence.extra.chart.ChartMacro.getChart(ChartMacro.java:217)
at com.atlassian.confluence.extra.chart.ChartMacro.execute(ChartMacro.java:102)
```

This is indicative of an out-of-date version of the Chart macro. Make sure you have the latest version and have removed any old versions or dependencies. If you are using Confluence 1.4, it may be a symptom of not having the jfreechart and jcommon JARs in your installation, which are required.

RELATED TOPICS

[Working with Macros](#)

[FAQ Home](#)

Other

This page last changed on Dec 12, 2005 by [vidya](#).

- [Changes to the Page Permission API in Confluence 2.4](#) — Confluence 2.4 contains changes to the Confluence API that will affect any plugins that modify Page Permissions (aka ContentPermissions). Some methods have been deprecated, some new methods have been created, and one method now behaves differently from before.
- [Confluence Presentation](#)
- [Confluence SOAP Provider Migration](#)
- [Demonstration Site](#)
 - [Exported Docs](#)
- [Enabling the html-include Macro](#)
- [Feature List](#)
- [Gallery Macro Themes](#)
- [GZipping a HTTP Response within Confluence](#)
- [Keyboard Shortcuts](#)
- [Mail Archiving FAQ](#)
- [Redirect users straight to space home page after successful login](#)
- [RSS Feeds Summary](#)
- [Running Confluence Behind a Caching Proxy Server](#)
- [Thumbnail and Gallery Example](#)

Changes to the Page Permission API in Confluence 2.4

This page last changed on Mar 01, 2007 by don.willis@atlassian.com.

Confluence 2.4 contains changes to the Confluence API that will affect any plugins that modify Page Permissions (aka ContentPermissions). Some methods have been deprecated, some new methods have been created, and one method now behaves differently from before.



Confluence 2.4 does not support having multiple view and edit permissions on a page. The Content Permission API allows such a state, but it should be avoided. For example, if a Page has multiple permissions set on it, these permissions will not be displayed properly via the user interface, and the pages may not be returned appropriately in a search.

Summary of Changes

Deprecated methods

```
ContentPermissionManager.getInheritedViewContentPermissions(Page)
ContentPermissionManager.getInheritedContentPermissions(ContentEntityObject
contentEntityObject)
```

```
ContentEntityObject.getPermissions()
ContentEntityObject.getContentPermission(String permissionType)
```

Changed methods

```
ContentPermissionManager.addContentPermission(ContentPermission permission,
ContentEntityObject content)
```

Added methods

```
ContentPermissionManager.setContentPermissions(List contentPermissions,
ContentEntityObject content, String type)
ContentPermissionManager.getInheritedContentPermissionSets(ContentEntityObject
contentEntityObject)
```

```
ContentEntityObject.getContentPermissionSet(String type)
```

```
ContentEntityObject.hasPermissions(String type)
ContentEntityObject.removeContentPermissionSet(ContentPermissionSet set)
```

Removed methods

```
ContentPermissionManager.saveContentPermission(ContentPermission permission)
```

```
ContentPermissionManager.getContentUserPermission(ContentEntityObject
contentEntityObject)
ContentPermissionManager.onContentContextChanged(ContentEntityObject contentEntityObject)

ContentEntityObject.setPermissions(List permissions)
ContentEntityObject.clearPermissions(ContentPermissionManager permissionManager)
```

The change most likely to cause problems is:

```
ContentPermissionManager.addContentPermission(ContentPermission permission,
ContentEntityObject content)
```

This method now adds a `ContentPermission` to the `ContentEntityObject` as one would expect. Previously if a `ContentPermission` already existed on the `ContentEntityObject`, then any existing `ContentPermission` would be removed. That is, the method really behaved as one would expect "setContentPermission" to behave. As a result, any code that used `addContentPermission` in Confluence 2.3 or earlier, should now use `setContentPermissions` with a single entry list.

```
replace
ContentPermissionManager.addContentPermission(p, c)
with
ContentPermissionManager.setContentPermissions(java.util.Collections.singletonList(p), c,
p.getType())
```

Most methods that used to return a `ContentPermission` have been replaced with methods that return a `ContentPermissionSet`. In some places we have used deprecation to point to the new method and reimplemented the old method to extract the first `ContentPermission` from the `ContentPermissionSet`.

As usual, the methods on the `ContentPermissionManager` should be used rather than those on the `ContentEntityObject`. The only `ContentEntityObject` method that should be used is `getContentPermissionSet`. Even that method should be used only to display the existing Permissions. All writes to the `ContentPermissionSets` should be performed via the `ContentPermissionManager`.

The `onContentContextChanged` method of the `ContentPermissionManager` was previously used to notify a `ContentPermissionManager` that cached permissions on a `ContentEntityObject` may be invalid. This is now accomplished by publishing a `ContentPermissionEvent`. That event is published automatically when changing `ContentPermissions` via the `ContentPermissionManager`.

No changes have been made yet to the XML RPC API. It does not currently allow modification of `ContentPermissions`.

Confluence Presentation

This page last changed on Aug 02, 2005 by [vidya](#).

The attached slideshow presentation was written by Atlassian to be delivered to a customer who had recently purchased Confluence, and wanted a quick tutorial on the major concepts involved in using the product. While the content of the is now somewhat out of date (it refers to Confluence 1.3), it may still be useful for organisations who have recently adopted Confluence, or who want another weapon in convincing management that Confluence is just what they need. 😊

	Name	Size	Creator	Date	Comment	
	confpres.mov	7.17 Mb	Charles Miller	Aug 02, 2005	Confluence 1.3 Slide Presentation (Quicktime)	Edit Remove

You may also be interested in our [Confluence flyer](#) (140k PDF)

Confluence SOAP Provider Migration

This page last changed on Dec 28, 2005 by [vidya](#).

Starting with the release of Confluence 1.4.3, and stretching through the next three major releases, Confluence will be transitioning from using the Glue library to provide a SOAP remote API, to using Apache Axis. Unfortunately, while the SOAP services will stay the same, the WSDL that these libraries generate to interact with the same services will change, so SOAP applications that interact with Confluence will need to migrate with us.

The migration should be relatively painless. Since the underlying objects represented by the WSDL are still the same, the process should involve regenerating your SOAP stubs, and a few cosmetic code changes.

The XML-RPC API is unaffected by this change.

Current Status

1.4.3 and 1.5/2.0	Deploy Axis SOAP service alongside Glue	✅ Completed
(unscheduled)	Allow configuration of default SOAP provider, the default at installation being Axis	❌ Incomplete
(unscheduled)	Remove Glue SOAP provider	❌ Incomplete

Progress on these issues can also be tracked via [CONF-3141](#)

The Plan

As of version 1.4.3, Confluence ships with three SOAP endpoints:

Endpoint	WSDL URL	Provider
/rpc/soap/confluencesoapservice-v1	/rpc/soap/confluenceservice-v1	Glue
/rpc/soap-glue/confluencesoapservice-v1	/rpc/soap-glue/confluenceservice-v1	Glue
/rpc/soap-axis/confluencesoapservice-v1	/rpc/soap-axis/confluenceservice-v1	Axis

⚠️ The Axis and Glue providers produce slightly different WSDL URLs

ℹ️ Third-party SOAP [RPC Plugins](#) deployed in Confluence will be similarly deployed in three locations

Over the next three major Confluence releases we will:

1. Make the provider of /rpc/soap/confluenceservice-v1 configurable, then
2. Change the default provider to Axis (but leave it configurable), then finally
3. Remove the Glue provider entirely

What This Means for SOAP Clients

Confluence major releases occur every three or four months. Thus, authors of SOAP clients should keep in mind this timeline, starting with the release of Confluence 2.0 (November 2005)

0-3 months	• All existing SOAP clients written against the Glue provider will continue to function normally. • New clients should be written to the Axis provider in <code>/rpc/soap-axis</code> • Existing clients should change their SOAP endpoints to point to <code>/rpc/soap-glue</code> (or, better still, move directly to Axis)
3-6 months	• Confluence will require configuration to work with any client of the Glue provider that has not changed its endpoint • New clients should be written to the Axis provider in <code>/rpc/soap-axis</code> • Existing clients will need to migrate to the Axis provider
6+ months	• Confluence will no longer work with clients written against the Glue provider • Both <code>/rpc/soap</code> and <code>/rpc/soap-axis</code> endpoints will continue to be served by the Axis provider

Demonstration Site

This page last changed on Aug 03, 2005 by [vidya](#).

Atlassian have set up a [demonstration space](#) on this site so that you can try out Confluence for yourself. The space has been configured so that anyone can create or edit pages within it. When using it, you should keep the following in mind.

- This server may not be running exactly the same version of Confluence as is available for purchase. While we try to keep the two in sync, there may be differences between the demo site and the downloadable version of Confluence. The version that the site is running can be found at the bottom of each page.
- Because the space is open for anyone to edit, Atlassian can not be responsible for the content on it. Do not rely on anything you read in the test space.
- The contents of the test space may be edited or deleted at any time. Periodically, Atlassian may restore the test space from backup, deleting everything that has been added to it by visitors.
- For a full demonstration of Confluence, including its administrative features, you should [download an evaluation](#) instead.
- If you have any questions, [contact us](#) and we'll be happy to answer them.



Want to try Confluence yourself?

Experiment with Confluence in our [demonstration space >>](#)

Exported Docs

This page last changed on May 10, 2006 by jon@atlassian.com.

Here's some of our documentation exported as XML and zipped

Enabling the html-include Macro

This page last changed on Aug 08, 2006 by ivan@atlassian.com.

The {html-include} macro allows you to include the contents of an HTML file in a Confluence page. The {html} macro allows you to include snippets of HTML within an existing page.

Why are they disabled?

Including unknown HTML inside a webpage is dangerous. Because HTML can contain active scripting components, it would be possible for a malicious attacker to present a user of your site with script that their web browser would believe came from you. Such code could be used, for example, to steal a user's authentication cookie and give the attacker their Confluence login password.

You should only turn on these macros if you trust all your users not to attempt to exploit them.

How do I enable them?

You will need:

- Confluence 1.1 or later
 - Instructions for 1.0 are included below
- Global "Administrate Confluence" permissions

Instructions:

1. Go to the Administrative Console and click on the Plugins section
2. Select the "HTML Macros" library
3. Click the "Enable Library" link
4. If they are not now automatically enabled, enable the specific macros you wish to use

If you are using Confluence 1.0.3a or earlier

You should consider upgrading. It's a free upgrade and there are hundreds of things that we have added, fixed or improved since then.

 The instructions below are historical documentation that applies only to Confluence 1.0.3a and earlier. If you are using Confluence 1.1. or later, use the instructions above.

Find the file `wikiSubsystemContext.xml`. It will be in the application's `WEB-INF` directory. You will find the following lines commented out.

```
<!--          <entry key="html-include"><ref local="htmlIncludeMacro"/></entry>-->
<!--          <entry key="html"><ref local="html"/></entry>-->
```

Remove the XML comments as shown below, and restart Confluence. The macros should now be available.

```
<entry key="html-include"><ref local="htmlIncludeMacro"/></entry>
<entry key="html"><ref local="html"/></entry>
```

Confluence 1.1 will allow the site administrator to enable and disable macros from within Confluence without editing any files.

Usage

Example - To embed an external page

```
{html-include:url=http://www.example.com}
```

Feature List

This page last changed on Aug 22, 2006 by noam@atlassian.com.

The features listed on this page refer to Confluence version 1.0 beta1.

Content Management

- Content is organised into discrete spaces in which users can create and edit pages.
- Easy-to-learn, easy-to-read but powerful notation for designing pages and linking between them, based on the popular [textile](#) markup.
- Arbitrary files can be attached to pages.
- Comments can be left on pages.
- Page templating allows rapid creation of boiler-plate pages.
- Pages can be organised into hierarchies.

Update Tracking

- Each page has a full change history, accessible as coloured diffs highlighting each change made.
- Simple Reports which pages have been updated since you last logged in.
- Email subscription informs you of pages that have been added or updated, or comments left.
- [RSS](#) feeds available for new and updated pages across the site, or in individual spaces.

Searching

- Full-text searching of all content, including pages, comments and space descriptions

Site Management

- Smart page-renaming updates links across the entire site, even in comments or space descriptions.
- Pages or spaces can be imported from plain text files, or exported to PDF or HTML.
- Simple backup and restore to XML files.
- Automatic daily backup feature.
- Reports of "orphaned" pages that exist but are not linked to, and of links that point to pages that do not yet exist.

User Management and Security

- Flexible security, from a [public site](#), to a personal space.
- User- and group-based permissions.
- Separate viewing, commenting, editing and administration permissions for each space.

Deployment and Compatibility

- Available on a wide variety of platforms, either as a stand-alone server, or as a web-archive

- deployable into a compatible Java application server.
- Compatible with a large number of databases
- See [Requirements](#) for more information

Support

- Confluence is under full-time development, with licensees entitled to a year of free updates.
- Atlassian's [Legendary Service](#).

Gallery Macro Themes

This page last changed on Aug 24, 2004 by [jnolen](#).

 This page describes an unfinished feature of Confluence, for technical users who wish to play with it. The features and modifications described in this page are not officially supported.

The GalleryMacro that is used to draw image galleries in a Confluence page has an undocumented "theme" parameter that allows you to specify a different Velocity template from which to draw the gallery. This allows enterprising Confluence administrators to come up with their own photo-album themes.

You will need:

- A basic knowledge of Velocity markup
- Access to put files in Confluence's installation directory
- Access to restart the server, since getting Java to reload resources it has pulled from the classpath is really hacky. 

Instructions:

The Velocity template used to draw image galleries is in `WEB-INF/classes/templates/macros/gallery-default.vm`, and as it stands it's 22 lines long and very basic.

However, you can change this with the undocumented "theme" parameter in the gallery macro. `{gallery:theme=fish}` will attempt to draw the gallery with `/templates/macros/gallery-fish.vm` from anywhere in the application's CLASSPATH. So all you need to do is write the velocity file, dump it in the right directory and restart the server.

If the gallery macro turns out to be something people really use, we'll probably make gallery themes a supported feature with a user interface, a way to drop in theme packs, and so on. For now it's a back-door hack.

Objects Passed to the Template:

<code>\$galleryTitle</code>	is the gallery titled specified for the macro. It may be null.
<code>\$thumbnails</code>	the container for all the pictures in the gallery (Defined as an inner class in <code>GalleryMacro.java</code> , if you've got the source and want a look)
<code>\$thumbnails.size</code>	total number of thumbnails in the gallery
<code>\$thumbnails.thumbnails</code>	a list of all thumbnails in the gallery
<code>\$thumbnails.rows</code>	a list of lists: each representing one row in the

	gallery (each list will be of length \$thumbnails.columns, see the note below)
\$thumbnails.maxHeight	the height, in pixels, of the tallest thumbnail in the gallery
\$thumbnails.maxWidth	the width, in pixels, of the widest thumbnail in the gallery
\$thumbnails.columns	the number of columns that the gallery should be drawn with

NOTE: The last row of the thumbnail gallery may contain empty cells. In this case, because Velocity is really broken with regards to its handling of nulls, the final list in \$thumbnails.rows may be padded to its full width with the string "BLANK". Be sure to check for this.

The ThumbnailInfo objects themselves that you get out of \$thumbnails (Defined in ThumbnailInfo.java if you've got the source and want a look):

\$thumbnail.originalWidth	width in pixels of the full-sized image
\$thumbnail.originalHeight	height in pixels of the full-sized image
\$thumbnail.thumbnailWidth	width in pixels of the thumbnail
\$thumbnail.thumbnailHeight	height in pixels of the thumbnail
\$thumbnail.thumbnailUrlPath	the path to download the thumbnail image, relative to the application's context path (\$req.contextPath)
\$thumbnail.getPopupLink(imageParameters)	returns the HTML to draw the thumbnail image as a popup link for the full-sized image attachment. imageParameters is a string that can contain HTML attributes for the image tag so for example you could call \$thumbnail.getPopupLink("border='1' align='right'"). If you don't want any parameters, just pass in null or the empty string.
\$thumbnail.attachment.downloadPath	the path to download the full-sized image, relative to the application's context path.
\$thumbnail.attachment.comment	the image's attachment comment

GZipping a HTTP Response within Confluence

This page last changed on Jan 24, 2006 by [cmiller](#).

Confluence supports HTTP gzip transfer encoding. What this means is that if a user's web browser supports it, Confluence will compress the data it sends to the user. This will speed up Confluence over slow or congested Internet links, and reduce the amount of bandwidth consumed by a Confluence server.

You should turn on Confluence's GZip encoding if:

- Users are accessing Confluence over the Internet, or a WAN connection with limited bandwidth
- You wish to reduce the amount of data transfer between the Confluence server and client

If you are accessing Confluence over a Local Area Network or over a particularly fast WAN, you may wish to leave GZip encoding disabled. If the network is fast enough that transferring data from Confluence to the user isn't a limiting factor, the additional CPU load caused by having to compress each HTTP response may in fact slow Confluence down.

 Gzipping the HTTP Response is available in Confluence 1.4 and later.

Instructions (Confluence 2.1.4 and later)

1. Go to Administration -> General Configuration
2. Enable 'Compress HTTP Responses'
3. (There is no step 3)

Instructions (Confluence 2.1.3 and earlier)

1. Find your Confluence Home directory and look in the config subdirectory. Your Confluence Home directory is the one you specified in confluence-init.properties when you originally installed Confluence.
2. Find the Confluence configuration directory, at <Confluence Home>/config. Note that this directory will only exist if you have edited the Confluence configuration. To ensure that it has been created, go to the Administration page, click the General Configuration link, then click the Edit and Update buttons (you don't actually need to change anything).
3. Edit the file <Confluence Home>/config/confluence-global.bandana.xml with a text editor and then set the element called gzippingResponse to 'true'. There will already be a value for this in the file, but it will be false. Make sure that you change the exsisting value rather than adding a new one.

<gzippingResponse>true</gzippingResponse>

```
<confluence-config-map>
  <context/>
  <values>
    <entry>
      <string>atlassian.confluence.settings</string>
      <settings>
        <allowCamelCase>false</allowCamelCase>
        <allowTrackbacks>false</allowTrackbacks>
        <allowThreadedComments>false</allowThreadedComments>
```

```
<viewSpaceGoesToSpaceSummary>false</viewSpaceGoesToSpaceSummary>  
<externalUserManagement>false</externalUserManagement>  
<denyPublicSignup>false</denyPublicSignup>  
<emailAdminMessageOff>false</emailAdminMessageOff>  
<baseUrlAdminMessageOff>false</baseUrlAdminMessageOff>  
<allowRemoteApi>true</allowRemoteApi>  
<allowRemoteApiAnonymous>false</allowRemoteApiAnonymous>  
<gzipingResponse>true</gzipingResponse>
```

Keyboard Shortcuts

This page last changed on Aug 09, 2006 by david.soul@atlassian.com.

Confluence provides the following keyboard shortcuts. Not all are compatible with Internet Explorer:

Screen	Keystroke	Action	Firefox	Internet Explorer
All	Alt-S	Search field	✓	✓
Login	Alt-U	Username field	✓	✓
	Alt-P	Password field	✓	✓
	Alt-R	Check 'Remember Me'	✓	✓
Page View	Alt-V	View Page Tab	✓	✗
	Alt-E	Edit Tab	✓	✗
	Alt-A	Attachments Tab	✓	✗
	Alt-I	Information Tab	✓	✗
Add Page	Alt-A	Add Page	✓	✗

Mail Archiving FAQ

This page last changed on Apr 13, 2005 by [vidya](#).

This document is an FAQ for the mail archiving feature that was introduced in Confluence 1.3. Versions of Confluence before 1.3 do not have this feature.

Since this document was written before we released Confluence's mail archiving features, these are more "frequently anticipated questions" than "frequently asked questions". Hopefully I have anticipated correctly. 😊

Q. Can Confluence replace my regular mail client?

A. No.

Confluence's mail archive is designed to supplement the way you currently handle email, not replace it. This is why Confluence deliberately does not come with features common in email clients. You can not mark emails as read or unread, you can not reply to emails from within Confluence, and so on.

Q. So how would you use the mail archive?

A. Here are two scenarios that were suggested during our planning meetings:

Project-related conversations

Say you are using a Confluence space to organise some project. The project lead and the customer have a long conversation (via email) clarifying the project's goals and requirements. Rather than have that conversation lost in their individual mailboxes, they CC: their mail to a POP box being monitored by Confluence, and all that information is archived alongside the rest of the project's documentation.

Customer Support Tracking

All incoming and outgoing sales and support email is diverted (at the mail-server) to be read by Confluence. Staff can then use Confluence's features to find all previous communications with particular customers.

And?

Of course, the real fun will come from seeing what uses people put this feature to that we didn't even think of.

Q. How do I get mail into Confluence?

A. All mail messages belong to a particular space. Space administrators can, from the space administration screen:

- configure Confluence to poll a POP mailbox for incoming mail
 - Go to Space Admin
 - Choose "Mail Accounts"
 - Add Pop Account
- import mail from an mbox-format mail file

Warning: Confluence will delete mail from a POP box as it reads it. Do not point Confluence to an account unless you are happy with it removing all the mail you have stored there.

Q. OK, I've imported the mail. Where is it?

A. Because of the typically overwhelming volume of email, especially compared to the more sedate pace of wiki updates, we do not notify you of recently arrived mail in the same places we notify you of changed Confluence content.

Mail will not appear in the recent changes list on the dashboard or space summary pages. Similarly, mail will not appear by default in search results.

You can view mail in order of arrival from the Mail Archive section, found under the Content tab of the Space Summary screen. You can also explicitly select Mail (or All Content) in the search page to include mail in your search results.

Q. I want it to do...

A. Chances are, so do we. We just haven't got there yet. The emphasis for the DR3 release was to be able to:

- import email into Confluence
- have Confluence monitor POP mailboxes
- view email
- search email

We have a lot more planned, from threading email through to allowing you to write your own custom pre- and post- processors for incoming mail.

Your suggestions are, of course, welcome. File an issue in [JIRA](#), comment on the [forum](#), or just drop us an [email](#).

Redirect users straight to space home page after successful login

This page last changed on Nov 25, 2004 by [jnolen](#).

You can set the page that a user gets sent to after a successful login on a site-wide or per-user basis.

Site-wide

1. Go to Administration > General Configuration
2. Click Edit
3. Set Site Homepage to your desired home page

The spaces available to be set as your home page depends on the access permissions of the space and your site.

- If your site allows anonymous access, the site homepage must also be anonymously accessible.
- If your site does not allow anonymous access, the site homepage must be accessible to the "confluence-users" group.

Unknown macro: {yellow-note}

In Confluence 1.2 and earlier, the site homepage has to be anonymously accessible, regardless of site permissions.

Note: please ensure that the View Space Goes to Space Summary setting is set to OFF if you want users to be sent to space homepage instead of the summary page

Per User

1. View your profile via the profile link on the top right
2. Click the Edit My Profile on the right
3. Set Site Homepage to your desired home page

RSS Feeds Summary

This page last changed on Jan 21, 2007 by agnes@atlassian.com.

Due to some users having problems with Confluence RSS Feeds, some research was done with several RSS Feed Readers. RSS Feeds have been created through the feed builder and tested on a Windows machine. For each feed reader they have been tested with both authentication and public access, checking for the visibility of content, icons and images. The results are in the tables below:

Feeds with authentication

RSS Feed Reader	Content	Icons	Images	Notes
RssReader 1.0.880				Shows the entire page (including the header panel & view,edit tabs)
JetBrains Omea Reader 2.1.6				Shows the changes between revisions in the nice red/green colours of Confluence
IE 7.0				- Content is all there however not all html is rendered correctly (for example .tag {font-style:italic;} is shown in the content as raw text) - Shows the changes between revisions, but without the red/green colours
Thunderbird 1.5.0.7				Shows the entire page

Bloglines				• Simple online feed reader • Shows the changes between revisions, but with arrows

Feeds with public access

RSS Feed Reader	Content	Icons	Images
RssReader 1.0.880			
JetBrains Omea Reader 2.1.6			
IE 7.0			
Thunderbird 1.5.0.7			
Bloglines			

Running Confluence Behind a Caching Proxy Server

This page last changed on Jan 22, 2006 by [cmiller](#).

One major concern is Confluence's ability to withstand a Slashdot, and someone told us that Atlassian had basically said that Confluence could not handle the load of such an event/attack.

Ideally I would want to put a Squid cache directly in front of Confluence, set the default policy to cache content of normal pages for ~5 minutes (at least) and then pass-through more of the dynamic pages (like the editor & such).

This is, in fact, the case. We don't have any deployed Confluence sites that have the requirement of being Slashdot-proof, but this is probably one of those chicken-and-egg things.

The problem is not one of simple scalability. We're currently working on "Confluence Massive", a clusterable Confluence that will scale to handle whatever load you feel like throwing at it. But if your aim is to protect the server against sudden, transient loads, throwing a cluster at the problem that will then spend 99% of its time not being utilised is probably a waste. Thus, the best solution is to have some kind of caching reverse-proxy that will divert load away from Confluence itself.

The main problem with the reverse-proxy solution is that every Confluence page is built dynamically for whichever user is currently accessing it. This affects obvious stuff like the "You are logged in as username" notice, less obvious stuff like the "edit" and "attachments" links that appear or disappear based on whether the user has permission to perform the action on the other end of the link, and even less obvious stuff like wiki-links to spaces the user can't see, or in-page macros that output their content based on the user's identity.

To run Confluence behind a caching reverse-proxy, you'd need one of:

1. A proxy that understood the user's identity, or
2. A Confluence site that removed all the personalised content for cacheable pages.

If you had (1), you could tell the proxy to cache content only for anonymous users (since all anon content is the same, and to survive a slashdotting you only really have to worry about the sudden influx of non-logged-in users). That said, (1) is quite tricky, as it relies on the existence of some SSO mechanism that both Confluence and Squid can be hooked into. If such a mechanism existed, though, it'd be a really neat solution.

In the absence of SSO, you've got (2), which involves.

- Theme Confluence so that the 'view page' 'view blog post' and 'view mail' pages contain no personalised content: no profile link or user identity, and all links to other functions available whether the user has permission to access them or not.
- Ensure that all wiki pages on the server are meant to be visible to anonymous users
- Disable (or avoid the use of) macros that deliver different content based on user identity
- Introduce an interceptor into Confluence that would provide If-Modified-Since/Last-Modified conditional get support for wiki pages
- Configure Confluence so the site root URL points to a page, rather than the dashboard.
- Configure Squid to cache the 'view page' URLs (/display/* /pages/viewpage.action

/pages/viewblogpost.action)

This is assuming that only the site root or a regular wiki page would ever be the victim of a direct slashdotting, but I figure this is a reasonable enough assumption to make.

With conditional get supported, you could have Squid configured to query the server to see if a page has changed, and just put in some kind of sensible defaults for the maximum time to cache any page (5 minutes or so would be fine, since pages could contain dynamic content), and the minimum gap between if-modified queries (15 seconds would easily prevent the server from being overloaded, while making sure that in regular use you wouldn't get many situations where you edited a page, but couldn't see your own changes).

Thumbnail and Gallery Example

This page last changed on Aug 20, 2004 by [vidya](#).

Thumbnail

You can have Confluence automatically make a thumbnail of any inline image that is attached to a page. Clicking on the image will pop up a window containing the full-size image.

```
!waterfall.jpg|thumbnail!
```



Image Gallery

The {gallery} macro creates a gallery of thumbnails from all of the images that are attached to a page, titling each with the appropriate attachment comment.

```
{gallery:title=Some Confluence Features, and a Waterfall}
```

Some Confluence Features, and a Waterfall
[\(view as slideshow\)](#)



A waterfall just off Highway 1, California.

Interface for deleting unwanted referrer statistics

New user interface for global permissions

New Confluence search interface

New
Space
Permissions
user
interface

Space-local
search
page

Tree-view
for
pages
in a
space

Troubleshooting & Technical Support

This page last changed on Apr 19, 2007 by [jnolen](#).

This document covers troubleshooting problems and obtaining technical support. For related information, check out:

- [General Support Enquiries](#)
- [Feature Requests](#)

Troubleshooting Problems

If you have a problem with Confluence, follow these steps:

1. If you are not a Confluence administrator, report your problem to the person in charge of your Confluence and ask them to follow up on the issue.
2. Check that your problem is not solved in [Frequently Asked Questions](#)
3. If you cannot get a feature configured, you should check out any appropriate guides:
 - [Confluence Setup Guide](#)
 - [Administrators Guide](#)
 - [Configuration Guide](#)
 - [Database Troubleshooting](#)
4. If your issue is related to your database or application server, check out [Confluence Configuration Tips](#).

If the issue cannot be resolved by referring to the above documentation, you should create a Support Request. If you believe you are experiencing a bug, you may wish to create a Bug Report instead. Instructions for both are shown below.

Support Requests

To request support for Confluence follow the steps below. If you have a plugin-related issue, visit the [Extension Space](#) and check that Atlassian is the plugin author. Atlassian does not provide support for third-party plugins, so you will need to contact the author directly.

To create a support ticket:

1. Create a zip of your Confluence logs to attach to the ticket. On Standalone, go to the install directory and zip /logs.
2. If appropriate, check out [Requesting External User Management Support](#) or [Requesting Performance Support](#).
3. If you do not already have a free Atlassian Support account, [create one here](#).
4. Login to <http://support.atlassian.com> and select "Create New Issue".
5. Lodge a detailed description of your problem in a new support ticket.
6. Fill out all applicable information your system such as application server, database etc.
7. If Confluence is running, go to the Confluence Administration -> System Information screen and copy your system information text into the ticket.
8. Once your ticket is lodged, wait to be notified by email of updates. If your production instance of Confluence is experiencing a critical problem, jump on [Live Support](#) and ask to have your issue

reviewed immediately.

Bug Reports

If you have found a bug, the easiest way to report it is to:

- Create numbered instructions on how to reproduce the bug
- Log them as a [Support Request](#).

Support will confirm your bug and lodge a Bug Report. Alternatively, you can log a Bug Report directly by confirming it according to these instructions:

1. Check Bug Is Undiscovered

1. Visit the [Confluence Bug Tracker](#).
2. On the left under Text Search, type keywords for your problem into the Query field.
3. Click View and browse the summaries of the unresolved bugs. If any summary appears to describe your problem, check that the bug is not a match. If it is the same, you may wish to set a watch to be notified of updates or apply your vote towards having it resolved. If the problem does not already appear to have been logged, the next step is to confirm that the problem is a bug.

2. Confirm The Bug

If any of the descriptions below match your problem, click to view the appropriate instructions for confirming it. If the problem does not fall under any category, follow the general bug confirmation instead:

Bug Affects Page Rendering Or Content

If you are having issues with markup or page content not being shown as expected:

1. Create a [new page](#) on our Test Space and try to duplicate the issue there.
2. If the problem reoccurs, log the new bug [here](#), paste the Test Space page link along with the process you used to duplicate it. If the issue does not occur, this may not be a bug and you should log the problem as a [Support Request](#) instead.

Bug Prevents Confluence From Starting

Please lodge a [Support Request](#) with your configuration and numbered instructions on how to reproduce the issue.

Bug With External User Management

Please lodge a [Support Request](#) with your user management configuration and numbered instructions on how to reproduce the bug.

General Bug Confirmation

1. If Confluence will not run, please log the problem as a [Support Request](#) instead.
2. Attempt to replicate the bug - download the [latest version](#) of Confluence standalone.
3. Install the standalone with the appropriate database and the demonstration site. If possible, try to duplicate on the default setup with the demonstration data.
4. Try to duplicate on the default setup with the demonstration data. If the issue does not occur, you

should open a support ticket. If it does, log the new bug [here](#) along with the information you used to duplicate it.

5. Once your issue is lodged, wait to be notified by email of updates. If your production instance of Confluence is experiencing a critical problem, jump on [Live Support](#) and ask to have your issue reviewed immediately.

Enabling detailed Hibernate logging

This page last changed on Jan 09, 2007 by ivan@atlassian.com.

These instructions increase Confluence's logging to report individual requests being sent to the database by Hibernate. It is useful for troubleshooting:

- [XML site backups](#) that fail to import
- Exceptions caused by an illegal database operation

To do this in Confluence, you need to modify `log4j.properties`, located in `confluence/WEB-INF/classes`.



If you require support assistance with a database related problem, it is advisable to enable hibernate logging prior sending us the log files. It will assist us determining what SQL queries were running during the reported problem.

To log SQL queries

Stop Confluence, then uncomment the following lines in `log4j.properties`:

```
## log hibernate prepared statements/SQL queries (equivalent to setting 'hibernate.show_sql' to 'true')
log4j.logger.net.sf.hibernate.SQL=DEBUG, confluencelog
log4j.additivity.net.sf.hibernate.SQL=false
```

To log SQL queries with parameters

Stop Confluence, then uncomment the following lines in `log4j.properties`:

```
## log hibernate prepared statement parameter values
log4j.logger.net.sf.hibernate.type=DEBUG, confluencelog
log4j.additivity.net.sf.hibernate.type=false
```

To disable batched updates (for simpler debugging)

Stop Confluence, then edit `confluence/WEB-INF/classes/databaseSubsystemContext.xml` and uncomment the following `<prop>` line:

```
<!-- it can be useful to disable batching during debugging, as HSQLDB doesn't report the exact statement which fails in batch mode -->
<prop key="hibernate.jdbc.batch_size">0</prop>
```

General Support Enquiries

This page last changed on Dec 05, 2006 by [jed](#).

For information on Confluence features and configuration.

Online Documentation

- [Confluence Setup Guide](#)
- [Administrators Guide](#)
- [Configuration Guide](#)
- [Online Forum](#). For general discussion, plugin development, customisation, new features and issues.
- Subscribe to the [Mailing List](#). Mailing list posts are archived on the Online Forum and posts to the forum online are sent to the Mailing List, so you can use either method.

Support Requests

Check out [Troubleshooting & Technical Support](#)

Feature Requests

View [Creating a Feature Request](#)

Live Support

[Live Support](#) is available during US, Malaysian and Australian business hours, 19 hours a day, Monday to Friday. Downtime is 9am to 2pm GMT. Click to see [9am](#) and [2pm](#) GMT in your local time. Live Support is unavailable on weekends.

If you are experiencing a problem, you should always [create a support request](#) before using Live Support.

Phone Support

To speak to a support member about critical support issues, [contact us](#) during Sydney or San Fransisco business hours.

Logging A Thread Dump

This page last changed on Apr 16, 2007 by ivan@atlassian.com.

If Confluence stops responding, or is performing poorly, you should create a thread dump to help Atlassian determine the cause of the problem.

This will show the state of each thread in the JVM, including a stack trace and information about what locks that thread is holding and waiting for.

Windows Users

To take a thread dump from Windows:

1. Visit <http://www.adaptj.com/root/main/download> and click Launch
2. Click Run for any security warnings
3. Select Process -> Thread Dump
4. Under Process Id, select the '...' button.
5. From the drop-down list, select the Confluence process. Users running Confluence Standalone, select the 'Java (Tomcat) ...' option. Users running Confluence WAR should select their application server process.
6. Click OK to capture the thread dump.
7. Save the output to a file, eg 'threaddump.log'
8. If you were asked by Atlassian technical support to create the thread dump, attach the logfile to the support ticket.

Linux (and Solaris and other Unices) Users

Find the process id of the JVM and issue the command:

Use the ps command to get list of all processes.

```
kill -3 <pid>
```

The thread dump will be printed to standard output.

Thread Dump Analyzer TDA

A free handy [thread dump analyzer](#) TDA 1.0 Final can be obtained from the java.net