Integrating Test Results from Jenkins to ALM

This document describes how to install and configure the *HP-Application-Automation-Tools Jenkins* plugin to enable you to integrate test results from Jenkins to ALM. This feature is available starting from ALM 12.21. For more details on this feature, see the *HP Application Lifecycle Management User Guide*.

1. Prerequisites

Install a Jenkins server (the most recent version is recommended).

2. Installing the HP-Application-Automation-Tools Jenkins plugin

Download the plugin from the following location:

https://wiki.jenkins-ci.org/display/JENKINS/HP+Application+Automation+Tools.

To install the Jenkins plugin:

1. Navigate to **Manage Jenkins > Manage Plugins > Advanced** tab.

2. Under **Upload Plugin**, upload the attached or downloaded *.hpi* file.

Upload Plugin

You can upload a .hpi file to install a plugin from outside the central plugin repository.

File: [Choose File] No file chosen

[Upload]

3. After restarting the Jenkins server plugin, navigate to **Manage Jenkins > Manage Plugins**. The plugin should be listed in the **Installed** tab.

For additional information on installing Jenkins plugins, see: https://wiki.jenkins-ci.org/display/JENKINS/Plugins#Plugins-Howtoinstallplugins

3. Configuring the ALM Server Connection

1. On the Jenkins server home page, click the **Manage Jenkins** link on the left pane.

2. In the Manage Jenkins page, click **Configure System**.

3. In the **Configuration** tab, located the **Application Lifecycle Management** section.

4. Click **Add ALM server**, if no server is currently configured.

5. Enter an ALM Server URL. Format: http:/myserver.mydomain:8080/qcbin

Application Lifecycle Management		
ALM server		
	ALM server name	ALM 12.21
	ALM server URL	http://servername:8080/qcbin
		Delete ALM server

4. Installing Jenkins Plugin for Publishing Results

Install the appropriate Jenkins plugin for your testing framework. The following testing frameworks are supported:

- Junit: https://wiki.jenkins-ci.org/display/JENKINS/JUnit+Plugin

- NUnit: https://wiki.jenkins-ci.org/display/JENKINS/NUnit+Plugin

- TestNG: https://wiki.jenkins-ci.org/display/JENKINS/testng-plugin

For example, to configure the Junit plugin:

Note: Alternatively, instead of installing a Jenkins plugin for publishing results, you can copy JUnit/NUnit/TestNG test results to your build directory.

For example, to copy JUnit test results, execute the XCOPY command:

5. Configuring the "Upload Test result to ALM" Post-Build Action

1. Click **Add post-build action** and choose **Upload test result to ALM**.
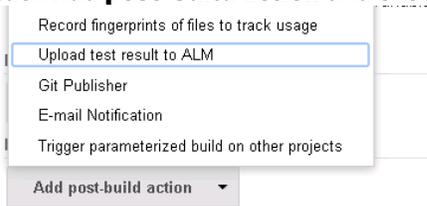
2. Complete the post-build actions. For help on any field, click ⑦ to the right of the field. For example:

Post-build Actions

Upload test result to ALM

ALM server	ALM 12.21
User name	alm_user
Password	....
Domain	DOMAIN_NAME
Project	Project_name
Testing Framework	JUnit
Testing Tool	Selenium
Test Folder	Test Plan Folder\Unit tests\Exported results
Test set Folder	Test Set Folder\Unit tests\Exported results
Testing result file	**/junitResult.xml
Jenkins server URL	http://jenkinsservername:8080/

6. Building a Project

Build your Jenkins project with tests.

You can see the plugin's details in the build console output:

```
INFO: 'Upload test result to ALM' Post Build Step is being invoked.
INFO: 1 test result file found.
INFO: Start to upload C:\Program Files (x86)\Jenkins\jobs\ALM Plugin - test -
INFO: Start to parse file: C:\Program Files (x86)\Jenkins\jobs\ALM Plugin -
INFO: parse resut file succeed.
INFO: Start to login to ALM Server.
Logged in successfully to ALM Server
INFO: Checking test folder...
INFO: Checking testset folder...
INFO: Uploading ALM Entities...
INFO: Uploaded C:\Program Files (x86)\Jenkins\jobs\ALM Plugin - test - JUnit
INFO: 'Upload test result to ALM' Completed.
```

7. Viewing Result in ALM

When the Jenkins job completes, the results are synchronized with ALM. As part of the synchronization process, ALM creates entities in the following modules:

- **Test Lab module:** Test sets and test instances
- **Test Plan module:** Tests
- **Test Run module:** Run results

Note: If the tests and test set entities already exists in ALM in the same Test Lab and Test Plan folders, only the test runs will be created.