Jenkins Connector

Polarion supports Continuous Integration/Continuous Delivery (CI/CD) technology by means of a Connector that administrators can configure to connect to, and exchange data with a remote CI/CD system.
This enables Polarion to launch builds and tests that are performed by an external application (Jenkins) and to import build and test results.

Connector Configuration

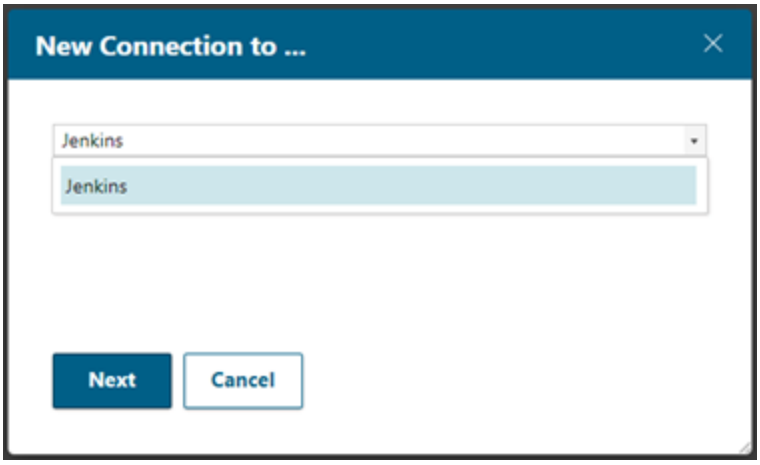
A. Jenkins Connection in Polarion Administration

1. Connector connected polarion to Jenkins via http/s server with authentication via either a user password or an API Token.
2. Builds can be configured after connection established by Jenkins remote build URL and any parameter if required.
3. The parameters' settings can either be a static part of the Build configuration or, if the Build is being triggered by Polarion's workflow, the values can be loaded dynamically from a custom field on a Work Item or a Test Run.

Follow these steps to configure a Connection to Jenkins via the Polarion user interface.

1. Open the project you want to configure and enter Administration.
2. In Navigation, select Building ➡ CI/CD Integration.
3. In the Connections section of the page, click Add Connection.
   The New Connection to dialog box appears.
4. In the dialog box, select Jenkins and click Next.
   The New Connection to Jenkins dialog box appears.
5. In the dialog box, enter:

ID	Identifies this Build in the Polarion system.
Server URL	The URL of the server hosting Jenkins.
User account of the remote	User ID or user name of a valid user Jenkins application.
Password or API Token account specified in	Password or API Token for the user the User field.



6. Click Create to create the new Connection.

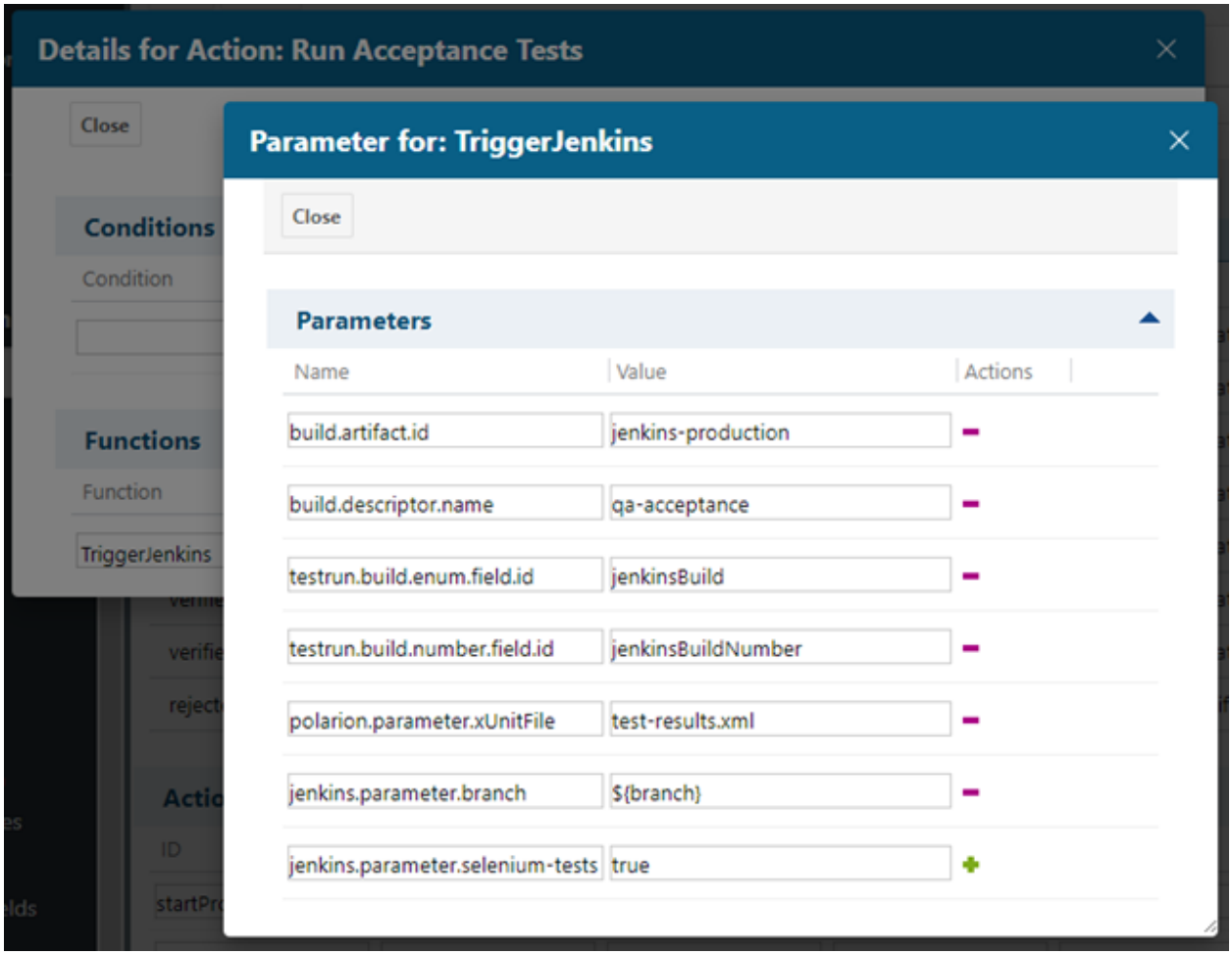
B. Configure a Jenkins Build in Polarion Administration

Steps to follow to configure a Jenkins build

1. Open the project you want to configure and enter Administration.
2. In Navigation, select Building ➡ CI/CD Integration.
3. In the Builds section of the page, click Add Build.
   The New Build dialog box appears.
4. In the dialog box, specify the following:

ID	Identifies this Build in the Polarion system.
Connection	Select the Connection you want to use for this Build from the list of existing Connections.
Build URL	Enter the URL for the build you want to run on the remote Jenkins host.

5. If you want to configure parameters to pass to the Jenkins build, click Edit Parameters, and add the desired parameters in the Build Parameters dialog box, and click OK when finished.
6. Only parameters with the prefixes jenkins.parameter. or polarion.parameter. will be saved in the Jenkins Build. Parameters with the jenkins.parameter. prefix are passed to Jenkins. Parameters with the polarion.parameter. prefix are used to configure Polarion's behavior.



NOTE:-Parameters polarion.parameter.* and jenkins.parameter.* in descriptor.xml, or configured during build creation, will be overridden by workflow parameters if any exist which have identical names.

Example: You can use the following property to define a specific timeout for a build:

polarion.parameter.buildTimeout=

7. Click Create to complete the new Build definition.

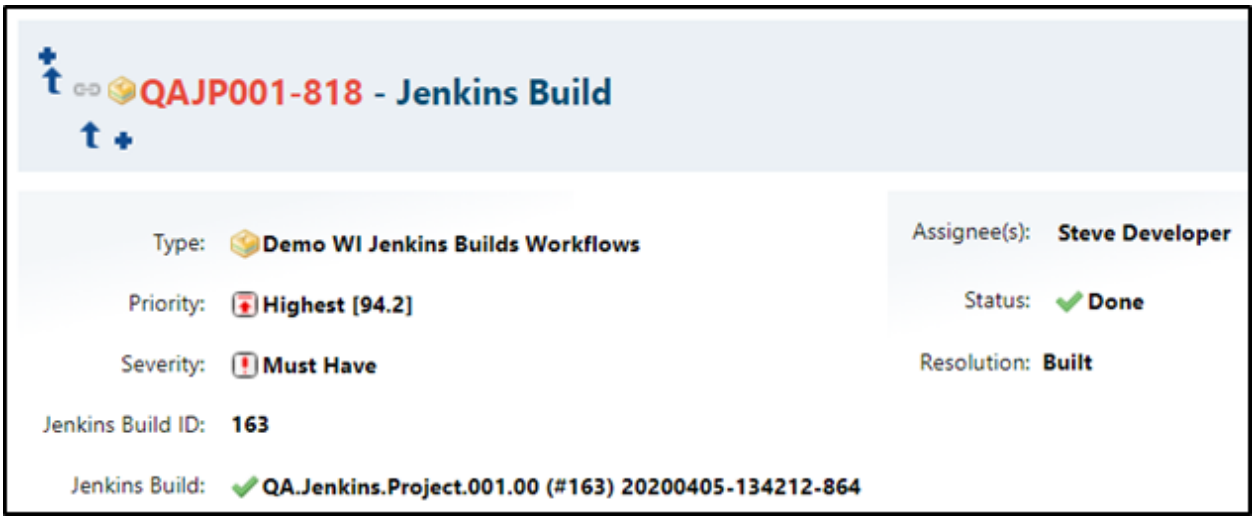
Triggering Jenkins builds from Polarion

Three ways of triggering

1. start a build manually using the Polarion Builds topic.
2. Builds scheduled via Polarion Scheduler and run automatically.
3. Trigger the Builds is via Work Item or Test Run Workflow functions which enables you to run the Builds as a part of a status transition. It's brought great value to the highly integrated environments where the development is closely tied to and tracked in Polarion.

Monitoring of Jenkins build

When a Jenkins Build is run from Polarion it is then monitored via polling of Jenkins for current data. The Build Number and Build Status are polled from Jenkins and stored on the Build page of the Builds topic. This information can also be stored in Work Item or Test Run custom fields if the build process was triggered by a Workflow function, together with a link to the actual Polarion Build that was created when the remote Build was triggered.



Reference Links:-

1. https://blogs.sw.siemens.com/polarion/polarion-alm-20-r1-whats-new-and-noteworthy/

2. https://docs.plm.automation.siemens.com/content/polarion/20/help/en_US/user_and_administration_help/administrators_guide/configure_connectors/cicd_jenkins/configure_connections_and_builds.html

3.