

---

Listing 4.1

---

```
<?xml version="1.0"?>
<project name="HelloWorld" default="BuildAll">

    <target name="BuildAll">
    </target>

</project>
```

---

Listing 4.3

---

```
<?xml version="1.0"?>
<project name="HelloWorld" default="BuildAll">
    <description>
        "Build File for HelloWorld"
    </description>

    <target name="BuildAll" description="Full Build">
        <echo message="Build complete"/>
    </target>

</project>
```

---

Listing 4.4

---

```
<?xml version="1.0"?>
<project name="HelloWorld" default="BuildAll">
    <description>
        "Build File for HelloWorld"
    </description>

    <target name="BuildAll" description="Full Build"
        depends="-Init">
        <echo message="Build complete"/>
    </target>

</project>
```

---

Listing 4.5

---

```
<?xml version="1.0"?>
<project name="HelloWorld" default="BuildAll">

    ...

    <target name="-Init">
        <!-- delete output directories -->
        <delete dir="bin"/>
        <delete dir="dist/lib"/>
        <delete dir="dist/res"/>
        <!-- create output directories -->
        <mkdir dir="bin"/>
        <mkdir dir="dist/lib"/>
        <mkdir dir="dist/res"/>
        <!-- put the applet data in the bin directory -->
        <copy file="work/settings.hwd" todir="bin"/>
        <echo message="-Init Complete"/>
    </target>

</project>
```

---

---

**Listing 4.6**

---

```
...

<target name="BuildAll" description="Full Build"
  depends="-Init, Compile, Final
```

---

**Listing 4.7**

---

```
...
<description>
  "Build File for HelloWorld">
</description>

<property name="debug" value="true"/>
...

<target name="Compile" depends="-Init">
  <javac srcdir="src" destdir="bin" debug="${debug}">
  <echo message="Compile Complete"/>
  </javac>
</target>
...

<target name="Final" depends="Compile">
  <echo message="Compile Performed with debug ${debug}"/>
</target>
</project>
```

---

**Listing 4.8**

---

```
...
<target name="BuildAll"
  description="Full Build"
  depends="-Init, Compile, HelloJar, Final">
  <echo message="Build complete"/>
</target>
...
<target name="HelloJar"
  description="Build the HelloWorld jar file">
  <jar destfile="dist/lib/HelloWorld1_0.jar"
    basedir="bin"
```

```
        includes="com/mydomain/helloworld/*.class">
    </jar>
    <echo message="HelloJar Complete"/>
</target>
    ...
```

---

Listing 4.9

---

```
    ...

    <target name="HelloJar"
        description="Build the HelloWorld jar file">
        <jar destfile="dist/lib/HelloWorld1_0.jar"
            basedir="bin"
            includes="com/mydomain/helloworld/*.class">
            <manifest>
                <attribute name="Main-Class"
                    value="com.mydomain.helloworld.HelloWorld"/>
            </manifest>
        </jar>
        <echo message="HelloJar Complete"/>
    </target>

    ...
```

---

Listing 4.10

---

```
<html>
<body>
    <applet archive='HelloWorld1_0.jar'
        code='com/mydomain/helloworld/HelloWorld.class'
        width=200 height=100>
    </applet>
</body>
</html>
```

---

Listing 4.11

---

```
<html>
<body>
    <applet archive='HelloWorld1_0.jar'
        code='com/mydomain/helloworld/HelloWorld.class'
        width=200 height=100>
        <param name='File' value='newSettings.hwd'>
    </applet>
</body>
</html>
```

---

Listing 4.12

---

```
    ...

    <!-- put the applet data in the bin directory -->
    <copy file="work/settings.hwd" todir="bin"/>
    <!-- copy resources into the res directory -->
    <copy todir="dist/res" verbose="true">
        <fileset dir="work"
            includes="HelloWorld.html,
                settings.hwd"/>
    </copy>
    <echo message="-Init Complete"/>
</target>
```

...

---

Listing 4.13

---

```
...
<target name="BuildAll" description="Full Build"
  depends="-Init, Compile, HelloJar, Backup, Final">
  <echo message="Build complete"/>
</target>

...

<target name="Backup"
  description="Backup all source files into a jar">
  <jar destfile="backup/HelloWorldSrc1_0.jar">
    <fileset dir="src/com/mydomain/helloworld" includes="*.java"/>
  </jar>
  <echo message="Backup Complete"/>
</target>

...
```

---

Listing 4.14

---

```
...

<target name="Backup"
  description="Backup all source files into a jar">
  <jar destfile="backup/HelloWorldSrc1_0.jar">
    <fileset dir="src/com/mydomain/helloworld" includes="*.java"/>
    <fileset dir="" includes="build.xml"/>
    <fileset dir="work"
      includes="HelloWorld.html,
        settings.hwd"/>
  </jar>
  <echo message="Backup Complete"/>
</target>

...
```

---

Listing 4.15

---

```
...

<target name="Backup" depends="Date"
  description="Backup all source files into a jar">
  <jar destfile="backup/HelloWorldSrc1_0-${build.date}.jar">
    <fileset dir="src/com/mydomain/helloworld" includes="*.java"/>
  </jar>
</target>

...

<target name="Date">
  <tstamp>
    <format pattern="yyyyMMdd" property="build.date"/>
    <format pattern="hhmmss" property="build.time"/>
  </tstamp>
</target>

...
```

---