


Space Details

Key:	CRUCIBLE
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Available Pages

- Crucible Documentation Home 
 - About Crucible
 - Background Reading
 - Crucible Administrator's Guide
 - Backups and Review Data
 - Crucible and FishEye
 - Customising the Defect Classifications
 - Crucible Installation & Upgrade Guide
 - Crucible Installation Guide
 - 1. System Requirements
 - 2. Installing Crucible
 - 3. Configuring Crucible
 - Crucible Release Notes
 - Crucible 1.1 Release Notes
 - Crucible 1.1 Changelog
 - Crucible 1.1 Upgrade Guide
 - Crucible Upgrade Guide
 - Upgrading from FishEye to Crucible
 - Upgrading to a New Version of Crucible
 - Crucible Knowledge Base
 - Troubleshooting
 - Crucible User's Guide
 - 1. Using the Dashboard
 - 2. Requesting and Conducting a Review
 - 2.1 Creating a Review
 - 2.1.1 Creating a Review from FishEye
 - 2.1.2 Creating a Review within Crucible
 - 2.1.3 Selecting the Files for the Review
 - 2.1.4 Adding Reviewers
 - 2.1.5 Creating a Patch Review
 - 2.2 Issuing a Review
 - 2.3 Performing the Review
 - 2.3.1 Adding Comments
 - 2.3.2 Flagging Defects
 - 2.3.3 Completing your Review

- 2.4 Summarising and Closing the Review
- 3. Changing your User Profile
- Glossary
 - approve
 - author
 - code review
 - comment
 - creator
 - defect
 - moderator
 - reviewer
 - role
 - state
 - statement of objective
 - user
- __newreleaseCrucible
- TreeNavigation

Crucible Documentation Home

This page last changed on Oct 15, 2007 by [smaddox](#).

Getting Started with Crucible 1.1	Using/Administering Crucible 1.1
About Crucible Feature Tour Download Crucible Installation Guide Release Notes Upgrade Guide	Quick Start: Conducting a Review Administrator's Guide User's Guide FishEye Documentation Support FAQ Glossary
Previous Versions	PDF Format
Please see older versions of Crucible	You can download the Crucible documentation in PDF format.

Error rendering macro: java.lang.NullPointerException

About Crucible

This page last changed on Oct 15, 2007 by [smaddox](#).

Crucible is a powerful addition to FishEye, making it easy to review code changes, make comments, and record outcomes in an efficient, distributed, and process-neutral way.

Introduction

Crucible is a tool that facilitates code review. It can be as valuable to organisations that already have a formal inspection process as it is to teams that don't review at all.

Regular peer review is a proven process with demonstrable return on investment (ROI). The benefits vary from team to team but commonly include:

- Identifying bugs and defects early.
- Sharing expertise and encouraging knowledge transfer.
- Improving system-wide knowledge.
- Encouraging adherence to internal standards and style conventions.
- Identifying individual strengths and weaknesses.

One of the less apparent, but nonetheless important, benefits that comes from a transparent code review process is that quality improves simply from the knowledge that code may be critically reviewed. Developers take more care with style, readability, comments, and commit-messages because their peers are going to see them.

Despite these and many other clear benefits, code review is often seen as 'impractical on time sensitive projects', 'only valuable in large teams working on mission critical applications', or at worst 'a total waste of time foisted on developers by management'. Formal code review can feel like an expensive use of time, because the review process can:

- be burdened by excessive paperwork and other administration.
- interrupt your current task and make you less productive.
- include meetings where participants fail to prepare, so that the meeting becomes a walkthrough rather than a critical review.
- become an ego battle or point-scoring exercise dominated by a vocal minority.

These issues do not affect the immense potential value of code review. They are simply problems with some review processes.

Crucible's mission is to streamline the process aspects so development teams can access the benefits. Crucible achieves this by:

- making reviews asynchronous.
- bringing reviewing to your desk (wherever that might be).
- eliminating most of the administration.
- limiting the ability for individuals to dominate the dialogue.
- providing an archival record of reviews.

Crucible increases the quality, quantity, and frequency of code reviews thereby reducing bugs, helping knowledge sharing and fundamentally improving system quality.

Starting Points

Visit the [Crucible Feature Tour](#) to understand how Crucible can benefit you.

To run Crucible you need a FishEye-compatible source code repository setup. At the present time that is CVS, Subversion, or Perforce. For more information, please read the [FishEye documentation](#).

Read the [Installation Guide](#) to get started quickly.

For Crucible troubleshooting, see the [FAQ](#).

Background Reading

This page last changed on Oct 15, 2007 by [smaddox](#).

The following resources are recommended for background reading on peer code reviews:

- [White paper](#) on effective code review by Karl Wiegers.
- Book, [Peer Reviews in Software: A Practical Guide](#) by Karl Weigers.
- Software Engineering Institute web page: [Software Inspections](#).
- NASA Software Assurance Technology Center we page: [Software Formal Inspections](#).

Crucible Administrator's Guide

This page last changed on Oct 10, 2007 by [smaddox](#).

Once you have [installed](#) and [configured](#) Crucible, you can access the Administration pages at <http://HOSTNAME:8080/admin/>.

The FishEye 'Admin Menu' allows you to administer your FishEye/Crucible instance and manage your repositories.

For more information on administering FishEye, please refer to the [FishEye documentation](#).

Information in the Crucible Administrator's Guide:

- [Backups and Review Data](#)
- [Crucible and FishEye](#)
- [Customising the Defect Classifications](#)

Backups and Review Data

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Currently all review data is stored in an embedded relational database found at `FISHEYE_HOME/var/data/`. It can be safely copied whilst Crucible is running. In addition to backing up `crudb` before upgrading, you should make it part of your backup regime. For more details view the [FishEye backup guide](#).

Review data will be automatically upgraded on startup of a newer version. Therefore it is imperative that you back up your data before upgrading. The review database can be upgraded, but not downgraded. In the unlikely event that a serious bug is introduced, you will need a backup to roll back to the previous version.

Crucible and FishEye

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This page gives an overview of the joint installation of [Crucible](#) and [FishEye](#). Both Crucible and FishEye are Atlassian products.

- FishEye allows you to extract information from your source code repository and display it in sophisticated reports.
- Crucible allows you to request, perform and manage code reviews.



Your Crucible installation includes a FishEye instance

Crucible includes all the functionality of FishEye. If you are running Crucible it is not necessary to run FishEye separately.

Purchasing and Installing Crucible/FishEye

When you buy Crucible, you get FishEye too.

- If you install Crucible, there is no need to do a separate installation of FishEye.
- If you already have an existing FishEye installation, you don't need to keep it. Refer to the guide on [upgrading from FishEye to Crucible](#).
- To run Crucible, you need both the FishEye and the Crucible licenses.



But for evaluation purposes, you can use just the Crucible evaluation license.

FISHEYE_HOME and FISHEYE_INST

Crucible makes use of the FishEye environment variables:

- FISHEYE_HOME – the location of the FishEye application.
- FISHEYE_INST – the location of the FishEye data.

Refer to the FishEye documentation for more about the [environment variables](#) and how they are used in the [FishEye installation](#).

Detailed Documentation

You can find more information in:

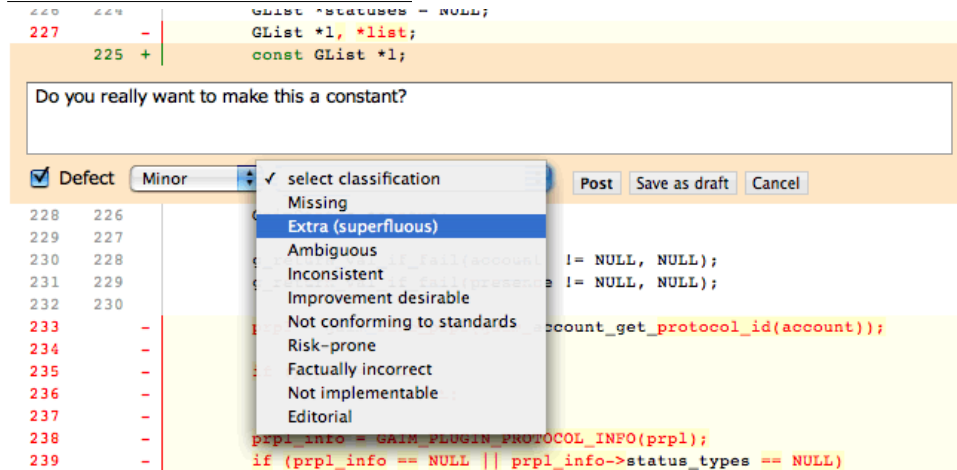
- [Crucible Installation Guide](#)
- [FishEye Installation Guide](#)
- Complete [Crucible documentation](#)
- Complete [FishEye documentation](#)

Customising the Defect Classifications

This page last changed on Oct 11, 2007 by [smaddox](#).

[Defects](#) are comments made by [reviewers](#) that indicate a problem in a review. Defects can be classified by rank and type.

Screenshot: Defect classifications




The above screenshot shows the default classifications.

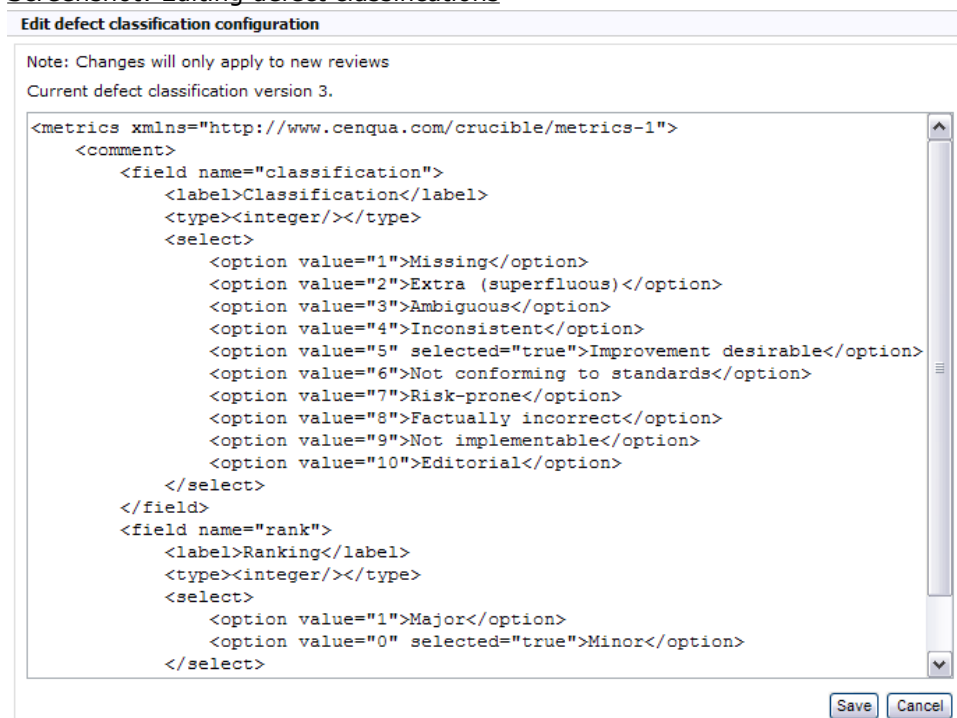
To change the default classifications:

1. Open the [FishEye Administration screens](#).
2. Click 'Customize Crucible Defect Classifications' under 'Global Settings' in the 'Admin Menu'.

Only the administrator has access to this screen.

 Any changes made within 'Customize crucible defect classifications' will only affect new reviews.

Screenshot: Editing defect classifications



Crucible Installation & Upgrade Guide

This page last changed on Oct 04, 2007 by smaddox.


- [Crucible Installation Guide](#)
 - [1. System Requirements](#)
 - [2. Installing Crucible](#)
 - [3. Configuring Crucible](#)
- [Crucible Release Notes](#)
 - [Crucible 1.1 Release Notes](#)
- [Crucible Upgrade Guide](#)
 - [Upgrading from FishEye to Crucible](#)
 - [Upgrading to a New Version of Crucible](#)

Crucible Installation Guide

This page last changed on Oct 11, 2007 by [smaddox](#).

This guide explains how to get Crucible installed and running as easily as possible. Many references are made to the [FishEye documentation](#).

This document assumes you have extracted your Crucible zip file into a directory called `/FISHEYE_HOME/`.

 Refer to our explanation of how [Crucible works with FishEye](#).



Knowledge Base


You may find some useful information in the [Knowledge Base](#) too.

- [1. System Requirements](#)
- [2. Installing Crucible](#)
- [3. Configuring Crucible](#)

1. System Requirements

This page last changed on Oct 11, 2007 by [smaddox](#).

These are the requirements for Crucible and FishEye. See the [FishEye requirements](#) for more specific details.

Java Runtime	A JDK or JRE version 1.5 or greater. You can download a Java Runtime for Windows/Linux/Solaris here . On MacOSX the JVM is available as part of the OS install
Source code Repository	To run Crucible you need a FishEye compatible source code repository. At the present time that is CVS, Subversion, or Perforce. ClearCase is expected during 2007.
Web Browser	<p>Crucible has been tested in the latest releases of Firefox 2, Internet Explorer 7, and Safari 2. Crucible is known to work with IE6 and FF1.5 and should work on any modern browser.</p> <div> Font size (Especially for Linux users.) For best results you may want to tweak your default monospace font and font-size. The default browser font is usually Courier New which can be hard to read in some browsers. We recommend choosing the same font you use in your IDE and selecting a font size approximately 2 points larger than your variable width font. FF2, IE7 and Safari now all have excellent font rendering. It is worth the time to tweak your fonts for the best experience.</div>
Operating System	Crucible is a pure Java application and should run on any platform provided the above requirements are satisfied.

Known Limitations

All artifacts to be reviewed must be checked in to a source code management system supported by [FishEye](#).

2. Installing Crucible

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Follow these steps to install Crucible:

1. [Download](#) the Crucible zip file and extract it. This document assumes you have extracted your Crucible zip file into a directory called `/FISHEYE_HOME/`.
2. Ensure you have installed an appropriate Java runtime - see [System Requirements](#). Ensure that `java` is in the `PATH`, or that the `JAVA_HOME` [environment variable](#) is set.
3. If you intend to use Crucible/FishEye with [Subversion](#), please ensure you read the [System Requirements](#), [Subversion client setup](#), and [granting permission to FishEye](#) to scan your repository.
4. If you intend to use Crucible/FishEye with [Perforce](#), please ensure you read the [System Requirements](#) and [Perforce Client setup](#).

Next Step - Initial Configuration

See the guidelines on [configuring Crucible](#).

3. Configuring Crucible

This page last changed on Oct 12, 2007 by [smaddox](#).



Read-only access for Crucible/FishEye

We recommend you run Crucible/FishEye as a user that has only read access to your repository.

This document assumes you have extracted your Crucible zip file into a directory called `/FISHEYE_HOME/`.



Refer to our explanation of how [Crucible works with FishEye](#).

Running Crucible

To run Crucible for the first time, simply do the following:

- On Windows:

```
C:\> cd FISHEYE_HOME\bin
C:\FISHEYE_HOME\bin> run.bat
```

- On Unix-based systems:

```
$ cd /FISHEYE_HOME/bin
$ ./run.sh
```

Once started, Crucible will run its own HTTP web server on port 8080. You can access Crucible immediately by going to <http://HOSTNAME:8080/> in a browser.



By default, Crucible will listen on port 8080 for HTTP requests. It also listens on 127.0.0.1:8079 as a control port. You can configure both of these in the FishEye Administration screens, or by editing `/FISHEYE_HOME/config.xml` and restarting Crucible.

Supplying Administration Password and License Key

The first time you run Crucible, when you access the Crucible web server you will be asked for:

- An administrator password. This password controls access to the FishEye Administration screens.
- A license key. You can get a trial license [here](#).

Accessing the Administration Pages

Once you have set up an administrator password (as described above), you can access the Administration screens at <http://HOSTNAME:8080/admin/>.

One of your first steps will be to [add a repository](#).

Setting Up a Repository

Once you have [added a repository](#), you can view it through FishEye at <http://HOSTNAME:8080/>.



Building index and cache

FishEye needs to build an index and cache of the contents of your repository, so some information will not appear in FishEye until this is complete.

This may take some time to complete depending on the size of the repositories.

Setting Up Users

On initial setup of Crucible, there are no users. Adding user accounts is done via the Administration screens or by configuring Crucible/FishEye to use external authentication.

To add users:

1. Open the [FishEye Administration screens](http://HOSTNAME:8080/admin/) at <http://HOSTNAME:8080/admin/>.
2. Click 'Users/Security' under 'Global Settings' in the 'Admin Menu'.

Read more details about the different ways of [creating users](#).

Setting Up SMTP

Crucible can email each review participant on a range of changes. Each user can then set up their own preferences. This is described in the [User Profile guide](#).

First, you must [set up the SMTP Server](#).

Using Crucible

You can access Crucible/FishEye immediately by going to <http://HOSTNAME:8080/> in a browser

Or you can go directly into the Crucible homepage at <http://HOSTNAME:8080/cru>

Stopping Crucible

To stop the Crucible server:

- On Windows:

```
C:\> cd FISHEYE_HOME\bin
C:\FISHEYE_HOME\bin> stop.bat
```

- On Unix-based systems:

```
$ cd /FISHEYE_HOME/bin
$ ./stop.sh
```

Crucible Release Notes

This page last changed on Oct 11, 2007 by [smaddox](#).



Crucible 1.1.2 has now been released. See the bug fixes and improvements in the [changelog](#).

Installation

You can now download Crucible from [here](#). Information on installing Crucible can be found [here](#).

If upgrading from a previous version, please follow the [Upgrade Guide](#).

- As of version 1.0, Crucible now requires a JVM version 1.5 or later. Previously, 1.4+ was required.
- Crucible 1.1.2 includes FishEye 1.3.7.
- Upgrading from 1.0.4 (or earlier) will force a complete re-index of P4 repositories.

Crucible Release Notes

- [Crucible 1.1 Release Notes](#)
- For changes prior to 1.1, see the [1.0.x Changelog](#)

Crucible 1.1 Release Notes

This page last changed on Oct 11, 2007 by [smaddox](#).



Crucible 1.1.2 has now been released. See the bug fixes and improvements in the [changelog](#).

Crucible 1.1 allows pre-commit (patch) reviews, side-by-side diff mode, syntax highlighting in diffs, and many other bug fixes and improvements.

Upgrading Crucible

You can now download Crucible from [here](#). Information on installing Crucible can be found [here](#). If upgrading from a previous version, please follow the [Upgrade Guide](#).

Highlights of Crucible 1.1

- Pre-commit review ([patch review](#)).
- Progress tracking through a review by marking each file as 'done'.
- Side-by-side diff mode within the review display.
- Syntax highlighting when displaying a diff.
- Many small UI fixes and improvements. Refer to the [changelog](#) for more details.

Crucible 1.1 Changelog

This page last changed on Oct 11, 2007 by [smaddox](#).

On this page:

- [From 1.1.1 to 1.1.2](#)
- [From 1.1 to 1.1.1](#)

From 1.1.1 to 1.1.2

This release adds some new user-related functions and includes bug fixes.

New Features

- You can now allow users to create their own user accounts (sign-up).
- You can now allow anonymous browsing of reviews.
- Users can now add themselves as a reviewer ('Join a review'). This is an option that is configured per review.

Bug fixes

- Fix problem where Crucible would only display the top part of each diff in a patch.
- Fix various JavaScript and UI errors.
- Fix various IE6 and IE7 problems.
- Fix problem where some users were redirected to /uar/browser.css after login.

From 1.1 to 1.1.1

This is a small bug-fix release. It addresses a stack-overflow problem for some configurations.

Crucible 1.1 Upgrade Guide

This page last changed on Oct 15, 2007 by [smaddox](#).

Upgrade Notes

- As of version 1.0, Crucible now requires a JVM version 1.5 or later. Previously, 1.4+ was required.
- Crucible 1.1.2 includes FishEye 1.3.7.
- Upgrading from 1.0.4 (or earlier) will force a complete re-index of P4 repositories.

Upgrade Procedure

- Please read the [Release Notes and Upgrade Guides](#) for the version you are upgrading to, as well as any versions you are skipping.
- Follow the instructions on [upgrading Crucible](#).

Crucible Upgrade Guide

This page last changed on Oct 11, 2007 by [smaddox](#).

- [Upgrading from FishEye to Crucible](#)
- [Upgrading to a New Version of Crucible](#)

Upgrading from FishEye to Crucible

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If you have been using FishEye and now want to move to Crucible, you can do this without losing your FishEye repositories.

 Read about how your [Crucible installation works with FishEye](#).

Before you Start

We strongly recommend you make a backup of your data before following the steps below. Refer to the FishEye documentation on [making a backup](#).

Upgrade Procedure

Follow method 1 below if you have FishEye configured to use a `FISHEYE_INST` directory. Follow method 2 if you are not using a `FISHEYE_INST` directory.

 Read more about the `FISHEYE_INST` [environment variable](#).

Method 1 - Using a FISHEYE_INST Directory

1. [Download](#) Crucible and unzip the archive into a folder. This document assumes you have extracted your Crucible zip file into a directory called `/NEW_FISHEYE/`.
2. Leave your `FISHEYE_INST` environment variable set to its existing location.
3. Start Crucible from the new installation by running `NEW_FISHEYE/bin/run.sh`. (Use `run.bat` on Windows).
4. Follow the initial configuration steps outlined below.

Method 2 - Without a FISHEYE_INST Directory

1. [Download](#) Crucible.
2. Extract the new Crucible archive into a directory such as `/NEW_FISHEYE/`.
3. Delete the `/NEW_FISHEYE/var` directory.
4. Shut down the old FishEye instance if it is running.
5. Copy `/OLD_FISHEYE/config.xml` to `/NEW_FISHEYE/`.
6. Copy (or move) the `/OLD_FISHEYE/var` directory to `/NEW_FISHEYE/var`.
7. If you have a Cenqua-issued FishEye license, copy `/OLD_FISHEYE/fisheye.license` to `/NEW_FISHEYE/`. (Atlassian-issued licenses are included within `config.xml`.)
8. Follow any version-specific instructions found in the [Release Notes](#).
9. Follow the initial configuration steps outlined below.

Initial Configuration

1. You can access Crucible immediately by going to <http://HOSTNAME:8080/> in a browser.
2. The first time you run Crucible, you will be asked for a Crucible license key. You can view your license key [here](#).
3. If you do not already have user accounts configured, you will need to do this via the Administration screens or by configuring Crucible/FishEye to use external authentication.
To add users:
 - Open the [FishEye Administration screens](#) at <http://HOSTNAME:8080/admin/>.
 - Click 'Users/Security' under 'Global Settings' in the 'Admin Menu'.Read more details about the different ways of [creating users](#).
4. Crucible can email each review participant on a range of changes. Each user can then set up their own preferences. This is described in the [User Profile guide](#). First, you must [set up the SMTP Server](#).

Upgrading to a New Version of Crucible

This page last changed on Oct 15, 2007 by [smaddox](#).

 Read about how your [Crucible installation works with FishEye](#).

Before you Start

- Before upgrading you should always read the [Release Notes, Changelog and Upgrade Guides](#) for the version you are upgrading to, as well as any versions you are skipping.
- We strongly recommend you make a backup of your data before upgrading Crucible. Simply make a copy of your `crucible_install_dir/var/data/` directory.
- [Download](#) the Crucible zip file.

Upgrade Procedure

If you have Crucible configured to use a `FISHEYE_INST` directory, then simply:

1. Extract the new Crucible version to a directory.
2. Leave your `FISHEYE_INST` environment variable set to its existing location.
3. Start Crucible from the new installation.
4. Follow any version-specific instructions found in the [Release Notes](#).

 Read more about the `FISHEYE_INST` [environment variable](#).

If you are not using `FISHEYE_INST`, you will need to copy some files from your old Crucible installation to your new one.

1. Extract the new Crucible archive into a directory such as `/NEW_FISHEYE/`.
2. Delete the `/NEW_FISHEYE/var` directory.
3. Shut down the old Crucible instance if it is running.
4. Copy `/OLD_FISHEYE/config.xml` to `/NEW_FISHEYE/`.
5. Copy (or move) the `/OLD_FISHEYE/var` directory to `/NEW_FISHEYE/var`.
6. If you have a Cenqua-issued Crucible license, copy all `/OLD_FISHEYE/*.license` files to `/NEW_FISHEYE/`. (Atlassian-issued licenses are included within `config.xml`.)
7. Follow any version-specific instructions found in the [Release Notes](#).

Crucible Knowledge Base

This page last changed on Oct 15, 2007 by [smaddox](#).



Most setup issues are likely to be related to the FishEye component of Crucible. Refer to the FishEye documentation:

- [FishEye documentation](#)
- [FishEye knowledge base](#)

Do you still have a question, or need help with Crucible? Please [create a support request](#).

[Crucible Knowledge Base](#)

Answers to commonly raised questions about configuring and using Crucible.

- [Troubleshooting](#)

Troubleshooting

This page last changed on Oct 12, 2007 by [smaddox](#).

The most common cause of FishEye/Crucible issues is an incorrect [symbolic setup](#) (trunk/branch/tag) for Subversion repositories. If you are using Subversion and your initial index is taking forever, double-check that your symbolic setup matches your repository.

FishEye runs with the default Java heap of 64 megabytes. This is sometimes problematic for FishEye, especially for Subversion repositories during the initial scan. You can give FishEye's JVM more memory by setting the FISHEYE_OPTS [environment variable](#).

Starting Crucible with the [command line options](#) `--debug --debug-perf` will print a lot of information to Crucible's logs. This can give you an insight into what is happening and possibly where you are stuck. Attach these logs along with your `config.xml` to an Atlassian support ticket, to speed up your [support request](#).

Crucible User's Guide

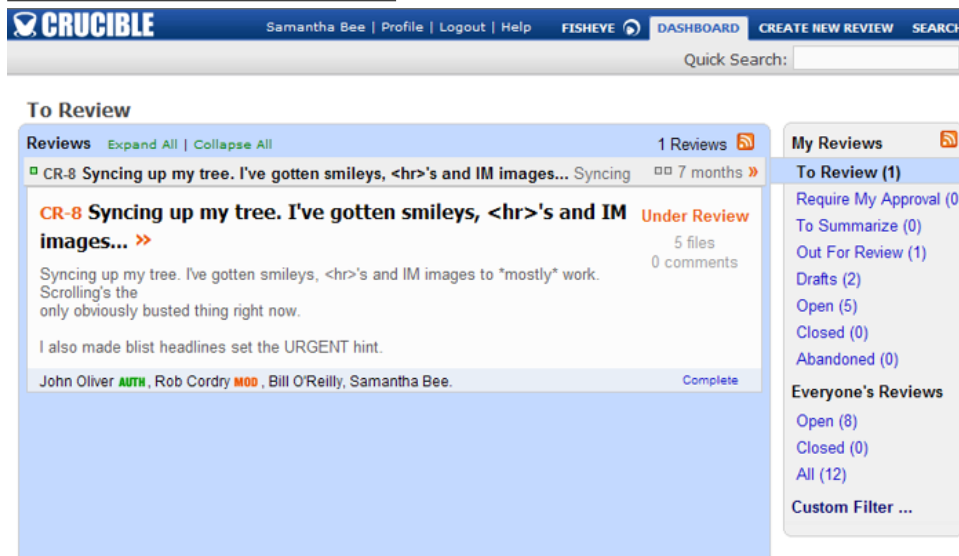
This page last changed on Oct 10, 2007 by [smaddox](#).

- [1. Using the Dashboard](#)
- [2. Requesting and Conducting a Review](#)
 - [2.1 Creating a Review](#)
 - [2.2 Issuing a Review](#)
 - [2.3 Performing the Review](#)
 - [2.4 Summarising and Closing the Review](#)
- [3. Changing your User Profile](#)

1. Using the Dashboard

This page last changed on Oct 15, 2007 by [smaddox](#).

The Dashboard is the home screen for Crucible and allows users to manage their reviews.
Screenshot: Crucible Dashboard



Managing Reviews

To find a particular review, use the side panel or the search box (Quick Search), as described below.

Side Panel

The panel on the right-hand side of the Dashboard shows the number of reviews in different states. Click on any of these states to show the list of reviews in the left-hand panel.

To Review	Reviews that the user needs to review.
Require My Approval	The user has been assigned the role of moderator for these reviews and needs to approve them.
To Summarize	The user has been assigned the role of moderator for these reviews and needs to summarise and close them.
Out For Review	These reviews are currently in progress but do not require any action by the user.
Drafts	These are reviews created by the user that have not yet been moved to the 'Approval' or the 'Require Approval' states .
Open	These reviews have been created by the user and are at a state other than 'Closed'.
Closed	These are reviews that the user has been involved in and are now closed.

Any reviews (even if the user has not participated in them) that have been created can be viewed, under the 'Everyone's's Reviews' section:

Open	All open reviews.
Closed	All closed reviews.
All	All reviews.

To find a more specific review, use the 'Custom Filter':

Title	Find reviews by searching for words within the title.
Author	Find reviews moderated by a particular authors .
Moderator	Find reviews moderated by a particular moderators .
Creator	Find reviews created by a particular creator .
Reviewer	Find reviews that are reviewed by a particular reviewer . This will default to the user logged in.
Reviewer Status	This is reliant on the above filter and is used to show reviews that have either been completed by the reviewer, not completed or all reviews.
Match Roles	To use all the above filters, choose 'all'. To use any of the filters, choose 'any'.

Review State: Below is a description of the checkboxes available under the heading 'Review State'. You can use the checkboxes with the above filters or on their own.

Draft	Reviews that are still in 'Review' state .
Pending Approval	Reviews that have been moved out of 'Draft' state and are now waiting for the moderator to approve .
Under Review	The review is now 'Under Review'.
Summarize	The review is now in 'Summarize' state.
Closed	Reviews that are now 'Closed'.
Abandoned	Any reviews that have been abandoned.
Rejected	Any reviews that a moderator has rejected.
Review needs fixing	A review will match this filter if the review enters into an undefined state because something went wrong with storing the review state . A moderator can use this filter to find the review and then change the state to something sensible.



It is highly unlikely that any reviews will be found under the filter 'Review needs fixing'. But if reviews start appearing there regularly, please raise a [support request](#).

Search Box (Quick Search)

Quick Search is the search box in the top right-hand corner of the Dashboard.

You can find a review by searching for:

- Review IDs - must be in the format CR-xx
- Contents of Title
- Contents of Statement of Objective
- Contents of a comment

Changing your User Profile

Users can change Crucible settings such as passwords, notifications and display settings.

To view your user profile, log into Crucible, and click the 'Profile' link at the top of the screen.

Read [more information](#).

Subscribing to an RSS Feed

The Dashboard provides two RSS feed icons. Click an icon to set up an RSS feed containing reviews as follows:

- Icon on the right-hand panel - reviews that you have had interaction with.
- Icon on the left-hand panel - all reviews.

2. Requesting and Conducting a Review

This page last changed on Oct 10, 2007 by [smaddox](#).

This guide explains in detail how to create a review and manage the review through its lifecycle states until completion.

For an explanation of the different roles, see the Terminology guide

- [2.1 Creating a Review](#)
- [2.2 Issuing a Review](#)
- [2.3 Performing the Review](#)
- [2.4 Summarising and Closing the Review](#)

2.1 Creating a Review

This page last changed on Oct 12, 2007 by [smaddox](#).

The first step is to create the review. There are two ways to create a review:

- [Creating a review from FishEye](#)
Using FishEye it is easy to create a review for a single changeset by clicking on the Crucible icon in the FishEye changelog view.
- [Creating a review within Crucible](#)
For reviews involving multiple changesets or an arbitrary set of files, you can create a review from the Crucible dashboard.

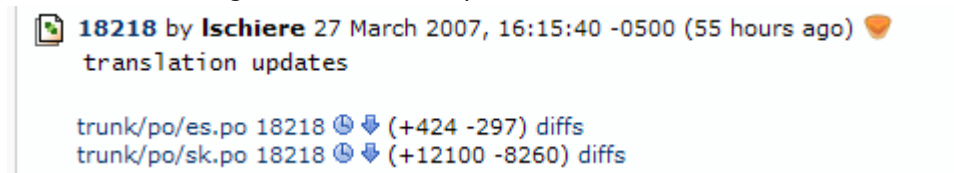
Click the links below for more information:

- [2.1.1 Creating a Review from FishEye](#)
- [2.1.2 Creating a Review within Crucible](#)
- [2.1.3 Selecting the Files for the Review](#)
- [2.1.4 Adding Reviewers](#)
- [2.1.5 Creating a Patch Review](#)

2.1.1 Creating a Review from FishEye

This page last changed on Oct 12, 2007 by [smaddox](#).

To create a review from within FishEye, click the small Crucible icon next to the required changeset.
Screenshot: Adding a Review in FishEye



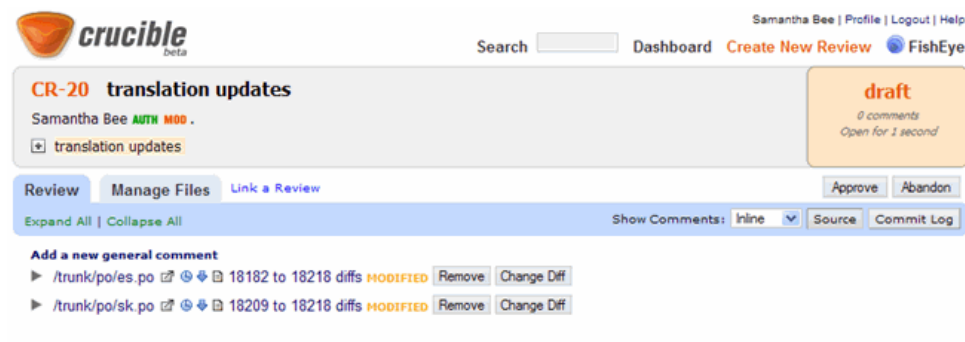
When you click the icon a new draft review will be created, including the following information:

- The content of the changeset becomes the content to be reviewed.
- The author of the changeset becomes the [author|author} of the review, if Crucible is aware of this user. Otherwise the [creator](#) of the review becomes the author.
- The [creator](#) of the review becomes the [moderator](#).
- The commit log message is used as both the Title and [Statement of Objective](#).

All aspects of the review can be changed. To edit any of the above settings, click the title to see the 'Edit details' screen. Or you can click the [Manage Files](#) tab.

If you click the Crucible icon, you will see the 'Review' screen below:

Screenshot: Review screen in Crucible



The next step is to [add reviewers](#).

2.1.2 Creating a Review within Crucible

This page last changed on Oct 14, 2007 by [smaddox](#).

Within Crucible, you can create a review by clicking the Create New Review link at the top right of every Crucible screen. The Edit details screen appears, as shown below.

Screenshot: Adding a review in Crucible

CRUCIBLE Samantha Bee | Profile | Logout | Help FISHEYE DASHBOARD [CREATE NEW REVIEW](#) [SEARCH](#)

Quick Search:

Title:

Moderator:

Author:

Statement of Objectives:

Reviewers: ☐ Allow anyone to join
☐ Bill O'Reilly ☐ John Oliver
☐ Jon Stewart ☐ Rob Cordry
☐ Samantha Bee ☐ Stephen Colbert

draft
0 comments
Open for 1 second

Review **Manage Files** [Link a Review](#)

Repository: Author: Branch: Tag:

Changesets **Files** **Search** **Patch**

[Remove all revisions](#) | [« Earlier Changesets](#) | [later »](#)

Files in gaim:/

- ☐ **18236** created by sadrul on 06 April 2007, 23:06:48 -0500 (6 months ago)
Allow --with-ncurses-headers= configure option from here too
☐ /trunk/console/libgnt/configure.ac 18236 [\(+10 -3\) diffs](#)
- ☐ **18235** created by sadrul on 04 April 2007, 15:22:16 -0500 (6 months ago)
"elb: g_build_path is Glib 2.8"
☐ /trunk/console/libgnt/gntfilesel.c 18235 [\(+106 -1\) diffs](#)

Next steps:

- Use the 'Manage Files' tab to select the files to be reviewed.
- Use the 'Changesets', 'Files' or 'Search' tab to find the files to be added.

Read [more details](#) about selecting files for review.

2.1.3 Selecting the Files for the Review

This page last changed on Oct 14, 2007 by [smaddox](#).

The 'Manage Files' tab is displayed when you are [creating a review](#). This tab allows you to select and modify which files make up the review.


The 'Manage Files' tab has the following sub-tabs:

- [Changesets](#)
- [Files](#)
- [Search](#)
- [Patch](#)

Constraints on Manage Files Tab

Before using the 'Changesets' or 'Files' tabs, you can narrow the files down by specifying constraints, as listed along the top of the 'Manage Files' tab:

Repository	This is a list of the repositories that contain the files that can be reviewed. If the repository you require is not in the list then it has not been added to FishEye. Please contact your Crucible/ FishEye administrator.
Author	This contains a list of all the authors who have made changes within the repository. When creating a review, this will default if possible to the username of the user authoring this review and will therefore show their changesets.
Branch	This will only show files and recent changes on that branch from the repository set above.
Tag	This will only show files and recent changes tagged.

 To create a review that includes a number of revisions for a particular file, always choose the oldest revision first and then tick each revision of the file up to the most recent one. Only one version of the file will be reviewed but it will contain the diffs from the revisions chosen.

Changeset Tab

Screenshot: Changesets tab



By default, Crucible presents a list of the author's changesets in reverse chronological order. You can see other changesets by changing the constraints described [above](#).

Click the checkbox next to the changeset ID to add the entire changeset, or the checkboxes next to file names to add or remove individual files. Click 'Remove all revisions' to remove them.

Understanding Changesets in Detail

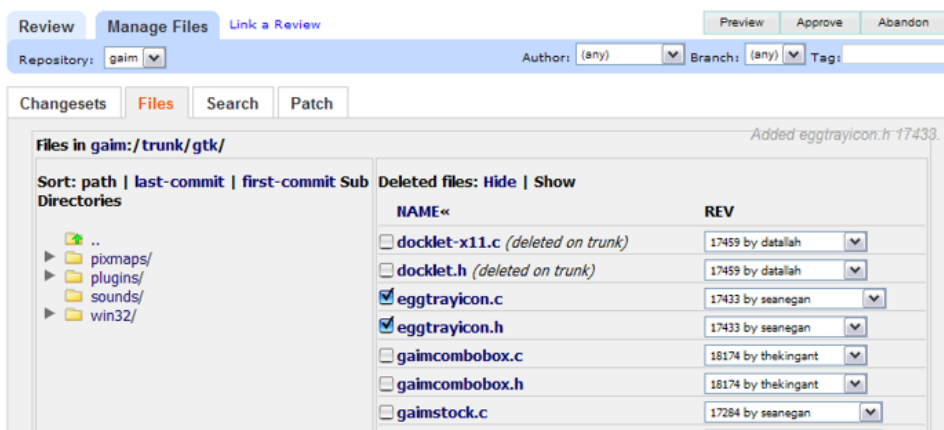
To help decide what files are to be placed under review, the [moderator](#) can click the icons next to the files to gain further information about them before they go out for review:

Clock icon or the file URL	A view detailing the history of this particular file.
Changeset ID next to the file URL	A view of the complete file. Amended lines are highlighted on the left in yellow.
Down arrow icon	Option to download the file.
Change Indicator (+n -n)	This shows how many lines have been amended (e.g. +3 -2) and also what type of change has been made. If it says 'diffs' then you can click this to see the differences in the file between the revisions.

After you have chosen the files, click the 'Review' tab to see the files that are included in the review.

Files Tab

Screenshot: Files tab



Use the Files tab to find specific files

If you want to have specific files reviewed, rather than a changeset, it may be easier to find the files via the 'Files' tab.

To find a file, browse the folders by clicking the relevant folder. The folders by default are sorted by path name but can be sorted by last-commit or first-commit

Empty folders will be greyed out.

If the folders contain empty folders then a toggle option called 'Hide Empty' will appear under the 'Sort' options.

To see or ignore deleted files, you can click the 'Hide' and 'Show' options located above the file names on the left.

To choose a file for reviewing, click the checkbox to the left of the filename and if required the revision number.

After you have chosen the files, click the 'Review' tab to see the files that are included in the review.

Search Tab

Screenshot: Search tab

Review Manage Files Link a Review

Repository: gaim Author: (any) Branch: (any) Tag:

Changesets Files Search Patch

gaim/trunk/gtk/

Search Criteria
(Switch to Advanced Search)

☐ Search all directories
☐ Only most recent versions

Comment:
Contents:
File name:

Author(s):
(Use Ant-globs)
aaronsheldon
amc_grim
chipx86
datallah
deryni9
eblanton
evands
faceprint

Branch:
Tag:
After:
Before:

(YYYY-MM-DD ?)
☒ Changeset
☐ Revision
Results by: ☐ File
☐ Directory

Search Results
Search your past.

Fisheye has comprehensive search capabilities. Enter your search criteria to the left.
(Note: content search currently searches only the HEAD of each file.)

If you are not certain about which changesets/revisions/files to include in a review, use the Search tab to find them.

Choose the relevant search filters and then click the 'Search' button. If the simple filters are not enough, click 'Switch to Advanced Search'. You can then create an EyeQL query can be created to produce the results. Read about [EyeQL queries](#) in the FishEye documentation.

After you have chosen the files, click the 'Review' tab to see the files that are included in the review.

Read the FishEye documentation for more information about the [searching your repository](#).

Patch Tab

Read about [creating a patch review](#).

2.1.4 Adding Reviewers

This page last changed on Oct 14, 2007 by [smaddox](#).

The [moderator](#) adds reviewers during [review creation](#).

Before the review can be issued to reviewers, the moderator|moderator must decide who can review it.

Screenshot: Adding reviewers

CRUCIBLE Samantha Bee | Profile | Logout | Help FISHEYE DASHBOARD [CREATE NEW REVIEW](#) [SEARCH](#)

Quick Search:

Title:

Moderator:
Samantha Bee

Author:
Samantha Bee

Statement of Objectives:

Reviewers: ☐ Allow anyone to join
☐ Bill O'Reilly ☐ John Oliver
☐ Jon Stewart ☐ Rob Cordry
☐ Samantha Bee ☐ Stephen Colbert

draft
0 comments
Open for 57 minutes

[Save](#) [Cancel](#) [Abandon](#)

[Review](#) [Manage Files](#) [Link a Review](#) [Approve](#) [Abandon](#)

[Expand All](#) | [Collapse All](#) Show Comments: [Inline](#) [Source](#) [Commit Log](#)

Add a new general comment

- [/trunk/gtk/eggtrayicon.c](#) 16855 to 17433 diffs **MOVED TO** [Remove](#) [Change Diff](#)
- [/trunk/gtk/eggtrayicon.h](#) 16855 to 17433 diffs **MOVED TO** [Remove](#) [Change Diff](#)

The list of 'Reviewers' appears next to the Author and Moderator fields on the review details screen, as shown above.

If there are fewer than seven potential reviewers, they are shown with checkboxes next to each name, as shown above.

If there are seven or more potential reviewers, the list appears as a text box. Start typing the reviewer's name and then press the tab key to select the reviewer.

Click the 'Save' button to continue creating the review, or click the 'Approve' button (bottom right-hand corner) to issue the review to the reviewers.

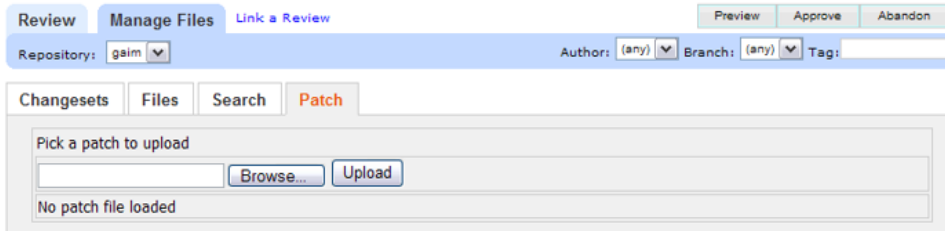
You can also decide to allow any user to add themselves as a reviewer in the review. To enable this option, put a check next to 'Allow anyone to join'. This feature is new in Crucible 1.1.2.

2.1.5 Creating a Patch Review

This page last changed on Oct 14, 2007 by [smaddox](#).

Crucible allows you to review a change before it has been committed. To do this, you upload a patch file to the 'Patch' tab when [creating a review](#).

Screenshot: Patch tab



CVS Patch Creation

To create a patch in CVS, use the `cv diff -Nu` command from your workspace. For example:

```
cv diff -Nu > patch.txt
```

SVN Patch Creation

To create a patch in Subversion, use the `svn diff` command from your workspace. For example:

```
svn diff > patch.txt
```



`svn diff` does not print any information about files copied in the workspace.

Perforce Patch Creation

To create a patch in Perforce, you must ensure you have set [P4DIFF](#) to point to a GNU-compatible diff program.

Then use `p4 diff -du` to generate a patch for changed files. For example:

```
p4 diff -du > patch.txt
```

Then do a `p4 opened` to find added and deleted files. For added files, append them individually to the patch using GNU diff:

```
diff -u path_to_added_file /dev/null >> patch.txt
```

You can follow a similar procedure with deleted files using `p4 print` to extract the previous version of the file.



A future version of Crucible will include helper tools to assist in this process.

2.2 Issuing a Review

This page last changed on Oct 14, 2007 by [smaddox](#).

Issuing a review in Crucible is known as approving the review.

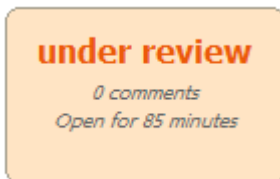
Once you have [selected the reviewers](#), the next stage is to notify the [reviewers](#) and the [author](#) (if different to the [moderator](#)) that they can start reviewing. The review has been in 'Draft' [state](#) until this point. Only the moderator has the permission to approve a review.

To issue the review:

- If you are not the moderator of your review, click 'Send to Moderator'. This changes the [state](#) to 'Require Approval' and notifies the moderator. The moderator can change any aspect of the review before approving it.
- If you are the moderator of the review, click the 'Approve' button.

Once the review has been approved, the review [state](#) becomes:

Review state: under review



2.3 Performing the Review

This page last changed on Oct 15, 2007 by [smaddox](#).

Use the Crucible 'Dashboard' to manage your reviews. Read the overview on [managing your reviews](#).

Active reviews are listed on each [reviewer](#)'s dashboard under the default 'To Review' filter. For [authors](#) and [moderators](#), reviews are listed under 'Out for Review' until all reviewers indicate they are complete. Then the reviews move to the 'To Summarize' list of the moderator.



Your Open and Closed Reviews

All reviews that involve you in any role are listed under 'Open' or 'Closed' in the 'My Reviews' filters. For instance, use the 'My Reviews' --> 'Open' filter to locate a review that doesn't require further action from you, but is still under way.

If mailing is enabled (see [SMTP settings](#) in the FishEye documentation), reviewers will receive an email with information about the review. Click the link within the email to go directly to the review.



Deciding what needs to be reviewed

Crucible does not dictate how or what to review. It simply provides a mechanism to record comments. When asked to perform a review, you might like to read the 'Statement of Objective' by clicking the + sign under the review title to determine in more detail what the moderator requires you to review.

- [2.3.1 Adding Comments](#)
- [2.3.2 Flagging Defects](#)
- [2.3.3 Completing your Review](#)

2.3.1 Adding Comments

This page last changed on Oct 14, 2007 by [smaddox](#).

Comments can be added at the level of a review, revision, or line. You can also reply to a comment.

 Read about [flagging defects](#) too.

Screenshot: Comments



CR-5 Disable get_buddies_levels()

Jon Stewart **AUTH** **MOD**, Rob Cordry, Bill O'Reilly, Stephen Colbert.

under review
4 comments
Open for 6 days

I believe there's a bug in the get_buddies_levels() code that I don't have time to find. Temporarily disable

Review Complete

Expand All | Collapse All | Expand Commented Show Comments: Inline Source Commit Log

Bill O'Reilly [#permalink | 15 February 2007, 23:14] Reply

Over all a job well done. That's from the gut.

Add a new general comment

/trunk/libgaim/protocols/qq/buddy_list.c 17924 to 18179 diffs **MODIFIED**

/trunk/libgaim/protocols/qq/buddy_info.h 17924 to 18179 diffs **MODIFIED**

Add a revision comment (click on source to add inline comment) Show Full Source

```
93 93 void qq_process_get_info_reply(guint8 *buf, gint buf_len, GaimConnection *gc);
94 94 void qq_info_query_free(qq_data *qd);
95 95 void qq_send_packet_get_level(GaimConnection *gc, guint32 uid);
96 + /*
97 void qq_send_packet_get_buddies_levels(GaimConnection *gc);
98 + */
```

Rob Cordry [#permalink | 15 February 2007, 23:28] Ranking: Minor Classification: Missing **DEFECT** Reply

If we're going to comment stuff out, I think a comment as to why would be warranted

Stephen Colbert [21 February 2007, 23:43] Edit Delete

Actually this could be deleted.

```
97 99 void qq_process_get_level_reply(guint8 *buf, gint buf_len, GaimConnection *gc);
98 100
99 101 #endif
```

/trunk/libgaim/protocols/qq/buddy_info.c 18179 **MODIFIED**

Add a revision comment (click on source to add inline comment)

```
1 /**
2  * #file buddy_info.c
3  *
```

- To add a comment that applies to the whole review, click the 'Add a new general comment' link.
- To add a comment to a revision/change, expand the specific source by clicking the toggle triangle then click 'Add a revision comment'.
- To add a source-level comment, expand the source view then click a line of code. You can click and drag to select multiple lines from one revision or diff, or click individual lines to select/deselect them. The comment will appear in the source at the last line selected. Hover over the comment to highlight the selected lines.
- To reply to a comment, click the 'Reply' button on the right-hand top corner of any comment.

Draft Comments

You can save your comments as drafts and then edit them later. When you complete the review, you will be prompted to post/discard/edit remaining draft comments.

Screenshot: Draft comments



CR-5 Disable get_buddies_levels()

Jon Stewart **AUTH** **MOD**, Rob Cordry, Bill O'Reilly, Stephen Colbert.

under review
4 comments
Open for 46 days

I believe there's a bug in the get_buddies_levels() code that I don't have time to find. Temporarily disable it.

Warning - You have draft comments in this review

Rob Cordry [#permalink | 03 April 2007, 20:08] DRAFT Reply Edit Delete Post

I dont think this code is correct.

Please post any comments you want to keep, then press *Confirm Complete*

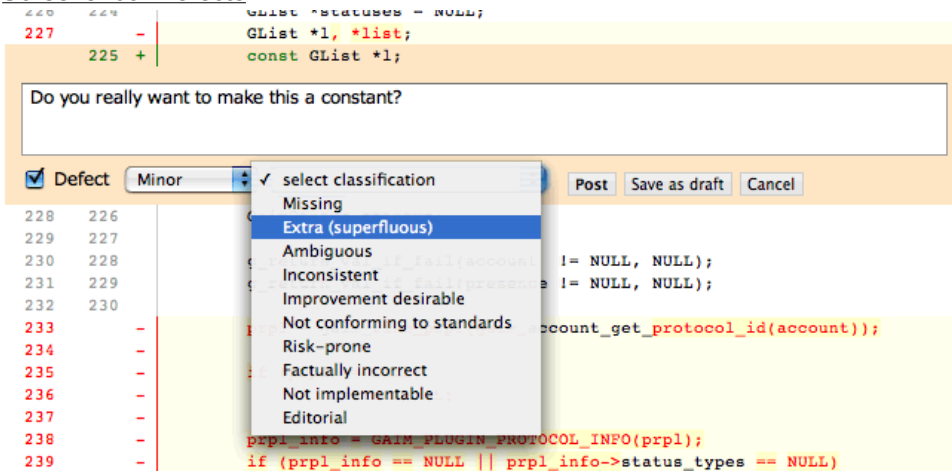
Confirm Complete Cancel (Return to Review)

2.3.2 Flagging Defects

This page last changed on Oct 14, 2007 by [smaddox](#).

Any [comment](#) that is not a reply to an existing comment can be flagged as a defect by its author.

Screenshot: Defects



You may want to mark comments as defects to associate defect classifications, or simply to highlight to the [author](#) or [moderator](#) that the issue you raised in your comment requires attention. Crucible intentionally does not mandate how defects are to be used.



The administrator can [customise the defect classifications](#).

2.3.3 Completing your Review

This page last changed on Oct 14, 2007 by [smaddox](#).

Once the [reviewer](#) has added [comments](#) to the review and has nothing further to add, the next step is to Complete their review.

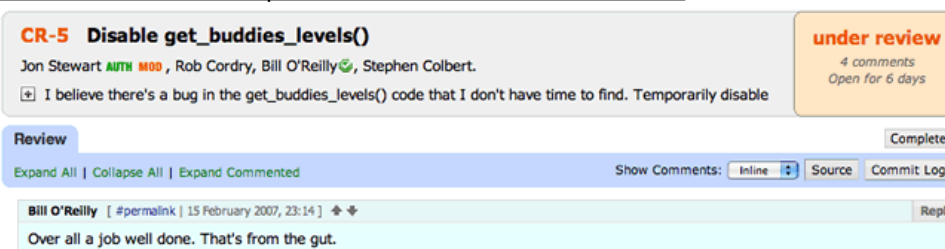
To complete your review,

- either click the 'Complete' link at bottom right of the [Dashboard](#),
- or click the 'Complete' button at far right of the 'Review' screen.

Screenshot: The 'Complete' link on the Dashboard



Screenshot: The 'Complete' button on the Review screen



This notifies the [moderator](#) (via email if configured) that you have completed your review.

Reviewers can still continue to add comments until the moderator [summarises](#) the review. The moderator does not have to wait for all reviewers to complete their reviews before summarising.

If you have any draft comments, you will be prompted to post/discard/edit any comments before completing the review.


Screenshot: Draft comments



2.4 Summarising and Closing the Review

This page last changed on Oct 14, 2007 by [smaddox](#).

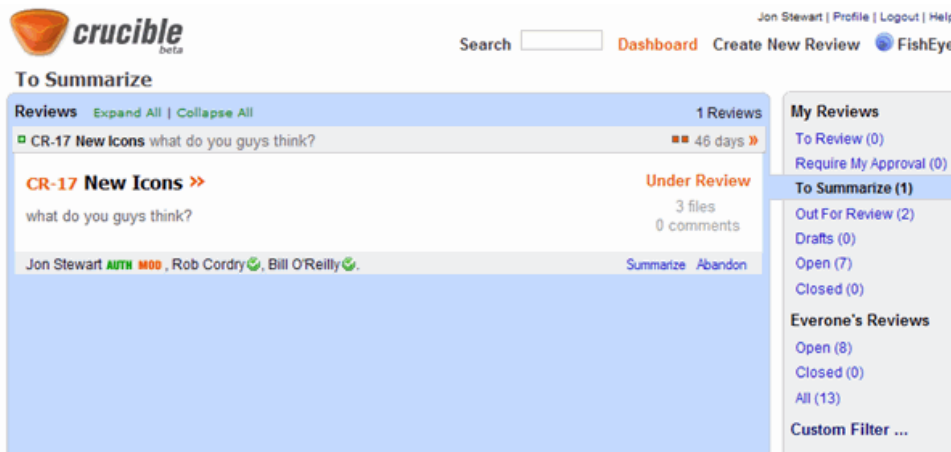
As the [moderator](#), you can choose to summarise a review at any time.

 Normally, we recommend that you wait for all reviewers to [complete their reviews](#).

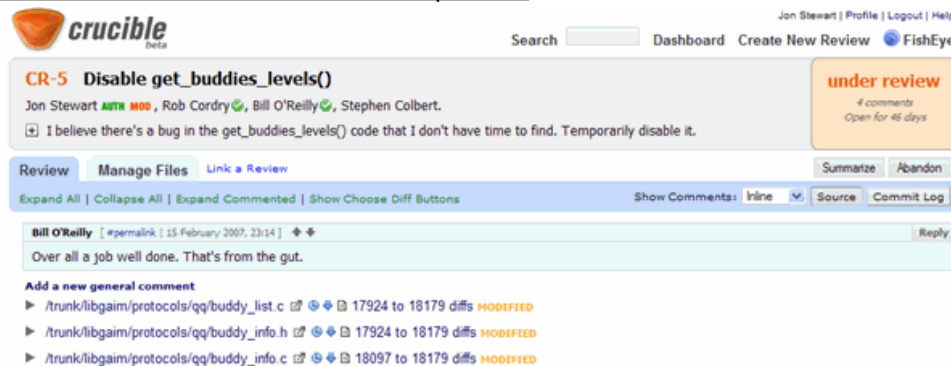
The reviews that the reviewers have completed will be in the 'To Summarize' menu on the [Dashboard](#). There are two ways to summarise a review:


- Either click the 'Summarize' link at bottom right of the review,
- Or preview the review, review the comments and then click on the 'Summarize' button.

Screenshot: 'Summarize' link on Review screen




Screenshot: 'Summarize' button on preview



 The above review is not yet complete

We can see that Stephen Colbert has still not finished reviewing, because there is no green tick next to his name.

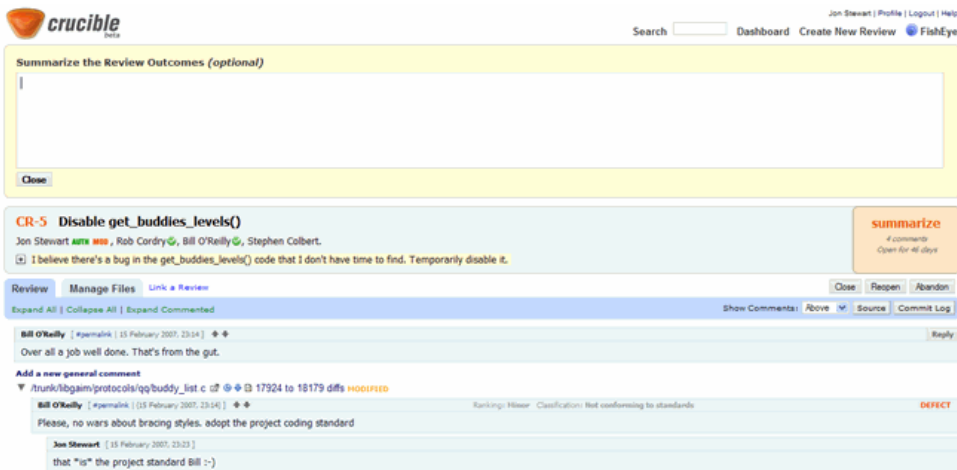
On clicking 'Summarize', the moderator may be prompted to confirm the action if there are incomplete reviews or draft comments in the review.

 The requests for confirmation are warnings only

The review can still be summarised and closed.

Once the review is in the 'Summarize' [state](#), the moderator can optionally add a review summary, i.e. describe the outcomes/tasks/etc.

Screenshot: Review summary



The summary is sent to all participants and displayed at the top of the closed review.

The moderator is the only participant who can add comments in 'Summarize' state. This gives the moderator the responsibility of the 'last word'.

Reviews in 'Summarize' state can be closed.

Reviews in 'Summarize' or 'Closed' state can be re-opened. Re-opening changes the review's state back to 'Under Review', allowing all participants to add comments.



Re-opening a review is not the recommended way to 're-review'. You should create a new review with the reworked changes and link it to its parent review.

3. Changing your User Profile

This page last changed on Oct 15, 2007 by [smaddox](#).

Users can change Crucible settings such as passwords, notifications and display settings.

To view your user profile, log into Crucible and click the 'Profile' link at the top of the screen.

Screenshot: Profile



FishEye > Profile

Display settings | Email | Change Password | Author mapping | Watches | Reviews

Send Notifications on

State change: ☒ Yes ☐ No

Comment added: ☒ Yes ☐ No

Participant finished: ☒ Yes ☐ No

General message: ☒ Yes ☐ No

My actions: ☐ Yes ☒ No

(emails sent to sam@nosspam.com)

save

Refer to the [FishEye documentation](#) for information about the tabs labelled 'Display settings', 'Email', 'Change Password' and 'Watches'.



Click 'Save'

Always click the 'Save' button after making any changes.

Reviews Tab

If the SMTP server is set up, then you will receive emails when different actions occur within Crucible.

You can change the options described below, to specify the stages at which emails will be sent.

State change	Default is 'Yes'. A Crucible review moves through different states e.g: 'Draft', 'Under Review'. An email is sent when the state changes.
Comment added	Default is 'Yes'. An email is sent when a comment is added to a review.
Participant finished	Default is 'Yes'. An email is sent when any reviewer has completed their review .
General message	Default is 'Yes'. An email is sent when a reviewer is added or removed from a review, after it has gone into the 'Under Review' state .
My actions	Default is 'No'. If set to 'Yes', an email is sent every time you perform an action on a review.

Author Mapping Tab

The 'Author mapping' tab allows you to make an association between you (as a logged-in [user](#) in Crucible) and an [author](#) in each repository.

This is only necessary if the name of the user within Crucible is different to the name within the repository. Crucible will by default check to see whether the usernames match.

Glossary

This page last changed on Oct 10, 2007 by [smaddox](#).

Code review takes many forms and has many names. For conciseness, Crucible has adopted the following terms and meanings:

[approve](#)

[author](#)

[code review](#)

[comment](#)

[creator](#)

[defect](#)

[moderator](#)

[reviewer](#)

[role](#)

[state](#)

[statement of objective](#)

[user](#)

approve

This page last changed on Oct 14, 2007 by [smaddox](#).

[Issuing a review to the reviewers](#) is known as approving the review.

author

This page last changed on Oct 10, 2007 by [smaddox](#).

The author is the person primarily responsible for acting on the outcomes of the review. In the vast majority of cases the author will be the person who made the change under review.

code review

This page last changed on Oct 15, 2007 by [smaddox](#).

Without prejudice to 'code inspection', 'peer review' or a myriad of other terms, Crucible uses the phrase code review for simplicity.

See [About Crucible](#) and [Background Reading](#).

comment

This page last changed on Oct 15, 2007 by [smaddox](#).

A comment is a short textual note that is linked to a review, revision/diff, source line, or to another comment.

See [2.3.1 Adding Comments](#).

creator

This page last changed on Oct 15, 2007 by [smaddox](#).

The creator is the person who [creates the review](#). In most cases this role will be undertaken by the [moderator](#).

defect

This page last changed on Oct 15, 2007 by [smaddox](#).

A defect is a comment flagged as something that requires addressing and includes optional defect classifications.

See [Flagging Defects](#) and [Customising the Defect Classifications](#).

moderator

This page last changed on Oct 15, 2007 by [smaddox](#).

The moderator is the person responsible for [creating](#) the review, [approving](#) the review, determining when reviewing is finished, [summarising](#) the outcomes and [closing](#) the review. By default, the moderator is the [creator](#).

reviewer

This page last changed on Oct 15, 2007 by [smaddox](#).

A reviewer is a person assigned to [review the change](#). Reviewers can make [comments](#) and indicate when they have [completed their review](#). The [moderator](#) and [author](#) are implicitly considered reviewers.

role

This page last changed on Oct 10, 2007 by [smaddox](#).


Crucible uses the terms [creator](#), [author](#), [moderator](#), and [reviewer](#) to describe the roles of review participants.

state

This page last changed on Oct 15, 2007 by [smaddox](#).

A Crucible review moves through the following states in the following sequence:

Draft	See Creating a Review .
Require Approval	Relevant only when the moderator is not the creator . See Issuing a Review .
Under Review	See Issuing a Review and Reviewing the Code .
Summarize	See Summarising and Closing the Review .
Closed	See Summarising and Closing the Review .

 Reviews can be re-opened, i.e. moved from Summarize or Closed back to Under Review.

A review may also be in the following states:

Abandoned	This happens when a review is deleted.
Rejected	Any reviews that a moderator has rejected.

statement of objective

This page last changed on Oct 10, 2007 by [smaddox](#).

A statement of objective is an optional text description of the review and any specific areas the [reviewers](#) should focus on.

user

This page last changed on Oct 10, 2007 by [smaddox](#).

A user is a person using Crucible.

__newreleaseCrucible

This page last changed on Oct 04, 2007 by [smaddox](#).



Crucible 1.1.2 has now been released. See the bug fixes and improvements in the [changelog](#).

TreeNavigation

This page last changed on Oct 04, 2007 by [smaddox](#).

[Index](#)