

Data Source Adapter Commands

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1. Data Source Adapter Commands

1.1. SettingsFile

This data source adapter can be used to work on files that contain settings specified by key/value pairs. That is, Java properties files, Java manifest files and Windows ini files.

1.1.1. Attributes

The following table lists all attributes that can be used with this data source adapter.

Attribute Name	Description	required/optional
name	Contains the name of the file to work on.	required
type	Specifies the the type of the file. Currently the following values are supported: <ul style="list-style-type: none"> • properties • manifest • ini 	required

1.1.2. Example

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<Instructions version="1">
  <Set name="testdata.dir">testdata</Set>
  <Set name="BasePath">{testdata.dir}/ini</Set>

  <SettingsFile name="{BasePath}/sample1.ini" type="ini" label="Base
Configuration" id="I01" case-sensitive="no">
  <AssertEquals id="AE01"
element="[Configuration]/Editor">notepad.exe</AssertEquals>
  <AssertExistence id="AX01" element="[Packer]/InternalUnzip"/>
  <ReportValue id="RV01" element="[Packer]/ZIP"/>
  <AssertGreater id="AG01" element="[1280x1024
(8x16)]/divider">400</AssertGreater>
  <ReportValue id="RV02" element="[1280x1024 (8x16)]/divider"/>
  </SettingsFile>
</Instructions>
```

1.2. TextFile

This data source adapter can be used to check text files. In general it allows to search for

specific text lines in a file and check the found line(s) against a pattern. Another useful feature is to check the line-end convention (i.e. LF or CRLF).

1.2.1. Attributes

The following table lists all attributes that can be used with this data source adapter.

Attribute Name	Description	required/optional
name	Contains the name of the file to work on.	required

1.3. XmlFile

The purpose of this data source adapter is to report or check values in XML files.

1.3.1. Attributes

The following table lists all attributes that can be used with this data source adapter.

Attribute Name	Description	required/optional
name	Contains the name of the file to work on.	required

1.3.2. Element Syntax

The element attribute in all enclosed commands must specify a valid **XPath** expression. With such an expression the element is identified that has to be checked or of which the current value should be reported.

1.4. HttpdConfFile

With this data source adapter it is possible to check values in files that comply with the Apache configuration file format as for example the httpd.conf of the Apache Web Server.

1.4.1. Attributes

The following table lists all attributes that can be used with this data source adapter.

Attribute Name	Description	required/optional
name	Contains the name of the file to work on.	required

1.4.2. Element Syntax

The element attribute in all enclosed commands must use the following syntax to identify an element:

- *Section::CommandName[@param='...']/@param*
- *CommandName/@param*
- *CommandName[@param='...']/@param*
- *CommandName*

This is the same as *CommandName/@1*

Where *Section* is the (optional) section name which is enclosed <...> tags like XML. *CommandName* is the command. It must always be specified. Finally *param* is the number of the command's parameter (starting with 1).

If '*' is used for *param* then all parameters are treated as one string.

1.4.3. Example

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<Instructions version="1">
  <Include>{INSTRUCTION_DIR}/defaults.cci</Include>
  <HttpdConfFile name="{RootPath}/httpd/sample1.conf">
    <AssertEquals element="AccessFileName">.htaccess</AssertEquals>
    <AssertEquals element="DirectoryIndex/@3">welcome.html</AssertEquals>
    <AssertEquals
element="LoadModule[@1='proxy_module']/@2">modules/ApacheModuleProxy.dll</AssertEquals>
    <AssertEquals element="Directory
' '/usr/ApacheGroup/Apache/cgi-bin'':AllowOverride/@1">None</AssertEquals>
    <ReportValue element="CustomLog/@*" />
  </HttpdConfFile>
</Instructions>
```

1.5. LdifFile

With this data source adapter it is possible to report and check values in LDIF files. It allows to select one or more directory objects in the LDIF file by either a distinguished name (see RFC 2253) or a search filter (**not** LDAP search query - RFC 2254).

1.5.1. Attributes

The following table lists all attributes that can be used with this data source adapter.

Attribute Name	Description	required/optional
name	Contains the name of the file to	required

	work on.	
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1.5.2. Element Syntax

The element attribute of all enclosed commands must use the following syntax to identify an element:

- *dn/@attrname*
- *[serach filter]/@attrname*

The first variant identifies exactly one object by its distinguished name.

The second variant uses a search filter with a simple syntax. It uses attribute names of the searched objects and compares them with static values. The following operators are supported:

Operator	Purpose	Example
=	string match	name='Jo*'
+	AND	name='Fred' + surname='Flintstone'
	OR	location='London' location='Paris'
!	NOT	country='US' + ! telephoneNumber='555*'
()	grouping	(a=7 b=9) + (m='text' m='ascii')

In both variants the *@attrname* then is the name of the attribute of the found object(s) to be reported or checked.

1.5.3. Example

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<Instructions version="1">
  <LdifFile name="{RootPath}/ldif/sample1.ldif">
    <AssertEquals element="uid=tmorris,ou=People,
dc=example,dc=com/@roomNumber">4117</AssertEquals>
    <AssertOneOf element="[givenName='Gern' | sn='W*']/@location">
      <Value>Santa Clara</Value>
      <Value>Cupertino</Value>
      <Value>Sunnyvale</Value>
    </AssertOneOf>
    <AssertMatch
element="[(sn='B*' | sn='F*')+!(sn='Burton' | sn='Fisher')]/@telephoneNumber">
```

```

+1 ### ## ##
</AssertMatch>
</LdifFile>
</Instructions>

```

1.6. FileSystem

The purpose of this data source adapter is to check/report the existence of files. It also allows to refer to the "last modified" date or the size of a file.

1.6.1. Attributes

This data source adapter has no attributes.

1.6.2. Extra Command Attributes

The following table lists attributes that can be used with assertion or report commands when used inside this data source adapter.

Attribute Name	Description	required/optional
format	Specifies the date format for the <i>lastmodified</i> field of a file. Use "dd" for day, "MM" for month and "yy" or "yyyy" for year. If the time should also be considered use "hh" for hours, "mm" for minutes and "ss" for seconds. Examples: "MM/dd/yy", "dd.MM.yyyy", "dd/MM/yyyy hh:mm:ss" Generally everything specified for java.text.SimpleDateFormat should work.	optional

1.6.3. Example

```

<?xml version="1.0" encoding="ISO-8859-1" ?>
<Instructions version="1">
  <Set name="testdata.dir">/usr/ben/testdata</Set>
  <Set name="BasePath">{testdata.dir}/config</Set>

  <FileSystem>
    <AssertExistence label="default configuration"
element="{BasePath}/default.cfg"/>

```

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```
<ReportValue id="F99"  
element="{BasePath}/sample.jar/base.properties|@lastmodified"/>  
  <AssertGreater  
element="{BasePath}/install.log|@size">800</AssertGreater>  
  <ReportValue label="Size of install.log"  
element="{BasePath}/install.log|@size"/>  
  <AssertGreaterOrEqual element="{BasePath}/install.log|@lastmodified"  
format="dd.MM.yyyy">10.07.2004</AssertGreaterOrEqual>  
</FileSystem>  
</Instructions>
```