Create an archetype from a multi-module project

Creating an archetype for a multi-module project is as simple as creating one for a single-module project.
Just move to the root directory of a multi-module project and call `mvn archetype:create-from-project`. In the
archetype used as an example, some files need to be non filtered. This is achieved by giving the archetype
plugin some values in the `archetype.filteredExtensions` property.

```
$ mvn archetype:create-from-project -Darchetype.filteredExtensions=java
[INFO] Scanning for projects...
[INFO] Reactor build order:
[INFO]   archetype
[INFO]   archetype :: business domain model
[INFO]   archetype :: business services
[INFO]   archetype :: persistence layer
[INFO]   archetype :: infrastructure
[INFO]   archetype :: remoting
[INFO]   archetype :: web services
[INFO]   archetype :: web application
[INFO]   archetype :: enterprise application
[INFO] Searching repository for plugin with prefix: 'archetype'.
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype
[INFO]    task-segment: [archetype:create-from-project] (aggregator-style)
[INFO] ------------------------------------------------------------------------
[INFO] Preparing archetype:create-from-project
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: business domain model
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: business services
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: persistence layer
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: infrastructure
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: remoting
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
```

```
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: web services
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: web application
[INFO] ------------------------------------------------------------------------
[INFO] [gwt:eclipse {execution: default}]
[INFO] Unpack native libraries required to run hosted browser
[INFO] [gwt:generateAsync {execution: default}]
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype :: enterprise application
[INFO] ------------------------------------------------------------------------
[INFO] No goals needed for project - skipping
[INFO] Setting property: classpath.resource.loader.class => 'org.codehaus.plexus.velocity.Contex
tClassLoaderResourceLoader'.
[INFO] Setting property: velocimacro.messages.on => 'false'.
[INFO] Setting property: resource.loader => 'classpath'.
[INFO] Setting property: resource.manager.logwhenfound => 'false'.
[INFO] [archetype:create-from-project]
[INFO] Setting default groupId: com.capgemini.archetype
[INFO] Setting default artifactId: archetype
[INFO] Setting default version: 1.0.0-SNAPSHOT
[INFO] Setting default package: com.capgemini
[INFO] Archetype created in target/generated-sources/archetype
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESSFUL
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 7 seconds
[INFO] Finished at: Mon Sep 15 19:11:17 CEST 2008
[INFO] Final Memory: 19M/36M
[INFO] ------------------------------------------------------------------------
```

Install the archetype as usual.   2.   "   "

```
$ cd target/generated-sources/archetype/      cd target/generated-sources/archetype/
$ mvn install                                  mvn clean install -DskipTests=true
[INFO] Scanning for projects...
[INFO] ------------------------------------------------------------------------
[INFO] Building archetype-archetype
[INFO]    task-segment: [install]
[INFO] ------------------------------------------------------------------------
[INFO] [resources:resources]
[INFO] Using default encoding to copy filtered resources.
[INFO] [resources:testResources]
[INFO] Using default encoding to copy filtered resources.
[INFO] Setting property: classpath.resource.loader.class => 'org.codehaus.plexus.velocity.Contex
tClassLoaderResourceLoader'.
[INFO] Setting property: velocimacro.messages.on => 'false'.
[INFO] Setting property: resource.loader => 'classpath'.
[INFO] Setting property: resource.manager.logwhenfound => 'false'.
```

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```
[INFO] [archetype:jar]
[INFO] [archetype:add-archetype-metadata]
[INFO] [archetype:integration-test]
[INFO] [install:install]
[INFO] Installing /Users/raphaelpieroni/Projects/platina/platina-archetype/target/generated-sour
ces/archetype/target/archetype-archetype-1.0.0-SNAPSHOT.jar to /Users/raphaelpieroni/.m2/reposit
ory/com/capgemini/archetype/archetype-archetype/1.0.0-SNAPSHOT/archetype-archetype-1.0.0-SNAPSHO
T.jar
[INFO] [archetype:update-local-catalog]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESSFUL
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 4 seconds
[INFO] Finished at: Mon Sep 15 19:11:54 CEST 2008
[INFO] Final Memory: 10M/20M
[INFO] ------------------------------------------------------------------------
```

And use it.   3.   "   "

```
$ cd /tmp/archetype/
$ mvn archetype:generate -DarchetypeCatalog=local      mvn archetype:generate -DarchetypeCatalog=local
[INFO] Scanning for projects...
[INFO] Searching repository for plugin with prefix: 'archetype'.
[INFO] ------------------------------------------------------------------------
[INFO] Building Maven Default Project
[INFO]    task-segment: [archetype:generate] (aggregator-style)
[INFO] ------------------------------------------------------------------------
[INFO] Preparing archetype:generate
[INFO] No goals needed for project - skipping
[INFO] Setting property: classpath.resource.loader.class => 'org.codehaus.plexus.velocity.Contex
tClassLoaderResourceLoader'.
[INFO] Setting property: velocimacro.messages.on => 'false'.
[INFO] Setting property: resource.loader => 'classpath'.
[INFO] Setting property: resource.manager.logwhenfound => 'false'.
[INFO] [archetype:generate]
[INFO] Generating project in Interactive mode
[INFO] No archetype defined. Using maven-archetype-quickstart (org.apache.maven.archetypes:maven
-archetype-quickstart:1.0)
Choose archetype:
1: local -> archetype (archetype)
2: local -> archetype-archetype (archetype-archetype)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): 2
Define value for groupId: : com.company
Define value for artifactId: : project
Define value for version:  1.0-SNAPSHOT: :
Define value for package:  com.company: :
Confirm properties configuration:
groupId: com.company
artifactId: project
version: 1.0-SNAPSHOT
package: com.company
```

```
 Y: :
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/pom.xml [line 22,column 9] : ${project.artifactId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-business/pom.xml [line 18,column 9] : ${project.parent.artifac
tId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-business/pom.xml [line 30,column 16] : ${spring.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 18,column 9] : ${project.parent.artifactI
d} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 35,column 20] : ${spring.version} is not
a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 51,column 16] : ${spring.version} is not
a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 57,column 16] : ${spring.version} is not
a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 97,column 26] : ${project.build.directory
} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 98,column 29] : ${project.build.outputDir
ectory} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 101,column 29] : ${project.build.director
y} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-domain/pom.xml [line 128,column 33] : ${project.build.director
y} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-persistence/pom.xml [line 18,column 9] : ${project.parent.arti
factId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-persistence/pom.xml [line 30,column 16] : ${spring.version} is
 not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-persistence/pom.xml [line 35,column 16] : ${spring.version} is
 not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-persistence/pom.xml [line 40,column 16] : ${spring.version} is
 not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-persistence/pom.xml [line 57,column 16] : ${spring.version} is
 not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-infrastructure/pom.xml [line 18,column 9] : ${project.parent.a
rtifactId} is not a valid reference.
```

[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-infrastructure/pom.xml [line 29,column 16] : ${spring.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-infrastructure/pom.xml [line 45,column 16] : ${spring.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-infrastructure/pom.xml [line 50,column 16] : ${aspectj.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-infrastructure/pom.xml [line 55,column 16] : ${aspectj.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-remoting/pom.xml [line 18,column 9] : ${project.parent.artifactId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-remoting/pom.xml [line 31,column 20] : ${spring.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-remoting/pom.xml [line 40,column 20] : ${cxf.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-remoting/pom.xml [line 45,column 20] : ${cxf.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 19,column 9] : ${project.parent.artifactId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 27,column 18] : ${project.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 37,column 16] : ${project.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 70,column 16] : ${spring.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 104,column 16] : ${spring.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 109,column 16] : ${struts.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 114,column 16] : ${struts.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 126,column 16] : ${gwt.version} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = archetype-resources/__rootArtifactId__-webapp/pom.xml [line 132,column 16] : ${gwt.version} is not a valid reference.

```
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 139,column 16] : ${gwt.version} is not a
valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 147,column 16] : ${gwt.version} is not a
valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 175,column 16] : ${spring.version} is not
 a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 181,column 16] : ${webflow.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 213,column 16] : ${spring.version} is not
 a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webapp/pom.xml [line 238,column 28] : ${basedir} is not a vali
d reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 18,column 9] : ${project.parent.arti
factId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 30,column 26] : ${cxf.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 44,column 20] : ${cxf.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 49,column 20] : ${cxf.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 54,column 20] : ${cxf.version} is no
t a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-webservices/pom.xml [line 60,column 20] : ${spring.version} is
 not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-application/pom.xml [line 19,column 9] : ${project.parent.arti
factId} is not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-application/pom.xml [line 27,column 24] : ${project.groupId} i
s not a valid reference.
[WARNING] org.apache.velocity.runtime.exception.ReferenceException: reference : template = arche
type-resources/__rootArtifactId__-application/pom.xml [line 39,column 16] : ${project.groupId} i
s not a valid reference.
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESSFUL
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 33 seconds
[INFO] Finished at: Mon Sep 15 19:13:54 CEST 2008
[INFO] Final Memory: 8M/15M
```

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```
[INFO] ------------------------------------------------------------------------
```

As one can see, Velocity, the internal processor of archetype files, complains about not finding some properties. One should not worry about that. What is more interesting, is that the archetype plugin has renamed the original project module to "__rootArtifactId__". And during the generation that name is converted to the provided artifactId.

The resulting directory tree of the project is shown here.

```
$ tree
.
|____project
| |____pom.xml
| |____project-application
| | |____pom.xml
| |____project-business
| | |____pom.xml
| | |____src
| | | |____main
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | | |____archetype
| | | | | | | | |____services
| | | | | | | | | |____BusinessService.java
| | | | | |____resources
| | | | | | |____META-INF
| | | | | | |____spring
| | | | | | | |____module-context.xml
| | | | |____test
| | | | |____resources
| | | | | |____log4j.xml
| |____project-domain
| | |____pom.xml
| | |____src
| | | |____main
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | | |____archetype
| | | | | | | | |____domain
| | | | | | | | | |____ConfigurableBean.java
| | | | | | | | | |____User.java
| | | | |____resources
| | | | | |____META-INF
| | | | | | |____orm.xml
| | | |____test
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | | |____archetype
```

```
| | | | | | |____log4j.xml
| | | | | | |____unitils.properties
| |____project-remoting
| | |____pom.xml
| | |____src
| | | |____main
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | | |____archetype
| | | | | | | | |____remoting
| | | | | | | | | |____Connector.java
| | | | |____resources
| | | | | |____META-INF
| | | | | | |____spring
| | | | | | | |____module-context.xml
| | | |____test
| | | | |____resources
| | | | | |____log4j.xml
| |____project-webapp
| | |____com.capgemini.archetype.gwt.Application.launch
| | |____pom.xml
| | |____src
| | | |____main
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | | |____archetype
| | | | | | | | |____web
| | | | | | | | | |____struts
| | | | | | | | | | |____AbstractPostBackAction.java
| | | | | | | | | | |____GlobalExceptionHandler.java
| | | | | | | | | | |____SafeActionMapping.java
| | | | |____resources
| | | | | |____META-INF
| | | | | | |____log4j.xml
| | | | | | |____spring
| | | | | | | |____module-context.xml
| | | | |____webapp
| | | | | |____error.jsp
| | | | | |____index.html
| | | | | |____notFound.jsp
| | | | | |____WEB-INF
| | | | | | |____jonas-web.xml
| | | | | | |____spring-web-context.xml
| | | | | | |____struts-config.xml
| | | | | | |____web.xml
| | | | | | |____weblogic.xml
| | | |____test
| | | | |____resources
| | | | | |____log4j.xml
```

```
| | | | |____tomcat
| | | | | |____context.xml
| |____project-webservices
| | |____pom.xml
| | |____src
| | | |____main
| | | | |____resources
| | | | | |____META-INF
| | | | | | |____spring
| | | | | | | |____module-context.xml
| | | |____test
| | | | |____java
| | | | | |____com
| | | | | | |____company
| | | | | | |____archetype
| | | | | | | |____ws
| | | | | | | | |____AbstractWSTestCase.java
| | | | |____resources
| | | | | |____log4j.xml
```

This can be compared to the original tree of the project from which the archetype is originating.

```
$ tree
.
|____archetype-application
| |____pom.xml
|____archetype-business
| |____pom.xml
| |____src
| | |____main
| | | |____java
| | | | |____com
| | | | | |____capgemini
| | | | | | |____archetype
| | | | | | | |____services
| | | | | | | | |____BusinessService.java
| | | |____resources
| | | | |____META-INF
| | | | | |____spring
| | | | | | |____module-context.xml
| | |____test
| | | |____java
| | | |____resources
| | | | |____log4j.xml
|____archetype-domain
| |____pom.xml
| |____src
| | |____main
| | | |____java
| | | | |____com
| | | | | |____capgemini
```