The Java™ Tutorials

Trail: Deployment
Lesson: Packaging Programs in JAR Files
Section: Working with Manifest Files: The Basics

The Java Tutorials have been written for JDK 8. Examples and practices described in this page don't take advantage of improvements introduced in later releases.

Setting Package Version Information

You may need to include package version information in a JAR file's manifest. You provide this information with the following headers in the manifest:

Headers in a manifest

Header	Definition
Name	The name of the specification.
Specification-Title	The title of the specification.
Specification-Version	The version of the specification.
Specification-Vendor	The vendor of the specification.
Implementation-Title	The title of the implementation.
Implementation-Version	The build number of the implementation.
Implementation-Vendor	The vendor of the implementation.

One set of such headers can be assigned to each package. The versioning headers should appear directly beneath the `Name` header for the package. This example shows all the versioning headers:

```
Name: java/util/
Specification-Title: Java Utility Classes
Specification-Version: 1.2
Specification-Vendor: Example Tech, Inc.
Implementation-Title: java.util
Implementation-Version: build57
Implementation-Vendor: Example Tech, Inc.
```

For more information about package version headers, see the Package Versioning specification .

An Example

We want to include the headers in the example above in the manifest of MyJar.jar.

We first create a text file named `Manifest.txt` with the following contents:

```
Name: java/util/
Specification-Title: Java Utility Classes
Specification-Version: 1.2
Specification-Vendor: Example Tech, Inc.
Implementation-Title: java.util
Implementation-Version: build57
Implementation-Vendor: Example Tech, Inc.
```

Warning: The text file must end with a new line or carriage return. The last line will not be parsed properly if it does not end with a new line or carriage return.

We then create a JAR file named `MyJar.jar` by entering the following command:

```
jar cfm MyJar.jar Manifest.txt MyPackage/*.class
```

This creates the JAR file with a manifest with the following contents:

```
Manifest-Version: 1.0
Created-By: 1.7.0_06 (Oracle Corporation)
Name: java/util/
Specification-Title: Java Utility Classes
Specification-Version: 1.2
Specification-Vendor: Example Tech, Inc.
Implementation-Title: java.util
Implementation-Version: build57
Implementation-Vendor: Example Tech, Inc.
```