Jenkins 2014.1 Documentation

Requirements

- Jenkins 1.509 or greater.
- P4D 12.1 or greater. (download)
- Minimum Perforce Protection of 'open' for the Jenkins user.

If you wish to use the Review Build feature you will need Swarm. Swarm 2014.2 or greater is required to support Jenkins authentication.

Building

The Perforce plugin requires p4-java; however at the time of writing this is not in Maven Central. The jar is shipped in the root directory, so to add it into your local maven repo run the following command:

```
mvn install:install-file  -Dfile=p4java-2013.2.788582.jar \
                           -DgroupId=com.perforce \
                           -DartifactId=p4java \
                           -Dversion=2013.2.788582 \
                           -Dpackaging=jar
```

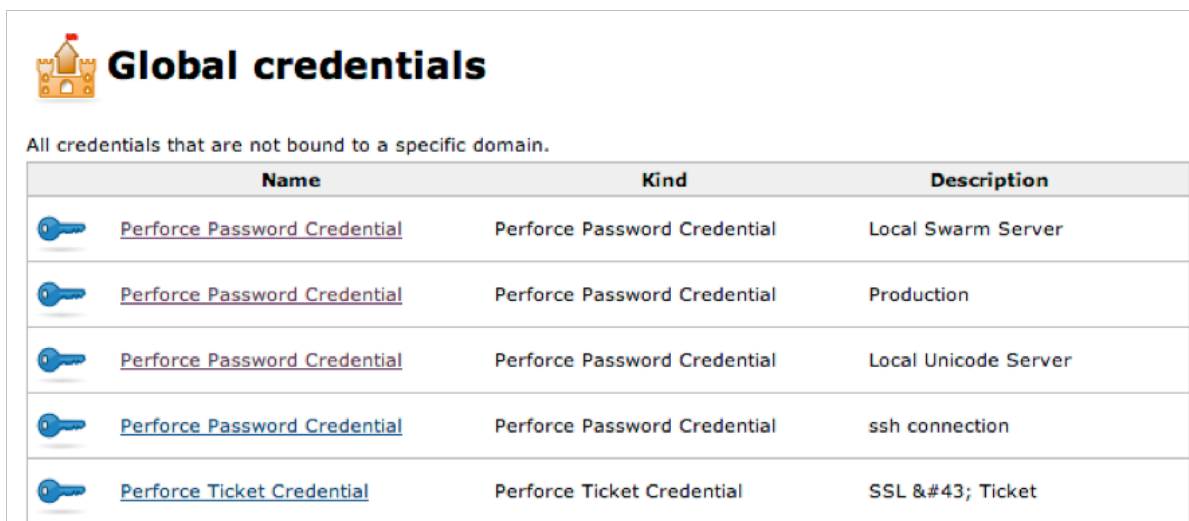To build the plugin and run the tests use the following:

```
mvn package
```

Note: for the tests to run you must have `p4d` in your PATH, to skip tests use the `-DskipTests` flag.

Installing

1. Open Jenkins in a browser; e.g. http://jenkins_host:8080
2. Browse to 'Manage Jenkins' --> 'Manage Plugins' and Select the 'Advanced' tab.
3. Press the 'Choose File' button under the 'Upload Plugin' section
4. Find the location of the 'p4-client.hpi' file and Select Upload
5. Choose the 'Download now and install after restart' button (this might be different on the newer version)

Credentials

The plugin makes use of the Jenkins Credential store making it easier to manage the Perforce Server connection for multiple Jenkins jobs. Perforce Server credentials must be added to the Global or a user defined domain, using one of the two supported Perforce Credentials: 'Perforce Password Credential' or 'Perforce Ticket Credential'.

Global credentials

All credentials that are not bound to a specific domain.

Name	Kind	Description
Perforce Password Credential	Perforce Password Credential	Local Swarm Server
Perforce Password Credential	Perforce Password Credential	Production
Perforce Password Credential	Perforce Password Credential	Local Unicode Server
Perforce Password Credential	Perforce Password Credential	ssh connection
Perforce Ticket Credential	Perforce Ticket Credential	SSL + Ticket

To add a Perforce Credential:

1. Navigate to the Jenkins Credentials page (select 'Credentials' on the left hand side)
2. Select 'Global credentials' (or add domain if needed)

3. Select 'Add Credentials' from the left hand side
4. Choose 'Perforce Password Credential' from the 'Kind' drop-down select
5. Enter a Description e.g. `local test server`
6. Enter the P4Port e.g. `localhost:1666`
7. Enter a valid username and password
8. Press the 'Test Connection' button (you should see Success)
9. Click 'Save' to save.

The Perforce Ticket Credential supports using a ticket file (such as the default P4TICKETS file) or a ticket value (returned by the command `p4 login -p`). If Ticket authentication is used for remote builds the Ticket must be valid for the remote host (either login on the remote host or use `p4 login -a`).

All Perforce Credential types support SSL for use on Secured Perforce Servers; to use just check the SSL box and provide the Trust fingerprint.

Workspaces

Perforce workspaces are configured with in the Jenkins Job configuration page and support the following behaviours:

- Static

   The workspace specified must have been previously defined. The Perforce Jenkins user must either own the workspace or the spec should be unlocked allowing it to make edits. The workspace View remains static, but Jenkins will update other fields such as the workspace root and clobber option.

- Manual

    This allows the specified workspace to be created (if it does not exist) or update the spec by setting the various options. Jenkins will fill out the workspace root and may override the clobber option.

- Template & Stream

    In this mode the workspace View is generated using the specified template workspace or stream. The name of the workspace is generated using the Workspace Name Format field and makes it an ideal choice for matrix builds.

Build

Building a Jenkins Job can be triggered using the SCM polling option, Build Now button or calling the `build/` URL endpoint.

To enable SCM polling, check the 'Poll SCM' option and provide a Schedule using the Cron format. For example every 10 minutes Monday to

Friday, the 'H' is a time offset (calculated using a Hash of the Job name).

To build immediately select the Build now button...

...or use the call the `build/` URL endpoint e.g. http://jenkins_host:8080/job/myJobID/build

(where myJobID is the name of your job and jenkins_host the name or IP address of your Jenkins server).

Review

The plugin supports a Build Review Action with a `review/build/` URL endpoint. Parameters can be passed informing Jenkins of Perforce shelf to unshelve and changelist to sync to. There are also Pass/Fail callback URLs for use with Swarm.

An example URL that would build the review in the shelved change 23980:

http://jenkins_host:8080/job/myJobID/review/build?status=shelved&review=23980

The Build Review Action support the following parameters:

- status (shelved or submitted)
- review (the pending shelved change)
- change (the submitted change)
- pass (URL to call after a build succeeded)
- fail (URL to call after a build failed)

The Build Review Action can be invoked manually from within Jenkins by selecting the Build Review button on the left hand side. This provides a form to specify the parameters for build.
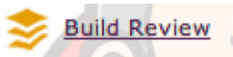
Changes Summary

After a build Jenkins provides the ability to see the details of a build. Select the build of interest from the Build History on the left hand side. You then get a Perforce change summary for the build and clicking on the View Detail link for specific files.

Build #3 (Apr 29, 2014 2:38:23 PM)

Started 1 min 4 sec ago
Took 6.8 sec

add description

Summary Of Changes - View Detail

8909 by paul_allen@pallen.mac.main.p4-jenkins on Apr 24, 2014 2:32:40 AM

[TPI-83] Clean Workspace that may contain files with wildcards.
Added (-f) flag to reconcile and ignore warnings for empty files.

Started by user admin

Detailed view...

Changes

8909 by paul_allen@pallen.mac.main.p4-jenkins on Apr 24, 2014 2:32:40 AM

[TPI-83] Clean Workspace that may contain files with wildcards.
Added (-f) flag to reconcile and ignore warnings for empty files.

Submitted Files:

//quest/paul_allen/dev/p4-jenkins/p4-client/src/main/java/org/jenkinsci/plugins/p4_client/client/ConnectionHelper.java#25
//quest/paul_allen/dev/p4-jenkins/p4-client/src/test/java/org/jenkinsci/plugins/p4_client/client/ConnectionTest.java#9
//quest/paul_allen/dev/p4-jenkins/p4-client/src/test/resources/checkpoint.gz#4
//quest/paul_allen/dev/p4-jenkins/p4-client/src/test/resources/depot.tar.gz#3

Affected Jobs:

job000045 - closed
Jenkins is unable to resolve filenames with wildcards in them Repro: 1. Create ...

Repository Browsing

Repository browsing allows Jenkins to use an external browser, like Swarm, P4Web, etc... to navigate files and changes associated with a Jenkins build.

To enable the feature select the Repository browser from the Job Configuration page and provide the full URL to the browser.

Link to change in Swarm

Change 8909

paul_allen committed this change 5 days ago into //guest/paul_allen/dev/p4-jenkins/p4-client/src

[TPI-83] Clean Workspace that may contain files with wildcards.
Added (-f) flag to reconcile and ignore warnings for empty files.

job000045 Jenkins is unable to resolve filenames with wildcards in them Repro: 1. Crea...

Files `4`   **Comments** `0`

✎ **4 edited**   ➕ **0 added**   ➖ **0 deleted**

> ✎ **main/java/org/jenkinsci/plugins/p4_client/client/ConnectionHelper.java#25**
> ✎ **test/java/org/jenkinsci/plugins/p4_client/client/ConnectionTest.java#9**
> ✎ **test/resources/checkpoint.gz#4**
> ✎ **test/resources/depot.tar.gz#3**

Comparison (missing features only)

The following table identifies features that are missing or divergent from the current plugin.

Feature	Current 'Perforce' plugin	New 'this' plugin
Repo Browsers	FishEye	(no-plan)
	P4Web	(TODO)
	Perfbrowse	(no-plan)
		Swarm
Exclude changes from build when using Poll SCM	[ADV] Users	(no-plan)
	[ADV] Files	(no-plan)
Upstream Project	[ADV] Sync to another project	(no-plan)
Sync to other changes	[ADV] Sync to label	(consider)
	[ADV] Sync to fixed number	(no-plan)
		Build parameter
		Shelved change
Display Changes	Changes in build XML	uses Perforce
	[ADV] Integrated changes	(consider)
	[ADV] Disable change log	uses Perforce
	[ADV] Limit change log	uses Perforce
Clean workspace	[ADV] before build	Smart
	[ADV] force sync	Smart

Workspace Views	Manual (full)	Manual (full)
	Manual (LHS only)	(consider)
	Stream	Stream
	From File	(TODO)
		Template
		Static

[ADV] = Advanced (hidden) option

Release notes

2014.1 beta release

Known limitations:

- One Jenkins Job per Swarm branch
- Label/Tag build in not implemented

...