

The YADE Client Command Line Interface - Tutorial 2 - Simple File Selection

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Introduction

This is the second in a series of articles and describes how to perform simple file selection with the YADE Client via its Command Line Interface.

YADE Tutorials List

YADE Client Command Line Interface

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YADE Background Service

1. [Installation, Configuration and Use](#)

Prerequisites

See the [Using the tutorials with the YADE Client Command Line Interface](#) article for guidelines to setting up and running the tutorial examples.

Instructions for installing, configuring and using the XML Editor can be found in the [XML Editor](#) series of articles.

Download file

The configuration described in this tutorial can be downloaded and then directly opened in the XML Editor from the following link:

- [sos-berlin_demo_2_local_select.xml](#)

Scope of this tutorial

Before starting to transfer files YADE reads the contents of the folder specified using one or more child elements of the *Selection* parameter.

In the examples in first tutorial in this series a default setting, that *all* the files in the source directory will be downloaded, was used: `. *`.

The basic file selection methods will be described in this tutorial:

- [File name filtering and recursive file selection.](#)
- [Handling of zero-byte files.](#)

File Name Filtering and Recursive File Selection

The following profile shows how YADE can be used to:

- Filter the names of files to be transferred using a regular expression
- Transfer files from sub-directories recursively

Configuration structure

ProtocolFragment

The *ftp_demo_sos-berlin ProtocolFragment* used in the [Client Command Line Interface - Getting Started](#) tutorial will be reused.

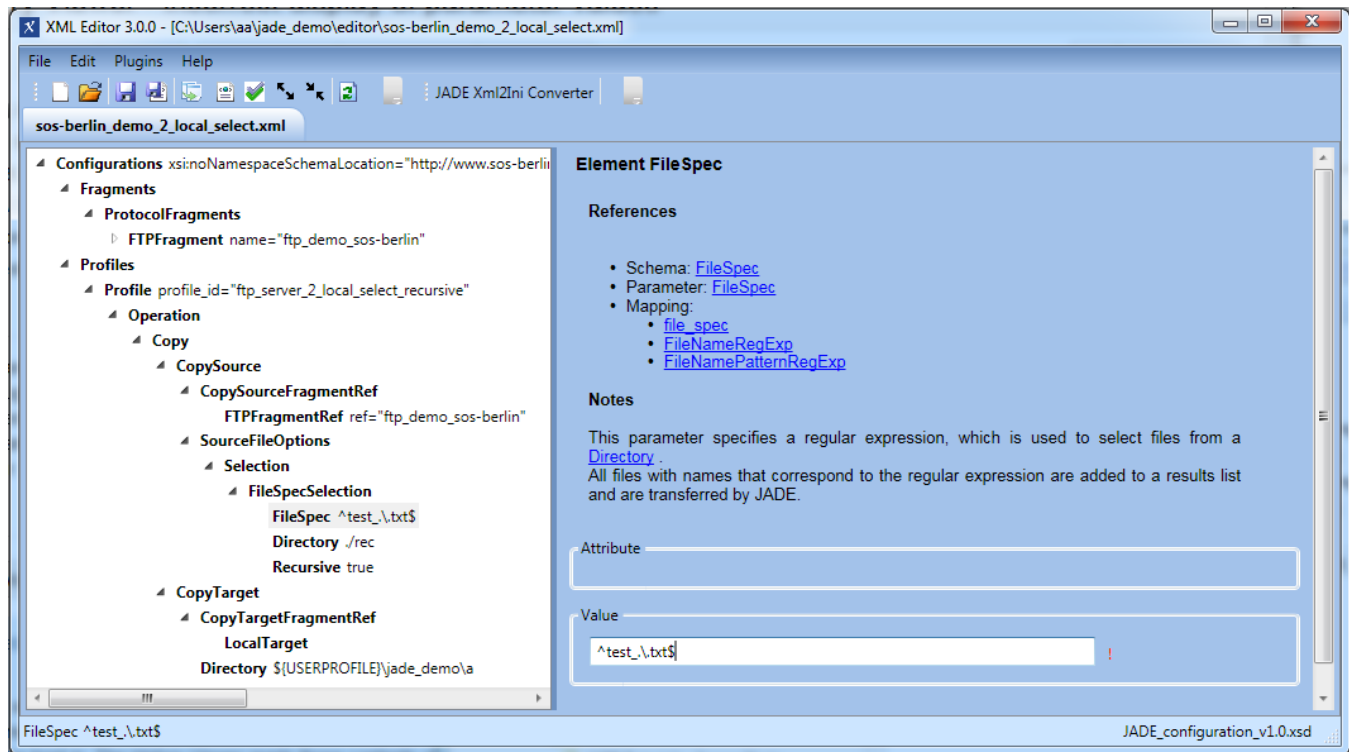
Profile

The example presented in this tutorial uses a *Profile* based on the *ftp_server_to_local/Profile* described in the [Getting Started](#) tutorial.

The new *Profile*, has been given the *profile_id= ftp_server_to_local_select_recursive* and the following changes have been made:

- The value of the *file_spec* defines the regular expression used to filter file names
- A *recursive* child element has been added to the *FileSpecSelection* element and its value set to *true* (the default value is *false*).
- The *source_dir* parameter has also been changed to:
 - */rec*

XML Editor Configuration



The Profile Code

The following code boxes can be opened to show the *Profile* and *ProtocolFragments* used in this example in XML and in *settings.ini* formats.

The 'ftp_server_2_local_select_recursive' Profile in XML Format

```
<?xml version="1.0" encoding="utf-8"?>
<Configurations xsi:noNamespaceSchemaLocation="http://www.sos-berlin.com/schema/yade/YADE_configuration_v1.0.
xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Fragments>
    <ProtocolFragments>
      <FTPFragment name="ftp_demo_sos-berlin">
        <BasicConnection>
          <Hostname><![CDATA[test.sos-berlin.com]]></Hostname>
        </BasicConnection>
        <BasicAuthentication>
          <Account><![CDATA[demo]]></Account>
          <Password><![CDATA[demo]]></Password>
        </BasicAuthentication>
      </FTPFragment>
    </ProtocolFragments>
  </Fragments>
  <Profiles>
    <Profile profile_id="ftp_server_2_local_select_recursive">
      <Operation>
        <Copy>
          <CopySource>
            <CopySourceFragmentRef>
              <FTPFragmentRef ref="ftp_demo_sos-berlin" />
            </CopySourceFragmentRef>
            <SourceFileOptions>
              <Selection>
                <FileSpecSelection>
                  <FileSpec><![CDATA[^test_\.txt$]]></FileSpec>
                  <Directory><![CDATA[./rec]]></Directory>
                  <Recursive>true</Recursive>
                </FileSpecSelection>
              </Selection>
            </SourceFileOptions>
          </CopySource>
          <CopyTarget>
            <CopyTargetFragmentRef>
              <LocalTarget />
            </CopyTargetFragmentRef>
            <Directory><![CDATA[{$USERPROFILE}\jade_demo\a]]></Directory>
          </CopyTarget>
        </Copy>
      </Operation>
    </Profile>
  </Profiles>
</Configurations>
```

The 'ftp_server_2_local_select_recursive' Profile in settings.ini Format

```
[protocol_fragment_ftp@ftp_demo_sos-berlin]
protocol                                = ftp

host                                    = test.sos-berlin.com
user                                    = demo
password                                = demo

[ftp_server_2_local_select_recursive]
operation                                = copy

source_include                           = protocol_fragment_ftp@ftp_demo_sos-berlin
file_spec                                 = ^test_\.\.txt$
source_dir                                = ./rec
recursive                                 = true

target_protocol                           = local
target_dir                                = ${USERPROFILE}\jade_demo\a
```

Running the Profile

This profile is called on Windows systems using one of the following commands, depending on the YADE version being used:

Running the file transfer settings.ini configuration in Windows format (YADE 1.10 and earlier)

```
jade.cmd -settings="%USERPROFILE%\jade_demo\sos-berlin_demo_2_local_select.ini" -profile="
ftp_server_2_local_select_recursive"
```

Running the file transfer XML configuration in Windows format (YADE 1.11 and later)

```
jade.cmd -settings="%USERPROFILE%\jade_demo\sos-berlin_demo_2_local_select.xml" -profile="
ftp_server_2_local_select_recursive"
```

On Unix systems the profile is called using one of the following commands, depending on the YADE version being used:

Running the file transfer settings.ini configuration in Unix format (YADE 1.10 and earlier)

```
./jade.sh -settings="${HOME}/jade_demo/sos-berlin_demo_2_local_select.ini" -profile="
ftp_server_2_local_select_recursive"
```

Running the file transfer XML configuration in Unix format (YADE 1.11 and later)

```
./jade.sh -settings="${HOME}/jade_demo/sos-berlin_demo_2_local_select.xml" -profile="
ftp_server_2_local_select_recursive"
```

Behavior

The relevant file structure on the source server is:

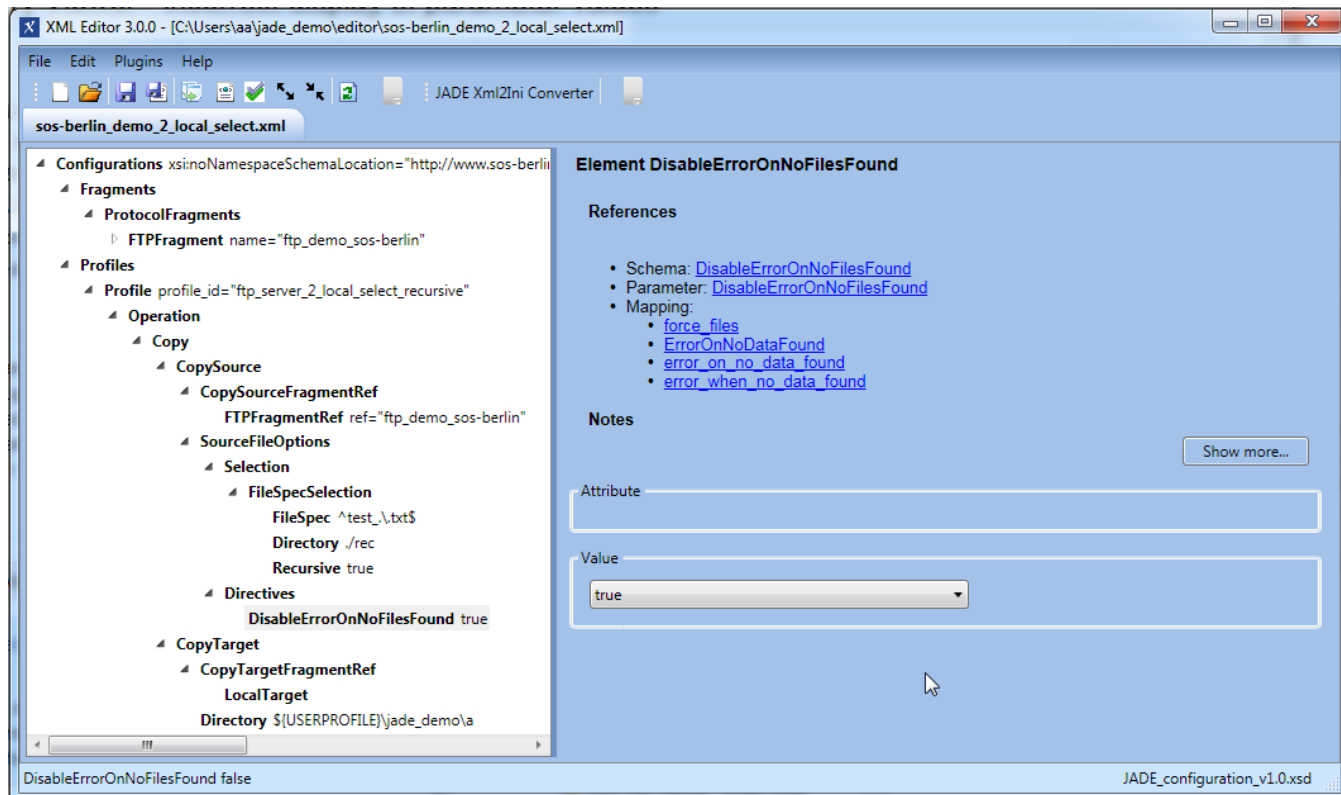
- /
 - /rec
 - test.txt
 - test_1.txt
 - /sd
 - test_2.txt
- YADE will download the *test_1.txt* from the */rec* folder on the server and ignore the *test.txt* file whose name does not match with the *FileSpec* regular expression.

- YADE will create a */sd* folder in the target *a* directory if this folder does not already exist.
- It will then open the */rec/sd* sub-folder on the server, create a corresponding folder on the target and download the *test_2.txt* file to this folder.

Behavior with *DisableErrorOnNoFilesFound = true*

The default behavior of YADE is to throw an error if a file transfer is attempted and no files are found. The [DisableErrorOnNoFilesFound](#) element is used to allow YADE to attempt a file transfer without an error being generated if no files are found. This behavior can be useful when, for example, polling for files.

The *DisableErrorOnNoFilesFound* element is specified as a *Directives* child element, the next screenshot shows how this element is integrated in a configuration:



The effect of setting the *DisableErrorOnNoFilesFound* element can be demonstrated by, for example, setting the *FileSpec* regular expression in the *Profile* element to `^text\.txt$` and recalling the operation.

The file transfer will now end with an Exit Code 99.

If, however, the *DisableErrorOnNoFilesFound* element is set to *true*, YADE will not throw an error.

Note:

- The meaning of the values *true* and *false* for the *DisableErrorOnNoFilesFound* element are the opposite to the meaning for the element's *setting* *gs.ini* predecessor, *force_files*.

Zero-Byte Files

The YADE Client can handle files with zero bytes in a number of ways, depending on the setting used for the [TransferZeroByteFiles](#) parameter, which is specified as a child of the *Directives* element.

Test Example

The default *TransferZeroByteFiles* setting is *true*. The screenshot below shows how this element is integrated in a duplicate of the *ftp_server_2_local* file transfer profile that was described in the [first tutorial in this series](#). This new *Profile* has *profile_id = ftp_server_2_local_zero_byte*.

In its original configuration - i.e. with *FileSpec* set to `*`, the *ftp_server_2_local* profile transfers six files from the SOS test server to the local file system. One of these files - *./test_4.txt* - has zero bytes and can be used to demonstrate the use of the *TransferZeroByteFiles* parameter.

The screenshot also shows the relevant extract from the parameter reference for the *TransferZeroByteFiles* element with a description of the meaning of the different values the *TransferZeroByteFiles* element can have.

XML Editor Configuration

The screenshot displays the XML Editor 3.0.0 interface. The main window title is "XML Editor 3.0.0 - [C:\Users\aa\jade_demo\editor\sos-berlin_demo_2_local_select.xml]". The menu bar includes "File", "Edit", "Plugins", and "Help". The toolbar contains various icons, including a "JADE Xml2Ini Converter" button.

The left pane shows a tree view of the configuration for "sos-berlin_demo_2_local_select.xml". The tree structure is as follows:

- Configurations xs:inoNamespaceSchemaLocation="http://www.sos-berlin..."
 - Fragments
 - ProtocolFragments
 - FTPFragment name="ftp_demo_sos-berlin"
 - Profiles
 - Profile profile_id="ftp_server_2_local_select_recursive"
 - Profile profile_id="ftp_server_2_local_zero_byte"
 - Operation
 - Copy
 - CopySource
 - CopySourceFragmentRef
 - FTPFragmentRef ref="ftp_demo_sos-berlin"
 - SourceFileOptions
 - Selection
 - FileSpecSelection
 - FileSpec .*
 - Directory ./
 - Directives
 - DisableErrorOnNoFilesFound true
 - TransferZeroByteFiles false
 - CopyTarget
 - CopyTargetFragmentRef
 - Directory \${USERPROFILE}\jade_demo*

The right pane shows the "Element TransferZeroByteFiles" details. It includes a "References" section with the following items:

 - Schema: [TransferZeroByteFiles](#)
 - Parameter: [TransferZeroByteFiles](#)
 - Mapping:
 - [zero_byte_transfer](#)
 - [TransferZeroByteFiles](#)
 - [transfer_zero_byte_files](#)

The "Notes" section contains the following text:

This parameter specifies whether zero byte files should be transferred and processed by subsequent commands.

The following settings are available:

 - "true": files with zero byte size are transferred (default).
 - "false": files with zero byte size are transferred if at least one of the selected files is more than zero byte in size.
 - "strict": files with zero byte size will not be transferred. An error will be raised if any zero byte file is found.
 - "relaxed": files with zero byte size will not be transferred. However, no error will be raised if this results in no files being transferred.

Additional notes:

 - Note that the *Remove* operation has unrestricted validity.
 - Files with zero byte size will be removed regardless of whether or not they have been transferred.
 - Use of this parameter can be refined using the [DisableErrorOnNoFilesFound](#) parameter.
 - If *DisableErrorOnNoFilesFound* has the value "false" then processing will be considered successful in the event of no files having been transferred.

At the bottom of the right pane, there is a "Show less..." button and two input fields: "Attribute" (empty) and "Value" (set to "false").

The status bar at the bottom of the window shows "TransferZeroByteFiles false" on the left and "JADE_configuration_v1.0.xsd" on the right.

The Profile Code

The following code boxes can be opened to show the *Profile* and *ProtocolFragments* used in this example in XML and in `settings.ini` formats.

The 'ftp_server_2_local_zero_byte' Profile in XML Format

```
<?xml version="1.0" encoding="utf-8"?>
<Configurations xsi:noNamespaceSchemaLocation="http://www.sos-berlin.com/schema/yade/YADE_configuration_v1.0.
xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Fragments>
    <ProtocolFragments>
      <FTPFragment name="ftp_demo_sos-berlin">
        <BasicConnection>
          <Hostname><![CDATA[test.sos-berlin.com]]></Hostname>
        </BasicConnection>
        <BasicAuthentication>
          <Account><![CDATA[demo]]></Account>
          <Password><![CDATA[demo]]></Password>
        </BasicAuthentication>
      </FTPFragment>
    </ProtocolFragments>
  </Fragments>
  <Profiles>
    <Profile profile_id="ftp_server_2_local_zero_byte">
      <Operation>
        <Copy>
          <CopySource>
            <CopySourceFragmentRef>
              <FTPFragmentRef ref="ftp_demo_sos-berlin" />
            </CopySourceFragmentRef>
            <SourceFileOptions>
              <Selection>
                <FileSpecSelection>
                  <FileSpec><![CDATA[.*]]></FileSpec>
                  <Directory><![CDATA[.]]></Directory>
                </FileSpecSelection>
              </Selection>
              <Directives>
                <DisableErrorOnNoFilesFound>true</DisableErrorOnNoFilesFound>
                <TransferZeroByteFiles><![CDATA[false]]></TransferZeroByteFiles>
              </Directives>
            </SourceFileOptions>
          </CopySource>
          <CopyTarget>
            <CopyTargetFragmentRef>
              <LocalTarget />
            </CopyTargetFragmentRef>
            <Directory><![CDATA[{$USERPROFILE}\jade_demo\a]]></Directory>
          </CopyTarget>
        </Copy>
      </Operation>
    </Profile>
  </Profiles>
</Configurations>
```

The 'ftp_server_2_local_zero_byte' Profile in settings.ini Format

```
[protocol_fragment_ftp@ftp_demo_sos-berlin]
protocol                                = ftp

host                                    = test.sos-berlin.com
user                                    = demo
password                                = demo

[ftp_server_2_local_zero_byte]
operation                                = copy

source_include                          = protocol_fragment_ftp@ftp_demo_sos-berlin
file_spec                                = .*
source_dir                               = ./
force_files                              = false
zero_byte_transfer                       = false

target_protocol                          = local
target_dir                               = ${USERPROFILE}\jade_demo\a
```

Running the Profile

This profile is called on Windows systems using one of the following commands, depending on the YADE version being used:

Running the file transfer settings.ini configuration in Windows format (YADE 1.10 and earlier)

```
jade.cmd -settings="%USERPROFILE%\jade_demo\sos-berlin_demo_2_local_select.ini" -profile="
ftp_server_2_local_zero_byte"
```

Running the file transfer XML configuration in Windows format (YADE 1.11 and later)

```
jade.cmd -settings="%USERPROFILE%\jade_demo\sos-berlin_demo_2_local_select.xml" -profile="
ftp_server_2_local_zero_byte"
```

On Unix systems the profile is called using one of the following commands, depending on the YADE version being used:

Running the file transfer settings.ini configuration in Unix format (YADE 1.10 and earlier)

```
./jade.sh -settings="${HOME}/jade_demo/sos-berlin_demo_2_local_select.ini" -profile="
ftp_server_2_local_zero_byte"
```

Running the file transfer XML configuration in Unix format (YADE 1.11 and later)

```
./jade.sh -settings="${HOME}/jade_demo/sos-berlin_demo_2_local_select.xml" -profile="
ftp_server_2_local_zero_byte"
```

Behavior

- With the *TransferZeroByteFiles* element set to *false* or *relaxed* (and with the *FileSpec* set to `^test_.\.txt$` as listed above) neither will the *test_4.txt* zero byte file be downloaded nor will an error be raised.
- Setting the *TransferZeroByteFiles* element to *false* and rerunning the example will:
 - Cause the the *test_4.txt* file to be ignored as with the *relaxed* setting and
 - Cause an error to be raised if no files with more than zero bytes are found - i.e. if no files are to be transferred. This can be demonstrated by changing the *FileSpec* regex to `^test_[4]\.txt$` which will only match for the zero byte file.
- A setting of *TransferZeroByteFiles = strict* will cause an error to be raised if any zero byte files are matched.