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# Getting Started

## Supported Platforms

This page shows the supported platforms for **Crucible 2.9.x** and its minor releases.

**Key:** ✔️ = Supported; ✗ = Not Supported

<table>
<thead>
<tr>
<th><strong>Java Version</strong></th>
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| JRE / JDK (1)    | ✔️ 1.6  
                       | ✔️ 1.7 |

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<td>✔️</td>
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<tr>
<td>Linux (2)</td>
<td>✔️</td>
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<tr>
<td>Apple Mac OS X (2)</td>
<td>✔️</td>
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<tr>
<th><strong>Databases</strong></th>
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</table>
| MySQL         | ✔️ MySQL Enterprise Server 5.x  
                       | ✔️ MySQL Community Server 5.x  
                       For 5.0, version must be 5.0.21 or later  
                       For 5.1, version must be 5.1.10 or later |
| PostgreSQL    | ✔️ 8.2, 8.3, 8.4 |
| Oracle        | ✔️ 11g |
| HSQLDB (3)    | ✔️ (bundled; for evaluation use only) |

<table>
<thead>
<tr>
<th><strong>Web Browsers</strong></th>
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| Microsoft Internet Explorer | ✔️ 8.0, 9.0  
                       | ✗ 6.0 and 7.0 are not supported |
| Mozilla Firefox  | ✔️ Latest stable version supported  
                       | ✔️ 3.6, 4.0 |
| Safari           | ✔️ Latest stable version supported  
                       | ✔️ 4, 5 |
| Chrome           | ✔️ Latest stable version supported |

## Version Control Systems
Subversion (SVN) | ✔ Server 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7
| The client uses SVNkit or native JavaHL.

CVS (and CVSNT) | ✔ All versions

Perforce (P4) | ✔ Client version 2007.3 or later
| ✔ Server version 2005.1 or later. The Server must support the ztag tagged protocol.

Git | ✔ 1.7.1.1 or later

Mercurial (Hg) | ✔ 1.5.1 or later

**NOTE**: Mercurial 2.1 has a bug that makes it incompatible with Crucible. Please use Mercurial 2.1.1 or later.

**Supported Platform Notes**

1. Crucible requires **Java Runtime** (JDK or JRE), version as noted in the table above. Pre-release/Early access versions of the Java Runtime are not supported.

You can [download](#) a Java Runtime for Windows/Linux/Solaris. On Mac OS X, the JDK is bundled with the operating system. **Note**: We highly recommend that you use the Oracle JVM (or use the default Mac OS X JVM), as other implementations have not been tested. Please note:

- Once you have installed the JDK, you need to set the JAVA_HOME environment variable. See [Installing Crucible on Windows](#) or [Installing Crucible on Linux and Mac](#) for details.
- If you are using a 64-bit JVM, please ensure that you’ve set your max heap size (\(--\text{Xmx}\) to a reasonable value, considering the RAM requirements of your system.

2. Crucible is a pure Java application and should run on any platform provided the requirements for the JRE or JDK are satisfied.

3. The Crucible built-in database, running HSQLDB is somewhat susceptible to data loss during system crashes. We recommend that you do not use HSQLDB for production systems. External databases are generally more resistant to data loss during a system crash and are more suited for production use.

FishEye also supports a number of external databases, as noted in the table above. See the [Crucible Database documentation](#) for further details.

**Deployment Notes for Source Code Repositories**

Crucible can also store uploaded files in its own database, removing the need for any kind of repository. A number of external databases are supported when Crucible is used with FishEye. See the [FishEye Supported Platforms](#).

**End of Support Announcements for Crucible**

This page contains announcements of the end of support for various platforms and browsers when used with Crucible. This is summarised in the table below. Please see the sections following for the full announcements.
The table above summarises information regarding the end of support announcements for upcoming Crucible releases. If a platform (version) has already reached its end of support date, it is not listed in the table.

### Why is Atlassian ending support for these platforms?

Atlassian is committed to delivering improvements and bug fixes as fast as possible. We are also committed to providing world class support for all the platforms our customers run our software on. However, as the complexity of our applications grows, the cost of supporting multiple platforms increases exponentially. Each new feature has to be tested on several combinations of application servers, databases, web browsers, etc, with setup and ongoing maintenance of automated tests. Moving forward, we want to reduce the time spent there to increase Crucible development speed significantly.

---

### On this page (most recent announcements first):

- Deprecated Database Support for Crucible (4 October 2011)
- Deprecated Web Browsers for Crucible (21 March 2011)
- Deprecated Java Platforms for Crucible (21 March 2011)
- Deprecated SCM Repository Support for Crucible (4 April 2011)

### Deprecated Database Support for Crucible (4 October 2011)

This section announces the end of Atlassian support for certain databases for Crucible.

We will *stop supporting older versions of databases as follows*:

- For the next major version of Crucible, in January 2012, support for MySQL 5.0, PostgreSQL 8.0 and 8.1 will end.

Please refer to the [Supported Platforms](#) for more details regarding platform support for Crucible. If you have questions or concerns regarding these announcements, please email [eol-announcement at atlassian dot com](mailto:eol-announcement@atlassian.com).

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<tr>
<td>PostgreSQL 8.0 and 8.1</td>
<td>January 2012</td>
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### End of Support Notes for MySQL 5.0 and PostgreSQL 8.0 and 8.1:

- Atlassian intends to end of life support for MySQL 5.0, PostgreSQL 8.0 and 8.1 in January 2012. The release of Crucible after January 2012 will not support MySQL 5.0, PostgreSQL 8.0 or 8.1.
- As mentioned above, the releases of Crucible before January 2012 will contain support for MySQL 5.0 and PostgreSQL 8.0 and 8.1.
Deprecated Web Browsers for Crucible (21 March 2011)

This section announces the end of Atlassian support for certain web browsers for Crucible.

We will **stop supporting older versions of web browsers** as follows:

- From Crucible 2.6, due in May 2011, support for Internet Explorer 7 will end.

The details are below. Please refer to the [Supported Platforms](#) for more details regarding platform support for Crucible. If you have questions or concerns regarding this announcement, please email eol-announcement at atlassian dot com.

### End of Life Announcement for Web Browser Support

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<td>When Crucible 2.6 releases (target May 2011)</td>
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**Internet Explorer 7 Notes:**

- Crucible 2.5 is the last version to officially support Internet Explorer 7.
- Crucible 2.6 is currently targeted to release in May 2011 and will not be tested with Internet Explorer 7. After the Crucible 2.6 release, Atlassian will not provide fixes in older versions of Crucible for bugs affecting Internet Explorer 7.

Deprecated Java Platforms for Crucible (21 March 2011)

This section announces the end of Atlassian support for certain Java Platforms for Crucible.

We will **stop supporting the following Java Platforms:**

- From Crucible 2.6, due in May 2011, support for Java Platform 5 (JDK/JRE 1.5) will end.

We are ending support for Java Platform 5, in line with Sun's Java SE Support Road Map (i.e. "End of Service Life" for Java Platform 5 dated October 30, 2009). We are committed to helping our customers understand this decision and assist them in updating to Java Platform 6, our supported Java Platform.

The details are below. Please refer to the [Supported Platforms](#) for more details regarding platform support for Crucible. If you have questions or concerns regarding this announcement, please email eol-announcement at atlassian dot com.

### End of Life Announcement for Java Platform Support

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<td>Java Platform 5 (JDK/JRE 1.5)</td>
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**Java Platform 5 End of Support Notes:**

- Crucible 2.5 is the last version to officially support Java Platform 5 (JDK/JRE 1.5).
- Crucible 2.6 is currently targeted to release in May 2011 and will not be tested with Java Platform 5 (JDK/JRE 1.5). After the Crucible 2.6 release, Atlassian will not provide fixes in older versions of Crucible for bugs affecting Java Platform 5 (JDK/JRE 1.5).
Deprecated SCM Repository Support for Crucible (4 April 2011)

This section announces the end of Atlassian support for certain SCM repositories for Crucible. End of support means that Atlassian will remove all functionality related to certain SCM repositories past the specified date. Releases before that date will contain the functionality that supports the SCM, however, Atlassian will fix only critical bugs that affect functionality for that SCM, and will not add any new features for that SCM.

Please refer to the Supported Platforms for more details regarding platform support for Crucible. If you have questions or concerns regarding these announcements, please email eol-announcement at atlassian dot com.

<table>
<thead>
<tr>
<th>SCM Repository</th>
<th>Support End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM ClearCase (all versions)</td>
<td>4 April 2012</td>
</tr>
</tbody>
</table>

IBM ClearCase End of Support Notes:

- Atlassian intends to end of life IBM ClearCase functionality on 4 April 2012. The release of Crucible after 4 April 2012 will not contain any IBM ClearCase functionality.
- As mentioned above, the releases of Crucible before 4 April 2012 will contain support for IBM ClearCase. However, we will only be fixing critical bugs related to IBM ClearCase and will not be adding any feature.

End of Support Announcement for IBM ClearCase

Support in Crucible for IBM ClearCase ended on April 4th 2012. Crucible 2.8, and later versions, do not have support for ClearCase.

We have made these decisions to reduce the testing time required for each release and to help us to deliver market-driven features faster.

You can stay on older versions of Crucible to support your existing installations with ClearCase. However, Atlassian will remove all functionality related to ClearCase, from Crucible versions released after April 4th 2012. We are committed to helping our customers understand this decision and to assist you in migrating to a different SCM, if needed.

For more details about the announcement, please refer to this page: End of Support Announcements for Crucible.

Installing Crucible on Windows

Hey! We're going to perform a clean install of Crucible on Windows. There are a few steps involved, but we think you'll find it easy to follow along.

If you already have FishEye installed, you should read Upgrading from FishEye to Crucible instead.

1. Check supported platforms

Better check the Supported Platforms page first; it lists the application servers, databases, operating systems, web browsers and JDKs that we have tested Crucible with, and that we recommend.

Atlassian only officially supports Crucible running on x86 hardware and 64-bit derivatives of x86 hardware.
2. Check your version of Java

In a command prompt, run this:

```
java -version
```

The version of Java should be 1.6.0 or higher. If you intend to Running Crucible as a Windows service, using the Java Service Wrapper, you should use 32-bit Java (even on a 64-bit machine), and the JDK rather than the JRE (so as to take advantage of the -server parameter).

⚠️ If you don't see Java 1.6.0 or higher, then get Java...

Download and install the Java Platform JDK from Oracle's website.

⚠️ The Java install path should not contain spaces, so don't install into C:\Program Files\Java. Instead, use a path like C:\Java.

Now try running `java -version` again to check the installation. The version of Java should be 1.6.0 or higher.

3. Check that Windows can find Java

Windows uses the JAVA_HOME environment variable to find Java. To check that, in a new command prompt, run:

```
echo %JAVA_HOME%
```

You should see a path to the Java install location that does not contain spaces. We recommend that JAVA_HOME should point to the Java executable in your PATH.

⚠️ If you don't see a path without spaces...
1. If you see a path with spaces, like C:\Program Files\Java\, then sorry, but go back to 2. and reinstall Java to a location that doesn't have spaces.

2. If you don't see a path at all, or if you just see %JAVA_HOME%, then set JAVA_HOME as follows:

   **For Windows 7:**
   1. Go to Start, search for "sys env" and choose **Edit the system environment variables**.
   2. Click **Environment Variables**, and then **New** under 'System variables'.
   3. Enter "JAVA_HOME" as the **Variable name**, and the absolute path to where you installed Java as the **Variable value**. Don't use a trailing backslash. We recommend that JAVA_HOME should point to the Java executable in your PATH.
   4. Now, in a new command prompt, try running '%JAVA_HOME%\bin\java -version'. You should see the same version of Java as you saw above.

4. **Create a dedicated Crucible user (recommended)**

   For production installations, we recommend that you create a new dedicated Windows user that will run Crucible on your system. This user:
   
   - Should not have admin privileges.
   - Should be a non-privileged user with read, write and execute access on the Crucible home (install) directory and instance (data) directory. These directories are described below.
   - Should only have read access to your repositories.

   If you created a dedicated Crucible user, ensure you are logged in as this user to complete the remaining instructions.

5. **Now it's time to get Crucible**

   **Download Crucible** from the Atlassian download site.

   Extract the downloaded file to an install location:

   - Folder names in the path to your Crucible executable should not have spaces in them. The path to the extracted directory is referred to as the <FishEye home directory> in these instructions, for compatibility with the FishEye install instructions.
   - If you expect to have a large number of users for this Crucible installation, and Crucible will be connected to an external database, consider installing Crucible on a different server from the one running the external database, for improved performance.

6. **Tell Crucible where to store your data**

   The Crucible instance directory is where your Crucible data is stored.

   **You should not** locate your Crucible instance directory inside the <FishEye home directory> — these should be entirely separate locations. If you do put the instance directory in the <FishEye home directory> it will be overwritten, and lost, when Crucible gets upgraded. And by the way, you'll need separate Crucible instance directories if you want to run multiple copies of Crucible.

   Create your Crucible instance directory, and then tell Crucible where you created it by setting a FISHEYE_INST environment variable, as follows:

   **For Windows 7:**
   1. Go to Start, search for "sys env" and choose **Edit the system environment variables**.
   2. Click **Environment Variables**, and then **New** under 'System variables'.
3. Enter "FISHEYE_INST" as the **Variable name**, and the absolute path to your new Crucible instance directory as the **Variable value**. Don't use a trailing backslash.

4. Now copy the newly extracted `<FishEye home directory>\config.xml` file to the root of your new FishEye instance directory.

Note that if Crucible is run as a Windows service using the Java Service Wrapper, Crucible-specific environment variables such as FISHEYE_INST are ignored – these must be set in the wrapper.conf file. See [Running Crucible as a Windows service](#)

If you have a large number of repositories, we recommend you increase the default number of files that Crucible is allowed to open. See the following knowledge base article for more info: [Subversion Indexer Paused with "Too many open files" Error](#).

### 7. Start Crucible!

In a command prompt, change directory to `<FishEye home directory>` and run this:

```
bin\start.bat
```

After a few moments, in a web browser on the same machine, go to [http://localhost:8060/](http://localhost:8060/) (or, from another machine, type [http://hostname:8060/](http://hostname:8060/), where hostname is the name of the machine where you extracted Crucible).

Enter your license, then an admin password, to finish the setup.

You can postpone setting up JIRA integration until later if you wish; see [Configuring JIRA integration in the Setup Wizard](#).

### 8. Connect to an external database (recommended)

If you intend to use this Crucible installation in a production environment, it is highly recommended that you use one of the supported external databases. See [Migrating to an external database](#).

If you are evaluating Crucible, or don't wish to do this now, Crucible will happily use its embedded database, and you can easily migrate later.

### 9. Set up your mail server

Configure the Crucible email server so that users can get notifications from Crucible. See [Configuring SMTP](#).

### 10. Add users and repositories

Now is the time to set up your users in Crucible, and to tell Crucible about any existing repositories you have. Please read [Starting to use Crucible](#) for the details.

Crucible will perform an initial index of your repositories, during which it accesses, indexes and organises a view of your repositories (including all historical items) back to the earliest commits. If you are evaluating Crucible, we suggest that you index a single project, so you can use Crucible as soon as possible. If you choose to index your entire repository, be aware that this can take a long time (possibly days) for massive or complex repositories and can be more complex to set up (especially for Subversion). The basic process is slightly different for each SCM type.

### 11. Stop Crucible (optional)

In a command prompt, change directory to `<FishEye home directory>` and run this:
Running Crucible as a Windows service
Crucible can be run as a service under Microsoft Windows using a Java Service Wrapper.

The service wrapper provides the following benefits:

- Allows Crucible, which is a Java application, to be run as a Windows Service.
- No need for a user to be logged on to the system at all times, or for a command prompt to be open and running on the desktop to be able to run Crucible.
- The ability to run Crucible in the background as a service, for improved convenience, system performance and security.
- Crucible is launched automatically on system startup and does not require that a user be logged in.
- Users are not able to stop, start, or otherwise tamper with Crucible unless they are an administrator.
- Provides advanced failover, error recovery, and analysis features to make sure that Crucible has the maximum possible uptime.

⚠️ Please note that:

- This page should be read in conjunction with Installing Crucible on Windows.
- You should use 32-bit Java to run the service wrapper provided via the link in the install instructions below, even on a 64-bit machine.
- You should use the Java JDK, rather than the JRE, to take advantage of the -server parameter, provided in the Wrapper configuration of wrapper.zip, which enables the Java HotSpot(TM) Server VM. See the note below for details.

### On this page:

- Installing the Java Service Wrapper
- Setting Crucible environment variables for Windows Services
- Troubleshooting
  - Extracting files from wrapper.zip
  - Warning when using 64-bit Java JDK
  - Wrapper configuration and "-server" parameter

### Related pages:

- Installing Crucible on Windows

## Installing the Java Service Wrapper

To install the Java Service Wrapper on Windows:

1. Download wrapper.zip from [here](#).
2. Unzip the wrapper zip file into your FishEye home directory (that is, the directory into which Crucible was originally installed). Note, the resulting folder structure should be FishEye home directory\wrapper\FishEye home directory\wrapper\<FishEye home directory>\wrapper\<FishEye home directory>\wrapper\<FishEye home directory>\wrapper\wrapper\bin, etc and NOT FishEye home directory\wrapper\FishEye home directory\wrapper\<FishEye home directory>\wrapper\wrapper\wrapper\bin. The location of the wrapper directory is important.
3. Tell the wrapper where to find the Java JDK by editing the <FishEye home directory>\wrapper\conf\wrapper.conf file, replacing this:
# Java Application

```<br>with the following, and comment out the option you don't wish to use:<br>```<br><br>```<br># Java Application<br><br># Option 1: If you have JAVA_HOME defined in your Windows system environment variables, then you can use:<br>wrapper.java.command=%JAVA_HOME%/bin/java<br><br># Option 2: If you have multiple JDKs installed, and you don't want to use a Windows environment variable to specify which one to use, provide the absolute path to where the JDK is installed (e.g. C:/Java/jdk1.7.0_05/bin/java):<br>wrapper.java.command=C:/<path to Java location>/bin/java<br><br>To get confirmation in the wrapper log that the wrapper is using the correct Java JDK, add the following lines to the wrapper.conf file:<br>```<br><br>```<br># Tell the Wrapper to log the full generated Java command line.<br>wrapper.java.command.loglevel=INF<br><br>You can find the logs at <FishEye home directory>/var/log/wrapper.log.<br>```<br><br>4. Set the FISHEYE_INST environment variable (and other Crucible-specific environment variables) in the <FishEye home directory>/wrapper/conf/wrapper.conf file, following the instructions below. 5. Install Crucible as a service as follows:<br>   a. Open an Administrator command prompt by searching for 'Command prompt' in the Windows Start menu, right-clicking on **Command Prompt** and then choosing Run as administrator.<br>   b. Change directory to <FishEye home directory>/wrapper and run bin/Fisheye-Install-NTService.bat. If you run into any problems starting the wrapper, you’ll find its logs in <FishEye home directory>/var/log/wrapper.log.<br>6. Start the Crucible service (which has the name ‘Fisheye’) from the Windows Control Panel; you can search in the Start menu for ‘services’, and in the list of services, right-click on the ‘Fisheye’ item and choose **Start**. You can also stop the Crucible service in this way.  

Please note that:<br>  - If you make changes to the wrapper.conf file, having already started the service, you need to stop and then restart the service for it to make use of the changed configuration.<br>  - If in future you move the FishEye home directory, you will need to uninstall (using Fisheye-Uninstall-NTService.bat) and then reinstall the Crucible service.<br><br>**Setting Crucible environment variables for Windows Services**

Please note, that if you run Crucible as a Windows service, any Crucible-specific environment variables must be set in your <FishEye home directory>/wrapper/conf/wrapper.conf file.
If you run into any problems starting the wrapper, you’ll find its logs in `<FishEye home directory>\var\log\wrapper.log`.

If there are other Java parameters you wish to add, then you will need to add them under the additional parameters section, e.g.

```java
# JDK Additional Parameters for jmx
wrapper.java.additional.4=-Dcom.sun.management.jmxremote
wrapper.java.additional.5=-Dcom.sun.management.jmxremote.port=4242
wrapper.java.additional.6=-Dcom.sun.management.jmxremote.authenticate=false
wrapper.java.additional.7=-Dcom.sun.management.jmxremote.ssl=false
wrapper.java.additional.8=-Dcom.sun.management.jmxremote.authenticate=false
wrapper.java.additional.9=-Dcom.sun.management.jmxremote.password.file=../wrapper/jmxremote.password
wrapper.java.additional.10=-Dwrapper.mbean.name="wrapper:type=Java Service Wrapper Control"
```

To add the FISHEYE_INST environment variable, the Java MaxPermSize parameter, or the -Xrs options, use the following:

```java
wrapper.java.additional.11=-Dfisheye.inst="c:/path/to/FISHEYE_INST"
wrapper.java.additional.12=-XX:MaxPermSize=128m
wrapper.java.additional.13=-Xrs
```

Note that the the -Xrs options should be used when running Crucible as a service under Windows to prevent the JVM closing when an interactive user logs out.

Your memory settings can also be found in this file:

```java
# Initial Java Heap Size (in MB)
wrapper.java.initmemory=256

# Maximum Java Heap Size (in MB)
wrapper.java.maxmemory=1024
```

Increase these values if you have a large repository or expect to use more memory (init of 256, and a max of 1024 are the default values).

In Fisheye/Crucible 1.6.4 and higher, you can check the JVM input arguments by clicking System info, under 'System Settings' in the admin area.

**Troubleshooting**

**Extracting files from wrapper.zip**

Some customers have reported trouble running the wrapper. These can be avoided by:

- Uncompressing wrapper.zip with Winzip or WinRar rather than using the Extract All command in the
Windows right-click contextual menu.

- If the wrapper.zip filename appears green instead of black in Windows Explorer, decrypt it, prior to unzipping its contents, by right-clicking on the file, choose Properties, click the Advanced button, then clear the Encrypt contents to secure data checkbox.

**Warning when using 64-bit Java JDK**

When using a 64-bit Java JDK with the wrapper obtained via the link in the install instructions above, you may see the following in the wrapper.log file:

```
WARNING - Unable to load the Wrapper's native library 'wrapper.dll'. The file is located on the path at the following location but could not be loaded:
C:\installs\service\fisheye28\wrapper\lib\wrapper.dll.
Please verify that the file is readable by the current user and that the file has not been corrupted in any way. System signals will not be handled correctly.
```

This is caused by using a 64-bit JDK (even on a 64-bit machine). Changing to a 32-bit version of the JDK will prevent this warning. Community Edition versions of the 64-bit Windows Java Service Wrapper are not currently available.

**Wrapper configuration and “-server” parameter**

Please note that the wrapper configuration provided above uses the -server parameter to enable the Java HotSpot(TM) Server VM. This feature is only available if you use the JDK. If you use the JRE you will likely get the following error in your logs:

```
INFO | jvm 1 | 2010/12/20 18:19:28 | Error: missing `server' JVM at `C:\Program Files\Java\jre6\bin\server\jvm.dll'.
```

A common issue is that customers remove the -server parameter from the wrapper.conf file. Please note that if you do this, the wrapper script will ignore any of the following JVM parameters in the file unless you change the sequence to be in order, starting from wrapper.java.additional.1. This is an issue with the Wrapper application.

In this situation it’s best to install and run Fisheye/Crucible with the JDK to get all the advantages of the -serve functionality. You also need to force the wrapper to use the JDK by specifying the path to the Java JDK in the wrapper.conf file, as described in the installation instructions above.

**Installing Crucible on Linux and Mac**

Hey! We’re going to install Crucible on a Linux box, or a Mac. There are a few steps involved, but we think you’ll find it easy to follow along. If you already have FishEye installed, you should read Upgrading from FishEye to Crucible instead.

1. **Check supported platforms**

Better check the Supported Platforms page first; it lists the application servers, databases, operating systems, web browsers and JDKs that we have tested Crucible with, and that we recommend.

Atlassian only officially supports Crucible running on x86 hardware and 64-bit derivatives of x86 hardware.

**Related pages:**

- Installing Crucible on Windows
- Starting to use Crucible
- Supported Platforms
2. Check your version of Java

In a terminal, run this:

```java
java -version
```

The version of Java should be **1.6.0** or higher.

If you don’t see Java 1.6.0 or higher, then get Java...

Download and install the Java Platform JDK from [Oracle's website](http://www.oracle.com).

Now try running `java -version` again to check the installation. The version of Java should be **1.6.0** or higher.

3. Check that the system can find Java

In a terminal, run this:

```bash
echo $JAVA_HOME
```

You should see a path like `/System/Library/Frameworks/JavaVM.framework/Versions/CurrentJDK/Home/`.

If you don’t see a path to the Java location, then set `JAVA_HOME`...
### Linux

Do either of the following:

- If `JAVA_HOME` is not set, log in with 'root' level permissions and run:

```bash
echo JAVA_HOME="path/to/JAVA_HOME" >> /etc/environment
```

**where** `path/to/JAVA_HOME` **may be like**: `/System/Library/Frameworks/JavaVM.framework/Versions/CurrentJDK/Home/`

- If `JAVA_HOME` needs to be changed, open the `/etc/environment` file in a text editor and modify the value for `JAVA_HOME` to:

```bash
JAVA_HOME="path/to/JAVA_HOME"
```

It should look like:

```bash
JAVA_HOME=/System/Library/Frameworks/JavaVM.framework/Versions/CurrentJDK/Home/
```

### Mac

Insert the following in your `~/.profile` file:

```
JAVA_HOME="path/to/JAVA_HOME"
export JAVA_HOME
```

**where** `path/to/JAVA_HOME` **may be like**: `/System/Library/Frameworks/JavaVM.framework/Versions/CurrentJDK/Home/

Refresh your `~/.profile` in the terminal and confirm that `JAVA_HOME` is set:

```bash
source ~/.profile
$JAVA_HOME/bin/java -version
```

You should see a version of Java that is **1.6.0** or higher, like this:

```
java version "1.6.0_24"
```

### 4. Create a dedicated Crucible user (recommended)

For production installations, we recommend that you create a new dedicated user that will run Crucible on your system. This user:

- Should not have admin privileges.
- Should be a non-privileged user with read, write and execute access on the Crucible home (install) directory and instance (data) directory. These directories are described below.
- Should only have read access to your repositories.

If you created a dedicated Crucible user, ensure you are logged in as this user to complete the remaining instructions.

### 5. Now it’s time to get Crucible

**Download Crucible** from the Atlassian download site.

Extract the downloaded file to an install location:

- Folder names in the path to your Crucible executable should not have spaces in them. The path to the extracted directory is referred to as the `<FishEye home directory>` in these instructions, for consistency with the [FishEye documentation](https://confluence.atlassian.com/display/FISHYE/Install+Guide+for+Linux+and+Mac+OS+X+Customer+Edition).  
- If you expect to have a large number of users for this Crucible installation, and Crucible will be connected to an external database, consider installing Crucible on a different server from the one running the external database, for improved performance.
6. Tell Crucible where to store your data

The Crucible instance directory is where your Crucible data is stored.

1. Create your Crucible instance directory.
2. Tell Crucible where you created it by adding a FISHEYE_INST environment variable as follows:

<table>
<thead>
<tr>
<th>Linux</th>
<th>Mac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open the /etc/environment file in a text editor and insert: FISHEYE_INST=&quot;path/to/&lt;Crucible instance directory&gt;&quot;</td>
<td>Open the ~/.profile file for the current user in a text editor and insert: FISHEYE_INST=&quot;path/to/&lt;Crucible instance directory&gt;&quot; export FISHEYE_INST</td>
</tr>
</tbody>
</table>

3. Now copy the newly extracted <FishEye home directory>/config.xml file to the root of your new FishEye instance directory.

⚠️ You should not locate your Crucible instance directory inside the <FishEye home directory> — they should be entirely separate locations. If you do put the instance directory in the <FishEye home directory> it will be overwritten, and lost, when Crucible gets upgraded. And by the way, you'll need separate Crucible instance directories if you want to run multiple copies of Crucible.

If you have a large number of repositories, we recommend you increase the default number of files that FishEye is allowed to open. See the following knowledge base article for more info: Subversion Indexer Paused with "Too many open files" Error.

7. Start Crucible!

In a terminal, change directory to <FishEye home directory> and run this:

```
bin/start.sh
```

After a few moments, in a web browser on the same machine, go to http://localhost:8060/ (or, from another machine, type http://hostname:8060/ , where hostname is the name of the machine where you extracted Crucible).

Enter your license, then an admin password, to finish the setup.

You can postpone setting up JIRA integration until later if you wish; see Configuring JIRA integration in the Setup Wizard.

8. Connect to an external database (recommended)

If you intend to use this Crucible installation in a production environment, it is highly recommended that you use one of the supported external databases. See Migrating to an external database.

If you are evaluating Crucible, or don't wish to do this now, Crucible will happily use its embedded database, and you can easily migrate later.

9. Set up your mail server
Configure the Crucible email server so that users can get notifications from Crucible. See Configuring SMTP.

10. Add users and repositories

Now is the time to set up your users in Crucible, and to tell Crucible about any existing repositories you have. Please read Starting to use Crucible for the details.

Crucible will perform an initial index of your repositories, during which it accesses, indexes and organizes a view of your repositories (including all historical items) back to the earliest commits. If you are evaluating Crucible, we suggest that you index a single project, so you can use Crucible as soon as possible. If you choose to index your entire repository, be aware that this can take a long time (possibly days) for massive or complex repositories and can be more complex to set up (especially for Subversion). The basic process is slightly different for each SCM type.

11. Stop Crucible (optional)

In a terminal, change directory to <FishEye home directory> and run this:

```
bin/stop.sh
```

Configuring JIRA Integration in the Setup Wizard

This page describes the ‘Connect to JIRA’ screen of the Crucible setup wizard.

You can connect your application to a JIRA server, to manage your users via JIRA and share information with JIRA. When you are installing the application, the setup wizard gives you the opportunity to configure the JIRA connection automatically. This is a quick way of setting up your JIRA integration with the most common options.

You can also configure the JIRA connections via the application administration screens. In that case, you will need to set up connections individually. There are two parts to the integration process:

- A peer-to-peer link between JIRA and the application for sharing information and facilitating integration features. This link is set up via Application Links.
- A client-server link between the application and JIRA for delegating user and group management to your JIRA server.

Requirements: You need JIRA 4.3 or later.

On this page:
- Connecting to JIRA in the Setup Wizard
- Troubleshooting
- Notes

Related pages:
- User Management Limitations and Recommendations
- JIRA Integration in Crucible

Connecting to JIRA in the Setup Wizard

To configure JIRA integration while running the Crucible setup wizard:

1. Enter the following information on the ‘Connect to JIRA’ step of the setup wizard:
   - **JIRA Base URL**— The web address of your JIRA server. Examples:
• **Admin Username** and **Admin Password** – The credentials of a user with the ‘JIRA System Administrators’ global permission in JIRA.

• **FishEye/Crucible Base URL** – Click ‘Advanced Options’ to see this field. JIRA will use this URL to access your FishEye/Crucible server. The URL you give here will override the base URL specified in your FishEye/Crucible administration console, for the purposes of the JIRA connection.

• **Groups to synchronize** – Click ‘Advanced Options’ to see this field. Select at least one JIRA group to synchronize. The default group is `jira-users`. JIRA will synchronize all changes in the user information on a regular basis. The default synchronization interval is 1 hour.

• **Admin Groups** – Click ‘Advanced Options’ to see this field. Specify a JIRA group whose members should have administrative access to FishEye/Crucible. The default group is `jira-administrators`.

1. Click the ‘Connect to JIRA’ button.
2. Finish the setup process.
3. Configure the following setting in JIRA: **Allow remote API access**.

**Screenshot:** Connecting to JIRA in the FishEye/Crucible setup wizard

---

**Troubleshooting**

*Click to see troubleshooting information...*

This section describes the possible problems that may occur when integrating your application with JIRA via the setup wizard, and the solutions for each problem.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
</table>

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
The setup wizard displays one of the following error messages:

- Failed to create application link from JIRA server at `<URL>` to this `<application>` server at `<URL>`.
- Failed to create application link from this `<application>` server at `<URL>` to JIRA server at `<URL>`.
- Failed to authenticate application link from JIRA server at `<URL>` to this `<application>` server at `<URL>`.
- Failed to authenticate application link from `<application>` server at `<URL>` to this JIRA server at `<URL>`.

The setup wizard failed to complete registration of the peer-to-peer application link with JIRA. JIRA integration is only partially configured.

Remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.

<table>
<thead>
<tr>
<th>The setup wizard displays one of the following error messages:</th>
<th>The setup wizard failed to complete registration of the client-server link with JIRA for user management. The peer-to-peer link was successfully created, but integration is only partially configured.</th>
<th>Remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Failed to register <code>&lt;application&gt;</code> configuration in JIRA for shared user management. Received invalid response from JIRA: <code>&lt;response&gt;</code></td>
<td>- Failed to register <code>&lt;application&gt;</code> configuration in JIRA for shared user management. Received: <code>&lt;response&gt;</code></td>
<td>- Failed to register <code>&lt;application&gt;</code> configuration in JIRA for shared user management. Received: <code>&lt;response&gt;</code></td>
</tr>
</tbody>
</table>

The setup wizard failed to complete registration of the client-server link with JIRA for user management. The peer-to-peer link was successfully created, but integration is only partially configured.

Remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.

The setup wizard displays the following error message:

- Error setting Crowd authentication

The setup wizard successfully established the peer-to-peer link with JIRA, but could not persist the client-server link for user management in your `config.xml` file. This may be caused by a problem in your environment, such as a full disk.

Please investigate and fix the problem that prevented the application from saving the configuration file to disk. Then remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.

<table>
<thead>
<tr>
<th>The setup wizard displays the following error message:</th>
<th>The setup wizard successfully established the peer-to-peer link with JIRA, but could not persist the client-server link for user management in your <code>config.xml</code> file. This may be caused by a problem in your environment, such as a full disk.</th>
<th>Please investigate and fix the problem that prevented the application from saving the configuration file to disk. Then remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Error setting Crowd authentication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The setup wizard displays the following error message:

- Error reloading Crowd authentication

The setup wizard has completed the integration of your application with JIRA, but is unable to start synchronizing the JIRA users with your application.

Restart your application. You should then be able to continue with the setup wizard. If this solution does not work, please contact Atlassian Support.

<table>
<thead>
<tr>
<th>The setup wizard displays the following error message:</th>
<th>The setup wizard has completed the integration of your application with JIRA, but is unable to start synchronizing the JIRA users with your application.</th>
<th>Restart your application. You should then be able to continue with the setup wizard. If this solution does not work, please contact Atlassian Support.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Error reloading Crowd authentication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The setup wizard successfully established the peer-to-peer link with JIRA, but could not persist the client-server link for user management in your `config.xml` file. This may be caused by a problem in your environment, such as a full disk.

Please investigate and fix the problem that prevented the application from saving the configuration file to disk. Then remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.

<table>
<thead>
<tr>
<th>The setup wizard displays the following error message:</th>
<th>The setup wizard successfully established the peer-to-peer link with JIRA, but could not persist the client-server link for user management in your <code>config.xml</code> file. This may be caused by a problem in your environment, such as a full disk.</th>
<th>Please investigate and fix the problem that prevented the application from saving the configuration file to disk. Then remove the partial configuration if it exists, try the ‘Connect to JIRA’ step again, and then continue with the setup. Detailed instructions are below.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Error setting Crowd authentication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The setup wizard displays the following error message:

- An error occurred:
  java.lang.IllegalArgumentException: 
  Could not create the application in JIRA/Crowd (code: 500). Please refer to the logs for details.

The setup wizard has not completed the integration of your application with JIRA. The links are only partially configured. The problem occurred because there is already a user management configuration in JIRA for this <application> URL.

Remove the partial configuration if it exists, try the 'Connect to JIRA' step again, and then continue with the setup. Detailed instructions are below.

No users can log in after you have set up the application with JIRA integration.

Possible causes:

- There are no users in the group that you specified on the 'Connect to JIRA' screen.
- For FishEye: There are no groups specified in the 'groups to synchronize' section of your administration console.
- For Stash: You may not have granted any JIRA groups or users permissions to log in to Stash.

Go to JIRA and add some usernames to the group.

- For FishEye: Go to the FishEye administration screens and specify at least one group to synchronize. The default is 'jira-users'.
- For Stash: Grant the Stash User permission to the relevant JIRA groups on the Stash Global permissions page.

If this solution does not work, please contact Atlassian Support.

Solution 1: Removing a Partial Configuration – The Easiest Way

If the application's setup wizard fails part-way through setting up the JIRA integration, you may need to remove the partial configuration from JIRA before continuing with your application setup. Please follow the steps below.

Remove the partial configuration if it exists, try the 'Connect to JIRA' step again, and then continue with the setup wizard:

1. Log in to JIRA as a user with the ‘JIRA System Administrators’ global permission.
2. Click the 'Administration' link on the JIRA top navigation bar.
3. Remove the application link from JIRA, if it exists:
   a. Click 'Application Links' in the JIRA administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
   b. Look for a link to your application. It will have a base URL of the application linked to JIRA. For example:
      • If you want to remove a link between JIRA and FishEye, look for the one where the 'Application URL' matches the base URL of your FishEye server.
      • If you want to remove a link between JIRA and Confluence, look for the one where the 'Application URL' matches the base URL of your Confluence server.
      • If you want to remove a link between JIRA and Stash, look for the one where the 'Application URL' matches the base URL of your Stash server.
   c. Click the 'Delete' link next to the application link that you want to delete.
   d. A confirmation screen will appear. Click the 'Confirm' button to delete the application link.
4. Remove the user management configuration from JIRA, if it exists:
   a. Go to the JIRA administration screen for configuring the applications that have been set up to use JIRA for user management:
      • In JIRA 4.3: Click 'Other Applications' in the 'Users, Groups & Roles' section of the JIRA administration screen.
      • In JIRA 4.4: Select 'Administration' > 'Users' > 'JIRA User Server'.
   b. Look for a link to your application. It will have a name matching this format:
<Type> - <HostName> - <Application ID>

For example:

FishEye / Crucible - localhost - 92004b08-5657-3048-b5dc-f886e662ba15

Or:

Confluence - localhost - 92004b08-5657-3048-b5dc-f886e662ba15

If you have multiple servers of the same type running on the same host, you will need to match the application ID of your application with the one shown in JIRA. To find the application ID:

- Go to the following URL in your browser:

  <baseUrl>/rest/applinks/1.0/manifest

  Replace <baseUrl> with the base URL of your application. For example:

  http://localhost:8060/rest/applinks/1.0/manifest

  • The application links manifest will appear. Check the application ID in the <id> element.
  c. In JIRA, click 'Delete' next to the application that you want to remove.

5. Go back to the setup wizard and try the 'Connect to JIRA' step again.

Solution 2: Removing a Partial Configuration – The Longer Way

If solution 1 above does not work, you may need to remove the partial configuration and then add the full integration manually. Please follow these steps:

1. Skip the 'Connect to JIRA' step and continue with the setup wizard, to complete the initial configuration of the application.
2. Log in to JIRA as a user with the ‘JIRA System Administrators’ global permission.
3. Click the 'Administration' link on the JIRA top navigation bar.
4. Remove the application link from JIRA, if it exists:
   a. Click 'Application Links' in the JIRA administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
   b. Look for a link to your application. It will have a base URL of the application linked to JIRA. For example:
      - If you want to remove a link between JIRA and FishEye, look for the one where the 'Application URL' matches the base URL of your FishEye server.
      - If you want to remove a link between JIRA and Confluence, look for the one where the 'Application URL' matches the base URL of your Confluence server.
      - If you want to remove a link between JIRA and Stash, look for the one where the 'Application URL' matches the base URL of your Stash server.
c. Click the 'Delete' link next to the application link that you want to delete.  
d. A confirmation screen will appear. Click the 'Confirm' button to delete the application link.  

5. Remove the user management configuration from JIRA, if it exists: 
   a. Go to the JIRA administration screen for configuring the applications that have been set up to use JIRA for user management: 
      • In JIRA 4.3: Click 'Other Applications' in the 'Users, Groups & Roles' section of the JIRA administration screen.  
      • In JIRA 4.4: Select 'Administration' > 'Users' > 'JIRA User Server'.  
b. Look for a link to your application. It will have a name matching this format:  

   ```
   <Type> - <HostName> - <Application ID>
   ```  

For example:  

```plaintext
FishEye / Crucible - localhost -  
92004b08-5657-3048-b5dc-f886e662ba15
```

Or:  

```plaintext
Confluence - localhost -  
92004b08-5657-3048-b5dc-f886e662ba15
```

If you have multiple servers of the same type running on the same host, you will need to match the application ID of your application with the one shown in JIRA. To find the application ID:  
   • Go to the following URL in your browser:  

   ```
   <baseUrl>/rest/applinks/1.0/manifest
   ```  

Replace `<baseUrl>` with the base URL of your application. For example:  

```plaintext
http://localhost:8060/rest/applinks/1.0/manifest
```

• The application links manifest will appear. Check the application ID in the `<id>` element.  
c. In JIRA, click 'Delete' next to the application that you want to remove.  

6. Add the application link in JIRA again, so that you now have a two-way trusted link between JIRA and your application:  
   a. Click 'Add Application Link'. Step 1 of the link wizard will appear.  
   b. Enter the server URL of the application that you want to link to (the 'remote application').  
   c. Click the 'Next' button.  
   d. Enter the following information:  
      • 'Create a link back to this server' – Tick this check box to add a two-way link between the two applications.  
      • 'Username' and 'Password' – Enter the credentials for a username that has administrator access to the remote application.  
Note: These credentials are only used to authenticate you to the remote application, so that Application Links can make the changes required for the new link. The credentials are not saved.
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- **Reciprocal Link URL** – The URL you give here will override the base URL specified in your remote application's administration console, for the purposes of the application links connection. Application Links will use this URL to access the remote application.

e. Click the 'Next' button.

f. Enter the information required to configure authentication for your application link:

- **The servers have the same set of users** – Tick this check box, because the users are the same in both applications.

- **These servers fully trust each other** – Tick this check box, because you trust the code in both applications and are sure both applications will maintain the security of their private keys.

For more information about configuring authentication, see [Configuring Authentication for an Application Link](#).

g. Click the 'Create' button to create the application link.

7. Configure a new connection for user management in JIRA:

a. Go to the JIRA administration screen for configuring the applications that have been set up to use JIRA for user management:

   - In JIRA 4.3: Click 'Other Applications' in the 'Users, Groups & Roles' section of the JIRA administration screen.
   - In JIRA 4.4: Select 'Administration' > 'Users' > 'JIRA User Server'.

b. Add an application.

c. Enter the application name and password that your application will use when accessing JIRA.

d. Enter the IP address or addresses of your application. Valid values are:

   - A full IP address, e.g. 192.168.10.12.

   - A wildcard IP range, using CIDR notation, e.g. 192.168.10.1/16. For more information, see the introduction to [CIDR notation on Wikipedia](#) and [RFC 4632](#).

   - Save the new application.

8. Set up the JIRA user directory in the application.

   - For Confluence:

      a. Go to the Confluence Administration Console.

      b. Click 'User Directories' in the left-hand panel.

      c. Add a directory and select type 'Atlassian JIRA'.

      d. Enter the following information:

         - Name – Enter the name of your JIRA server.
         - Server URL – Enter web address of your JIRA server. Examples:

         ```
         http://www.example.com:8080/jira/
         http://jira.example.com
         ```

         - Application name and Application password – Enter the values that you defined for Confluence in the settings on JIRA.

         e. Save the directory settings.

         f. Define the directory order by clicking the blue up- and down-arrows next to each directory on the 'User Directories' screen.

         For details see [Connecting to Crowd or JIRA for User Management](#).

   - For FishEye/Crucible:

      a. Click Authentication (under 'Security Settings').

      b. Click Setup JIRA/Crowd authentication. Note, if LDAP authentication has already been set up, you will need to remove that before connecting to JIRA for user management.

      c. Make the following settings:

<table>
<thead>
<tr>
<th>Authenticate against</th>
<th>Select a JIRA instance</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th><strong>Application name and password</strong></th>
<th>Enter the values that you defined for your application in the settings on JIRA.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JIRA URL</strong></td>
<td>The web address of your JIRA server. Examples:</td>
</tr>
<tr>
<td></td>
<td>![Examples](<a href="http://www.example.com:8080/jira/">http://www.example.com:8080/jira/</a> <a href="http://jira.example.com">http://jira.example.com</a>)</td>
</tr>
<tr>
<td><strong>Auto-add</strong></td>
<td>Select <strong>Create a FishEye user on successful login</strong> so that your JIRA users will be automatically added as a FishEye user when they first log in.</td>
</tr>
<tr>
<td><strong>Periodically synchronise users with JIRA</strong></td>
<td>Select Yes to ensure that JIRA will synchronize all changes in the user information on a regular basis. Change the value for <strong>Synchronise Period</strong> if required.</td>
</tr>
<tr>
<td><strong>When Synchronisation Happens</strong></td>
<td>Select an option depending on whether you want to allow changes to user attributes from within FishEye.</td>
</tr>
<tr>
<td><strong>Single Sign On</strong></td>
<td>Select <strong>Disabled</strong>. SSO is not available when using JIRA for user management and if enabled will make the integration fail.</td>
</tr>
</tbody>
</table>

- Click **Next** and select at least one user group to be synchronised from JIRA. If necessary, you could create a new group in JIRA, such as 'fisheye-users', and select this group here.
- Click **Save**.

**For Stash:**
- Go to the **Stash Administration Console**.
- Click '**User Directories**' in the left-hand panel.
- **Add** a directory and select type '**Atlassian JIRA**'.
- Enter the following information:
  - **Name** – Enter the name of your JIRA server.
  - **Server URL** – Enter web address of your JIRA server. Examples:
    - ![Examples](http://www.example.com:8080/jira/ http://jira.example.com)
  - **Application name and Application password** – Enter the values that you defined for Stash in the settings on JIRA.
- Save the directory settings.
- Define the **directory order** by clicking the blue up- and down-arrows next to each directory on the '**User Directories**' screen.
  For details see **Connecting to JIRA for user management**.
Notes

When you connect to JIRA in the setup wizard, the setup procedure will configure Trusted Applications authentication for your application. Please be aware of the following security implications:

- Trusted applications are a potential security risk. When you configure Trusted Applications authentication, you are allowing one application to access another as any user. This allows all of the built-in security measures to be bypassed. Do not configure a trusted application unless you know that all code in the application you are trusting will behave itself at all times, and you are sure that the application will maintain the security of its private key.

Starting to use Crucible

This page will guide you though the basics of using Crucible. By the end of it you should know how to:

- Add a repository.
- Create a project.
- Create and perform reviews.

Assumptions

This page assumes that:

- You have installed and started the latest version of Crucible
- You are using a supported browser.

Install Crucible

Get Crucible running on your computer. See the details here:

- Installing Crucible on Windows
- Installing Crucible on Linux and Mac

Add a repository

In this section we're going to add a repository to Crucible.

Click on Add Existing... in the Repositories listing of the Administration.
Choose the repository type and fill in the name and description.

In the repository configuration put the location of your repository. Fill in the authentication details if necessary.
Finally indicate whether or not you would like diff indexing should be turned on and if the repository should not be indexed right away then click Add to finish the process.

Your repository is now created in Crucible and the indexing should have started.

Create a project in Crucible

Crucible comes with a default project with the key CR but you will most likely have to create your own projects that will contain your reviews. This is achieved in a couple of steps.

Click on Add a new project in the Projects listing of the Administration.
Fill in the form with the default settings for the project and hit Save.

You should then be taken back to the Project listing where you can see your new project created.
Create a review

Now that you have your own project it is possible to create reviews in it.

⚠️ You need to be logged in to create reviews.

From the Dashboard click on Create review to open the review creation form.

Choose the project in which you want to create the review.
In the next screen click on **Browse Changeset** to see the list of changesets available to create the review.

Select the changesets that you would like to be reviewed and then click on **Edit Details** to add reviewers.
Once that you have chosen your reviewers and updated the review information you can click on **Start Review** to begin the review process.

The review is now created and the reviewers have been notified that a review is pending.
In order to close a review where you are the moderator you need to click on **Summarize** in the top right and then close the review from the modal window.

**Using Crucible**

This page is an index of the content in the Crucible User's Guide. Click on a link below to see the desired page.

- The Crucible workflow
- Using the Crucible Screens
  - Browsing All Reviews
  - Browsing Source Files
The Crucible workflow

This page contains a basic overview of Crucible workflows, followed by a simple example showing a code review between two people.

Crucible is a flexible application that caters for a wide range of team sizes and work styles. You will need to know about the basic roles used in Crucible.

Roles:
There are several roles that review participants can take up:

- **authors**: Usually the creator of the code; the person who will act on the review's outcome.
You will also need to understand how workflow is conducted in Crucible. This is configurable, but the most basic example follows.

**Crucible Workflow:**
There are a number of different ways in which you can use Crucible for code reviews. The following diagram shows the basic workflow that applies to most Crucible code reviews.

**On this page:****

**Example Workflow: Two Participant Code Review**
1. The Author Starts the Review
2. The Reviewer Comments on the Code
3. The Author Responds to the Comments
4. The Author Closes the Review

**Diagram: Workflow for One-to-One Reviews**

Need more information? Read more about the different forms of workflow in Crucible.

Next, we explore the workflow in a two-person code review in Crucible.

**Example Workflow: Two Participant Code Review**

This is a simplified set of instructions for executing a one-to-one review involving two people. In this example, the code author wears "two hats", acting as **review creator** and **code author**, managing the review process as well as taking final responsibility for closing the review. The second person is the reviewer.

For instructions on Crucible workflow with more than two people, see this page.

1. The Author Starts the Review

To begin, the code author sets up the review. There are a number of ways to do this, but for this example, the author starts from the FishEye Source view of the file he wants to review:

**Screenshot: Opening a review from the FishEye Source view**
From the FishEye Source view, the author chooses **Reviews > Create Review.** If there are multiple projects, the Select Project dialogue opens.

**Screenshot: The Select Project dialogue**

In the Select Project dialogue, you are prompted to choose a project for this review from the drop-down list. Once the selection is made, the author clicks **Create Review.** The Edit Review Details dialogue opens, where the author can create and issue the review.

**Screenshot: Creating a review in the Edit Review Details dialogue**
In the Edit Review dialogue, the author enters information needed for the review. This includes entering a title and description for the review, selecting reviewers, a due date and the key for a related JIRA issue (if any). The project and author are pre-selected.

The author can also add more content to the review, if they wish, by clicking Add Content. See Selecting the Files for the Review.

When finished, the author clicks Done. The review will now be created in a draft form.

Screenshot: A new Crucible review

The draft review opens. In the draft stage, the author can check the contents of the review files to ensure they are correct and put in any notes for reviewers as comments. During the draft phase, no notification emails are sent out to reviewers. Once the author is finished with the draft phase, he clicks Start Review.

The review will now be started and a notification email will go out to all participants. This lets them know that the review is under way and prompts them to take action, providing a URL for direct access to the review.
2. The Reviewer Comments on the Code

The reviewer will receive an email from Crucible with a link that they can follow to the review.

**Screenshot: A Crucible review notification email**

When the reviewer clicks the link in the notification email, the Crucible Review screen opens.

**Screenshot: The Crucible Review screen**

On the Crucible Review screen, the code changes under review are displayed. The reviewer clicks file names to expand the code for in-line reviewing. As the reviewer reads the changes, they can simply click on any line to enter a comment there (multiple lines can be selected by clicking and dragging).

The reviewer clicks **Post** when each comment is finished.

The reviewer repeats this process for all files in the review. Reviewers can leave the session and resume it later;
their work is automatically saved.

When the reviewer has finished their code review work, they click **Complete**.

By default, an email is sent to participants every time a comment is posted. This is an individual setting. Each reviewer can **configure their own profiles** to adjust the list of events that will trigger email notifications.

3. The Author Responds to the Comments

During the review process, the author can also make contributions, responding to reviewer comments and making corrections.

**Screenshot: Comment threads in Crucible**

4. The Author Closes the Review

When all reviewers have "Completed" their reviews, the author is notified via email. The author clicks the link in the notification email, returning to the Review screen.

The author will then add any final comments, then click Close when finished.

This closes the review, signalling the end of work. A final email notification will be sent to the review participants, informing them that the review is now closed. The closed review screen will load, archiving the completed review as read-only.

**Screenshot: Viewing a closed review**
If the author ever needs to resume work on the closed review, they can simply click **Reopen** when viewing this screen. Doing this will return the review’s status to “open”.

For more information on workflow in Crucible and best practices for code reviews, see [Requesting and Conducting a Review](#).

## Using the Crucible Screens

This page contains an overview of the Crucible interface and the actions that can be carried out in the application.

**On this page:**

- [Tour of the Crucible Interface](#)
- [Left Navigation Sidebar](#)
  - [Related Links](#)

### Tour of the Crucible Interface

When you first log in to Crucible, the Dashboard Screen opens, as shown in the screenshot below. This view shows recent general activity in Crucible.

![Screenshot: The Dashboard Screen in Crucible](image)
The table below explain the top-level tabs in the Crucible User Interface. Click on the name of a tab for more information.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Function</th>
<th>Appears</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dashboard Tab</td>
<td>Displays reviews and system activity related to you.</td>
<td>All screens.</td>
</tr>
<tr>
<td>Source Tab</td>
<td>Displays contents of connected source repositories.</td>
<td>Only when FishEye is used with Crucible.</td>
</tr>
<tr>
<td>Source Dropdown Menu</td>
<td>Displays a list of links to repositories recently visited by the user</td>
<td>Only when FishEye is used with Crucible for logged-in users.</td>
</tr>
<tr>
<td>Projects Tab</td>
<td>Displays reviews and content from specific projects.</td>
<td>All screens.</td>
</tr>
<tr>
<td>Projects Dropdown Menu</td>
<td>Displays a list of links to projects recently visited by the user</td>
<td>All screens for logged-in users.</td>
</tr>
<tr>
<td>People Tab</td>
<td>Displays metrics on the users of the Crucible instance.</td>
<td>All screens.</td>
</tr>
<tr>
<td>People Dropdown Menu</td>
<td>Displays a list of links to user pages recently visited by the user</td>
<td>All screens for logged-in users.</td>
</tr>
<tr>
<td>Reviews Tab</td>
<td>Allows you to search and report on reviews.</td>
<td>All screens.</td>
</tr>
<tr>
<td>People Dropdown Menu</td>
<td>Displays a list of links to reviews recently visited by the user as well as links to the Crucible Inbox and Outbox</td>
<td>All screens for logged-in users.</td>
</tr>
</tbody>
</table>
Left Navigation Sidebar

The navigation bar at the left of the screen applies specific filters to what is shown in the centre pane. See the page on Using the Dashboard for more information.

The left navigation sidebar can be hidden or displayed by clicking the blue ‘information’ icon 🔄 at the top left of the sidebar.

Related Links

- Browsing Source Files
- Browsing Projects
- Viewing People's Statistics in Crucible
- Viewing Reports
- Searching Crucible
- Using RSS Feeds in Crucible
- Changing your User Profile

Browsing All Reviews

The instructions on this page describe how to browse all reviews on the 'Reviews' screen, by people or for projects that you have selected as favourites. This includes reviews that you are involved with. You can also generate reports on review blockers for all people.

The 'Reviews' tab is essentially a shortcut to viewing your reviews (or a custom filtered list, if you have set up a filter). You can also view all reviews filtered by different statuses, e.g. Open, Closed.

To browse all reviews:

1. Click the arrow next to the 'Reviews' tab at the top of the screen, and click 'All Reviews' in the dropdown menu. The 'Reviews' page will be displayed, showing all open reviews ('All Open Reviews' will be highlighted in the sidebar) unless you have previously used a custom filter. See the screenshot below.
2. Browse your reviews, by clicking the links under the 'My Reviews' and 'My Snippets' sections in the sidebar.
3. Browse reviews for all people by clicking the links under the 'Everyone's Reviews' and 'Everyone's Snippets' sections in the sidebar, as follows:
   - 'Everyone's Reviews' — Click 'See reviews by state...' to expand the list of review categories in the sidebar. You can then click any of the links to view the relevant list of reviews:
     - 'All Open Reviews' — Click to view all open reviews, i.e. reviews that have not been summarised and closed yet.
     - 'All Closed Reviews' — Click to view all closed reviews, i.e. reviews that have been summarised and closed.
     - 'All Reviews' — Click to view all reviews, including open reviews, closed reviews and draft reviews.
   - 'Everyone's Snippets' — Click 'See snippets by state...' to expand the list of snippet categories in the sidebar. You can then click any of the links to view the relevant list of snippet reviews, similar to the links described above. See Browsing All Reviews for more information.
     - 'All Open Snippets' — Click to show all open snippets.
     - 'All Snippets' — Click to show all snippets, i.e. open and closed snippets.

Screenshot: Browsing all Reviews on the 'Reviews' screen
Browsing Source Files

When FishEye is installed with Crucible, you have the additional 'Source' tab available in the navigation tabs at the top of the screen.

To browse source files:

1. Click the 'Source' tab. The 'Repositories' view will be displayed, showing summary information if you have multiple repositories set up. See the 'Viewing all repositories' screenshot below.
2. Click the desired repository to view its contents. See the 'Viewing a repository' screenshot below.
3. Browse the repository for the desired source file using the directory tree in the left menu. Click the file that you want to view. The file will be displayed in the main panel. See the 'Viewing a file' screenshot below.
4. You can view various information about the file, as outlined in the table below:

<table>
<thead>
<tr>
<th>Sub-Tab Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revisions</td>
<td>When viewing a file, shows the latest revisions of the file.</td>
</tr>
<tr>
<td>Files</td>
<td>When viewing a folder, shows the contents of the directory.</td>
</tr>
</tbody>
</table>
Activity

Shows recent activity on the item. There are a number of sub-options here:
* All Activity — The default view, showing commits, reviews and JIRA issues.
* Commits — Shows commits in the activity stream.
* Reviews — Shows review activity in the activity stream.
* Scroll to Changeset — Opens the changeset ID specified in the text field (press Enter to carry out the action).
* Filter — Applies constraints to the current activity stream.
* Show Revisions — If this is selected, then changeset items are automatically expanded to show modified files.
* Earlier Activity (Left Arrow icon) — Loads a page of earlier activity.
* Later Activity (Right Arrow icon) — Loads a page of later activity.

Users

Shows the commit history of the different users that have committed changes on the item.

Reports

Shows activity charts for the item. Various chart options can be selected in the left navigation bar.

Source

Shows the contents of the file.

Query

Allows you to run an advanced search.

To download files, firstly click through the desired file. From there, you will see a control bar directly above the code content which contains the 'FishEye' item. Clicking this leads to a drop-down menu where 'Download Raw File' is available. You can use this to download the file in context only.

Screenshot: Viewing all repositories

<table>
<thead>
<tr>
<th>Repository</th>
<th>State</th>
<th>Commit History (12 Months)</th>
<th>LeC</th>
<th>Comments</th>
<th>Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLOV</td>
<td>Running</td>
<td></td>
<td>268,169</td>
<td>6,454</td>
<td>261</td>
</tr>
<tr>
<td>FC</td>
<td>Running</td>
<td></td>
<td>683,322</td>
<td>21,582</td>
<td>3,156</td>
</tr>
<tr>
<td>FTP</td>
<td>Running</td>
<td></td>
<td>795,916</td>
<td>16,482</td>
<td>160</td>
</tr>
<tr>
<td>Repositoin</td>
<td>Running</td>
<td></td>
<td>4,217</td>
<td>24</td>
<td>1</td>
</tr>
</tbody>
</table>

Screenshot: Viewing a repository
Using the Dashboard

The Dashboard is the first screen that you see when you log into FishEye/Crucible. It is the home page for the instance and can be accessed by clicking the FishEye/Crucible icon, or by clicking the 'Dashboard' tab at the top.

Screenshot: Viewing the Dashboard
The Dashboard itself has a sidebar displaying your reviews and an activity in the main pane.

Using the 'My Reviews' Sidebar

The 'My Reviews' sidebar contains information about reviews/snippets that you are involved with, e.g. how many reviews require your approval. Read more about the sidebar in Browsing All Reviews.

- Click on any of the links in the sidebar to navigate to that information in the 'Reviews' tab of the Dashboard.
- Hover your mouse over the sidebar and click the collapse icon (▲) to hide any of the sections. Click the expand icon (▼) to expand any collapsed sections.
- Click the 'i' icon (ℹ️) to hide/show the entire sidebar.

<table>
<thead>
<tr>
<th>'Inbox'</th>
<th>Click to show all reviews in 'To Review', 'To Summarize', 'In Draft' and 'Require My Approval' states:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'To Review' — Click to show all reviews where you are a reviewer and haven't yet completed your review work.</td>
</tr>
<tr>
<td></td>
<td>'To Summarize' — Click to show all reviews where you are a moderator and haven't yet summarised and closed the review.</td>
</tr>
<tr>
<td></td>
<td>'In Draft' — Click to show all reviews that you have created but have not yet been moved to the 'Approval' state or the 'Require Approval' state.</td>
</tr>
<tr>
<td></td>
<td>'Require My Approval' — Click to show all reviews where you are a moderator and need to approve the review.</td>
</tr>
</tbody>
</table>
Using the Activity Stream

The Dashboard has an activity stream that displays the following information:

- **reviews activity** — This includes the addition of review comments, opening and closing reviews, etc.
- **source activity** — This includes files being committed to a repository.
- **issues activity** — If you have linked a JIRA server with your Crucible project, the activity stream will also include updates to linked JIRA issues.

Your activity stream will only display information from projects, reviews, people, repositories, etc, that you have selected as favourites as well as your own activity. For more information on favourites, see Using Favourites.

The following instructions describe how to view the activity stream and filter it to display specific information.

- **'Commits' tab** — See Browsing Source Activity only below.
- **'Reviews' tab** — See Browsing Reviews Activity only below.
- **'Issues' tab** — This tab will only display if you have connected a JIRA instance to your FishEye/Crucible instance. See Browsing Issues Activity only below.
- **'Show My Activity' checkbox** — Untick this checkbox to filter out your activity from the activity stream displayed. This toggle can be used in any of the tabs for the activity stream.

**Browsing Source Activity only**

Source activity includes files commits to repositories that you have selected as favourites.

Click the **'Commits' tab** to filter the activity stream to display only source activity (see screenshot below).

**Browsing Source Activity on the Dashboard**
Browsing Reviews Activity only

Reviews activity includes updates to reviews in all projects that you have selected as favourites. See Browsing All Reviews for more information about browsing reviews.

Click the 'Reviews' tab to filter the activity stream to display only reviews activity (see screenshot below).

Browsing Reviews Activity on the Dashboard
Browsing Issues Activity only

Issues activity includes updates to issues in JIRA projects that are associated with your favourite Crucible projects. For more information about integrating JIRA with Crucible, see JIRA Integration in Crucible.

Click the ‘Issues’ tab to filter the activity stream to display only issues activity (see screenshot below).

Browsing Issues Activity on the Dashboard
Watching an Activity Stream

You can "watch" an activity stream in FishEye/Crucible. Watching the activity stream allows you to receive emails when updates occur in the activity stream. You can view all of your watches and configure the frequency of your watch emails in your user profile. See Changing your User Profile for more information.

Note, the option to add a watch will only be available if the administrator has enabled watches for the repository.

To watch an activity stream:

1. Navigate to the activity stream that you want to watch.
2. Click the 'Tools' menu and click 'Watch'. The page will reload and a watch will be set up for the activity stream (the watch icon will be coloured, not grey).
   - If you want to remove the watch, navigate the activity stream, click the 'Tools' menu and click 'Watch'. The watch will be removed (the watch icon will be coloured, not grey).

You can also remove watches via your user profile.

Notes

Related Topics

Browsing All Reviews
Using Favourites
Changing your User Profile

Crucible Icons

This page contains a list of Crucible icons and an explanation what each one represents in the user interface.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>📝</td>
<td>View review-level comments</td>
</tr>
</tbody>
</table>
### Searching Crucible

Crucible has a powerful search engine that allows you to find reviews. There are two methods for searching in Crucible:

- **Quick Search** — The Quick Search allows you search all Crucible projects by entering a single search string. This search is the default search and will suggest "quick nav" results (header search box only). Results are weighted by most recent edit date.
- **Filtering Reviews** — An alternative method for searching for reviews is to display all reviews and apply a custom filter to the list. This is generally slower than searching, but allows you to specify filter criteria against a range of fields.
- **Comment Search** — If you want to find specific review comments, Crucible provides a powerful comment search.

#### On this page:
- Using the Quick Search
- Filtering Reviews
- Searching for Review Comments
- Notes

### Using the Quick Search

Before you begin:

- The Quick Search will also return changesets and files, if you are using FishEye with Crucible. For information on searching FishEye, see Searching FishEye in the FishEye documentation.

To search Crucible using the Quick Search:

1. Enter your search criteria in the search box in the Crucible header (Quick Nav). Crucible offers a number of parameters and functions that you can use to refine your expected results, see Refining your Quick Search Criteria below.
2. "Quick Nav" results will appear in a dropdown, as you type. "Quick Nav" will attempt to match against the review name, project and user.
If you want to use a quick nav result, use the up- and down-arrows on your keyboard and press enter or use your mouse to select the item.

If the quick nav results don't have what you are looking for, press enter to run a search. Ensure that no items in the dropdown are selected when you press enter.

3. The Quick Search results page will be displayed. You can filter your results further, as described in Filtering Quick Search Results below.

Results are sorted by relevance and boosted if they were edited recently. A maximum of 10 results are displayed per page.

- If you have integrated your Crucible instance with a JIRA instance, you can display a summary of any JIRA issues referenced in your search results by hovering over the issue key. For more details, see JIRA Integration in Crucible.

4. If you want to run another search, enter your new criteria in the main search box or in the search box in the header.

Note, only the search box in the header provides “quick nav” results.

---

**Screenshot above: Quick Search displaying “quick nav” matches**

**Refining your Quick Search Criteria**

The Crucible Quick Search has a number of powerful tools that you can use to refine your search criteria before executing the search.

<table>
<thead>
<tr>
<th>Search Tool</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
</table>

---
Field Handles

Use a field handle in your criteria to restrict your search to a particular field. Note, you cannot have multiple field handles in a query.

- **detail** — Search against title, objective, key, linked reviews and linked issues.
- **reviewcomment** — Search against review comments.

Searching for Discrete Strings

Enter a specific string within quotation marks and Crucible will match against the exact string. Note, this search is not case-sensitive.

Enter "CR-2818" and Crucible will only return results that match that exact string, i.e. it will not return a result with CR-FE-2818 or CR-28189.

Filtering Quick Search Results

Once you have a set of search results on the Quick Search page, you can filter them to a subset of the original results. The filter controls are in the left panel of the Quick Search page in the 'Source' section.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects</td>
<td>Select or enter the name of the project that you want to restrict your results to. For example, if you enter 'CR' then the search results page will refresh to display only reviews in the 'CR' project. <strong>⚠️ If you are using Fisheye with Crucible, there will be a repositories dropdown in the 'Source' section. Selecting a FishEye repository in this dropdown will not filter the Crucible search results. It is only used to filter files and changesets returned in the search results.</strong> See <a href="#">Searching FishEye</a>.</td>
</tr>
<tr>
<td>Reviews</td>
<td>Click this link to restrict your results to reviews that have a title, objective, key, linked reviews or linked issues that match the search criteria.</td>
</tr>
<tr>
<td>Comments</td>
<td>Click this link to restrict your results to reviews that have comments that match the search criteria.</td>
</tr>
</tbody>
</table>

Filtering Reviews

Crucible allows you to view all the reviews/snippets that you are involved with, as well as everybody's reviews/snippets. You can filter these lists to find reviews.

**To filter a list of reviews:**

1. Navigate to the 'Reviews' tab.
2. Click the list of reviews that you want to start with, in the reviews sidebar of the 'Review Dashboard', e.g. 'All Open Reviews'.
3. Click the ‘Custom Filter’ in the reviews sidebar.
4. Update the filters with your search criteria (see table below) and click ‘Apply Filter’ to filter the reviews.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Find reviews by searching for words within the title.</td>
</tr>
<tr>
<td>Project</td>
<td>Find reviews under a particular project.</td>
</tr>
<tr>
<td>Author</td>
<td>Find reviews moderated by a particular authors.</td>
</tr>
<tr>
<td>Moderator</td>
<td>Find reviews moderated by a particular moderator s.</td>
</tr>
<tr>
<td>Creator</td>
<td>Find reviews created by a particular creator.</td>
</tr>
<tr>
<td>Reviewer</td>
<td>Find reviews that are reviewed by a particular reviewer. This will default to the user logged in.</td>
</tr>
<tr>
<td>Reviewer Status</td>
<td>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.</td>
</tr>
<tr>
<td>Match Roles</td>
<td>To use all the above filters, choose ‘all’. To use any of the filters, choose ‘any’.</td>
</tr>
<tr>
<td>Review state checkboxes</td>
<td>Check any of the review state checkboxes (e.g. 'Draft', 'Pending Approval') to filter for reviews in those states.</td>
</tr>
</tbody>
</table>

Searching for Review Comments

To search for review comments:

1. Navigate to the ‘Reviews’ tab.
2. Enter your search criteria in the ‘Comment Search’ section at the bottom of the reviews sidebar.
3. Click ‘Search Comments’.
4. The ‘Comment Search’ page will display your results. You can refine your search using the search criteria on the page:

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>Find comments on reviews under a particular project.</td>
</tr>
<tr>
<td>Comment content</td>
<td>Find comments that contains the specified text.</td>
</tr>
<tr>
<td>Review Permalid</td>
<td>Find comments made on the specified review.</td>
</tr>
<tr>
<td>After</td>
<td>Find comments made after after a particular date.</td>
</tr>
<tr>
<td>Before</td>
<td>Find comments made after before a particular date.</td>
</tr>
</tbody>
</table>
Comment Author
Find comments made by a particular user.

Search Type
You can:

- Tick the 'Defects' check-box to find comments that are flagged as Defects.
- Tick the 'Comments' check-box to find comments that are not flagged as Defects.
- Tick neither check-box (or both of them) to find all.

Review State
Find comments on reviews that are in a particular state. See Review State Filter (above).

Ranking
Find defects have been given a particular ranking (e.g. 'Major', 'Minor').

Requires Re-Review
Find defects that have been marked as requiring re-review (or not).

Classification
Find defects that have been given a particular classification (e.g. 'Missing', 'Ambiguous').

Search Criteria

- Project: Any Project
- Comment content:
- Review Permaid:
- After:
- Before:
- Comment Author: any
- Search Type:
- Defects
- Comments
- Review State:
- Draft
- Pending Approval
- Under Review
- Summarize
- Closed
- Abandoned
- Rejected
- Needs Fixing
- Metrics:
- Ranking:
- Select Ranking
- Requires Re-Review:
- Select Requires Re-Review
- Classification:
- Select Classification
- Search Comments
Screenshot above: Search Comment Filter Options

Displaying Defect Metric Charts for Comment Search Results

Once you have retrieved results for a review comment search, you can click 'Defect Metrics' in the left navigation pane to display defect classification charts.

Screenshot above: Comment Search Results

Notes

Related Topics

Searching FishEye (FishEye documentation)

Viewing People's Statistics in Crucible

This page contains instructions on how to use the People tab in Crucible to see charts and activity from people with accounts on the system.

On this page:

- Opening the List of People
- Viewing a Person's Activity Screen
- Viewing Charts on a Person's Activity

Opening the List of People

To view statistics on People in Crucible, (that is, code authors, committers and reviewers) click the People tab at the top of the page. The list of all People appears.

Screenshot: List of all People in Crucible (when using FishEye with Crucible)
The list of all people shows all users that have accounts on the system. By default, each user has a unique avatar that is randomly formed from the text in their email address. Users can choose to upload their own avatar image by uploading an image to an external service such as Gravatar, which Crucible supports. See the page on Changing your User Profile.

**Viewing a Person’s Activity Screen**

Click on a user to see a listing of activity from them as well as charts showing statistics for their activity. The People Activity screen opens.

**Screenshot: The People Activity Screen in Crucible**

In the right hand pane, we can see a list of all activity that relates to this user. You can click the icons to view full commit information in FishEye, click JIRA issue names to open the work ticket on an item, click the long button to see the list of files in context or click the star icon to add an item to your favourites.

In the left hand pane, we can see charts around this activity, such as the following: number of active reviews; charted history of lines of code; code committing activity and general statistics.
Some users may not appear to have the correct number of Files Changed or LOC, despite regularly committing. In this situation, if they have committed to a directory which is not covered by the regexes in your symbolic definition (i.e. they have committed to a directory that is neither trunk, branches or tags) then that directory will be counted as part of trunk. Also note that creating tags and branches themselves does not count toward the totals.

** Viewing Charts on a Person's Activity  

To see information on a person's activity charted in detail, click the headings in the left-hand pane. Each heading will show more information on demand, when clicked. The information available and what it means is listed below.

⚠️ The Charts in this section are only available when using FishEye.

*Screenshot: People Activity Charts in Crucible*
• **Username** heading:
The username section shows the email address, then the first and latest commit dates for the person in context. It also shows username mappings from various systems if they have several usernames in play.

• **Reviews** heading:
The Reviews section shows several filters that you can click to constrain the review items shown in the right-hand pane. The options are To Review, To Summarize, Out For Review, Open and Closed.

• **Line History** heading:
The Line History section shows a graph with the number of lines committed to the repository, charted over time.

• **Commit Activity** heading:
The Commit Activity section shows three smaller charts; the first showing the volume of commits over a 52 week period; the second showing the relative number of commits on days of the week; the third showing the relative number of commits by the hour of the day when they were lodged.

• **Stats** heading:
The Stats section shows data points for the previous week and all-time. It shows number of commits, number of files changed and number of lines changed.

---

**Browsing Projects**
To browse the content in a project, click the Projects tab at the top of the page. The 'Projects' view opens (see 'The Crucible Projects Index' screenshot below).

A list of projects will be shown if there is more than one. Click the name of the desired project to open it. The 'Project Activity' page opens (see 'The Crucible Project View' screenshot below). In the left navigation bar, charts showing overall project statistics are displayed.

There are a number of sub-tabs on this page, listed in the table below.

<table>
<thead>
<tr>
<th>Sub-Tab Name</th>
<th>Description</th>
</tr>
</thead>
</table>
| Activity     | • All Activity — The default view.  
• Commits — Shows commits in the project (visible when using FishEye).  
• Reviews — Shows reviews in the project.  
• Issues — Shows JIRA issues related to this project. Only visible if you have set up JIRA Integration in Crucible.  
• Show Revisions — Shows or hides revisions in the project (visible when using FishEye).  
• Earlier Activity (Left Arrow icon) — Loads a page of earlier project activity.  
• Later Activity (Right Arrow icon) — Loads a page of later project activity. |
| Reviews      | Shows recent reviews in the project. |

ℹ️ The Projects tab is only visible in Crucible. Read more about the definition of a project.

Screenshot: The Crucible Projects Index

Screenshot: The Crucible Project View
Viewing Project Statistics

This page explains the layout of the Project Summary page.

On this page:

- Project Name Panel
- Project Line History Panel
- Project Stats Panel
- Project Commit Activity Chart

When you click through to a Crucible Project from the Projects Tab, the ‘Project Summary’ screen opens.

Screenshot: The Crucible Project Summary Page
In the right hand pane, you can see an activity stream relating to this project. In the left hand pane, you can see various statistics charts relating to the project in context. These appear in a reduced size until you click them, when they will expand to show more information.

**Project Name Panel**

This contains a short message explaining which Crucible Project and FishEye repositories are being accessed to show the activity stream on the page.

**Project Line History Panel**

This panel contains a chart showing the lines of code added to the repository, graphed over time.

**Screenshot: The Project Line History Panel**

This panel contains a chart showing numerical data for commits, files changed and lines change, graphed over time.
**Screenshot: The Project Stats Panel**

<table>
<thead>
<tr>
<th>Stats</th>
<th>Last Week</th>
<th>All Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commits:</td>
<td>137</td>
<td>16,033</td>
</tr>
<tr>
<td>Files changed:</td>
<td>543</td>
<td>69,896</td>
</tr>
<tr>
<td>Lines changed:</td>
<td>33,543</td>
<td>564,583</td>
</tr>
</tbody>
</table>

**Project Commit Activity Chart**

This panel contains a number of charts:

<table>
<thead>
<tr>
<th>Chart</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 week commits volume</td>
<td>This chart shows the amount of commits, shown by week over a one year period.</td>
</tr>
<tr>
<td>Commits by day</td>
<td>This chart shows the amount of commits, graphed by day over the past week.</td>
</tr>
<tr>
<td>Commits by hour</td>
<td>This chart shows the amount of commits, graphed by hours over the past day.</td>
</tr>
<tr>
<td>Commit calendar</td>
<td>This chart shows the amount of commits (shown as darker colours to indicate more commits) graphed by month, over years that the repository has been running.</td>
</tr>
</tbody>
</table>

**Viewing Reports**

This page contains instructions on how to use the Reports tab in Crucible to see lists of people whose action is required on open reviews. These are known as ‘blockers’.
FishEye Reports (on this page):

- Viewing the 'Review Blockers' report
- Viewing the 'JIRA Blockers' report
- Viewing the Review Coverage Report

Viewing the 'Review Blockers' report

To view a list of people who have open reviews assigned to them,

To view the 'Review Blockers' report:

1. Click the dropdown arrow next to the 'Reviews' tab at the top of the page and select 'Reports' from the dropdown menu.
2. Click the 'Review Blockers' link under the 'Reports' sub-tab. The 'Review Blockers' report will be displayed.
   - Click a user's name to go to their 'Activity' screen.
   - Click a number in the 'To Complete' or 'To Summarize' column to go to the list of reviews waiting to be completed/summarised by the user.

Screenshot: 'Review Blockers' Report
Viewing the 'JIRA Blockers' report

The 'JIRA Blockers' report shows you a list of users whose action is required on open reviews, for a particular set of JIRA issues. The reviews must be explicitly linked to a JIRA issue or mention a JIRA issue key in the summary or the objectives.

To view the 'JIRA Blockers' report:

1. Click the dropdown arrow next to the 'Reviews' tab at the top of the page and select 'Reports' from the dropdown menu.
2. Click the 'JIRA Blockers' link under the 'Reports' sub-tab.
3. Enter the details of your JIRA server and project, and click the 'Go' button. The 'JIRA Blockers' report will be displayed with the following information:
   - A list of JIRA issues for which one or more Crucible reviewers has not completed their review.
   - A list of users who have an incomplete Crucible review that relates to a JIRA issue.
   - A list of open JIRA issues for which a Crucible review is closed, and vice versa.
Review Coverage Report

Crucible has useful reports that show you detailed statistics on review activity. The ‘review coverage’ report allows you to see how much of the code in your repository has been reviewed, which files and when. You can also access the reviews.

ℹ️ This feature requires FishEye integrated with Crucible.

On this page:

- Opening the Review Coverage Report
- Using the Summary Panel
- Using the Review Coverage Overview
- Using the Individual Committer Statistics Panel
  - Using the Changesets Coverage Panel

Screenshot: The Review Coverage Report
Opening the Review Coverage Report

To open the Review Coverage Report:

1. Click the ‘Source’ tab.
2. Select your repository. The repository you've chosen will set the scope for the Coverage Coverage report.
3. If desired, navigate down the tree to the desired path you want to view coverage on.
4. Click the Reports tab in the secondary toolbar.
5. Select 'Review Coverage Report' from the list of reports in the upper panel.

You can view coverage of any path by navigate down the tree to the desired path you want to view coverage on, before clicking on the ‘Reports’ tab.

Using the Summary Panel

The summary panel shows some choice metrics from your Crucible instance. The following information from your repository is arrayed:

- Overall review coverage percentage.
- Change in review coverage percentage since the last reporting period.
- Total number of reviews.
- Total number of comments.
- Total number of reported defects.
- Total number of Lines of Code (LOC).
- Total number of commits.
- Total number of committers.
- Total number of unreviewed lines.
- Total number of lines under review.
- Total number of reviewed lines.
- A ratio of the number of lines unreviewed against reviewed Lines of Code (LOC).

Screenshot: Summary Panel in the Review Coverage Report
Using the Review Coverage Overview

The Review Coverage Overview shows a timeline of reviews, compared against their percentage of coverage. Hover your mouse cursor over the data points on the graph to see granular information and click through to a detailed weekly report. You can click the tabs to view the coverage expressed as a percentage of lines of code, changesets or revisions.

*Screenshot: Overview Panel in the Review Coverage Report*

Using the Individual Committer Statistics Panel

The Individual Committer Statistics window lets you choose a user from your Crucible instance and see all the changesets by that committer.

*Screenshot: Individual Committer Statistics in the Review Coverage Report*
Using the Changesets Coverage Panel

The Changesets Coverage Panel lets you see changesets from your Crucible instance (for the time period of the report), and their level of review coverage. This information can be sorted by the columns in this view and uses colour coding to denote review coverage (listed in the table below).

Colour Key

<table>
<thead>
<tr>
<th>Colour</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>dark green</td>
<td>reviewed</td>
</tr>
<tr>
<td>light green</td>
<td>in review</td>
</tr>
<tr>
<td>red</td>
<td>not reviewed</td>
</tr>
</tbody>
</table>

Screenshot: Changesets Coverage panel in the Review Coverage Report
Changeset Discussions

When using Crucible with FishEye, you can have threaded discussions with other users, on any changeset. To start a discussion, you simply start by adding a comment to a changeset.

ℹ️ You need to be logged in to create changeset comments.

Adding Comments to Changesets

To add a comment to a changeset:

1. Open the changeset view for the desired code commit.
2. Display comments by clicking ‘Discuss’ at the upper right corner, or the speech bubble icon beside the left navigation bar.
3. When the comment bar is visible, you can add a comment by clicking ‘Add a Comment’. Type your content and click ‘Post’ to submit it.
4. You can tag your comment as a defect note by clicking the ‘Defect’ tick box.
5. Once submitted, others can respond to your comment by clicking ‘Reply’. Replies are threaded as separate comment discussions. You can click on the link icon to save a permalink to that comment. The comment author can edit or delete their comments.
6. To hide the changeset comments, click the page icon. You can open the comments bar by clicking the speech bubble icon again.

As you compose a comment, it will auto-save periodically.

Screenshot: Opening Changeset Discussions
Turning Changeset Discussions On and Off

You can turn off changeset discussions in the Admin screens.

Go to the Admin screen, then choose 'Repository List' from the left navigation bar. Find your repository from the list that appears, and click 'View' beside it to see the repository settings page. Scroll to the bottom of the list.
and find 'Changeset Discussions'. Click 'Edit' to change the value to true or false. If set to false, changeset discussions are disabled.

By default, changeset discussions are on.

Screenshot: Enabling Changeset Comments in the Admin Screens

Notifications

- Comments show up in the activity stream,
- The author of the changeset will get email notifications when comments are added,
- Comment authors will get email notifications when someone replies to their comments.

Changing your User Profile

See Changing your User Profile in the FishEye documentation for instructions on how to change your user profile.

Roles and Status Classifications

This page explains the roles & status classifications in Crucible.

- Roles in Crucible
  - Author
  - Creator/Moderator
  - Reviewer
  - User

- Status Classifications in Crucible
  - Draft
  - Under Review
  - Summarized
  - Closed
  - Abandoned

Roles in Crucible

Author

The page author does not exist.

Creator/Moderator

The creator is the person who creates the review. In most cases this person will also act as moderator. 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. See also author, the person whose changes to the code are to be reviewed.

Reviewer

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 to be participants of the review, but are not reviewers.
User

A user is a person using Crucible.

Status Classifications in Crucible

Draft

Draft Reviews are not yet completed or released to the reviewers.

Under Review

Reviews Under Review are either waiting for attention by reviewers or waiting to be summarized.

Summarized

Summarized reviews are past the reviewing phase. The moderator can still add conclusions or comments.

Closed

Closed reviews are complete.

Abandoned

Abandoned reviews are ‘in the trash’. Reviews must be Abandoned before they can be deleted.

See also the Glossary of terms used in Crucible.

Conducting a Review

This page contains links to instructions how to create a review and manage the workflow through its various states to completion. Click on the desired topic to see more information.

- Creating a Review
- Selecting the Files for the Review
- Adding Reviewers
- Issuing a Review
- Performing the Review
- Summarising and Closing the Review
- Moving a Review to Another Project
- Deleting a review

For an overview of how to apply a workflow to Crucible, see Defining your Workflow.

For an explanation of the different roles that people play in a review, see Roles and Status Classifications.

Creating a Review

This page explains how to create a Crucible review.

There are a number of ways to create a review. Choose from the list below:

- Creating a Patch Review
- Creating a Review within Crucible
- Creating a review from FishEye
- Creating a review from JIRA
- Creating a Review from a URL
- Creating a Snippet Review
Whichever way you choose, the overall process looks like this:

![Review Process Diagram](image)

Note that only people with the 'Create' permission can create a review.

### Creating a Patch Review

This page includes instructions on uploading patch files from your repository, how to load them into Crucible to be reviewed and use Crucible’s Patch Anchoring to retrieve more lines of context from the original file.

On this page:

- Using Crucible Patch Anchoring to Automatically Add Full Context
- Creating a Patch File From Your IDE
  - Creating a Patch File in IntelliJ IDEA 7.0
  - Creating a Patch File in Eclipse 3.3.1.1
- Creating a Basic Patch File From The Repository Command Line
  - CVS Patch Creation On The Command Line
  - Subversion Patch Creation Via The Command Line
  - Perforce Patch Creation Via The Command Line
  - Mercurial Patch Creation Via the Command Line
  - Git Patch Creation Via the Command Line
- Creating Patches That Include All Lines of Code
  - Creating a Patch in CVS With All Lines of code
  - Creating a Patch in Subversion With All Lines of Code
  - Creating a Patch in Perforce With All Lines of Code

Crucible allows you to review a change before it has been committed. To do this, you upload a patch file to the 'Patch' tab (or paste it in as text) when creating a review. You must first generate this patch file from your repository, using either commands built into your IDE, or via the repository command-line tools.

![Warning](image)

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

By default, patch files will only show a few lines of code surrounding each change, rather than the entire file and its changes. Crucible's patch anchoring feature overcomes this limitation.

### Using Crucible Patch Anchoring to Automatically Add Full Context

Crucible’s Patch Anchoring feature allows you to add a regular patch to a review (showing only a few lines of context. Then, Crucible will automatically search for the relevant file content in the connected repositories. When it finds the files, it will seamlessly add in more context from the file so that you can view all of the lines of code (greatly enhancing the review process).

To use patch anchoring:

1. Create a new review. From the 'Tools' menu in Crucible, select 'Create Review'.

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
2. Click 'Pre-Commit - Upload a patch file to be reviewed'. The 'patch upload' dialog appears. Click 'Browse', locate your file, then click 'Upload'. Crucible will now search for matches in the files in its database. Crucible will analyse all the paths in the patch, find the branches containing all those paths, then anchor the patch to the trunk or the branch with the most recent commit activity.

Crucible makes a 'best guess' in its processing – you should check that it has anchored the patch to the correct location in your repository.

1. You can click 'Edit' to change the anchoring, by choosing a new match or removing the anchor. You can change the anchoring later, after the review is live.
2. Start the review. When viewing the diffs, you will be able to choose more than three lines of context from the 'View' menu.
### Creating a Patch File From Your IDE

Creating a Patch File in IntelliJ IDEA 7.0
To create a Patch File under IntelliJ IDEA, do the following:

Select a parent folder, sub-folder or file that you have altered in the Project tool window. Select ‘Version Control’ > ‘Create Patch’. The following window appears:

Screenshot: The IDEA Create Patch window

Click ‘Create Patch’. Choose a location to save the patch file and click ‘Ok’.

If You Do Not Have the Create Patch Command Available Under IDEA

If you have not configured version control in IDEA, you may not have the ‘Create Patch’ option available. If so, use the following steps to create a patch file in IDEA:

1. Select a parent folder, sub-folder or file that you have altered in the Project tool window, right-click it and choose ‘Local History’ > ‘Show History’.

Screenshot: The IDEA Show History dialog
2. In the Local History view, right-click the revision number, and choose ‘Create Patch’.

   Screenshot: The IDEA Create Patch dialog

3. In the Create Patch dialog, choose a location for the patch file and a file name, then click ‘OK’.

   Creating a Patch File in Eclipse 3.3.1.1

To create a patch file under Eclipse, do the following:

Find the parent folder, sub-folder or file that you have altered, right-click it and choose ‘Team’ > ‘Create Patch’.

   Screenshot: Instigating a Patch in Eclipse
In the Create Patch window, choose a location on your computer and type an appropriate file name (the file format is plain text).

_Screenshot: The Eclipse Create Patch dialog_
Creating a Basic Patch File From The Repository Command Line

**CVS Patch Creation On The Command Line**

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

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

Note that patch files created with this command will only include around three lines of code, before and after each change. It will include revision information by default, so if you have FishEye, you may be able to anchor the patch to get full context.

**Subversion Patch Creation Via The Command Line**

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.

Note that patch files created with this command will only include around three lines of code, before and after each change. It will include revision information by default, so if you have FishEye, you may be able to anchor
the patch to get full context.

**Perforce Patch Creation Via The Command Line**

Use `p4 diff -dcu` to generate a patch for changed files. For example:

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

The "-dcu" option provides a combination of "context format" and "unified format". It provides the diff in a standard unified diff format (which we need to parse the diff) as well as revision information (which we need to anchor to FishEye).

Since Perforce diffs do not include added and deleted files so you should then do a `p4 opened` to find such files. For added files, in UNIX you can append them individually to the patch using GNU diff:

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

In the example above, replace `path_to_added_file` with the actual path of your added file. You can follow a similar procedure with deleted files using `p4 print` to extract the previous version of the file.

Note that patch files created with this command will only include around three lines of code, before and after each change. It will include revision information by default, so if you have FishEye, you may be able to anchor the patch to get full context.

**Mercurial Patch Creation Via the Command Line**

Use `hg diff` to generate a patch for changed files. For example:

```
    hg diff > patch.txt
```

This will include 3 lines of context. It will also include revision information, so if you have FishEye, you may be able to anchor the patch to get full context.

Note: if you use git style diffs (--git), the revision information will not be provided. This means that we cannot anchor the patch to a FishEye repository.

**Git Patch Creation Via the Command Line**

Use `git diff` to generate a patch for changed files. For example:

```
    git diff > patch.txt
```

This will include 3 lines of context. It will also include revision information, so if you have FishEye, you may be able to anchor the patch to get full context.

**Creating Patches That Include All Lines of Code**

To create a patch file that shows all lines of code as well as the changes, use the following commands from your repository command-line tools.
Creating a Patch in CVS With All Lines of Code

To create a CVS patch that shows all code (not just the changes and surrounding code), use this command:

```
cvs diff -N -U 10000 > patch.txt
```

The ‘10000’ number refers to the number of code lines included in the patch, before and after each change. 'Patch.txt' represents your desired name for the new patch file.

Creating a Patch in Subversion With All Lines of Code

To create a patch in Subversion that shows all code (not just the changes and surrounding code), use this command:

```
svn diff --diff-cmd diff -x "-U 10000" > patch.txt
```

- The in-built diff feature in svn diff does not support specifying lines of context, so you must tell Subversion to use an external diff command.
- The second "diff" in the command above needs to be the name of your external diff command. You might need to specify the full path to that command, such as /usr/bin/diff.
- On the Windows platform, you may need a Unix-like emulator such as Cygwin, and install the optional diff command for that.

Creating a Patch in Perforce With All Lines of Code

⚠️ Unfortunately, Perforce does not directly support creating patches that include all lines of code. A workaround is to checkout 'before' and 'after' versions of the file, and use GNU Diff to create a patch between the two files. That file could then be loaded into a Crucible review.

Creating a Review within Crucible

This page explains how to create a review from the Crucible interface.

On this page:
- Create a new review
- Choose where your review files will come from
- Add content to the review
- Edit the review details
- Adding an entire directory's contents to a Crucible review

Create a new review

Within Crucible, create a review by opening the Tools menu at the top right of the Reviews screen, then clicking Create Review. You will be prompted to select the Project for the review (if you have multiple projects). Choose a project and click 'Create Review'.
Choose where your review files will come from

The 'Add Content to Review' screen appears, where you will now be prompted to choose where your review files will come from. Choose one of the options by clicking. See Selecting the Files for the Review for details.

Add content to the review

Once you select where your review files are coming from, you are prompted to select the files to be reviewed. Check the boxes next to any files you want to add.

Add content to your review
Edit the review details

Once you have selected the files, click **Done** to go to the **Edit Review Details** screen, as shown below.

**Screenshot: Editing review details**

On the **Edit Review Details** screen, you can choose a title, reviewers, objectives, due date, linked reviews and issues. Once you’re finished, click ‘**Done**’.

**Screenshot: Editing review details**
The review will open in a preview form. Here, you can check all the details and click to edit any that aren't correct. Once you click **Start Review**, the review is live.

**Adding an entire directory's contents to a Crucible review**

To add an entire directory's contents to a Crucible review, you will need to search to find all the files. For example, using "select revisions from dir /some/dir where is head", or similar logic.

ℹ️ It is currently not possible in Crucible to add all the contents of a directory to a review with one click.

**Creating a review from FishEye**

This page explains how to create a Crucible review from FishEye.

---

**On this page:**

1. Open the FishEye Source view  
2. Start the review  
3. Choose a project

---

1. Open the FishEye Source view

To begin, the code author sets up the review. There are other ways to do this, but for this example, the author starts from the FishEye Source view of the file he or she wants to have reviewed.

**To navigate to the Source view for a file:**

1. On the **Source** tab, click the name for a repository.  
2. Click the name of the file to be reviewed.  
3. Click the **Source** sub-tab.
2. Start the review

To start the review:

- From the FishEye Source view, choose Reviews > Create Review.

Screenshot: Opening a review from the FishEye Source view

3. Choose a project

In the Edit Review Details dialog, choose the project for this review, and add reviewers. Now click Start Review.

Creating a review from JIRA

This page describes how to create a Crucible review directly from an issue in JIRA, the Atlassian issue-tracking application.

JIRA must be integrated with Crucible before you can do this. See JIRA Integration in Crucible for information on how to set this up.

To create a review from within JIRA:

1. Go to the issue in JIRA that relates to the work to be reviewed.
3. Either:
   a. Click the ‘+’ icon to the right of a changeset to create a new review for that changeset.
   b. Click Create crucible review to create a review for all the changesets in the list.
4. If a similar review already exists, you can add the changesets to that; otherwise click Create New Review.
5. In edit mode for a review:
5. Choose Tools > Start Review when you are ready.

The next step is to add reviewers.

Screenshot: Adding a review from within JIRA

```
Activity

Create crucible review

CR-4395
CR-45710

CR-45710: review rework

CR-45710: review rework

CR-45710: review rework

CR-45710: review rework

FE-4266: using a HashSet over a TreeSet like other BatchCreators do since Notification does not implement Comparable.
```

Screenshot: Review edit mode in Crucible

```
Creating a Review from a URL

You can set up a URL which you can then click to create a Crucible review.

Tools
```

6. The content of the changeset becomes the content (i.e. files) to be reviewed.
6. The author of the changeset becomes the author of the review, if Crucible is aware of this user. Otherwise the creator of the review becomes the author.
6. The creator of the review becomes the moderator.
6. The commit log message is used as both the Title and Statement of Objective.
The format of your URL is as follows:


The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>csid</td>
<td>The changeset ID. You can specify one or more, of the form //repo/csid (where &quot;%2F&quot; is the URL-encoded form of is '/')</td>
</tr>
<tr>
<td>repo</td>
<td>The name of your repository.</td>
</tr>
<tr>
<td>title</td>
<td>The title of your new Crucible review.</td>
</tr>
<tr>
<td>description</td>
<td>The description of your new Crucible review.</td>
</tr>
</tbody>
</table>

When you click the URL, you will be prompted to select the relevant projects if more than one project exists) in which to create your review. A new draft review will then be created, including the following information:

- The content of the changeset becomes the content (i.e. files) to be reviewed.
- The author of the changeset becomes the author of the review, if Crucible is aware of this user. Otherwise the creator of the review becomes the author.
- The commit log message is used as both the Title (unless you have explicitly defined a title in your URL) 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.

The next step is to add reviewers.

**Creating a Snippet Review**

This page explains how to create a simple code review using the Crucible Snippet Review feature. Snippet Reviews are designed to be lightweight ad-hoc code reviews.

To create a snippet review:

1. Copy the code to be reviewed from the source to your system clipboard.
2. Click Create Snippet in the Crucible toolbar.
3. Enter details for the snippet review:
   - Paste the code into the panel, where indicated.
   - Click on Click to add title near the top to enter a title for your review. If you don’t specify a title, one will be automatically created for you.
   - Select a project from Project.
   - Select a programming language from Syntax Highlighting.
4. Click Save to create the snippet review.
5. Invite anyone that you want to participate in the snippet review by sending them the link to the review. The link is the review key, just above the review title. Anyone who is allowed to view the snippet is allowed to comment on it, and can close it.

6. Click **Reply** on any comments to respond.
7. Choose from the **Tools** menu to either close or delete the snippet review. Anyone can re-open, re-review or close snippet reviews. However, only the creator of a snippet review can delete it.

Screenshots: Creating a Snippet Review (click to view larger images)

Step 1

Step 2

Selecting the Files for the Review

This page explains how to select files/changesets that will be included in a Crucible review.

On this page:

- Selecting Changesets for Review
- Selecting Files for Review by Exploring Repositories
- Selecting Files for Review using the Crucible Search
- Using the Suggestions Feature When Adding Files to a Review
- Adding Pre-commit Patch Files to a Review
- Adding Attachments to a Review

To add content to a review:

1. Log in to FishEye/Crucible and either;
   - Create a review, as described on [Creating a Review](#), or
   - Open an existing review, which you are the creator or moderator of, and click the Add Content (➕) button.
2. The ‘Add Content to Review’ dialogue will be displayed (see screenshot below). Select the method you want to use, to find the content for your review:
   - **’Browse Changesets’** — Allows you to choose changesets from a Source Code Management (SCM) repository to add to a review. See [Selecting Changesets for Review](#).
   - **’Explore Repositories’** — Allows you to browse for files from a Source Code Management (SCM) repository to add to a review. This option only appears when FishEye is installed. See [Selecting Files for Review using by Exploring Repositories](#).
   - **’Search for Files’** — Allows you to search a Source Code Management (SCM) repository for files
or changesets to add to a review. This option only appears when FishEye is installed. See Selecting Files for Review using the Crucible Search.

- **'Suggest Files'** — Analyses the list of files in the current review and makes suggestions based on certain logic (for example, suggesting a newer version of a file if one exists). This option only appears when FishEye is installed. See Using the Suggestions Feature When Adding Files to a Review.
- **'Pre-commit'** — Allows you to upload patch files to a review. See Adding Pre-commit Patch Files to a Review.
- **'Attachments'** — Allows you to upload any file to a review, including binary files and files outside of a Source Code Management (SCM) repository. See Adding Attachments to a Review.

3. Follow the appropriate instructions in the sections below to add content to your review.
4. Click the **'Done'** button to finish adding content to the review.

**Screenshot: The Add Content menu for Crucible reviews**

Selecting Changesets for Review

Click the **'Browse Changesets'** option on the **'Add Content'** dialogue to add changesets to your review.

**Screenshot: The Browse Changesets View in the Add Content dialogue**
By default, Crucible presents a list of the author's changesets in reverse chronological order. You can see other changesets by changing the options at the top of the screen.

Click the checkbox next to a changeset ID to add the entire changeset. Note,

- You cannot add individual file revisions to a review, although you can remove them once the changeset is added. Click 'Remove all revisions from review' to remove all.
- You cannot add changesets that are entirely svnprops changes (i.e. it has no non-metadata changes). For details, see How do I force reviews to include SVN property changes?

Options for adding changesets:

- '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.
- 'Add to Review As' — Choose the form of the review. See Choosing the way files are added to the review below.
- 'Go to Changeset' — Allows you to jump to a particular change set by entering its title and pressing Enter.

Choosing the way files are added to the review:

When adding files to a review, you can set the form of review taking place in the 'Add to Review as' drop-down menu:

- 'Whole Files' — Adds the entire file with all content, rather than just a diff with context.
- 'Diffs' — This is the default behaviour. This allows you to add multiple revisions of a file to one review and compare them in-review, in context with the change history.
- 'Diffs to Last Reviewed Version' — This adds files with a diff to the last reviewed changeset.
- 'Diffs to... (a particular revision)' — This allows you to specify the file to show the differences between two specific versions of a file.
- 'Diffs to Last Branch Point' — This adds files with a diff to the revision each file was last branched.
Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.

Selecting Files for Review by Exploring Repositories

Click the 'Explore Repositories' option on the 'Add Content' dialogue to browse repositories for files to add to your review.

Screenshot: Browsing for files to add to a review

- To find a file, browse the folders by clicking the relevant folder. The folders by default are sorted by path name but can sorted by last-commit or first-commit.
- To choose a file for reviewing, click the checkbox to the left of the filename and if required the revision number.
- To select a particular revision of a file, open the revision number list and select the option "Load Full History...". This will refresh the available options in the list.

Please note the following information when browsing files to add to a review:

- 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.

Choosing the way files are added to the review:

When adding files to a review, you can set the form of review taking place in the 'Add to Review as' drop-down menu:

- 'Whole Files' — Adds the entire file with all content, rather than just a diff with context.
- 'Diffs' — This is the default behaviour. This allows you to add multiple revisions of a file to one review and compare them in-review, in context with the change history.
- 'Diffs to Last Reviewed Version' — This adds files with a diff to the last reviewed changeset.
- 'Diffs to... (a particular revision)' — This allows you to specify the file to show the differences between two specific versions of a file.
• 'Diffs to Last Branch Point' — This adds files with a diff to the revision each file was last branched.

Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.

Selecting Files for Review using the Crucible Search

Click the 'Search for Files' option on the 'Add Content' dialogue to use the Crucible search to find files to add to your review.

⚠️ The 'Search' view is only available when using FishEye with Crucible.

Screenshot: Searching for files to add to a review

If you are not certain about which changesets/revisions/files to include in a review, use the Search view to find them. Adjust the search filters to find the files you need. If the simple filters are not enough, read about EyeQL queries in the FishEye documentation.

Read the FishEye documentation for more information about the searching your repositories.

Choosing the way files are added to the review:

When adding files to a review, you can set the form of review taking place in the 'Add to Review as' drop-down menu:

• 'Whole Files' — Adds the entire file with all content, rather than just a diff with context.
• 'Diffs' — This is the default behaviour. This allows you to add multiple revisions of a file to one review and compare them in-review, in context with the change history.
• 'Diffs to Last Reviewed Version' — This adds files with a diff to the last reviewed changeset.
• 'Diffs to... (a particular revision)' — This allows you to specify the file to show the differences between two specific versions of a file.
• 'Diffs to Last Branch Point' — This adds files with a diff to the revision each file was last branched.

Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.
Using the Suggestions Feature When Adding Files to a Review

Click the 'Suggest Files' option on the 'Add Content' dialogue to view and add files suggested by Crucible to your review. You need to have already added some file(s) to review for Crucible to suggest additional files.

Images: Viewing and adding file suggestions to a review

---

Crucible can make intelligent suggestions when you are creating a review. The Suggestions feature logic is based around the following:

- **Most recent versions**: If a newer version of a file exists, Crucible will suggest that you add it to the review.
- **Similar files**: Files with a similar filename may be of relevance to your review; Crucible will show them to you.

Choosing the way files are added to the review:

When adding files to a review, you can set the form of review taking place in the 'Add to Review as' drop-down menu:

- **Whole Files** — Adds the entire file with all content, rather than just a diff with context.
- **Diffs** — This is the default behaviour. This allows you to add multiple revisions of a file to one review and compare them in-review, in context with the change history.
- **Diffs to Last Reviewed Version** — This adds files with a diff to the last reviewed changeset.
- **Diffs to... (a particular revision)** — This allows you to specify the file to show the differences between two specific versions of a file.
- **Diffs to Last Branch Point** — This adds files with a diff to the revision each file was last branched.

Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.

Adding Pre-commit Patch Files to a Review

Click the 'Pre-commit' option on the 'Add Content' dialogue to add pre-commit patch files to your review.

Screenshot: Adding pre-commit patch files to a review
For a full explanation of the 'Patch View' functions, read about creating a patch review.

Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.

Adding Attachments to a Review

Click the 'Attachments' option on the 'Add Content' dialogue to add attachments to your review.

Screenshot: Adding attachments to a review

You can upload additional files to be used in the review, including binary files, images or code files that are not stored in a version control repository. The 'Upload' view contains various controls to help you do this. These are listed below.

Choose the 'Upload Method' as either 'Select file from the file system' or 'Paste text from clipboard':

- Displays if 'Upload method' is 'Select file from the file system':
  - 'Character Set' (if any) — Click the edit icon (📝) to choose the character set being used. 'US-ASCII' is the default.
  - 'File' — Click 'Browse' to find the file that you want to add to the review.
- Displays if 'Upload method' is 'Paste text from clipboard':
  - 'Patch text' — Paste your copied text in this text area.

Click the 'Upload' button, when you have made your selection. Once complete, a list of uploaded files is
displayed at the bottom of the screen. To add another iteration of a file, make changes to the file and upload it again with the same filename. It will be added as a new version.

Click the 'Done' button once you have finished selecting the desired files. The files will be added to your review and your review will be displayed.

**Iterative Reviews**

Crucible allows you to review several revisions of a file within one review, seamlessly switching between them. Comments are linked and relative to a specific revision. This allows you to review every change that has occurred on a code file within a given period of time. This lets you see the evolution of the file through various revisions (within one Crucible review).

**Screenshot: Iterative Reviews**

![Screenshot](image.png)

**Adding Reviewers**

This page explains how to add reviewers to a new review, after it has been created. See [Creating a Review](#) for information about creating reviews.

**On this page:**

- [Entering Basic Information](#)
- [Adding Reviewers](#)
  - Adding Users to a Review
  - Crucible Suggests Reviewers
  - Inviting Non-Registered Users to the Review
  - Checking the Draft and Starting the Review
Next Steps

Entering Basic Information

Once a review has been created, the Edit Review dialog opens.

Screenshot: The Edit Review dialog

In the Edit Review dialog, the author enters information needed for the review. This includes entering a title and description for the review, a due date and the key for a related JIRA issue (if any). The project, moderator and author are pre-selected (for this example, the author should select himself as a moderator.

You must also select reviewers.

Adding Reviewers

Before a review can be issued to reviewers, you must decide who can review it. When adding reviewers, you can add registered users immediately. The usernames will auto-complete, showing partial matches before you finish typing. You can quickly select one of the matches shown with the keyboard arrow keys, pressing Enter or Tab to add them to the review.

In addition, you can easily invite external users who do not yet have accounts in Crucible to take part by typing their email address into the Reviewers field.

Adding Users to a Review

Select users by typing names into the text field under Reviewers. Crucible will show a list of matches. Press Enter to select one after each entry.

Clicking the 'Save' button will save the review as a draft for later issue.

You can also decide to allow any registered user to add themselves as a reviewer in the review. To enable this option, put a check next to ‘Allow anyone to join’.

Crucible Suggests Reviewers

Crucible will automatically suggest reviewers, by analysing the users that have contributed to the files you’ve selected and also don’t have a lot of open reviews. You can easily pick reviewers from the list of suggestions by
Inviting Non-Registered Users to the Review

You can invite users who don't have a Crucible account to join a review.

There are two prerequisites:

1. FishEye’s SMTP server must be configured and capable of sending email.
2. The setting 'Built-in Public Sign-up' must be set to 'ON'. This setting can be accessed by opening the 'Admin Menu', then clicking 'Security' under 'Global Settings' on the left navigation bar.

To invite an external user to a review:

a. Create a new review.
b. On the 'Create New Review' screen, simply type the user's email address into the 'Reviewers' field, then press Enter to select.
c. Click Save to save the draft review. The users are not sent any information at this time.
d. When you click 'Start Review', this is when all email invites and notifications are sent out.
e. The external user will receive an email address from the Crucible server, containing a special URL that they can visit.
f. When the user loads the URL they received via email, they are taken to a special Crucible log in screen. On this screen, the user can create a new account that will be linked to the current email address. (If they already have a Crucible account under another address, they can simply sign-in with that username and password.)
g. When the user has successfully created a Crucible account, they will be able to access the review(s) associated with their email address and take part.

You can enter multiple addresses separated by commas, allowing you to paste in a list of email addresses from your favourite email application.

When finished, the author clicks 'Save'. The review will now be created in a draft form.

Checking the Draft and Starting the Review

The draft review opens. In the draft stage, the author can check the contents of the review files to ensure they are correct and put in any notes for reviewers as comments. During the draft phase, no notification email is sent out to reviewers. Once the author is finished with the draft phase, he clicks 'Start Review'.

The review will now be started and notification email will go out to all participants. Crucible will now send out an email notification to all the participants. This lets them know that the review is under way and prompts them to take action, providing a URL for direct access to the review. (You can also subscribe to an RSS feed.)

>Screenshot: A newly created Crucible review
Next Steps

You can now begin Performing the Review.
If you have a moderator controlling your review process, you can move onto Issuing a Review.

Issuing a Review

This page contains information about starting a review in Crucible.

On this page:

- Starting a review
- Editing review details once started

Starting a review

Issuing a review simply means formally starting it and inviting people to take part.

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 start a review.

To start the review:

- If you are the moderator of the review, click the 'Start Review' button. Or;
- 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 starting it.
Once the review has been started, the review state becomes ‘Under Review’.

Screenshot: Starting a Review

Note that only people with the ‘Approve’ permission can start a review.

Editing review details once started

You can edit the details of a review at any time by simply clicking the ‘Edit Review’ button in the left navigation bar to launch ‘Edit Mode’. In Edit mode, you can quickly click red cross icons to remove files from the review. A single click returns you to regular Crucible functions, so you can more easily tune the content inside your reviews. Another button opens a dialog for rapidly adding more content to the review.
Performing the Review

This page describes how to find and manage the Crucible reviews that relate to you.

On this page:

- **Browse Your Reviews Under the 'Dashboard' Tab**
- **Browse All Reviews Under the 'Reviews' Tab**
- **When Files Change During a Review**
- **Next Steps**

### Deciding what needs to be reviewed

The 'Statement of Objective' is a brief description of what the review is intended to achieve. Crucible does not dictate how or what to review. It simply provides a mechanism to record comments.

---

**Browse Your Reviews Under the 'Dashboard' Tab**

When you first load Crucible, the 'Dashboard' screen will load, which shows your current reviews and other activity related to you.

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

Active reviews are listed on each reviewer's dashboard under the default 'To Review' filter. Reviews are listed under 'Out for Review' until all reviewers indicate they are complete. Then the reviews move to the 'To Summarize' list.

Read more about using the [Dashboard tab](#).

**Browse All Reviews Under the 'Reviews' Tab**

All reviews that involve you in any role are listed when you click 'Open' or 'Closed' in the left navigation bar. 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 email notifications are 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.

**When Files Change During a Review**

If a file in the repository changes during a review, Crucible will visually alert you by showing the 'File Outdated' menu:

![Screenshot: Visual Cue for Updated Repository Files](image)

From the 'File Outdated' menu, you can choose to view the latest revision of the updated file, or add the latest revision to the review:

![Screenshot: 'File Outdated' menu](image)

**Next Steps**

- Adding Comments
- Flagging Defects
- Completing your Review
- Sending a Review's Comments via Email
- Using JIRA Integration in Crucible Reviews
- Using the Review History Dialog
- Tracking Crucible Review Metrics

**Adding Comments**

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

On this page:

- Locating existing comments
- Adding a Comment
- Draft Comments

Locating existing comments

The number shown next to a filename, in the left-hand column of the screen, indicates the number of comments
that apply to that file.

(The number of unread comments, if there are any, is shown in brackets.)

**Screenshot: Comments**

To add a comment that applies to the whole review, select the 'Review Comments' line in the left-hand navigation panel, then click the following icon:

- To add a comment that applies to a revision/change, select the filename in the left-hand navigation panel, then click the following icon:

- 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 select text on the page without adding a comment, hold down the Alt button while dragging the cursor.
• To reply to a comment, click the ‘Reply’ link at the bottom of the comment.

⚠️ Only people with the ‘Comment’ permission can add comments.

💡 Read about flagging defects too.

**Screenshot: Adding a Comment**

```plaintext
Is this variable name sensible?
```

**Draft Comments**

You can save your comment as a draft and then edit it later. When you complete the review, you will be prompted to post, discard or edit any remaining draft comments.

**Screenshot: Draft comments**

*Edwin Dawson says:*

Is this variable name sensible?

[Reply Edit Delete Post Draft]

**Flagging Defects**

Comments in Crucible can be used to flag a defect in the code under review.

to do this, simply tick the ‘Defect’ box when adding a comment and select a category from the drop-down list.

**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 Crucible administrator can customize the defect classifications.

You can only use the defect classifications on comments that are not a reply to an existing comment.

**Completing your Review**

Once each reviewer has added comments to the review and has nothing further to add, the next step is to complete their individual review.

To complete your individual review, go to the review and click the 'Complete' button at the right of the screen, next to the 'Tools' menu:

*Screenshot: The Complete Button*

![Complete Button](image)

Only people with the 'Complete' permission can complete a review.

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 individual 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*

![Warning]

**Warning**

You have draft comments

Draft comments that aren't posted will be deleted.

View drafts
Delete drafts
Post drafts

*Screenshot: Review complete*
Sending a Review’s Comments via Email

You can send all of the comments from a review to anyone you want via email. You may wish to do this to allow a person outside the review to quickly scan the content of the comments, or oversee the review activity. Alternatively, you may wish to send all participants this information to let them read the current status of the review and its comments in full.

**Sending a Review’s Comments via Email**

**Before you begin:**

- Users that are not logged in cannot send email, but instead can view the text content of the review’s comments by clicking the 'View Text' option which will appear instead of 'Email Review'.
- Emails of reviews are only sent in plain text, not HTML. HTML emails are only available via watches.

**To send all of a review's comments via email:**

1. In Crucible, navigate to the review in question.
2. From the 'Tools' menu, select 'Email Review' (see Screenshot 1 below).
3. The 'Recipients' page appears (see Screenshot 2 below). On that page:
   4. In the 'To:' field you can enter multiple email addresses, separated by commas.
   5. In the 'Recipients:' field, you can type usernames from your Crucible instance to add them to the distribution list. You can also simply tick the 'Send to Review Participants' check-box to include all of the review's reviewers.
6. When you have finished the distribution list, click the 'Next' button.
7. The 'Recipients' page appears (see Screenshot 3 below). On that page:
   8. In the 'To:' field you can enter multiple email addresses, separated by commas.
   9. When you have finished your message, click the 'Send' button.
10. The 'Status' page appears (see Screenshot 4 below), confirming that your email has been sent.

*Screenshot 1: The 'Email Review' option in Crucible*
Screenshot 2: The 'Recipients' Screen in Crucible

Screenshot 3: The 'Message' Screen in Crucible
Using JIRA Integration in Crucible Reviews

This page contains information on how to use JIRA integration with Crucible reviews.

On this page:

- 1. Create a JIRA Issue for your Review
- 2. Create Your Review and Link it to a JIRA Issue
- 3. Make a Comment or Defect on the Review
- 4. Click to create a JIRA Sub-Task
- 5. Resolve the JIRA issue through Crucible

Before you begin, both your Crucible and JIRA instances must be configured to use make use of these JIRA integration features. The Crucible project requires a linked JIRA project before issues can be linked to reviews.
1. Create a JIRA Issue for your Review

To use JIRA integration, you must begin with a JIRA issue that you will use as the parent issue for the review. Crucible will create and resolve sub-tasks belonging to this parent issue. Once your parent issue is created, make a note of its issue key, e.g. FE-1968.

2. Create Your Review and Link it to a JIRA Issue

When creating your review, you have an option called ‘Linked Issue’. Crucible may put a suggested JIRA issue key into this field automatically if a JIRA key is found in the review title. You can specify a different issue key and click ‘Link’ to save it. You can also click the ‘x’ to clear the field and load a different issue key.

Screenshot: Selecting a JIRA Issue When Creating a Review

You can also link a JIRA issue to the review after the review is created. When viewing a review, the details pane of the review shows meta-information. One of the links in this area is titled ‘Linked JIRA Issue:’ and then a suggested JIRA issue key. Click this link to associate that JIRA issue with this review.

3. Make a Comment or Defect on the Review

Once your review has a linked JIRA issue, create a comment or defect comment anywhere on the review. Once created, the comment actions will show a link titled ‘Create Issue’ (note that this link does not appear on replies — only on new comments). You can click that to instantly create a sub-task under the parent JIRA, which will take the content of the comment as its summary.

Screenshot: Selecting a JIRA Issue From a Comment
4. Click to create a JIRA Sub-Task

Clicking the 'Create Issue' link will allow you to create a JIRA sub-task under the parent JIRA issue, e.g.:

Screenshot: The JIRA 'Create Issue' dialog

The list of possible assignees will include:

- 'Automatic' (i.e. the default assignee for that JIRA project)
- the assignee of the subtask's parent issue
- the reporter of the subtask's parent issue
- 'Unassigned' (if your JIRA administrator has enabled Allow Unassigned)
- plus, if Trusted Applications have been configured between JIRA and Crucible,
  - the review author
  - the review moderator
  - the comment/defect author
  - yourself

Once created, the sub-task JIRA issue key, status and default action (i.e. 'Resolve') will be shown. If you hover
your mouse over the JIRA issue key, an information window will show more information and controls relating to that JIRA issue.

**Screenshot: The JIRA Hover information window**

![Image of the JIRA Hover information window](image)

1. Users are mapped to their own accounts when using [Trusted Applications](#). If you don't have the permissions to carry out the default action (‘Resolve’, in this case), an error will occur.

### 5. Resolve the JIRA issue through Crucible

Once the work required on your sub-task is completed, simply click the action link provided to signal that this has occurred (e.g. ‘Resolve’). The JIRA issue will be closed.

If you encounter problems or have trouble using JIRA integration, please read the [FAQ page](#) on this topic.

#### Using the Review History Dialog

The Review History dialog shows a chronological list of interactions within a review. You can see rich information about those interactions and control their display. You can sort the information by date, actor, or action.

**To open the Review History dialog:**

1. Open a review in Crucible.
2. Click ‘Tools’ > ‘Review History’ at the toolbar at the top right corner of the screen.
3. The Review History dialog opens.

This information can also be displayed in the new timeline mode, a graphical visualisation that shows events on a horizontal graph over time (click the ‘Timeline’ tab at the top of the dialog to switch from ‘Details’ to timeline view). Click and drag inside the timeline view to scroll the graph left and right. You can also click on the section showing months to scroll over a greater time scale.

Additionally, you can get access to the entire review history through the ‘CSV export’ link in the upper right hand
corner, allowing for easy data import into a spreadsheet or other application.

**Screenshot: The Crucible Review History Dialog**

![Image of the Crucible Review History Dialog]

**Screenshot: The Crucible Review History Dialog, Timeline View**

![Image of the Crucible Review History Dialog, Timeline View]

**Tracking Crucible Review Metrics**

Crucible tracks each participant's percentage completion through each review and the total time they have spent.

To learn about these features, see the following pages:

- [Using Progress Tracking](#)
- [Using Time Tracking](#)

**Using Progress Tracking**

This page contains instruction on how to use progress tracking in Crucible.

*On this page:*

- [How progress tracking works in Crucible](#)
- [Viewing the progress tracking totals](#)
How progress tracking works in Crucible

As you work your way through the files in a review, Crucible tracks the ones you have viewed. Whenever you open a file for review, Crucible will automatically mark it as read.

When participating in iterative reviews, progress tracking also takes lines of code and revisions into account.

Viewing the progress tracking totals

The ‘Details’ view shows a summary of the progress of each participant through the files in the review.

If there is only one file in the review, then the progress tracked will either show 0% or 100%.

How to adjust progress tracking on a review

You can mark a file as unread by clicking on its name to view the file's contents. In the source view, you have an option at the top left of the screen, ‘Leave Unread’. If you select that, then the file you are looking at will not be added to your progress percentage.

Adjusting settings for progress tracking

Progress tracking is a configurable user preference that can be changed in the ‘User Settings’ menu, in the ‘Re views’ sub-section. ‘Auto-mark files as read’ is on by default. When ‘Auto-mark files as read’ is set to ‘No’, marking files as read or unread is left to the user to manually manage.

Further reading

Documentation for Crucible 2.9

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Further reading

You may also want to learn about Crucible's Time Tracking feature.

**Using Time Tracking**

This page contains instruction on how to use time tracking in Crucible.

*On this page:*

- How time tracking works in Crucible
- How to adjust the time tracked on a review
- Viewing the time tracking totals
- JIRA integration
- Further reading

**How time tracking works in Crucible**

Crucible will automatically track the time you spend in a Crucible review. When you open a file for review, a counter in the Review Details panel starts. The time is added to your total when you leave the review screen.

*Screenshot: Crucible Time Tracking*

**How to adjust the time tracked on a review**

You can click and type in the time tracking control to adjust the time you have spent during the session.

**Viewing the time tracking totals**

The 'Details' view shows a summary of the progress and time tracked on each file.

*Screenshot: Crucible Tracking Totals*
JIRA integration

Using Crucible when integrated with JIRA, you can update time tracking from the following locations:

- The confirmation dialog for a reviewer completing a review,
- The confirmation dialog on closing a review,
- The regular toolbar location in Crucible.

Screenshot: JIRA Time Tracking Integration

Further reading

You may also want to learn about Crucible's Progress Tracking feature.

Summarising and Closing the Review

Summarize is an optional step before closing a review.

To enable or disable the Summarize step, you will have to configure the permission in your Permission Scheme. Crucible ships with two permission schemes:

- 'Agile' - the summarize step is disabled for all users
- 'Default' - the summarize step is enabled for the moderator

You can choose to either summarize a review or close a review at any time, given that your Permission Scheme allows it. You can skip the summarize step by directly clicking the 'Close' button.

Normally, we recommend that you wait for all reviewers to complete their reviews.

The reviews that the reviewers have completed will be in your Ready to Close menu on the Dashboard.

To summarize a review,

- Click Summarize at the right of the screen.
- Optionally enter a summary of the review.
- If you have no further comments to add, click Close Review; otherwise, click Continue Without Closing.

Screenshot: 'Summarize’ button
The above review is not yet complete

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

On clicking Summarize, the user 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 summarized 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: Summarize Review

Summarize the review outcomes (optional)

Testing successful. Thanks for your time, everyone.

Screenshot: Review Closed
Review Closed

Review Summary
Testing successful. Thanks for your time, everyone.

Reviews requiring your attention:

<table>
<thead>
<tr>
<th>Task</th>
<th>Review</th>
<th>Owner</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review</td>
<td>CR-FE-2170</td>
<td></td>
<td>03 Jul</td>
</tr>
</tbody>
</table>

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

- Reviews in the 'Review' or 'Summarize' state can be closed.
- Reviews in the '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 (create a hyperlink back to the original review in the new Review's Objectives field).

Note that you need the 'Summarize', 'Close' or 'Re-Open' permission to summarize, close or re-open a review.

Moving a Review to Another Project

You can move reviews between projects once they have been created.

To move a review between projects:

1. Open the review. Click the 'Edit Review' button at the top of the screen.
2. The 'Edit Review' window will open, allowing you to change various aspects of the review.
3. Under 'Project' click the drop-down menu. This will allow you to select a new parent project for the review.
4. Click the 'Done' button at the bottom of the screen.

Screenshot: Changing a Review's Parent Project
Deleting a review
To delete a review you must first abandon the review. To do that, follow the instructions below.

⚠ Deleted reviews cannot be retrieved.

**Related page:**
- Deleting hung reviews manually

To abandon and then delete a review:

1. Open the review.
2. Choose **Tools > Abandon**.
3. Now, on the Crucible dashboard, click **My Abandoned Reviews** in the left-hand navigation bar.
4. In the list of abandoned reviews, click the name of the review you wish to remove.
5. Once the review details are displaying, choose **Tools > Delete**. The review will be instantly deleted.

**Screenshot: Deleting a review in Crucible**
Defining your Workflow

This document describes several forms of Crucible Workflow in detail. Depending on the size of your team, there are four different ways that a development team could use Crucible for code reviews. Choose the workflow which suits your team.

- Lightweight Code Commenting with Crucible (individual)
- One-to-One Reviews (Agile Pair)
- One-to-Many Reviews Without a Moderator (Agile Team)
- Formal Group Reviews (CMM Team)

Lightweight Code Commenting with Crucible (individual)
1. **Author** commits new work.
2. Author creates the review, and adds comments using the easy web interface.
3. Author summarizes and closes the review, saving the code comments in Crucible's database, which is stored outside the repository.

Diagram: Workflow for Lightweight Code Commenting

One-to-One Reviews (Agile Pair)
1. **Author** creates the review.
2. Author invites reviewer to take part in the review.
3. **Reviewer** creates comments on the code.
4. Author responds to reviewer comments.
5. Follow-up comments are made if necessary.
6. Reviewer finishes own review process.
7. Author summarizes and closes the review.

Diagram: Workflow for One-to-One Reviews
For more information on one-to-one reviews, see The Crucible workflow. The workflow process in Crucible is covered in detail within this document.

One-to-Many Reviews Without a Moderator (Agile Team)
1. Author creates the review.
2. Author invites reviewers to take part in the review.
3. Reviewers make comments on the code.
4. Author responds to reviewer comments, follow-up comments are made if necessary.
5. Reviewers complete their reviews.
6. Author summarizes and closes the review.

Diagram: Workflow for One-to-Many Reviews

Formal Group Reviews (CMM Team)
1. Author creates the review.
2. Moderator invites reviewers to take part in the review.
3. Reviewers make comments on the code.
4. Author responds to reviewer comments.
5. Follow-up comments are made if necessary.
6. Each discussion point is settled by the Moderator.
7. Moderator summarizes and closes the review.

Diagram: Workflow for Formal Group Reviews
To see a simple example of how to use Crucible with two people, see The Crucible workflow.

Viewing Your Favourites

This page contains instructions on how to view, rename and remove your existing favourites in Crucible. You can select code reviews, changesets, files, people and repositories as favourites in Crucible. This allows you to personalise the information that you see in your activity stream.

See Using Favourites for instructions on how to add new favourites.

On this page:

- Viewing your Existing Favourites
- Renaming a Favourite
- Removing a Favourite

Viewing your Existing Favourites

To view your favourites,

1. Click the favourites icon (🌟) in the header. The code reviews, changesets, files, people and repositories that you have selected will be displayed in a list on the dashboard (see screenshot).

2. Click the favourites icon (🌟) next to a favourite to show the dialogue for renaming (i.e. changing the 'Label') the favourite or removing the favourite. See Using Favourites for more information.

☐ Tip: You can add favourites wherever you see star icons next to code reviews, changesets, files, people and repositories, not just on this screen.

Screenshot: Viewing favourites
Renaming a Favourite

To rename a favourite,

1. Click the favourites icon (⭐) in the header. The code reviews, changesets, files, people and repositories that you have selected will be displayed in a list on the dashboard (see screenshot).
2. Click the favourites icon (⭐) next to a favourite to show the 'Update favourite' dialogue (see screenshot below).
3. Enter the new name for the favourite in the 'Name' field and click the 'Save label' button. The favourite will be renamed on the dashboard.

Screenshot: The 'Update favourite' dialogue

Removing a Favourite

To view your favourites,
1. Click the favourites icon (⭐) in the header.
   The code reviews, changesets, files, people and repositories that you have selected will be displayed in a list on the dashboard (see screenshot).

2. Click the favourites icon (⭐) next to a favourite to show the 'Update favourite' dialogue (see screenshot below).

3. Click the 'Remove' button. The code review, changeset, file, person or repository will be removed as your favourite (the icon will be greyed out) and will not display the next time you view your list of favourites.

   ☑️ Tip: You can remove favourites wherever you see star icons next to code reviews, changesets, files, people and repositories, not just on this screen, not just on this screen.

**Screenshot: The 'Update favourite' dialogue**

---

**Using Favourites**

This page contains instructions on adding favourites in Crucible. You can select code reviews, changesets, files, people and repositories to be added to your favourites. This allows you to personalise the information that you see in your activity stream. We suggest you select items that you are currently working on as favourites, to create a more relevant personalised view.

See View Your Favourites for instructions on how to view your existing list of favourites and how to rename and remove favourites.

**On this page:**

- Adding a Review to Your Favourites
- Adding a Review Comment Thread to Your Favourites
- Adding a Project to Your Favourites
- Adding a Person to Your Favourites
- Adding a Changeset to Your Favourites
- Adding a File or Folder to Your Favourites
- Adding a Repository to Your Favourites

**Adding a Review to Your Favourites**

To add a review to your favourites, hold the mouse cursor over the review name when it appears in a menu screen. The Review Hover menu appears. At the top right of the Review Hover menu, click the small grey cog icon that indicates the 'Tools' menu. The Tools menu opens. In the Tools menu, click 'Add Star'. This will add it to your favourites.

**Screenshot: Adding a Review To Your Favourites**
Adding a Review Comment Thread to Your Favourites

To add a review comment thread to your favourites, click the link ‘Add Star’ next to the grey star icon at the bottom of the first comment of the thread. From then on, new comments will be shown in your favourites activity stream.

Screenshot: Adding a Review Comment Thread to Your Favourites

Adding a Project to Your Favourites

To add a project to your favourites, click the ‘Projects’ tab. The Projects view appears. Here, simply click the grey star icon that appears next to the desired project name. The star icon will turn yellow, showing that it is selected as a favourite.
Adding a Person to Your Favourites

To add a person to your favourites, simply hold the mouse cursor over their username wherever it appears. The User Hover menu will appear. In the User Hover menu, click ‘Follow’. This will add the person to your favourites.

Adding a Changeset to Your Favourites

To add a changeset to your favourites, firstly open the changeset desired from the ‘Source’ tab. Once the changeset is open in Crucible, simply click the grey star icon that appears next to its name. The name appears in the breadcrumb links at the top of the screen.
Adding a File or Folder to Your Favourites

To add a file to your favourites, firstly open the file or folder desired, from the 'Source' tab. Once the file or folder is open in Crucible, simply click the grey star icon that appears next to its name. The name appears in the breadcrumb links at the top of the screen.

Screenshot: Adding a File or Folder to Your Favourites

Adding a Repository to Your Favourites

Adding a repository to your favourites (requires FishEye), click the 'Source' tab. The 'Source' view appears. Here, simply click the grey star icon that appears next to the name of the desired repository. The star icon will turn yellow, showing that it is selected.

Screenshot: Adding a Repository to Your Favourites

Using Keyboard Shortcuts in Crucible

Crucible provides a number of keyboard shortcuts, allowing you to quickly carry out certain actions without the mouse. Keyboard shortcuts are available for most of the commonly-used functions in Crucible.

To see a list of available shortcuts, firstly navigate to a review in Crucible. Now open the 'Tools' drop-down menu at the top right corner of the screen, and select the 'Keyboard Shortcuts' option.

See the tables below for full details:

**General Shortcuts**

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Opens reference list of keyboard shortcuts.</td>
</tr>
<tr>
<td>escape</td>
<td>Closes reference list of keyboard shortcuts.</td>
</tr>
<tr>
<td>alt</td>
<td>Hold down then click and drag to select source line contents.</td>
</tr>
<tr>
<td>shift + f</td>
<td>Toggle full screen review mode.</td>
</tr>
</tbody>
</table>

Custom Navigation
### Comment Navigation Shortcuts

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>n</code></td>
<td>Go to next review comment.</td>
</tr>
<tr>
<td><code>p</code></td>
<td>Go to previous review comment.</td>
</tr>
<tr>
<td><code>shift + p</code></td>
<td>Go to first review comment.</td>
</tr>
<tr>
<td><code>shift + n</code></td>
<td>Go to last review comment.</td>
</tr>
<tr>
<td><code>l</code></td>
<td>Go to next thread (skips replies).</td>
</tr>
<tr>
<td><code>h</code></td>
<td>Go to previous thread (skips replies).</td>
</tr>
<tr>
<td><code>[</code></td>
<td>Go to next unread comment.</td>
</tr>
<tr>
<td><code>]</code></td>
<td>Go to previous unread comment.</td>
</tr>
<tr>
<td><code>r</code></td>
<td>Reply to a comment.</td>
</tr>
<tr>
<td><code>m</code></td>
<td>Toggle comment read/unread status.</td>
</tr>
</tbody>
</table>

### File Navigation Shortcuts

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>j</code></td>
<td>Go to next file.</td>
</tr>
<tr>
<td><code>k</code></td>
<td>Go to previous file.</td>
</tr>
<tr>
<td><code>shift + k</code></td>
<td>Go to first file.</td>
</tr>
<tr>
<td><code>shift + j</code></td>
<td>Go to last file.</td>
</tr>
<tr>
<td><code>u</code></td>
<td>Go to next unreviewed file.</td>
</tr>
<tr>
<td><code>i</code></td>
<td>Go to previous unreviewed file.</td>
</tr>
<tr>
<td><code>y</code></td>
<td>Set file reviewed and go to next unreviewed file.</td>
</tr>
</tbody>
</table>
Using RSS Feeds in Crucible

Subscribing to an RSS Feed

In Crucible, all pages with an activity stream and any page which has a list of reviews will have an RSS option.

To access the RSS feed for a page, open the 'Tools' drop-down menu at the top right corner of the screen, then click the 'RSS' option.

This will open a page with the RSS feed displayed; you can also paste the URL from that page into your RSS reader of choice.

Using Wiki Markup in Crucible

Crucible supports Wiki Markup text formatting in comments and review descriptions.

The text markup notation on this page is a reference showing the available formatting commands.

ℹ️ When using FishEye, you can also render Wiki Markup in commit messages.

### Headings

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>h1.Biggest heading</td>
<td>Turns text into a heading at size 1.</td>
</tr>
<tr>
<td></td>
<td><strong>Biggest Text</strong></td>
</tr>
<tr>
<td>h2.Bigger heading</td>
<td>Turns text into a heading at size 2.</td>
</tr>
<tr>
<td></td>
<td><strong>Bigger heading</strong></td>
</tr>
<tr>
<td>h3.Big heading</td>
<td>Turns text into a heading at size 3.</td>
</tr>
<tr>
<td></td>
<td><strong>Big heading</strong></td>
</tr>
<tr>
<td>h4.Normal heading</td>
<td>Turns text into a heading at size 4.</td>
</tr>
<tr>
<td></td>
<td><strong>Normal heading</strong></td>
</tr>
<tr>
<td>Text Effects</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Text effects are used to change the formatting of words and sentences.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>bold</em></td>
<td>Makes text appear <strong>bold</strong>.</td>
</tr>
<tr>
<td><em>italic</em></td>
<td>Makes text appear <em>italics</em>.</td>
</tr>
<tr>
<td>+underline+</td>
<td>Makes text appear <strong>underlined</strong>.</td>
</tr>
<tr>
<td>??citation??</td>
<td>Makes text appear in <em>citation form</em>.</td>
</tr>
<tr>
<td>-strikethrough-</td>
<td>Makes text appear <strong>strikethrough</strong>.</td>
</tr>
<tr>
<td>^superscript^</td>
<td>Makes text appear in <strong>superscript</strong>.</td>
</tr>
<tr>
<td><del>subscript</del></td>
<td>Makes text appear in <strong>subscript</strong>.</td>
</tr>
</tbody>
</table>

Placing double curly-brackets around text makes it appear **monospaced**.

bq. Block Quote

To make an entire paragraph into a block quotation, place "bq. " before it.

Example:
```
| Some block quoted text |
```

{quote} here is quoteable content to be quoted {quote}

Quote a block of text that's longer than one paragraph.

Example:
```
| here is quoteable content to be quoted |
```

{color:red} look ma, red text! {color}

Changes the color of a block of text.

Example: look ma, red text!
Text Breaks

Wiki Markup allows you to insert breaks or different kinds of hyphens and dashes.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(empty line)</td>
<td>Produces a new paragraph</td>
</tr>
</tbody>
</table>
| \\
| Creates a line break. |
| ----
| Creates a horizontal ruler. |
| ---
| Produces em dash — symbol. |
| --
| Produces en dash – symbol. |

Links

Creating links is easy with Wiki Markup.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Crucible Review CR-FE-100</td>
<td>CR-FE-100]</td>
</tr>
<tr>
<td>[Atlassian Crucible</td>
<td><a href="http://atlassian.com">http://atlassian.com</a>]</td>
</tr>
<tr>
<td><a href="http://www.atlassian.com/crucible">http://www.atlassian.com/crucible</a></td>
<td></td>
</tr>
<tr>
<td>Atlassian Crucible</td>
<td></td>
</tr>
<tr>
<td>Note: The square brackets [ ], around external links are optional in the case you do not want to use any alternate text for the link (i.e. just display the raw URL).</td>
<td></td>
</tr>
</tbody>
</table>
[mailto:mail@example.com] Creates a link to an email address.
Example: mail@example.com

[file:///c:/temp/foo.txt] [file:///z:/file/on/network/share.txt] Creates a download link to a file on your computer or on a network share that you have mapped to a drive. To access the file, you must right click on the link and choose "Save Target As".

(anchor:anchornname) Creates a bookmark anchor inside the page. You can then create links directly to that anchor. So a link like this: [My Page#here] will link to wherever in "My Page" there is an (anchor:here) macro, and the link [#there] will link to wherever in the current page there is an (anchor:there) macro.

Lists

Lists allow you to present information as a series of ordered items. Use asterisks * for bulleted lists and hash symbols # for numbered lists.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
</table>
| * A bulleted list  
  * Second item  
  ** indented item 1  
  ** indented item 2  
| Examples:  
  • A bulleted list  
  • Second item  
    • indented item 1  
    • indented item 2  
| # A numbered list  
  # Second item  
  ## indented item 1  
  ## indented item 2  
| 1. A numbered list  
  2. Second item  
    a. indented item 1  
    b. indented item 2  

Images

Images can be referenced from remote sources only.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!<a href="http://www.host.com/image.gif">http://www.host.com/image.gif</a>!</td>
<td>The image will be displayed from the remote source.</td>
</tr>
<tr>
<td>!<a href="http://www.host.com/image.gif!">http://www.host.com/image.gif!</a></td>
<td>For any image, you can also specify attributes of the image tag as a comma separated list of name=value pairs as shown in this example.</td>
</tr>
</tbody>
</table>

Tables

Tables allow you to organise content in a rows and columns, with a header row if required.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
</table>
Advanced Formatting

This section covers panels, code windows and showing plain text with no formatting.

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>{noformat}</td>
<td>Makes a preformatted block of text with no syntax highlighting. All the optional parameters of the {noformat} macro are valid for the {panel} macro as well. Example:</td>
</tr>
</tbody>
</table>

```
This is a no-formatted piece of text, so *no* _formatting_ is done here.
```

<table>
<thead>
<tr>
<th>{panel}</th>
<th>Embraces a block of text within a fully customizable panel. The optional parameters you can define are as follows.</th>
</tr>
</thead>
<tbody>
<tr>
<td>title:</td>
<td>Title of the panel</td>
</tr>
<tr>
<td>borderStyle:</td>
<td>The style of the border this panel uses (solid, dashed and other valid CSS border styles)</td>
</tr>
<tr>
<td>borderColor:</td>
<td>The color of the border this panel uses</td>
</tr>
<tr>
<td>borderWidth:</td>
<td>The width of the border this panel uses</td>
</tr>
<tr>
<td>bgColor:</td>
<td>The background color of this panel</td>
</tr>
<tr>
<td>titleBGColor:</td>
<td>The background color of the title section of this panel</td>
</tr>
</tbody>
</table>

Examples:

- Some text in a basic panel

```
Some text here
```

- My Title

```
My Title
```

- Some text with a title

```
Some text here
```
The code macro displays a preformatted block for showing code with syntax highlighting. All the optional parameters of the \{panel\} macro are valid for \{code\}. The default language is Java but you can specify JavaScript, ActionScript, XML or SQL.

Examples:

**Java with a title bar:**

```
public String getFoo()
{
    return foo;
}
```

**A basic display with XML code:**

```xml
<test>
    <another tag="attribute"/>
</test>
```

---

**Miscellaneous Markup Features**

Emoticons and often-used images can be easily embedded with the following Wiki Markup Syntax:

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>\X</td>
<td>Escape special character X (i.e. {)</td>
</tr>
<tr>
<td>:, :{</td>
<td>Graphical emoticons (smileys): 😊, 😕</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notation</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>:)</td>
<td>😊</td>
</tr>
<tr>
<td>:(</td>
<td>😕</td>
</tr>
<tr>
<td>:P</td>
<td>😞</td>
</tr>
<tr>
<td>:D</td>
<td>😊</td>
</tr>
<tr>
<td>;)</td>
<td>😊</td>
</tr>
<tr>
<td>(y)</td>
<td>😊</td>
</tr>
<tr>
<td>(n)</td>
<td>😞</td>
</tr>
<tr>
<td>(i)</td>
<td>😞</td>
</tr>
<tr>
<td>(/)</td>
<td>😞</td>
</tr>
<tr>
<td>(x)</td>
<td>😞</td>
</tr>
<tr>
<td>(l)</td>
<td>😞</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notation</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+)</td>
<td>🔴</td>
</tr>
<tr>
<td>(-)</td>
<td>🔴</td>
</tr>
<tr>
<td>(?)</td>
<td>🔴</td>
</tr>
<tr>
<td>(on)</td>
<td>🔴</td>
</tr>
<tr>
<td>(off)</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)r</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)g</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)b</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)y</td>
<td>🔴</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notation</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+)</td>
<td>🔴</td>
</tr>
<tr>
<td>(-)</td>
<td>🔴</td>
</tr>
<tr>
<td>(?)</td>
<td>🔴</td>
</tr>
<tr>
<td>(on)</td>
<td>🔴</td>
</tr>
<tr>
<td>(off)</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)r</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)g</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)b</td>
<td>🔴</td>
</tr>
<tr>
<td>(*)y</td>
<td>🔴</td>
</tr>
</tbody>
</table>

---

**Using Gadgets in Crucible**

This page explains how to use the bundled gadgets in Crucible.
Overview of Crucible Gadgets

As of the release of Crucible 2.3, you can show Crucible data in other Atlassian applications such as JIRA and Confluence by way of special gadgets.

Crucible has three gadgets bundled with it by default:

<table>
<thead>
<tr>
<th>Gadget Name</th>
<th>Description and Gadget URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>'To Do Gadget'</td>
<td>This gadget is a list of Crucible to-do items including reviews to do, comments to read or reviews to summarise.</td>
</tr>
<tr>
<td></td>
<td>The URL for this gadget is as follows:</td>
</tr>
<tr>
<td></td>
<td><a href="http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fecru.fecru-gadgets-plugin:overdueReviews/gadgets/todo.xml">http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fecru.fecru-gadgets-plugin:overdueReviews/gadgets/todo.xml</a></td>
</tr>
<tr>
<td></td>
<td>In this example, HOSTNAME:8060 is the hostname of your Crucible instance.</td>
</tr>
<tr>
<td>'Hassle Gadget'</td>
<td>This gadget shows you who you are still waiting on, in other words which reviewers haven't completed your reviews.</td>
</tr>
<tr>
<td></td>
<td>The URL for this gadget is as follows:</td>
</tr>
<tr>
<td></td>
<td><a href="http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fecru.fecru-gadgets-plugin:overdueReviews/gadgets/hassle.xml">http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fecru.fecru-gadgets-plugin:overdueReviews/gadgets/hassle.xml</a></td>
</tr>
<tr>
<td></td>
<td>In this example, HOSTNAME:8060 is the hostname of your Crucible instance.</td>
</tr>
</tbody>
</table>
‘Overdue Reviews Gadget’

This gadget shows you reviews that are yet to be completed in the project, across all authors. This is useful for managers or team leads.

The URL for this gadget is as follows:

http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fecru.fecru-gadgets-plugin:overdueReviews/gadgets/overdueReviews.xml

In this example, HOSTNAME:8060 is the hostname of your Crucible instance.

Review Coverage

This gadget shows content from the innovative Review Coverage report, letting you investigate how much of your codebase has been under code review.

The URL for this gadget is as follows:

http://HOSTNAME:8060/rest/gadgets/1.0/g/com.atlassian.fisheye.review-coverage-report/gadgets/recent-changesets.xml

In this example, HOSTNAME:8060 is the hostname of your Crucible instance.

Configuring gadgets is a three phase process. Firstly, you add your JIRA instance as an OAuth consumer. Secondly, you'll add the gadget to the destination application, then finally you add the gadget to the application's dashboard. In our example, we will show how to configure the Crucible gadgets for use in JIRA.

Gadget Configuration 1: Add JIRA to FishEye as an OAuth consumer

Firstly, you need to add JIRA to FishEye as an OAuth consumer. To do this, open the Admin Screen, then click ‘Open Authentication (OAuth)’ under ‘Global Settings’ in the left navigation bar. The OAuth configuration screen opens. Click ‘Add OAuth Consumer’.

Screenshot: The OAuth Administration Screen
Now, copy the URL for your JIRA instance into the field labelled 'Consumer Base URL' then click 'Add'. The application in use (JIRA or Confluence) will be auto-detected.

**Screenshot: Adding Consumers to OAuth**

An OAuth consumer is a web site or application that has permission to access FishEye's data on behalf of the logged-in user. Typically, the consumer accesses the data via gadgets that support OAuth for authorization. Learn more.

Enter the consumer's base URL so we can retrieve its information automatically for you.

Consumer Base URL: [http://jira.atlassian.com](http://jira.atlassian.com)

Use base URLs for Atlassian applications only. For example, 'http://jira.mycompany.com'.

[Add] Return to Consumer List

Once the instance is added correctly, it will appear in the list of consumers. From here, you're ready to move onto step two.

**Screenshot: List of OAuth Consumers**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlassian JIRA</td>
<td>Atlassian JIRA at <a href="http://jira.atlassian.com">http://jira.atlassian.com</a></td>
<td>Edit</td>
</tr>
</tbody>
</table>

**Gadget Configuration 2: Add Gadget to your Application’s Gadget Directory**

As a JIRA administrator you allow the use of these gadgets by adding them to the Gadget Directory. For each gadget, you will need to complete and enter the URL listed in the table above.

See the [JIRA documentation](http://jira.atlassian.com) for details on this process.

**Gadget Configuration 3: Add Gadget to the Application's Dashboard**

Finally, as a JIRA user, you need to add the gadget to your dashboard:

See the [JIRA documentation](http://jira.atlassian.com) for details on this process.

Once complete, the gadget will appear on your JIRA dashboard and display information drawn from Crucible and FishEye.

Confluence also allows gadgets to be added to its dashboard. See the [General Gadgets Documentation](http://confluence.atlassian.com) for more information.

**Screenshot: The ’To Do’ Gadget**
<table>
<thead>
<tr>
<th><strong>Crucible: To Do</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>state</strong></td>
</tr>
<tr>
<td>Summarize</td>
</tr>
<tr>
<td>Respond</td>
</tr>
<tr>
<td>Review</td>
</tr>
</tbody>
</table>

**Screenshot: The Hassle Gadget**

<table>
<thead>
<tr>
<th><strong>Crucible: Hassle</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>reviewer</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Screenshot: The Overdue Reviews Gadget**

<table>
<thead>
<tr>
<th><strong>Crucible: Overdue reviews in All Projects</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ID</strong></td>
</tr>
<tr>
<td>CR-3</td>
</tr>
<tr>
<td>CR-4</td>
</tr>
</tbody>
</table>

**Screenshot: The Changeset Review Coverage Gadget**
Using Review Reminders

Crucible will automatically send reviewers a reminder email one working day before the deadline.

Review authors and moderators can also do the following:

- Send manual reminders to reviewers whose work is still pending.
- Configure preset reminders for reviews that have a deadline.

Reminders are only sent if Crucible's SMTP server is configured. Please see Configuring the SMTP server.

Preset Reminders

When a review has a deadline (due date), Crucible (by default) will send a preset reminder to all of the pending reviewers, one working day before the deadline.

To edit the timeframe for the reminder, firstly edit the review, then click Remove next to Send Reminder. Now, set the day for the reminder email to be sent (a number of working days before the deadline).

The Send Reminder setting is only available if the review has a due date set.

Manual Reminders

Crucible can send manually-initiated reminders to all the reviewers that have not yet completed their reviews.

To do this, click Tools > Notify Pending Reviewers. The reminder message will be sent immediately.

This capability is only open to those participants who are authorised to summarize the review.

Transitioning JIRA issues

For Crucible reviews that are linked to JIRA issues, you can now advance their JIRA workflow from within
In the **Close Review** dialog, Crucible will now display any available workflow transitions for the linked issue.

**Transitioning a linked issue**

To transition a linked issue:

- In the Review Summary screen, choose **Access: Review > (Summarize or Close) > Close Review**. The possible transitions appear as buttons below the transition.

![Screenshot above: Transitioning a JIRA issue in Crucible.](image)

**Notes**

- Administrators can activate or deactivate JIRA Issue Transitions at a global level via the Administration interface.
- Only the transitions accessible by the user are displayed.
- The list of available transitions only appears if the user has visibility to any available workflow transitions.

ℹ️ This feature does not support editing fields on the issue, only setting the `resolution` field if required by the transition.

**Related Links**

- [Using JIRA Integration in Crucible Reviews](#)
- [JIRA Integration in Crucible](#)

**Administering Crucible**

Once you have [installed](#) and [configured](#) Crucible, you can access the **Administration** pages at the following address (where ‘HOSTNAME’ is the name of the server where you installed Crucible).
The ‘Admin Menu’ allows you to administer your Crucible instance and manage your repositories, users and back-end settings. For information on administering FishEye, please refer to the FishEye documentation.

Topics

- Crucible and FishEye
- Creating a user
- Administering projects
- Configuring Repositories
- Customising the Welcome Message
- Customising email notifications
- Setting up Users and Security
- Customising the defect classifications
- Creating a permission scheme
- Configuring User Managed Mappings
- Enabling Access Logging in Crucible
- Backing up and restoring Crucible data
- Best Practices for Crucible Configuration
- Managing plugins
- Migrating to an External Database
- Integrating Crucible with Other Applications

Crucible and FishEye

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.
- Both of these products can run in isolation. If you are using Subversion, Git, Mercurial, CVS or Perforce you can significantly enhance your Crucible experience by also using FishEye.
  - See What happens if I decide to stop using FishEye with Crucible? to learn more.

⚠️ Your Crucible installation package includes the files required for FishEye

If you use FishEye and Crucible together, they run as one instance.

Purchasing and installing Crucible/FishEye

- If you install Crucible, there is no need to do a separate installation of FishEye.
- Upgrading Crucible to also use FishEye requires only a simple licence change in the admin screens.
- When upgrading to Crucible when you have an existing FishEye installation, you can either keep the original FishEye installation or install Crucible and FishEye as a fresh install. Refer to the guide on upgrading from FishEye to Crucible.

The <FishEye home directory> and FISHEYE_INST

Throughout the Crucible documentation, references are made to the <FishEye home directory>, which refers to the location of the FishEye application. Because most Crucible users also run FishEye, we use a single value for the sake of simplicity and consistency with the FishEye documentation.
Crucible also makes use of this FishEye environment variable:

- **FISHEYE_INST** – the location of the FishEye data.

Refer to the FishEye documentation for more about the environment variables.

### Installing the Crucible binary files

See the following for Crucible install instructions:

- [Installing FishEye on Windows](#)
- [Installing FishEye on Linux and Mac](#)

### Setting up a repository for use with stand-alone Crucible

When accessing repositories from stand-alone Crucible, the SCM client interface will access the repositories on demand. This requires that you configure the plugin.

For complete instructions, see [Configuring Repositories](#).

### Setting up a Repository for use with FishEye and Crucible

- If you intend to use Crucible and FishEye with Subversion, please read Supported platforms, Subversion client setup, and granting permission to FishEye to scan your repository.
- If you intend to use Crucible and FishEye with Git, please read Supported platforms and Git Client setup.
- If you intend to use Crucible and FishEye with Perforce, please read Supported platforms and Perforce Client setup.
- If you intend to use Crucible and FishEye with CVS, please read Supported platforms and CVS Client setup.
- If you intend to use Crucible and FishEye with Mercurial, please read Supported platforms and Mercurial Client setup.

### Detailed Documentation

You can find more information in:

- Crucible [Getting Started](#)
- FishEye [Getting Started](#)

### Creating a user

Some user management functions are identical in both Crucible and FishEye. See more [user management documentation](#) in the FishEye documentation.

There are two types of user accounts:

- 'Built-in' user accounts — these are stored in the application's local database.
- 'External' user accounts — these are stored in an external directory (e.g. LDAP), if any are configured.

See [Configuring External Authentication Sources](#).

#### Note regarding external directories:

- New users can only be added if they already exist in the external directory. Your external directory will not be modified.
- If you have enabled 'auto-add' for your external directory, users who don't exist locally will be automatically added the first time they log in to Crucible.

To add a new user:
1. In the Admin area, click **Users** under 'User Settings'.
2. Click the 'Add User' button at the bottom of the screen.
3. The 'Add new user' screen will be displayed.
4. In the 'Username' field, type the user's login name. You can use the following characters:
   - letters and numbers
   - hyphen ('-')
   - underscore ('_')
   - 'at' sign ('@')
5. In the 'Display name' field, type the user's display-name.
6. (Optional) In the 'Email' field, type the user's email address. This address is where the user will receive notifications.
7. In the 'Auth Type' field, select either 'Built-in' or the name of the appropriate external directory where the user will be stored.
8. (For built-in users only) In the 'Password' and 'Confirm Password' fields, type the user's password.
   - The user can easily change their own password later.
9. Click the 'Add' button.

**Screenshot: Users in Crucible**

**Administering projects**

A Crucible **project** is a collection of **reviews**, typically reviews that all relate to the same application. In addition to providing a logical way of grouping reviews together, a project allows you to

- define default moderators, authors and reviewers for the reviews in that project.
- define which people are eligible to be reviewers for the reviews in that project.
- use permission schemes to restrict who can perform particular actions (e.g. 'Create Review') in that project.

Every Crucible review belongs to a project. Each project has a **name** (e.g. ACME Development) and a **key** (e.g. ACME). The project key becomes the first part of that project's review keys, e.g. ACME-101, ACME-102, etc:

By default, Crucible contains one project. This default project has the key 'CR' and the name 'Default Project'.

**To view your projects:**

1. From the 'Admin Menu', click 'Project List'.
2. The 'Projects List' page will be displayed.
   - Click the 'Create a New Project' link, which appears at the bottom of the list of existing projects, to create a new project. See **Creating a Project**.
   - Click the 'Edit' link next to an existing project's name, to edit the project. See **Editing a Project**.
   - Click the 'Delete' link next to an existing project's name, to edit the project. See **Deleting a Project**.

**Creating a Project**

A Crucible **project** is a collection of **reviews**, typically reviews that all relate to the same application. In addition to providing a logical way of grouping reviews together, a project allows you to

- define default moderators, authors and reviewers for the reviews in that project.
- define which people are eligible to be reviewers for the reviews in that project.
- use permission schemes to restrict who can perform particular actions (e.g. 'Create Review') in that project.

Every Crucible review belongs to a project. Each project has a **name** (e.g. ACME Development) and a **key** (e.g. ACME). The project key becomes the first part of that project's review keys, e.g. ACME-101, ACME-102, etc:

By default, Crucible contains one project. This default project has the key 'CR' and the name 'Default Project'.

**To create a new project:**
1. Click the menu labelled with your user name in the FishEye/Crucible header, and click the 'Administrator' option. You will need to be logged in as an administrator to see this link. The FishEye/Crucible administration console will be displayed.

2. Click 'Projects' link in the left menu. The 'Projects' page will be displayed showing all of the projects that you have set up in Crucible.

3. Click the 'Create a New Project' link, at the bottom of the list of your existing projects.

4. The 'Edit Project' page will be displayed. Complete the fields on this page:
   - 'Name' — Type a short phrase that describes your project.
   - 'Key' — Type a few characters to uniquely identify your project. This key must consist of alphabetic and/or numeric characters and hyphens only.
   - 'Default Repository' — Select the repository which contains source code relating to this project.
     - This repository is the one that will be searched by default when you add files to a review.
   - 'Store the contents of files in reviews' — Tick this checkbox if you want to store the contents of files included in reviews, in the reviews themselves.
   - 'Permission Scheme' — Select the relevant permission scheme for this project. (A permission scheme controls who can perform particular actions, e.g. 'Create Review'.)
   - 'Enable the Moderator role for this project' — Tick this checkbox if you want enable the moderator role for this project.
     - 'Default Moderator' — Type the name of the person who will appear by default in the 'Moderator' field when you create a new review; or leave this field blank to force the review's creator to choose a moderator.
   - 'By default, allow anyone to join reviews after creation' — Tick this checkbox, if you want to allow anyone to join reviews after creation. See Adding Reviewers.
   - (Optional) Under 'Default Reviewers', select the people to whom new reviews in this project will be assigned by default:
     - 'Users' — Type the name(s) of individual users to whom new reviews will be assigned by default.
     - 'Groups' — Type the name(s) of groups to whose members new reviews will be assigned by default.
   - (Optional) Under Allowed Review Participants, select who will be allowed to have a role (i.e. be an author/creator/moderator/reviewer) in this project's reviews:
     - 'Users' — Type the name(s) of individual users who will be eligible to be authors/creators/moderators/reviewers for reviews in this project*.
     - 'Groups' — Type the name(s) of groups whose members will be eligible to be authors/creators/moderators/reviewers for reviews in this project*.
     * These users will be the only ones whose names appear when a review is assigned.
   - 'Default duration in week days' — Enter a value for the number of working days that you want the review to run for. Simply type the number of days into the text entry field marked 'Default duration in week days'.
   - 'Default Review Objectives' — Enter review objectives that will be applied to all new reviews. Click the 'Preview' button to preview the text entered in this field.

5. Click the 'Save' button to create your new project.

Screenshot: The Create/Edit Project Screen
Setting Crucible to Store all Revisions

When creating a project or editing a project's properties, you can set Crucible to save all revisions that are associated with a review to Crucible's database. This allows you to be able to view that file content whether or not the repository is online or accessible to Crucible. It also creates an enhanced audit trail should you require it, saving the review content regardless of whether or not it is deleted or lost from the repository.

Note that the storage of revisions must be set per-project. Also, the storage only applies to reviews created after Revision Storage is enabled. This means that for existing projects, pre-existing reviews will not be stored unless you look at them again after Revision Storage is enabled.

Enabling Revision Storage on a new project

To enable Revision Storing on a new project:

1. When creating a new project, you have the option to turn on revision storing on the 'Create New Project' page.
2. Under 'Default Content Review Repository', Click the checkbox labelled 'Store the contents of files in reviews'.
3. Click 'Save' to finish.
Enabling Revision Storage on an existing project

To enable Revision Storing on an existing project:

1. From the 'Admin' screen, click 'Projects' from the left navigation bar.
2. Click 'Edit' next to the desired project.
3. Under 'Default Content Review Repository', click the checkbox labelled 'Store the contents of files in reviews'.
4. Click 'Save' to finish.

Deleting a Project

Admin users can delete projects under Crucible. To do this, follow the instructions below.

Before you begin:

- By default, Crucible contains one project. This default project has the key 'CR' and the name 'Default Project'. This project cannot be deleted.
- Deleted projects cannot be recovered.

To delete a project from the Project List:

1. From the 'Admin Menu', click 'Project List'.
2. A list of projects appears. With care, click the 'Delete' link situated to the right of the project you wish to remove. If empty, the project instantly disappears.
3. If the project contains reviews, you will be prompted to either delete all reviews in the project, or move them into the default project.

Editing a Project

Once projects are created, you can return to the project settings page to change the defaults such as repository, moderator, allowed reviewers, allowed groups and permissions.

To edit project settings:

1. From the 'Admin Menu', click 'Project List'.
2. The list of projects will be displayed. Click the 'Edit' link for the desired project, which appears to the right of the existing project name.

3. The 'Edit Project' page will be displayed. You can now adjust any of the given settings as desired.

4. In the 'Identification' section, you can change the the plain language name (as displayed in the Crucible interface) and the project key (used when giving reviews their unique code names).

5. In the 'Default Review Content Repository' field, you can adjust the repository which contains source code relating to this project.

   This repository is the one that will be searched by default when you add files to a review. The check box here labelled 'Store the contents of files in reviews' will cause the source files under review to be stored in the Crucible database along with the comments and review data. This will retain a copy of all the source files that go under review even in the event of disconnecting the repository from Crucible.

6. In the 'Default Moderator' field, you can adjust the name of the person who will appear by default in the 'Moderator' field when you create a new review; or leave this field blank to force the review's creator to choose a moderator.

   You can also tick the option 'Disable Moderator' to have reviews run by the author only. See Enabling the Moderator Role for more information.

7. (Optional) Under 'Default Reviewers', you can adjust the people to whom new reviews in this project will be assigned by default:

   - Select the 'Let allowed review participants join a review' check-box if you wish to determine the default for the 'Allow anyone to join' option on the Adding Reviewers screen.
   - In the 'Users' field, you can adjust the name(s) of individual users to whom new reviews will be assigned by default.
   - In the 'Groups' field, you can adjust the name(s) of groups to whose members new reviews will be assigned by default.

8. (Optional) Under Allowed Review Participants', you can adjust who will be allowed to have a role (i.e. be an author/creator/moderator/reviewer) in this project's reviews:

   - In the 'Users' field, you can adjust the list of individual users who will be eligible to be authors/creators/moderators/reviewers for reviews in this project*.
   - In the 'Groups' field, you can adjust the list of groups whose members will be eligible to be authors/creators/moderators/reviewers for reviews in this project*.

   * These users will be the only ones whose names appear when a review is assigned.

9. In the 'Permission Scheme' drop-down list, you can adjust the relevant permission scheme for this project. (A permission scheme controls who can perform particular actions, e.g. 'Create Review'.)

10. In the 'Review Duration' section, you can define the default length of time (in week days) for reviews in this project.

11. In the 'Default Review Objectives Section', you can define some text that will appear by default in the Review Objectives field of each new review. This text can be edited, as any text contained in the Review Objectives text box can.

Screenshot: The Edit Project screen in Crucible
Enabling the Moderator Role

This page contains instructions on how to enable or disable the moderator role for all reviews under a given Crucible project.

On this page:

- Introduction
- Enabling the Moderator Role
- Removing the Moderator from an Existing Project
- Adding the Moderator to an Existing Project

Introduction

By default, Crucible projects do not have a moderator. This allows for a streamlined review handling process, where the review author is the sole person who starts and stops the review. Projects in Crucible can have the moderator role enabled or disabled.

The setting for enabling moderators can only be set by a Crucible user with admin privileges.

Enabling the Moderator Role
The moderator role is configurable in Crucible as a per-project setting. By default, all reviews have an author and a moderator. However, the moderator role can be disabled.

To enable or disable the moderator role on a project:

1. Open the Crucible Admin screen, by clicking the ‘Administration’ link at the bottom of any Crucible page.
2. The Crucible Admin screen opens. Click ‘Project List’ under ‘Project Settings’ in the left navigation bar.
4. The ‘Edit Project’ screen opens.

**Screenshot: Disabling the Moderator in Crucible**

![Moderator](image1.png)

**Screenshot: Moderator Status Notification in the Projects List**

![Projects List](image2.png)

**Removing the Moderator from an Existing Project**

When you remove the moderator role from an existing project, be aware of the following points:

- Reviews created after the setting change will have the moderator role removed.
- Reviews created prior to the change will still retain the moderator they were assigned.
- If the removal of the moderator conflicts with other Crucible project settings, a warning will be shown on the Project List page.

If in doubt about the impact of adding or removing the moderator, you can create a new project (and set the moderator status during the project's creation).

**Adding the Moderator to an Existing Project**

If you add the moderator role back in to an existing project, be aware of the following points:

- Reviews created after the setting change will have the moderator role added.
- Reviews created prior to the change will still have no moderator.
- If the addition of the moderator conflicts with other Crucible project settings, a warning will be shown on the Project List page.
If in doubt about the impact of adding the moderator, you can create a new project (and set the moderator status during the project's creation).

Setting Default Review Objectives

To set default review objectives for all the reviews in a given project, carry out the following steps:

1. Open the 'Administration' page, 'Project List', then click 'Edit' to open the Edit Project screen.
2. In the 'Default Review Objectives Section', you can define some text that will appear by default in the 'Review Objectives' field of each new review. Click 'Done' to save your changes. This text can be edited, as any text contained in the Review Objectives text box can.

Screenshot: Default Review Objectives in Crucible

Setting the Default Review Duration for a Project

You can set a default time period (duration) that all reviews under a given project will run for. Reviews that are overdue will show up in red on the reviewer's dashboards.

To set a default duration for all reviews in a project:

1. From the 'Admin Menu', click 'Project List'.
2. The list of projects will be displayed. Click the 'Edit' link for the desired project, which appears to the right of the existing project name.
3. The 'Edit Project' page will be displayed. You can now adjust any of the given settings as desired.
4. In the 'Review Duration' section, you can define the default length of time (in week days) for reviews in this project. If you leave the field blank, then no time restriction is applied.

Note that the 'Review Duration' only affects the default due date that appears when creating a review. The review's creator or moderator can specify a different date if they wish.

To see instructions for the other items on this page, see the documentation for Editing a Project.

Configuring Repositories

The instructions for configuring your repositories are different, depending on your Crucible setup:

- If you are running Crucible with Atlassian's FishEye, you can manage your repositories using FishEye. See the FishEye documentation for more information.
- If you are running Crucible alone, you still can manage your repositories using native repository access (bundled with Crucible). See the FishEye documentation for more information. Please also see the What happens if I decide to stop using FishEye with Crucible page for important information about light FishEye.

Enabling Reviews from the Server File System in Crucible

To set up the File System as a Code Repository in stand-alone Crucible:

1. Start Crucible then open the 'Admin' menu.
2. Under the 'System Settings' heading, click 'Plugins' in the left-hand navigation bar.
3. The 'Plugins' screen opens.
4. Next to 'crucible-filesystem-scm-plugin', click 'Enable'.
5. New options appear next to 'File System SCM': 'Disable' and 'Configure'. Click 'Configure'.
6. The 'Configure Plugin' screen opens. Click 'Add Repository'.
7. The 'Add Repository' screen opens. Fill in the fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>What to enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Choose a unique name for the repository.</td>
</tr>
<tr>
<td>Base Path</td>
<td>Choose the lowest level of directory that Crucible will access.</td>
</tr>
</tbody>
</table>

8. Click 'Save'. The view will return to the list of repositories.
9. The server file system is now set up as a code repository for Crucible. You will be able to select files from it when creating reviews, with the ability to browse the files and directories on the hard drive.

### Setting Up a Git Repository in Crucible

This page describes how to use Crucible's native repository access to connect to an external Git repository. This native access uses a FishEye component (without requiring a FishEye license) which is why the description below refers to FishEye in places. See [What happens if I decide to stop using FishEye with Crucible](#) for more information.

Crucible interacts with Git repositories by executing the Git command in a separate process. Hence, the server running Crucible needs to have Git installed. Crucible indexes Git repositories by making a private, bare clone of your repository within Crucible's cache area. It uses this private clone for most Git operations.

<i>The server running Crucible must have Git (version 1.7.1.1 or later) installed.</i>

### Git Repository Details

#### Step 1

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository Type</td>
<td>Select 'Git'.</td>
</tr>
<tr>
<td>Name</td>
<td>Enter a name for this repository. The name may contain alphanumeric, underscore, '-' or '.' characters. This will be repository name in FishEye.</td>
</tr>
<tr>
<td>Description</td>
<td>Enter a short description of this repository.</td>
</tr>
</tbody>
</table>

#### Step 2
Repository Location

Enter the URL describing the Git repository location. FishEye will clone this repository for indexing purposes. You can use any URL recognised by Git itself. Fisheye recognizes the following URL’s:

- `git://server_name[:port]/path_to_repository`
- `http://server_name[:port]/path_to_repository`
- `https://server_name[:port]/path_to_repository`
- `ssh://server_name[:port]/path_to_repository`
- `file:///hostname/path_to_repository`

Do not use spaces in your URL.

FishEye does not directly support the ssh protocol for Git repositories. To use ssh, launch FishEye within the context of ssh-agent, to which the appropriate ssh keys have been added.

Path

(optional) Enter the path within the Git repository that you want FishEye to index. This lets you limit FishEye to indexing a subset of the complete Git repository.

Block Size

(optional) Enter how many commits you want FishEye to process in one batch. Larger values require more memory and increase the amount of work FishEye commits to the database in a single operation.

Command Timeout

(optional) Enter the time that a single Git command is allowed to take to execute. Any command that exceeds this time is terminated and the operation will fail.

Rename Detection

(optional) Select which Git rename detection strategy FishEye will use to detect copy and move operations within the repository. Please refer to the Git documentation for more information.

Step 3

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Diff Info</td>
<td>Tick this checkbox, if you want FishEye to cache information about file diffs in its database. This is required for some FishEye features. See Configuring Repository Details for more information on this setting.</td>
</tr>
<tr>
<td>Enable Repository After Adding</td>
<td>Tick this checkbox, to enable the repository after adding (i.e. when you click the 'Add' button).</td>
</tr>
</tbody>
</table>

Limitations

When FishEye indexes a Git repository, it indexes by the available branches. As it processes the commits on a branch, FishEye will assign the commit to the branch it first sees the commit on. Commits are only indexed once
so if a commit belongs to multiple branches, the commit will not indexed against subsequent branches.

### Setting Up a Perforce Repository in Crucible Alone

This page contains instructions on how to configure the [Crucible Perforce SCM plugin](#) to access Perforce repositories.

> **Crucible SCM plugins superseded by Native Repository Access**

Crucible now ships with native repository access, which allows you to connect to repositories without a working version of FishEye. Crucible SCM plugins will still work, but we recommend that you stop using them in favour of native repository access. See [What happens if I decide to stop using FishEye with Crucible](#) for instructions.

#### On this page:

- Setting Up a Perforce Repository in Crucible Alone
- Notes

### Setting Up a Perforce Repository in Crucible Alone

#### To set up Perforce in Crucible alone:

1. Ensure that the Perforce executable file is on the system path, in the Crucible server's [Environment Variables](#).
2. Start Crucible then open the 'Admin' menu by clicking the *Administration* link in the footer of the page.
3. Under the 'Repository Settings' heading, click 'Repository List' in the left-hand navigation bar.
4. The 'Repository List' screen opens.
5. Find the Perforce repository plugin and click its Configure Plugin link.
6. The 'Configure Plugin' screen opens. Click 'Add Repository'.
7. The 'Add Repository' screen opens. Fill in the fields.

<table>
<thead>
<tr>
<th>Name</th>
<th>Choose a unique name for the repository.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository Server</td>
<td>Enter the base URL and port for the repository, for example: example.com:666.</td>
</tr>
<tr>
<td>Repository Path</td>
<td>Add the path to your Perforce repository. For example: //depot/code/example/main.</td>
</tr>
<tr>
<td>Perforce Username</td>
<td>Enter the username of the Perforce account that Crucible will use. (optional)</td>
</tr>
<tr>
<td>Perforce Password</td>
<td>Enter the password of the Perforce account that Crucible will use. (optional)</td>
</tr>
</tbody>
</table>

8. Click 'Save'. The view will return to the list of repositories.
9. Your Perforce repository is now set up for Crucible. You will be able to select changesets from it when creating reviews.

### Notes
There is no 'initial scanning' required in this process, as Crucible's access to Perforce (when running alone) is strictly on-demand. Data is not indexed, hence there is no scanning. Crucible executes the Perforce command-line tool to enable this functionality.

Setting Up a Repository via FishEye

To use FishEye to access an external source control repository, such as Subversion or Git, for Crucible, see the FishEye documentation for how to add a repository.

- CVS
- Git
- Mercurial
- Perforce
- Subversion

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.

We recommend you access the repository with a user that has only read access to the repository.

Setting Up a Subversion Repository in Crucible Alone

This page contains instructions on how to configure the Crucible Subversion SCM plugin to access Subversion repositories.

Crucible SCM plugins superseded by Native Repository Access

Crucible now ships with native repository access, which allows you to connect to repositories without a working version of FishEye. Crucible SCM plugins will still work, but we recommend that you stop using them in favour of native repository access. See What happens if I decide to stop using FishEye with Crucible for instructions.

On this page:

- Setting Up a Subversion Repository in Crucible Alone
  - Finding your Repository Root.

Setting Up a Subversion Repository in Crucible Alone

To set up Subversion in Crucible alone:

1. Start Crucible then open the 'Admin' menu by clicking the Administration link in the footer of the page.
2. Under the 'Repository Settings' heading, click 'Repository List' in the left-hand navigation bar.
3. The 'Repository List' screen opens.
4. Find the SVN repository plugin and click its Configure Plugin link.
5. The 'Configure Plugin' screen opens. Click 'Add Repository'.
6. The 'Add Repository' screen opens. Fill in the fields.

<table>
<thead>
<tr>
<th>Field</th>
<th>What to enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Choose a unique name for the repository.</td>
</tr>
</tbody>
</table>
Repository Root | Enter the repository root URL for the repository. If you are not sure what the repository root is, please see the instructions below under "Finding your Repository Root".
---|---
Repository Path | Add the path on the base URL where your repository. For example, if you used the root URL above, and the full path to your Subversion instance is 'http://svn.example.com/svn5/', you would enter 'svn5' into this field.
SVN Username | Enter the username of the Subversion account that Crucible will use.
Note that this account should only have read-only access to the repository.
SVN Password | Enter the password of the Subversion account that Crucible will use.

7. Click 'Save'. The view will return to the list of repositories.
8. Your Subversion repository is now set up for Crucible. You will be able to select changesets from it when creating reviews.

There is no 'initial scanning' required in this process, as Crucible's access to Subversion (when running alone) is strictly on-demand. Data is not cached, hence scanning is not required.

Finding your Repository Root.

Run the following command:

```
svn info SVN_URL
```

Where SVN_URL is the complete URL of the repository you want to add.

You will get something like the following:

```
>svn info http://svn.example.com/svn5/
Path: svn5
URL: http://svn.example.com/svn5/
Repository Root: http://svn.example.com/
Repository UUID: ce062a09-193b-427a-a7b3-a85007076e5d
Revision: 83
Node Kind: directory
Last Changed Author: ryan
Last Changed Rev: 83
Last Changed Date: 2009-05-07 10:48:41 +1000 (Thu, 07 May 2009)
```

Next to "Repository Root" is the URL you should define as your repository root. The path will be whatever is remaining.
Customising the Welcome Message

To customise the welcome message which is shown when Crucible opens, access the administration page and click 'Customize Front Page' under 'Global Settings' on the left navigation bar.

The 'Customize Front Page Messages' page opens.

On this page, you can provide your own custom text for the Crucible welcome message that is displayed to users when they first log in. You can also provide custom Support text, providing the contact details of your own support organisation, which also appears on the opening page.

You can enter text into the boxes provided for either message and click the small 'Save Welcome Message' or 'Save Support Message' button to save it, or enter text for both messages and click 'Save All'. The changes are made immediately.

Screenshot: Crucible Customize Welcome and Support Messages

Using HTML

The content in the welcome screen can be arranged using basic HTML tables, image references or anchor tags such as the following:

```
<a href="http://www.atlassian.com">Link to Atlassian Home Page</a>
```

Restoring the default messages

To revert to the default Welcome or Support messages, simply delete all text shown in the text box and click the corresponding 'Save' button.

Manually editing the opening screen

You can also directly edit the XML file that contains the welcome and support messages. This file is called config.xml, located in your installation folder.
To do this, simply add the following XML tags to config.xml:

```xml
<content>
  <front-page-message>Example welcome message here</front-page-message>
  <support-message>Example support message here</support-message>
</content>
```

## Customising email notifications

Email notifications in Crucible can be customised to change their formatting, by editing template files. This page contains instructions for this process.

### Editing Crucible email templates

Template files for Crucible are stored in the `<FishEye home directory>/templates/` folder.

For Crucible, the set of templates is for plain-text email only. Note that these templates do not support embedding full diffs into notifications. They are only for changing the appearance and order of certain content inside the messages.

**Tip:** If you edit the templates of an operational Crucible instance, you may disrupt notifications that are being sent at that time. To avoid this, shut Crucible down during template editing.

### Editing the subject line

1. Open the 'crucible-notification-subject.ftl' template file from `<FishEye home directory>/templates/` in a text editor.
2. Type in your new text for the email subject, ensuring that all of the content is contained within line 1 of the template. 'crucible-notification-subject.ftl' is used as the subject template for all Crucible email notifications.
3. Save and close the file.
4. Restarting Crucible will activate the new templates.

### Editing the header

Header information will be included at the beginning of the email body text.

1. Open the 'crucible-notification-header.ftl' template file from `<FishEye home directory>/templates/` in a text editor.
2. Add your new header content. 'crucible-notification-header.ftl' is used as the header template for all Crucible email notifications.
3. Save and close the file.
4. Restarting Crucible will activate the new templates.

### Editing the footer

Footer information will be included at the end of the email body text.

1. Open the 'crucible-notification-footer.ftl' template file from `<FishEye home directory>/templates/` in a text editor. 'crucible-notification-footer.ftl' is used as the footer template for all Crucible email notifications.
2. Add your new footer content.
3. Save and close the file.
4. Restarting Crucible will activate the new templates.
After an edit, the change to the email template will take place immediately. No restart is required.

Try and avoid editing the live template file, as Crucible may try to use it while you are editing. This could have unpredictable results. Instead, back up the template file (it's wise to keep original versions of all these files), edit a copy you have made, then overwrite the 'live' template once you have finished.

### Advanced editing of Crucible email templates

The email notification templates use the [Freemarker](https://freemarker.org/) format. Freemarker is a general templating engine enabling automated content.

If you are familiar with Freemarker, more advanced customisations can be made to the email notification templates. However, you make such adjustments at your own risk.

**Note:** In Crucible, email notifications are limited to plain-text format only.

### Crucible email template files

The following template files for Crucible notification are stored in the `<FishEye home directory>/templates` folder.

<table>
<thead>
<tr>
<th>Template filename</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>crucible-notification-subject.ftl</td>
<td>Subject template</td>
</tr>
<tr>
<td>crucible-notification-header.ftl</td>
<td>Header template</td>
</tr>
<tr>
<td>crucible-notification-footer.ftl</td>
<td>Footer template</td>
</tr>
<tr>
<td>state-closed-notification.ftl</td>
<td>State Closed template</td>
</tr>
<tr>
<td>all-completed-notification.ftl</td>
<td>All Completed template</td>
</tr>
<tr>
<td>state-changed-notification.ftl</td>
<td>State Changed template</td>
</tr>
<tr>
<td>completed-notification.ftl</td>
<td>Completed template</td>
</tr>
<tr>
<td>general-notification.ftl</td>
<td>General notification template</td>
</tr>
<tr>
<td>uncompleted-notification.ftl</td>
<td>'Uncompleted' template</td>
</tr>
<tr>
<td>all-no-longer-completed-notification.ftl</td>
<td>All-No-Longer-Completed template</td>
</tr>
<tr>
<td>comment-notification.ftl</td>
<td>Comment template</td>
</tr>
<tr>
<td>reply-notification.ftl</td>
<td>Reply template</td>
</tr>
<tr>
<td>review-precis-plain.ftl</td>
<td>Precis template</td>
</tr>
<tr>
<td>review-reminder-notification.ftl</td>
<td>Review Reminder template</td>
</tr>
</tbody>
</table>

See also [Customising FishEye Email Notifications](#).
Freemarker Data Model for Email Templates

Customising Crucible email templates with Freemarker

See the Freemarker documentation for instructions on Freemarker syntax. Use the templates that ship with Crucible as a guide to the properties available on each object.

Specific email types will have extra data associated with them, and this data will be available in that particular template (but not in others).

Example

The syntax to access the data-model, using the data model object ‘link’ as an example, place this code into the email at the desired position.

```freemarker
definitions
    ${notification.link}
```

Setting up Users and Security

User management and security settings are covered in the FishEye documentation.

Other Related Security Resources

- Setting up Users and Security
- Creating a permission scheme
- Configuring User Managed Mappings
- How to Report a Security Issue
- Security Advisory Publishing Policy
- Security Patch Policy
- Severity Levels for Security Issues

Customising the defect classifications

This page explains how to customise defects and their classifications in Crucible.

On this page:

- Defects in Crucible comments
- Changing classification settings
- Default Crucible classifications
  - Ranking
  - Classification

Defects in Crucible comments

Defects are comments made by reviewers that indicate a problem in a review. Defects can be classified by rank and type. Custom classifications can also be defined. The default classifications are shown in the screenshot below.

Screenshot: The list of defect classifications
Changing classification settings

Only Crucible Admin users can edit defect classifications.

To change the default classifications:

1. In the Admin area, click Crucible under ‘Global Settings’.
2. Click Edit Defect Classifications.
3. You can add and remove classifications, and add fields to, or remove fields from, classifications.

Any changes made to defect classifications will only apply to reviews created after the change is saved.

Screenshot: Editing defect classifications in Crucible
Defect Classifications

Note: Changes will only apply to new reviews.
Current defect classification version is 9.

Default Crucible classifications

There are two default defect classifications that are preset in Crucible: Ranking and Classification. These settings (and their sub-categories) can be edited or removed; other custom classifications can be added.

Ranking

Crucible users can rank a defect as **Major** or **Minor**, indicating the importance of the defect.

Classification

This setting helps to provide more detail about the defect. This classification can be set to one of the options described in the following table:

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>The defect applies to code or information that is missing (absent).</td>
</tr>
<tr>
<td>Extra (superfluous)</td>
<td>The defect applies to code or information that should be removed.</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>The defect applies to code or information that is not clear or easy to understand.</td>
</tr>
</tbody>
</table>
Inconsistent | The defect applies to code or information that is applied in several different ways.

Improvement desirable | The defect applies to code or information that needs to be revised.

Not conforming to standards | The defect applies to code or information that breaks established conventions.

Risk-prone | The defect applies to code or information that takes unacceptable risks.

Factually incorrect | The defect applies to code or information that is wrong.

Not implementable | The defect applies to code or information that may be impossible to create.

Editorial | The defect applies to code or information where the classification as a defect may be subject to personal opinion.

### Creating a permission scheme

This page contains information on how to create a permission scheme in Crucible.

**On this page:**

- Introduction to Crucible permissions
- Creating a permission scheme
- Editing a permission scheme
- List of Crucible permissions
- Further reading

### Introduction to Crucible permissions

The page permission does not exist.

A permission scheme assigns particular permissions to any or all of the following:

- Particular Users.
- Particular Groups.
- All logged-in users.
- Anonymous Users
- People in particular Review Roles, such as:
  - Author
  - reviewer
  - creator
  - moderator

The scheme’s permissions will apply to all reviews belonging to the project(s) with which the scheme is associated.

You can create as many permission schemes as you wish. Each permission scheme can be associated with many projects or just one project, allowing you to tailor appropriate permissions for individual projects as required.
Creating a permission scheme

To create a permission scheme:

1. In the Admin area, click **Permission Schemes**, under ‘Security Settings’.
2. Under ‘Add a new permission scheme’, enter a **Name** to uniquely identify your new scheme.
3. Click **Add**. Your new permission scheme will have the default assignees shown in the table above.
4. If required, edit this permission scheme, as described below.

Next step: see [Associating a Permission Scheme with a Project](#).

### Screenshot 1: Adding a Permission Scheme

<table>
<thead>
<tr>
<th>Add a new permission scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Add</strong></td>
</tr>
</tbody>
</table>

Editing a permission scheme

To edit a permission scheme:

1. In the Admin area, click **Permission Schemes** under ‘Security Settings’.
2. Click **edit** for the scheme you wish to change.
3. Click **edit** for the permission you wish to modify, and choose the appropriate assignee(s) for this permission:

<table>
<thead>
<tr>
<th>Allow Anonymous users</th>
<th>Assign this permission to <a href="#">anonymous users</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow All logged in users</td>
<td>Assign this permission to all logged-in users</td>
</tr>
<tr>
<td><strong>Individuals</strong></td>
<td>Enter a username to assign this permission to a particular user.</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td>Enter a group name to assign this permission to a particular group of users.</td>
</tr>
<tr>
<td><strong>Review Participants</strong></td>
<td>Select check boxes to assign this permission to users who belong to any of the <a href="#">Reviewer</a> / <a href="#">Creator</a> / <a href="#">Author</a> / <a href="#">Moderator</a> participants.</td>
</tr>
</tbody>
</table>

Click **Save** when you are done.

![Note: for ongoing ease of management, it is recommended that you grant permissions to [groups](#) of participants rather than to individual users.](#)

4. Click **Save**.

Screenshot: Editing the ‘Close’ permission
List of Crucible permissions

The following permissions are available:

<table>
<thead>
<tr>
<th>Permission</th>
<th>Description</th>
<th>Default Assignees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit</td>
<td>Ability to edit a review's details and change the set of revisions reviewed.</td>
<td>Creator, Moderator</td>
</tr>
<tr>
<td>View</td>
<td>Ability to view a review. (People without this permission will not know that the review exists.)</td>
<td>Anonymous users, All logged-in users, Creator, Author, Reviewer, Moderator</td>
</tr>
<tr>
<td>Abandon</td>
<td>Ability to abandon (i.e. cancel) a review.</td>
<td>Moderator, Creator</td>
</tr>
<tr>
<td>Re-Open</td>
<td>Ability to re-open a closed or abandoned review.</td>
<td>Creator, Moderator</td>
</tr>
<tr>
<td>Uncomplete</td>
<td>Ability of a reviewer to change their individual review status from Complete to Uncomplete.</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Reject</td>
<td>Ability to reject a review submitted for approval (i.e. prevent it from being issued to reviewers).</td>
<td>Moderator</td>
</tr>
<tr>
<td>Complete</td>
<td>Ability of a reviewer to change their individual review status to Complete.</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Comment</td>
<td>Ability to add or remove a comment to or from a review.</td>
<td>Creator, Author, Reviewer, Moderator</td>
</tr>
</tbody>
</table>
Approve  
Ability to approve a review (i.e. issue it to the reviewers).

Submit  
Ability to submit a review for approval (i.e. request that the review be issued to the reviewers).

Close  
Ability to close a review once it has been summarised.

Delete  
Ability to delete a review.

Summarise  
Ability to summarise a review. (Normally this would be done after all reviewers have completed their review.)

Create  
Ability to create a review.

Recover  
Ability to resurrect an abandoned (i.e. cancelled) review.

Further reading

For more information on permissions schemes in Crucible, see the following documentation pages:

- Agile Permissions Schemes in Crucible
- Associating a Permission Scheme with a Project

Agile Permissions Schemes in Crucible

This page contains information about using and editing Agile permission schemes in Crucible.

Understanding the Agile Permissions Scheme

Agile development teams may not want to use the default Crucible permission schemes that require one person to approve or summarise reviews. Crucible ships with a pre-defined Agile permission scheme. By Agile, we mean permission schemes that have no moderator and very liberal permissions, suited to Agile or self-organising teams.

To use the Agile permissions scheme when creating a project, simply select 'agile' from the drop down list under 'Project Permissions Scheme' on the 'Edit Project' screen.

Considerations

- If you began your installation of Crucible with Crucible 2.1 or later, then this permission scheme will appear in the list of permission schemes in the administration menu.

- If you have upgraded from an earlier version of Crucible (pre Crucible 2.0), then the Agile permission may not appear by default. However, you can still create the equivalent by disabling the moderator when creating projects, allowing freer access to summarising, closing and generally tending to Crucible reviews.

- If you disable the moderator role on the Edit Project screen, then Crucible will check the current permission scheme. If the current permission scheme requires a moderator, a warning will be shown and you will be
prompted to create a new permission scheme which will be called 'Agile' (or Agile-X if the name Agile already exists, where X is a number appended to the scheme name). The new permissions scheme will not require a moderator to carry out any actions.

**Screenshot: Warnings on Permission Schemes that Require a Moderator**

<table>
<thead>
<tr>
<th>Permission Scheme</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The permission scheme &quot;default&quot; requires the Moderator role, which has been disabled.</td>
</tr>
<tr>
<td>Note</td>
<td>All existing permission schemes require the Moderator role. Create an &quot;unmoderated&quot; permission scheme.</td>
</tr>
<tr>
<td><img src="image" alt="Enable the Moderator role for this project" /></td>
<td></td>
</tr>
</tbody>
</table>

**Associating a Permission Scheme with a Project**

This page explains how to associate a permission scheme with a Crucible project and show details of the default permission schemes included with Crucible.

**On this page:**

- Associating a permission scheme with a Crucible project
- Overview of the permission schemes bundled with Crucible
  - Default permission scheme settings
  - Agile permission scheme settings
- Related links

**Associating a permission scheme with a Crucible project**

**To associate a permission scheme with a project:**

1. In the Admin area, click **Projects** (under 'Project Settings').
2. Find the project you wish to associate with your permission scheme, and click **Edit** in the 'Crucible Settings' column.
3. Under ‘Permissions Scheme’, choose a scheme from the **Permission Scheme** list.
   - You will be shown a list of the schemes that have been created in Crucible. You can **create a new permission scheme** if necessary.
4. Click **Save**.

**Overview of the permission schemes bundled with Crucible**

Crucible comes with two permission schemes. 'Default' and 'Agile'. The following tables show the default settings in detail; note that these can be easily edited by admin users to suit your needs.

**Default permission scheme settings**

This table shows the various permissions and which user groups have them by default.
Abandon | false | false | None | None | Creator, Moderator
Approve | false | false | None | None | Moderator
Close | false | false | None | None | Moderator
Comment | false | false | None | None | Reviewer, Creator, Author, Moderator
Complete | false | false | None | None | Reviewer
Create | false | true | None | None | None
Delete | false | false | None | None | Creator, Moderator
Edit Review Details | false | false | None | None | Creator, Moderator
Recover | false | false | None | None | Creator, Moderator
Reject | false | false | None | None | Moderator
Re-Open | false | false | None | None | Moderator
Submit | false | false | None | None | Creator
Summarize | false | false | None | None | Moderator
Uncomplete | false | false | None | None | Reviewer
View | false | true | None | None | Reviewer, Creator, Author, Moderator

*The default permission scheme has changed since Crucible 1.6.*

**Agile permission scheme settings**

This table shows the various permissions and which user groups have them by default.

<table>
<thead>
<tr>
<th>Permission</th>
<th>Anonymous</th>
<th>All Logged In</th>
<th>Individuals</th>
<th>Groups</th>
<th>Review Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandon</td>
<td>false</td>
<td>false</td>
<td>None</td>
<td>None</td>
<td>Creator, Author, Moderator</td>
</tr>
<tr>
<td>Approve</td>
<td>false</td>
<td>false</td>
<td>None</td>
<td>None</td>
<td>Creator, Author, Moderator</td>
</tr>
</tbody>
</table>

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Close</th>
<th>Comment</th>
<th>Complete</th>
<th>Create</th>
<th>Delete</th>
<th>Edit Review Details</th>
<th>Recover</th>
<th>Reject</th>
<th>Re-Open</th>
<th>Submit</th>
<th>Summarize</th>
<th>Uncomplete</th>
<th>View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>true</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>false</td>
<td>true</td>
</tr>
<tr>
<td>Access</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Permissions</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Users</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Related links**
- [Creating a permission scheme](#)

**Configuring User Managed Mappings**

In Crucible, Administrators can control whether users can use the Author Mapping setting to map their own Crucible usernames to repository committer accounts or not. By default, the setting allows users to set their own mappings.

If you wish to lock down the mappings for security or audit reasons, this setting lets you restrict all management...
Enabling Access Logging in Crucible

Steps

- Stop Fisheye/Crucible,
- and then create the file `FISHEYE_HOME/content/WEB-INF/jetty-web.xml` with the following content:

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE Configure PUBLIC "-//Mort Bay Consulting//DTD Configure//EN" "http://www.eclipse.org/jetty/configure.dtd">

<Configure class="org.mortbay.jetty.webapp.WebAppContext">
  <Call name="addHandler">
    <Arg>
      <New class="com.cenqua.fisheye.web.jetty.FishEyeRequestLogHandler">
        <Set name="requestLog">
          <New id="RequestLogImpl" class="org.mortbay.jetty.NCSARequestLog">
            <Arg><SystemProperty name="jetty.logs" default="../var/log"/>/fisheye-access.log.yyyy_mm_dd</Arg>
            <Set name="retainDays">90</Set>
            <Set name="append">true</Set>
            <Set name="extended">false</Set>
            <Set name="LogTimeZone">GMT</Set>
          </New>
        </Set>
      </New>
    </Arg>
  </Call>
</Configure>
```
- Restart Fisheye/Crucible.

This will create an access log in `FISHEYE_HOME/var/log/fisheye-access.log.yyyy_mm_dd` format (e.g. fisheye-access.log.2010_03_17). If you want to change the path to your `FISHEYE_INST` directory, change the default="."/var/log" to the path to the log folder in `FISHEYE_INST`. 
The log directory must exist

If the path to the log directory given by the default attribute of the SystemProperty tag (defined in the line 10 in the jetty-web.xml above) does not exist, then FishEye will fail to start and will not log any error message.

The path given in the example below is correct when FISHEYE_INST and FISHEYE_HOME are the same directory, otherwise please use the absolute path of your FISHEYE_INST/var/log directory.

Log format

The logs are written in NCSA format:

```
```

Please refer to the Jetty documentation for more configuration options.

Compatibility

If you are using an earlier version of FishEye than FishEye 2.7.8, replace com.cenqua.fisheye.web.jetty.FishEyeRequestLogHandler by org.mortbay.jetty.handler.RequestLogHandler.

FishEyeRequestLogHandler was added in 2.7.8 to fix an issue where the user credentials would not be added to the NCSA log: FE-3040.

Backing up and restoring Crucible data

Crucible data can be backed up from the admin interface or command line. This page contains the command syntax, options and the required procedure to backup and restore your Crucible instance.

Backing up Crucible data

The Crucible admin backup process

1. Navigate to the Crucible Admin area (click the Administration link in the footer of any Crucible page).
2. Click **Backup** (under 'System' heading in the left navigation bar).

3. The **File Path** field indicates where the backup file (in .zip format) will be stored. You can manually edit this path to change it. Under 'Include', a list of check boxes is shown, with the following items:

   - **Backing up Crucible data**
   - **The Crucible admin backup process**
   - **The Crucible command line backup process**
   - **Components of a Crucible backup**
   - **Backup command line options**
   - **Command line examples**
   - **Advanced backup command line settings**
   - **Known limitations**

   - **Scheduling Crucible backups**
   - **Restoring Crucible data**
     - **Restoring Crucible data from the command line**
     - **Command line restore options**
     - **Advanced command line restore settings**

- Plugins and their configuration data
- SQL database
- Web templates
- Uploaded files and local copies of files under review.
- Repository and application caches.

   Repository and application caches contain temporary data stored from repository scans and library caches that improve startup time. Both will be recreated automatically by re-scanning the source repositories, so the backup files can be reduced by a significant amount by excluding these (if the cost of re-scanning is acceptable).

4. Once you have chosen your options, click **Create Backup Now**.

**Screenshot: The Crucible Backup Screen**

**The Crucible command line backup process**

- **Your Crucible instance must be running during the backup.**

  1. Open a command line interface on the Crucible server computer.
2. Navigate to the `<FishEye home directory>/bin/` directory.
3. Run the backup command on the command line with the desired options.
4. The backup is created as a new Zip archive file and placed in the `FISHEYE_INST/backup/` directory.
   - Note that if your Crucible instance uses a custom `FISHEYE_INST` directory; make sure the environment variable is properly set when running the backup command.

Components of a Crucible backup

The Crucible backup is highly configurable and allows for many different configurations. This table shows the various components of the backup, what they are for and how they can be used.

<table>
<thead>
<tr>
<th>Component</th>
<th>Purpose</th>
<th>Defaults</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL Database</td>
<td>Refers to the SQL content database (used by both FishEye and Crucible and containing all user profile data, reviews and their comments).</td>
<td>Backed up by default.</td>
</tr>
<tr>
<td>Cache</td>
<td>The cache contains data that reflects the state of FishEye's repositories. Without it, FishEye must re-scan its repositories after a backup is restored. The cache also contains OSGI library data that increases startup time. These too can be excluded and will be generated automatically when the application is started.</td>
<td>The cache is not backed up by default as it tends to be large (running a risk of pushing the maximum file size for Java backups), whilst also representing replaceable data.</td>
</tr>
<tr>
<td>Plugins</td>
<td>Plugins are 3rd-party extensions that you may have installed, and configuration for all plugins (this includes configuration for Crucible's set of standard plugins).</td>
<td>Configuration data for all plugins are backed up by default, as well as all plugins installed in <code>FISHEYE_INST/var/plugins/user</code>.</td>
</tr>
<tr>
<td>Templates</td>
<td>In this context, these are custom freemarker templates that you or your users have created. They live in <code>FISHEYE_INST/template</code>.</td>
<td>Templates are backed up by default. You can choose to exclude them from the backup if your templates directory is covered by some other backup mechanism.</td>
</tr>
<tr>
<td>Uploads</td>
<td>In this context, uploads refers to files which are added to Crucible via the web interface (such as patch file reviews). It also includes each repository-backed file that went under review, when Crucible is configured to make a local copy of every reviewed file.</td>
<td>Uploads are backed up by default. You can choose not to back them up for example when the <code>FISHEYE_INST/var/data/uploads</code> directory is already covered by some other backup mechanism.</td>
</tr>
<tr>
<td>ActiveObjects</td>
<td>Configuration data stored by plugins</td>
<td>Backed up by default</td>
</tr>
</tbody>
</table>
Note that the backup will always include the configuration data (config.xml), your license file and the FishEye user data.

### Backup command line options

These examples are for use in a Linux-like operating system. When using these commands on Windows, use the file name fisheyectl.bat and use the correct slashes. Run the command from the `<FishEye home directory>/bin/` directory.

The basic syntax of the backup command is as follows:

```
$ ./fisheyectl.sh backup [OPTIONS]
```

To see inline help for all backup options, run the following command in the `<FishEye home directory>/bin/` directory:

```
$ ./fisheyectl.sh backup --help
```

<table>
<thead>
<tr>
<th>Option</th>
<th>Switch</th>
<th>Description</th>
<th>Default setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiet mode</td>
<td>-q OR --quiet</td>
<td>Suppresses output</td>
<td>No</td>
</tr>
<tr>
<td>Output filename</td>
<td>-f OR --file</td>
<td>Specify a different path and filename to the FISHEYE_INST/backup/backup_YYYY-DD-MM_HH_mm.zip file. When filename is omitted, the backup filename contains the date and time.</td>
<td>FISHEYE_INST/backup is the default directory.</td>
</tr>
<tr>
<td>Compression level</td>
<td>--compression OR -c</td>
<td>Sets the Zip compression level, from 1-9. Runs at level 6 if no argument is passed.</td>
<td>Yes (6)</td>
</tr>
<tr>
<td>Feature</td>
<td>Command Line Options</td>
<td>Description</td>
<td>Default</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Anonymise</td>
<td>-a OR --anonymise</td>
<td>Anonymises the SQL database by replacing all text with 'x'. This is only useful when sending a backup to Atlassian as part of a support case. <strong>Please do not anonymise data unless the Support Engineer handling your support case has specifically requested the data anonymised (as often anonymised data will not help reproduce the issue).</strong></td>
<td>No</td>
</tr>
<tr>
<td>Cache Backup</td>
<td>--cache</td>
<td>Include the repository caching files in the backup. These hold information gained from scanning the repositories and can be quite large (many gigabytes). However, it can shorten the time needed to re-scan the repositories after data is restored.</td>
<td>No. By default, the cache data is excluded from backups.</td>
</tr>
</tbody>
</table>

**Command line examples**

These examples are for use in a Linux-like operating system. When using these commands on Windows, use the filename fisheyectl.bat and use the correct slashes. Run the command from the `<FishEye home directory>/bin/` directory.

**Backing up with compression of 9, quiet mode and setting an output location**

```
$ ./fisheyectl.sh backup --compression 9 -q -f /application_backups/fisheye/20090215.zip
```

**Backup including cache data (also includes all default components)**

```
$ ./fisheyectl.sh backup --cache
```

**Restoring a backup with cache data (also restores all default components)**

```
$ ./fisheyectl.sh restore --cache
```
Advanced backup command line settings

In some cases it might be preferable to only backup a limited set of items. This could be useful when your instance uses an external database such as MySQL or PostgreSQL and your DBA has already configured automatic backups in the database. The commands below allow this.

<table>
<thead>
<tr>
<th>Option</th>
<th>Switch</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclude Plugins</td>
<td>--no-plugins</td>
<td>Excludes plugins from the backup.</td>
<td>No. By default, plugins are included in every backup.</td>
</tr>
<tr>
<td>Exclude Templates</td>
<td>--no-templates</td>
<td>Excludes templates from the backup.</td>
<td>No. By default, templates are included in every backup.</td>
</tr>
<tr>
<td>Exclude Uploads</td>
<td>--no-uploads</td>
<td>Excludes uploaded files (such as patch reviews, stored in Crucible's internal database) from the backup.</td>
<td>No. By default, uploads are included in every backup.</td>
</tr>
<tr>
<td>Exclude SQL Database</td>
<td>--no-sql</td>
<td>Excludes the SQL content database used by both FishEye and Crucible.</td>
<td>No. By default, this data is included in every backup.</td>
</tr>
<tr>
<td>Show help</td>
<td>--help OR -h</td>
<td>Shows inline help on the command line.</td>
<td>No</td>
</tr>
</tbody>
</table>

Known limitations

Please note that the below limitations are common for any Java based backup tool.

Archives Containing Over 65535 Files
Versions of Java earlier than v1.6 (b25) are incapable of handling zip files that contain more than 65,535 files. The solution for this problem is to either upgrade to a version of Java later than v1.6 (b25), or ensure that the archive does not exceed the threshold (contains less than 65,535 files). The FishEye cache (not included in backups by default) can be a contributor of many small files. Hence, exclude the cache from backups if this is likely to be a concern.

Archives Larger Than 4GB
Java has trouble reading and writing zip files that are larger than 4GB. As of release 1.5 Java appears capable of reliably creating archives that are over 4GB, but remains unable to extract them. For details see Sun's bug report. Also be aware of the fact that some file systems (including FAT32) have trouble with files larger than 4GB.

As a workaround, make sure you do not create archives that are larger than 4GB. The FishEye cache (not included in backups by default) can be a contributor of a lot of small files (although these tend to compress very well). If you still want to archive everything and end up with an archive that is too large, consider creating separate backups for the FishEye cache and uploaded files respectively.

Scheduling Crucible backups

To set a schedule for automatic backups, open the administration screen and click 'Backup' under 'System' on
the left navigation bar. The 'Backup' page opens. Now, click the link 'Manage Scheduled Backups' at the bottom of the page. The 'Scheduled Backups' page opens.

On the 'Scheduled Backups' page, click 'Edit' to adjust the backup schedule. Set the desired options and click 'Save'.

The options for scheduled backups are detailed in the table below.

<table>
<thead>
<tr>
<th>Option name</th>
<th>Description</th>
<th>Allowed Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Scheduled Backups</td>
<td>Stops regular backups from taking place.</td>
<td>On (disabled) or Off (enabled)</td>
</tr>
<tr>
<td>Backup path</td>
<td>The path where the backup .zip file will be stored.</td>
<td>Any system or network path that FishEye or Crucible can access.</td>
</tr>
<tr>
<td>Backup file prefix</td>
<td>Characters that will be added to the beginning of the backup file name.</td>
<td>Any string of characters that can be used as part of a filename on the local operating system.</td>
</tr>
<tr>
<td>Backup file date pattern</td>
<td>Sets a date for the next (or initial) backup to take place.</td>
<td>Any valid date in the format yyyy-MM_dd (year, month, day of the month).</td>
</tr>
<tr>
<td>Backup frequency</td>
<td>Sets how often the backup will take place.</td>
<td>Can be set to 'every day', 'every Sunday', 'Monday to Friday' and 'first day of the month'.</td>
</tr>
<tr>
<td>Backup time (HH:mm)</td>
<td>The time when the backup will take place.</td>
<td>Any valid 24-hour time in the format HH:mm (hours, minutes).</td>
</tr>
<tr>
<td>Include</td>
<td>Specifies which items must be included in the backups (these components are explained at the top of this page).</td>
<td>As per the options for regular on-demand backup (These components are explained at the top of this page).</td>
</tr>
</tbody>
</table>

*Screenshot: Scheduling Backups in FishEye and Crucible*
Be aware that scheduled backups can fill up disks unless you regularly move or delete old archives.

Restoring Crucible data

Restoring Crucible data from the command line

There is currently no way to restore a backup from the web interface because Crucible must be shut down during a data restore.

Restoring a backup will irreversibly overwrite the data of your installation with the data from the backup archive.

If you made a backup from production which connected to an external database, and restore this backup to a test server without specifying another database to restore too, you will drop and restore to your production database. Thus when restoring to a test server, always ensure you specify the correct database to restore to (or restore to an in-built database).

1. Install Crucible into a new, empty directory (this must be the same version that the backup was created from, or later).
   
   Note that you cannot restore data into versions of Crucible which are older than the version that created the backup.
2. Make sure the Crucible instance is not running.
3. Open a command line interface on the Crucible server computer.
4. Run the restore command on the command line with the desired options.
5. The specified elements will be restored.
6. Start the Crucible instance.
7. When using FishEye integrated with Crucible, you will need to re-index your repositories after restoring data, unless the backup archive was created with the --cache option.

Command line restore options
These examples are for use in a Linux-like operating system. When using these commands on Windows, use the filename fisheyectl.bat and use the correct slashes. Run the command from the `<FishEye home directory>/bin/` directory.

The basic syntax of the restore command is as follows:

```
$ ./fisheyectl.sh restore -f /path/to/backup_2009-10-02_1138.zip [OPTIONS]
```

To see inline help for all backup options, run the following command in the `<FishEye home directory>/bin/` directory:

```
$ ./fisheyectl.sh restore --help
```

Restores a FishEye/Crucible backup instance.

If you are using an external database (as opposed to the default built-in database), make sure the JDBC driver file is present in the `FISHEYE_INST/lib` directory when running restore.

<table>
<thead>
<tr>
<th>Option</th>
<th>Switch</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppress output</td>
<td>--quiet OR -q</td>
<td>Suppress the output messages from the restore program on the command line.</td>
<td>No</td>
</tr>
<tr>
<td>Choose file to restore from</td>
<td>--file PATH/Filename OR -f PATH/Filename</td>
<td>Restore the backup from PATH/Filename.</td>
<td>Yes (required)</td>
</tr>
<tr>
<td>Show inline help</td>
<td>--help OR -h</td>
<td>Displays help for options on the command line.</td>
<td>No</td>
</tr>
</tbody>
</table>

**Advanced command line restore settings**

By default, the restore program will restore all items found in the backup archive (so if you included the caches using the `--cache` option, these will automatically be restored). However, it is possible to only restore a subset of items from the backup, by explicitly specifying the item names on the command line and only those will be restored.

<table>
<thead>
<tr>
<th>Option</th>
<th>Switch</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restore FishEye cache</td>
<td>--cache</td>
<td>Restore the repository cache backup.</td>
</tr>
<tr>
<td>Restore plugins</td>
<td>--plugins</td>
<td>Restore 3rd-party plugins and their configuration data.</td>
</tr>
<tr>
<td>Restore templates</td>
<td>--templates</td>
<td>Restore freemarker templates from the backup (the restored instance will use the built-in templates).</td>
</tr>
<tr>
<td>Command</td>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Restore uploads</td>
<td>--uploads</td>
<td>Restore uploads (e.g. patch files uploaded into Crucible and contents of files under review).</td>
</tr>
<tr>
<td>Restore Crucible reviews</td>
<td>--sql</td>
<td>Restore the SQL database containing user profiles, reviews and review comments.</td>
</tr>
<tr>
<td>Set database type</td>
<td>--dbtype OR -t</td>
<td>SQL database type ('mysql', 'postgresql' or 'built-in'). Only required when restoring to a database location different to that used at used at backup time.</td>
</tr>
<tr>
<td>Set JDBC URL</td>
<td>--jdbcurl OR -j</td>
<td>JDBC URL of the SQL database. Only required when restoring to a database location different to that used at used at backup time (not applicable for 'built-in').</td>
</tr>
<tr>
<td>Set JDBC username</td>
<td>--username OR -u</td>
<td>JDBC username of the SQL database. Only required when restoring to a database location different to that used at used at backup time (not applicable for 'built-in').</td>
</tr>
<tr>
<td>JDBC password</td>
<td>--password OR -p</td>
<td>JDBC password of the SQL database. Only required when restoring to a database location different to that used at used at backup time (not applicable for 'built-in').</td>
</tr>
<tr>
<td>JDBC class</td>
<td>--driver OR -d</td>
<td>Specifies the JDBC driver class name needed to access the SQL database. Only required when restoring to a database location different to that used at used at backup time and when using a different JDBC driver than the standard driver associated with the database specified through --dbtype. (Not applicable for 'built-in').</td>
</tr>
</tbody>
</table>

**Notes on migrating backup data**

When the process restores a SQL database, it looks at the configuration data (`config.xml`) included in the backup archive to learn which database product was used and how to connect to it. When Crucible uses the built-in HSQLDB database (which is the default), the restored instance will also use that. However, when the restored instance will use a different database than the backed up instance (for instance, HSQLDB was used at the time the backup was created, but it needs to be restored on MySQL), use the command line options to point the process to the new database.
Command line example: migrating backup data to MySQL

These examples are for use in a Linux-like operating system. When using these commands on Windows, use the filename fisheyectl.bat and use the correct slashes. Run the command from the `<FishEye home directory>/bin/` directory.

Restoring to a Crucible instance that uses a different database (ensure the mysql driver jar file is present in the `FISHEYE_INST/lib` directory)

```
$ ./fisheyectl.sh restore \
  --username john \
  --password smith \
  --jdbcurl jdbc:mysql://localhost:3306/crucible \
  --dbtype mysql \
  --file /path/to/backup_2009-10-02_1138.zip
```

Best Practices for Crucible Configuration

1. **Set up a separate FISHEYE_INST folder location on the same system for Crucible's data.**

This will allow for easy upgrades of the core program and neatly separated data backup.

2. **Run Crucible on a dedicated machine, accessing its data on the local file system.**

This is the best environment for swift Crucible performance. Avoid running Crucible in a virtual environment.

3. **Do not give Crucible projects the same key as your JIRA projects.**

When naming projects, take care to ensure that the key you assign to them is not the same as any of your JIRA projects. The reason for this is, if one of your Crucible projects has the same key as one of your projects in JIRA, then all links with that key will lead back to Crucible, rather than leading to JIRA, removing the ability to navigate between the two applications.

To avoid this, name your Crucible project keys differently. For example, you could place the following text at the beginning of each project key: `CR-` to distinguish it. So, for this case, if you have an existing JIRA key of `'RHUBARB'`, you would create a Crucible key called `'CR-RHUBARB'` so that they do not conflict.

4. **Do not use the built-in HSQLDB database for production use.**

The Crucible built-in database, running HSQLDB is somewhat susceptible to data loss during system crashes. We recommend that you do not use HSQLDB for production systems. External databases are generally more resistant to data loss during a system crash and are more suited for production use.

To see a list of external databases that Crucible supports, see the Supported Platforms page. For information on how to set up an external database, see the Crucible Database documentation.

Managing plugins

A plugin is an add-on to the core Crucible code, used to extend the Crucible functionality. Some plugins are shipped with Crucible, others are available for you to install yourself.

You can develop additional plugins (see the Crucible Developer docs) or download existing plugins from the Atlassian Plugin Exchange, and install them into your Crucible system.
Managing your plugins

- Viewing your Installed Plugins
- Installing a Plugin
- Configuring a Plugin
- Uninstalling a Plugin
- Disabling or Enabling a Plugin
- Checking Plugin Compatibility for Crucible Upgrades
- Upgrading your Existing Plugins
- Viewing the Plugin Audit Log

About the Universal Plugin Manager (UPM)

The Universal Plugin Manager (UPM) provides a set of functions for managing your plugins. The UPM is itself a system plugin. It allows you to perform common tasks such as:

- Finding and installing new plugins.
- Enabling and disabling plugins and their plugin modules.
- Configuring plugin options.
- Updating plugin software.
- Checking the compatibility of your installed plugins against newer versions of the application.

The UPM lets you interact with the Atlassian Marketplace. You can use the UPM to browse available plugins for your application, and try and buy plugins without ever leaving your application.

Screenshot: The Universal Plugin Manager in Crucible

Notes

- Plugin Safety. Plugins are very powerful. They can change the behaviour of almost any part of the
Crucible 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.

- **Troubleshooting.** Having problems with the Universal Plugin Manager? Try the [Universal Plugin Manager FAQ](https://confluence.atlassian.com/display/UPM/Universal+Plugin+Manager+FAQ).

## Viewing your Installed Plugins

Using the Universal Plugin Manager (UPM) you can see a list of plugins installed on your Crucible site. These include plugins that are bundled with Crucible as well as any plugins that you have installed. Both enabled and disabled plugins are displayed.

*On this page:*
- Viewing your Installed Plugins
- Viewing a Plugin's Details
- Notes

### Viewing your Installed Plugins

**To view your installed plugins:**

1. Click the **Manage Existing** tab. You will see a list of the plugins installed in your application.
   - The plugins are grouped into 'User-installed Plugins' and 'System Plugins'.
   - You can filter your list by entering keywords in the 'Filter visible plugins' text box.
   - The list of 'System Plugins' will be hidden by default. Click the Show System Plugins link to see them.
     - Enabled plugins will have this icon: ●
     - Disabled plugins will have this icon: ●
   - Click the name of a plugin to view the plugin's details.
   - Click **Enable Safe Mode** to run your application in safe mode. This mode disables all user installed plugins.

### Viewing a Plugin's Details

You can view the details for a plugin by clicking the name of a plugin in the list of installed plugins. The summary contains a short description of the plugin as well as links to plugin operations and related information.

- **Plugin key** – A unique key that identifies each plugin in the system.
- **Developer** — The name of the plugin developer and a link to the developer's home page, if provided by the plugin developer.
- **Plugin version** – The version of the plugin currently installed.
- **Manage plugin modules** — Click this link to display the plugin modules below the plugin summary. A module is a component of the plugin. This link will only appear if the plugin has modules. If you want to enable or disable a plugin module, hover your mouse over the module and click the 'Enable'/Disable button for that module.
- **Configure** – Click this link to display the configuration settings for the plugin. This link is disabled if the plugin is disabled. Please note that not all plugins have settings that can be configured through the Universal Plugin Manager.
- **Disable** – Click this button to disable the plugin in your application. This button will only appear if the plugin is enabled.
- **Enable** – Click this button to enable the plugin in your application. This button will only appear if the plugin is disabled.
- **Uninstall** – Click this button to uninstall the plugin from your application. This button will only appear for user installed plugins.

### Notes

- **What is the difference between a 'system plugin' and a 'user installed plugin'?”
System plugins are shipped with the application. These plugins are essential for the functioning of the system. Although you can disable some of them, you should not do so unless instructed by an Atlassian support engineer. Note: Not every system plugin can be disabled. You cannot uninstall any system plugins.

User installed plugins are those which have been installed in the application after it was set up. You can install a plugin either by uploading a JAR file or via the Universal Plugin Manager. You can uninstall these plugins.

Related Topics

Managing plugins

Installing a Plugin

This page describes how to install a plugin in Crucible. You can use plugins to customise and extend the functionality of your application.

A number of plugins are available from the Atlassian Plugin Exchange. You can also create your own as described in the Crucible developer's guide.

On this page:
- Adding a Plugin from the Atlassian Plugin Exchange
- Uploading your own plugin
- Notes

Adding a Plugin from the Atlassian Plugin Exchange

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click ‘Plugins’ in the left-hand menu.

To find a plugin in the Atlassian Plugin Exchange and add it to Crucible:
1. Click the ‘Install’ tab in the UPM. You will see a list of featured plugins.
2. Search for your plugin as follows:
   - Enter some keywords that describe the plugin in the ‘Search the Plugin Exchange’ search box and press ‘Enter’.
   - Alternatively, browse to the desired plugin in the list. You can choose ‘Featured’, ‘Popular’, ‘Supported’ (by Atlassian) or ‘All available’ from the ‘Plugins to show’ dropdown to see a different list of plugins.
3. Click the ‘Install’ button for the desired plugin to add it to your application. A confirmation message and the plugin details will appear when the plugin is installed successfully.
   Note: You may need to restart your application for your change to take effect. The Universal Plugin Manager will inform you if this is the case.
   Note: Not all plugins can be automatically installed. Some required manual installation. These plugins will have a ‘Download’ button instead of an ‘Install’ button. In these cases, you should read and follow the plugin's installation instructions.

Uploading your own plugin

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click ‘Plugins’ in the left-hand menu.

To upload your own plugin to Crucible:
1. Click the ‘Install’ tab in the UPM. You will see a list of featured plugins.
2. Click the 'Upload Plugin' link. The 'Upload Plugin' window will appear.
3. Specify the location of your plugin:
   - If the plugin you want to install is on your computer, use the 'Browse' dialogue to choose the plugin JAR file.
   - If you want to install a plugin from a remote location, enter the URL of the plugin JAR file in the 'From this URL' text box.
4. Click the 'Upload' button to upload and enable your plugin. A confirmation message will appear when the plugin is successfully installed.

   **Note:** You may need to restart your application for your change to take effect. The Universal Plugin Manager will inform you if this is the case.

**Screenshot: Uploading a new plugin**

![Upload Plugin](image)

**Notes**
- In Crucible, you can install and uninstall both version 1 and version 2 plugins using the Universal Plugin Manager. You will see an 'Install' or an 'Uninstall' button.
- Some entries that you find listed in the Universal Plugin Manager are not actually plugins. These entries will show a 'Download' button which allows you to download the application to your desktop and run it.

**Related Topics**
- Managing plugins
- Configuring a Plugin

**Configuring a Plugin**

A number of Crucible plugins offer advanced configuration options. If you have one of these plugins installed in your application, you can view and update these configuration options via the Universal Plugin Manager (UPM).

If you would like to disable or enable a plugin, please refer to [Disabling or Enabling a Plugin](#).

**To access the Universal Plugin Manager in Crucible:**
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

**To configure a plugin in Crucible:**
1. Click the 'Manage Existing' tab.
2. Locate the plugin that you want to configure and click its title. The plugin details section will expand.
3. Click the 'Configure' link for that plugin.
   - The link will be disabled if the plugin is disabled.
   - If there is no 'Configure' link, then there are no advanced configuration options available for that
plugin.
4. The advanced configuration options for the plugin will appear. Update the configuration settings as desired and save your changes.

**Note:** The advanced configuration screens are provided by the plugin. If you encounter any problems after you click the 'Configure' link, the plugin is responsible for the issue, not the Universal Plugin Manager.

Related Topics

Managing plugins

Uninstalling a Plugin

If you wish to completely remove a plugin from Crucible, you can uninstall it via the Universal Plugin Manager (UPM). If you only want to temporarily remove it, you may wish to disable the plugin instead.

**To access the Universal Plugin Manager in Crucible:**

1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

**To uninstall a plugin from Crucible:**

1. Click the 'Manage Existing' tab. You will see a list of the plugins installed in your application.
2. Click the name of the plugin that you wish to uninstall. The plugin details will appear.
3. Click the 'Uninstall' button. The information summary will display an 'Uninstalling' message and the plugin will be uninstalled from your application.

Related Topics

Managing plugins

Disabling or Enabling a Plugin

The Universal Plugin Manager (UPM) allows you to disable a plugin in Crucible without permanently removing it. You can also enable any plugins that have been previously disabled. If you want to add or remove a plugin from your Crucible site, please refer to **Installing a Plugin** or **Uninstalling a Plugin** respectively.

You can also disable all user installed plugins in Crucible, by enabling safe mode. This may help you to diagnose a plugin-related problem more easily.

On this page:

- Disabling a Plugin
- Enabling a Plugin
- Disabling/Enabling all User Installed Plugins (Safe Mode)

Disabling a Plugin

**To access the Universal Plugin Manager in Crucible:**

1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

**To disable a plugin in Crucible:**

1. Click the 'Manage Existing' tab. You will see a list of the plugins installed in your application. Enabled plugins will have this icon: 🍀
2. Locate the plugin that you want to disable and click the title to expand the plugin details section.
3. Click the 'Disable' button.
4. Once a plugin has been disabled, you may need to restart your application for your change to take effect.
If so, you will see a message for the plugin, 'Disabled, requires restart'.
Once the plugin is fully disabled, you will see an 'Enable' link for the plugin.

Enabling a Plugin

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

To enable a plugin in Crucible:
1. Click the 'Manage Existing' tab. You will see a list of the plugins installed in your application. Disabled plugins will have this icon: 
2. Locate the plugin that you want to enable and click the title to expand the plugin details section.
3. Click the 'Enable' button.
4. Once a plugin has been enabled, you may need to restart your application for your change to take effect. If so, you will see a message for the plugin, 'Enabled, requires restart'. Once the plugin is fully disabled, you will see a 'Disable' link for the plugin.

Disabling/Enabling all User Installed Plugins (Safe Mode)

Running your application in safe mode disables all user installed plugins at once. By 'user installed plugins', we mean plugins that were not shipped with Crucible but were installed later via the UPM.

All plugins that were disabled when you entered safe mode will be re-enabled when you exit safe mode.

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

To enable safe mode in Crucible:
1. Click the 'Manage Existing' tab. You will see a list of the plugins installed in your application.
2. Click the 'Enable Safe Mode' button.
3. Click the 'Continue' button in the confirmation window. All user installed plugins will be disabled and your application will now be running in 'Safe Mode'.
4. You can now make changes to your installed plugins as desired. For example, you may want to enable/disable specific plugins or plugin modules.
5. Exit safe mode by clicking one of the links in the Safe Mode banner:
   • Click 'Exit Safe Mode and restore the previous configuration' to restore your plugin configuration to its state before you entered Safe Mode.
   • Click 'Exit Safe Mode and keep the current configuration' to keep all changes made to your plugin configuration during Safe Mode.

Related Topics

Managing plugins

Checking Plugin Compatibility for Crucible Upgrades

You can use the plugin manager's 'Upgrade Check' to verify that your plugins will still work after a Crucible upgrade.

For example, if you are thinking of upgrading from Crucible 2.5 to Crucible 2.6, the upgrade check can tell you the following:

• Installed plugins that are compatible with Crucible 2.5 and Crucible 2.6.
• Installed plugins that are not compatible with Crucible 2.6 but will be compatible with Crucible 2.6 if you upgrade them.
• Installed plugins that are not compatible with Crucible 2.6, even if you upgrade them to their latest version.

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click ‘Plugins’ in the left-hand menu.

To check the compatibility of your plugins against different Crucible versions:
1. Click the ‘Upgrade Check’ tab.
2. In the ‘Check compatibility for’ dropdown menu, select the version of your application to check the plugins against.
3. Click the ‘Check’ button.
4. The page display any of your installed plugins that are not compatible with the selected application version. The compatibility checker will also check the compatibility of the latest available version of each plugin (if not already upgraded). You can click on the name of any of the plugins to view more information about the plugin.

The plugins are grouped into sections under the following headings:
• **Incompatible** – The installed versions of these plugins are not compatible with the selected application version. There are currently no plugin upgrades available that are compatible with the selected application version.
• **Compatible, if upgraded** – The installed versions of these plugins are not compatible with the selected application version. However, the plugins will be compatible if you upgrade them. There are buttons allowing you to upgrade these plugins.
• **Compatible if both <the application> and the plugin are upgraded** – The installed versions of these plugins are not compatible with the selected application version. There is a plugin compatible with the newer application version, but it is not compatible with the application version you are currently running. You must upgrade the application and then upgrade the plugin. There are buttons allowing you to disable these plugins before proceeding with the upgrade.
• **Compatible** – The currently installed versions of these plugins are compatible with the selected application version.
• **Unknown** – These plugins may or may not be compatible with the selected application version. If a plugin is not registered with the [Atlassian Plugin Exchange](https://plugins.atlassian.com), the Universal Plugin Manager cannot check its compatibility with different application versions.

Related Topics

**Managing plugins**

**Upgrading your Existing Plugins**

Plugins are often developed separately from Crucible. You may wish to upgrade your plugins to more recent versions to allow them to work with your Crucible version or simply to take advantage of new features in a plugin version. The Universal Plugin Manager (UPM) provides you with a list of plugins that have available upgrades and allows you to upgrade each plugin individually or in bulk.

---

**On this page:**

- Upgrading a Plugin
- Upgrading All your Plugins
- Notes

---

**Upgrading a Plugin**

To access the Universal Plugin Manager in Crucible:
To upgrade a plugin in Crucible:
1. Click the 'Upgrade' tab. The plugin upgrades page will appear.
   - If there is a later version of a plugin that you have already installed, this page will show the latest compatible version of the plugin.
   - You can click the plugin name to expand the row and see more information about the plugin.
   - You can filter your list by entering keywords in the 'Filter plugins' text box.
2. Click the 'Upgrade Now' button next to the relevant plugin to update it to the plugin version shown.

Upgrading All your Plugins

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

To upgrade all available plugins in Crucible:
1. Click the 'Upgrade' tab. The plugin upgrades page will appear.
   - If there is a later version of a plugin that you have already installed, this page will show the latest compatible version of the plugin.
   - You can click the plugin name to expand the row and see more information about the plugin.
   - You can filter your list by entering keywords in the 'Filter plugins' text box.
2. Click the 'Upgrade All' button to update every plugin to the plugin versions shown. 
   Note: Some plugins cannot be installed via the Universal Plugin Manager. You must install these plugins manually. These plugins will not be upgraded automatically.

Notes
- If you are considering upgrading Crucible, you can use the Universal Plugin Manager to check the compatibility of your plugins with your desired Crucible version. See Checking Plugin Compatibility for Crucible Upgrades.

Related Topics
- Managing plugins

Viewing the Plugin Audit Log

The Universal Plugin Manager (UPM) keeps a log of all plugin activity for your Crucible site. Such activities may be adding plugins, enabling plugins, and so on. You can adjust the period of time for which log entries are kept.

Viewing the Plugin Audit Log

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

To view the plugin audit log:
1. Click the 'Audit Log' tab. The plugin audit log will appear, showing the 25 most recent entries.
2. Use the arrows if you want to view older entries.
3. Click the orange RSS icon if you want to receive the audit log activity in an RSS feed.
Configuring the Plugin Audit Log

To access the Universal Plugin Manager in Crucible:
1. Log in as an administrator and go to the Crucible administration screen.
2. Click 'Plugins' in the left-hand menu.

To configure the length of time for which log entries are kept:
1. Click the 'Audit Log' tab. The plugin audit log will appear.
2. Click the 'Configure purge policy' link.
3. In the 'Purge audit log after' field, specify the number of days for which you wish to keep the logs.
4. Click the 'Confirm' button.

Related Topics

Managing plugins

Migrating to an External Database

This page contains information about migrating Crucible from its default embedded HSQL database to an external database. Advantages of using a database other than the embedded HSQL database include:

- **Improved Protection Against Data Loss**: The Crucible built-in database, running HSQLDB is somewhat susceptible to data loss during system crashes. External databases are generally more resistant to data loss during a system crash. HSQLDB is not supported in production environments and should only be used for evaluation purposes.
- **Performance & Scalability**: If you have many users on your Crucible instance, running the database on the same server as FishEye may slow it down. When using the embedded database, the database will always be hosted and run on the same server as Crucible.
- **Data Stored in the Crucible Database**: The Crucible database stores all information besides the cache for repository scans. This means all reviews, comments, review states, user data and user preferences information.

On this page:

- [Supported Databases](#)
- [Support for Other Databases](#)
- [Notes](#)

**Supported Databases**

You can use a number of alternatives to the built-in HSQLDB database for storing FishEye and Crucible's relational data. The supported alternative databases are listed on the [Supported Platforms](#) page. Please note, that only the database versions listed on that page are supported.

The pages linked below outline the steps required to switch to an external database:

- [Migrating to MySQL Enterprise Server](#)
- [Migrating to Oracle](#)
- [Migrating to PostgreSQL](#)
- [Migrating to SQL Server](#)

**Support for Other Databases**

If you are using another database product that you would like to see supported, please create a [JIRA issue](#) for it under the Crucible project.

**Notes**
Crucible uses Read Committed transaction isolation. There is no requirement to configure this explicitly when setting up an external database - Crucible will configure the transaction isolation when connecting to the database.

**Migrating to MySQL Enterprise Server**

To switch to a MySQL Enterprise Server, install MySQL Enterprise Server and then follow the steps below. Please note that during the migration of database servers, the FishEye/Crucible instance will not be available to users or to external API clients.

**Prerequisites**

Before you begin:

1. Install a **supported version** of MySQL. Check the [Supported platforms](#) page for the exact versions that are supported.
2. Download and install the JDBC driver, as follows (unless you have already done so). Note, the JDBC driver for MySQL Enterprise Server is **not bundled** with FishEye/Crucible (due to licensing restrictions).
   a. Download the **MySQL Connector/J JDBC driver** from the [MySQL download website](#).
   b. Expand the downloaded `zip/tar.gz` file.
   c. Copy the `.jar` file to your `FISHEYE_INST/lib` directory. If the `lib/` directory doesn't already exist, you will need to create it.
   d. Restart FishEye/Crucible.

**On this page:**

- Prerequisites
- Step 1. Create a MySQL Database
- Step 2. Configure FishEye/Crucible to use MySQL, and Migrate Data

**Related pages:**

- Migrating to PostgreSQL
- Migrating to Oracle
- Migrating to SQL Server
- Migrating to an external database
- Troubleshooting Databases

**Step 1. Create a MySQL Database**

1. Create a UTF-8 Database:

   ```
   CREATE DATABASE fisheye CHARACTER SET utf8 COLLATE utf8_bin;
   ```

2. You will also need to set the **Server Character set** to `utf8`. This can be done by adding the following in `my.ini` for Windows or `my.cnf` for other operating systems (create the file at `/etc/my.cnf` if it doesn't already exist). It has to be declared in the Server section, which is the section after `[mysqld]`:

   ```
   [mysqld]
   character-set-server=utf8
   ```

3. Use the `status` command to verify database character encoding information.

   First select the `fisheye database`:

   ```
   mysql> use fisheye;
   ```
Then issue the `mysql> status;` command:

**Screenshot: Using the MySQL Enterprise Server Status Command**

```sql
mysql> status
---------
//Applications/xampp/xamppfiles/bin/mysql Ver 14.12 Distrib 5.0.67, for apple-darwin8.11.1 (1006) using EditLine wrapper

Connection id:   5764
Current database:
Current user:    root@localhost
SSL:            Not in use
Current pager:  stdout
Using outfile:   
Using delimiter: 
Server version:  5.0.67 Source distribution
Protocol version: 10
Connection:      Local socket via UNIX socket
Server characterset: utf8
DB characterset:  utf8
Charset characterset: latin1
UNIX socket:     //Applications/xampp/xamppfiles/vso/mysql/mysql.sock
Uptime:          29 days 1 hour 54 min 56 sec
Threads:         6  Questions: 49238134  Slow queries: 0  Opens: 460445  Flush tables: 1
                 Open tables: 4  Queries per second avg: 19.607

mysql> 
```

4. Create a user that can log in from the host that FishEye/Crucible is running on and make sure that the user has full access to the newly created database. In particular, the user should be allowed to create and drop tables, indexes and other constraints.

For instance, when FishEye/Crucible and MySQL Enterprise Server run on the same machine (accessible through `localhost`), issue the following commands (replacing username and password with the appropriate values):

```sql
mysql> grant all on fisheye.* to 'username'@'localhost' identified by 'password';
Query OK, 0 rows affected (0.00 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.01 sec)
```

**Step 2. Configure FishEye/Crucible to use MySQL, and Migrate Data**

In order to migrate to a different database backend, you must create a backup of sql data, configure the database and finally import the data via a backup restoration process. This can be done from either the FishEye/Crucible administration console, which streamlines the process, or via the command line tool which FishEye/Crucible provides.

**From FishEye/Crucible's Administration**

1. Navigate to the Database page in FishEye/Crucible's Administration console
2. Then click 'Test Connection' to verify that FishEye/Crucible can log in to the database:
3. Select MySQL from the database type
4. Fill in the appropriate fields, replacing the host, port, database name, username and password as...
required

5. Click on Test Connection to validate the values

Screenshot: Testing the Connection

If this fails, verify that you have the MySQL Enterprise Server JDBC driver .jar file in the classpath (see Prerequisites section above for instructions on how to install the driver). Also, ensure that the database user can log in to the database from the machine that FishEye/Crucible is running on and that all the required privileges are present.

6. Click 'Save & Migrate Data' to start the migration process.

During the migration process (which will take several minutes, depending on the size of your database and network throughput), the product will be inaccessible to users and external API clients. Users will see a maintenance screen that informs them of the process. Should the migration fail for any reason, FishEye/Crucible will not switch to the new database and report on the encountered problems. Because the destination database may now contain some, but not yet all data, drop all tables, indexes and constraints before attempting a new migration.
From the command line

1. Create a backup of the SQL data from the FishEye/Crucible instance. Read Backing up and restoring FishEye data and Backing up and restoring Crucible data for information on how to create a backup.
2. Run the following command from the bin directory in FISHEYE_INST

   ```
   $ ./fisheyectl.sh restore --sql 
   --file /path/to/backup.zip 
   --dbtype mysql 
   --jdbcurl jdbc:mysql://hostname/dbname 
   --username crucible 
   --password password
   ```

3. When the import is complete, FishEye/Crucible can be started and will use MySQL.

### Migrating to Oracle

To switch to an Oracle database, install Oracle and follow the steps below. Please note that during the migration of database servers, the FishEye/Crucible instance will not be available to users or to external API clients.

Oracle support for FishEye/Crucible and Crucible was introduced in version 2.5.0. In order to migrate to Oracle, your instance must be currently running at least version 2.5. If you are running an older version, then you will be required to first upgrade FishEye/Crucible and then migrate.

**On this page:**

- Step 1. Install and Create a Oracle Database
- Step 2. Configure FishEye/Crucible to use Oracle, and Migrate Data
Step 1. Install and Create a Oracle Database

1. The JDBC drivers for Oracle are bundled with FishEye/Crucible. Skip to step 2 if this meets your needs. If you want to install a specific, different version of the bundled JDBC driver, download the download the Oracle JDBC driver .jar file from the Oracle website (http://www.oracle.com/technetwork/database/features/jdbc/index-091264.html) and copy the .jar file to your FISHEYE_INST/lib directory (create the lib/ directory if it doesn't already exist). Move the existing JDBC .jar file to another location (and back it up). Restart FishEye/Crucible to have it pick up the new driver.

2. Because creating a database with Oracle is a complex process, we recommend speaking to your resident DBA for creation of a new database for usage with Crucible. We highly recommend installing Oracle with the AL32UTF8 encoding otherwise you may see encoding issues in the product.

Step 2. Configure FishEye/Crucible to use Oracle, and Migrate Data

In order to migrate to a different database backend, you must create a backup of sql data, configure the database and finally import the data via a backup restoration process. This can be done from either the FishEye/Crucible administration console, which streamlines the process, or via the command line tool which FishEye/Crucible provides.

From FishEye/Crucible's Administration

1. Navigate to the Database page in FishEye/Crucible's Administration console
2. Then click 'Test Connection' to verify that FishEye/Crucible can log in to the database:
3. Select Oracle from the database type
4. Fill in the appropriate fields, replacing the host, port, database name, username and password as required
5. Click on Test Connection to validate the values

![Screenshot: Testing the Connection]
If this fails, verify that you have the Oracle JDBC driver .jar file in the classpath (by placing the .jar file in FISHEYE_INST/lib). Also, ensure that the database user can log in to the database from the machine that FishEye/Crucible is running on and that all the required privileges are present.

6. Click 'Save & Migrate Data' to start the migration process.

During the migration process (which will take several minutes, depending on the size of your database and network throughput), the product will be inaccessible to users and external API clients. Users will see a maintenance screen that informs them of the process. Should the migration fail for any reason, FishEye/Crucible will not switch to the new database and report on the encountered problems. Because the destination database may now contain some, but not yet all data, drop all tables, indexes and constraints before attempting a new migration.

Screenshot: Migrating the Database

From the command line

1. Create a backup of the sql data from the FishEye/Crucible instance. Information on how to create a backup can be found at Backing up and restoring FishEye data Backing Up and Restoring Crucible Data
2. Run the following command from the bin directory in FISHEYE_INST

   $ ./fisheyectl.sh restore --sql
   --file /path/to/backup.zip
   --dbtype oracle
   --jdbcurl jdbc:oracle:thin:@hostname:port:dbname
   --username crucible
   --password password

3. When the import is complete, FishEye/Crucible can be started and will use Oracle.

Migrating to PostgreSQL

To switch to a PostgreSQL database, install PostgreSQL and follow the steps below. Please note that during the migration of database servers, the FishEye/Crucible instance will not be available to users or to external API
Step 1. Install and Create a PostgreSQL Database

1. The JDBC drivers for PostgreSQL are bundled with FishEye/Crucible. Skip to Step 2 if this meets your needs. If you want to install a specific, different version of the bundled JDBC driver, download the PostgreSQL JDBC driver .jar file from the PostgreSQL website and copy the .jar file to your FISHEYE_INST/lib directory (create the lib/ directory if it doesn't already exist). Move the existing JDBC .jar file to another location (and back it up). Restart FishEye/Crucible to have it pick up the new driver.

2. Create a new database user (replacing 'username' and 'password' with the appropriate values):

   $ psql
   > create user username password 'password';

3. Create a UTF-8 database and make the newly created user the owner:

   > create database crucible ENCODING 'UTF-8' OWNER username;

4. Make sure the user has full access to the database:

   > grant all on database crucible to username;

Step 2. Configure FishEye/Crucible to use PostgreSQL, and Migrate Data

In order to migrate to a different database backend, you must create a backup of sql data, configure the database and finally import the data via a backup restoration process. This can be done from either the FishEye/Crucible administration console, which streamlines the process, or via the command line tool which FishEye/Crucible provides.

From FishEye/Crucible's Administration

1. Navigate to the Database page in FishEye/Crucible's Administration console.
2. First click Edit and then click Test Connection to verify that FishEye/Crucible can log in to the existing database.
3. Select PostgreSQL from the database Type.
4. Fill in the appropriate fields:
a. **Driver Location**: either your own PostgreSQL JDBC or the Bundled one that came with FishEye
b. **URL**: create this field by replacing the host, port, and database name with your own
   (i.e. `jdbc:postgresql://localhost:5432/<dbname>`  e.g. `jdbc:postgresql://localhost:5432/crucible`)  
c. **Username**: your DB username  
d. **Password**: your DB password  
e. **Minimum Pool Connections**: 5 is the default  
f. **Maximum Pool Connections**: 20 is the default  
g. **Parameters**: (one per line)  
   i. useUnicode=true  
   ii. characterEncoding=UTF8

5. Click **Test Connection** to validate the values.

**Screenshot: Testing the Connection**

If this fails, verify that you have the PostgreSQL JDBC driver `.jar` file in the classpath (by placing the `.jar` file in `FISHEYE_INST/lib`). Also, ensure that the database user can log in to the database from the machine that FishEye/Crucible is running on and that all the required privileges are present.

6. Click **Save & Migrate** to start the migration process.

During the migration process (which will take several minutes, depending on the size of your database and network throughput), the product will be inaccessible to users and external API clients. Users will see a maintenance screen that informs them of the process. Should the migration fail for any reason, FishEye/Crucible will not switch to the new database and report on the encountered problems. Because the destination database may now contain some, but not yet all data, drop all tables, indexes and constraints before attempting a new migration.
From the command line

1. Create a backup of the sql data from the FishEye/Crucible instance. Information on how to create a backup can be found at Backing up and restoring FishEye data / Backing up and restoring Crucible data.
2. Run the following command from the bin directory in FISHEYE_INST:

```bash
$ ./fisheyectl.sh restore --sql \
    --file /path/to/backup.zip \
    --dbtype postgresql \
    --jdbcurl jdbc:postgresql://hostname/dbname \
    --username crucible \
    --password password
```

3. When the import is complete, FishEye/Crucible can be started and will use PostgreSQL.

Migrating to SQL Server

To migrate FishEye/Crucible to an SQL Server database, install SQL Server and follow the steps below.

On this page:

- **Before You Begin**
- **Step 1. Install and Create an SQL Server Database**
- **Step 2. Configure FishEye/Crucible to Use SQL Server and Migrate Data**
### Before You Begin

- Check that you are using version of SQL Server that is supported for use with FishEye. See [Supported platforms](#).

An existing Java bug prevents connection with Java 1.6.0_29 and above (including Java 1.7.0). Read more about the issue and possible workarounds [here](#).

### Step 1. Install and Create an SQL Server Database

See the [SQL Server Online resources (MSDN)](#) for instructions on how to install and create an SQL Server database.

Please note the following FishEye/Crucible-specific information when installing and creating an SQL Server database:

- The JDBC jtds drivers for SQLServer are bundled with Crucible. We do not support using the Microsoft distributed jdbc driver.
- Your database server must be configured to use the `Latin1_General_CS_AS` collation set.

### Step 2. Configure FishEye/Crucible to Use SQL Server and Migrate Data

In order to migrate to a different database backend, you must create a backup of SQL data, configure the database and finally import the data via a backup restoration process. This can be done from either the Crucible administration console, which streamlines the process, or via the command line tool which Crucible provides. These two methods are described below. The following resources may be of interest:

- [Back up and restoring FishEye data](#)
- [Back up and restoring Crucible data](#)
- [SQL Server Online resources (MSDN)](#)

[Configuring and Migrating via FishEye/Crucible's Administration Console](#) [Configuring and Migrating via the Command Line](#)
• Ensure that the database user can log in to the database from the machine that FishEye/Crucible is running on and that all the required privileges are present.

To configure FishEye/Crucible to use SQL Server and migrate data using the Administration Console:

1. Navigate to the ‘Database’ page in FishEye/Crucible’s Administration console.
2. Configure FishEye/Crucible to use SQL Server, as follows:
   • Select ‘SQLServer’ from the ‘Type’ dropdown.
   • Complete the appropriate fields, replacing the ‘URL’ (host, port and database name), ‘User Name’ and ‘Password’ as required.
     NOTE: The default SQL server instance listens on port 1433. If your instance is not the default, use the port number that is associated with your particular instance.
     e.g. URL: jdbc:jtds:sqlserver://localhost:1433;databaseName=your database name here;
3. Click ‘Test Connection’ to verify that FishEye/Crucible can log in to the database (see ‘Testing the Connection’ screenshot below).
4. Click ‘Save & Migrate Data’ to start the migration process (see ‘Migrating the Database’ screenshot below). If the migration fails, FishEye/Crucible will not switch to the new database and will report the problems encountered.

2. Migrating Data

Screenshots above: Configuring FishEye/Crucible to use SQL Server and migrating data (click to view full-size images)

Configuring and Migrating via the Command Line

To configure FishEye/Crucible to use SQL Server and migrate data using the Command Line:

1. Create a backup of the sql data from the FishEye/Crucible instance. Information on how to create a backup can be found at Backing up and restoring FishEye data \ Backing up and restoring Crucible data
2. Run the following command from the bin directory in FISHEYE_INST:

```bash
$ ./fisheyectl.sh restore --sql
   --file /path/to/backup.zip
   --dbtype sqlserver2008
   --jdbcurl "jdbc:jtds:sqlserver://hostname:port;databaseName=dbName;"
   --username crucible
   --password password
```

3. When the import is complete, FishEye/Crucible can be started and will use SQLServer.

[ Configuring and Migrating via FishEye/Crucible's ]
JIRA Integration in Crucible

**JIRA** is Atlassian's issue tracking and project management application. This page describes how to integrate JIRA with Crucible.

**Initial configuration in JIRA**

Configure the following setting in JIRA:

- **Allow remote API access**

Consider also the following settings, to make full use of the integration between Crucible and JIRA:

- **Enable subtasks**
- **Allow unassigned issues**

---

**Quick setup using the Crucible Setup Wizard**

When you are installing the application, the setup wizard gives you the opportunity to configure the JIRA connection automatically. This is a quick way of setting up your JIRA integration with the most common options. See [Configuring JIRA Integration in the Setup Wizard](#).

If you did not set up the JIRA integration during the Crucible setup, you can configure the integration using the Crucible administration screens as described below.

**JIRA integration in Crucible**

You can further configure the JIRA connections using the Crucible administration screens. There are two parts to the integration process:

- A peer-to-peer link between JIRA and Crucible for sharing information and facilitating integration features. This link is set up using Application Links.
- A client-server link between Crucible and JIRA for delegating user and group management to your JIRA server.

1. **Configuring an application link with JIRA**
This section describes how to create a two-way trusted applications link between Crucible and JIRA. We assume that your Crucible and JIRA servers are using the same set of users. If not, please refer to Adding an Application Link for information about the various options available.

To add a two-way trusted applications link between Crucible and JIRA:

1. Go to your Crucible administration screen and click Application Links (under 'Global Settings').
2. Now:
   a. Click ‘Add Application Link’. Step 1 of the link wizard will appear.
   b. Enter the server URL of the application that you want to link to (the 'remote application').
   c. Click the ‘Next’ button.
   d. Enter the following information:
      - ‘Create a link back to this server’ – Tick this check box to add a two-way link between the two applications.
      - ‘Username’ and ‘Password’ – Enter the credentials for a username that has administrator access to the remote application.
        Note: These credentials are only used to authenticate you to the remote application, so that Application Links can make the changes required for the new link. The credentials are not saved.
      - ‘Reciprocal Link URL’ – The URL you give here will override the base URL specified in your remote application's administration console, for the purposes of the application links connection. Application Links will use this URL to access the remote application.
   e. Click the ‘Next’ button.
   f. Enter the information required to configure authentication for your application link:
      - ‘The servers have the same set of users’ – Tick this check box, because the users are the same in both applications.
      - ‘These servers fully trust each other’ – Tick this check box, because you trust the code in both applications and are sure both applications will maintain the security of their private keys.
        For more information about configuring authentication, see Configuring Authentication for an Application Link.
   g. Click the ‘Create’ button to create the application link.

2. Connecting to JIRA for user management

This option is available only with JIRA 4.3 and later.

To manage your Crucible users using JIRA, configure a connection in JIRA and then set up the user directory in Crucible. Both steps are described below.

2.1. To configure a new connection for user management in JIRA:

1. Log in to JIRA as a user with the ‘JIRA System Administrators’ global permission.
2. Click Administration on the JIRA top navigation bar.
   a. Go to the JIRA administration screen for configuring the applications that have been set up to use JIRA for user management:
      - In JIRA 4.3: Click ‘Other Applications’ in the ‘Users, Groups & Roles’ section of the JIRA administration screen.
      - In JIRA 4.4: Select 'Administration' > 'Users' > ‘JIRA User Server’.
   b. Add an application.
   c. Enter the application name and password that your application will use when accessing JIRA.
   d. Enter the IP address or addresses of your application. Valid values are:
      - A full IP address, e.g. 192.168.10.12.
      - A wildcard IP range, using CIDR notation, e.g. 192.168.10.1/16. For more information, see the introduction to CIDR notation on Wikipedia and RFC 4632.
• **Save** the new application.

2.2. To set up the JIRA user directory in Crucible:

Go to your Crucible administration screen.
1. Click **Authentication** (under ‘Security Settings’).
2. Click **Setup JIRA/Crowd authentication**. Note, if LDAP authentication has already been set up, you will need to remove that before connecting to JIRA for user management.
3. Make the following settings:

<table>
<thead>
<tr>
<th>Authenticate against</th>
<th>Select a JIRA instance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application name and password</td>
<td>Enter the values that you defined for your application in the settings on JIRA.</td>
</tr>
<tr>
<td>JIRA URL</td>
<td>The web address of your JIRA server. Examples:</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.example.com:8080/jira/">http://www.example.com:8080/jira/</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://jira.example.com">http://jira.example.com</a></td>
</tr>
</tbody>
</table>

| Auto-add | Select Create a FishEye user on successful login so that your JIRA users will be automatically added as a FishEye user when they first log in. |
| Periodically synchronise users with JIRA | Select Yes to ensure that JIRA will synchronize all changes in the user information on a regular basis. Change the value for Synchronise Period if required. |
| When Synchronisation Happens | Select an option depending on whether you want to allow changes to user attributes from within FishEye. |
| Single Sign On | Select Disabled. SSO is not available when using JIRA for user management and if enabled will make the integration fail. |

4. Click **Next** and select at least one user group to be synchronised from JIRA. If necessary, you could create a new group in JIRA, such as 'fisheye-users', and select this group here.
5. Click **Save**.

**Obtaining subtask values for Crucible configuration**

The subtask ID is required (along with the subtask resolution ID and the subtask resolution action ID) to enable the creation of issues from a Crucible comment. This is the subtask type that will be created when you create a JIRA subtask in Crucible.

**To set this up in Crucible:**

1. Enable subtasks on your JIRA site. See the JIRA documentation.
2. Return to the Crucible admin area and click **Application Links** (under ‘Global Settings’).
3. Click **JIRA Settings** next to the application link for the required JIRA server.
4. Click **Test**. You can now choose values for **Subtask Type ID** and **Subtask Resolution**.

⚠️ Note that you will need to select a subtask type that does not have a required field (due to CRUC-266)
Our suggested workarounds at this time are:

- Set a default value for the required fields, or
- Create a separate issue type, eg "Crucible Subtask" that has a workflow that suits Crucible (e.g. Open > Close with no required fields). This avoids changing existing workflows, and makes it more obvious in JIRA that it has a looser workflow.

5. Click **Save**.
6. Open your JIRA site and go to **Administration > Workflows**. By default, the 'JIRA' workflow is displayed.
7. Click **Steps** in the far right table cell.
8. The **Subtask Resolution Action ID** value is the number in brackets beside *Resolve Issue* in the 'Open' row, under the 'Transitions' column. This is shown in the screenshot below with a value of 5. Enter the ID number into the **Subtask Resolution Action ID** field in Crucible.
9. Save your Crucible configuration settings.

**Screenshot: Choosing subtask values in Crucible**

**Update JIRA Server**

![Server Details](image)

- **Name:** JAC
- **Authentication:**
  - [ ] Use Basic Authentication
- **Username:**
- **Password:**

**Subtask Settings**

Leave these fields blank to disable subtasks.

- **Subtask Type ID:**
- **Subtask Resolution Action ID:**
- **Subtask Resolution ID:**

**Allow Unassigned:** [ ] Yes [ ] No

Pressing 'Test' will retrieve subtask types and resolutions from JIRA.

![Screenshot: Obtaining the subtask resolution action ID](image)

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User Management Limitations and Recommendations

This page describes the optimal configurations and limitations that apply when you are connecting Crucible to JIRA for user management.

On this page:

- Recommendations for Connecting to JIRA for User Management
- Single Sign-On Across Multiple Applications is Not Supported
- Custom Application Connectors are Not Supported
- Custom Directories are Not Supported
- Optimal Number of Users and Applications
- Recommendations

Recommendations for Connecting to JIRA for User Management

Please consider the following limitations and recommendations when connecting to a JIRA server for user management.

Single Sign-On Across Multiple Applications is Not Supported

When you connect to JIRA for user management, you will not have single sign-on across the applications connected in this way. JIRA, when acting as a directory manager, does not support SSO.

Custom Application Connectors are Not Supported

JIRA, Confluence, FishEye, Crucible and Bamboo can connect to a JIRA server for user management. Custom application connectors will need to use the new REST API.

Custom Directories are Not Supported

Earlier versions of JIRA supported OSUser Providers. It was therefore possible write a special provider to obtain
user information from any external user directory. This is no longer the case.

**Optimal Number of Users and Applications**

Please consider the following limitations when connecting to a JIRA server for user management:

- Maximum 500 users.
- Maximum 5 connected applications.

**Recommendations**

<table>
<thead>
<tr>
<th>Your environment</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>If all the following are true:</td>
<td>Your environment meets the optimal requirements for using JIRA for user management.</td>
</tr>
<tr>
<td>• You have fewer than 500 users.</td>
<td></td>
</tr>
<tr>
<td>• You want to share user and group management across just a few applications,</td>
<td></td>
</tr>
<tr>
<td>such as one JIRA server and one Confluence server, or two JIRA servers.</td>
<td></td>
</tr>
<tr>
<td>• You do not need single sign-on (SSO) between JIRA and Confluence, or between</td>
<td></td>
</tr>
<tr>
<td>two JIRA servers.</td>
<td></td>
</tr>
<tr>
<td>• You do not have custom application connectors. Or, if you do have them, you</td>
<td></td>
</tr>
<tr>
<td>are happy to convert them to use the new REST API.</td>
<td></td>
</tr>
<tr>
<td>• You are happy to shut down all your servers when you need to upgrade JIRA.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If one or more of the following are true:</th>
<th>We recommend that you install Atlassian Crowd for user management and SSO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• You have more than 500 users.</td>
<td></td>
</tr>
<tr>
<td>• You want to share user and group management across more than 5 applications.</td>
<td></td>
</tr>
<tr>
<td>• You need single sign-on (SSO) across multiple applications.</td>
<td></td>
</tr>
<tr>
<td>• You have custom applications integrated via the Crowd SOAP API, and you cannot</td>
<td></td>
</tr>
<tr>
<td>convert them to use the new REST API.</td>
<td></td>
</tr>
<tr>
<td>• You are not happy to shut down all your servers when you need to upgrade JIRA.</td>
<td></td>
</tr>
</tbody>
</table>
If you are considering creating a custom directory connector to define your own storage for users and groups...

Please see if one of the following solutions will work for you:

- If you have written a custom provider to support a specific LDAP schema, please check the supported LDAP schemas to see if you can use one of them instead.
- If you have written a custom provider to support nested groups, please consider enabling nested groups in the supported directory connectors instead.
- If you have written a custom provider to connect to your own database, please consider loading the data into the application's database instead.
- If you need to keep the custom directory connection, please consider whether Atlassian Crowd meets your requirements. See the documentation on Creating a Custom Directory Connector.

Related Topics

JIRA Integration in Crucible

Configuring Application Links

An application link is a trust relationship between two applications. Linking two applications allows you to share information and to access one application's functions from within the other.

For example, you may want to set up a trust relationship between Crucible and two JIRA servers.

Screenshot above: Application links to two JIRA servers

Related Topics

- Adding an Application Link
- Configuring Authentication for an Application Link
- Deleting an Application Link
- Editing an Application Link
- Making an application link the primary link
- Relocating an Application Link
- Upgrading an Application Link
- Configuring Project Links across Applications

Adding an Application Link

This page describes how to add a new application link in Crucible. The process for adding an application link is different depending on whether or not the application you are linking Crucible to supports Atlassian's Application Links.

If you are linking Crucible to an application that does not have Application Links, you will need to do additional configuration in that application. This is because Application Links in Crucible will not be able to automatically configure authentication in your remote application.
Before You Begin

Check the following settings. This is required for synchronisation to work correctly:

- Make sure that the base URL is set correctly in Crucible. See the [FishEye documentation on configuring the web server](https://confluence.atlassian.com/display/FISH/Eye+administration+guide).
- Make sure that the base URL is set correctly in the application which you intend to link to. See the appropriate instructions for [JIRA](https://confluence.atlassian.com/display/JIRA/Home), [FishEye](https://confluence.atlassian.com/display/FISH/Eye+administration+guide), [Bamboo](https://confluence.atlassian.com/display/BAMBOO/Bamboo+administration+guide), and [Confluence](https://confluence.atlassian.com/display/CNLF/Confluence+administration+guide).

Adding an Application Link to an Application that Supports Application Links

To link to an application that supports Application Links:

1. Log in as a system administrator and go to the administration page. Click ‘Application Links’ in the administration menu. The ‘Configure Application Links’ page will appear, showing the application links that have been set up.
2. Click ‘Add Application Link’. Step 1 of the link wizard will appear.
3. Enter the server URL of the application that you want to link to (the ‘remote application’).
4. Click the ‘Next’ button. Step 2 of the link wizard will appear.
5. Enter the following information:
   - ‘Create a link back to this server’ – Tick this check box if you want to create a two-way link between the remote application and your application. If you want to do this, you will need to enter the username and password of an administrator for the remote application. Note: These credentials are only used to authenticate you to the remote application, so that Application Links can make the changes required for the new link. The credentials are not saved.
   - ‘Reciprocal Link URL’ – The URL you give here will override the base URL specified in your remote application's administration console, for the purposes of the application links connection. Application Links will use this URL to access the remote application.
6. Click the ‘Next’ button. Step 3 of the link wizard will appear.
7. Enter the information required to configure authentication for your application link:
   - ‘The servers have the same set of users’ or ‘The servers have different sets of users’ – Select one of these options depending on how you manage users between the two applications.
   - ‘These servers fully trust each other’ – Tick this check box if you know that the code in both applications will behave itself at all times and are sure each application will maintain the security of its private key. For more information about configuring authentication, see [Configuring Authentication for an Application Link](https://confluence.atlassian.com/display/CNLF/Confluence+administration+guide).
8. Click the ‘Create’ button to create the application link.
Adding an Application Link to an Application that Does Not Support Application Links

To link to an application that does not support Application Links:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click 'Add Application Link'. Step 1 of the 'Link to another server' dialogue will be displayed.
3. Enter the server URL of the application that you want to link to, in the 'Server URL' field. Click the 'Next' button. Step 2 of the 'Link to another server' dialogue will be displayed.
4. Fill out the fields, as follows:
   - 'Application Name' — Enter the name by which this remote application will be referred to, in your application.
   - 'Application Type' — Select the type of application that you are linking to: Bamboo, FishEye/Crucible, JIRA, Confluence, Subversion.
   - 'Application URL' — This will be set to the server URL you entered in the previous step and will not be editable.
5. Click the 'Create' button to create the application link. The 'Configure Application Links' page will be displayed, listing all of the application links that have currently been set up for your application including the one you just added.
6. Configure the desired authentication type (Trusted Applications, OAuth, basic HTTP, none) for your new application link. See Configuring Authentication for an Application Link.
7. In your application that does not support Application Links, configure the same type of authentication that you configured for your application link's outgoing authentication (in the previous step). For example, if you configured outgoing Trusted Applications authentication in your Application-Links-enabled application, you also need log into your non-Application-Links application and manually configure Trusted Applications (see the relevant administrator's documentation for the application).
Choosing Authentication for an Application Link

The level of authentication that you should configure for your application link depends on a number of factors.

- Do the two applications trust each other? In other words, are you sure that the code in the application will behave itself at all times and that the application will maintain the security of its private key?
- Do the two applications share the same user base?
- Do you have administrative access to the application you are linking to?

**Common scenarios include:**

- If the two applications you are linking **trust each other and share the same user base**, configure **two-way authentication using Trusted Applications** for both incoming and outgoing authentication. For example, you may link your internal Crucible server to an internal JIRA server.
- If the two applications you are linking **trust each other but do not share the same user base**, configure **two-way authentication using OAuth** for both incoming and outgoing authentication. For example, you may link your internal Crucible server to an external (customer-facing) JIRA server.
- If you **do not have administrative rights to the application that you are linking to** (for example, linking to a public Crucible server), configure a **one-way outgoing link** authenticated using **basic HTTP**.

**Related Topics**

- Making an application link the primary link
- Configuring Authentication for an Application Link
- Configuring Project Links across Applications
authentication or do not configure any authentication for the link. For example, you may link your external Crucible server to a partner organisation's Crucible server. An unauthenticated link will still allow the local application to render hyperlinks to the remote application or query anonymously-accessible APIs.

The flowchart below provides a guide to what authentication you should configure for your application link.

Read the following topics for information on how to configure authentication for an application link:

- Configuring Basic HTTP Authentication for an Application Link
- Configuring OAuth Authentication for an Application Link
- Configuring Trusted Applications Authentication for an Application Link
- Incoming and Outgoing Authentication

Flowchart above: Determining what authentication to configure for an Application Link

Security Implications for each Authentication Type

If you configure Trusted Applications authentication for your application (meaning that your servers have the same set of users and they fully trust each other) please be aware of the following security implications:

- Trusted applications are a potential security risk. When you configure Trusted Applications authentication, you are allowing one application to access another as any user. This allows all of the built-in security measures to be bypassed. Do not configure a trusted application unless you know that all code in the application you are trusting will behave itself at all times, and you are sure that the application will maintain the security of its private key.

If you configure OAuth authentication for your application (meaning that your servers have different sets of users and they fully trust each other) please be aware of the following security implications:

- Adding an OAuth consumer requires the transmission of sensitive data. To prevent 'man-in-the-middle' attacks, it is recommended that you use SSL for your applications while configuring OAuth authentication.
- Do not link to an application using OAuth authentication, unless you **trust all code in the application** to behave itself at all times. OAuth consumers are a potential security risk to the applications that they are linked to.

![Set Users and Trust](image)

_Screenshot above: Configuring authentication during application link setup_

### About Primary Authentication Types

You can configure multiple authentication types for each application link. When a feature makes a request using an Application Link, it will use one of the configured authentication types. If more than one authentication type is configured, it will by default use the authentication type that is marked as the primary authentication type. The default authentication type is indicated by the green tick next to the authentication type on the list application link screen.
You cannot configure which authentication type is the primary authentication type. The primary authentication type is determined automatically by Application Links and depends on a weight defined by each authentication type method. However, every feature that uses Application Links can also choose to use a specific authentication type and might not use the default primary authentication type.

About Impersonating and Non-Impersonating Authentication Types

Applications Links allows you to configure 'impersonating' and 'non-impersonating' authentication types:

- **Impersonating authentication types** make requests on behalf of the user who is currently logged in. People will see only the information that they have permission to see. This includes OAuth and Trusted Applications authentication.
- **Non-impersonating authentication types** always use a pre-configured user when making a request. Everyone logged into the system will see the same information. This includes basic HTTP authentication.

Configuring Basic HTTP Authentication for an Application Link

This page describes how to configure Basic HTTP authentication for incoming and/or outgoing authentication for an application link.

Basic HTTP authentication allows Crucible to provide a specific set of user credentials to a remote application and vice versa. Once authenticated, one application can access specified functions on the other application on behalf of that user. For example, if you supply the credentials of a Crucible administrator on your Crucible server to a remote application, the remote application will be able to access all functions on your Crucible server that the Crucible administrator can access.

This method of authentication relies on the connection between Crucible and the remote application being secure. We recommend that you use Trusted Applications authentication or OAuth authentication for your application link instead, if possible.

On this page:

- Before You Begin
- Configuring Basic HTTP Authentication for Outgoing Authentication
- Configuring Basic HTTP Authentication for Incoming Authentication

Before You Begin

- The instructions assume that both of the applications that you are linking have the Application Links plugin installed. If the remote application that you are linking to supports Basic HTTP authentication, but does not have the Application Links plugin installed, you will need to configure Basic HTTP authentication from within the remote application. See the relevant administrator's documentation for the application. This is in addition to configuring the outgoing/incoming authentication for the application link described below.
- You must be a Crucible administrator to configure Basic HTTP authentication for an application link.

Configuring Basic HTTP Authentication for Outgoing Authentication

Configuring outgoing basic http authentication will allow Crucible to trust a remote application. This allows the remote application to access specified functions in Crucible.

To configure basic http authentication for an outgoing application link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the ‘Configure’ link next to the application link that you want to configure authentication for.
3. Click the ‘Outgoing Authentication’ tab. The outgoing authentication page will be displayed.
4. Click the ‘Basic Access’ tab.
5. Click the ‘Configure’ button and enter the credentials (username and password) that the remote application will use to log into your application.
6. Click the ‘Apply’ button to save your changes.

**Configuring Basic HTTP Authentication for Incoming Authentication**

Configuring incoming basic http authentication will allow the remote application that you are linking to, to trust Crucible. Crucible will be able to access specified functions on the remote application.

**To configure basic http authentication for an incoming application link:**

1. Log in as a system administrator and go to the administration page. Click ‘Application Links’ in the administration menu. The ‘Configure Application Links’ page will appear, showing the application links that have been set up.
2. Click the ‘Configure’ link next to the application link that you want to configure authentication for.
3. Click the ‘Incoming Authentication’ tab. The incoming authentication page will be displayed.
4. Click the ‘Basic Access’ tab.
5. Click the ‘Configure’ button and enter the credentials (username and password) that your application will use to log in to the remote application.
6. Click the ‘Apply’ button to save your changes.

**Related Topics**

- Configuring OAuth Authentication for an Application Link
- Configuring Trusted Applications Authentication for an Application Link

**Configuring OAuth Authentication for an Application Link**

This page describes how to configure OAuth for outgoing authentication and/or incoming authentication for an application link.

**OAuth** is a protocol that allows a web application to share data/resources with any other OAuth-compliant application. These applications could be another web application (such as a JIRA site or an iGoogle home page), a desktop application or a mobile device application, provided that they are accessible from within your network or available on the Internet.

A typical scenario is to set up an application link between two applications which trust each other, have the Application Links plugin installed, but do not share the same set of users. In this case, you would configure OAuth for both outgoing and incoming authentication.

**Key OAuth Terminology:**

- **Service provider** – An application that shares (‘provides’) its resources.
- **Consumer** – An application that accesses (‘consumes’) a service provider’s resources.
- **User** – An individual who has an account with the service provider.

**On this page:**

- Before You Begin
- Configuring OAuth for Outgoing Authentication
- Configuring OAuth for Incoming Authentication

**Related pages:**

- Configuring Basic HTTP Authentication for an Application Link
- Configuring Trusted Applications Authentication for an Application Link
Before You Begin

- Adding an OAuth consumer requires the transmission of sensitive data. To prevent 'man-in-the-middle' attacks, it is recommended that you use SSL for your applications while configuring OAuth authentication.
- Do not link to an application using OAuth authentication, unless you trust all code in the application to behave itself at all times. OAuth consumers are a potential security risk to the applications that they are linked to.
- The instructions assume that both of the applications that you are linking have the Application Links plugin installed. If the remote application supports OAuth but does not have the Application Links plugin installed, you will need to configure OAuth from within the remote application (see the administrator's documentation for the application) in addition to configuring the outgoing/incoming authentication for the application link as described below.
- You must be a Crucible administrator to configure OAuth authentication for an application link.

Configuring OAuth for Outgoing Authentication

Configuring outgoing OAuth authentication will allow Crucible to access data in a remote application on behalf of a user. In other words, Crucible can access specified functions in the remote application.

To configure OAuth authentication for an outgoing application link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the 'Configure' link next to the application link that you want to configure OAuth for.
3. Click the 'Outgoing Authentication' tab. The outgoing authentication page will be displayed.
4. Click the 'OAuth' tab.
5. If you are not currently logged in to the remote application (or you logged in to the remote application under a variant of the application's hostname, such as the IP address), a login dialogue will display. Enter the 'Username' and 'Password' for the remote server, not your local server, and click the 'Login' button. The remote server needs to learn the identity of your local server for the OAuth protocol to work and your admin credentials are used to store your local server's public key on the remote server. If you are already logged into your remote server, then the appropriate changes can be made without having to log in again.
6. Click the 'Enable' button to enable OAuth authentication for the outgoing link. Your application will be automatically set up to be the 'consumer' and the remote application as a 'service provider'.

Configuring OAuth for Incoming Authentication

Configuring incoming OAuth authentication will allow the remote application to access data in Crucible.

To configure OAuth authentication for an incoming application link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the 'Configure' link next to the application link that you want to configure OAuth for.
3. Click the 'Incoming Authentication' tab. The incoming authentication page will be displayed.
4. Click the 'OAuth' tab.
5. Click the 'Enable' button to enable OAuth authentication for the incoming link. The remote application will be automatically set up to be the 'consumer' and your local application as a 'service provider'.

Configuring Trusted Applications Authentication for an Application Link

This page describes how to configure Trusted Applications for outgoing and/or incoming authentication for an application link.
Trusted Applications authentication allows one application to gain access to specified functions within another application on behalf of any user, without the user having to log in to the second application.

A typical scenario is to set up an application link between two applications which trust each other, have the same set of users and have the application links plugin installed. In this case, you would configure Trusted Applications for both outgoing and incoming authentication.

Before You Begin

- Trusted applications are a potential security risk. When you configure Trusted Applications authentication, you are allowing one application to access another as any user. This allows all of the built-in security measures to be bypassed. Do not configure a trusted application unless you know that all code in the application you are trusting will behave itself at all times, and you are sure that the application will maintain the security of its private key.

- The instructions below assume that both of the applications that you are linking have the Application Links plugin installed. If the remote application supports Trusted Applications but does not have the Application Links plugin installed, you will need to configure Trusted Applications from within the remote application (see the relevant administrator's documentation for the application) in addition to configuring the outgoing/incoming authentication for the application link as described below.

- You must be a Crucible administrator to configure Trusted Applications authentication for an application link.

Configuring Trusted Applications for Outgoing Authentication

Configuring outgoing Trusted Applications authentication will allow the remote application to trust Crucible. In other words, Crucible will be able to access specified functions and data on the remote application.

To configure Trusted Applications authentication for an outgoing application link:

1. Log in as a system administrator and go to the administration page. Click ‘Application Links’ in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the ‘Configure’ link next to the application link that you want to configure Trusted Applications authentication for.
3. Click the 'Outgoing Authentication' tab. The outgoing authentication page will show, with the 'Trusted Applications' tab displayed.
4. If you are not currently logged into the remote application (or you logged into the remote application under a variant of the application's hostname, e.g. the IP address), a login dialogue will display.
   - Enter the ‘Username’ and ‘Password’ for the remote server, (not your local server), and click the ‘Login’ button. You need to enter the credentials for the remote server, as the remote server needs to be instructed to trust your local server for the Trusted Applications protocol to work. If you are already logged into your remote server, then the appropriate changes can be made without having to log in again.
5. Configure the settings for the Trusted Applications authentication:
   - ‘IP Patterns’ — Enter the IP addresses (IPv4 only) from which the remote application will accept requests (this effectively is the IP address your local server). You can specify wildcard matches by using an asterisk (*), e.g. '192.111.1.*.*' (note, you cannot use netmasks to specify network ranges). If you are entering multiple IP addresses, separate them with commas or spaces.
   - Please note, if you are setting up Trusted Applications between two applications that both have the Application Links plugin installed, you can leave this field blank (or explicitly use ‘*.*.*.‘). However, if your remote application does not have the Application Links plugin installed and you...
are configuring the IP Patterns in the remote application (not the Application Links plugin), you must not leave this field blank nor use *.*.*.*. Failure to configure IP address restrictions in this scenario is a security vulnerability, allowing an unknown site to log into your site under a user’s login ID.

Consider the following scenarios, if you want to limit access by using this field:

- If your local application is using a proxy server, you need to add the proxy server’s IP address to this field.
- If your local application is a clustered instance of Confluence, you need to configure the remote server to accept requests from each cluster node. If you do not set up each node appropriately, your Confluence users may not be able to view any information from the remote server. You can set this up by either specifying each individual IP address for each node of the cluster (e.g. 172.16.0.10, 172.16.0.11, 172.16.0.12), or specifying the IP address for the clustered Confluence instance using wildcards (e.g. 172.16.0.*).

- 'URL Patterns' — Enter the URLs in the remote application that your local application will be allowed to access. Each URL corresponds to a particular application function. Enter one URL per line, as follows:
  - If your remote application is JIRA, enter the following URL Patterns: /plugins/servlet/stream, /sr/jira.issueviews:searchrequest, /secure/RunPortlet, /rest, /rpc/soap
  - If your remote application is Confluence, enter the following URL Patterns: /plugins/servlet/stream, /plugins/servlet/applinks/whoami
- 'Certificate Timeout (ms)' — Enter the certificate timeout. The default is 10 seconds. The certificate timeout is used to prevent replay attacks. For example, if a Trusted Applications request is intercepted and (maliciously) re-sent, the application will be able to check when the request was first sent. If the second request is sent more than 10 seconds (or whatever the certificate timeout is set to) after the initial request, it will be rejected. Please note, you should not have to change the default value of this field for most application links. Note that the certificate timeout relies on the clocks on both servers being synchronised.

6. Click the 'Apply' button to save your changes.

Configuring Trusted Applications for Incoming Authentication

Configuring incoming Trusted Applications authentication will allow Crucible to trust the remote application. The remote application will be able to access specified functions and data on Crucible.

To configure Trusted Applications authentication for an incoming application link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the 'Configure' link next to the application link that you want to configure Trusted Applications authentication for.
3. Click the 'Incoming Authentication' tab. The incoming authentication page will show, with the 'Trusted Applications' tab displayed.
4. The tab will show whether Trusted Applications is currently enabled or not. Use the 'Modify' or 'Configure' button to configure Trusted Applications. The Trusted Applications configuration settings will be displayed:

   - 'IP Patterns' — Enter the IP addresses (IPv4 only) from which our application will accept requests. You can specify wildcard matches by using an asterisk (*), e.g. '192.111.*.*' (note, you cannot use netmasks to specify network ranges). If you are entering multiple IP addresses, separate them with commas or spaces.
   
   Please note, if you are setting up Trusted Applications between two applications that both have the Application Links plugin installed, you can leave this field blank (or explicitly use *.*.*.*). However, if your remote application does not have the Application Links plugin installed and you are configuring the IP Patterns in the remote application (not the Application Links plugin), you must not leave this field blank nor use *.*.*.*. Failure to configure IP address restrictions in
this scenario is a security vulnerability, allowing an unknown site to log into your site under a user’s login ID.

Consider the following scenarios, if you want to limit access by using this field:

- If the remote application is using a proxy server, you need to add the proxy server’s IP address to this field.
- If the remote application is a clustered instance of Confluence, you need to accept requests from each cluster node. If you do not specify each node’s address, Confluence users may not be able to view any data from your application. You can set this up by either specifying each individual IP address for each node of the cluster (e.g. 172.16.0.10, 172.16.0.11, 172.16.0.12), or specifying the IP address for your clustered Confluence instance using wildcards (e.g. 172.16.0.*).

- ‘URL Patterns’ — Enter the local URLs that the remote application will be allowed to access. Each URL corresponds to a particular application function. Enter one URL per line, as follows:
  - If your local application is JIRA, enter the following URL Patterns — `/plugins/servlet/streams, /sr/jira.issueviews:searchrequest, /secure/RunPortlet, /rest, /rpc/soap`
  - If your local application is Confluence, enter the following URL Patterns — `/plugins/servlet/streams, /plugins/servlet/applinks/whoami`

- ‘Certificate Timeout (ms)’ — Enter the certificate timeout. The default is 10 seconds. The certificate timeout is used to prevent replay attacks. For example, if a Trusted Applications request is intercepted and (maliciously) re-sent, the application will be able to check when the request was first sent. If the second request is sent more than 10 seconds (or whatever the certificate timeout is set to) after the initial request, it will be rejected. Please note, you should not have to change the default value of this field for most application links. Note that the certificate timeout relies on the clocks on both servers being synchronised.

5. Click the ‘Apply’ button to save your changes.

Related Topics

Configuring Basic HTTP Authentication for an Application Link
Configuring OAuth Authentication for an Application Link

Incoming and Outgoing Authentication

When you configure authentication for an application link, you are defining the level of trust between the two linked servers. When configuring a link from one application to another, you can set up:

- **Incoming authentication** (authentication of requests coming from a linked application into this application).
- **Outgoing authentication** (authentication of requests sent from this application to a linked application).

See Configuring Authentication for an Application Link.

Deleting an Application Link

Deleting an application link stops the two applications from sharing information. You will no longer be able to make requests from one application to the other. This means that certain integration features may not work.

If you have set up application links to multiple servers of the same application type, for example you have linked Crucible to multiple JIRA servers, deleting the primary link will mean that another of the links will be made the primary link.

Deleting an application link will also delete all project links set up for that application link.

To delete an application link:
1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.

2. Click the 'Delete' link next to the application link that you want to delete. A confirmation screen will be displayed.

3. Click the 'Confirm' button to delete the application link.

**RELATED TOPICS**

- [Editing an Application Link](#)
- [Relocating an Application Link](#)

**Editing an Application Link**

You can change the details, such as the application name and display URL, for an existing application link.

**To edit an application link:**

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.

2. Click the 'Configure' link next to the application link that you want to edit the details for. The application details for the application link will be displayed.

3. Update the application details as desired. Please note, you cannot update the Application Type nor the Application URL.
   - **Application Name** — Update this field to change the display name for the application that you are linking to.
   - **Display URL** — This URL is used when displaying links to the application in the browser. When creating the application link, you may have used a URL that is not accessible to other users, such as an internal IP address. If so, you can change the display URL to an address in a domain that is accessible to other users.

4. Click the 'Update' button to save your changes.
Screenshot above: Editing an application link

Related Topics

Configuring Authentication for an Application Link
Making an application link the primary link

Making an application link the primary link

If you have set up application links to more than one of the same application type, for example you have linked Crucible to two JIRA servers, then one of the servers will be marked as the 'primary' link. This means that any outgoing requests will be directed to the primary link's application.

For example, if you have linked a Crucible server to two JIRA servers with two-way authentication for both links, you can nominate an application link to one of the JIRA servers as the primary link. Every time Crucible requests JIRA information, it will request it from the primary link's JIRA server. Both JIRA servers can still make requests of the Crucible server.

Please see Configuring Project Links across Applications for information on how primary project links also influence the information shared between servers.

To make an application link the primary link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. Click the 'Make Primary' link next to the application link that you want to make the primary link. A ✔ symbol will display in the 'Primary' column next to the application link.

   The 'Primary' column and 'Make Primary' link will only display if you have set up application links to more than one of the same application type, e.g. you have linked your application to two JIRA servers.

Relocating an Application Link

This page describes how to change the location of an application link. You will need to relocate an application link if the target application has moved to a new address.

To relocate an application link:

1. Log in as a system administrator and go to the administration page. Click 'Application Links' in the administration menu. The 'Configure Application Links' page will appear, showing the application links that have been set up.
2. If the remote application for an application link cannot be reached by your application, the 'List Application Links' page will display a warning message (see 'Relocate Link - Warning Message' screenshot below).
3. If your remote application has been moved to a different address (rather than just being offline temporarily), click the 'Relocate' link in the warning message (see 'Relocate Link - Updating URL' screenshot below).
4. Enter the new URL for the remote application of your application link and click 'Relocate'.
5. You will need to confirm the relocation, if the new URL cannot be contacted. Otherwise, the application link will be updated.
Upgrading an Application Link

This page describes how to upgrade an existing application link. You may want to upgrade an application link in either of the two situations below:

- Your local Crucible application has been upgraded from a version that does not include Application Links to a version that does.
- Your remote application has been upgraded to a version that includes Application Links. For example, you had set up an application link to a JIRA 4.2 site (does not include Application Links) and have since upgraded to JIRA 4.3 (includes Application Links).

On this page:
- Upgrading an Application Link (Local App Upgraded to Include Application Links)
- Upgrading an Application Link (Remote App Upgraded to Include Application Links)

Upgrading an Application Link (Local App Upgraded to Include Application Links)

When you upgrade from a Crucible version that does not include Application Links to a version that does, you will have the option of converting any Trusted Applications or OAuth links to Application Links. The advantage of converting your links to Application Links is that link configuration will be simplified in future.

To upgrade an application link when Crucible has been upgraded to include Application Links:

1. After your Crucible upgrade, go to the administration console.
2. Click 'Application Links'. The 'Configure Application Links' screen will show the following message: "There are existing Trusted Applications or OAuth relationships that should be upgraded to Application Links. Click here to upgrade."
3. Click the 'Click here to upgrade' link. The 'Existing Trust Relationships' screen will appear, showing all Trusted Applications and OAuth relationships that can be upgraded to Application Links.
4. Click the 'Upgrade to Application Link' link next to the desired trust relationship. The 'Upgrade to Application Link' wizard will appear.
5. Complete the wizard. The process will be similar to adding a new link (described on Adding an Application Link), except that most fields should be pre-filled.
Upgrading an Application Link (Remote App Upgraded to Include Application Links)

When an application link is created between a version of Crucible that supports Application Links, and a remote application that does not (either a non-Atlassian product, or an older version of an Atlassian product that did not ship with Application Links), this link is configured to run in 'legacy mode'. While there is no distinguishable difference to a user, connection and configuration without Application Links is a little different. For example:

- Setting up OAuth requires manual configuration by the administrator. If your applications support Application Links, exchange of the consumer keys and public keys is done automatically.
- The Trusted Applications protocol (Atlassian-specific) will not be available for authentication.

If you upgrade your remote application to a version that does support Application Links, the application link will continue to work. Upgrading your link may simplify link configuration and make additional authentication protocols available (as mentioned above).

To upgrade an application link when your remote application has been upgraded to include Application Links:

1. After you have upgraded your remote application to a version that includes Application Links, go to the administration console of your local application. A warning will be displayed, requesting that you upgrade the link to full Application Links mode.
2. Click 'Upgrade' in the warning message to start the upgrade wizard. Note the following:
   - You will be prompted to make your application link a reciprocal link. You will need to provide administrator credentials for your remote application, if you choose to do so.
   - If you make your application link a reciprocal link, you will also be able to make reciprocal links for your project links. For example, you may be able to link your JIRA project to a FishEye repository and also make a link from your FishEye repository back to the JIRA project.
Related Topics

Adding an Application Link
Configuring Authentication for an Application Link

Configuring Project Links across Applications

We no longer recommend the use of project links with Crucible 2.9 and later. This is because application links now provide all of the functionality previously available with project links.

However, project links are retained for the following reasons:

- Setting up project links provides a way to restrict the scope of JIRA searches, which can provide performance benefits.
- Legacy configurations can continue to use project links without any need for changes.
• Third-party plugins may continue to rely on project links for their functionality.

On this page:

- Adding a Project Link
- Deleting a project link
- Making a project link the primary link

Related pages:

- Adding an Application Link

Adding a Project Link

To link a Crucible project to a project in another application:

1. Go to the Crucible administration console and click Projects.
2. Click Application Links in the ‘Operations’ column next to the project that you want to link from.
3. The instructions for adding a project link will vary depending on whether the target application has the Application Links functionality installed:
   • If the target application has Application Links:
     a. Click ‘Add Link’. A dropdown menu will appear listing the applications you have already linked to.
     b. In the dropdown menu, click the application that contains the project you want to link to. For example, if you want to link to a specific JIRA project, click the JIRA site that contains that project. If you want to link to a Confluence space, click the Confluence site that contains that space.
     c. Click one of the options on the ‘Authorization required’ screen:
        • ‘Authorize’ — Click this option if you want to grant your project authorised access to the target project. The target application will open in a new window, so that you can log in and authorise access.
        • ‘Skip – your access is anonymous’ — Click this option if you only want to allow anonymous access to the target project.
     d. In the ‘Name or Key’ field, enter the name/key of the project in the remote application that you want to link to. For example, if you want to link to a JIRA project, enter the project key. If you want to link to a Confluence space, enter the space key.
     e. Click the ‘Create’ button to create the project link.
   • If the target application does not have Application Links:
     a. Click ‘Add Link’. A dropdown menu will display listing the applications you have already linked to.
     b. In the dropdown menu, click the application that contains the project you want to link to. For example, if you want to link to a specific JIRA project, click the JIRA site that contains that project. If you want to link to a Confluence space, click the Confluence site that contains that space.
     c. In the ‘Key’ field, enter the name/key of the project in the remote application that you want to link to. For example, if you want to link to a JIRA project, enter the project key. If you want to link to a Confluence space, enter the space key.
     d. (optional) Enter the alias for the project in the ‘Alias’ field. This is the display name for the project in your administration console.
     e. Click the ‘Create’ button to create the project link.

Deleting a project link

If you have set up multiple project links to the same application, for example you have linked a Crucible project to multiple JIRA projects, deleting the primary link will mean that another of the links will be made the primary link.

To delete a project link:
1. Go to the Crucible administration console and click **Projects**.
2. Click **Application Links** in the ‘Operations’ column next to the project that you want to link from.
3. Click **Delete** next to the link that you want to delete.
4. Click **Confirm**.

**Making a project link the primary link**

If you have set up project links to more than one project in the same application, then one of the project links will be marked as the primary link. All outgoing requests will be directed to the primary link.

For example, if you have a Crucible project that is linked to two JIRA projects, you can nominate the link to one of the JIRA projects as the primary link. Every time Crucible requests JIRA information, it will request it from the primary link’s JIRA project. Both JIRA projects can still request information from the Crucible project.

**To make a project link the primary link:**

1. Go to the Crucible administration console and click **Projects**.
2. Click **Application Links** in the ‘Operations’ column next to the project that you want to link from.
3. Click **Make Primary** in the ‘Action’ column for the project link that you want to make the primary link. A symbol will be displayed in the ‘Primary’ column next to the link.
   
   *Note:* The ‘Primary’ column and ‘Make Primary’ link will appear only if you have set up multiple project links to the same application, for example if you have linked a Confluence space to a number of JIRA projects.

**Trusted Applications**

A ‘trusted application’ is an application that Crucible will allow to access specific functions in Crucible on behalf of any user, without the user logging in to Crucible. You can configure Trusted Applications authentication between FishEye, Crucible, JIRA (3.12 and later) and Confluence (2.7 and later).

Using the bundled Application Links plugin, you can configure application links with Trusted Applications authentication as well as other types of authentication.

For further instructions, please see **Configuring Application Links**.

**Related Topics**

- Configuring Application Links
- JIRA Integration in Crucible

**Crucible Release Notes**

⚠️ Crucible 2.9 has now been released. Read the Release Notes.

**Crucible Release Notes and Changelogs**

- **Security advisories**
  - FishEye and Crucible Security Advisory 2012-08-21
  - FishEye and Crucible Security Advisory 2012-05-17
  - FishEye and Crucible Security Advisory 2012-01-31
  - FishEye and Crucible Security Advisory 2011-11-22
  - FishEye and Crucible Security Advisory 2011-05-16
  - FishEye and Crucible Security Advisory 2011-01-12
  - Crucible Security Advisory 2010-06-16
  - Crucible Security Advisory 2010-05-04
- Crucible Upgrade Guide
• Upgrading to a new version of Crucible
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• Crucible 2.8 Release Notes
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  • Crucible 2.7 Changelog
• Crucible 2.6 Release Notes
  • Crucible 2.6 Upgrade Guide
  • Crucible 2.6 Changelog
• Crucible 2.5 Release Notes
  • Crucible 2.5 Upgrade Guide
  • Crucible 2.5 Changelog
• Crucible 2.4 Release Notes
  • Crucible 2.4 Upgrade Guide
  • Crucible 2.4 Changelog
• Crucible 2.3 Release Notes
  • Crucible 2.3 Upgrade Guide
  • Crucible 2.3 Changelog
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• Crucible 2.1 Release Notes
  • Crucible 2.1 Upgrade Guide
  • Crucible 2.1 Changelog
• Crucible 2.0 Release Notes
  • Crucible 2.0 Upgrade Guide
  • Crucible 2.0 Changelog
• Crucible 2.0 Beta Release Notes
  • JIRA Integration in Crucible 2.0 Beta
  • Crucible 2.0 Beta Upgrade Notes
  • Crucible 2.0 Beta Reviewer's Guide
• Crucible 1.6 Release Notes
  • Crucible 1.6 Upgrade Guide
  • Crucible 1.6 Changelog
• Crucible 1.5 Release Notes
  • Crucible 1.5 Upgrade Guide
  • Crucible 1.5 Changelog
• Crucible 1.2 Release Notes
  • Crucible 1.2 Upgrade Guide
  • Crucible 1.2 Changelog
• Crucible 1.1 Release Notes
  • Crucible 1.1 Upgrade Guide
  • Crucible 1.1 Changelog

• For changes prior to 1.1, see the 1.0.x Changelog

Installation

You can download Crucible from 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 1.1.4 includes FishEye 1.3.8.
• Upgrading from 1.0.4 (or earlier) will force a complete re-index of P4 repositories.

Crucible release summary

Crucible 2.9 — 14 November 2012
• Simpler JIRA integration
• Better performance of the Reviews tab in JIRA
• Faster review creation for large teams
• More in release notes.

Crucible 2.8 — 15 August 2012
• Mentions
• Shares
• Improved performance for the projects listing
• Support for Subversion 1.7
• End of life announcements
• More in release notes.

Crucible 2.7 — 7 September 2011
• JIRA Transitions in Crucible
• Review Reminders
• Small Improvements
• More in release notes.

Crucible 2.6 — 6 June 2011
• New Quick Search
• HTML Emails for Reviews
• Dashboard and Navigation Improvements
• SQL Server Support
• Oracle Support
• Review Creation without Metadata Changes
• Improved Patch Anchoring
• More in release notes.

Crucible 2.5 — 8 February 2011
• Oracle (Beta)
• Redesigned Activity Stream
• Improved Header
• Comment Notification Batching
• More in release notes.

Crucible 2.4 — 20 October 2010
• Easier Application Linking
• Native Repository Access
• Starter Licenses
• Adding Changesets to Reviews Simplified
• User Interface Improvements
• Snippets Tweaks
• More in release notes.

Crucible 2.3 — 26 May 2010
- Snippet Reviews
- Changeset Discussions
- Mercurial SCM Alpha
- Review Coverage report
- Revamped Installation Process
- Gadgets
- More in release notes.

**Crucible 2.2 — 18 February 2010**
- Smart Pre-Commit (Patch) Support
- 'No Moderator' Reviews
- Wizard-Like Review Creation
- Integrated Timetracking Between Crucible and JIRA
- Edit Mode for Reviews
- More in release notes.

**Crucible 2.1 — 12 November 2009**
- Wiki Markup Rendering
- Progress Tracking
- Usability and Productivity Updates
- Streamlined JIRA Integration
- Review Time Tracking
- Review History Dialog
- "Blockers" Reports
- Threaded Comments
- Plugin Developer Tools
- More in release notes.

**Crucible 2.0 — 30 June 2009**
- Support for iterative reviews
- New User Interface
- Indicators for read/unread comments
- Enhanced JIRA integration
- More in release notes.

**Crucible 1.6 — 23 September 2008**
- Support for non-FishEye repositories
- Confluence page reviews
- Shared file system repositories
- Enhanced pre-commit reviews & image support
- Multiple admin users
- Expanded API
- More in release notes.

**Crucible 1.5 — 14 April 2008**
- Project Dashboard
- Filtered comments & defects search, with statistical summary
- Customisable email templates
- Improvements to Crucible Plugin API beta
- More in release notes.

**Crucible 1.2 — 5 Dec 2007**
- Reviews grouped into projects
- Customisable permission schemes

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- Plugin API
- Enhancements to user management
- JIRA integration
- Crucible 1.2 includes FishEye 1.4
- More in release notes.

Crucible 1.1 — 18 September 2007
- Pre-commit review (patch review)
- Review participants can keep track of their progress through a review by marking each file as "done"
- Side-by-side diff mode within the Review display
- Syntax highlighting when displaying a diff
- More in release notes.

Crucible Upgrade Guide
- Upgrading to a new version of Crucible
- Upgrading from FishEye to Crucible

Upgrading to a new version of Crucible
This page describes the recommended method of upgrading to a new version of Crucible.

Read about how your Crucible installation works with FishEye.

Before you start
- Back up your entire Crucible instance (see Backing up and restoring Crucible data), i.e.
  - If you are backing up your Crucible instance via the Admin interface, tick all of the 'Include' checkboxes (e.g. plugins, templates, uploads, SQL database, etc).
  - If you are backing up your Crucible instance using the command-line interface, do not use any excl
    usion options.
- Read the Release Notes and Changelog and version-specific Upgrade Guides for the version you are
  upgrading to, as well as any versions you are skipping.
- Check the Supported Platforms to ensure that your system meets the requirements for the new version.
- Download the Crucible zip file.

On this page:
- Before you start
- Upgrade procedure
  - Method 1: Using a FISHEYE_INST directory
  - Method 2: Without a FISHEYE_INST directory
  - Method 3: Without a FISHEYE_INST directory, but would like to set one up
- Checking for known issues and troubleshooting the Crucible upgrade

Upgrade procedure
Your upgrade procedure depends on whether you are using a FISHEYE_INST directory (i.e. "FishEye instance" directory).
- The FISHEYE_INST directory is the FishEye data directory (not the installation directory) and has a
  location defined by the FISHEYE_INST environment variable. It is used to keep the FishEye data
  completely separate from the FishEye/Crucible application files. We recommend that you configure
  FishEye/Crucible to use a FISHEYE_INST directory for production instances. Read more about FISHEYE
  _INST in Installing FishEye on Windows or Installing FishEye on Linux and Mac.
- The <FishEye home directory> is the location of the FishEye/Crucible application files.

NOTE: For all methods below: if you previously ran FishEye as a Windows service and are installing the new
Documentation for Crucible 2.9

version of FishEye in a new location, you need to reinstall FishEye as a Windows service. Make sure to run
...\wrapper\bin\Fisheye-Uninstall-NTService.bat from the old location. Subsequently, prior to starting the new
instance of FishEye, follow these instructions to set up Fisheye as a Windows service again. Make sure to copy
over the changes from the old ...\wrapper\conf\wrapper.conf file to the new wrapper.conf file.
Method 1: Using a FISHEYE_INST directory

If you have FishEye/Crucible configured to use a FISHEYE_INST directory, then follow the instructions below.
This is the recommended scenario for production installations.
1.
2.
3.
4.
5.

Shut down your existing FishEye/Crucible server.
Make a backup of your FISHEYE_INST directory.
Download FishEye or Crucible.
Extract the new FishEye/Crucible version to a new directory.
Leave your FISHEYE_INST environment variable set to its existing location. Both FishEye and Crucible
use this variable.
Please be aware that jar files in the FISHEYE_INST/lib directory may conflict with those required
for FishEye's normal operation. Jar files in this directory should be limited to those which provide
functionality not provided by FishEye (e.g. database drivers).
6. Start FishEye/Crucible from the new installation directory by running bin/run.sh. (Use run.bat on
Windows.)
Method 2: Without a FISHEYE_INST directory

If you do not have FishEye/Crucible configured to use a FISHEYE_INST directory and do not want to set one
up, then follow the instructions below. The <FishEye home directory> is the location of the existing
FishEye/Crucible installation. Note that this is the typical scenario for evaluation installations, and is not
recommended for production installations.
You will need to copy some files from your old FishEye/Crucible installation to your new one.
1.
2.
3.
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5.
6.
7.
8.
9.

Download FishEye or Crucible.
Extract the new FishEye/Crucible archive into a directory such as <New FishEye home directory>.
Shut down the old FishEye/Crucible instance if it is running.
Copy <FishEye home directory>/config.xml to <New FishEye home directory>.
Delete the <New FishEye home directory>/var and <New FishEye home directory>/cache
directories.
Copy (or move) the <FishEye home directory>/var directory to <New FishEye home
directory>/var.
Copy (or move) the <FishEye home directory>/cache directory to <New FishEye home
directory>/cache.
Start FishEye/Crucible from the new installation by running <New FishEye home directory>/bin/r
un.sh. (Use run.bat on Windows.)
Follow any version-specific instructions found in the FishEye Release Notes/Crucible Release Notes.

Method 3: Without a FISHEYE_INST directory, but would like to set one up

If you do not have FishEye/Crucible configured to use a FISHEYE_INST directory but would like to set one up,
then follow the instructions below. You may wish to do this when reconfiguring an existing installation for a
production environment.
The FISHEYE_INST directory is the FishEye data directory, which has a location defined by the FISHEYE_INST
environment variable, and which should be completely separate from the <FishEye home directory>. The
<FishEye home directory> is the location of the existing FishEye/Crucible installation.
1. Download FishEye or Crucible.
2. Shut down the existing FishEye/Crucible instance if it is running.
3.
Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.

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3. Set up the FISHEYE_INST environment variable, then create the FISHEYE_INST directory on your file system.
4. Copy <FishEye home directory>/config.xml to the FISHEYE_INST directory.
5. Copy the <FishEye home directory>/var directory to the FISHEYE_INST directory.
6. Copy the <FishEye home directory>/cache directory to the FISHEYE_INST directory.
7. Extract the new FishEye/Crucible archive into a directory such as <New FishEye home directory>.
8. Start FishEye/Crucible from the new installation by running /bin/run.sh (Use run.bat on Windows.)
   - If your configuration is not automatically picked up and you cannot see your existing repositories, check your Administration > Sys-Info page, where you will see information about the <FishEye home directory> and FISHEYE_INST. Check that your FISHEYE_INST is pointing to the right directory.

Checking for known issues and troubleshooting the Crucible upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Fisheye and Crucible Known Issues in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to troubleshooting upgrades in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a support ticket and one of our support engineers will help you.

Upgrading from FishEye to Crucible

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

ℹ️ 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 documentation on making a backup.

**On this page:**

- Before you start
- Upgrade procedure
  - Method 1: Without a FISHEYE_INST Directory (default)
  - Method 2: Using a FISHEYE_INST Directory
  - Method 3: Without a FISHEYE_INST Directory, but intending to set one up
- Initial Crucible configuration

**Upgrade procedure**

- Follow Method 1 if you have a default configuration and are not using a FISHEYE_INST directory (that is, your FishEye binaries and data are all stored under the same location, in the default <FishEye home directory>). This is the typical scenario for evaluation installations.

- Follow Method 2 below if you have FishEye configured to use a FISHEYE_INST directory (that is, your
FishEye binaries are stored in the `<FishEye home directory>`, separate from your FishEye data directory with a location defined by `FISHEYE_INST`). This is the recommended scenario for production installations.

- Follow **Method 3** if you are not using a `FISHEYE_INST` directory but would now like to start using one. You may wish to do this when configuring an existing installation for a production environment.

**Read more about the `FISHEYE_INST` environment variable.**

**Method 1: Without a `FISHEYE_INST` Directory (default)**

1. Download Crucible.
2. Extract the new Crucible archive into a directory such as `<New FishEye directory>`.
3. Shut down the old FishEye instance if it is running.
4. Copy `<FishEye home directory>/config.xml` to `<New FishEye directory>`.
5. Delete the `<New FishEye directory> /var directory`.
6. Copy the `<FishEye home directory>/var directory` to `<New FishEye directory>/ var`.
7. Follow any version-specific instructions found in the Release notes.
8. Start Crucible from the new installation by running `<New FishEye directory>/bin/run.sh. (Use run.bat on Windows).
9. Follow the initial configuration steps outlined below.

**Method 2: Using a `FISHEYE_INST` Directory**

1. Shutdown your existing fisheye server.
2. Make a backup of your `FISHEYE_INST` directory.
3. 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 directory>`.
4. Leave your `FISHEYE_INST` environment variable set to its existing location. Crucible will use this variable.
5. Start Crucible from the new installation by running `<New FishEye directory>/bin/run.sh. (Use run.bat on Windows).
6. Follow the initial configuration steps outlined below.

**Method 3: Without a `FISHEYE_INST` Directory, but intending to set one up**

1. Shut down the old FishEye instance if it is running.
2. Set up the `FISHEYE_INST` environment variable, then create the `FISHEYE_INST` directory on your filesystem.
3. Copy the `<FishEye home directory> /config.xml` to the `FISHEYE_INST` directory.
4. Copy the `<FishEye home directory> /var directory` to the `FISHEYE_INST` directory.
5. Download Crucible.
6. Extract the new Crucible archive into a directory such as `<New FishEye directory>`.
7. Start Crucible from the new installation by running `<New FishEye directory> /bin/run.sh. (Use run.bat on Windows).
8. Follow the initial configuration steps outlined below.
9. If your configuration is not automatically picked up and you cannot see your existing repositories, check your Administration > Sys-Info page, where you will see information about the `<New FishEye directory>` and `FISHEYE_INST`. Check that `FISHEYE_INST` is pointing to the correct directory.

**Initial Crucible configuration**

1. You can access FishEye immediately by going to `http://HOSTNAME:8060/` in a browser.
2. The first time you run FishEye, enter your Crucible license key. To do this, update your Crucible license by opening 'Administration', then 'Sys-Info/Support'. On this screen, you can enter your Crucible license key. You can view your license key here. The Crucible functionality will be instantly unlocked.
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:8060/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.

**Crucible 2.9 release notes**

**14 November 2012**

With great pleasure, Atlassian presents **Crucible 2.9**, which introduces the best JIRA integration we have ever built.

- See the change log for Crucible 2.9.x minor releases.
- Visit our issue tracker to see the full list of improvements and bug fixes in Crucible and FishEye for this release.
- Upgrading from a previous version of Crucible. Upgrading Crucible should be fairly straight forward. We strongly recommend that you back up Crucible before upgrading. Please refer to the Crucible 2.9 Upgrade Guide for further essential information about your upgrade.
- Known Issues. Please check the important technical advisories on the front page of the Knowledge Base for information about any known issues for this release.
- JIRA 5.0 integration. The features described below are supported by JIRA 5.0, or later, with the latest version of the JIRA FishEye plugin.

**Highlights of this release:**

- **Simpler JIRA integration**
- Better performance of the Reviews tab in JIRA
- Faster review creation for large teams
- Other announcements

![Download](download.png)

**Providing feedback:**

Please log your votes and issues. They help us decide what needs doing, and are much appreciated!

---

**1**

**Simpler JIRA integration**

With Crucible 2.9, linking your instance to JIRA is as simple as Plug & Play. As soon as you create an Application Link between your JIRA server and your Crucible instance, you get all the power of the JIRA / Crucible integration:

- See in JIRA the list of reviews corresponding to a specific issue
- Navigate to the related review from your issue page
- Get the JIRA data corresponding to issues mentioned in your review comments, titles and objectives
You no longer need to create and maintain multiple links between projects in JIRA and projects in Crucible. Maintaining your JIRA / Crucible integration has never been simpler! More...

Activity

CR-FE-6832 Closed
FEGRU-2765: re-enable highlights for ie
{cs:id=e32efa760e915697497b33e10303821747274139(rep=FE-hg): FEGRU-2765: re-enable highlights for ie

Comment

Better performance of the Reviews tab in JIRA

When we changed the implementation of the Crucible / JIRA integration we also improved the performance of the Reviews Tab display in JIRA. You will see your reviews in JIRA faster, even without having to create any links between your JIRA project and your Crucible repositories. In other words, with Crucible 2.9 you spend less time administering your instance, while your users get all the relevant content in JIRA in a better way than before.
Faster review creation for large teams

Crucible is a tool that is built to help organizations and distributed teams perform code reviews. When you have large teams you can find that you always have a large number of reviews waiting to be closed. Prior to Crucible 2.9, this could slow down the review creation process because Crucible looked for other reviews where changesets might have been included.

With Crucible 2.9 we have removed the Suggested Reviews step during review creation. Not only does this accelerate the process, but it also ensures that performance of the whole Crucible instance is not impacted by single process. The chart below shows the performance improvement we have seen from this modification.

![Benchmark for review creation](chart.png)

Other announcements

- **Suggested reviews removed**
  As described above, we have removed the suggested reviews step during review creation, to improve Crucible performance and to ensure that review creation never interferes with the responsiveness of your Crucible instance.

- **Remote API setting always on**
  We have removed the Remote API setting from the Server Settings page. From this release onwards, Remote APIs are always accessible, which helps to make the JIRA integration straightforward.

- **Changes to the JIRA settings dialog**
  - **Allow Time Tracking Submission** is no longer a configurable option. Users are always able to submit time for their reviews when the JIRA integration is set up.
  - We have simplified permissions by removing the **Disable for Unmapped Projects** setting. All permissions to view the reviews tab are now controlled by the Project permission settings in JIRA.
  - **Force Project Mappings** has been removed as part of simplifying the JIRA FishEye Plugin behavior. Project links are respected, and act as restrictions on the integration.
• Max review age is now only applied to versions of Crucible prior to 2.9.0.

The Crucible 2.9 team

Development

Core team

Brendan Humphreys
Conor MacNeill
Geoff Crain
Lukasz Pater
Maciej Swinarski
Piotr wity wicicki
Richard Stephens
Tom Davies
Valery Trubnikov

Team lead

Nick Pellow

Product management

Sten Pittet

Project manager

Anton Mazkovoi

Support

Ajay Sridhar
Daniel Rohan
Douglas Fabretti
Felipe Kraemer
Gurleen Anand
Kah Loun Foong
Leonardo Macedo
Malik Mangier
Patrick Hill
Renan Battaglin
Rene Verschoor
Ricardo Martins

Others

Product marketing

Giancarlo Lionetti
## Quality assurance

George Filippoff

## Technical writing

Paul Watson

## Operations

James Fleming

### Crucible 2.9 changelog

This page contains information about the Crucible 2.9 minor releases. FishEye license holders should also check the [FishEye 2.9 Changelog](#). See the [Crucible 2.9 release notes](#) for details of what's new in 2.9.0.

Please read the [Crucible 2.9 Upgrade Guide](#) before upgrading to any of the minor releases below.

---

### Crucible 2.9

**14 November 2012**

The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues</th>
<th>10 issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CRUC-6 105</td>
<td>Chrome crashes if during a code review the user navigate using the shortcuts</td>
</tr>
<tr>
<td>CRUC-5 781</td>
<td>In a Review containin g a single Attachme nt, the 'Go to next element' button causes an infinite Javascript loop</td>
</tr>
</tbody>
</table>
Crucible 2.9 upgrade guide

Please refer to the FishEye 2.9 upgrade guide for important notes on upgrading to Crucible 2.9.

For details of the new features and improvements in this release, please read the Crucible 2.9 Release Notes.

Crucible 2.8 Release Notes

15 August 2012

With great pleasure, Atlassian presents Crucible 2.8, introducing social features and performance improvements.

See the change log for Crucible 2.8.x minor releases.

Visit our issue tracker to see the full list of improvements and bug fixes in Crucible and FishEye for this release.

- **Upgrading from a previous version of Crucible.** Upgrading Crucible should be fairly straightforward. *We strongly recommend that you back up Crucible before upgrading.* Please refer to the Crucible 2.8 Upgrade Guide for further essential information about your upgrade.

- **Known Issues.** Please check the important technical advisories on the front page of the Knowledge Base for information about any known issues for this release.

**Highlights of this release:**

- Mentions
- Shares
- Improved performance for the projects listing
- Support for Subversion 1.7
- End of life announcements

Providing feedback:

Please log your votes and issues. They help us decide what needs doing, and are much appreciated!

-
Mentions

In Crucible 2.8 you can use mentions to notify other users in the changeset discussions, review comments and snippet comments. Simply type @ and the name of the person you would like to notify to create a mention.

Shares

You can now share reviews with other users of Crucible as well as external people via their email. Sharing Crucible content has never been easier.
3

Improved performance for the projects listing

We improved the rendering performance of the projects listing in Crucible.

4

Support for Subversion 1.7

Crucible now supports Subversion 1.7.

5

End of life announcements

As announced earlier, support for IBM ClearCase repositories has been removed in Crucible 2.8.
The Crucible 2.8 team

Development

Core team

Geoff Crain
Tom Davies
Brendan Humphreys
Conor MacNeill
Richard Stephens

Team lead

Nick Pellow

Product management

Sten Pittet

Project manager

Anton Mazkovoi

Support

Ajay Sridhar
Armen Khachatryan
Daniel Rohan
Douglas Fabretti
Felipe Kraemer
Gurleen Anand
Renan Battaglin
Rene Verschoor
Malik Mangier

Others

Product marketing

Giancarlo Lionetti
Jeff Park

Quality assurance

George Filippoff

Technical writing

Paul Watson

Operations

James Fleming
Crucible 2.8 Changelog

This page contains information about the Crucible 2.8 minor releases. FishEye license holders should also check the FishEye 2.8 Changelog.
See the Crucible 2.8 Release Notes for details of what’s new in 2.8.0.

⚠️ Please read the Crucible 2.8 Upgrade Guide before upgrading to any of the minor releases below.

On this page:
- From 2.8.1 to 2.8.2
- From 2.8.0 to 2.8.1
- Crucible 2.8

From 2.8.1 to 2.8.2

5 October 2012

This is a FishEye bug fix release.

From 2.8.0 to 2.8.1

29 August 2012

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues</th>
<th>(2 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Key</strong></td>
</tr>
</tbody>
</table>
Crucible 2.8

15 August 2012

The complete list of issues is below.

### JIRA Issues (16 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRUC-6 156</td>
<td>Test upgrade from 2.7 to 2.8 on all Supported DBs</td>
<td>Unassigned</td>
<td>Nick Pellow [Atlassian]</td>
<td></td>
<td></td>
<td>Close</td>
<td>Jun 20, 2012</td>
<td>Jul 01, 2012</td>
</tr>
<tr>
<td></td>
<td>CRUC-6 104</td>
<td>Allow sharing reviews using emails or account</td>
<td>Unassigned</td>
<td>Felipe Kraemer [Atlassian]</td>
<td></td>
<td></td>
<td>Close</td>
<td>Apr 04, 2012</td>
<td>Aug 13, 2012</td>
</tr>
<tr>
<td></td>
<td>CRUC-6 168</td>
<td>A null review participant causes review indexing to fail partway through the set of reviews</td>
<td>Tom Davies [Atlassian]</td>
<td>Tom Davies [Atlassian]</td>
<td></td>
<td></td>
<td>Close</td>
<td>Jul 10, 2012</td>
<td>Sep 26, 2012</td>
</tr>
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</table>

### Crucible 2.8 Upgrade Guide

Below are some important notes on upgrading to [Crucible 2.8](https://confluence.atlassian.com/display/C28/2.8+Upgrade+Guide). For details of the new features and improvements in this release, please read the [Crucible 2.8 Release Notes](https://confluence.atlassian.com/display/C28/2.8+Release+Notes).

**On this page:**

- Upgrade Notes
- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

**Related pages:**

- [Crucible 2.8 Release Notes](https://confluence.atlassian.com/display/C28/2.8+Release+Notes)

### Upgrade Notes
Crucible 2.8

- Crucible 2.8

A minor schema change has been made to the Crucible SQL Schema in 2.8. If you need to rollback to an earlier version, you will need to restore from a backup to do so. Be sure to take a backup before you upgrade.
Please also be sure to read the [End of Life Announcements for FishEye/Crucible 2.8](#).

Upgrade Procedure

⚠️ Before you begin
- Test your upgrades in your test environment before rolling into production.
- Back up your entire Crucible instance (see [Backing up and restoring Crucible data](#)), i.e.
  - If you are backing up your Crucible instance via the Admin interface, tick all of the 'Include' checkboxes (e.g. plugins, templates, uploads, SQL database, etc).
  - If you are backing up your Crucible instance using the command-line interface, do not use any exclusion options.

If you are already running a version of Crucible, please follow the instructions on [Upgrading to a new version of Crucible](#).

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes Atlassian finds out about a problem with the latest version of Crucible after the software is released. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the [Crucible 2.8 Known Issues](#) in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting upgrades](#) in the Crucible Knowledge Base.

- **If you encounter a problem during the upgrade and cannot solve it, please create a support ticket** and one of our support engineers will help you.

Crucible 2.7 Release Notes

7 September 2011

With great pleasure, Atlassian presents Crucible 2.7 featuring new JIRA Transitions and Review Reminders.

**Highlights of this Release:**
- JIRA Transitions in Crucible
- Review Reminders
- Small Improvements
• Thank you for all your issues and votes. Keep logging issues to help us keep improving!
• Read the release notices for important information about this release.

Highlights of Crucible 2.7

1

JIRA Transitions in Crucible

For Crucible reviews that are linked to JIRA issues, you can now transition these JIRA issues through workflow from within Crucible.

After closing a review, Crucible will now display any available transitions for the linked JIRA issue.

CR-FE-6163 Closed

Linked issue

Issue: FERCU-1401 – Add a review action in the UI to send manual reminder...
Status: To be reviewed
Transition issue: Close
Log work: Submit 43m

You're done!

You have no outstanding reviews to attend to right now.

More...
Review Reminders

Crucible will now automatically send reviewers a reminder email one working day before the deadline.

Review authors and moderators can also do the following:

- Send manual reminders to reviewers whose work is still pending.
- Configure preset reminders for reviews that have a deadline.

Small Improvements

Crucible 2.7 also comes bundled with numerous other bug fixes and improvements, including:

- Syntax highlighting for Java 7, Groovy, Velocity and Scala
- Crucible can now run on Java 7
- Improved user interface for the administration screens
- Improved plugin points for developers

Visit our issue tracker to see the full list of improvements and bug fixes in Crucible and FishEye for this release.

Release Notices

- Upgrading from a previous version of Crucible. Upgrading Crucible should be fairly straightforward.
  We strongly recommend that you backup Crucible before upgrading. Please refer to the Crucible 2.7

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**Crucible 2.7 Changelog**

This page contains information about the Crucible 2.7 minor releases. FishEye license holders should also check the FishEye 2.7 Changelog. See the Crucible 2.7 Release Notes for details of what's new in 2.7.0.

⚠️ Please read the Crucible 2.7 Upgrade Guide before upgrading to any of the minor releases below.

---

### From 2.7.14 to 2.7.15

**10 July 2012**

This is a bug fix release. The complete list of issues is below.

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<thead>
<tr>
<th>CRUC-6 188</th>
<th>Crucible privilege escalation vulnerability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vitaly Osipov [Atlassian]</td>
</tr>
<tr>
<td></td>
<td>Paul Watson [Atlassian]</td>
</tr>
<tr>
<td></td>
<td>Fixated</td>
</tr>
<tr>
<td></td>
<td>Aug 09, 2012</td>
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<table>
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<tr>
<th>FE-4178</th>
<th>Getting &quot;No entity exists with key &lt;REPONAME&gt; of type com.atlassian.applinks.api.application.fecru.FishEyeRepositoryEntityType&quot; editing clicking applinks for a repository</th>
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<tr>
<td></td>
<td>Vitaly Osipov [Atlassian]</td>
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<td></td>
<td>Unassigned Weslley [Atlassian]</td>
</tr>
<tr>
<td></td>
<td>Fixated</td>
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<td>Jul 08, 2012</td>
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<table>
<thead>
<tr>
<th>FE-4156</th>
<th>Watch Emails throwing exception in certain circumstances</th>
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<tbody>
<tr>
<td></td>
<td>Nick Pellow [Atlassian]</td>
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<tr>
<td></td>
<td>Fixated</td>
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<td>Jun 24, 2012</td>
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<table>
<thead>
<tr>
<th>FE-4222</th>
<th>FishEye privilege escalation vulnerability</th>
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<tbody>
<tr>
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</tbody>
</table>

Documentation for Crucible 2.9

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From 2.7.13 to 2.7.14

**12 June 2012**

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (6 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>📣</td>
<td>FE-4119</td>
<td>Missing changesets cause Hg indexing to fail</td>
<td>Unassigned</td>
<td>Tom Davies</td>
<td></td>
<td></td>
<td>Closed</td>
<td>May 30, 2012</td>
<td>May 30, 2012</td>
</tr>
<tr>
<td>📣</td>
<td>FE-4111</td>
<td>If Anon Access is OFF, smart commits that interact with JIRA will not work</td>
<td>Nick Pellow</td>
<td>Nick Pellow</td>
<td></td>
<td></td>
<td>Closed</td>
<td>May 24, 2012</td>
<td>Aug 01, 2012</td>
</tr>
<tr>
<td>📣</td>
<td>FE-4106</td>
<td>Fisheye 2.7.13 startup error</td>
<td>Nick Pellow</td>
<td>Leo Leung</td>
<td></td>
<td></td>
<td>Closed</td>
<td>May 24, 2012</td>
<td>Jun 08, 2012</td>
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Documentation for Crucible 2.9

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## From 2.7.12 to 2.7.13

### 21 May 2012

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>Type</th>
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<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
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<th>Updated</th>
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<tbody>
<tr>
<td></td>
<td>FE-3961</td>
<td>Emulate pre-2.7 behaviour: when an user is created by the user synchronisation, restore any deleted user with the same username</td>
<td>Brendan Humphreys [Atlassian]</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td></td>
<td></td>
<td>Fixed</td>
<td>Feb 16, 2012</td>
<td>Aug 20, 2012</td>
</tr>
<tr>
<td>CRUC-6092</td>
<td>Email generated via &quot;Tools -&gt; Email Review&quot; has incorrect comment URLs</td>
<td>Brendan Humphreys [Atlassian]</td>
<td>Sylvia Yee</td>
<td>Resolved</td>
<td>Fixed</td>
<td>Mar 16, 2012</td>
<td>May 18, 2012</td>
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<td>Issue ID</td>
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<td>Assignee</td>
<td>Fix Date</td>
<td>Status</td>
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<tr>
<td>FE-4060</td>
<td>CC</td>
<td>Indexing can fetch version 0 and index it even if before the start date.</td>
<td>Conor MacNeill</td>
<td>Apr 17, 2012</td>
<td>Fixed</td>
<td>Apr 17, 2012</td>
<td>Apr 18, 2012</td>
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<td></td>
</tr>
<tr>
<td>FE-4043</td>
<td>Handle NPE caused by changes et without a position value in Commit Graph</td>
<td>Conor MacNeill</td>
<td>Apr 10, 2012</td>
<td>Fixed</td>
<td>Apr 10, 2012</td>
<td>Apr 15, 2012</td>
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</tr>
<tr>
<td>FE-4036</td>
<td>P4 GetLatestRevision will fail for paths with no revisions - leads to excessive logging.</td>
<td>Conor MacNeill</td>
<td>Apr 05, 2012</td>
<td>Fixed</td>
<td>Apr 05, 2012</td>
<td>Apr 10, 2012</td>
<td></td>
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<tr>
<td>FE-4034</td>
<td>Copy from a file which existed before the start-revision is ignored.</td>
<td>Conor MacNeill</td>
<td>Apr 03, 2012</td>
<td>Fixed</td>
<td>Apr 03, 2012</td>
<td>Apr 10, 2012</td>
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</tr>
<tr>
<td>FE-4029</td>
<td>Store Perforce Branch Details</td>
<td>Tom Davies</td>
<td>Apr 02, 2012</td>
<td>Fixed</td>
<td>Apr 02, 2012</td>
<td>Apr 25, 2012</td>
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<table>
<thead>
<tr>
<th>Issue</th>
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<th>Assignee</th>
<th>Description</th>
<th>Status</th>
<th>Fixed</th>
<th>Created</th>
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<tr>
<td>CRUC-6 125</td>
<td>after replying to a comment, the form to post another reply has &quot;discard&quot; and &quot;keep as draft&quot; disabled</td>
<td>Tom Davies [Atlassian]</td>
<td>Geoff Crain [Atlassian]</td>
<td>Close</td>
<td>Fixed</td>
<td>May 03, 2012</td>
<td>May 08, 2012</td>
</tr>
<tr>
<td>CRUC-6 052</td>
<td>Crucible sometimes redirects to my host name instead of the configure d URL</td>
<td>Tom Davies [Atlassian]</td>
<td>Borek Bernard</td>
<td>Close</td>
<td>Fixed</td>
<td>Feb 13, 2012</td>
<td>Apr 10, 2012</td>
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</table>
### JIRA Issues (9 issues)

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<tr>
<th>Type</th>
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<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
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<th>Updated</th>
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<tbody>
<tr>
<td><img src="image" alt=" " /></td>
<td>FE-3974</td>
<td>Add the new system property to the 2.7 documentation</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
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<td></td>
<td>Fixed</td>
<td>Feb 23, 2012</td>
<td>Apr 16, 2012</td>
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#### From 2.7.11 to 2.7.12

**16 April 2012**

This is a bug fix release. The complete list of issues is below.

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<tbody>
<tr>
<td>CRUC-4 188</td>
<td>Improve logging of database errors - java.sql.BatchUpdateException: Batch entry 0 ... was aborted. Call getNextException to see the cause.</td>
<td>Tom Davies [Atlassian]</td>
<td>Andrew Myers [Atlassian]</td>
<td><img src="image" alt=" " /></td>
<td><img src="image" alt=" " /></td>
<td>Close</td>
<td>Fixed</td>
<td>Sep 12, 2010</td>
<td>Apr 23, 2012</td>
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<table>
<thead>
<tr>
<th>Ticket</th>
<th>Issue Description</th>
<th>Reporter</th>
<th>Assignee</th>
<th>Status</th>
<th>Fixed Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>FE-4001</td>
<td>Perforce branches are unnecessarily, repeatedly, scanned</td>
<td>Tom Davies</td>
<td>Tom Davies</td>
<td>Fixed</td>
<td>Mar 15, 2012, Apr 02, 2012</td>
</tr>
<tr>
<td>FE-3996</td>
<td>Cleartool since date format need to be English</td>
<td>Conor MacNeill</td>
<td>Conor MacNeill</td>
<td>Fixed</td>
<td>Mar 12, 2012, Mar 21, 2012</td>
</tr>
<tr>
<td>FE-3970</td>
<td>Commit Calendar incorrect for projects including several paths in the same repository</td>
<td>Tom Davies</td>
<td>Tom Davies</td>
<td>Fixed</td>
<td>Feb 22, 2012, Feb 28, 2012</td>
</tr>
<tr>
<td>FE-3969</td>
<td>The 'Parameters' on the 'Database Config'</td>
<td>Tom Davies</td>
<td>Tom Davies</td>
<td>Fixed</td>
<td>Feb 22, 2012, Oct 03, 2012</td>
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</table>
**From 2.7.10 to 2.7.11**

**27 February 2012**

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (26 issues)

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<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
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<tbody>
<tr>
<td>FE-3941</td>
<td>Add a limit for the number of paths to index to a changeset</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td></td>
<td></td>
<td></td>
<td>Closed</td>
<td>Feb 09, 2012</td>
<td>Feb 26, 2012</td>
</tr>
<tr>
<td>FE-3937</td>
<td>Add properties to stop branch and tag point ancestry detection for SVN</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td></td>
<td></td>
<td></td>
<td>Closed</td>
<td>Feb 07, 2012</td>
<td>Feb 26, 2012</td>
</tr>
<tr>
<td>FE-3958</td>
<td>Content Indexing: Filter the paths to index before processing the list twice.</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td></td>
<td></td>
<td></td>
<td>Closed</td>
<td>Feb 15, 2012</td>
<td>Feb 21, 2012</td>
</tr>
<tr>
<td>FE-3957</td>
<td>Lucene re-index is only triggered for cross-repo until after first commit</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td>⬇️</td>
<td>Closed</td>
<td>Fixed</td>
<td>Feb 15, 2012</td>
<td>Feb 16, 2012</td>
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<tr>
<td>FE-3956</td>
<td>Content Indexing: Add an option to only index trunk, not root and trunk</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td>⬇️</td>
<td>Closed</td>
<td>Fixed</td>
<td>Feb 15, 2012</td>
<td>Feb 26, 2012</td>
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<tr>
<td>FE-3955</td>
<td>ReIndex: Only delete all the content docs if there are &gt;0 docs in the index</td>
<td>Matthew Watson</td>
<td>Matthew Watson</td>
<td>⬇️</td>
<td>Closed</td>
<td>Fixed</td>
<td>Feb 15, 2012</td>
<td>Feb 19, 2012</td>
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<tr>
<td>FE-3953</td>
<td>Per user LoC figures are meaningless when the 'All' button is selected</td>
<td>Tom Davies [Atlassian]</td>
<td>Tom Davies [Atlassian]</td>
<td>⬇️</td>
<td>Closed</td>
<td>Fixed</td>
<td>Feb 14, 2012</td>
<td>Feb 15, 2012</td>
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<tr>
<td>FE-3952</td>
<td>Breadcrumb links on the Users tab are incorrect when a branch is selected</td>
<td>Tom Davies [Atlassian]</td>
<td>Tom Davies [Atlassian]</td>
<td>⬇️</td>
<td>Closed</td>
<td>Fixed</td>
<td>Feb 14, 2012</td>
<td>Feb 14, 2012</td>
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<tr>
<td>JIRA Key</td>
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<td>Assigned To</td>
<td>Reporter</td>
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<tr>
<td>FE-3939</td>
<td>PHP syntax highlighting incorrectly matches keywords at the end of function names</td>
<td>Brendan Humphreys [Atlassian]</td>
<td>Chris Butler</td>
<td></td>
<td>Fixed</td>
<td>Feb 08, 2012</td>
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<tr>
<td>FE-3934</td>
<td>Changes sets with large number of revisions can exhaust heap</td>
<td>Conor MacNeill [Atlassian]</td>
<td>Conor MacNeill [Atlassian]</td>
<td></td>
<td>Fixed</td>
<td>Feb 06, 2012</td>
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<tr>
<td>FE-3921</td>
<td>FishEye treats files as binary if they used to have a svn:mime-type property, even after the property has been removed</td>
<td>Michael Heemskerk [Atlassian]</td>
<td>Michael Heemskerk [Atlassian]</td>
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<td>Fixed</td>
<td>Jan 23, 2012</td>
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<tr>
<td>FE-3908</td>
<td>Investigate lib dir containing random JS files and directories, and scmutils.jar is missing</td>
<td>Unassigned</td>
<td>Nick Pellow [Atlassian]</td>
<td></td>
<td>Closed</td>
<td>Jan 22, 2012</td>
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<td>FE-3905</td>
<td>Upgrade</td>
<td>Matthew</td>
<td>Matthew</td>
<td></td>
<td>Fixed</td>
<td>Jan 23, 2012</td>
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<td>Ticket</td>
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<td>Created By</td>
<td>Fixed By</td>
<td>Assigned To</td>
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<td>Resolution</td>
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<tr>
<td>FE-3885</td>
<td>Fixed</td>
<td>Smart Commits: Using the <code>#time</code> command with a complex time format (i.e. 2d 4h) only saves the 2d part</td>
<td>Nick Pellow [Atlassian] Felipe Cuozzo [Atlassian]</td>
<td>Watson Watson</td>
<td>Jan 12, 2012</td>
<td>Watson Watson</td>
<td>d</td>
<td>2012</td>
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</tr>
<tr>
<td>PR</td>
<td>CRUC-6058</td>
<td>PagedSearch is not being injected with the request in some cases</td>
<td>Brendan Humphreys [Atlassian]</td>
<td>Brendan Humphreys [Atlassian]</td>
<td>Close</td>
<td>Fixed</td>
<td>Feb 14, 2012</td>
<td>Mar 07, 2012</td>
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From 2.7.9 to 2.7.10

20 January 2012

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (3 issues)

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<th>Key</th>
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<th>Resolution</th>
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<tbody>
<tr>
<td>📌</td>
<td>FE-3903</td>
<td>Unable to see FishEye activity stream in JIRA Activity Stream gadget on dashboard when have Repository with no description</td>
<td>Unassigned</td>
<td>Matthew Watson</td>
<td>🟠</td>
<td>Closed</td>
<td>Fixed</td>
<td>Jan 19, 2012</td>
<td>Jan 19, 2012</td>
</tr>
<tr>
<td>📌</td>
<td>FE-3902</td>
<td>Issue Transition controls don't appear when closing a review</td>
<td>Unassigned</td>
<td>None</td>
<td>🟠</td>
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<td>Fixed</td>
<td>Jan 19, 2012</td>
<td>Jan 19, 2012</td>
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<tr>
<td>📌</td>
<td>FE-3900</td>
<td>fecru-review-issue-transition-plugin fails under fisheye 2.7.9 due to incompatible class change error</td>
<td>Unassigned</td>
<td>Nick Pellow [Atlassian]</td>
<td>🟠</td>
<td>Closed</td>
<td>Fixed</td>
<td>Jan 18, 2012</td>
<td>Jan 19, 2012</td>
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</table>

From 2.7.8 to 2.7.9

19 January 2012

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (23 issues)
<table>
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<tr>
<th>Type</th>
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<td></td>
<td>FE-3896</td>
<td>FishEye wrongly removes admin privileges for a Crowd group when Crowd is not up when FishEye is starting up</td>
<td>Nick Pellow [Atlassian]</td>
<td>Alex Wei [Atlassian]</td>
<td></td>
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<td>Fixed</td>
<td>Jan 05, 2012</td>
<td>Jan 18, 2012</td>
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<td>FE-3884</td>
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<td>Brendan Humphre</td>
<td>Brendan Humphre</td>
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<td>Issue</td>
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<td>Commenter</td>
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<td>Completion Date 2</td>
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<tr>
<td>FE-3878</td>
<td>When processing perforce file revisions, only branch specs that have been added or modified since the last restart are considered</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Jan 08, 2012</td>
<td>Jan 09, 2012</td>
<td></td>
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<tr>
<td>FE-3861</td>
<td>lock mismanagement</td>
<td>Brendan Humphreys</td>
<td>Brendan Humphreys</td>
<td>Dec 12, 2011</td>
<td>Dec 12, 2011</td>
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<tr>
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<td>CRUC-6013</td>
<td>If during review creation the content of a file revision can't be uploaded (via FishEye), that file is regarded as having no content</td>
<td>Geoff Crain [Atlassian]</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Fixed</td>
<td>Dec 27, 2011</td>
<td>Jan 17, 2012</td>
<td></td>
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</tbody>
</table>
From 2.7.7 to 2.7.8

30 November 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (12 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>-----</td>
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<tr>
<td>#</td>
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<tr>
<td>3</td>
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</table>
From 2.7.6 to 2.7.7

21 November 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (17 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>🚀</td>
</tr>
<tr>
<td>FE-3174</td>
</tr>
<tr>
<td>Jira Key</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>CRUC-5957</td>
</tr>
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</table>
From 2.7.5 to 2.7.6

8 November 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (19 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>📠</td>
<td>FE-3816</td>
<td>Shut down the thread pool once the backgrou nd upgrade tasks have been completed</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td>🟢</td>
<td>⚫ Close</td>
<td>Fixed</td>
<td>Nov 03, 2011</td>
<td>Nov 03, 2011</td>
</tr>
<tr>
<td>Issue</td>
<td>Title</td>
<td>Description</td>
<td>Assignee</td>
<td>Resolution</td>
<td>Status</td>
<td>Fixed</td>
<td>Created</td>
<td>Updated</td>
<td></td>
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<tr>
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</tr>
<tr>
<td>FE-3611</td>
<td>Improve the way avatars are loaded to avoid unnecessary calls</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Renan Battaglin [Atlassian]</td>
<td>d</td>
<td>Close</td>
<td>Fixed</td>
<td>Jul 28, 2011</td>
<td>Nov 03, 2011</td>
<td></td>
</tr>
<tr>
<td>FE-3823</td>
<td>If the total length of the branch names selected for the commit graph is too long, the spinner never disappears</td>
<td>Unassigned</td>
<td>Tom Davies [Atlassian]</td>
<td>d</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 09, 2011</td>
<td>Nov 10, 2011</td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Title</td>
<td>Description</td>
<td>Assigned to</td>
<td>Resolution</td>
<td>Status</td>
<td>Created</td>
<td>Updated</td>
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<tr>
<td>FE-3767</td>
<td>WARN message 'Repository index does not match the repository configuration' incorrectly logged after upgrading to 2.7</td>
<td>Conor MacNeill [Atlassian]</td>
<td>Michael Heemskerk [Atlassian]</td>
<td></td>
<td></td>
<td>Oct 05, 2011</td>
<td>Nov 02, 2011</td>
<td></td>
<td></td>
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<tr>
<td>CRUC-5953</td>
<td>Scala syntax highlighter highlights substring of identifiers</td>
<td>Seb Ruiz [Atlassian]</td>
<td>Leif Wickland</td>
<td></td>
<td></td>
<td>Nov 01, 2011</td>
<td>Nov 01, 2011</td>
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</tbody>
</table>
From 2.7.4 to 2.7.5

21 October 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (19 issues)

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<tr>
<th>Type</th>
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<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
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<tbody>
<tr>
<td>📃</td>
<td>FE-3799</td>
<td><strong>p4 support: Cleanup and Merge the p4 ancestry suppression flag to 2.6/7/default</strong></td>
<td>Conor MacNeill [Atlassian]</td>
<td>Matthew Watson</td>
<td>Two</td>
<td>Close d</td>
<td>Fixed</td>
<td>Sep 27, 2011</td>
<td>Jan 16, 2012</td>
</tr>
<tr>
<td>Issue</td>
<td>Title</td>
<td>Description</td>
<td>Author</td>
<td>Status</td>
<td>Created</td>
<td>Updated</td>
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<td></td>
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</tr>
<tr>
<td>FE-3751</td>
<td>'Store diffs' setting is not respected for initial imports of SVN repositories should be copied to newly created forks</td>
<td>Davies Pettersen</td>
<td>d</td>
<td>2011</td>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3737</td>
<td>Cannot customize front page with global anonymous access turned off</td>
<td>Tom Davies Gorleen Anand</td>
<td>Close Fixed</td>
<td>Sep 22, 2011</td>
<td>Oct 06, 2011</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>FE-3727</td>
<td>Review coverage report screen messed up when using Firefox 6.0.2 and Chrome 12.0.7</td>
<td>Michael Studman Camila Ayres</td>
<td>Close Fixed</td>
<td>Sep 16, 2011</td>
<td>Oct 26, 2011</td>
<td></td>
<td></td>
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<tr>
<td>FE-3721</td>
<td>Error when changing content of a review</td>
<td>Tom Davies Federico Silva Armas</td>
<td>Close Fixed</td>
<td>Sep 15, 2011</td>
<td>Jan 16, 2012</td>
<td></td>
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<tr>
<td>FE-3698</td>
<td>Web Hooks payload received with &quot;application&quot;</td>
<td>Anna Buttfield Sten Pittet</td>
<td>Close Fixed</td>
<td>Sep 06, 2011</td>
<td>Oct 24, 2011</td>
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<td>Ticket</td>
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<td>Reporter</td>
<td>Resolution</td>
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<td>Open Date</td>
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</tr>
<tr>
<td>FE-3692</td>
<td>When pushing to a Git managed repo while another client is cloning, the client which is cloned freezes</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td>Pierre-Etienne Poirot [Atlassian]</td>
<td>Fixed</td>
<td></td>
<td>Sep 06, 2011</td>
<td>Oct 09, 2011</td>
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## From 2.7.3 to 2.7.4

### 28 September 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (13 issues)

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<tr>
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<th>Status</th>
<th>Resolution</th>
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<th>Updated</th>
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</thead>
<tbody>
<tr>
<td>✅</td>
<td>FE-3747</td>
<td>If you edit and then save a managed repository in Internet Explorer, the text &quot;fork of null&quot; will appear and the forks view will no longer be available.</td>
<td>Tom Pettersen [Atlassian]</td>
<td>Tom Pettersen [Atlassian]</td>
<td>🟢</td>
<td>⚪️</td>
<td>Closed</td>
<td>Sep 26, 2011</td>
<td>Sep 27, 2011</td>
</tr>
<tr>
<td>✅</td>
<td>FE-3742</td>
<td>After a user has been deleted and then added again.</td>
<td>Tom Davies [Atlassian]</td>
<td>Tom Davies [Atlassian]</td>
<td>🟢</td>
<td>⚪️</td>
<td>Closed</td>
<td>Sep 26, 2011</td>
<td>Sep 27, 2011</td>
</tr>
<tr>
<td>#</td>
<td>Name</td>
<td>Description</td>
<td>Creator</td>
<td>Assignee</td>
<td>Status</td>
<td>Close Date</td>
<td>Open Date</td>
<td></td>
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<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3168</td>
<td>Restricting Fisheye content in Projects Has No Effect</td>
<td>Michael Studman [Atlassian]</td>
<td>None</td>
<td>🔄</td>
<td>Close</td>
<td>Fixed</td>
<td>Dec 06, 2010</td>
<td>Jan 16, 2012</td>
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</tr>
</tbody>
</table>
From 2.7.2 to 2.7.3

20 September 2011

This is a bug fix release. The complete list of issues is below.

<table>
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<tr>
<th>JIRA Issues (2 issues)</th>
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<tbody>
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</tr>
<tr>
<td><a href="#">Atlassian</a></td>
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<tr>
<td><a href="#">Atlassian</a></td>
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</tbody>
</table>

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From 2.7.1 to 2.7.2
19 September 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (12 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summar y</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FE-3616</td>
<td>Change com.cen qua.fishe ye.logging...Append...</td>
<td>Conor MacNeill</td>
<td>Felipe Cuozzo</td>
<td></td>
<td>Closed</td>
<td>Fixed</td>
<td>Aug 02, 2011</td>
<td>Jan 16, 2012</td>
</tr>
<tr>
<td></td>
<td>CRUC-5896</td>
<td>JIRA title is often too long and wraps</td>
<td>Seb Ruiz</td>
<td>Seb Ruiz</td>
<td></td>
<td>Closed</td>
<td>Fixed</td>
<td>Sep 07, 2011</td>
<td>Sep 13, 2011</td>
</tr>
<tr>
<td></td>
<td>FE-3718</td>
<td>Eclipse Git integration (egit) fails to clone from managed Git repository</td>
<td>Unassigned</td>
<td>Tim Pettersen</td>
<td></td>
<td>Closed</td>
<td>Fixed</td>
<td>Sep 14, 2011</td>
<td>Sep 19, 2011</td>
</tr>
<tr>
<td></td>
<td>FE-3711</td>
<td>Some Directory links in Quick Search have</td>
<td>Jason Hinch</td>
<td>Jason Hinch</td>
<td></td>
<td>Closed</td>
<td>Fixed</td>
<td>Sep 12, 2011</td>
<td>Jan 16, 2012</td>
</tr>
<tr>
<td>Issue Key</td>
<td>Title</td>
<td>Assignee(s)</td>
<td>Action</td>
<td>Status</td>
<td>Last Change</td>
<td>Resolution</td>
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</tr>
<tr>
<td>FE-3696</td>
<td>Web Hooks should be deleted when deleting a repository</td>
<td>Tom Davies [Atlassian]</td>
<td></td>
<td>Fixed</td>
<td>Sep 06, 2011</td>
<td>Closed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3693</td>
<td>Pagination numbers at bottom of Repositories screen overlap with system info footer</td>
<td>Jonathan Poh [Atlassian]</td>
<td></td>
<td>Fixed</td>
<td>Sep 06, 2011</td>
<td>Closed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRUC-5902</td>
<td>Changeset discussion autosave fails with error dialog when no comment is entered</td>
<td>Tom Davies [Atlassian]</td>
<td></td>
<td>Fixed</td>
<td>Sep 12, 2011</td>
<td>Closed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRUC-5888</td>
<td>Closing the Send Reminder dialog via Esc doesn't reset it</td>
<td>Adam Ahmed [Atlassian]</td>
<td></td>
<td>Fixed</td>
<td>Sep 06, 2011</td>
<td>Closed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### CRUC-5 886
If the current user is a review's author, then switches to a reviewer, they show up in the manual Send Reminder dialog.

**Assignee**: Adam Ahmed [Atlassian]

**Reporter**: Adam Ahmed [Atlassian]

**Status**: Closed

**Resolution**: Fixed

**Created**: Sep 06, 2011

**Updated**: Sep 13, 2011

### CRUC-5 885
Review reminder notes do not render new lines in email.

**Assignee**: Michael Studman [Atlassian]

**Reporter**: Seb Ruiz [Atlassian]

**Status**: Closed

**Resolution**: Fixed

**Created**: Sep 06, 2011

**Updated**: Sep 13, 2011

### CRUC-3 298
Should be able to mark files as text when the scm reports binary

**Assignee**: Unassigned

**Reporter**: Eduardo M

**Status**: Closed

**Resolution**: Fixed

**Created**: Apr 09, 2010

**Updated**: Oct 11, 2011

---

### From 2.7.0 to 2.7.1

**9 September 2011**

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (6 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
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<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-3298</td>
<td>Should be able to mark files as text when the scm reports binary</td>
<td>Unassigned</td>
<td>Eduardo M</td>
<td>Close</td>
<td>Fixed</td>
<td>Apr 09, 2010</td>
<td>Oct 11, 2011</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Crucible 2.7 Upgrade Guide**

Below are some important notes on upgrading to **Crucible 2.7**. For details of the new features and improvements in this release, please read the [Crucible 2.7 Release Notes](#).

On this page:

- [Upgrade Notes](#)
  - [Crucible 2.7](#)
  - [Upgrade Procedure](#)
  - [Checking for Known Issues and Troubleshooting the Crucible Upgrade](#)

**Upgrade Notes**

**Crucible 2.7**

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
• Crucible Confluence LightSCM Plugin has Been Removed from Crucible
Previously, Crucible shipped with a plugin to enable reviews against content in Confluence. Since Confluence 4’s new editor will no longer support wiki markup, this plugin has been deprecated. The Crucible plugin source as well as the source for the Confluence SCM plugin will remain open-source and are available via the Plugin Exchange at the following locations:

| Crucible Plugin | Confluence Crucible Plugin |

• Crucible 2.7 adds ActiveObjects support
ActiveObjects allows plugins to store configuration data in the database. Please note, any already scheduled backups will not have plugin data included during backups. Please modify your scheduled backup configuration appropriately to include ActiveObjects backups.

Confluence has a number of free and commercially available review and workflow plugins. We recommend taking a look at these, to implement a smooth review process for Confluence pages.

Upgrade Procedure

⚠️ Before you begin
- Test your upgrades in your test environment before rolling into production.
- Back up your entire Crucible instance (see Backing up and restoring Crucible data), i.e.
  - If you are backing up your Crucible instance via the Admin interface, tick all of the ‘Include’ checkboxes (e.g. plugins, templates, uploads, SQL database, etc).
  - If you are backing up your Crucible instance using the command-line interface, do not use any exclusion options.

If you are already running a version of Crucible, please follow the instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

• Check for known issues. Sometimes Atlassian finds out about a problem with the latest version of Crucible after the software is released. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.7 Known Issues in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

• Did you encounter a problem during the Crucible upgrade? Please refer to the guide to troubleshooting upgrades in the Crucible Knowledge Base.

• If you encounter a problem during the upgrade and cannot solve it, please create a support ticket and one of our support engineers will help you.

RELATED TOPICS

Crucible 2.7 Release Notes

Crucible 2.6 Release Notes

6 June 2011

With great pleasure, Atlassian presents Crucible 2.6 with

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SQL Server support, improved Quick Search, much better handling of reviews for Subversion merge commits and HTML emails.

Highlights of this Release:

- New Quick Search
- HTML Emails for Reviews
- Dashboard and Navigation Improvements
- SQL Server Support
- Oracle Support
- Review Creation without Metadata Changes
- Improved Patch Anchoring
- And Even More Improvements

Responding to your Feedback:

⭐ Over 269 votes satisfied

Thank you for all your issues and votes. Keep logging issues to help us keep improving!

Read the release notices for important information about this release.

Highlights of Crucible 2.6

1

New Quick Search

You'll be able to find information faster using Crucible’s new Quick Search. The Quick Search helps you to find the exact information that you need with a click of a button. The search results are also easy to work with – the user interface has a clean look and feel and features wiki rendering for reviews, popup summaries for JIRA issues in commit messages and more.
HTML Emails for Reviews

A 20% time project has resulted in email notifications getting a dramatic facelift. Gone are the dreary plain text emails, replaced by much better-looking HTML emails. You'll see the new emails in action for review notifications.
Dashboard and Navigation Improvements

The Dashboard and Header have been tweaked to simplify the user interface in this release. You won't have to
click different tabs to find the activity stream, as it will always be displayed. We've moved the other functions to the header to remove the clutter and provide you with a more streamlined view.

More...

4

**SQL Server Support**

We are happy to announce that Crucible 2.6 now supports Microsoft SQL Server 2005 and 2008.

More...

5

**Oracle Support**

We previously announced beta support for the Oracle DBMS in Crucible 2.5. We are happy to announce that this is no longer in beta, and that the Oracle DBMS is officially supported for Crucible 2.6.

More...

6

**Review Creation without Metadata Changes**

Creating a review from a Subversion commit will now exclude metadata-only changes to files. You won’t get pesky `svn mergeinfo` properties cluttering your review screens anymore! We’ve also prevented changesets that are entirely `svnprops` changes (i.e. don’t have any non-metadata changes) from being added to reviews.
Improved Patch Anchoring

We've revamped patch anchoring in this release. All the work has been done under the covers, to improve how a patch anchors to a repository. You should just notice that anchoring patches works better, when creating a review. And if something does go wrong, we've built in better error handling so that you'll know what went wrong.

More...

And Even More Improvements

Visit our issue tracker to see the full list of improvements and bug fixes in FishEye and Crucible for this release.

Release Notices

- **Upgrading from a previous version of Crucible.** Upgrading Crucible should be fairly straightforward. We strongly recommend that you back up Crucible before upgrading. Please refer to the Crucible 2.6 Upgrade Guide for further essential information about your upgrade.

- **Known Issues.** Please check the important technical advisories on the front page of the Knowledge Base for information about any known issues for this release.

Crucible 2.6 Changelog

This page contains information about the Crucible 2.6 minor releases. FishEye license holders should also check the FishEye 2.6 Changelog. See the Crucible 2.6 Release Notes for details of what's new in 2.6.0.

⚠️ Please read the Crucible 2.6 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 2.6.6 to 2.6.7
- From 2.6.5 to 2.6.6
- From 2.6.4 to 2.6.5
- From 2.6.3 to 2.6.4
- From 2.6.2 to 2.6.3
- From 2.6.1 to 2.6.2
- From 2.6.0 to 2.6.1

From 2.6.6 to 2.6.7

31 January 2012
This is a bug fix release. The complete list of issues is below.

### JIRA Issues (1 issues)

<table>
<thead>
<tr>
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<th>Key</th>
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<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
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</table>

From 2.6.5 to 2.6.6

2 September 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (4 issues)

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<th>Key</th>
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<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟢</td>
<td>CRUC-5853</td>
<td>Crucible ToDo gadget links don't work due to extra slashes in the url</td>
<td>Joe Xie [atlassian]</td>
<td>Jay Barra</td>
<td>🟢</td>
<td>Close</td>
<td>Fixed</td>
<td>Aug 01, 2011</td>
<td>Sep 08, 2011</td>
</tr>
</tbody>
</table>
From 2.6.4 to 2.6.5

24 August 2011

This is a FishEye bug fix release. For details, see the FishEye 2.6 Changelog.

### JIRA Issues (0 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
</table>

From 2.6.3 to 2.6.4

22 August 2011

This is a FishEye bug fix release. For details, see the FishEye 2.6 Changelog.

### JIRA Issues (0 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
</table>

From 2.6.2 to 2.6.3

9 August 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (5 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
</table>
From 2.6.1 to 2.6.2

20 July 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (3 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>🟢</td>
</tr>
</tbody>
</table>
## From 2.6.0 to 2.6.1

### 22 June 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (8 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summar y</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
</table>
Crucible 2.6 Upgrade Guide

Below are some important notes on upgrading to Crucible 2.6. For details of the new features and improvements in this release, please read the Crucible 2.6 Release Notes.

On this page:

- Upgrade Notes
  - Crucible 2.6
  - Upgrade Procedure
  - Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

**Crucible 2.6**

- Internet Explorer 7 and Java Platform 5 (JDK/JRE 1.5) no longer supported — As per the End of Support Announcements for Crucible (published previously), we are no longer supporting Internet Explorer 7 and Java Platform 5 (JDK/JRE 1.5) in this release. See Supported Platforms page for the full
list of supported platforms for Crucible.

- **Disabling review creation without metadata** — Crucible 2.6 introduces [review creation without metadata](#). This functionality is enabled by default. If you want to **disable this functionality**, you can do so by starting up Crucible with the following system property:
  
  `-Dcrucible.detect.metadata.revision.changes=false`

For further details, read this FAQ: [How do I force reviews to include SVN property changes?](#)

### Upgrade Procedure

**⚠️ Before you begin**

- Test your upgrades in your test environment before rolling into production.
- Back up your **entire** Crucible instance (see [Backing up and restoring Crucible data](#)), i.e.
  
  - If you are backing up your Crucible instance via the Admin interface, tick all of the 'Include' checkboxes (e.g. plugins, templates, uploads, SQL database, etc).
  - If you are backing up your Crucible instance using the command-line interface, do not use any exclusion options.

If you are already running a version of Crucible, please follow these instructions on [Upgrading to a new version of Crucible](#).

### Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the [Crucible 2.6 Known Issues](#) in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting upgrades](#) in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a [support ticket](#) and one of our support engineers will help you.

### RELATED TOPICS

[Crucible 2.6 Release Notes](#)

### Crucible 2.5 Release Notes

#### 8 February 2011

**With great pleasure, Atlassian presents Crucible 2.5, now with support for Oracle and redesigned Activity Stream.**

**Highlights of this Release:**

- [Oracle Support (beta)](#)
- [Redesigned Activity Stream](#)
- [Improved Header](#)
- [Comment Notification Batching](#)
- [And Even More Improvements](#)

**Responding to your Feedback:**

---

*Created by Atlassian in 2012. Licensed under a [Creative Commons Attribution 2.5 Australia License](#).*
Thank you for all your issues and votes. Keep logging issues to help us keep improving!
Read the release notices for important information about this release.

Highlights of Crucible 2.5

1

Oracle Support (beta)

We have been working very hard on adding support for the Oracle DBMS for Crucible 2.5 as this has been a very popular feature request with more than 115 votes.

We have been using Crucible with Oracle over the past month ourselves, so we believe we are almost there. We would love for you to give Crucible a try on Oracle DBMS and let us know if you run into any problems by creating an issue.

2

Redesigned Activity Stream

We have spent a considerable amount of time improving the FishEye activity stream:

- Cleaner visual design
- Larger avatars
- Improved scanability
- De-cluttering of UI elements, showing actions on hover
- Space-saving condensed mode so you can see more changesets on the same page
Improved Header

Crucible 2.5 tracks locations that you have recently visited, and provides quick and easy access to navigate to these resources. The five most recently viewed projects, reviews, users and repositories (if FishEye is installed) are available from the header drop down links as shown:
Comment Notification Batching

Email notifications from Crucible can be frequent, particularly on reviews with many participants and lots of comments. We won’t say spam, but it can certainly feel “chatty!” Crucible 2.5 remedies this problem with improved batching of emails. All comments are grouped together and sent in a user-specified interval. They’re easier to read and will keep your inbox happy. It works for draft comments and edited comments, too, so fixing a typo will no longer send out multiple notifications!

Example:

There are 2 new comments in the following thread:
Geoff Crain on 02 Feb 2011, 12:01
Is this really how this is supposed to work? You should fix this.
***** New
************************************************************************
***************************
Seb Ruiz on 02 Feb 2011, 13:31
Geoff is right. But youll have to fix it on a separate branch.
************************************************************************
****************************************
****** New
************************************************************************
**********************
Joe Xie on 02 Feb 2011, 13:32
Fixed.. change is here:
http://localhost:6060/crucible/changelog/FE?cs=e962e59bccda
************************************************************************
************************************

And Even More Improvements

- The Universal Plugin Manager
- Improved submit time dialog to JIRA:
Visit our issue tracker to see the full list of improvements and bug fixes in FishEye and Crucible for this release.

Release Notices

Crucible 2.5 Changelog

This page contains information about the Crucible 2.5 minor releases. FishEye license holders should also check the FishEye 2.5 Changelog.

⚠️ Please read the Crucible 2.5 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 2.5.6 to 2.5.7
- From 2.5.5 to 2.5.6
- From 2.5.4 to 2.5.5
- From 2.5.3 to 2.5.4
- From 2.5.2 to 2.5.3
- From 2.5.1 to 2.5.2
- From 2.5.0 to 2.5.1

From 2.5.6 to 2.5.7

22 June 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (6 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>-------</td>
</tr>
</tbody>
</table>

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
<table>
<thead>
<tr>
<th>CRUC-5781</th>
<th>e</th>
<th>on</th>
<th>y</th>
<th>e</th>
<th>on</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-5782</td>
<td>Exception while looking up JIRA issue ends request in error</td>
<td>Close d</td>
<td>Jun 01, 2011</td>
<td>Aug 29, 2011</td>
<td>Tom Davies [Atlassia n]</td>
</tr>
<tr>
<td>CRUC-5780</td>
<td>NPE when trying to link review to JIRA issue causes failure of review creation</td>
<td>Close d</td>
<td>May 31, 2011</td>
<td>Jun 08, 2011</td>
<td>Tom Davies [Atlassia n]</td>
</tr>
<tr>
<td>CRUC-5778</td>
<td>Moving a review between projects fails when the default moderator of the destination project is the same as the current moderator</td>
<td>Close d</td>
<td>May 27, 2011</td>
<td>Jun 19, 2011</td>
<td>Tom Davies [Atlassia n]</td>
</tr>
</tbody>
</table>
### From 2.5.5 to 2.5.6

**24 May 2011**

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (3 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td>![ ]</td>
</tr>
</tbody>
</table>

### From 2.5.4 to 2.5.5

**11 May 2011**

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (7 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
</tbody>
</table>
From 2.5.3 to 2.5.4

11 April 2011

This is a bug fix release. The complete list of issues is below.

| CRUC-5 727 | Pressing 'N' or 'P' to traverse comments from general comment s page causes js error | Adam Ahmed [Atlassian] | Adam Ahmed [Atlassian] |  |  | Close | Fixed | Apr 14, 2011 | Apr 18, 2011 |
### JIRA Issues (7 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRUC-5 715</td>
<td>After migrating to a different database, session factories injected into spring beans still point to the old database</td>
<td>Unassigned</td>
<td>Tom Davies [Atlassian]</td>
<td>7</td>
<td></td>
<td>Closed</td>
<td>Apr 06, 2011</td>
<td>Apr 07, 2011</td>
</tr>
<tr>
<td></td>
<td>CRUC-5 710</td>
<td>Web Resources are loaded twice on pages rendered with some decorator s</td>
<td>Jason Hinch [Atlassian]</td>
<td>Jason Hinch [Atlassian]</td>
<td>2</td>
<td></td>
<td>Closed</td>
<td>Apr 05, 2011</td>
<td>Apr 07, 2011</td>
</tr>
<tr>
<td></td>
<td>CRUC-5 644</td>
<td>RSS Feed option under Tools menu is not displayin</td>
<td>Craig Sharkie [Atlassian]</td>
<td>Felipe Kraemer [Atlassian]</td>
<td>7</td>
<td></td>
<td>Closed</td>
<td>Feb 24, 2011</td>
<td>Apr 08, 2011</td>
</tr>
</tbody>
</table>
From 2.5.2 to 2.5.3

28 March 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (7 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRUC-5 662</td>
<td>Branch Order in branch selector drop down should be sorted better</td>
<td>Seb Ruiz [Atlassian]</td>
<td>Brydie McCoy [Atlassian]</td>
<td></td>
<td>✅ Close</td>
<td>Fixed</td>
<td>Mar 08, 2011</td>
<td>Mar 21, 2011</td>
</tr>
</tbody>
</table>
From 2.5.1 to 2.5.2

8 March 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (21 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
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<td>--------------</td>
</tr>
<tr>
<td><img src="image" alt=" " /></td>
</tr>
<tr>
<td><img src="image" alt=" " /></td>
</tr>
</tbody>
</table>

CRUC-5 436  UI Errors: Problems calling function 'cru:getStyleClass' and similar

CRUC-5 117  Image files (jpg) not completely visible in source tab

CRUC-5 648  Bundle a Lucene optimizer as an offline command

CRUC-5 138  Add an offline command to optimize the indexes

CRUC-4 818  Need to prevent UAL (and dependent) plugins from being disabled.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-5 645</td>
<td>Files that are added/moved should take up the whole width of the pane, even if side by side view is selected</td>
<td>Geoff Crain [Atlassian]</td>
<td>Joe Xie [atlassian]</td>
<td>🔄 Closed</td>
<td>Fixed</td>
<td>Feb 24, 2011</td>
<td>Mar 01, 2011</td>
</tr>
<tr>
<td>CRUC-5 622</td>
<td>Getting the list of projects via the API (either rest-service/projects-v1 or projectService.getAllProjects) fails with a LazyInitializationException</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Anna Buttfield [Atlassian]</td>
<td>Close</td>
<td>Fixed</td>
<td>Feb 15, 2011</td>
<td>Apr 07, 2011</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>CRUC-4 984</td>
<td>&quot;that is unreviewed&quot; filter is broken</td>
<td>Adam Ahmed [Atlassian]</td>
<td>Agnes Ro [Atlassian]</td>
<td>⬇️</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 18, 2010</td>
</tr>
<tr>
<td>CRUC-3 885</td>
<td>No full context when anchorin g patches from CVS</td>
<td>Geoff Crain [Atlassian]</td>
<td>Andrew Myers [Atlassian]</td>
<td>⬇️</td>
<td>Close</td>
<td>Fixed</td>
<td>Aug 06, 2010</td>
</tr>
</tbody>
</table>

From 2.5.0 to 2.5.1
10 February 2011
This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (17 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>![ ]</td>
</tr>
</tbody>
</table>
### CRUC-5581
**UAL webitem link for fisheye configuration links to a page that shows all possible options, even if those options are global and will not apply to the instance being edited.**

<table>
<thead>
<tr>
<th>Status</th>
<th>Close</th>
<th>Fixed</th>
<th>Date Created</th>
<th>Date Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feb 02, 2011</td>
<td>Feb 13, 2011</td>
</tr>
</tbody>
</table>

**Assignee:** Luis Miranda [Atlassian]

**Reporter:** Joe Xie [Atlassian]

---

### CRUC-5574
**Update "refresh cache" links to synch form App Links as well.**

<table>
<thead>
<tr>
<th>Status</th>
<th>Close</th>
<th>Fixed</th>
<th>Date Created</th>
<th>Date Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feb 02, 2011</td>
<td>Feb 15, 2011</td>
</tr>
</tbody>
</table>

**Assignee:** Joe Xie [Atlassian]

**Reporter:** Mark Lassau [Atlassian]

---

### CRUC-5526
**FishEye instance gets re-created on JIRA restart.**

<table>
<thead>
<tr>
<th>Status</th>
<th>Close</th>
<th>Fixed</th>
<th>Date Created</th>
<th>Date Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 30, 2011</td>
<td>Feb 13, 2011</td>
</tr>
</tbody>
</table>

**Assignee:** Joe Xie [Atlassian]

**Reporter:** Luis Miranda [Atlassian]

---

### CRUC-5475
**Create func tests for all search result pages.**

<table>
<thead>
<tr>
<th>Status</th>
<th>Close</th>
<th>Fixed</th>
<th>Date Created</th>
<th>Date Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 21, 2011</td>
<td>Feb 20, 2011</td>
</tr>
</tbody>
</table>

**Assignee:** Nick Pellow [Atlassian]

**Reporter:** Nick Pellow [Atlassian]

---

### CRUC-5
**Add a...**

<table>
<thead>
<tr>
<th>Status</th>
<th>Close</th>
<th>Fixed</th>
<th>Date Created</th>
<th>Date Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jan 18, 2011</td>
<td>Feb 15, 2011</td>
</tr>
</tbody>
</table>

**Assignee:** Joe Xie

**Reporter:** Luis
<table>
<thead>
<tr>
<th>Issue</th>
<th>Title</th>
<th>Description</th>
<th>By</th>
<th>Status</th>
<th>Created</th>
<th>Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-5 183</td>
<td>Extend oauth services to REST resources (such as gadgets)</td>
<td>Joe Xie [atlassian]</td>
<td>Joe Xie [atlassian]</td>
<td>Closed</td>
<td>Dec 13, 2010</td>
<td>Feb 13, 2011</td>
</tr>
<tr>
<td>CRUC-5 156</td>
<td>upgrade tasks to create Application Links for existing legacy links on plugin startup</td>
<td>Joe Xie [atlassian]</td>
<td>Joe Xie [atlassian]</td>
<td>Closed</td>
<td>Dec 12, 2010</td>
<td>Feb 13, 2011</td>
</tr>
</tbody>
</table>

**Crucible 2.5 Upgrade Guide**
Below are some important notes on upgrading to Crucible 2.5. For details of the new features and improvements in this release, please read the Crucible 2.5 Release Notes.

On this page:
- Upgrade Notes
- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

- Crucible 2.5:
  - This is only relevant when Crucible is run in conjunction with FishEye.
  - This release will trigger an automatic upgrade of the metadata index the first time Crucible is started. Crucible is still usable while this task runs in the background, however the FishEye search functionality will not contain all results. A warning will appear in the UI until the upgrade has complete. Please also see How do I avoid long reindex times when I upgrade

Upgrade Procedure

Before you begin
- Test your upgrades in your test environment before rolling into production.
- Back up your entire Crucible instance (see Backing up and restoring Crucible data), i.e.
  - If you are backing up your Crucible instance via the Admin interface, tick all of the 'Include' checkboxes (e.g. plugins, templates, uploads, SQL database, etc).
  - If you are backing up your Crucible instance using the command-line interface, do not use any exclusion options.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- Check for known issues. Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.5 Known Issues in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- Did you encounter a problem during the Crucible upgrade? Please refer to the guide to troubleshooting upgrades in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a support ticket and one of our support engineers will help you.

RELATED TOPICS

Crucible 2.5 Release Notes

Crucible 2.4 Release Notes

20 October 2010

With great pleasure, Atlassian presents the all-inclusive y
et self-sufficient Crucible 2.4.

Highlights of this Release:

- Easier Application Linking
- Native Repository Access
- Starter Licenses
- Adding Changesets to Reviews Simplified
- User Interface Improvements
- Snippets Tweaks
- And Even More Improvements

Responding to your Feedback:

🌟 Over 80 votes satisfied

Thank you for all your issues and votes. Keep logging issues to help us keep improving!

Read the release notices for important information about this release.

Highlights of Crucible 2.4

1

Easier Application Linking

Crucible now includes a brand new version of the Application Links plugin. You can use this plugin to easily link your Crucible instance to other applications, like a JIRA server or another Crucible instance. You can choose between the Trusted Applications protocol, OAuth or basic HTTP authentication. Linking two applications allows you to share information and access one application's functions from within the other. For example, if you linked your Crucible instance with a JIRA server, you could view JIRA issues in your Crucible activity stream or view the reviews associated with an issue/project in JIRA.

![Configure Application Links](image)

More...

2

Native Repository Access

If you are using Crucible without Atlassian's FishEye, you can now connect to your Subversion, Perforce, CVS,
Git, Mercurial or ClearCase repositories seamlessly without using plugins. You will notice a suite of improvements including:

- improved performance for day-to-day operations,
- commits displayed in all activity streams,
- the ability to search and browse for files during reviews, and
- repository administration via the Administration Console.

Upgrading to FishEye is also a breeze, if you choose to migrate to a full FishEye license in the future.

![Dashboard](image)

**More...**

### 3

**Starter Licenses**

Crucible has joined the starter license party! Get started with code review on a full-featured perpetual license at a fraction of the cost. Best of all, all proceeds from our starter licenses go to charity.

![Starter Licenses](image)

**More...**

### 4

**Adding Changesets to Reviews Simplified**

It's even easier to create reviews in this release, as we've simplified the process of adding changesets to reviews. You now only have to worry about which changeset to add to a review, rather than browse all the revisions. Revisions are added as iterations, by default. You can still remove revisions later, if you want.
User Interface Improvements

We're continuing our ongoing work to improve the Crucible user interface. This release includes a brand new Crucible inbox and a redesigned header. We've also improved the toolbars on a number of screens including the dashboard, as well as replaced dropdowns throughout the application with autocomplete controls.
Snippets Tweaks

The popular snippet reviews introduced in Crucible 2.3 have been further improved in this release. We’ve added inline editing of snippet titles as well as syntax highlighting, for existing snippets.

More...

And Even More Improvements

Visit our issue tracker to see the full list of improvements and bug fixes in FishEye and Crucible for this release.
Release Notices

- **Upgrading from a previous version of Crucible.** Upgrading Crucible should be fairly straightforward. **We strongly recommend that you back up Crucible before upgrading.** Please refer to the [Crucible 2.4 Upgrade Guide](#) for further essential information about your upgrade.

- **Known Issues.** Please check the [important technical advisories](#) on the front page of the Knowledge Base for information about any known issues for this release.

Crucible 2.4 Changelog

This page contains information about the Crucible 2.4 minor releases. FishEye license holders should also check the [FishEye 2.4 Changelog](#).

⚠️ Please read the [Crucible 2.4 Upgrade Guide](#) before upgrading to any of the minor releases below.

On this page:

- From 2.4.5 to 2.4.6
- From 2.4.4 to 2.4.5
- From 2.4.3 to 2.4.4
- From 2.4.2 to 2.4.3
- From 2.4.1 to 2.4.2
- From 2.4.0 to 2.4.1

From 2.4.5 to 2.4.6

11 April 2011

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (6 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
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</thead>
</table>
From 2.4.4 to 2.4.5

3 February 2011

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues</th>
<th>8 issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>FE-3172</td>
</tr>
<tr>
<td>Key</td>
<td>CRUC-5737</td>
</tr>
<tr>
<td>Summar y</td>
<td>XSS vulnerability in Crucible's Snippets</td>
</tr>
<tr>
<td>Assignee</td>
<td>Vitaly Osipov [Atlassian]</td>
</tr>
<tr>
<td>Reporter</td>
<td>Andrew Lui [Atlassian]</td>
</tr>
<tr>
<td>Priority</td>
<td>None</td>
</tr>
<tr>
<td>Status</td>
<td>Fixed</td>
</tr>
<tr>
<td>Resoluti on</td>
<td>Fixed</td>
</tr>
<tr>
<td>Created</td>
<td>Apr 07, 2010</td>
</tr>
<tr>
<td>Updated</td>
<td>May 09, 2011</td>
</tr>
</tbody>
</table>

| Type        | CRUC-5737 |
| Key         | CRUC-5736 |
| Summar y    | XSS vulnerability in Crucible Comments Search |
| Assignee    | Vitaly Osipov [Atlassian] |
| Reporter    | Andrew Lui [Atlassian] |
| Priority    | None |
| Status      | Fixed |
| Resoluti on | Fixed |
| Created     | Apr 20, 2011 |
| Updated     | May 15, 2011 |

| Type        | CRUC-5737 |
| Key         | CRUC-5736 |
| Summar y    | XSS vulnerability in Crucible changed et comment |
| Assignee    | Vitaly Osipov [Atlassian] |
| Reporter    | Andrew Lui [Atlassian] |
| Priority    | None |
| Status      | Fixed |
| Resoluti on | Fixed |
| Created     | Apr 20, 2011 |
| Updated     | May 30, 2011 |
## JIRA Issues (36 issues)

<table>
<thead>
<tr>
<th>Type</th>
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<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>📌</td>
<td>CRUC-5362</td>
<td>Check UCM root dirs against include rules to avoid needless lshistory calls</td>
<td>Conor MacNeill [Atlassian]</td>
<td>Conor MacNeill [Atlassian]</td>
<td>🕒</td>
<td>★★★★☆</td>
<td>Fixed</td>
<td>Jan 11, 2011</td>
<td>Feb 01, 2011</td>
</tr>
</tbody>
</table>

### From 2.4.3 to 2.4.4

**11 January 2011**

This is a bug fix release. The complete list of issues is below.

The release includes fixes for a number of security issues. Please see the [Security Advisory](#) for more information.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Title</th>
<th>Description</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Closed</th>
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</thead>
<tbody>
<tr>
<td>FE-3355</td>
<td>ClearCase: indexing stops when a branch is defined but never used in a VOB.</td>
<td>Michael Heemskeerk [Atlassian]</td>
<td>Michael Heemskeerk [Atlassian]</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Jan 03, 2011</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>FE-3248</td>
<td>ClearCase UCM activity support is brittle (detection of modified activities etc.)</td>
<td>Unassigned</td>
<td>Michael Heemskeerk [Atlassian]</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Aug 27, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>FE-3187</td>
<td>Base ClearCase: File revisions from excluded branches are not picked up when merged to an included branch</td>
<td>Michael Heemskeerk [Atlassian]</td>
<td>None</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Sep 16, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3176</td>
<td>Copy and</td>
<td>Jason</td>
<td>None</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 30,</td>
<td>May 09,</td>
</tr>
<tr>
<td>#</td>
<td>Issue</td>
<td>Description</td>
<td>Assignee</td>
<td>Status</td>
<td>Fixed</td>
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<tr>
<td>FE-3171</td>
<td>Repositories created with . in the name cannot be loaded in Admin Console</td>
<td>Michael Studman  [Atlassian]</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Nov 12, 2010</td>
<td>May 09, 2011</td>
<td></td>
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<tr>
<td>FE-3170</td>
<td>ClearCase: ancestor relations are not created for CC file revisions</td>
<td>Michael Heemskeer [Atlassian]</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 14, 2010</td>
<td>May 09, 2011</td>
<td></td>
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<tr>
<td>FE-3138</td>
<td>When using git, iterating over the manifest (for tags or branch heads) is too slow</td>
<td>Michael Heemskeer [Atlassian]</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Dec 08, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3086</td>
<td>ClearCase: checkins of different users may be grouped into the same changeset</td>
<td>Unassigned</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Nov 03, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3079</td>
<td>Fisheye Incompatible with Git 1.7.3 on Windows</td>
<td>Jason Hinch [Atlassian]</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Nov 29, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-1883</td>
<td>Option to disable</td>
<td>Unassigned Ryan Chee</td>
<td>Unassigned</td>
<td>Closed</td>
<td>Fixed</td>
<td>Jul 03, 2009</td>
<td>Mar 03, 2011</td>
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<tr>
<td>CRUC-4951</td>
<td>changeset view: when a file has a really long name/path the options overflow covering content</td>
<td>Craig Sharkie [Atlassian]</td>
<td>Brydie McCoy [Atlassian]</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 15, 2010</td>
<td>Dec 13, 2010</td>
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<tr>
<td>CRUC-4904</td>
<td>Trusted apps jira integration docs are missing paths critical to sub-task creation</td>
<td>Unassigned</td>
<td>Anna Lyons [Atlassian]</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 11, 2010</td>
<td>Nov 30, 2010</td>
<td></td>
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<tr>
<td>CRUC-4871</td>
<td>Can't click on</td>
<td>Craig Sharkie</td>
<td>Tim Pettersen</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 10, 2010</td>
<td>Dec 13, 2010</td>
<td></td>
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</tbody>
</table>
### From 2.4.2 to 2.4.3

**26 November 2010**

This is a bug fix release. The complete list of issues is below.

<table>
<thead>
<tr>
<th>JIRA Issues (26 issues)</th>
</tr>
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<td>CRUC-5 008</td>
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<td>CRUC-5 003</td>
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<tr>
<td>CRUC-4 998</td>
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<td>CRUC-4 996</td>
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<td>CRUC-4 985</td>
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<td>CRUC-4 983</td>
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<tr>
<td>Issue</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td><strong>Title</strong></td>
</tr>
<tr>
<td><strong>Actions</strong></td>
</tr>
<tr>
<td>CRUC-4-872</td>
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<tr>
<td>CRUC-4-842</td>
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<tr>
<td>CRUC-4-680</td>
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<tr>
<td>CRUC-4-488</td>
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<tr>
<td>CRUC-4-231</td>
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</tbody>
</table>
From 2.4.1 to 2.4.2

11 November 2010

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (64 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>📧</td>
<td>FE-3417</td>
<td>Show the branch a changes et was commited to in watch emails</td>
<td>Seb Ruiz [Atlassian]</td>
<td>Seb Ruiz [Atlassian]</td>
<td>🟢</td>
<td>🔄 Closed</td>
<td></td>
<td>Oct 25, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>📧</td>
<td>FE-3393</td>
<td>Sections of the code are unreadable in side-by-side diff in IE7</td>
<td>Unassigned</td>
<td>None</td>
<td>🟢</td>
<td>🔄 Closed</td>
<td></td>
<td>Jun 28, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>📧</td>
<td>FE-3392</td>
<td>Javascript error occurs when clicking a folder when you have never selected a branch in the branch filter</td>
<td>Unassigned</td>
<td>None</td>
<td>🟢</td>
<td>🔄 Closed</td>
<td></td>
<td>Nov 05, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>📧</td>
<td>FE-3391</td>
<td>Watch email contains broken</td>
<td>Unassigned</td>
<td>None</td>
<td>🟢</td>
<td>🔄 Closed</td>
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<td>Jul 14, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>FE-3390</td>
<td>Search results data sorting incorrect</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Oct 15, 2010</td>
<td>May 09, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3388</td>
<td>&quot;IllegalStateException: Indexer is stopped&quot; on 2.4 Upgrade</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Oct 21, 2010</td>
<td>May 09, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3387</td>
<td>ClearCase: 'Add' and 'Test Connection' buttons in admin don't do anything when both 'VOB To Include' and 'Include Pattern' and/or 'Exclude Pattern' is specified</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Oct 25, 2010</td>
<td>May 09, 2011</td>
<td></td>
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<tr>
<td>FE-3385</td>
<td>Committer name bolds when you mouseover it somewhere else</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Oct 13, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3379</td>
<td>svn does not fully support the branch selector</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Oct 26, 2010</td>
<td>May 09, 2011</td>
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<td>FE-3378</td>
<td>plain text</td>
<td>Unassigned</td>
<td>None</td>
<td>Close</td>
<td>Fixed</td>
<td>Nov 02, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3377</td>
<td>Quick file links in activity stream disappear if browser isn't wide enough</td>
<td>Unassigned</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 20, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3375</td>
<td>ClearCaseRepositoryCache.getChangeSet throws IllegalStateException when the changeset does not exist. The cache for other SCM types don't</td>
<td>Unassigned</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 21, 2010</td>
<td>May 09, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3369</td>
<td>Path segment issues in Include/Exclude cannot be parsed in 2.4.0</td>
<td>Unassigned</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 24, 2010</td>
<td>May 09, 2011</td>
<td></td>
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<tr>
<td>FE-3365</td>
<td>Too many objects are kept</td>
<td>Unassigned</td>
<td>None</td>
<td>Closed</td>
<td>Fixed</td>
<td>Nov 04, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>#</td>
<td>Number</td>
<td>Title</td>
<td>Status</td>
<td>Resolution</td>
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<tr>
<td>🗒️</td>
<td>FE-3364</td>
<td>Activity tab for all repositories is gone in 2.4</td>
<td>Unassigned</td>
<td>None</td>
<td>Oct 27, 2010</td>
<td>May 09, 2011</td>
<td></td>
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<tr>
<td>🗒️</td>
<td>FE-3360</td>
<td>GWT admin for ClearCase is slow because cleartool commands are being executed too often and too early</td>
<td>Michael Studman [Atlassian]</td>
<td>Michael Heemskeek [Atlassian]</td>
<td>Sep 27, 2010</td>
<td>May 09, 2011</td>
<td></td>
<td></td>
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<tr>
<td>🗒️</td>
<td>FE-3346</td>
<td>Reload of admin page causes CPU max out</td>
<td>Unassigned</td>
<td>Michael Heemskeek [Atlassian]</td>
<td>Sep 27, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>🗒️</td>
<td>FE-3188</td>
<td>Can’t view projects in FishEye only mode</td>
<td>Michael Heemskeek [Atlassian]</td>
<td>None</td>
<td>Aug 09, 2010</td>
<td>May 09, 2011</td>
<td></td>
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</tbody>
</table>

in memory during changeset indexing, resulting in an OutOfMemoryException
<table>
<thead>
<tr>
<th>#</th>
<th>Issue ID</th>
<th>Description</th>
<th>Assignee</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Resolved</th>
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<tbody>
<tr>
<td>FE-3179</td>
<td>ClearCase: CPU usage has increased significantly between 2.3.6 and 2.4-M6</td>
<td>Michael Heemskerk [Atlassian]</td>
<td>None</td>
<td>🔄 Close</td>
<td>Fixed</td>
<td>Oct 04, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>FE-3173</td>
<td>ClearCase indexing misses revisions or indexes revisions multiple times if the server clocks of the ClearCase server and the FishEye servers are out of synch or in different timezones</td>
<td>Michael Heemskerk [Atlassian]</td>
<td>None</td>
<td>🔄 Close</td>
<td>Fixed</td>
<td>Oct 26, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3148</td>
<td>Change the logging level of valid 'error' messages</td>
<td>Michael Heemskerk [Atlassian]</td>
<td>None</td>
<td>🔄 Close</td>
<td>Fixed</td>
<td>Jun 02, 2010</td>
<td>May 09, 2011</td>
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<tr>
<td>FE-3145</td>
<td>Excludes cause indexing to fail for</td>
<td>Unassigned</td>
<td>None</td>
<td>🔄 Close</td>
<td>Fixed</td>
<td>Nov 01, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td></td>
<td>FE-3124</td>
<td>Git: Use of file content-hash to map to file revision is insufficient</td>
<td>Michael Heemske rk [Atlassian]</td>
<td>None</td>
<td>Close d</td>
<td>Fixed</td>
<td>Oct 18, 2010</td>
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<tr>
<td></td>
<td>FE-3119</td>
<td>ClearCase: specifying include or exclude rules for projects and vobs results in an invalid config.xml file, causing errors on restart</td>
<td>Michael Heemske rk [Atlassian]</td>
<td>None</td>
<td>Close d</td>
<td>Fixed</td>
<td>Oct 24, 2010</td>
</tr>
<tr>
<td></td>
<td>FE-3106</td>
<td>ClearCase: FE maxes out CPU when the connection to the ClearCase server is lost</td>
<td>Michael Heemske rk [Atlassian]</td>
<td>None</td>
<td>Close d</td>
<td>Fixed</td>
<td>Sep 21, 2010</td>
</tr>
<tr>
<td>CRUC</td>
<td>Type</td>
<td>Description</td>
<td>Assignee 1</td>
<td>Assignee 2</td>
<td>Status</td>
<td>Fixed Date 1</td>
<td>Fixed Date 2</td>
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<tr>
<td>CRUC-4716</td>
<td>JIRA</td>
<td>PermaID field is</td>
<td>Nick Pellow</td>
<td>Nick Pellow</td>
<td>Closed</td>
<td>Oct 29, 2010</td>
<td>Nov 09, 2010</td>
</tr>
<tr>
<td>CRUC-4710</td>
<td>addGeneralComment fails when called outside a HTTP request, e.g. a plugin commit listener</td>
<td>Joe Xie [atlassian]</td>
<td>Nick Pellow [atlassian]</td>
<td>d</td>
<td>Fixed</td>
<td>Oct 27, 2010</td>
<td>Nov 14, 2010</td>
</tr>
</tbody>
</table>
**From 2.4.0 to 2.4.1**

**27 October 2010**

This is a bug fix release. The complete list of issues is below.

### JIRA Issues (20 issues)

<table>
<thead>
<tr>
<th>Type</th>
<th>Key</th>
<th>Summary</th>
<th>Assignee</th>
<th>Reporter</th>
<th>Priority</th>
<th>Status</th>
<th>Resolution</th>
<th>Created</th>
<th>Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>FE-3386</td>
<td>NullPointerException when indexing perforce repositories on upgrade to 2.4</td>
<td>Unassigned</td>
<td>None</td>
<td></td>
<td>❌ Closed</td>
<td>Fixed</td>
<td>Oct 21, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>![ ]</td>
<td>FE-3367</td>
<td>NPE when scanning git repo trying to read commit date:</td>
<td>Unassigned</td>
<td>None</td>
<td></td>
<td>❌ Closed</td>
<td>Fixed</td>
<td>Aug 31, 2010</td>
<td>May 09, 2011</td>
</tr>
<tr>
<td>Issue</td>
<td>Description</td>
<td>Reporter</td>
<td>Assignee</td>
<td>Status</td>
<td>Resolution</td>
<td>Created</td>
<td>Resolved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FE-3063</td>
<td>Perforce branch specification doesn't work</td>
<td>Matthew Watson</td>
<td>None</td>
<td>🔄 Close</td>
<td>Fixed</td>
<td>Nov 19, 2008</td>
<td>May 09, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ticket</td>
<td>Description</td>
<td>Assignee 1</td>
<td>Assignee 2</td>
<td>Status</td>
<td>Fixed</td>
<td>Created</td>
<td>Updated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
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<td>------------</td>
<td>--------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRUC-4673</td>
<td>fix api breakage from 2.3.x to 2.4.0</td>
<td>Joe Xie [atlassian]</td>
<td>Joe Xie [atlassian]</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 24, 2010</td>
<td>Jan 05, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRUC-4649</td>
<td>Whenever viewing the users tab, if the user has an email address for their login name, Crucible errors out</td>
<td>Jason Hinch [Atlassian]</td>
<td>Dylan Hansen [Atlassian]</td>
<td>Closed</td>
<td>Fixed</td>
<td>Oct 20, 2010</td>
<td>Nov 15, 2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Crucible 2.4 Upgrade Guide

Below are some important notes on upgrading to Crucible 2.4. For details of the new features and improvements in this release, please read the Crucible 2.4 Release Notes.

On this page:
- Upgrade Notes
- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

- **Crucible 2.4:**
  - If you are using a Mercurial or Git repository with Crucible, it will be automatically re-indexed when you upgrade to Crucible 2.4. This is because we have upgraded the database schema for these SCMs.
  - If you are using a lightSCM plugin to connect to a repository (i.e. you are not using FishEye), we recommend that you disable the lightSCM plugin in favour of the new native repository access functionality that is bundled with this Crucible release. Atlassian's lightSCM plugins (not lightSCM itself) are being deprecated in this release. Please see What happens if I decide to stop using FishEye with Crucible? for more information.

- **Crucible 2.4.1:**
  - If you use FishEye/Crucible with Perforce and previously upgraded to FishEye/Crucible 2.4.0, you must reindex all of your Perforce repositories after upgrading to FishEye/Crucible 2.4.1. Note, FishEye/Crucible will not automatically reindex your Perforce repositories, you will need to start the reindex manually.

- **Crucible 2.4.2:**
  - If you are using a ClearCase repository with Crucible, it will be automatically re-indexed when you upgrade to Crucible 2.4. This is because we have upgraded the database schema for this SCM.

Upgrade Procedure

⚠️ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.4 Known Issues in the Crucible Knowledge Base.
and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting](#) in the Crucible Knowledge Base.
- If you encounter a problem during the upgrade and cannot solve it, please create a [support ticket](#) and one of our support engineers will help you.

**RELATED TOPICS**

- [Crucible 2.4 Release Notes](#)
- **Crucible 2.3 Release Notes**

**26 May 2010**

>i For details on minor releases since Crucible 2.3, see the [Crucible Changelog](#).

**Atlassian presents Crucible 2.3**

**Crucible 2.3** is focused on the all-new lightweight Snippet Reviews and the innovative Review Coverage report, along with an enhanced installation wizard.

**Highlights of this release:**

- [Snippet Reviews](#)
- [Changeset Discussions](#)
- [Mercurial SCM Alpha](#)
- [Review Coverage report](#)
- [Revamped Installation Process](#)
- [Gadgets](#)
- Plus numerous improvements and bug fixes

Thank you for your interest in Crucible 2.3.

See the documentation on [Upgrading to this version](#).

**Installing Crucible 2.3**

[Download Crucible 2.3](#) now. If upgrading from a previous version, please follow the [Upgrade Guide](#).

**Highlights of Crucible 2.3**

1

**Snippet Reviews**

Snippet Reviews are a new feature of Crucible, providing ultra-lightweight, ad-hoc code reviews with zero configuration. Atlassian is listening, and some customers asked for reviews with no ceremony, permissions or red tape. Snippet Reviews are instant to create, require no SCM repository and can be reviewed by anyone.

*Screenshot: Crucible Snippet Review*
Changeset Discussions

When using Crucible with FishEye, you can now leave comments on a changeset. Your colleagues will be able to read your comments and respond to them, creating a threaded discussion.

Screenshot: A Changeset Discussion

See the documentation for more.
3

Mercurial SCM Alpha

When using Crucible with FishEye, the Mercurial SCM can now be used. This release adds alpha support for Mercurial repositories. Atlassian is providing early access to the functionality for our customers; there are still a few kinks to be worked out, but it provides full access to FishEye.

Screenshot: A Mercurial Repository in Action

See the documentation for more details.

4

Review Coverage report

When using Crucible with FishEye, a new Review Coverage Report is now available. A new paradigm that shows you the percentage of code that has been peer-reviewed, this report lets you easily see what parts of your codebase haven't had many eyes scanning them for a sanity check. This forms another kind of quality check for your software projects, along with unit testing and code coverage analysis.

Screenshot: Crucible Review Coverage Report
Revamped Installation Process

Crucible's installation process has been given a thorough revision and a visual facelift. It's now smoother, faster and provides a better experience.

Screenshot: Crucible's New Installation Screen

See the documentation for more.
Gadgets

Crucible 2.3 includes a cluster of handy gadgets. These allow you to see Crucible data in other locations such as the JIRA or Confluence Dashboards.

These gadgets include the following:

- **To Do Gadget**
  This gadget is a list of Crucible to-do items including reviews to do, comments to read or reviews to summarise.

- **Hassle Gadget**
  This gadget shows you who you are still waiting on, in other words which reviewers haven't completed your reviews.

- **Overdue Reviews Gadget**
  This gadget shows you reviews that are yet to be completed in the project, across all authors. This is useful for managers or team leads.

- **Review Coverage Gadget**
  This gadget shows you information from the innovative Review Coverage Report, showing how much of your codebase has been subjected to code review.

These gadgets are published by default, and can be configured to appear on your JIRA or Confluence Dashboards.

**Screenshot: The Hassle Gadget**

<table>
<thead>
<tr>
<th>reviewer</th>
<th>ID</th>
<th>Name</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR-1</td>
<td>FE-1234</td>
<td>fix Widget stamping</td>
<td>in 6 days</td>
</tr>
<tr>
<td>CR-1</td>
<td>FE-1234</td>
<td>fix Widget stamping</td>
<td>in 6 days</td>
</tr>
<tr>
<td>CR-4</td>
<td>FE-4567</td>
<td>Disentangle states</td>
<td>in 10 hours</td>
</tr>
</tbody>
</table>

See the [documentation](#) for more.

7

**Plus numerous improvements and bug fixes**

Visit our issue tracker to see the full list of improvements and bug fixes.

**Crucible 2.3 Changelog**

This page contains information about the Crucible 2.3 minor releases. FishEye license holders should also check the [FishEye 2.3 Changelog](#).
On this page:

- From 2.3.7 to 2.3.8
- From 2.3.6 to 2.3.7
- From 2.3.5 to 2.3.6
- From 2.3.4 to 2.3.5
- From 2.3.3 to 2.3.4
- From 2.3.2 to 2.3.3
- From 2.3.1 to 2.3.2
- From 2.3.0 to 2.3.1

From 2.3.7 to 2.3.8

12 January 2011

This is a bug fix release that only addresses security issues. Please see the Security Advisory for more information.

The complete list of issues follows below.

<table>
<thead>
<tr>
<th>JIRA Issues (7 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
</tr>
<tr>
<td>CRUC-5311</td>
</tr>
<tr>
<td>CRUC-5309</td>
</tr>
<tr>
<td>CRUC-5313</td>
</tr>
<tr>
<td>CRUC-5345</td>
</tr>
<tr>
<td>CRUC-5312</td>
</tr>
<tr>
<td>CRUC-5307</td>
</tr>
<tr>
<td>CRUC-5308</td>
</tr>
</tbody>
</table>

From 2.3.6 to 2.3.7

20 October 2010

This release is to support the FishEye 2.3.7 release only. FishEye 2.3.7 fixes a FishEye security vulnerability. If you are using Crucible without FishEye, you are not affected by this security vulnerability.

From 2.3.5 to 2.3.6

25 August 2010
This is a bug fix release. The complete list of issues follows below.

### JIRA Issues (5 issues)

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-3887</td>
<td>Everytime I view my Crucible project, I get a stack trace</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-856</td>
<td>Improper handling of uploaded patch files with lines that have leading dashes</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-3874</td>
<td>Clanger of a notification cleanup bug</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-3758</td>
<td>Doesn’t check for trailing spaces when adding new users with external authentication</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-4052</td>
<td>add a faster selector for creating an inline comment</td>
<td></td>
<td>Closed</td>
</tr>
</tbody>
</table>

From 2.3.4 to 2.3.5

**26 July 2010**

This is a bug fix release. The complete list of issues follows below.

### JIRA Issues (1 issues)

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-3832</td>
<td>NPE when reloading a review with a new file with comments</td>
<td></td>
<td>Closed</td>
</tr>
</tbody>
</table>

From 2.3.3 to 2.3.4

**13 July 2010**

This is a bug fix release. The complete list of issues follows below.

### JIRA Issues (5 issues)

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUC-3706</td>
<td>Exception while processing batch emails kills all emails</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-3700</td>
<td>you can break everything by deleting all the revisions of an frx with an frx level comment</td>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td>CRUC-3740</td>
<td>ClassCastException in com.atlassian.xwork12.Xwork12VersionSupport.extractAction</td>
<td></td>
<td>Closed</td>
</tr>
</tbody>
</table>
CRUC-3645 | Error after reloading review to pick up new comments | | Closed
CRUC-3701 | Light SCM
CrucibleRevisions must be fully populated when added to a review | | Closed

From 2.3.2 to 2.3.3
16th June 2010
This is a bug fix release that addresses security issues. Please see the Security Advisory for more information.

<table>
<thead>
<tr>
<th>JIRA Issues (3 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
</tr>
<tr>
<td>CRUC-3289</td>
</tr>
<tr>
<td>CRUC-3635</td>
</tr>
<tr>
<td>CRUC-3630</td>
</tr>
</tbody>
</table>

From 2.3.1 to 2.3.2
3rd June 2010
This is a bug fix release. The complete list of issues follows below.

<table>
<thead>
<tr>
<th>JIRA Issues (7 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
</tr>
<tr>
<td>CRUC-3610</td>
</tr>
<tr>
<td>CRUC-3547</td>
</tr>
<tr>
<td>CRUC-3553</td>
</tr>
<tr>
<td>CRUC-3580</td>
</tr>
<tr>
<td>CRUC-3499</td>
</tr>
<tr>
<td>CRUC-3568</td>
</tr>
<tr>
<td>CRUC-3581</td>
</tr>
</tbody>
</table>

From 2.3.0 to 2.3.1
27th May 2010

This is a bug fix release, addressing an issue that occurs when upgrading Crucible with an expired license.

Complete list of issues follows below.

<table>
<thead>
<tr>
<th>JIRA Issues (3 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
</tr>
<tr>
<td>CRUC-3595</td>
</tr>
<tr>
<td>CRUC-3596</td>
</tr>
<tr>
<td>CRUC-3584</td>
</tr>
<tr>
<td>Priority</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Crucible 2.3 Upgrade Guide

Below are some important notes on upgrading to Crucible 2.3. For details of the new features and improvements in this release, please read the Crucible 2.3 Release Notes and Crucible 2.3 Changelog.

On this page:

- Upgrade Notes
- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

- If you use FishEye with ClearCase and you upgrade to FishEye/Crucible 2.3.4 or later from a version prior to 2.3.4, FishEye/Crucible will reindex all ClearCase repositories.

Upgrade Procedure

⚠️ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- Check for known issues. Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.3 Known Issues in the Crucible Knowledge Base.
and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting upgrades](#) in the Crucible Knowledge Base.
- If you encounter a problem during the upgrade and cannot solve it, please create a [support ticket](#) and one of our support engineers will help you.

**RELATED TOPICS**

[Crucible 2.3 Release Notes](#)
[Crucible 2.3 Changelog](#)

**Crucible 2.2 Release Notes**

⚠️ Crucible 2.9 has now been released. Read the [Release Notes](#).

**18 February 2010**

ℹ️ For details on minor releases since Crucible 2.2, see the [Crucible Changelog](#).

**Atlassian presents Crucible 2.2**

**Crucible 2.2** is focused on improving the user experience, with its innovative pre-commit support, wizard-like review creation and JIRA time tracking integration.

**Highlights of this release:**

- [Smart Pre-Commit (Patch) Support](#)
- ‘No Moderator’ Reviews
- [Wizard-Like Review Creation](#)
- [Integrated Timetracking Between Crucible and JIRA](#)
- [Edit Mode for Reviews](#)
- Plus numerous improvements and bug fixes

Thank you for your interest in Crucible 2.2.

See the documentation on [Upgrading to this version](#).

<table>
<thead>
<tr>
<th><strong>Installing Crucible 2.2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Download Crucible 2.2 now. If upgrading from a previous version, please follow the <a href="#">Upgrade Guide</a>.</td>
</tr>
</tbody>
</table>

**Highlights of Crucible 2.2**

1

- **Smart Pre-Commit (Patch) Support**

  Previously, when viewing a patch in FishEye you could only see three lines of code around your code diffs (thr
Lines of context. Sometimes, three lines is not enough. From Crucible 2.2, when creating a review from a patch file you can anchor it to revisions in your FishEye repository. FishEye will then automatically fetch more lines of code from the repository (beyond the default of three) and add them to the diff view. This gives reviewers direct access to the file's history and enables full context diffs, improving the review experience.

Screenshot: Crucible Patch Anchoring

See the documentation for more.

2

'No Moderator' Reviews

Crucible is a lightweight code review tool, so the Crucible developers are always working to make it lighter. In Crucible 2.2, they've removed the requirement for a Moderator, or a single person as the judge on each review. Moderators are a part of the 1970's Fagan Inspection doctrine for code reviews (which Crucible fully supports), but may not be right for your code development processes in 2010. Now, reviews can be freely opened, closed re-opened, summarised, joined, quit or abandoned by any of the participants involved. These free-form reviews especially suit Agile or self-organising teams.

Screenshot: 'No Moderator' Reviews
Wizard-Like Review Creation

Creating a review now follows a simple, wizard-like process where you make your content selections from a series of relevant sub-menus, allowing you to jump back and forth between steps, and edit any details right up until the review is launched.

Screenshot: Wizard-Like Review Creation

See the documentation for more.
Integrated Timetracking Between Crucible and JIRA

Crucible already has time tracking as an inline feature, but now you can also submit time worked in Crucible to your JIRA issues. When you hover your mouse over the time tracking control in the Crucible top navigation bar a special window appears that allows you to instantly fire off time estimates to JIRA, with a single click.

Screenshot: Crucible Time Tracking

See the documentation for more.

Edit Mode for Reviews

With the new Edit Mode feature, you can now easily remove content from a review that has been started. You simply click the 'Edit Review' button in the left nav to launch Edit Mode. In Edit mode, you can quickly click red cross icons to remove files from the review. A single click returns you to regular Crucible functions, so you can more easily tune the content inside your reviews. Another button opens a dialog for rapidly adding more content to the review.

Screenshot: Launching Edit Mode
Plus numerous improvements and bug fixes

Visit our issue tracker to see the full list of improvements and bug fixes.

Crucible 2.2 Changelog

This page contains information about the Crucible 2.2 minor releases. FishEye license holders should also check the FishEye 2.2 Changelog.

Please read the Crucible 2.2 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 2.2.1 to 2.2.3
- From 2.2.0 to 2.2.1

From 2.2.1 to 2.2.3

4th May 2010

This release addresses critical security issues. Atlassian strongly recommends that you upgrade to the latest version. Please read the Security Advisory for details.

This is a security and bug fix release, addressing the issues listed below. See the Security Advisory for specific
information about the fixes and patches which are available.

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

Crucible version 2.2.2 was an internal release.

From 2.2.0 to 2.2.1

9th March 2010

This is a bugfix release, addressing the following issues:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

Crucible 2.2 Upgrade Guide

Below are some important notes on upgrading to Crucible 2.2. For details of the new features and improvements in this release, please read the Crucible 2.2 Release Notes and Crucible 2.2 Changelog.

On this page:

- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Procedure

⚠️ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.2 Known Issues in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to troubleshooting upgrades in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a support ticket and one of our support engineers will help you.
Atlassian presents Crucible 2.1

Crucible 2.1 adds Wiki Markup rendering, a new review history dialog, new review blockers report, and runs significantly faster.

Highlights of this release:

- Wiki Markup Rendering
- Progress Tracking
- Usability and Productivity Updates
- Streamlined JIRA Integration
- Review Time Tracking
- Review History Dialog
- “Blockers” Reports
- Threaded Comments
- Plugin Developer Tools
- Plus numerous improvements and bug fixes

Thank you for your interest in Crucible 2.1.

See the documentation on Upgrading to this version.

<table>
<thead>
<tr>
<th>Installing Crucible 2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can now download Crucible 2.1 from here. If upgrading from a previous version, please follow the Upgrade Guide.</td>
</tr>
</tbody>
</table>

Highlights of Crucible 2.1

1

Wiki Markup Rendering

The Wiki Markup language that's used in Confluence and JIRA can now be rendered by Crucible. Review comments, review descriptions and commit messages will now be shown rendering Wiki Markup code, allowing insertion of images, diagrams and text formatting. See the documentation for more.

Screenshot: Wiki Markup Rendering in Crucible

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
2

Progress Tracking

While reviewing, Crucible will now automatically remember which files you've read and show this as a percentage in the Review Details panel. You no longer have to explicitly click a checkbox to mark a file as reviewed. If you've only skimmed the page and plan to revisit it, you can select that a file's status be left unread.

Screenshot: Crucible Progress Tracking

3

Usability and Productivity Updates

- **User Interface Update**
  The user interface has also been improved, consolidating items from the left navigation bar into the centre, freeing up space for the directory tree and other menus.

- **Floating File Mastheads**
  When viewing a review, you now have a floating masthead that contains information about the file in context. This gives you access to more meta-data about the file, you'll also have more control of the file and how it interacts with its peers. Additionally, more relevant data can be kept in focus.

- **Inline Editing for Review Details**
  Sometimes you just want to tweak a review's title, objective or summary – you can now edit these inline. The title will give you a cue that it's editable by turning yellow when you hover over it. Click it to start editing and save your changes. The other areas have an edit link for you to use, come with a preview and are Wiki Markup ready as you'd expect.

- **Default Review Objectives**
  You can pre-populate reviews with default text so that you can avoid manually entering the same objectives for many reviews, where the goals for each one are similar.

- **JIRA auto-linker**
  When you create a review now, the title and objectives are scanned, looking for a JIRA reference. And when we find one, that JIRA is automatically associated with the Review.

- **Performance**
Performance was also enhanced. The team focused on the main review page, the users page and FishEye pages that display large changesets.

- **Simplified navigation**
  In reviews, you can now choose to navigate at comment, defect or file level. You can easily jump between these items using a new, universal navigation control.

**Screenshot: Usability and Interface Updates**

**Screenshot: Simplified Review Navigation**

**Streamlined JIRA Integration**

When you create a review, the title and objectives are now parsed in the hunt for a JIRA reference. When we find one, that JIRA issue is automatically associated with the review. And if we've been a little over eager in sourcing a reference, simply click to remove it. Creating JIRA issues from within Crucible has also been enhanced, with an 'Assignee' drop-down being added:

**Screenshot: Streamlined JIRA Integration in Crucible**
5 Review Time Tracking

Crucible now has time tracking for review participants. When you've got a review open in your browser, Crucible will track the time you have spent on that particular review. You can also click to change the amount of time recorded. Totals are displayed in the Review Details panel.

Screenshot: Crucible Time Tracking

6 Review History Dialog

The new History Dialog differentiates old and new states of your interactions with a review. The result is that you get richer information about those interactions and more control. You can sort the information by date, action or number. This information can also be displayed in the new timeline mode.

Additionally, you can get access to the entire Review history through the CSV download link in the upper right corner, allowing for easy data import into a spreadsheet or other application.

Screenshot: Crucible Review History Dialog
"Blockers" Reports
Every now and then, someone in the team can become a bottleneck in the review process. The new review blockers report helps by identifying team members that have a lot of reviews waiting in their inbox. Additionally, the JIRA blockers report accepts a JIRA feed, which you can find under the 'View' drop-down on your JIRA Issue Navigator page. Add the URL to the report and you get an insight to which issues and participants you need to follow up. Both these reports are plugins that come bundled with Crucible.

**Screenshot: Crucible Review Blockers Report**

<table>
<thead>
<tr>
<th>User</th>
<th>To Complete</th>
<th>To Summarize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna Butfield</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>Nicolas Venegas</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Tim Peitersen</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Matt Quail</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Rosie Jameson</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Edwin Wong</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

**Screenshot: Crucible JIRA Blockers Report**

**Threaded Comments**
Crucible comments now support fully threaded discussions. Threads can also be collapsed.

**Screenshot: Crucible Threaded Comments**

9

**Plugin Developer Tools**

This release adds [Atlassian Plugin SDK](https://developer.atlassian.com/) support to Crucible and FishEye, simplifying build management for plugin developers. The developer documentation for FishEye and Crucible has been co-located into a new [documentation space](https://developer.atlassian.com/) as well.

**Screenshot: Plugin Developer Tools for Crucible**

Plus numerous improvements and bug fixes

[Visit our issue tracker](https://developer.atlassian.com/) to see the full list of improvements and bug fixes.

**Crucible 2.1 Changelog**
This page contains information about the Crucible 2.1 minor releases. FishEye license holders should also check the FishEye 2.1 Changelog.

⚠️ Please read the Crucible 2.1 Upgrade Guide before upgrading to any of the minor releases below.

On this page:
- From 2.1.3 to 2.1.4
- From 2.1.2 to 2.1.3
- From 2.1.1 to 2.1.2
- From 2.1.0 to 2.1.1

From 2.1.3 to 2.1.4

27th January 2010

This is a bugfix release, addressing the following issues:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.1.2 to 2.1.3

13th January 2010

This is a bugfix release, addressing a number of ClearCase bugs and performance problems.

The following issues are addressed by this release:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.1.1 to 2.1.2

19th November 2009

This is a bugfix release.

The following issues are addressed by this release:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.1.0 to 2.1.1
17th November 2009

This is a bugfix release.

The following issues are addressed by this release:

**Error rendering macro 'jiraissues': Unable to determine if sort should be enabled.**

**Crucible 2.1 Upgrade Guide**

Below are some important notes on upgrading to **Crucible 2.1**. For details of the new features and improvements in this release, please read the **Crucible 2.1 Release Notes** and **Crucible 2.1 Changelog**.

On this page:

- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

**Upgrade Procedure**

⚠️ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on **Upgrading to a new version of Crucible**.

**Checking for Known Issues and Troubleshooting the Crucible Upgrade**

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the **Crucible 2.1 Known Issues** in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to **troubleshooting upgrades** in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a **support ticket** and one of our support engineers will help you.

**RELATED TOPICS**

- **Crucible 2.1 Release Notes**
- **Crucible 2.1 Changelog**

**Crucible 2.0 Release Notes**

⚠️ Crucible 2.9 has now been released. Read the **Release Notes**.

30 June 2009

**Atlassian presents Crucible 2.0**
Crucible 2.0 adds the all-new Iterative Reviews feature, enhanced JIRA integration and a brand new user interface.

Highlights of this release:

- Iterative Reviews
- New User Interface
- Read/Unread comments
- Enhanced JIRA Integration
- Keyboard Shortcuts
- Review Activity
- External Databases and Backup
- Plus numerous improvements and bug fixes

Thank you for your interest in Crucible 2.0.

See the documentation on Upgrading to this version.

### Installing Crucible 2.0

You can now download the Crucible 2.0 from [here](#). If upgrading from a previous version, please follow the Upgrade Guide.

### Highlights of Crucible 2.0

#### Iterative Reviews

Crucible now allows you to review several revisions of a file within one review, seamlessly switching between them. Comments are linked and relative to a specific revision. This allows you to review every change that has occurred on a code file within a given period of time and hence visualise its evolution in the context of the review.

*Screenshot: Iterative Reviews*
New User Interface

Taking on board wide-ranging feedback from customers, the Crucible team has completely revamped the user interface of the product, adding more views on your work and allowing you to access controls from multiple locations and allowing for different work styles. Files in review are arranged in a tree for easy navigation. New viewing modes for reviews support full screen view, side-by-side diff view and single or multiple file views.

Screenshot: Reviewed files
Read/Unread comments

As you move around a review, Crucible keeps track of which comments you’ve seen and marks them as read. When you see a comment that you want to come back to, check the 'leave as unread' box so you don't forget it. Unlike an email thread, new comments are rarely at the bottom. That's why its especially useful to filter and highlight just the new comments when you come back to a review that's underway.

Screenshot: Unread comments

Enhanced JIRA Integration

Crucible now has better JIRA integration, allowing you to see regular JIRA updates in your Crucible dashboard and create JIRA sub-tasks inline, without leaving the Crucible interface. You can still click on issue names to visit the JIRA instance they belong to, also. See instructions for JIRA configuration.

Screenshot: Enhanced JIRA Integration
Keyboard Shortcuts

Crucible now has keyboard shortcuts for navigating around your reviews efficiently. No more repetitive strain injury from that mouse wheel.

Screenshot: Keyboard shortcuts
Review Activity

All the activity that happens in Crucible is available as an activity stream. Streams can be accessed per project as well as a personal stream that includes the activity from people, projects, reviews and even comments you favorite or are involved in.

Screenshot: Project review activity stream

External Databases and Backup

Crucible now supports MySQL and Postgress in addition to the embeded HSQL database. Backup and restore capabilities have also been greatly enhanced.

Plus numerous improvements and bug fixes

Visit our issue tracker to see the full list of improvements and bug fixes.

Crucible 2.0 Changelog

This page contains information about the Crucible 2.0 minor releases. FishEye license holders should also check the FishEye 2.0 Changelog.
On this page:

- From 2.0.5 to 2.0.6
- From 2.0.4 to 2.0.5
- From 2.0.3 to 2.0.4
- From 2.0.2 to 2.0.3
- From 2.0.1 to 2.0.2
- From 2.0 to 2.0.1
- From 2.0 Beta3 to 2.0
- From 2.0 Beta2 to 2.0 Beta3
- From 1.6.6 to 2.0 Beta2

From 2.0.5 to 2.0.6

8th October 2009

This is a bugfix release.

This release fixes a bug that affected Crucible-only installations.

From 2.0.4 to 2.0.5

6th October 2009

This is a bugfix and improvement release.

The following issues are addressed by this release:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 2.0.3 to 2.0.4

8th September 2009

This is a bugfix and improvement release.

- Crucible Light SCM Issues with Deleted Files: See the JIRA issue for details.

The following issues are addressed by this release:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 2.0.2 to 2.0.3

18th August 2009

This is a bugfix release which includes the following issues:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.
From 2.0.1 to 2.0.2

24th July 2009

This is a bugfix release which includes the following issues:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.0 to 2.0.1

14th July 2009

This is a bugfix release which includes the following issues:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.0 Beta3 to 2.0

30th June 2009

Full list of issues in this release:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 2.0 Beta2 to 2.0 Beta3

5th June 2009

Full list of issues in this release:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

From 1.6.6 to 2.0 Beta2

Full list of issues in this release:

**Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.**

Crucible 2.0 Upgrade Guide

Below are some important notes on upgrading to **Crucible 2.0**. For details of the new features and improvements in this release, please read the **Crucible 2.0 Release Notes** and **Crucible 2.0 Changelog**.

On this page:

- Upgrade Notes
  - Supported Browsers
  - MySQL Database Issues
• Problems with Crucible Freezing Unexpectedly
• Upgrade Procedure
• Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

Supported Browsers

Crucible 2.0 now supports the following browsers:

• Safari 3 (or later)
• FireFox 3 (or later)
• Internet Explorer 7 (or later)

⚠ Please note, Internet Explorer 6 is no longer supported.

MySQL Database Issues

When migrating your database to MySQL, you may encounter problems with very long comments in MySQL.

Problems with Crucible Freezing Unexpectedly

A known issue may cause Crucible 2.0 to freeze unexpectedly.

Upgrade Procedure

⚠ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

• Check for known issues. Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the Crucible 2.0 Known Issues in the Crucible Knowledge Base and follow the instructions to apply any necessary patches if necessary.

• Did you encounter a problem during the Crucible upgrade? Please refer to the guide to troubleshooting upgrades in the Crucible Knowledge Base.

• If you encounter a problem during the upgrade and cannot solve it, please create a support ticket and one of our support engineers will help you.

RELATED TOPICS

Crucible 2.0 Release Notes
Crucible 2.0 Changelog

Crucible 2.0 Beta Release Notes

Created by Atlassian in 2012. Licensed under a Creative Commons Attribution 2.5 Australia License.
Crucible 2.9 has now been released. Read the Release Notes.

Crucible 2.0 Beta is a public development release leading up to Crucible 2.0. For all production use and testing of Crucible, please use the latest official release.

This page refers to an updated version of the Beta (Beta 3). We strongly recommend all beta users upgrade to this release.

Do not use in production.
Beta releases should not be used in production environments.

Please also take note of the following information:

- Beta releases are not safe — Beta releases are snapshots of the ongoing Crucible 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, may change or be removed before the next full release.
  - FireFox 3 and Safari are the only browsers supported.

5 June 2009

Atlassian presents Crucible 2.0 Beta

Crucible 2.0 adds the all-new Iterative Reviews feature, enhanced JIRA integration and a brand new user interface.

Highlights of this release:

- Iterative Reviews
- Enhanced JIRA Integration
- Stars Feature
- Unique Avatars
- People View
- New User Interface
- Plus numerous improvements and bug fixes

Thank you for your interest in Crucible 2.0 Beta.

You can now download the Crucible 2.0 Beta from here. See the documentation on Upgrading to this version.

Highlights of Crucible 2.0 Beta
Iterative Reviews

Crucible now allows you to review several revisions of a file within one review, seamlessly switching between them. Comments are persistent and relative to a specific revision. This allows you to review every change that has occurred on a code file within a given period of time and hence visualise its evolution in the context of the review.

Screenshot: Iterative Reviews

Enhanced JIRA Integration

Crucible now has better JIRA integration, allowing you to see regular JIRA updates in your Crucible dashboard and create JIRA sub-tasks inline, without leaving the Crucible interface. You can still click on issue names to visit the JIRA instance they belong to, also. See instructions for JIRA configuration.

Screenshot: Enhanced JIRA Integration
3

Stars Feature

Crucible now allows you to create a list of "Starred" favourite items that includes reviews, JIRA issues, colleagues and more. These favourites can be viewed together in aggregate as a stream of active work you are doing.

Screenshot: Stars

4

Unique Avatars

Crucible will now generate a unique "Charlie" image that will be used as your avatar in the system. These avatars create a new visual linkage to the personalities working on various items and are used as a visual shorthand to show user involvement on items in menu screens and dialogs.

Screenshot: Unique Avatars
People View

You can now view detailed charts and activity statistics people who use your Crucible instance. You can compare number of reviews complete and other metrics charted over time.

Screenshot: People View
New User Interface

Taking on board wide-ranging feedback from customers, the Crucible team has completely revamped the user interface of the product, adding more views on your work and allowing you to access controls from multiple locations and allowing for different work styles. Files in review are arranged in a tree for easy navigation. New viewing modes for reviews support full screen view, side-by-side diff view and single or multiple file views.

Screenshot: New User Interface

7

Plus numerous improvements and bug fixes

Visit our issue tracker to see to see the full list of improvements and bug fixes between Beta 2 and Beta 3. We strongly recommend all beta users upgrade to the latest beta release.

See the Beta Reviewer's Guide for a list of known issues and guidance on the beta experience.

Crucible 2.0 Beta Upgrade Notes

Crucible 2.0 Beta is a public development release leading up to Crucible 2.0. For all production use and testing of Crucible, please use the latest official release.

Do not use in production.
Beta releases should not be used in production environments.
Please also take note of the following information:

- Beta releases are not safe — Beta releases are snapshots of the ongoing Crucible 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.
  - There will be an upgrade path from the 2.0 Beta to the final release.

This page contains instructions on how to upgrade your Crucible instance to the Crucible 2.0 Beta.

Read about how your Crucible installation works with FishEye.

Before you Start

- Before upgrading you should always read the Release Notes 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

Method 1 - Using a FISHEYE_INST Directory

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

1. Shutdown your existing fisheye server
2. Make a backup of your FISHEYE_INST directory
3. Extract the new Crucible version to a directory.
4. Leave your FISHEYE_INST environment variable set to its existing location.
5. Start Crucible from the new installation.

Read more about the FISHEYE_INST environment variable.

Method 2 - Without a FISHEYE_INST Directory

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.

Method 3 - Without a FISHEYE_INST Directory, but would like to set one up

1. Shut down the old FishEye instance if it is running.
2. Set up the FISHEYE_INST environment variable, then create the FISHEYE_INST directory on your filesystem.
3. Copy the /OLD_FISHEYE/config.xml to /FISHEYE_INST.
4. Copy the /OLD_FISHEYE/var directory to /FISHEYE_INST.
5. Download Crucible.
6. Extract the new Crucible archive into a directory such as /NEW_FISHEYE/.
7. Start Crucible from the new installation by running NEW_FISHEYE/bin/run.sh (Use run.bat on Windows).
8. Follow the initial configuration steps outlined below.
9. If your configuration is not automatically picked up and you cannot see your existing repositories, check your Administration > Sys-Info page, where you will see information about FISHEYE_HOME and FISHEYE_INST. Check your FISHEYE_INST is pointing to the right directory.

Crucible 2.0 Beta Reviewer’s Guide

Crucible 2.0 Beta is a public development release leading up to Crucible 2.0. For all production use and testing of Crucible, please use the latest official release.

⚠️ Do not use in production.
Beta releases should not be used in production environments.

⚠️ Please also take note of the following information:

- Beta releases are not safe — Beta releases are snapshots of the ongoing Crucible 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.
  - FireFox 3 and Safari are the only browsers supported.

Thank you for your interest in the Crucible 2.0 Beta. This page contains some direction on what is ready for testing, what the known issues are and how you can submit feedback.

Known Issues

This is a list of known issues with the Crucible 2.0 Beta; please do not raise requests related to these as solutions for them are already under way.

- REST API updates are not fully functional; you can't access various features from the IDE Connectors or other technology that depends on REST. The features affected include marking comments as read, Iterative Reviews and Activity Streams. Also, JSON support is alpha at this stage.
- JIRA sub-tasks integration will not work on JIRA instances where the JIRA General Setting "allow unassigned issues" is set to 'OFF'.
- Sorting functionality is only partially functional; when you are trying to sort content — such as review lists on the reviews page, content on the dashboard and project dashboard — the sorting of content by name, date and so on only applies to the current page of results. To mitigate this, narrow down your searches so that you only have one page of results. This will be revised to have server-side sorting.
- You can't create reviews with files or changesets from multiple repositories.

Features Ready For Testing

The following features in the Crucible 2.0 Beta are relatively hardened and using these thoroughly will help contribute to the final product.

- Iterative Reviews; create a review on multiple revisions of a changeset, to see the history and evolution of the code in-line.
- Activity Streams; see review activity, code commits and JIRA activity (when properly configured) on the Dashboard.
- External Database Support; You can now store Crucible's internal data in a MySQL or PostgreSQL database, as an alternative to the built-in HSQLDB.
Crucible can assist you in updating reviews by suggesting changesets that are likely related to your reviews.

Reviews can now have a Due Date. Reviews that are overdue will show up in red on the reviewer's dashboards to minimise the chance of reviews getting stale.

Stars; add colleagues, reviews and files to your favourites list, then view updates related to them as a feed.

Charlietars: the automatically generated Crucible avatars should work smoothly. Also, you can sign up to Globally Recognised Avatars (http://www.gravatar.com) to upload a profile image and use that instead of the Charlie image.

Scheduled Backups; you can now easily set Crucible to backup data periodically using a simple calendar function in the user interface.

Submitting feedback

To submit feedback on the Crucible 2.0 Beta, please use the Crucible Forums.

JIRA Integration in Crucible 2.0 Beta

Crucible 2.0 Beta is a public development release leading up to Crucible 2.0. For all production use and testing of Crucible, please use the latest official release.

Do not use in production.
Beta releases should not be used in production environments.

⚠️ Please also take note of the following information:
- Beta releases are not safe — Beta releases are snapshots of the ongoing Crucible 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.

This page contains instructions for setting up JIRA integration in Crucible.

💡 JIRA is Atlassian’s issue tracking product, which can be used to manage projects and associated work.

⚠️ Before you begin: Ensure that you configure your JIRA instance to enable sub-tasks, enable unassigned issues and allow Remote API access. The instructions on this page have been tested with JIRA 3.13.4.

On this page:

- Opening the Administration Screen for JIRA Integration
- Adding a New JIRA Server
  - Obtaining the Subtask Type ID
  - Obtaining the Subtask Resolution ID and Subtask Resolution Action ID
- Editing Default JIRA Server Mappings
- Operations on Existing Servers
  - Edit settings for an existing JIRA server
  - Edit mappings for an existing JIRA server
  - Delete an existing JIRA server

JIRA issues can be viewed in the main Dashboard view in Crucible. This requires you to enter details on the required JIRA server(s) via the Crucible administration screens.

Opening the Administration Screen for JIRA Integration
To set up JIRA integration, open the Administration screen and then click `JIRA Servers` under the `Global Settings` sub-menu on the left navigation bar. The `View JIRA Servers` administration page opens.

**Screenshot: The View JIRA Servers Page**

![View JIRA Servers Page](image)

On the View JIRA Servers page, you can carry out a number of operations as listed on this page.

**Adding a New JIRA Server**

To add a new JIRA server from the View JIRA Servers page, click `Add JIRA Server`.

The `Add JIRA Server` page opens.

**Screenshot: The Add JIRA Server Page**

![Add JIRA Server Page](image)

A number of fields and options must be filled out or selected on this page. See the table below for information on each field.

<table>
<thead>
<tr>
<th>Option</th>
<th>Type</th>
<th>Description</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Text Field</td>
<td>A descriptive name for the JIRA server.</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Once you've filled out the necessary fields, click 'Test' to ensure that your details are correct. If you have a positive message return from the test, click 'Save'.

**Obtaining the Subtask Type ID**

This value is required (along with the Subtask Resolution ID and Subtask Resolution Action ID) to enable
creating issues from a Crucible comment. This is the subtask type that will be created when you create a JIRA subtask in Crucible.

To obtain this value, carry out the following steps.

1. Enable sub-tasks on your JIRA instance from the ‘JIRA Administration’ > ‘Sub-Tasks’ page. See the JIRA documentation for details on this step.
2. Return to the FishEye Administration screen and then click ‘JIRA Servers’ under the ‘Global Settings’ sub-menu on the left navigation bar. Click ‘Edit’ next to the JIRA server you have configured.
3. Your JIRA server’s basic details should appear. Click ‘Test’ once again. The field for Subtask Type ID will change to a drop-down menu, showing the available subtask types. Choose the correct one.
4. Save your Crucible configuration settings.

Screenshot: Obtaining the Subtask Type ID

Obtaining the Subtask Resolution ID and Subtask Resolution Action ID

These values are required (along with the Subtask Type ID) to enable creating issues from a Crucible comment.

To obtain these values, carry out the following steps.

1. Open your JIRA instance and go to ‘Administration’ > ‘Workflows’. The ‘Workflows’ screen opens. By default, the ‘JIRA’ workflow is shown on screen in a table.
2. Click the ‘Steps’ link in the far right table cell. The ‘View Workflow Steps — JIRA’ page opens.
3. The ‘Subtask Resolution Action ID’ is in the ‘Open’ row, under the ‘Transitions’ column. Look at the link in that cell named ‘Resolve Issue’. The ID number is shown in brackets next to that heading ‘Resolve Issue’ (shown in the screenshot below as 5).
4. Save your Crucible configuration settings.
5. The ‘Subtask Resolution ID’ is the ‘Resolved ID’ on this page. The ID number is shown in brackets next to the heading ‘Resolved’ (shown in the screenshot below as ‘4’). Note it down and enter it into the Crucible.
configuration screen.

6. Save your Crucible configuration settings.

**Screenshot: Obtaining the Subtask Resolution ID & Subtask Resolution Action ID**

**Editing Default JIRA Server Mappings**

This setting enables the Crucible feature that shows JIRA information in a dynamic window when you hover the mouse over a JIRA issue key in Crucible. It will also turn every issue key into a hyperlink to that issue in Crucible.

To enable this feature, click ‘Edit Default JIRA Server Mappings’ from the View JIRA Servers page. The ‘Map JIRA Project Default’ page opens.

**Screenshot: The Default JIRA Server Mappings Page**
On this page, select the FishEye repositories or Crucible Projects that you wish to associate with all the JIRA servers you have configured for use in Crucible. You can click 'add all' to quickly include them all in this category. You can remove individual items by clicking the small 'X' marks.

Once you've finished, click 'Save'.

⚠️ You should disable any existing Crucible linkers you have set up for JIRA, as they will override this feature and prevent the dynamic dialog box from appearing when you mouse over an issue.

**Operations on Existing Servers**

Once you have configured an existing JIRA server, there are three main operations you can carry out on it: 'Edit', 'Mappings' and 'Delete'. These options appear on the far right of the screen.

**Screenshot: Operations in the JIRA Servers Page**

**Edit settings for an existing JIRA server**

When you click 'Edit', you can adjust any of the general settings you configured when you first added the server.

**Edit mappings for an existing JIRA server**

When you click 'Mappings', a page is loaded that is almost identical to the 'Default Mapping' screen, but allows you to choose mappings only for that specific JIRA server.

**Delete an existing JIRA server**

Clicking 'Delete' will remove the server from the list.

**Crucible 1.6 Release Notes**

⚠️ Crucible 2.9 has now been released. Read the [Release Notes](https://confluence.atlassian.com/display/DEV/Crucible+2.9+Release+Notes).
23 September 2008

Atlassian presents Crucible 1.6

Crucible release 1.6 makes it easier to review content that is not in FishEye. Furthermore, Crucible 1.6 can be deployed without FishEye for the first time. Through Crucible's new 'Light SCM' plugins, you can include content in reviews that are not associated with FishEye or even a source control repository. For example, you can review pages directly from Confluence, files on any file system connected to the machine FishEye is running on, and Subversion repositories not connected to FishEye. Crucible now has better support for uploading files for pre-commit review, in addition to the existing support for patches.

Highlights of this release:

- Support for Non-FishEye Repositories
- Confluence Page Reviews
- Shared File System Repositories
- Enhanced Pre-commit Reviews & Image Support
- Multiple Admin Users
- Expanded API
- Plus numerous improvements and bug fixes

Upgrading to Crucible 1.6

You can now download Crucible from here. If upgrading from a previous version, please follow the Upgrade Guide.

Highlights of Crucible 1.6

1. Support for Non-FishEye Repositories

Crucible can now be deployed as a stand-alone application for the first time. With Crucible 1.6, you no longer need a FishEye license or even a source-control repository. Crucible's new Light SCM plugin infrastructure already supports Confluence, server file systems, and Subversion repository types. We will be adding Git and ClearCase in the near future. The Light SCM interface is public and the shipped plugins are open source. As a result, you can extend these plugins or even write your own — great news for plugin developers.

2. Confluence Page Reviews

Crucible 1.6 allows you to select Atlassian Confluence as a source of material for reviews. In this way, you can use Crucible to easily review the Wiki Markup of pages created in Confluence. Read more.

Screenshot: Confluence Page Reviews in Crucible
Shared File System Repositories

You can create a 'repository' for a local or remote directory on the server file system. Teams that are managing documents through a shared file system instead of a source control system can still benefit from peer reviews. Read more.

Screenshot: Crucible Reviews on the File System

Enhanced Pre-commit Reviews & Image Support

In addition to Crucible's patch support, 1.6 enables any file to be uploaded for review. The new upload functionality enables two files to be uploaded and compared in the review window, with diff highlighting. Read more.

Crucible now supports before and after inline image previews.

Screenshot: Crucible Review of Uploaded Files
Multiple Admin Users

Crucible now allows the Administrator to grant other users administration privileges. Admin Users can be individually assigned or given privileges through local or remote directory groups. Read more.

Expanded API

The Crucible API now allows programmable review creation, along with a host of other additions. Read more.

Plus numerous improvements and bug fixes

Error rendering macro 'jiraissues': Unable to determine if sort should be enabled.

Crucible 1.6 Changelog

This page contains information about the Crucible 1.6 minor releases. FishEye license holders should also check the FishEye 1.6 Changelog.

⚠️ Please read the Crucible 1.6 Upgrade Guide before upgrading to any of the minor releases below.
On this page:

- From 1.6.5.a to 1.6.6
- From 1.6.4 to 1.6.5.a
- From 1.6.3 to 1.6.4
- From 1.6.2.1 to 1.6.3
- From 1.6.2 to 1.6.2.1
- From 1.6.1 to 1.6.2
- From 1.6.0 to 1.6.1

From 1.6.5.a to 1.6.6

10 February 2009

This release updates the supporting libraries for Crucible plugins. This change enables the use of the new Git Crucible plugin for performing code reviews against a Git repository.

The Git plugin is not currently bundled with Crucible but may be downloaded from the Atlassian Maven repository here: https://maven.atlassian.com/browse/com.atlassian.crucible.plugins/crucible-git-scm-plugin/1.0

The Git plugin should be considered an early access release. It allows reviews to be performed against a local Git repository clone. Note that the plugin does not update the cloned repository automatically. For more information on the Git plugin, please see the documentation.

We are very interested in any feedback users have on the Git Crucible plugin. Please post feedback in the Crucible forums.

Full list of issues fixed in this release:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 1.6.4 to 1.6.5.a

22 December 2008

This release contains a number of improvements and bug fixes.

Full list of issues fixed in this release:

<table>
<thead>
<tr>
<th>JIRA Issues (6 issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key</strong></td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>CRUC-947</td>
</tr>
<tr>
<td>CRUC-938</td>
</tr>
<tr>
<td>CRUC-928</td>
</tr>
<tr>
<td>CRUC-886</td>
</tr>
<tr>
<td>CRUC-867</td>
</tr>
</tbody>
</table>
From 1.6.3 to 1.6.4

20 November 2008

This release contains bug fixes and minor improvements, and includes the new plugin points developed for Atlas Camp 2008.

Full list of issues fixed in this release:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 1.6.2.1 to 1.6.3

5 November 2008

This release rolls together several improvements and bug fixes.

- Auto-save draft comments.
- Performance improvements when using Light SCM repositories.
- Bundle a Perforce Light SCM implementation.
- Various REST API improvements, including Conditional-Get support, improved error handling and revised review searching, which now allows any criteria to be omitted.
- JSON serialization has been added to the REST API, allowing the use of JSON in REST API calls. This feature is in an experimental state at present. Please report any issues discovered.

Please be aware of the upgrade notes regarding Light SCM repositories (this does not impact FishEye repositories):

- The configuration storage for the bundled File-system, Confluence and Subversion Light SCM plugins changed. Once you have upgraded to 1.6.3 you will need to re-add those repositories. Please read the Upgrade Notes in the Crucible 1.6 Upgrade Guide.
- The Light SCM plugin API was changed in this release. Light SCM plugins compiled against the old API will not work in this release of Crucible.

Full list of issues fixed in this release:

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 1.6.2 to 1.6.2.1

24 October 2008

This release fixes a problem in 1.6.2 when running Crucible on Windows. Due to a file-lock issue, the upgrade script in 1.6.2 could not start.

- CRUC-781 Upgrade from 1.6 to 1.6.2 fails for windows machines.

From 1.6.1 to 1.6.2
21 October 2008

This release fixes a bug in the way Crucible stores review data. This bug was introduced in Crucible 1.6.0. We strongly recommend all 1.6.0, 1.6.0-beta and 1.6.1 users immediately upgrade to this release.

If this bug occurs in your Crucible instance, you will find that review data created after that point will be corrupt. If you find that is the case please contact Crucible support for assistance.

- CRUC-743 Switch from CACHED tables mode back to memory table.

From 1.6.0 to 1.6.1

24 September 2008

This is a bug fix release.

- Crowd 1.3 users will need to upgrade to Crowd 1.4.4 or later due to an incompatibility with this version of Crucible.
- CRUC-673 NPE when viewing a review.
- CRUC-674 NPE when closing a review.

Crucible 1.6 Upgrade Guide

Below are some important notes on upgrading to Crucible 1.6. For details of the new features and improvements in this release, please read the Crucible 1.6 Release Notes and Crucible 1.6 Changelog.

On this page:

- Upgrade Notes
  - Crucible 1.6.3 Upgrade Notes
- Upgrade Procedure
  - Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Notes

Crucible 1.6.3 Upgrade Notes

- The configuration storage for the bundled File-system, Confluence and Subversion Light SCM plugins changed. Please follow the procedure below.
- The Light SCM plugin API was changed in this release. Light SCM plugins compiled against the old API will not work in this release of Crucible.

Crucible 1.6.3 Upgrade Procedure:
Due to a configuration change, you will need to delete and add your LightSCM repositories again:

1. Before you shut down Crucible, take a note of your Light SCM configuration. You can view this configuration in the 'Repository List' Administration page, in the 'LightSVN', 'Confluence' and 'File System' sections.
2. Follow the general instructions on upgrading Crucible.
3. While Crucible is shut down, delete the confluence, svn and filesystem config files in FISHEYE_IN
   ST/var/plugins/user.
4. Once Crucible has been restarted, add the Light SCM repositories from step 1 back in again.

Upgrade Procedure
Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.

Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the [Crucible Knowledge Base](http://confluence.atlassian.com/display/KB) for known issues and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting upgrades](http://confluence.atlassian.com/display/KB) in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a [support ticket](http://confluence.atlassian.com/display/KB) and one of our support engineers will help you.

**RELATED TOPICS**

- [Crucible 1.6 Release Notes](http://confluence.atlassian.com/display/KB/1.6+Release+Notes)
- [Crucible 1.6 Changelog](http://confluence.atlassian.com/display/KB/1.6+Changelog)

**Crucible 1.5 Release Notes**

- Crucible 2.9 has now been released. Read the [Release Notes](http://confluence.atlassian.com/display/KB/2.9+Release+Notes).

14 April 2008

**Atlassian presents Crucible 1.5**

**Crucible release 1.5** brings new enhancements that make your code review activities quicker and easier. The all-new per-project page consolidates the display of work done on a particular goal or product, while filtered search for defects and comments provides rapid access to Crucible content that you need to see, now.

**Highlights of this release:**

- [Project Dashboard](http://confluence.atlassian.com/display/KB/Project+Dashboard)
- [Filtered comments & defects search, with statistical summary](http://confluence.atlassian.com/display/KB/Filtered+comments+%26+defects+search%2c+with+statistical+summary)
- [Customisable email templates](http://confluence.atlassian.com/display/KB/Customisable+email+templates)
- [Improvements to Crucible Plugin API beta](http://confluence.atlassian.com/display/KB/Improvements+to+Crucible+Plugin+API+beta)
- Plus numerous improvements and bug-fixes

[Download latest version](http://confluence.atlassian.com/display/KB/Download+latest+version)
Highlights of Crucible 1.5

1: Project Dashboard

Crucible 1.5 introduces the Project Dashboard, which allows you to see open reviews that belong to a given project, presented with additional project-related data and graphs.

Screenshot: Crucible Project Dashboard

2: Filtered comments & defects search, with statistical summary

Defects and comments are now searchable, easing the difficulty of finding a particular piece of work or revision (and its relevant comments). These search results now also show a very useful statistical summary. Also, a new defect metrics report is available.

Screenshot: Crucible Defect Metrics Report
Customisable email templates

You can now customise the content and appearance of email notifications that get sent to Crucible users. For example you can append a legal disclaimer, alter the subject line or provide custom header text for all messages.

Improvements to Crucible Plugin API beta

Now with REST support and the ability to upload patches, the Crucible Plugin API beta is for Crucible integrators who want to extend Crucible to interoperate with their enterprise infrastructure or processes.

Plus numerous improvements and bug-fixes

Crucible 1.5 Changelog

This page contains information about the Crucible 1.5 minor releases. FishEye license holders should also check the FishEye 1.5 Changelog.

⚠️ Please read the Crucible 1.5 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 1.5.3 to 1.5.4
- From 1.5.2 to 1.5.3
- From 1.5.1 to 1.5.2
- From 1.5.0 to 1.5.1

From 1.5.3 to 1.5.4

1 August 2008

This release contains minor improvements and bug fixes.

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.
Crucible 1.5 Upgrade Guide

Below are some important notes on upgrading to Crucible 1.5. For details of the new features and improvements in this release, please read the Crucible 1.5 Release Notes and the Crucible 1.5 Changelog.

On this page:

- Upgrade Procedure
- Checking for Known Issues and Troubleshooting the Crucible Upgrade

Upgrade Procedure

⚠️ Upgrade a test environment first

As always, please test your upgrades in your test environment before rolling into production.

If you are already running a version of Crucible, please follow these instructions on Upgrading to a new version of Crucible.
Checking for Known Issues and Troubleshooting the Crucible Upgrade

If something is not working correctly after you have completed the steps above to upgrade your Crucible installation, please check for known Crucible issues and try troubleshooting your upgrade as described below:

- **Check for known issues.** Sometimes we find out about a problem with the latest version of Crucible after we have released the software. In such cases we publish information about the known issues in the Crucible Knowledge Base. Please check the [Crucible Knowledge Base](#) for known issues and follow the instructions to apply any necessary patches if necessary.

- **Did you encounter a problem during the Crucible upgrade?** Please refer to the guide to [troubleshooting upgrades](#) in the Crucible Knowledge Base.

- If you encounter a problem during the upgrade and cannot solve it, please create a [support ticket](#) and one of our support engineers will help you.

## RELATED TOPICS

- [Crucible 1.5 Release Notes](#)
- [Crucible 1.5 Changelog](#)

## Crucible 1.2 Release Notes

⚠️ Crucible 2.9 has now been released. Read the [Release Notes](#).

### December 5, 2007

The Atlassian Crucible team is delighted to present Crucible 1.2.

**Crucible release 1.2** brings you a host of popular new features. You can now group your reviews into projects (similar to [JIRA](#) projects) and authorise your users via project permission schemes.

New user management screens make the administrator's job a lot easier. The new built-in integration with Atlassian [Crowd](#) extends your authentication and authorisation capabilities. You can now include users and groups from one or more Crowd directories, and provide single sign-on (SSO) across Atlassian products plus any other applications that support SSO.

Crucible's integration with [JIRA](#) and [FishEye](#) is now closer than ever before. Read the details below.

### Highlights of this release:

- [Reviews grouped into projects](#)
- [Customisable permission schemes](#)
- [Plugin API](#)
- [Enhancements to user management](#)
- [JIRA integration](#)
- [Crucible 1.2 includes FishEye 1.4](#)
- [Plus over 20 improvements and bug-fixes](#)

### Responding to your feedback:

🌟 8 new feature requests/improvements implemented
🌟 9 votes satisfied
Upgrading to Crucible 1.2

You can now download Crucible from [here](http://jira.atlassian.com/browse/CRUC). If upgrading from a previous version, please follow the Upgrade Guide.

Highlights of Crucible 1.2

1

**Reviews grouped into projects**

- Crucible now supports [projects](http://jira.atlassian.com) - every review will belong to a project.
- Each project has a unique key (prefix), modelled on JIRA keys.
- You can add your own projects via the new administration screens.
- You can specify review defaults per project, such as the default users for each role and a default repository.
- And you can restrict the users/groups who can perform a particular role, e.g. only team leaders can be moderators.
- Each project has its own permission scheme (see below).

2

**Customisable permission schemes**
A **permission scheme** is a set of actions which a user can perform (e.g. create a review, approve a review, etc).

- Each project can have its own custom permission scheme — or you can use the same scheme for multiple projects.
- The permission scheme for a review is determined by the review's project.

![Permission Scheme Table](image)

### 3 Plugin API

- A new plugin Crucible programming interface (API), in **beta** for this release, supports the following functionality:
  - Create or modify reviews and comments.
  - Add files, patches etc to reviews.
  - Invoke state transitions.
  - Add custom servlet handlers.
- More [information](#).

### 4 Enhancements to user management

In Crucible 1.1.2, we introduced support for public signup (self-registration). Now in Crucible 1.2:

- Administrator can make the email address for **self-signups** optional.
- Improved user interface makes user administration easier.
- **Groups** are supported.
- Read the [FishEye documentation](#).

---

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JIRA integration

The new version 1.2 of the FishEye-for-JIRA plugin includes some useful improvements:

- new 'FishEye' tab for JIRA issues and projects
- improved ability to create a Crucible review from the 'FishEye' tab within a JIRA issue — just click the Crucible icon.

Crucible 1.2 includes FishEye 1.4

... and provides closer integration than ever before.

- FishEye screens include links to existing Crucible reviews. So you can see which files/changesets have been reviewed.
- EyeQL allows you to search for Crucible data. For example, you can search for files that have not yet been reviewed.
- Crucible now has built-in Crowd/SSO support.
- See the FishEye 1.4 Release Notes.

Plus over 20 improvements and bug-fixes

This page contains information about the Crucible 1.2 minor releases.

Please read the Crucible 1.2 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 1.2.2 to 1.2.3
- From 1.2.1 to 1.2.2
- From 1.2 to 1.2.1

From 1.2.2 to 1.2.3

7 February 2008

This release contains bug fixes (including those in from FishEye 1.4.3).
sort should be enabled.

From 1.2.1 to 1.2.2

This release contains some minor improvements and bug fixes.

- Trusted Application Support
  FishEye/Crucible now allows you to set up trusted communications with other Atlassian applications. At this point, the JIRA FishEye plugin supports Trusted Applications. The JIRA FishEye plugin can request information from FishEye on behalf of the currently logged-in user, and FishEye will not ask the user to log in again or to supply a password. Previously FishEye/Crucible would have used a single 'system' account to determine permissions. Now, FishEye/Crucible can apply the correct permission settings for the logged-in user.

- Hyphens are now allowed in project key names.

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

From 1.2 to 1.2.1

This is a small bug-fix release.

Error rendering macro 'jiraissues' : Unable to determine if sort should be enabled.

Crucible 1.2 Upgrade Guide

Upgrade Notes

- During the upgrade, a default project and default permission scheme will be created. All existing reviews will be assigned to the default project.

Upgrade Procedure

- Please read the Release Notes for the version you are upgrading to, as well as any versions you are skipping.
- Follow the instructions on upgrading Crucible.

Crucible 1.1 Release Notes

⚠️ Crucible 2.9 has now been released. Read the Release Notes.

18 September 2007

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 contains information about the Crucible 1.1 minor releases.

⚠️ Please read the Crucible 1.1 Upgrade Guide before upgrading to any of the minor releases below.

On this page:

- From 1.1.3 to 1.1.4
- From 1.1.2 to 1.1.3
- From 1.1.1 to 1.1.2
- From 1.1 to 1.1.1

### From 1.1.3 to 1.1.4

This release updates the included FishEye component and includes a number of performance improvements and bug fixes for Subversion and Perforce repository indexing.

### From 1.1.2 to 1.1.3

This release fixes a bug CRUC-104 that prevented Crucible from correctly displaying large patches.

### 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**

**Upgrade Notes**

- As of version 1.0, Crucible now requires a JVM version 1.5 or later. Previously, 1.4+ was required.
- Crucible 1.1.4 includes FishEye 1.3.8.
- 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.

## Security advisories

### Finding and reporting a security vulnerability

Atlassian's approach to releasing patches is detailed in [How to Report a Security Issue](#).

### Publication of Bamboo security advisories

Atlassian's approach to publishing security advisories is detailed in [Security Advisory Publishing Policy](#).

### Severity levels

Atlassian's scale for measuring security issues is detailed in [Severity Levels for Security Issues](#).

### Our patch policy

Atlassian's approach to releasing patches is detailed in our [Security Patch Policy](#).

## Security advisories

- FishEye and Crucible Security Advisory 2012-08-21
- FishEye and Crucible Security Advisory 2012-05-17
- FishEye and Crucible Security Advisory 2012-01-31
- FishEye and Crucible Security Advisory 2011-11-22
- FishEye and Crucible Security Advisory 2011-05-16
- FishEye and Crucible Security Advisory 2011-01-12
- Crucible Security Advisory 2010-06-16
- Crucible Security Advisory 2010-05-04

### FishEye and Crucible Security Advisory 2012-08-21

This advisory discloses security vulnerabilities that we have found in FishEye and/or Crucible and fixed in a recent version of FishEye and/or Crucible.

- Customers who have downloaded and installed FishEye and/or Crucible should upgrade their existing FishEye and/or Crucible installations to fix this vulnerability.
- Atlassian OnDemand and JIRA Studio customers are not affected by any of the issues described in this advisory.

Atlassian is committed to improving product security. The vulnerability listed in this advisory has been discovered by Atlassian, unless noted otherwise. The reporter may also have requested that we do not credit them.

If you have questions or concerns regarding this advisory, please raise a support request at [http://support.atlassian.com/](http://support.atlassian.com/).

In this advisory:

- Elevation of privileges vulnerability

### Elevation of privileges vulnerability

### Severity
Atlassian rates the severity level of this vulnerability as Medium, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, moderate or low.

This is an independent assessment and you should evaluate its applicability to your own IT environment.

Description

We have identified and fixed a vulnerability in FishEye and Crucible that results from behaviour of certain third-party frameworks used in FishEye and Crucible. This vulnerability allows any attacker to:

- Set the FishEye and Crucible instance to allow anonymous access
- Set the FishEye and Crucible instance to allow anonymous signup

All versions of FishEye and Crucible up to and including 2.7.14 are affected by this vulnerability. The vulnerability is fixed in FishEye and/or Crucible 2.8.0 and later. This issue can be tracked at FE-4222 and CRUC-6188.

The table below describes the FishEye and/or Crucible versions and the specific functionality affected by the vulnerabilities.

<table>
<thead>
<tr>
<th>FishEye and/or Crucible Vulnerability</th>
<th>Affected versions</th>
<th>Fixed Version</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation of privileges</td>
<td>2.5.x or earlier</td>
<td>2.5.9</td>
<td>FE-4222 - Authenticate to see issue details</td>
</tr>
<tr>
<td></td>
<td>2.6.x</td>
<td>2.6.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.7.x</td>
<td>2.7.15, 2.8.0</td>
<td>CRUC-6188 - Authenticate to see issue details</td>
</tr>
</tbody>
</table>

Note: The email we sent out wrongly states that fixed versions are 2.5.8 and 2.6.7. FishEye and Crucible development team apologise for the mistake.

Risk Mitigation

If you cannot upgrade immediately, you can disable all access from the public Internet to your FishEye and/or Crucible instance to prevent external attacks.

Fix

Upgrade

The vulnerabilities and fix versions are described in the 'Vulnerability' section above.

We recommend that you upgrade to the latest version of FishEye and/or Crucible, if possible. For a full description of the latest version of FishEye and Crucible, see the FishEye release notes and Crucible release notes. You can download the latest version of FishEye and Crucible from the FishEye download centre and Crucible download centre.

There are no patches available.

FishEye and Crucible Security Advisory 2012-05-17

This advisory discloses a critical security vulnerability that exists in all versions of FishEye and Crucible up to
Critical XML Parsing Vulnerability

Severity

Atlassian rates the severity level of this vulnerability as critical, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, medium or low.

This is an independent assessment and you should evaluate its applicability to your own IT environment.

Description

We have identified and fixed a vulnerability in FishEye and Crucible that results from the way third-party XML parsers are used in FishEye and Crucible.

This vulnerability allows an attacker to:

- execute denial of service attacks against the FishEye and Crucible server, and
- read all local files readable to the system user under which FishEye and Crucible runs.

An attacker does not need to have an account with the affected FishEye or Crucible server to exploit this vulnerability.

All versions of FishEye and Crucible up to and including 2.7.11 are affected by this vulnerability. This issue can be tracked here: [FE-4016 - Authenticate](http://support.atlassian.com/) to see issue details

Risk Mitigation

We recommend that you upgrade your FishEye and Crucible installation to fix this vulnerability.

Alternatively, if you are not in a position to upgrade immediately, you should do all of the following until you can upgrade. Please note, these measures will only limit the impact of the vulnerability, they will not mitigate it completely.

- Disable access to the Remote, SOAP and XML-RPC APIs, if these remote APIs are not required. Note that remote API access is disabled by default. See enabling plugins for instructions.
- Disable public access (such as anonymous access and public signup) to your FishEye or Crucible instance until you have applied the necessary upgrade.
- Ensure that your FishEye/Crucible system user is restricted as described in best practices for configuring FishEye security.

Fix

Upgrade

Upgrade to FishEye and Crucible 2.7.12 or later which fixes this vulnerability. For a full description of these releases, see the FishEye and Crucible release notes. The following releases have also been made available to fix these issues in older FishEye and Crucible versions. You can download these versions from the FishEye and Crucible download centres.

- FishEye and Crucible 2.6.8 for FishEye and Crucible 2.6
- FishEye and Crucible 2.5.8 for FishEye and Crucible 2.5

Patches

There are no patches available for this vulnerability.

FishEye and Crucible Security Advisory 2012-01-31

This advisory discloses a CRITICAL security vulnerability that we have found in versions of FishEye and Crucible from 2.0 up to and including 2.7.8. You need to upgrade your existing FishEye and Crucible installations to fix these vulnerabilities. Enterprise Hosted customers should request an upgrade by raising a support request at http://support.atlassian.com in the "Enterprise Hosting Support" project. Neither FishEye nor Crucible in Studio and Atlassian OnDemand are vulnerable to any of the issues described in this advisory.

Atlassian is committed to improving product security. The vulnerabilities listed in this advisory have been discovered by Atlassian, unless noted otherwise. The reporter may also have requested that we do not credit them.

If you have questions or concerns regarding this advisory, please raise a support request at http://support.atlassian.com.

In this advisory:

- Code Injection Vulnerability
  - Severity
  - Description
  - Vulnerability
  - Risk Mitigation
  - Fix

Code Injection Vulnerability

Severity

Atlassian rates the severity level of this vulnerability as CRITICAL, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, medium or low.

Description

We have identified and fixed a code injection vulnerability in FishEye and Crucible caused by an underlying vulnerability in the third-party Webwork 2 framework. This vulnerability allows an attacker to run arbitrary Java code on a FishEye/Crucible server with user privileges of the FishEye/Crucible process. This vulnerability is a variant of a recently disclosed Struts2 vulnerability. The vulnerability exists in FishEye and Crucible pages.
accessible only by users with administrative privileges. It can be exploited with use of social engineering, e.g. by having the administrator click on a specially crafted link.

The maintainer of the original library can be contacted at http://struts.apache.org/

**Vulnerability**

The table below describes the FishEye and Crucible versions and the specific functionality affected by the command injection vulnerability.

<table>
<thead>
<tr>
<th>FishEye and Crucible Component</th>
<th>Affected FishEye and Crucible Versions</th>
<th>Fixed Version</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebWork 2</td>
<td>2.0 - 2.7.8</td>
<td>2.6.7</td>
<td>FE-3891</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.7.9</td>
<td></td>
</tr>
</tbody>
</table>

**Risk Mitigation**

We recommend that you upgrade your FishEye and Crucible installations to fix this vulnerability.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can restrict access to your instance of FishEye/Crucible by using a firewall.

**Fix**

FishEye and Crucible 2.6.7, 2.7.9 and later versions fix this issue. View the issue linked above for information on fix versions. For a full description of the latest version of FishEye and Crucible, see the FishEye and Crucible release notes. You can download the latest versions from the FishEye and Crucible download centres. There are no patches available for these issues.

**FishEye and Crucible Security Advisory 2011-11-22**

This advisory discloses a number of security vulnerabilities that we have found and fixed in versions of FishEye/Crucible earlier than 2.5.7. You need to upgrade your existing FishEye and Crucible installations to fix these vulnerabilities. Enterprise Hosted customers should request an upgrade by raising a support request at http://support.atlassian.com in the “Enterprise Hosting Support” project. Neither JIRA Studio nor Atlassian OnDemand are vulnerable to any of the issues described in this advisory.

Atlassian is committed to improving product security. The vulnerabilities listed in this advisory have been discovered by Atlassian, unless noted otherwise. The reporter may also have requested that we do not credit them.

If you have questions or concerns regarding this advisory, please raise a support request at http://support.atlassian.com.

In this advisory:

- XSS Vulnerabilities
  - Severity
  - Risk Assessment
- Permission Verification Vulnerabilities
  - Severity
  - Risk Assessment
XSS Vulnerabilities

Severity

Atlassian rates the severity level of these vulnerabilities as high, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, medium or low. These vulnerabilities are not critical.

Risk Assessment

We have identified and fixed a number of stored cross-site scripting (XSS) vulnerabilities which affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). XSS vulnerabilities allow an attacker to embed their own JavaScript into a FishEye/Crucible page. You can read more about XSS attacks on Wikipedia, at The Web Application Security Consortium and other places on the web.

Vulnerabilities

The table below describes the FishEye/Crucible versions and the specific functionality affected by the XSS vulnerabilities.

<table>
<thead>
<tr>
<th>FishEye/Crucible Feature</th>
<th>Affected FishEye/Crucible Versions</th>
<th>Fixed Version</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>FishEye user profile - display name</td>
<td>2.5.4 and earlier</td>
<td>2.5.5</td>
<td>FE-3797</td>
</tr>
<tr>
<td>FishEye user profile - snippets in a user's comment</td>
<td>2.5.4 and earlier</td>
<td>2.5.5</td>
<td>FE-3798</td>
</tr>
</tbody>
</table>

Risk Mitigation

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable public signup to your instance as a temporary mitigation until you have applied the upgrade. For tighter access control, you can restrict access to trusted groups.

Fix

FishEye and Crucible 2.5.5 and later versions fix two these issues. View the issues linked above for information on fix versions. You can download the latest versions of FishEye and Crucible from the download centres (FishEye download centre, Crucible download centre).

There are no patches available to fix these vulnerabilities. You must upgrade your FishEye/Crucible installation.

Permission Verification Vulnerabilities

Severity
Atlassian rates the severity level of these vulnerabilities as medium, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, medium or low. These vulnerabilities are not critical.

Risk Assessment

We have identified and fixed two permission verification bugs which affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). These vulnerabilities allow users to view metadata for changesets and reviews, from repositories/projects that they do not have access to, via tooltips.

Vulnerability

The table below describes the FishEye/Crucible versions and the specific functionality affected by the vulnerabilities.

<table>
<thead>
<tr>
<th>FishEye/Crucible Feature</th>
<th>Affected FishEye/Crucible Versions</th>
<th>Fixed Version</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>FishEye changset tooltips</td>
<td>FishEye 2.4.6 to 2.5.6</td>
<td>FishEye 2.5.7</td>
<td>FE-3811</td>
</tr>
<tr>
<td>Crucible review tooltips</td>
<td>Crucible 2.4.6 to 2.5.6</td>
<td>Crucible 2.5.7</td>
<td>CRUC-5811</td>
</tr>
</tbody>
</table>

Risk Mitigation

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable anonymous access to your instance. Logged-in users will still be able to view metadata that they do not have permission to view, but anonymous users will be prevented from accessing this information.

Fix

FishEye and Crucible 2.5.7 and later versions fix these two issues. View the issues linked above for information on earlier fix versions for each issue. For a full description of this release, see the FishEye 2.5 changelog and Crucible 2.5 Changelog. You can download the latest version of FishEye and Crucible from the download centres (FishEye download centre, Crucible download centre).

There are no patches available to fix these vulnerabilities. You must upgrade your FishEye/Crucible installation.

FishEye and Crucible Security Advisory 2011-05-16

This advisory announces a number of security vulnerabilities that we have found and fixed in recent versions of FishEye/Crucible. You need to upgrade your existing FishEye/Crucible installations to fix these vulnerabilities. Enterprise Hosted customers should request an upgrade by filing a ticket at http://support.atlassian.com. JIRA Studio is not vulnerable to any of the issues described in this advisory.

Atlassian is committed to improving product security. The vulnerabilities listed in this advisory have been discovered by Atlassian, unless noted otherwise. The reporter may also have requested that we do not credit them.

If you have questions or concerns regarding this advisory, please raise a support request at http://support.atlassian.com/.

In this advisory:

- XSS Vulnerabilities
- Severity
XSS Vulnerabilities

Severity

Atlassian rates the severity level of these vulnerabilities as high, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, moderate or low.

Risk Assessment

We have identified and fixed a number of cross-site scripting (XSS) vulnerabilities which may affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). XSS vulnerabilities potentially allow an attacker to embed their own JavaScript into a FishEye/Crucible page. You can read more about XSS attacks at cgisecurity.com, The Web Application Security Consortium and other places on the web.

Vulnerability

The table below describes the FishEye/Crucible versions and the specific functionality affected by the XSS vulnerabilities.

<table>
<thead>
<tr>
<th>FishEye/Crucible Feature</th>
<th>Affected FishEye/Crucible Versions</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crucible snippets</td>
<td>Crucible 2.4.5 to 2.5.0</td>
<td>CRUC-5734</td>
</tr>
<tr>
<td>Crucible author mapping</td>
<td>Crucible 2.4.5 to 2.5.0</td>
<td>CRUC-5735</td>
</tr>
<tr>
<td>Crucible changeset comments in search results</td>
<td>Crucible 2.3.0 to 2.5.0</td>
<td>CRUC-5736</td>
</tr>
<tr>
<td>Crucible comments search</td>
<td>Crucible 2.2.6 to 2.5.0</td>
<td>CRUC-5737</td>
</tr>
<tr>
<td>FishEye/Crucible dashboard - review activity</td>
<td>FishEye/Crucible 2.2.8 to 2.5.2</td>
<td>FE-3031</td>
</tr>
<tr>
<td>FishEye/Crucible reviews list</td>
<td>FishEye/Crucible 2.2.8 to 2.5.2</td>
<td>FE-3032</td>
</tr>
</tbody>
</table>

Risk Mitigation

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable public signup to your instance until you have applied the upgrade. For even tighter control, you could restrict access to trusted groups.

Fix

FishEye/Crucible 2.5.4 fixes all of these issues. View the issues linked above for information on earlier fix versions for each issue. For a full description of this release, see the FishEye 2.5 changelog and Crucible 2.5.
Changelog. You can download the latest version of FishEye/Crucible from the download centre (FishEye download centre, Crucible download centre).

There are no patches available to fix these vulnerabilities. You must upgrade your FishEye/Crucible installation.

Our thanks to Marian Ventuneac of http://www.ventuneac.net, who reported FE-3031 and FE-3032. We fully support the reporting of vulnerabilities and we appreciate it when people work with us to identify and solve the problem.

FishEye and Crucible Security Advisory 2011-01-12

This advisory announces a number of security vulnerabilities that we have found and fixed in recent versions of FishEye/Crucible. You need to upgrade your existing FishEye/Crucible installations to fix these vulnerabilities. Enterprise Hosted customers should request an upgrade by filing a ticket at http://support.atlassian.com. JIRA Studio is not vulnerable to any of the issues described in this advisory.

Atlassian is committed to improving product security. The vulnerabilities listed in this advisory have been discovered by Atlassian, unless noted otherwise. The reporter may also have requested that we do not credit them.

If you have questions or concerns regarding this advisory, please raise a support request at http://support.atlassian.com.

In this advisory:

- **XSS Vulnerabilities**
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix

- **Administration password logged in debug log**
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix

- **Review comment search returns comments that a user has no permission to view**
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix

- **Anonymous global access exposes entire user list**
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix

**XSS Vulnerabilities**

**Severity**

Atlassian rates the severity level of these vulnerabilities as high, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, moderate or low.
Risk Assessment

We have identified and fixed a number of cross-site scripting (XSS) vulnerabilities which may affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). XSS vulnerabilities potentially allow an attacker to embed their own JavaScript into a FishEye/Crucible page. You can read more about XSS attacks at [cgisecurity.com](http://cgisecurity.com), [The Web Application Security Consortium](http://wasc.org) and other places on the web.

Vulnerability

The table below describes the FishEye/Crucible versions and the specific functionality affected by the XSS vulnerabilities.

<table>
<thead>
<tr>
<th>FishEye/Crucible Feature</th>
<th>Affected FishEye/Crucible Versions</th>
<th>Issue Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crucible review – linked JIRA issue</td>
<td>Crucible 2.0.1 – 2.3.7</td>
<td>CRUC-5307</td>
</tr>
<tr>
<td>Crucible email reviews</td>
<td>Crucible 2.2.0 – 2.4.0</td>
<td>CRUC-5308</td>
</tr>
<tr>
<td>Crucible review reload</td>
<td>Crucible 2.2.0 – 2.4.2</td>
<td>CRUC-5309</td>
</tr>
<tr>
<td>Crucible edit review details screen</td>
<td>Crucible 2.2.0 – 2.3.7</td>
<td>CRUC-5345</td>
</tr>
<tr>
<td>FishEye repository configuration</td>
<td>FishEye 2.4.0</td>
<td>CRUC-5310</td>
</tr>
<tr>
<td>FishEye charts</td>
<td>FishEye 2.2.0 · 2.4.0</td>
<td>CRUC-5311</td>
</tr>
<tr>
<td>FishEye/Crucible code macro</td>
<td>FishEye/Crucible 2.2.0 – 2.4.0</td>
<td>CRUC-5312</td>
</tr>
<tr>
<td>FishEye/Crucible changeset page heading</td>
<td>FishEye/Crucible 2.3.2 – 2.4.0</td>
<td>CRUC-5313</td>
</tr>
</tbody>
</table>

Risk Mitigation

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable public signup to your instance until you have applied the upgrade. For even tighter control, you could restrict access to trusted groups.

Fix

FishEye/Crucible 2.4.4 fixes all of these issues. View the issues linked above for information on earlier fix versions for each issue. For a full description of this release, see the [FishEye 2.4 changelog](http://fish-eye.atlassian.net/wiki/display/FEDEV/FishEye+2.4+Changelog) and [Crucible 2.4 Changelog](http://crucible.atlassian.net/wiki/display/CDEV/Crucible+2.4+Changelog). You can download the latest version of FishEye/Crucible from the download centre ([FishEye download centre](http://www.atlassian.com/software/fisheye/downloads), [Crucible download centre](http://www.atlassian.com/software/crucible/downloads)).

There are no patches available to fix these vulnerabilities. You must upgrade your FishEye/Crucible installation.

Administration password logged in debug log
Severity

Atlassian rates the severity level of these vulnerabilities as **high**, according to the scale published in [Severity Levels for Security Issues](#). The scale allows us to rank the severity as critical, high, moderate or low.

**Risk Assessment**

We have identified and fixed a vulnerability in the FishEye/Crucible logging which may affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). This vulnerability allows administrator passwords to be logged in clear text when debug logging is enabled.

**Vulnerability**

This vulnerability affects FishEye and Crucible 2.2.0 to 2.4.0.

**Risk Mitigation**

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable access logging. See [Enabling Access Logging in FishEye](#) and [Enabling Access Logging in Crucible](#). You can also apply file restrictions to your log files. Note, this issue only occurs when DEBUG logging is turned on (off by default) when an administrator logs in.

**Fix**

FishEye/Crucible 2.4.2 and later fix this issue. For a full description of this release, see the [FishEye 2.4 changelog](#) and [Crucible 2.4 Changelog](#). You can download the latest version of FishEye/Crucible from the download centre ([FishEye download centre](#), [Crucible download centre](#)).

There are no patches available to fix this vulnerability. You must upgrade your FishEye/Crucible installation.

**Review comment search returns comments that a user has no permission to view**

**Severity**

Atlassian rates the severity level of these vulnerabilities as **medium**, according to the scale published in [Severity Levels for Security Issues](#). The scale allows us to rank the severity as critical, high, moderate or low.

**Risk Assessment**

We have identified and fixed a vulnerability in the Crucible review comment search which may affect Crucible instances, including publicly available instances (that is, internet-facing servers). This vulnerability allows review comments to be displayed for projects that are not publicly viewable.

**Vulnerability**

This vulnerability affects Crucible 2.2.0 to 2.4.3.

**Risk Mitigation**

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

**Fix**

FishEye/Crucible 2.2.5, 2.3.8 and 2.4.4 fix this issue. For a full description of this release, see the [FishEye 2.4 changelog](#) and [Crucible 2.4 Changelog](#). You can download these versions of FishEye/Crucible via the download centre ([FishEye download centre](#), [Crucible download centre](#)).
Anonymous global access exposes entire user list

Severity

Atlassian rates the severity level of these vulnerabilities as medium, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank the severity as critical, high, moderate or low.

Risk Assessment

We have identified and fixed a vulnerability in the FishEye/Crucible anonymous global access which may affect FishEye/Crucible instances, including publicly available instances (that is, internet-facing servers). This vulnerability exposes the user list (usernames and emails) of a FishEye/Crucible instance for access when anonymous global access is enabled.

Vulnerability

This vulnerability affects FishEye and Crucible 2.2.0 to 2.4.3.

Risk Mitigation

We recommend that you upgrade your FishEye/Crucible installation to fix these vulnerabilities.

Alternatively, if you are not in a position to upgrade immediately and you judge it necessary, you can disable global anonymous access. See Configuring Anonymous Access.

Fix

FishEye/Crucible 2.2.6, 2.3.8 and 2.4.4 fix this issue. For a full description of this release, see the FishEye 2.4 changelog and Crucible 2.4 Changelog. You can download these versions of FishEye/Crucible via the download centre (FishEye download centre, Crucible download centre).

There are no patches available to fix this vulnerability. You must upgrade your FishEye/Crucible installation.

Crucible Security Advisory 2010-06-16

The 2.3.3 release of Crucible contains some security related fixes, which are part of the shared FishEye architecture. The following information for FishEye applies equally to Crucible.

The Crucible Download Centre has the updates for Crucible.

In this advisory:

- Remote Code Exploit Vulnerability
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix

- Download Patches for Earlier FishEye / Crucible Versions
  - Patch for FishEye / Crucible 2.3.2
  - Patch for FishEye / Crucible 2.2.3
Remote Code Exploit Vulnerability

Severity

Atlassian rates this vulnerability as critical, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank a vulnerability as critical, high, moderate or low.

Risk Assessment

We have identified and fixed a remote code exploit vulnerability which affects FishEye and Crucible instances.

Vulnerability

This vulnerability allows a motivated attacker to call remote code on the host server.

All versions of FishEye/Crucible up to version 2.3.2 are affected by this vulnerability.

<table>
<thead>
<tr>
<th>Affected FishEye Versions</th>
<th>Fix Availability</th>
<th>More Details</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>All versions up to and including 2.3.2.</td>
<td>2.3.3 update, also available as patches for 2.3.2 and 2.2.3.</td>
<td>This vulnerability allows a motivated attacker to call remote code on the host server.</td>
<td>Critical</td>
</tr>
</tbody>
</table>

This vulnerability has been discovered in XWork by OpenSymphony, a command pattern framework which is used by FishEye and Crucible.

About the XWork Framework:

- See the OpenSymphony XWork page for more information about XWork.

Risk Mitigation

We strongly recommend either upgrading or patching your FishEye/Crucible installation to fix this vulnerability. Please see the ‘Fix’ section below.

Fix

These issues have been fixed in FishEye 2.3.3 (see the changelog), which you can download from the download centre.

It has also been fixed in Crucible 2.3.3 (see the changelog), which you can download from the download centre.

Later versions will include protection from this vulnerability.

This fix is also provided as a patch for FishEye/Crucible 2.3.2 and 2.2.3, which you can download from links on this page. Customers on earlier point versions of FishEye/Crucible will have to upgrade to version 2.3.2 or 2.2.3 before applying the patch. Atlassian recommends you upgrade to FishEye/Crucible 2.3.3.

Download Patches for Earlier FishEye / Crucible Versions
These patch releases contain security fixes, which apply to the shared FishEye architecture that is the basis of both FishEye and Crucible.

Please note that these patches are for specific point versions of FishEye (2.3.2 and 2.2.3). If you are running an earlier version than these, you will need to upgrade to a version specifically addressed by one of these patches. Atlassian strongly recommends that you upgrade to FishEye 2.3.3 / Crucible 2.3.3 or later.

MD5 checksums are provided to allow verification of the downloaded files.

**Patch for FishEye / Crucible 2.3.2**

<table>
<thead>
<tr>
<th>File</th>
<th>FishEye / Crucible Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fisheye-crucible-2.3.2-patch1.zip</td>
<td>2.3.2</td>
<td>16th June, 2010</td>
<td>6fe98db821a6d26f26907688af2ccd84</td>
</tr>
</tbody>
</table>

**Patch for FishEye / Crucible 2.2.3**

<table>
<thead>
<tr>
<th>File</th>
<th>FishEye / Crucible Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fisheye-crucible-2.2.3-patch1.zip</td>
<td>2.2.3</td>
<td>16th June, 2010</td>
<td>6fe98db821a6d26f26907688af2ccd84</td>
</tr>
</tbody>
</table>

Our thanks to Meder Kydyraliev of the Google Security Team who discovered this vulnerability. Atlassian fully supports the reporting of vulnerabilities and appreciates it when people work with Atlassian to identify and solve the problem.

**Crucible Security Advisory 2010-05-04**

The 2.2.3 release of Crucible contains some security related fixes, which are part of the shared FishEye architecture. The following information for FishEye applies equally to Crucible.

The Crucible Download Centre has the updates for Crucible.

In this advisory:

- Admin Escalation Vulnerability
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix
- XSS Vulnerabilities in FishEye
  - Severity
  - Risk Assessment
  - Vulnerability
  - Risk Mitigation
  - Fix
• **Prevention of Brute Force Attacks**
  • **Severity**
  • **Risk Assessment**
  • **Vulnerability**
  • **Risk Mitigation**
  • **Fix**

• **Changed Behaviour in FishEye**
• **Download Patches for Earlier FishEye / Crucible Versions**
  • **Patch for FishEye / Crucible 2.1.4**
  • **Patch for FishEye / Crucible 2.0.6**
  • **Patch for FishEye 1.6.6**
  • **Patch for Crucible 1.6.6**

**Admin Escalation Vulnerability**

**Severity**

Atlassian rates this vulnerability as **critical**, according to the scale published in [Severity Levels for Security Issues](#). The scale allows us to rank a vulnerability as critical, high, moderate or low.

**Risk Assessment**

We have identified and fixed an admin escalation vulnerability, which affects FishEye instances. This vulnerability has security implications and is especially important for anyone running publicly accessible instances of FishEye.

**Vulnerability**

This vulnerability allows a motivated attacker to perform admin actions.

All versions of FishEye from version 1.6.0-beta2 (including 1.6.0) through to 2.2.1 are affected by these admin escalation vulnerabilities.

<table>
<thead>
<tr>
<th>Affected FishEye Versions</th>
<th>Fix Availability</th>
<th>More Details</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>All versions up to and including 2.2.1</td>
<td>2.2.3 update, also available as patches for certain versions, listed on this page.</td>
<td>This vulnerability allows a motivated attacker to perform admin actions.</td>
<td>Critical</td>
</tr>
</tbody>
</table>

**Risk Mitigation**

We strongly recommend either upgrading or patching your FishEye installation to fix this vulnerability. Please see the 'Fix' section below.

Note: If you are an Atlassian JIRA Studio customer, we have assessed that your system is secure and implemented additional protections for it.
These issues have been fixed in FishEye 2.2.3 (see the changelog), which you can download from the download centre. Later versions will include protection from this vulnerability.

This fix is also provided as a patch for FishEye 2.1.4, 2.0.6 and 1.6.6, which you can download from this page. Customers on earlier point versions of FishEye will have to upgrade to version 2.1.4, 2.0.6 or 1.6.6 before applying the patch. We recommend you upgrade to FishEye 2.2.3.

**XSS Vulnerabilities in FishEye**

**Severity**

Atlassian rates these vulnerabilities as critical, according to the scale published in Severity Levels for Security Issues. The scale allows us to rank a vulnerability as critical, high, moderate or low.

**Risk Assessment**

We have identified and fixed several cross-site scripting (XSS) vulnerabilities in FishEye, which may affect FishEye instances. These vulnerabilities have security implications and are especially important for anyone running publicly accessible instances of FishEye.

- The attacker might take advantage of the vulnerability to steal other users' session cookies or other credentials, by sending the credentials back to the attacker's own web server.
- The attacker's text and script might be displayed to other people viewing a FishEye page. This is potentially damaging to your company's reputation.

You can read more about XSS attacks at cgisecurity, CERT and other places on the web.

**Vulnerability**

All versions of FishEye are affected by these XSS vulnerabilities.

<table>
<thead>
<tr>
<th>Affected FishEye Versions</th>
<th>Fix Availability</th>
<th>More Details</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>All versions up to and including 2.2.1</td>
<td>2.2.3 only</td>
<td>An attacker could take advantage of this vulnerability to steal other users’ session cookies or other credentials, or the attacker's text and script might be displayed to other people viewing a FishEye page.</td>
<td>Critical</td>
</tr>
</tbody>
</table>

**Risk Mitigation**

We strongly recommend upgrading your FishEye installation to fix these vulnerabilities. Please see the 'Fix' section below.

**Fix**

These issues have been fixed in FishEye 2.2.3 (see the changelog), which you can download from the download centre.
Prevention of Brute Force Attacks

Severity

Atlassian rates this vulnerability as moderate, according to the scale published in Severity Levels for Security Issues.

Risk Assessment

We have improved the security of the following areas in FishEye:

- Prevention of brute force attacks by requiring users to solve a CAPTCHA test after a maximum number of repeated login attempts.

Vulnerability

We have identified and fixed a problem where FishEye allows an unlimited number of repeated login attempts, potentially opening FishEye to a brute force attack. Details of this improvement are summarised below.

<table>
<thead>
<tr>
<th>Affected FishEye Versions</th>
<th>Fix Availability</th>
<th>More Details</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>All versions up to and including 2.2.1</td>
<td>2.2.3 only</td>
<td>FishEye allows an unlimited number of login attempts. This makes FishEye vulnerable to a brute force attack.</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Risk Mitigation

We recommend that you upgrade your FishEye installation to fix these vulnerabilities. Please see the 'fix' section below.

You can also prevent brute force attacks by following our guidelines on using Fail2Ban to limit login attempts.

Fix

This issue has been fixed in FishEye 2.2.3 (see the changelog). Later versions will include protection from this vulnerability. You can download FishEye 2.2.3 from the download centre.

Changed Behaviour in FishEye

In order to fix these issues, we have changed FishEye's behaviour as follows:

- After three consecutive failed login attempts, FishEye will display a CAPTCHA form asking the user to enter a given word when attempting to log in again. This will prevent brute force attacks via the login screen. The number of failed attempts needed to trigger the CAPTCHA testing is configurable. For more information, see the documentation for Brute force login protection.
In addition, after three consecutive failed login attempts via the FishEye remote API, an error message will be returned. Human intervention will then be required to reset that login account, i.e. solve the CAPTCHA test via the login screen.

**Download Patches for Earlier FishEye / Crucible Versions**

These patch releases contain security fixes, which apply to the shared FishEye architecture that is the basis of both FishEye and Crucible.

These patches fix the Admin Escalation vulnerability only. Please note that these patches are for specific older point versions of FishEye (2.1.4, 2.0.6 or 1.6.6). If you are running an earlier version than these, you will need to upgrade to a version specifically addressed by one of these patches. To update a more recent version of the product (2.1.5 through 2.2.1), please upgrade to FishEye 2.2.3 or later. Atlassian strongly recommends that you upgrade to FishEye 2.2.3.

MD5 checksums are provided to allow verification of the downloaded files.

**Patch for FishEye / Crucible 2.1.4**

<table>
<thead>
<tr>
<th>File</th>
<th>FishEye / Crucible Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fisheye-crucible-2.1.4-patch1.zip</td>
<td>2.1.4</td>
<td>4th May, 2010</td>
<td>6062fa2e1ad93729527357fb97b0d2ea</td>
</tr>
</tbody>
</table>

**Patch for FishEye / Crucible 2.0.6**

<table>
<thead>
<tr>
<th>File</th>
<th>FishEye / Crucible Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fisheye-crucible-2.0.6-patch1.zip</td>
<td>2.0.6</td>
<td>4th May, 2010</td>
<td>6aae75e2a5308121887bf9532473cf75</td>
</tr>
</tbody>
</table>

**Patch for FishEye 1.6.6**

<table>
<thead>
<tr>
<th>File</th>
<th>FishEye Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fisheye-1.6.6-patch1.zip</td>
<td>1.6.6</td>
<td>4th May, 2010</td>
<td>210ef3358aff83861733f8f22d331d7e</td>
</tr>
</tbody>
</table>

**Patch for Crucible 1.6.6**

<table>
<thead>
<tr>
<th>File</th>
<th>Crucible Version</th>
<th>Release Date</th>
<th>MD5 Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>crucible-1.6.6-patch1.zip</td>
<td>1.6.6</td>
<td>4th May, 2010</td>
<td>48e8e8ada0db3fc8671459051df1120</td>
</tr>
</tbody>
</table>

To acquire all of the fixes on this page, upgrade to FishEye 2.2.3, which you can download from the download centre.
Crucible FAQ

Answers to frequently asked questions about configuring and using Crucible.

- **General FAQs**
  - Can I deploy Crucible or FishEye as a WAR?
  - Does Crucible support SSL (HTTPS)?
  - How do I force reviews to include SVN property changes?
  - How to Automate Daily Crucible Backups
- **Licensing FAQ**
  - What happens if I decide to stop using FishEye with Crucible
  - Do I need a FishEye licence to run Crucible?
  - Advantages of Native Repository Access over lightSCM plugins
- **Support Policies**
  - Bug Fixing Policy
  - How to Report a Security Issue
  - New Features Policy
  - Patch Policy
  - Security Advisory Publishing Policy
  - Security Patch Policy
  - Severity Levels for Security Issues
- **Troubleshooting**
  - Crucible freezes unexpectedly
  - JIRA Integration Issues
  - Problems with very long comments and MySQL migration
  - Increasing the session timeout

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

- FishEye documentation
- FishEye FAQs
- Top Evaluator Questions
  - Can Crucible add support for new repositories?
  - Can I purchase Crucible on it's own?
  - Can I trial Crucible without FishEye?
  - How can I do reviews from the file system?
  - How does Crucible help enforce compliance and auditability?
  - How do I convince my team of the benefits of code review?
  - How do I do pre-commit reviews?
  - How do I raise defects in JIRA?
  - How do I review patch diffs?
  - What user permissions and review security is available?

Do you still have a question, or need help with Crucible? Please create a support request.

General FAQs
Can I deploy Crucible or FishEye as a WAR?

Unfortunately FishEye and Crucible cannot be deployed as a WAR. FishEye has some special needs for performance reasons that are not easily supported on third-party containers. Whilst this is an often requested feature, there are no immediate plans to provide a WAR version of FishEye or FishEye+Crucible. However the upcoming separate edition of Crucible (i.e. without FishEye) may at some stage be available as a WAR.

Does Crucible support SSL (HTTPS)?

Crucible does not have any built-in support for running over SSL via the HTTPS protocol. However, it is possible to setup a proxy web server to forward requests to Crucible. Please see the page on Integrating with Other Web Servers.

How do I force reviews to include SVN property changes?

Subversion (SVN) allows users to store arbitrary name/value pairs associated with files and directories, called SVN properties. These properties can be used by users for storing metadata and are also used by Subversion (e.g. for storing where code is branched from)

These name/value pairs can only be changed as part of a changeset / commit in Subversion. As such, you will have changesets with purely changes to SVN properties, or changesets with a mix of textual changes and changes to SVN properties. Crucible 2.6 introduced review creation without metadata to prevent SVN properties from being included in reviews.

This functionality is enabled by default, and affects the following functionality:

- Creating a review — The “Create Review” link is disabled in the activity stream, dashboard and changeset page for any changeset where all the file revisions only differ by SVN properties.
- Adding content to a review — SVN property-only changesets cannot be added to the review from the ‘Add Content’ dialog. Changesets with a mix of SVN property changes and textual changes can be added to the review, however only the file revisions with textual changes are added. File revisions with both textual changes and SVN property changes are always added.

(Note, explicitly adding a particular file revision to a review is still permitted, regardless of whether it is a textual change or metadata-only change.)

If you want to disable this functionality, you can do so by starting up Crucible with the following system property:

-Dcrucible.detect.metadata.revision.changes=false

How to Automate Daily Crucible Backups

Configuring Crucible backups is easy. To set daily Crucible backups, open the administration page, click the ‘Backup’ link under ‘System’ on the left navigation bar, and simply follow the instructions set out on the Backing up and restoring Crucible data page.

Licensing FAQ
What happens if I decide to stop using FishEye with Crucible

Crucible can be run as an application alone, without FishEye. However, if you decide to stop using FishEye with Crucible, you will lose certain functionality and will need to make configuration changes.

On this page:

- How do I run Crucible without FishEye?
- How is Crucible without FishEye different from using Crucible with FishEye?
  - Conducting Reviews
  - Viewing Repositories/Files
  - Charts
- Can I still use lightSCM plugins with Crucible?

How do I run Crucible without FishEye?

- Have a valid Crucible license but not a FishEye license
  To run Crucible without FishEye, you need to have a valid Crucible license but not a FishEye license. Crucible will actually use a "light" mode of FishEye when you do not have valid FishEye license. Light FishEye is bundled with Crucible and does not need to be installed separately. For more information on Crucible with light FishEye, see How is Crucible without FishEye different from using Crucible with FishEye? below.

- Reconnect your repositories
  Any repositories that you have currently defined in FishEye will not be visible in Crucible after removing FishEye. You will need to reconnect these repositories, as described in the FishEye documentation. Note, all repositories supported in FishEye are supported in light FishEye. Legacy "lightSCM" plugins, like the Crucible Subversion SCM plugin, will still work. However, the functionality will be limited compared to using Crucible with light FishEye. See the Can I still use lightSCM plugins with Crucible? section below for more information.

How is Crucible without FishEye different from using Crucible with FishEye?

The following changes in functionality will occur if you use Crucible without FishEye (i.e. use Crucible with "light" FishEye).

**Conducting Reviews**
- When using Iterative Reviews in Crucible, you will not be prompted when a new version of a file is available.

**Viewing Repositories/Files**
- Files and changesets displayed in activity streams (e.g. the dashboard activity stream) will not render as
Links to the relevant files/changesets.

- You will not be able to see your content roots and repositories associated with projects.
- You will no longer be able to see repository lists and browse repositories using the 'Source' tab.

**Charts**

- You will not be able to view charts or code metrics.

**Can I still use lightSCM plugins with Crucible?**

Legacy "lightSCM" plugins, like the Crucible Subversion SCM plugin, will still work with Crucible. However, we recommend that you use the "light" FishEye implementation that is bundled with Crucible, as it supersedes the lightSCM plugins.

For more information, please read this FAQ: [Advantages of Native Repository Access over lightSCM plugins](#).

**Do I need a FishEye licence to run Crucible?**

**FishEye and Crucible are separate products. They can be run separately, and they can also be run together.**

We recommend that you run Crucible together with FishEye. If you choose to run Crucible alone without FishEye, you will have access to your repositories via the "light" FishEye implementation bundled with Crucible. However, a number of FishEye's advanced features will not be available to you, including pre-caching repository content (for improved performance), the ability to search and browse through repositories and FishEye's activity graphs.

For more information, please read the following FAQ: [What happens if I decide to stop using FishEye with Crucible](#).

**Advantages of Native Repository Access over lightSCM plugins**

Prior to Crucible 2.4, running Crucible without FishEye required the use of "lightSCM" plugins (like the Crucible Subversion SCM plugin). From version 2.4, Crucible provides native repository access which supersedes Crucible's bundled lightSCM plugins. Third-party lightSCM plugins are unaffected and will continue to work with Crucible. The bundled plugins will still be available, so your existing configurations will also continue to work unchanged.

If you are currently using any of the bundled lightSCM plugins, we recommend that you migrate to using native repository access for the following reasons:

- Atlassian's lightSCM plugins (not lightSCM itself) are being deprecated, i.e. we will not update any of the bundled lightSCM plugins after the 2.4 release.
- It is easier for us to support and maintain a single implementation of our SCM interfaces, rather than support the standard FishEye access and the lightSCM implementations.
- Native repository access provides full support for SCMs for which there are no current lightSCM plugin implementations, including CVS and Mercurial.
- Native repository access provides additional functionality that is not available in the lightSCM plugins including:
  - Viewable commits in the activity streams (e.g. the dashboard activity stream).
  - Repositories administration via the administration console.
  - Easier review creation due to the ability to search and browse the repository using the full power of FishEye. For example, browsing for a file to add to a new review (see Selecting the Files for the Review).
  - Improved performance of native repository access over the lightSCM plugins. The lightSCM plugins retrieve data on demand from the underlying repository, rather than using caches and indexes like...
FishEye and native repository access. Hence, Crucible with native repository access, whilst requiring an initial indexing phase, will be faster than Crucible with lightSCM plugins during day-to-day operations.

- Native repository access allows for migration to a full FishEye license in future, if desired. Your repositories can simply be re-indexed for full FishEye functionality and existing reviews will then be available on the full repository.

To change over from lightSCM plugins to native repository access:

1. Disable your lightSCM plugins via the Crucible Administration Console ('Plugins' link under the 'Systems Settings' section in the left menu).
   
   Do not disable the SCM plugins for connecting to a Confluence instance or a file system. Native repository access does not include functionality to connect these (nor does FishEye alone), hence you will still need to use plugins.

2. Add native repositories for any repositories that are currently connected via lightSCM plugins. See the FishEye documentation.

3. If you are using Subversion or Perforce, we recommend that you set a "start" revision for the changeover, unless you need to review old code. This will eliminate the need for native repository support to index old repository activity, getting you up and running quickly.

Support Policies

Welcome to the support policies index page. Here, you'll find information about how Atlassian Support can help you and how to get in touch with our helpful support engineers. Please choose the relevant page below to find out more.

- Bug Fixing Policy
- How to Report a Security Issue
- New Features Policy
- Patch Policy
- Security Advisory Publishing Policy
- Security Patch Policy
- Severity Levels for Security Issues

To request support from Atlassian, please raise a support issue in our online support system. To do this, visit support.atlassian.com, log in (creating an account if need be) and create an issue under Crucible. Our friendly support engineers will get right back to you with an answer.

Bug Fixing Policy

Summary

- Atlassian Support will help with workarounds and bug reporting.
- Critical bugs will generally be fixed in the next maintenance release.
- Non critical bugs will be scheduled according to a variety of considerations.

Raising a Bug Report

Atlassian Support is eager and happy to help verify bugs — we take pride in it! Please open a support request in our support system providing as much information as possible about how to replicate the problem you are experiencing. We will replicate the bug to verify, then lodge the report for you. We'll also try to construct workarounds if they're possible.

Customers and plugin developers are also welcome to open bug reports on our issue tracking systems directly. Use http://jira.atlassian.com for the stand-alone products and http://studio.atlassian.com for JIRA Studio and...
Atlassian OnDemand.

When raising a new bug, you should rate the priority of a bug according to our JIRA usage guidelines. Customers should watch a filed bug in order to receive e-mail notification when a "Fix Version" is scheduled for release.

How Atlassian Approaches Bug Fixing

Maintenance (bug fix) releases come out more frequently than major releases and attempt to target the most critical bugs affecting our customers. The notation for a maintenance release is the final number in the version (ie the 1 in 3.0.1).

If a bug is critical (production application down or major malfunction causing business revenue loss or high numbers of staff unable to perform their normal functions) then it will be fixed in the next maintenance release provided that:

- The fix is technically feasible (i.e. it doesn't require a major architectural change).
- It does not impact the quality or integrity of a product.

For non-critical bugs, the developer assigned to fixing bugs prioritises the non-critical bug according to these factors:

- How many of our supported configurations are affected by the problem.
- Whether there is an effective workaround or patch.
- How difficult the issue is to fix.
- Whether many bugs in one area can be fixed at one time.

The developers responsible for bug fixing also monitor comments on existing bugs and new bugs submitted in JIRA, so you can provide feedback in this way. We give high priority consideration to security issues.

When considering the priority of a non-critical bug we try to determine a 'value' score for a bug which takes into account the severity of the bug from the customer's perspective, how prevalent the bug is and whether roadmap features may render the bug obsolete. We combine this with a complexity score (i.e. how difficult the bug is). These two dimensions are used when developers self serve from the bug pile.

Further reading

See Atlassian Support Offerings for more support-related information.

How to Report a Security Issue

Finding and Reporting a Security Vulnerability

If you find a security bug in the product, please open an issue on http://jira.atlassian.com in the relevant project.

- Set the priority of the bug to 'Blocker'.
- Provide as much information on reproducing the bug as possible.
- Set the security level of the bug to 'Developer and Reporters only'.

All communication about the vulnerability should be performed through JIRA, so that Atlassian can keep track of the issue and get a patch out as soon as possible.

If you discover a security vulnerability, please attempt to create a test case that proves this vulnerability locally before opening either a bug or a support issue. When creating an issue, please include information on how the vulnerability can be reproduced; see our Bug Fixing Policy for general bug reporting guidelines. We will prioritise fixing the reported vulnerability if your report has information on how the vulnerability can be exploited.
Further reading

See Atlassian Support Offerings for more support-related information.

New Features Policy

Summary

- We encourage and display customer comments and votes openly in our issue tracking system, http://jira.atlassian.com.
- We do not publish roadmaps.
- Product Managers review our most popular voted issues on a regular basis.
- We schedule features based on a variety of factors.
- Our Atlassian Bug Fixing Policy is distinct from our Feature Request process.
- Atlassian provides consistent updates on the top 20 feature/improvement requests (in our issue tracking systems).

How to Track what Features are Being Implemented

When a new feature or improvement is scheduled, the 'fix-for' version will be indicated in the JIRA issue. This happens for the upcoming release only. We maintain roadmaps for more distant releases internally, but because these roadmaps are often pre-empted by changing customer demands, we do not publish them.

How Atlassian Chooses What to Implement

In every major release we aim to implement highly requested features, but it is not the only determining factor. Other factors include:

- Direct feedback from face to face meetings with customers, and through our support and sales channels.
- Availability of staff to implement features.
- Impact of the proposed changes on the application and its underlying architecture.
- How well defined the requested feature is (some issues gain in popularity rapidly, allowing little time to plan their implementation).
- Our long-term strategic vision for the product.

How to Contribute to Feature Development

Influencing Atlassian's release cycle

We encourage our customers to vote on feature requests in JIRA. The current tally of votes is available online in our issue tracking system, http://jira.atlassian.com. Find out if your improvement request already exists. If it does, please vote for it. If you do not find it, create a new feature or improvement request online.

Extending Atlassian Products

Atlassian products have powerful and flexible extension APIs. If you would like to see a particular feature implemented, it may be possible to develop the feature as a plugin. Documentation regarding the plugin APIs is available. Advice on extending either product may be available on the user mailing-lists, or at Atlassian Answers.

If you require significant customisations, you may wish to get in touch with our partners. They specialise in extending Atlassian products and can do this work for you. If you are interested, please contact us.

Further reading

See Atlassian Support Offerings for more support-related information.

Patch Policy

Patch Policy

Atlassian will only provide software patches in extremely unusual circumstances. If a problem has been fixed in
a newer release of the product, Atlassian will request that you upgrade your instance to fix the issue. If it is deemed necessary to provide a patch, a patch will be provided for the current release and the last maintenance release of the last major version only.

Patches are issued under the following conditions:

- The bug is critical (production application down or major malfunction causing business revenue loss or high numbers of staff unable to perform their normal functions).
- A patch is technically feasible (i.e., it doesn't require a major architectural change) OR
- The issue is a security issue, and falls under our [Security Patch Policy](#).

Atlassian does not provide patches for non-critical bugs.

Provided that a patch does not impact the quality or integrity of a product, Atlassian will ensure that patches supplied to customers are added to the next maintenance release. Customers should watch a filed bug in order to receive e-mail notification when a "Fix Version" is scheduled for release.

Patches are generally attached to the relevant [http://jira.atlassian.com](http://jira.atlassian.com) issue.

**Further reading**

See [Atlassian Support Offerings](#) for more support-related information.

### Security Advisory Publishing Policy

**Publication of Security Advisories**

When a security vulnerability in an Atlassian product is discovered and resolved, Atlassian will inform customers through the following mechanisms:

- We will post a security advisory in the latest documentation of the affected product at the same time as releasing a fix for the vulnerability. This applies to all security advisories, including severity levels of critical, high, medium and low.
- We will send a copy of all security advisories to the "Technical Alerts" mailing list for the product concerned.

  Note: To manage your email subscriptions and ensure you are on this list, please go to [my.atlassian.com](http://my.atlassian.com) and click 'Communications Centre' near the top right of the page.

- If the person who reported the vulnerability wants to publish an advisory through some other agency, such as [CERT](#), we will assist in the production of that advisory and link to it from our own.

Early warning of critical security vulnerabilities:

- If the vulnerability is rated critical (see our criteria for setting severity levels) we may send an early warning to the 'Technical Alerts' mailing list approximately one week before releasing the fix. This early warning is in addition to the security advisory itself, described above.
- However, if the vulnerability is publicly known or being exploited, we will release the security advisory and patches as soon as possible, potentially without early warning.

**Further reading**

See [Atlassian Support Offerings](#) for more support-related information.

### Security Patch Policy

**Product Security Patch Policy**

Atlassian makes it a priority to ensure that customers’ systems cannot be compromised by exploiting vulnerabilities in Atlassian products.
Scope

This page describes when and how we release security patches and security upgrades for our products. It does not describe the whole of disclosure process that we follow. It also excludes JIRA Studio, since JIRA Studio will always be patched by Atlassian without additional notifications.

Critical vulnerabilities

When a Critical security vulnerability is discovered by Atlassian or reported by a third party, Atlassian will do all of the following:

- Issue a new, fixed release for the current version of the affected product as soon as possible, usually in a few days.
- Issue a binary patch for the current release.
- Issue a binary patch for the latest maintenance release of the previous version of the product.
- Patches for older versions or releases normally will not be issued.

Patches will be attached to the relevant JIRA issue. You can use these patches as a "stop-gap" measure until you upgrade your installation in order to fully fix the vulnerability.

Non-critical vulnerabilities

When a security issue of a High, Medium or Low severity is discovered, Atlassian will do all of the following:

- Include the fix into the next scheduled release, both for the current and previous maintenance versions.
- Where practical, provide new versions of plugins or other components of the product that can be upgraded independently.

You should upgrade your installation in order to fix the vulnerability.

Other information

Severity level of vulnerabilities is calculated based on Severity Levels for Security Issues.

Visit our general Atlassian Patch Policy as well.

Examples

Example 1: A critical severity vulnerability is found in a (hypothetical current release) JIRA 5.3.2. The last bugfix release in 5.2.x branch was 5.2.3. In this case, a patch will be created for 5.3.2 and 5.2.3. In addition, new bugfix releases, 5.3.3 and 5.2.4, which are free from this vulnerability, will be created in a few days.

Example 2: A high or medium severity vulnerability is found in the same release as in the previous example. The fix will be included into the currently scheduled releases 5.3.3 and 5.2.4. Release schedule will not be brought forward and no patches will be issued. If the vulnerability is in a plugin module, then a plugin upgrade package may still be supplied.

Further reading

See Atlassian Support Offerings for more support-related information.

Severity Levels for Security Issues

Severity Levels

Atlassian security advisories include a severity level. This severity level is based on our self-calculated CVSS score for each specific vulnerability. CVSS is an industry standard vulnerability metric. You can learn more about CVSS at FIRST.org web site.
CVSS scores are mapped into the following severity ratings:

- Critical
- High
- Medium
- Low

An approximate mapping guideline is as follows:

<table>
<thead>
<tr>
<th>CVSS score range</th>
<th>Severity in advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2.9</td>
<td>Low</td>
</tr>
<tr>
<td>3 – 5.9</td>
<td>Medium</td>
</tr>
<tr>
<td>6.0 – 7.9</td>
<td>High</td>
</tr>
<tr>
<td>8.0 – 10.0</td>
<td>Critical</td>
</tr>
</tbody>
</table>

Below is a summary of the factors which illustrate types of vulnerabilities usually resulting in a specific severity level. Please keep in mind that this rating does not take into account details of your installation.

**Severity Level: Critical**

Vulnerabilities that score in the critical range usually have most of the following characteristics:

- Exploitation of the vulnerability results in root-level compromise of servers or infrastructure devices.
- The information required in order to exploit the vulnerability, such as example code, is widely available to attackers.
- Exploitation is usually straightforward, in the sense that the attacker does not need any special authentication credentials or knowledge about individual victims, and does not need to persuade a target user, for example via social engineering, into performing any special functions.

For critical vulnerabilities, is advised that you patch or upgrade as soon as possible, unless you have other mitigating measures in place. For example, if your installation is not accessible from the Internet, this may be a mitigating factor.

**Severity Level: High**

Vulnerabilities that score in the high range usually have some of the following characteristics:

- The vulnerability is difficult to exploit.
- Exploitation does not result in elevated privileges.
- Exploitation does not result in a significant data loss.

**Severity Level: Medium**

Vulnerabilities that score in the medium range usually have some of the following characteristics:

- Denial of service vulnerabilities that are difficult to set up.
- Exploits that require an attacker to reside on the same local network as the victim.
- Vulnerabilities that affect only nonstandard configurations or obscure applications.
- Vulnerabilities that require the attacker to manipulate individual victims via social engineering tactics.
- Vulnerabilities where exploitation provides only very limited access.

**Severity Level: Low**

Vulnerabilities in the low range typically have very little impact on an organisation's business. Exploitation of
such vulnerabilities usually requires local or physical system access.

Further reading

See Atlassian Support Offerings for more support-related information.

Troubleshooting

<table>
<thead>
<tr>
<th>Crucible Troubleshooting</th>
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<tr>
<td>• Crucible freezes unexpectedly</td>
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<tr>
<td>• JIRA Integration Issues</td>
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<td>• Problems with very long comments and MySQL migration — Affects Version</td>
</tr>
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</table>

Crucible Troubleshooting

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 freezes unexpectedly

Issue Symptoms

If your Crucible 2.0 or 2.0.1 instance freezes unexpectedly, this could be caused by a known issue with Crucible and MySQL database technology.

This issue manifests itself in some Crucible pages returning a server timeout error. To identify the issue, check the Crucible error log. For this issue, the following output will appear in the error log:
2009-07-15 15:34:45,555 ERROR [btpool0-519] fisheye.app
HibernateUtil-commitTransaction - Commit fail msg-0:Could not execute
JDBC batch update
2009-07-15 15:34:45,556 ERROR [btpool0-519] fisheye.app
HibernateUtil-commitTransaction - Commit fail msg-1:Lock wait timeout
exceeded; try restarting transaction
2009-07-15 15:34:45,557 ERROR [btpool0-519] fisheye.app
HibernateUtil-commitTransaction - Commit failed rolling back.
... 
... 
Caused by: java.sql.BatchUpdateException: Lock wait timeout exceeded;
try restarting transaction
    at com.mchange.v2.c3p0.impl.NewProxyPreparedStatement.executeBatch(NewProxyPreparedStatement.java:1723)
    at org.hibernate.jdbc.BatchingBatcher.doExecuteBatch(BatchingBatcher.java:48)
    at org.hibernate.jdbc.AbstractBatcher.executeBatch(AbstractBatcher.java:246)
    ... 163 more

The Crucible error log can be found under FISHEYE_INST/var/log/fisheye-error.log.YYYY-MM-DD.

See the JIRA issue for more information.

Workaround

Until the issue is solved, the suggested course of action is to restart your Crucible instance. This will return
Crucible to normal operation.

The Crucible development team is actively working on a solution and this be part of an upcoming point release
of Crucible.

Requesting Support

If you require assistance in resolving the problem, please raise a support request under the Crucible project.

JIRA Integration Issues

Users are mapped to their own accounts when using Trusted Applications.

If you (or the general account used for JIRA access, if not using Trusted Applications) do not have the
permissions to carry out the JIRA actions linked from Crucible, an error will occur. Depending on the error
returned from JIRA, Crucible may not display the error correctly or display it at all, simply reporting that "An error
has occurred". To investigate what the error was, you can access the Crucible debug log, named fisheye-debug.
log.YYYY-MM-DD under the dist.inst/var/log folder of your Crucible installation. In the debug log,
look for the date and time when your error took place. Here, you will be able to follow the links and see what
error the JIRA instance was producing by clicking through to JIRA.
If you are using JIRA 4.0 you will not be able to create subtasks in versions of Crucible prior to 2.0.5. If you are affected by this bug, please upgrade to at least 2.0.6 (2.0.5 is affected by another bug CRUC-2471).

**Problems with very long comments and MySQL migration**

**Affects Version**

This issue was introduced in Crucible 2.0 and fixed in Crucible 2.1.

**Issue Symptoms**

There is a known issue with Crucible 2.0.x and very long comments when migrating your database to MySQL. In some circumstances, this might result in truncation of very long comments, causing data loss.

Depending on your MySQL configuration, you may see an error message like this while migrating to MySQL, causing the migration to fail:

```
2009-07-16 16:56:12,390 ERROR [ThreadPool1] fisheye.app
com.cenqua.crucible.actions.admin.database.DBEditHelper-doGet -
Database migration failed:
java.sql.BatchUpdateException: Data truncation: Data too long for column
'cru_message' at row 1
java.sql.BatchUpdateException: Data truncation: Data too long for column
'cru_message' at row 1
```

You may not see the message if you are running MySQL with default settings.

For more information, see the [JIRA issue](#).

**Workaround**

If your data contains very long comments or review descriptions (longer than 21,845 multibyte unicode characters), consider avoiding use of MySQL until you can upgrade the product. Alternatively, use PostgreSQL or the default (built-in) HSQLDB database.

This issue is now resolved. This issue was introduced in Crucible 2.0 and fixed in Crucible 2.1.

**Requesting Support**

If you require assistance in resolving the problem, please [raise a support request](#) under the Crucible project.

**Increasing the session timeout**

Crucible comes with remember me functionality, i.e. so long as user hasn't logged out the computer will remember the user. So technically a user should not be logged out, unless the user has disabled the saving of cookies in their browser settings.

If the user has disabled cookies, and does not want to enable the saving of cookies, then, you can add:

```
<session-config>
    <session-timeout>120</session-timeout>
</session-config>
```
in your WEB-INF/web.xml file (see Jetty Documentation), which will increase the session timeout value to two hours.

**Crucible Resources**

**Resources for Evaluators**
- Free Trial
- Feature Tour

**Resources for Administrators**
- Crucible Knowledge Base
- Crucible FAQ
- Tips of the Trade
- Guide to Installing an Atlassian Integrated Suite
- The big list of Atlassian gadgets

**Downloadable Documentation**
- Crucible documentation in PDF, HTML or XML formats

**Plugins**
- Crucible Developer Documentation
- Atlassian Plugin Exchange

**Support**
- Atlassian Support
- Support Policies

**Forums**
- Crucible Forum
- Crucible Developers Forum

**Mailing Lists**
- Visit [http://my.atlassian.com](http://my.atlassian.com) to sign up for mailing lists relating to Atlassian products, such as technical alerts, product announcements and developer updates.

**Feature Requests**
- Issue Tracker and Feature Requests for Crucible

**Glossary**

Code review terminology can be confusing as there are many different words for the concepts, roles and process. Crucible has adopted the following terms (click for definitions):

- approve
- authors in Crucible
- code review
- comment
- creator
defect
moderator
participant
permission scheme
permissions in Crucible
projects in Crucible
review duration
reviewer
role
state
statement of objective
users in Crucible
approve

Issuing a review to the reviewers is known as approving the review.

authors in Crucible
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 code change under review. Note: to map your repository username to your FishEye/Crucible username, see Changing your User Profile.

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

See Getting Started.

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

See Adding Comments.

creator
The creator is the person who creates the review. In most cases this person will also act as moderator.

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

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. See also author, the person whose changes to the code are to be reviewed.

participant

Crucible uses the terms creator, author, moderator, and reviewer to describe the roles of review participants.

permission scheme

A permission scheme assigns particular permissions to any or all of the following:

- Particular Users.
- Particular Groups.
- All logged-in users.
- Anonymous Users
- People in particular Review Roles, such as:
  - Author
  - reviewer
  - creator
  - moderator

The scheme's permissions will apply to all reviews belonging to the project(s) with which the scheme is associated.

You can create as many permission schemes as you wish. Each permission scheme can be associated with many projects or just one project, allowing you to tailor appropriate permissions for individual projects as required.

See Creating a permission scheme.

permissions in Crucible

A permission is the ability to perform a particular action in Crucible, e.g. 'Create Review'. Permissions are assigned to particular users, groups or review roles by means of permission schemes.

The following permissions are available:

<table>
<thead>
<tr>
<th>Permission</th>
<th>Description</th>
<th>Default Assignees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit</td>
<td>Ability to edit a review's details and change the set of revisions being reviewed.</td>
<td>Creator, Moderator</td>
</tr>
<tr>
<td>Ability</td>
<td>Description</td>
<td>Available to</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>View</td>
<td>Ability to view a review. (People without this permission will not know that the review exists.)</td>
<td>Anonymous users, All logged-in users, Creator, Author, Reviewer, Moderator</td>
</tr>
<tr>
<td>Abandon</td>
<td>Ability to abandon (i.e. cancel) a review.</td>
<td>Moderator</td>
</tr>
<tr>
<td>Re-Open</td>
<td>Ability to re-open a closed or abandoned review.</td>
<td>Creator, Moderator</td>
</tr>
<tr>
<td>Uncomplete</td>
<td>Ability of a reviewer to change their individual review status from Complete to Uncomplete.</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Reject</td>
<td>Ability to reject a review submitted for approval (i.e. prevent it from being issued to reviewers).</td>
<td>Moderator</td>
</tr>
<tr>
<td>Complete</td>
<td>Ability of a reviewer to change their individual review status to Complete.</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Comment</td>
<td>Ability to add or remove a comment to or from a review.</td>
<td>Creator, Author, Reviewer, Moderator</td>
</tr>
<tr>
<td>Approve</td>
<td>Ability to approve a review (i.e. issue it to the reviewers).</td>
<td>Moderator</td>
</tr>
<tr>
<td>Submit</td>
<td>Ability to submit a review for approval (i.e. request that the review be issued to the reviewers).</td>
<td>Creator, Author</td>
</tr>
<tr>
<td>Close</td>
<td>Ability to close a review once it has been summarised.</td>
<td>Moderator</td>
</tr>
<tr>
<td>Delete</td>
<td>Ability to delete a review.</td>
<td>Creator, Moderator</td>
</tr>
<tr>
<td>Summarise</td>
<td>Ability to summarise a review. (Normally this would be done after all reviewers have completed their review.)</td>
<td>Moderator</td>
</tr>
<tr>
<td>Create</td>
<td>Ability to create a review.</td>
<td>All logged-in users</td>
</tr>
<tr>
<td>Recover</td>
<td>Ability to resurrect an abandoned (i.e. cancelled) review.</td>
<td>Creator, Moderator</td>
</tr>
</tbody>
</table>
projects in Crucible

A Crucible project is a collection of reviews, typically reviews that all relate to the same application. In addition to providing a logical way of grouping reviews together, a project allows you to:

- define default moderators, authors and reviewers for the reviews in that project.
- define which people are eligible to be reviewers for the reviews in that project.
- use permission schemes to restrict who can perform particular actions (e.g. ‘Create Review’) in that project.

Every Crucible review belongs to a project. Each project has a name (e.g. ACME Development) and a key (e.g. ACME). The project key becomes the first part of that project’s review keys, e.g. ACME-101, ACME-102, etc:

By default, Crucible contains one project. This default project has the key ‘CR’ and the name ‘Default Project’.

See Creating a Project.

review duration

The review duration is the period of time for which a review will run.

See Setting the Default Review Duration for a Project.

reviewer

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 to be participants of the review, but are not reviewers.

See participant.

state

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

<table>
<thead>
<tr>
<th>State</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft</td>
<td>Creating a Review.</td>
</tr>
<tr>
<td>Require Approval</td>
<td>Relevant only when the moderator is not the creator. See Issuing a Review.</td>
</tr>
<tr>
<td>Under Review</td>
<td>See Issuing a Review and Reviewing the Code.</td>
</tr>
<tr>
<td>Summarize</td>
<td>See Summarising and Closing the Review.</td>
</tr>
<tr>
<td>Closed</td>
<td>See Summarising and Closing the Review.</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandoned</td>
<td>This happens when a review is deleted.</td>
</tr>
<tr>
<td>Rejected</td>
<td>Any reviews that a <strong>moderator</strong> has rejected.</td>
</tr>
</tbody>
</table>

**statement of objective**

A *statement of objective* is an optional text description of the review and any specific areas the **reviewers** should focus on.

**users in Crucible**

*A user is a person using Crucible.*

**Contributing to the Crucible Documentation**

Would you like to share your Crucible hints, tips and techniques with us and with other Crucible users? We welcome your contributions.

On this page:

- **Blogging your Technical Tips and Guides – Tips of the Trade**
- **Contributing Documentation in Other Languages**
- **Updating the Documentation Itself**
  - **Getting Permission to Update the Documentation**
  - **Our Style Guide**
  - **How we Manage Community Updates**

**Blogging your Technical Tips and Guides – Tips of the Trade**

Have you written a blog post describing a specific configuration of Crucible or a neat trick that you have discovered? Let us know, and we will link to your blog from our documentation. *More...*.

**Contributing Documentation in Other Languages**

Have you written a guide to Crucible in a language other than English, or translated one of our guides? Let us know, and we will link to your guide from our documentation. *More...*.

**Updating the Documentation Itself**

Have you found a mistake in the documentation, or do you have a small addition that would be so easy to add yourself rather than asking us to do it? You can update the documentation page directly.

**Getting Permission to Update the Documentation**

Please submit the **Atlassian Contributor License Agreement**.

**Our Style Guide**

Please read our short *guidelines for authors*.

**How we Manage Community Updates**
Here is a quick guide to how we manage community contributions to our documentation and the copyright that applies to the documentation:

- **Monitoring by technical writers.** The Atlassian technical writers monitor the updates to the documentation spaces, using RSS feeds and watching the spaces. If someone makes an update that needs some attention from us, we will make the necessary changes.

- **Wiki permissions.** We use wiki permissions to determine who can edit the documentation spaces. We ask people to sign the Atlassian Contributor License Agreement (ACLA) and submit it to us. That allows us to verify that the applicant is a real person. Then we give them permission to update the documentation.

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### RELATED TOPICS

- Tips of the Trade
- Author Guidelines
- Atlassian Contributor License Agreement

### Tips of the Trade

Below are some links to external blog posts and articles containing technical tips and instructions on setting up and using Crucible. This page presents an opportunity for customers and community authors to share information and experiences.

The references here are specific to Crucible and are technical 'how to' guides written by bloggers who use Crucible. For more general information on code review solutions, best practices and business cases, please refer to the Atlassian website.

⚠️ **Please be aware that these are external blogs and articles.**

Most of the links point to external sites, and some of the information is relevant to a specific release of Crucible. Atlassian provides these links because the information is useful and relevant at the time it was written. Please check carefully whether the information is still relevant when you read it, and whether it is relevant to your version of Crucible. Unless explicitly stated, Atlassian does not offer support for third-party extensions or plugins. The information in the linked blog posts has not been tested or reviewed by Atlassian. We recommend that you test all solutions on a test server before trying them on your production site.

**On this page:**

- [Running Atlassian Crucible (or Fisheye) on Linux Startup](#)

<table>
<thead>
<tr>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Running Atlassian Crucible (or Fisheye) on Linux Startup</strong></td>
</tr>
<tr>
<td>By: Jarrod, on blog 'The stupid people made me do it!'</td>
</tr>
<tr>
<td>About: How to get Crucible to start automatically when the server boots, via an initialisation script that runs on RedHat-like Linux boxes</td>
</tr>
<tr>
<td>Date and Crucible version: 9 March 2009; Crucible 1.6</td>
</tr>
<tr>
<td>Related documentation: Running Crucible as a Windows service</td>
</tr>
</tbody>
</table>
Have you written a technical tip for Crucible?

Add a comment to this page, linking to your blog post or article. We will include it if the content fits the requirements of this page.

Feedback?

Your first port of call should be the author of the linked blog post. If you want to let us know how useful (or otherwise) a linked post is, please add a comment to this page.

Other Sources of Information

Crucible documentation  
Atlassian website  
Atlassian forums  
Atlassian Blog  
Crucible plugins

Crucible Documentation in Other Languages

Below are some links to Crucible documentation written in other languages. In some cases, the documentation may be a translation of the English documentation. In other cases, the documentation is an alternative guide written from scratch in another language. This page presents an opportunity for customers and community authors to share documentation that they have written in other languages.

⚠️ Please be aware that these are external guides.

Most of the links point to external sites, and some of the information is relevant to a specific release of Crucible. Atlassian provides these links because the information is useful and relevant at the time it was written. Please check carefully whether the information is still relevant when you read it, and whether it is relevant to your version of Crucible. The information in the linked guides has not been tested or reviewed by Atlassian.

On this page:

- No guides yet

<table>
<thead>
<tr>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>No guides yet</td>
</tr>
<tr>
<td>We do not yet have any guides to link here. Be the first to suggest one!</td>
</tr>
</tbody>
</table>

Adding Your Own Guide to this Page

Have you written a guide for Crucible in another language? Add a comment to this page, linking to your guide. We will include it if the content fits the requirements of this page.

Giving Feedback about One of the Guides

If you have feedback on one of the guides listed above, please give the feedback to the author of the linked guide.

If you want to let us know how useful (or otherwise) one of these guides is, please add a comment to this page.
Other Sources of Information

Crucible documentation
Atlassian website
Atlassian blog
Crucible plugins