

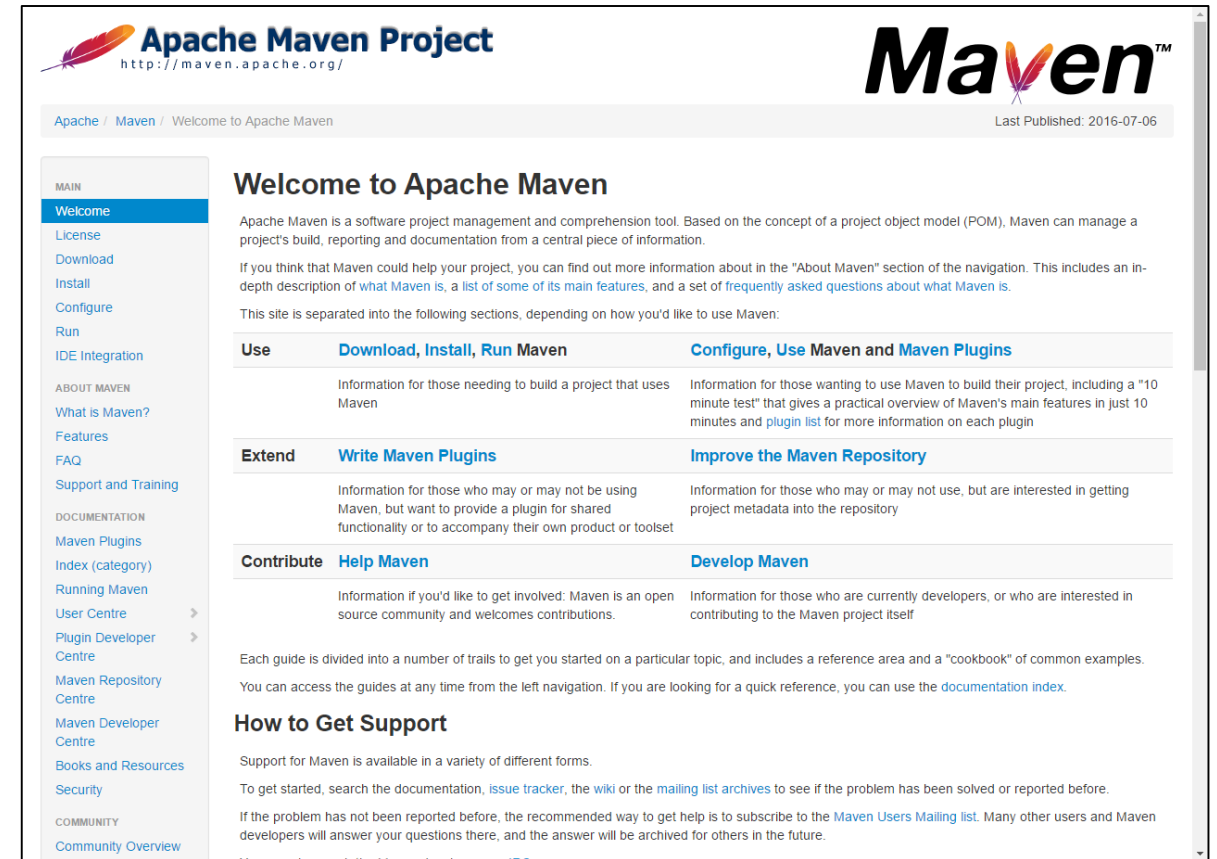
Week 1 Unit 3: Maven and the ESPM Application

Maven and the ESPM Application

Maven overview

- Build management tool
- Created in 2002 to simplify the build processes in the Jakarta Turbine project
- Based on the concept of a project object model (POM)
- Maven's primary goal is to allow a developer to comprehend the complete state of a development effort in the shortest period of time

<https://maven.apache.org>



The screenshot shows the Apache Maven Project website. The header includes the Apache Maven Project logo and the URL <http://maven.apache.org/>. The main navigation menu on the left lists sections like MAIN, ABOUT MAVEN, DOCUMENTATION, and COMMUNITY. The main content area is titled "Welcome to Apache Maven" and provides an overview of the tool, its purpose, and links to various guides and resources. A table of links is also present, categorized by "Use", "Extend", and "Contribute".

Use	Download, Install, Run Maven	Configure, Use Maven and Maven Plugins
	Information for those needing to build a project that uses Maven	Information for those wanting to use Maven to build their project, including a "10 minute test" that gives a practical overview of Maven's main features in just 10 minutes and plugin list for more information on each plugin

Extend	Write Maven Plugins	Improve the Maven Repository
	Information for those who may or may not be using Maven, but want to provide a plugin for shared functionality or to accompany their own product or toolset	Information for those who may or may not use, but are interested in getting project metadata into the repository

Contribute	Help Maven	Develop Maven
	Information if you'd like to get involved: Maven is an open source community and welcomes contributions.	Information for those who are currently developers, or who are interested in contributing to the Maven project itself

Each guide is divided into a number of trails to get you started on a particular topic, and includes a reference area and a "cookbook" of common examples. You can access the guides at any time from the left navigation. If you are looking for a quick reference, you can use the [documentation index](#).

How to Get Support

Support for Maven is available in a variety of different forms.

To get started, search the documentation, [issue tracker](#), the [wiki](#) or the [mailing list archives](#) to see if the problem has been solved or reported before.

If the problem has not been reported before, the recommended way to get help is to subscribe to the [Maven Users Mailing list](#). Many other users and Maven developers will answer your questions there, and the answer will be archived for others in the future.

Maven and the ESPM Application

Maven overview: pom.xml

- Project object model (POM)
- The POM is the basic unit of work in Maven
- Contained in the file pom.xml in the project
- In short, the POM contains every important piece of information about your project and is essentially one-stop-shopping for finding anything related to your project

<https://maven.apache.org>

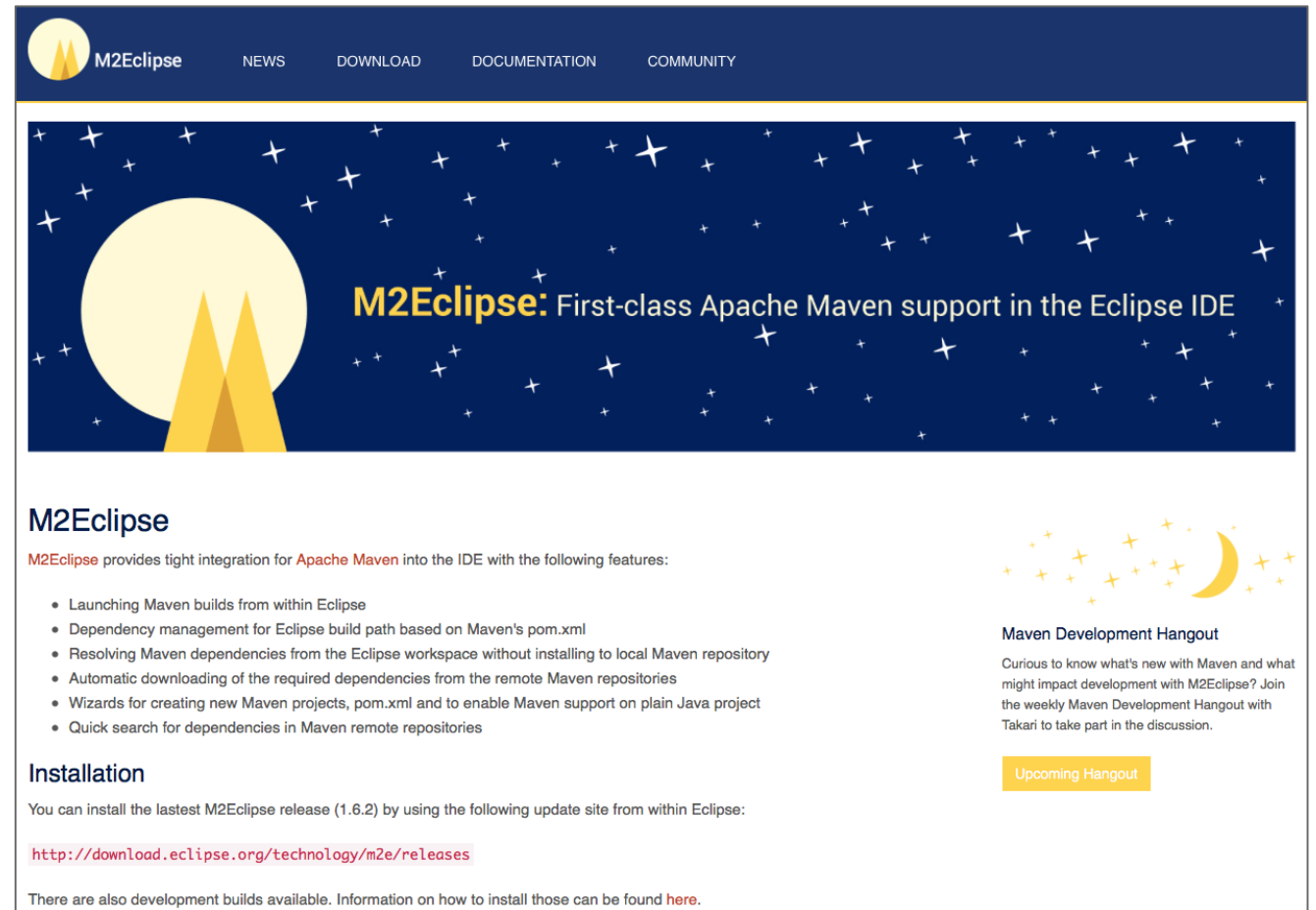
```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
    http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.mycompany.app</groupId>
  <artifactId>my-app</artifactId>
  <packaging>jar</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>Maven Quick Start Archetype</name>
  <url>http://maven.apache.org</url>
  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.11</version>
      <scope>test</scope>
    </dependency>
  </dependencies>
</project>
```

Maven and the ESPM Application

Eclipse and Maven

- Maven can be used with Eclipse through M2Eclipse
- M2Eclipse is a Maven integration for Eclipse
- M2Eclipse is included in Eclipse for Java EE developers
- You can still use the Maven command line in addition

<https://www.eclipse.org/m2e>



The screenshot shows the M2Eclipse website. The header is dark blue with the M2Eclipse logo and navigation links: NEWS, DOWNLOAD, DOCUMENTATION, and COMMUNITY. The main banner features a night sky with stars and a yellow sun/moon behind two yellow triangles, with the text "M2Eclipse: First-class Apache Maven support in the Eclipse IDE". Below the banner, the "M2Eclipse" section lists features: launching Maven builds from within Eclipse, dependency management for Eclipse build path based on Maven's pom.xml, resolving Maven dependencies from the Eclipse workspace without installing to local Maven repository, automatic downloading of the required dependencies from the remote Maven repositories, wizards for creating new Maven projects, pom.xml and to enable Maven support on plain Java project, and quick search for dependencies in Maven remote repositories. The "Installation" section states that the latest M2Eclipse release (1.6.2) can be installed using the following update site from within Eclipse: <http://download.eclipse.org/technology/m2e/releases>. It also mentions that development builds are available and information on how to install them can be found [here](#). On the right side, there is a "Maven Development Hangout" section with a crescent moon and stars icon, inviting users to join the weekly Maven Development Hangout with Takari to take part in the discussion. Below this is an "Upcoming Hangout" button.

M2Eclipse

M2Eclipse provides tight integration for **Apache Maven** into the IDE with the following features:

- Launching Maven builds from within Eclipse
- Dependency management for Eclipse build path based on Maven's pom.xml
- Resolving Maven dependencies from the Eclipse workspace without installing to local Maven repository
- Automatic downloading of the required dependencies from the remote Maven repositories
- Wizards for creating new Maven projects, pom.xml and to enable Maven support on plain Java project
- Quick search for dependencies in Maven remote repositories

Installation

You can install the latest M2Eclipse release (1.6.2) by using the following update site from within Eclipse:

<http://download.eclipse.org/technology/m2e/releases>

There are also development builds available. Information on how to install those can be found [here](#).

Maven Development Hangout

Curious to know what's new with Maven and what might impact development with M2Eclipse? Join the weekly Maven Development Hangout with Takari to take part in the discussion.

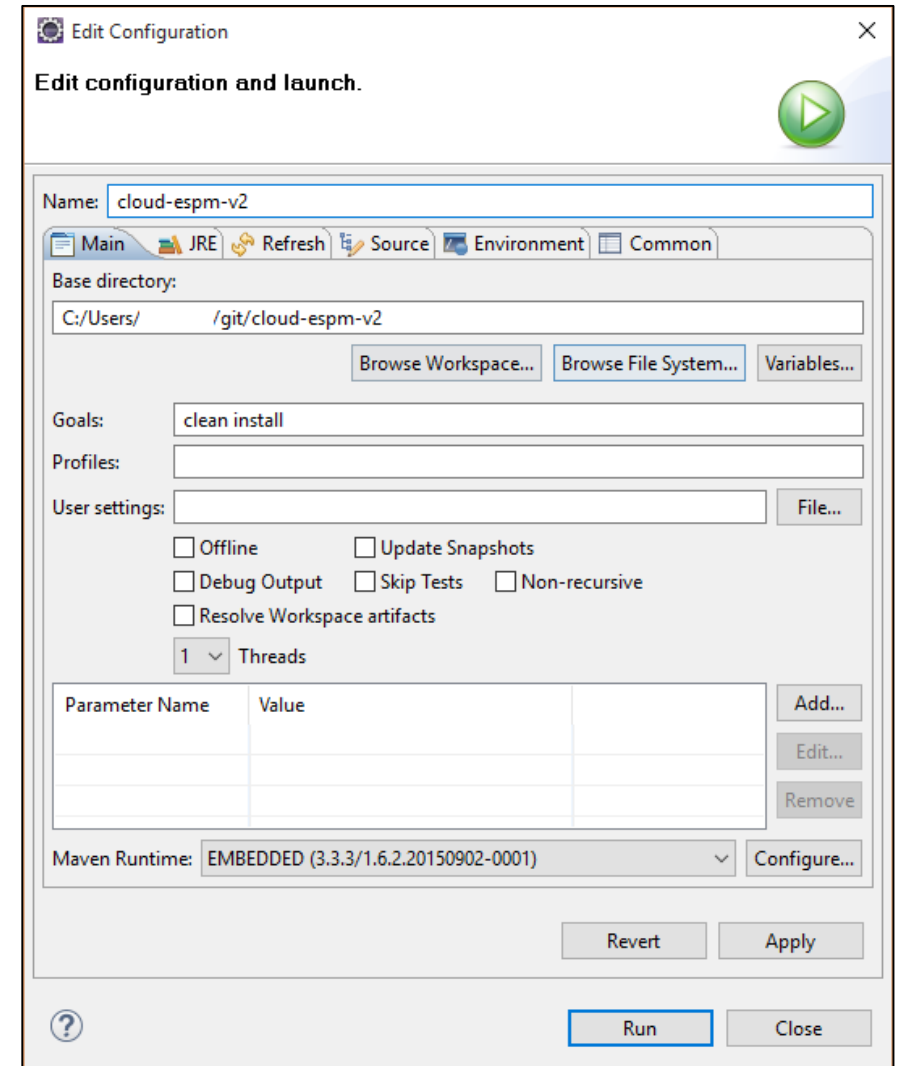
Upcoming Hangout

Maven and the ESPM Application

Hands-on

Importing, building and deploying the ESPM application

- Open the Eclipse Settings and add a development profile for the SAP HANA Cloud Platform SDK in the Maven settings.xml (see <https://github.com/SAP/cloud-espm-v2> readme)
- Open the Java EE perspective in Eclipse
- In the Project Explorer view, Import → Existing Maven Projects → location of your local Git repository
- In the Project Explorer view, select your project → Run As → Maven Build... → under Goals, enter : clean install → Run
- Deploy the ESPM application to your SAP HANA Cloud Platform account
- Add the “Retailer” role to your user via the SAP HANA Cloud Platform cockpit



Maven and the ESPM Application

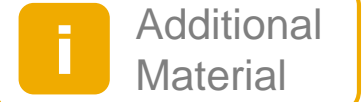
What you've learned in this unit

- What Maven is
- How Maven works
- How you can use Eclipse and Maven together
- You have imported and built the ESPM application
- You have deployed the ESPM application to your SAP HANA Cloud Platform account

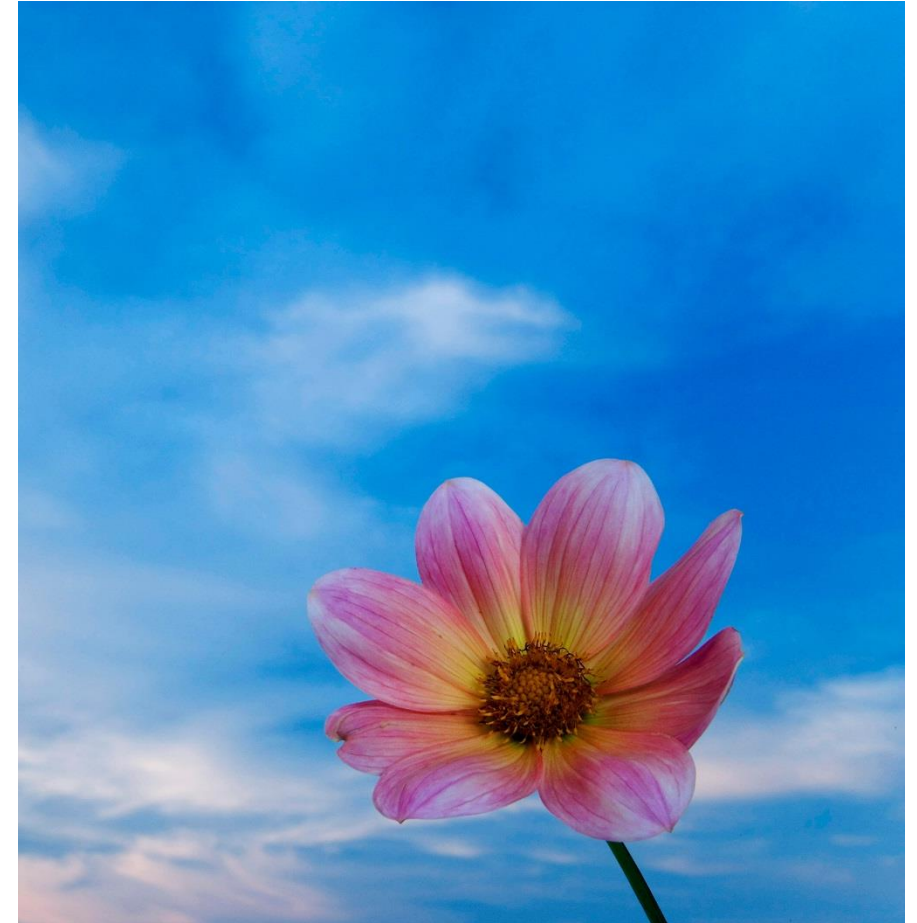


Maven and the ESPM Application

Further Reading



- [Apache Maven website](#)
- [M2Eclipse](#)
- [The ESPM application on GitHub](#)





Thank you

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