

**Apache Maven Fast Track**

**Course Number:** MVN-102WA  
**Duration:** 1 day

**Overview**

This Apache Maven Fast Track training course teaches how to install, configure, and use Apache Maven for building and managing dependencies in Java applications. The course includes coverage of running Maven commands at both within the command line and in either Eclipse or IntelliJ.

**Prerequisites**

All attendees must have Java experience.

**Materials**

All Apache Maven training students receive comprehensive courseware.

**Software Needed on Each Student PC**

* JDK 8 or later
* Any operating system that supports Java 1.8 or later
* The Java tool the students are likely to use after the class (Eclipse or IntelliJ are recommended, but other tools are also supported)
* The Maven version of your choice
* Other free software - please contact us if you have purchased this class

**Objectives**

* Download, install, and configure Maven
* Build a project
* Work with Maven's project directory structure, plugins, repositories, and more
* Understand the Project Object Model (POM)
* Build a complete web application using Maven
* Work with commonly used Maven plugins
* Build multi-module applications

**Outline**

* Introduction to Apache Maven
  + Build Tools for Java
  + History of Build Tools
  + Traditional Scripting
  + 'make'
  + Problems with Make
  + Manual Build with JavaC
  + ANT
  + Pros and Cons of Ant
  + Apache Maven
  + Goals of Maven
  + What is Apache Maven?
  + Why Use Apache Maven?
  + The Maven EcoSystem
  + Consistent Easy-to-Understand Project Layout
  + Convention Over Configuration
  + Maven is Different
  + Maven Projects have a Standardized Build
  + Effect of Convention Over Configuration
  + Importance of Plugins
  + A Key Point on Maven!
  + Key Features of Maven
* Installing and Running Apache Maven
  + Downloading Maven
  + Installing Maven
  + Run From Command Line
  + Running Inside an IDE
  + Settings.xml
  + Local Repository
* Getting Started With Maven
  + Terminology and Basic Concepts
  + Artifacts
  + Lifecycle
  + Default Lifecycle
  + Plugins
  + Running Maven - the Story So Far
  + Running Maven from an IDE
  + Common Goals
  + pom.xml
  + Artifact Coordinates
  + Standard Layout for Sources
* A Web Application in Maven
  + A More Complex Project
  + Putting it Together With Maven
  + Packaging the Target Artifact
  + The Source Tree
  + Dependencies
  + Transitive Dependencies
  + Dependency Scope
  + Working With Servers
  + Declaring and Configuring Plugins
  + Running the Plugin
  + Binding a Plugin Goal to the Lifecycle
  + Archetypes
* Commonly Used Plugins
  + Maven Plugins
  + Declaring and Configuring Plugins
  + Running the Plugin
  + Binding a Plugin Goal to the Lifecycle
  + Maven Surefire Test Plugin
  + Failsafe Plugin
  + Site Plugin
  + JavaDoc Plugin
  + PMD Plugin
  + Code Coverage – Cobertura
* Multi-Module Builds
  + The Reactor
  + Reactor Sorting
  + Multi-Module Build by Example
* Conclusion