

3.3 Maven Setup

This section will guide you to:

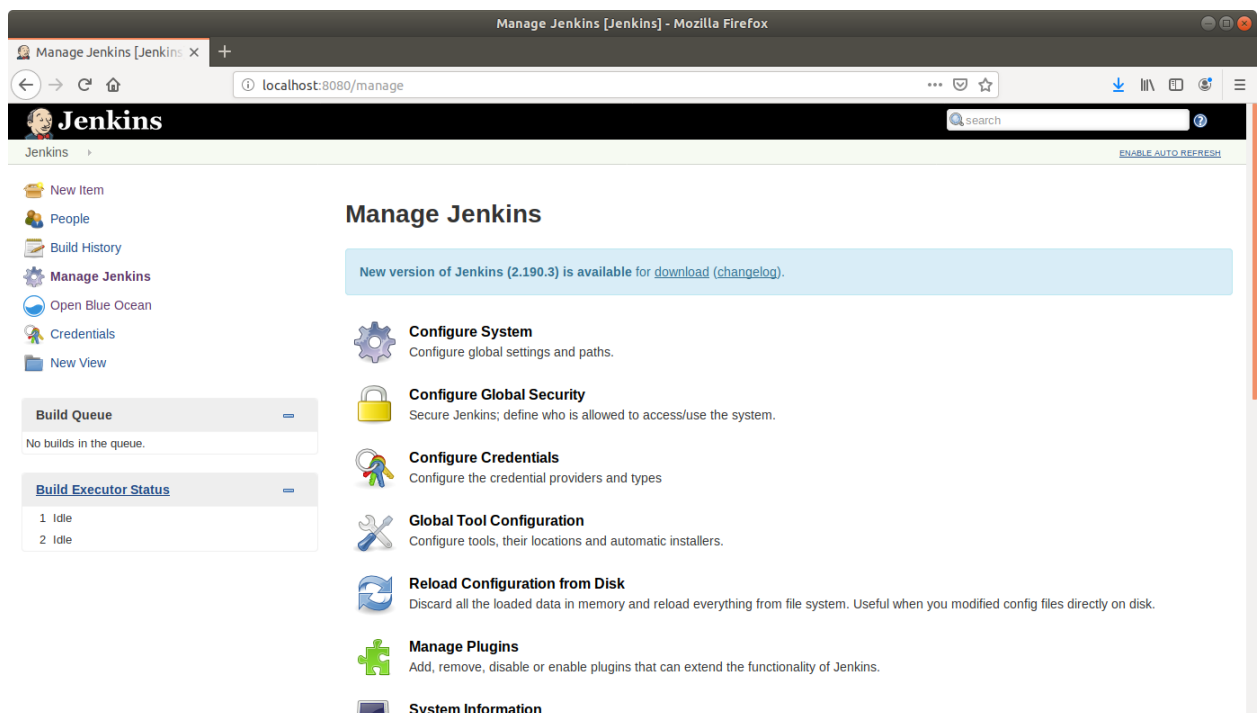
- Configure build tools and JDK versions

This lab has two sub-sections, namely:

- 3.3.1 Configuring the Maven setup
- 3.3.2 Configuring the JDK

Step 3.3.1: Configuring the Maven setup

- Open the Jenkins dashboard.
- Click on *Manage Jenkins*. From the list of options, choose *Manage Plugins*.



- Under the *Available* tab, select *Maven Integration*.

The screenshot shows the Jenkins Update Center interface in a Mozilla Firefox browser. The address bar shows 'localhost:8080/pluginManager/available'. The Jenkins logo and navigation links are on the left. The main content area has tabs for 'Updates', 'Available', 'Installed', and 'Advanced'. A search filter 'maven' is applied. A table lists available plugins:

Name	Version
View Job Filters	2.1.1
Maven Artifact ChoiceListProvider (Nexus)	1.5.1
Maven Metadata Plugin for Jenkins CI server	2.0.0
Dependency Analyzer	0.7
Maven Integration	3.4
Maven SNAPSHOT Check	1.5
Maven Dependency Update Trigger	1.5

At the bottom, there are buttons: 'Install without restart', 'Download now and install after restart', and 'Check now'. The status bar indicates 'Update information obtained: 1 min 43 sec ago'.

- Click on *Install without restart* and the plugin will be installed.

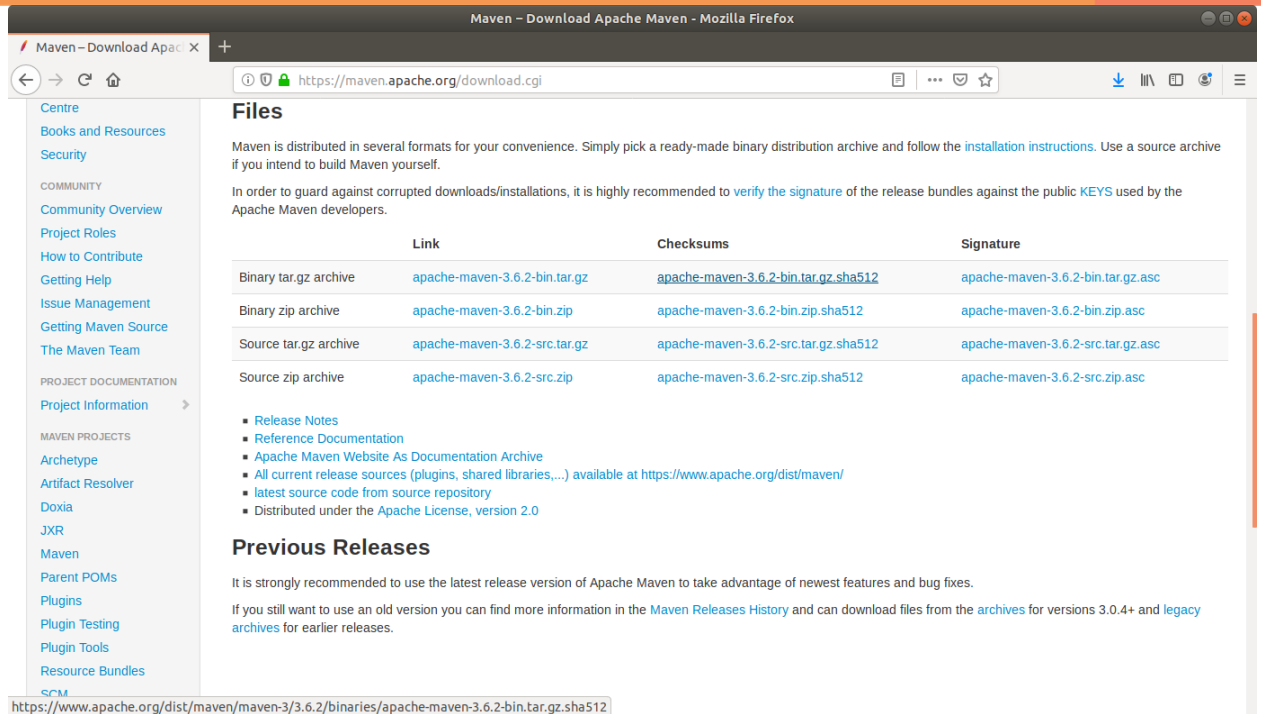
The screenshot shows the Jenkins Update Center interface after the installation of the Maven Integration plugin. The address bar shows 'localhost:8080/updateCenter/'. The main content area has a section titled 'Installing Plugins/Upgrades' with the following progress:

- Preparation:
 - Checking internet connectivity: Success
 - Checking update center connectivity: Success
 - Success
- Javadoc: Success
- Maven Integration: Success
- Loading plugin extensions: Success

Below the progress, there are links: 'Go back to the top page (you can start using the installed plugins right away)' and a checkbox 'Restart Jenkins when installation is complete and no jobs are running'.

Page generated: Nov 25, 2019, 3:25:46 PM IST [REST API](#) [Jenkins ver. 2.190.2](#)

- Go to <https://maven.apache.org/download.cgi> and download the binary zip file.



Maven - Download Apache Maven - Mozilla Firefox

https://maven.apache.org/download.cgi

Files

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the [installation instructions](#). Use a source archive if you intend to build Maven yourself.

In order to guard against corrupted downloads/installations, it is highly recommended to [verify the signature](#) of the release bundles against the public [KEYS](#) used by the Apache Maven developers.

	Link	Checksums	Signature
Binary tar.gz archive	apache-maven-3.6.2-bin.tar.gz	apache-maven-3.6.2-bin.tar.gz.sha512	apache-maven-3.6.2-bin.tar.gz.asc
Binary zip archive	apache-maven-3.6.2-bin.zip	apache-maven-3.6.2-bin.zip.sha512	apache-maven-3.6.2-bin.zip.asc
Source tar.gz archive	apache-maven-3.6.2-src.tar.gz	apache-maven-3.6.2-src.tar.gz.sha512	apache-maven-3.6.2-src.tar.gz.asc
Source zip archive	apache-maven-3.6.2-src.zip	apache-maven-3.6.2-src.zip.sha512	apache-maven-3.6.2-src.zip.asc

- Release Notes
- Reference Documentation
- Apache Maven Website As Documentation Archive
- All current release sources (plugins, shared libraries,...) available at <https://www.apache.org/dist/maven/>
- latest source code from source repository
- Distributed under the [Apache License](#), version 2.0

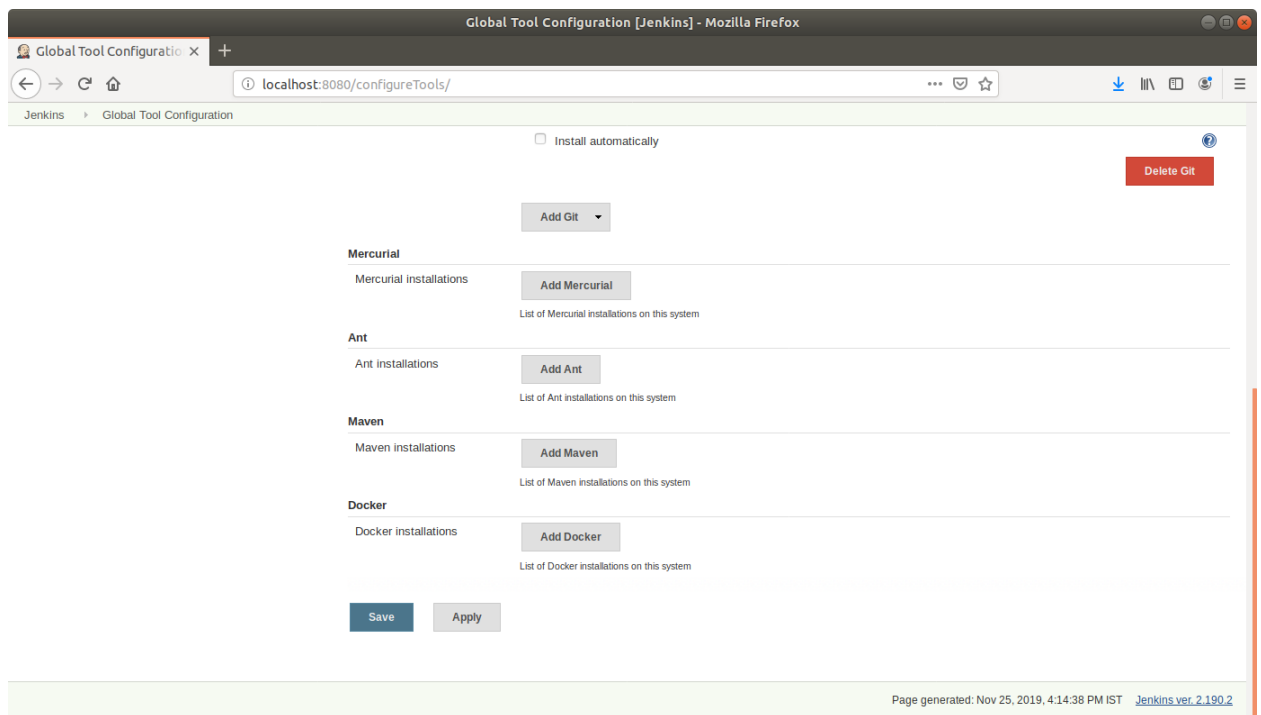
Previous Releases

It is strongly recommended to use the latest release version of Apache Maven to take advantage of newest features and bug fixes.

If you still want to use an old version you can find more information in the [Maven Releases History](#) and can download files from the [archives](#) for versions 3.0.4+ and [legacy archives](#) for earlier releases.

<https://www.apache.org/dist/maven/maven-3/3.6.2/binaries/apache-maven-3.6.2-bin.tar.gz.sha512>

- Unzip and extract the file and copy the path.
- Go to *Manage Jenkins* from the Jenkins dashboard and select *Global Tool Configuration*.
- Scroll down to the *Maven* section and click on *Add Maven*.



Global Tool Configuration [Jenkins] - Mozilla Firefox

localhost:8080/configureTools/

☐ Install automatically

[Delete Git](#)

[Add Git](#)

Mercurial

Mercurial Installations [Add Mercurial](#)

List of Mercurial installations on this system

Ant

Ant Installations [Add Ant](#)

List of Ant installations on this system

Maven

Maven Installations [Add Maven](#)

List of Maven installations on this system

Docker

Docker Installations [Add Docker](#)

List of Docker installations on this system

[Save](#) [Apply](#)

Page generated: Nov 25, 2019, 4:14:38 PM IST [Jenkins ver. 2.190.2](#)

- You can choose to install automatically by ticking the checkbox and specifying the version, or uncheck the box and enter the local path if you want to configure manually.
- Enter a name for the installation.
- Uncheck the *Install automatically* checkbox.
- Paste the path to the Maven file in the *MAVEN_HOME* field and click *Save*.

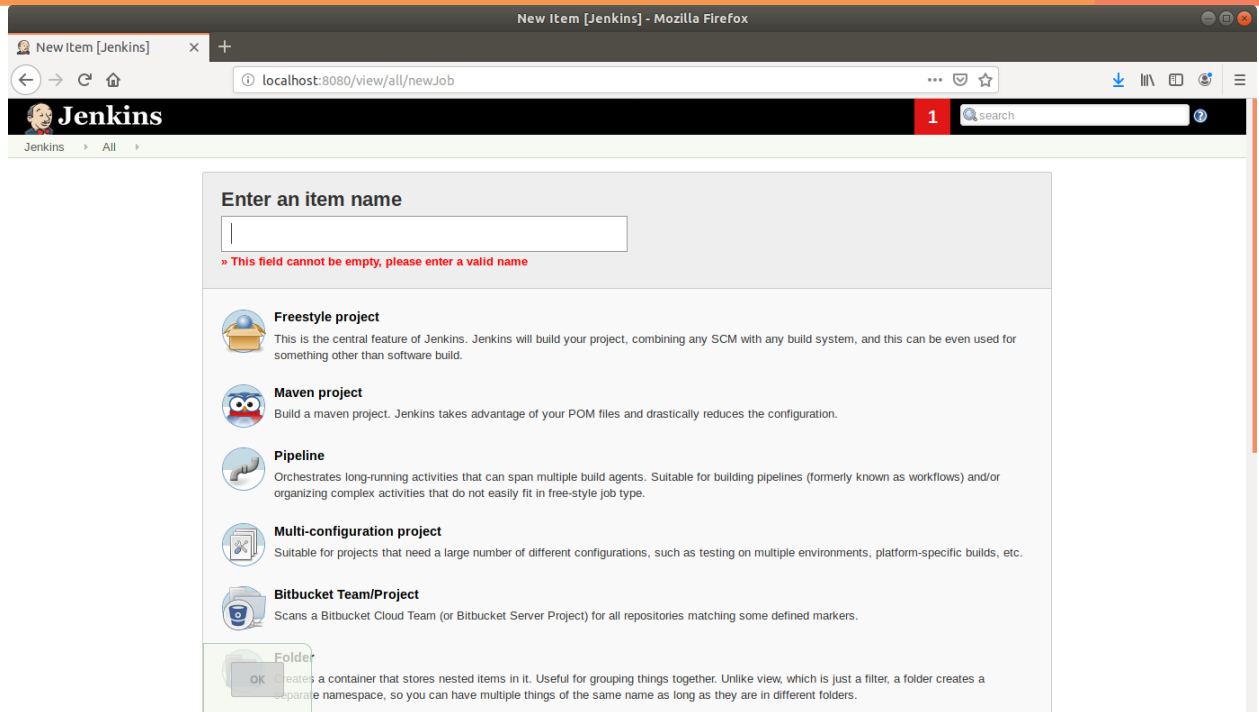
The screenshot shows the Jenkins Global Tool Configuration page in a Mozilla Firefox browser. The page is titled "Global Tool Configuration [Jenkins] - Mozilla Firefox" and the address bar shows "localhost:8080/configureTools/". The page has a breadcrumb "Jenkins > Global Tool Configuration".

The page is divided into sections for different tools:

- Ant:** Includes an "Add Ant" button and a "List of Ant installations on this system" section.
- Maven:** Includes an "Add Maven" button, a "List of Maven installations on this system" section, and a form for adding a new installation. The form has fields for "Name" (filled with "my_mvn") and "MAVEN_HOME" (filled with "/home/judy/apache-maven-3.6.2"). There is an unchecked checkbox for "Install automatically" and a "Delete Maven" button.
- Docker:** Includes an "Add Docker" button and a "List of Docker installations on this system" section.

At the bottom of the page, there are "Save" and "Apply" buttons. A footer at the bottom right says "Page generated: Nov 26, 2019, 2:38:44 PM IST" and "Jenkins ver. 2.190.2".

- You can now find *Maven project* as an option under *New Item*.



Step 3.3.2: Configuring the JDK

- Go to *Manage Jenkins* from the Jenkins dashboard and select *Global Tool Configuration*.
- Scroll down to the *JDK* Section and click on *Add JDK*.

Global Tool Configuration [Jenkins] - Mozilla Firefox

Global Tool Configuration x +

localhost:8080/configureTools/

Jenkins > Global Tool Configuration

JDK

JDK Installations

Add JDK

JDK

Name

Required

☒ Install automatically

Install Oracle Java SE Development Kit from the website

Version

Java SE Development Kit 9.0.4

☐ I agree to the Java SE Development Kit License Agreement

Installing JDK requires Oracle account. Please enter your username/password

Oracle Java SE 11+ is not available for business, commercial or production use without a commercial license. Public updates for Oracle Java SE 8 released after January 2019 will not be available for business, commercial or production use without a commercial license. Oracle Java SE Licensing FAQ

Delete Installer

Add Installer

Add JDK

List of JDK installations on this system

Save Apply

- You can choose to install automatically by ticking the checkbox and specifying the version. Uncheck the box if you want to enter the JDK path manually.

Global Tool Configuration [Jenkins] - Mozilla Firefox

Global Tool Configuration x +

localhost:8080/configureTools/

Jenkins > Global Tool Configuration

Back to Dashboard

Manage Jenkins

Global Tool Configuration

Maven Configuration

Default settings provider

Use default maven settings

Default global settings provider

Use default maven global settings

JDK

JDK Installations

Add JDK

JDK

Name

my_jdk

JAVA_HOME

/usr/lib/jvm/java-11-openjdk-amd64

/usr/lib/jvm/java-11-openjdk-amd64 doesn't look like a JDK directory

☐ Install automatically

Delete JDK

Add JDK

List of JDK installations on this system

Save Apply

- Enter the path to the JDK in the JAVA_HOME field and click Save.