

Ant Elements

- **PatternSet** – Groups of patterns of files or directories
- **DirSet** – Groups of directories
- **FileSet** – Groups of files
- **FileList** – Explicit list of files
- **FileMapper** – Translates file names
- **FilterReader** – Filters files or directories
- **FilterChain** – Groups of FilterReaders

Ant Elements

- **Selectors – Provide more control over file selection**
- **Class FileSet – Groups of class files**
- **Paths – Like file system paths**
- **Listeners – Alerts for events within a build**
- **Loggers – Logging events**

PatternSet

PatternSets group files and/or directories

- **? matches a single character**
- *** matches zero or more characters**
- **** matches zero or more directories recursively**

FileMapper

- **identity** – Target filename identical to source filename
- **flatten** – Directory structure is flattened
- **merge** – Target filename is the same for all source files
- **glob** - Glob matching used on files
- **regexp** – Regular expression matching used on files
- **package** – Based on Java package of source files

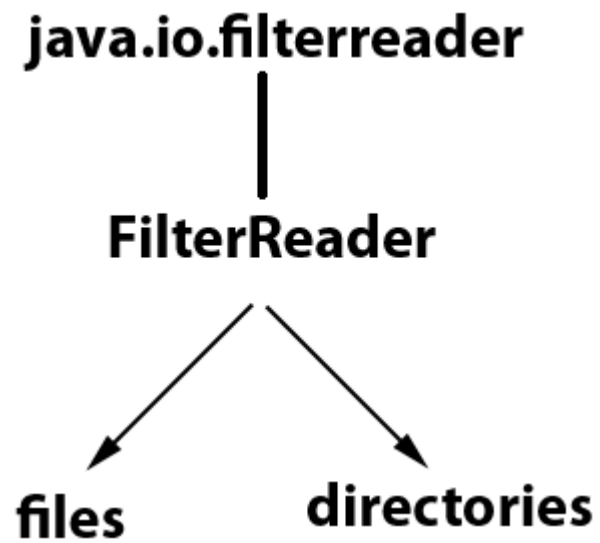
FilterReader

java.io.filterreader



FilterReader

FilterReader



FilterReader

- **stripjavacomments** – Removes java comments from .java files
- **striplinecomments** – Removes user-defined comment lines
- **striplinebreaks** – Removes end-of-line characters

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- **classconstants** – Outputs name/value pairs of constants in class files

classconstants

- Requires the BCEL library in the classpath

classconstants

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http://commons.apache.org/proper/commons-bcel/download_bcel.cgi

FilterReader

- **tabstospaces** – Replaces tabs with a given number of spaces
- **headfilter** – Returns only the top given number of lines
- **tailfilter** – Returns only the bottom given number of lines
- **linecontains** – Copies only lines containing a given string
- **linecontainsregexp** – Copies only lines matching a regexp
- **prefixlines** – Adds a string to the beginning of every line
- **expandproperties** – Expands Ant properties

Selectors

- **date**
- **present**
- **size**
- **contains**
- **containsregexp**
- **depend**
- **depth**
- **different**

Selectors

- type
- modified
- signedselector
- scriptselector
- readable
- writable

Selector Containers

- and
- or
- not
- none

Listeners

- Build started
- Build finished
- Target started
- Target finished
- Task started
- Task finished
- Message logged

Loggers

- **DefaultLogger**
- **NoBannerLogger**
- **TimestampedLogger**
- **BigProjectLogger**
- **SimpleBigProjectLogger**
- **ProfileLogger**
- **AnsiColorLogger**
- **MailLogger**
- **Log4JListener**
- **XmlLogger**

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Summary



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- **? matches a single character**
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PatternSet

```
<patternset id="classes">  
  <include name="**/*a.class" />  
  <exclude name="**/*Test*.class" />  
</patternset>
```

DirSet

```
<dirset dir="build">  
  <patternset id="classes">  
    <include name="**/classes" />  
    <exclude name="**/*Test*" />  
  </patternset>  
</dirset>
```

FileSet

```
<fileset dir="build" defaultexcludes="yes">  
  <patternset id="source">  
    <include name="**/*.java" />  
    <exclude name="**/*Test*" />  
  </patternset>  
</fileset>
```

FileList

```
<filelist id="source"  
  dir="src"  
  files="SysConfig.java,  
        IConstants.java,  
        Encrypt.java" />
```

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- **striplinecomments** – Removes user-defined comment lines
- **striplinebreaks** – Removes end-of-line characters
- **classconstants** – Outputs name/value pairs of constants in class files
- **replacetokens** – Replaces specified tokens within files

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ClassFileSet

```
<classfileset id="reqdClasses" dir="${classes.dir}">  
  <rootfileset dir="${classes.dir}"  
    includes="com/pluralsight/tools/Util*.class"/>  
</classfileset>
```

Path

```
<path id="classpath">  
  <pathelement path="{servlet.dir}/servlet.jar" />  
  <pathelement path="{javamail.dir}/mail.jar" />  
  <fileset dir="{lib.dir}">  
    <include name="**/*.jar" />  
  </fileset>  
</path>
```

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