Introduction

Apache Maven is a project management tool for developing Java applications designed to provide a comprehensive and easy-to-read status of a project. It also incorporates a POM (Project Object Model) approach, meaning that it uses standardized software libraries and plugins. These features help create a standard development environment for multiple teams.

This tutorial will walk you through **installing Apache Maven on CentOS 7.**

Prerequisites

* A system running CentOS 7
* Access to a [user account with **sudo** or root privileges](https://phoenixnap.com/kb/how-to-create-add-sudo-user-centos)
* Access to a terminal window/command line (Ctrl-Alt-F2)
* The **yum** package manager, included by default
* (Optional) The **wget** software utility

**Option 1: Install Apache Maven on CentOS with Yum**

1. Open a terminal window, and enter the following:

sudo yum install maven

Confirm the installation, and allow the process to complete. Maven should now be installed on your system.

2. Verify the installation by checking the Maven version:

mvn ––version

The following output confirms a successful install:

Apache Maven 3.5.3 (3383c37e1f9e9b3bc3df5050c29c8aff9f295297; 2018-02-24T13:49:05-06:00) Maven home: /opt/maven

Java version: 1.8.0\_161, vendor: Oracle Corporation

Java home: /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.161-0.b14.el7\_4.x86\_64/jre

Default locale: en\_GB, platform encoding: UTF-8

Note: At the time this article was written, the latest stable version of Apache Maven was 3.6.0. If you need an older version, you can check Maven’s [release history](https://maven.apache.org/docs/history.html).

**Option 2: Install Latest Version of Maven**

Sometimes the software version in the default repositories is older than the latest stable release from the developers. This section will walk you through the manual i**nstallation of Apache Maven on CentOS**.

**Step 1: Install Java Development Kit**

Apache Maven requires the Java Development Kit. This guide uses the OpenJDK software package.

1. In a terminal window, enter the following:

sudo yum install java-1.8.0-openjdk-devel

Allow the process to complete.

2. Verify the installation by checking the Java version:

java –version

**Step 2: Download Apache Maven For CentOS**

Download the Maven source file to the **/tmp** directory with the command:

sudo wget http://mirrors.ibiblio.org/apache/maven/maven-3/3.6.0/binaries/apache-maven-3.6.0-bin.tar.gz –P /tmp

If you get an error “command not found,” you may be missing the **wget** software. Install it by entering:

sudo yum install wget

Extract the **.tar.gz** archive:

sudo tar xf /tmp/apache-maven-2.6.0-bin.tar.gz –C /opt

(Optional) Create a symbolic link by entering:

sudo ln –s /opt/apache-maven-3.6.0 /opt/maven

This step preserves the extracted directory but allows you to use **/opt/maven** as a shortcut to that directory.

**Step 3: Configure Environment**

Apache Maven works from a configuration file, **/etc/profile.d/maven.sh**.

1. Create and edit the configuration file by entering:

sudo nano /etc/profile.d/maven.sh

2. Enter the following lines:

# Apache Maven Environmental Variables

# MAVEN\_HOME for Maven 1 - M2\_HOME for Maven 2

export JAVA\_HOME=/usr/lib/jvm/jre-openjdk

export M2\_HOME=/opt/maven

export MAVEN\_HOME=/opt/maven

export PATH=${M2\_HOME}/bin:${PATH}

Save the file and exit.

3. Change the file permissions by entering the following:

sudo chmod +x /etc/profile.d/maven.sh

4. Then load the file with the command:

source /etc/profile.d/maven.sh

**Step 4: Verify Apache Maven Installation**

To verify the installation of Apache Maven, use the command:

mvn ––version

The system should display **Apache Maven 3.6.0** and **Maven Home: /opt/maven**.

**Using Apache Maven**

Maven was designed initially for Java projects. However, it can also be used to build and manage other programming languages, such as Ruby and C#.

One of the ways that Maven works is through the use of plugins. Maven can download libraries and plugins from a central repository and cache a local version. Most plugins are written to support Java. If you’re planning to use Maven to manage another programming language, you may need to write your own plugins for that language.

Conclusion

Great job, you have successfully installed Apache Maven on CentOS 7.