1. Introduction ................................................................. 1
2. Creating a Maven Project ............................................... 3
3. Creating a Maven Module ............................................... 9
4. Adding Maven support to an existing project ...................... 19
Chapter 1.

Introduction

In the context of application development, Maven allows you to extend your applications by referencing and utilizing resources from local and remote repositories.

Covered in this reference guide is how to create Maven projects and modules, and how to add Maven functionality to an existing project or application.

This guide does not cover how to setup a Maven repository. For information on how to setup a Maven repository consult the documentation associated with your application server or framework kit.
Creating a Maven Project

To create a new Maven Project, from your workspace navigate to File → New → Other and from the wizard selection screen select Maven → Maven Project.

Select a wizard

Create a Maven Project

Wizards:

Figure 2.1. Selecting the Maven Project wizard

The first screen of the wizard will ask you if you wish to create a simple project (selecting this will skip the ability to select an archetype), to select a location for the project and if any projects should be added to the working set.
Figure 2.2. Maven project location and basic settings

You can also select Advanced options concerning existing workspace projects and the naming convention to use.
Figure 2.3. Maven project location and advanced settings

The following screen is the Archetype selection screen, and will only appear when you have not selected to create a simple project on the previous screen.

Select an archetype based on the purpose of the project you are creating.
Chapter 2. Creating a Maven P...

New Maven project

Select an Archetype

Figure 2.4. Archetype selection

The final screen of the wizard is where you will set the Group Id, Artifact Id and project Version. The Package name will be created based on the Group Id and Artifact Id values.

You can also add specific properties associated with the chosen archetype, to the project.
**New Maven project**

Specify Archetype parameters

<table>
<thead>
<tr>
<th>Group Id:</th>
<th>group_id</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifact Id:</td>
<td>artifact_id</td>
</tr>
<tr>
<td>Version:</td>
<td><strong>0.1-SNAPSHOT</strong></td>
</tr>
<tr>
<td>Package:</td>
<td>group_id.artifact_id</td>
</tr>
</tbody>
</table>

**Properties available from archetype:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
</table>

› Advanced

---

**Figure 2.5. Final project naming**

Clicking **Finish** will bring you back to the workbench and your Maven project will appear in the **Project Explorer**.
Figure 2.6. Project in the Project Explorer
Creating a Maven Module

A Maven module is a sub-project. To create a Maven module you will need to already have a Maven project available.

The parent project must have its **Packaging** option pre-configured to **pom**, for a module to be created and associated with it. To ensure your parent project has this option set correctly before proceeding, double-click on the `pom.xml` file of your parent project in the **Project Explorer**.

In the **Overview** settings page that is now displayed in your workbench, confirm that the option **Packaging** is set to **pom**. If it is not, select **pom** from the list menu and save the changes to your `pom.xml` file.

From your workspace navigate to **File → New → Other** and from the wizard selection screen select **Maven → Maven Module**.

---

**Figure 3.1. Parent project pom.xml file settings**
Figure 3.2. Selecting the Maven Module wizard

Type a name for the module in the **Module Name** field.
New Maven Module

Select a parent project.

- Create a simple project (skip archetype selection)

  Module Name: module_id

  Parent Project: [Browse]

- Add project(s) to working set

  Working set: [More...]

Advanced

Figure 3.3. Naming the module

Click the Browse button beside the Parent Project field. This will launch a project selection box.

Select the project to be used as the parent project of the module you are creating, and click OK.
Figure 3.4. Selecting the parent project

You will be returned to the Select a parent project screen and the Parent Project field will contain the name of the project you selected.
Figure 3.5. Parent Project field populated with project name

Click the **Next** button.

Select an archetype available in the list displayed. For the purposes of this example the **maven-archetype-quickstart** is selected.
### New Maven Module

Select an Archetype

<table>
<thead>
<tr>
<th>Group Id</th>
<th>Artifact Id</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-marmalade-mojo</td>
<td>R</td>
</tr>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-mojo</td>
<td>R</td>
</tr>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-plugin</td>
<td>1</td>
</tr>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-plugin-site</td>
<td>1</td>
</tr>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-portlet</td>
<td>R</td>
</tr>
<tr>
<td>org.apache.maven.archetypes</td>
<td>maven-archetype-profiles</td>
<td>R</td>
</tr>
<tr>
<td><strong>org.apache.maven.archetypes</strong></td>
<td><strong>maven-archetype-quickstart</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

An archetype which contains a sample Maven project.

- Show the last version of Archetype only
- Include snapshot archetypes

![Figure 3.6. Archetype selection screen](image)

Click the **Next** button.

Specify archetype parameters **Group Id** and **Version**. Ensure that the values you specify for these fields are unique from those set in the parent project.

In this example, the **Group Id** and **Version** settings of the parent project used are set to group_id and 0.0.1-SNAPSHOT respectively. For the module, **Group Id** and **Version** settings are being specified as sub_group_id and 0.1.1-SNAPSHOT respectively, to avoid conflict.
Figure 3.7. Archetype parameter settings

Click the Finish button.

The module will now be created and appear in your Project Explorer.
Figure 3.8. Created module in the Project Explorer

You can view and change settings associated with the module by selecting the module's `pom.xml` file from the Project Explorer and double-clicking on it. This will launch an Overview screen containing the module settings.
### Overview

**Artifact**
- **Group Id:** sub_group_id
- **Artifact Id:** module_id
- **Version:** 0.1.1-SNAPSHOT
- **Packaging:** jar

**Parent**
- **Group Id:** group_id
- **Artifact Id:** artifact_id
- **Version:** 0.0.1-SNAPSHOT

**Properties**
- `<project.build.sourceEncoding> UTF-8</project.build.sourceEncoding>`

**Modules**
- New module element

---

**Figure 3.9. Module Overview screen**
Chapter 4.

Adding Maven support to an existing project

Select the project that Maven support will be added to from the **Project Explorer**.

**Figure 4.1. Selecting Maven project conversion**

Right-click on the project to bring up the context menu and click on **Properties**.

From the **Properties** screen click on **Project Facets**.
Figure 4.2. Project Facets screen
Select **JBoss Maven Integration** from the facets list. You will notice that a **Further configuration required** button appears at the bottom of the screen.

![Facets List]

**Figure 4.3. Maven Integration facet selected**

Click on the **Further configuration required** button and you can either modify or accept the default values for all fields. Click the **OK** button to return to the facets screen.
Figure 4.4. Maven Integration facet settings

The Further configuration required button has now changed to Further configuration available. Click the Apply button and then the OK button to complete the addition of Maven support to your project.
Figure 4.5. Maven Integration facet configured

Maven support has been added to the project, and a new `pom.xml` file appears in the list of files for the project. This can be viewed in the Project Explorer.
Figure 4.6. New pom.xml file

Double-click on the pom.xml file to view the settings associated with it. The settings here were set in the Further configuration required step, and can be edited from this Overview screen.

It is recommended that you change the Packaging option to pom to avoid any issues in expansion of the project with Maven modules in the future.
Figure 4.7. Overview screen for pom.xml