

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

- [Introduction](#)
  - [YADE Tutorials List](#)
    - [YADE Client Command Line Interface](#)
    - [YADE Background Service](#)
  - [Prerequisites](#)
  - [Download file](#)
  - [Scope of this tutorial](#)
- [File Name Filtering and Recursive File Selection](#)
  - [Configuration structure](#)
    - [ProtocolFragment](#)
      - [Profile](#)
    - [XML Editor Configuration](#)
    - [The Profile Code](#)
    - [Running the Profile](#)
  - [Behavior](#)
  - [Behavior with DisableErrorOnNoFilesFound = true](#)
- [Zero-Byte Files](#)
  - [Test Example](#)
    - [XML Editor Configuration](#)
    - [The Profile Code](#)
    - [Running the Profile](#)
  - [Behavior](#)

## 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

1. [Getting Started and Downloading files](#)
2. [Simple File Selection](#)
3. [More Advanced File Selection](#)
4. [File Transfer](#)
5. [Checking files for completeness](#)
6. [Public / Private Key Authentication](#)
7. [Transfer via a Jump Host / DMZ](#)

### 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.](#)



## 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:

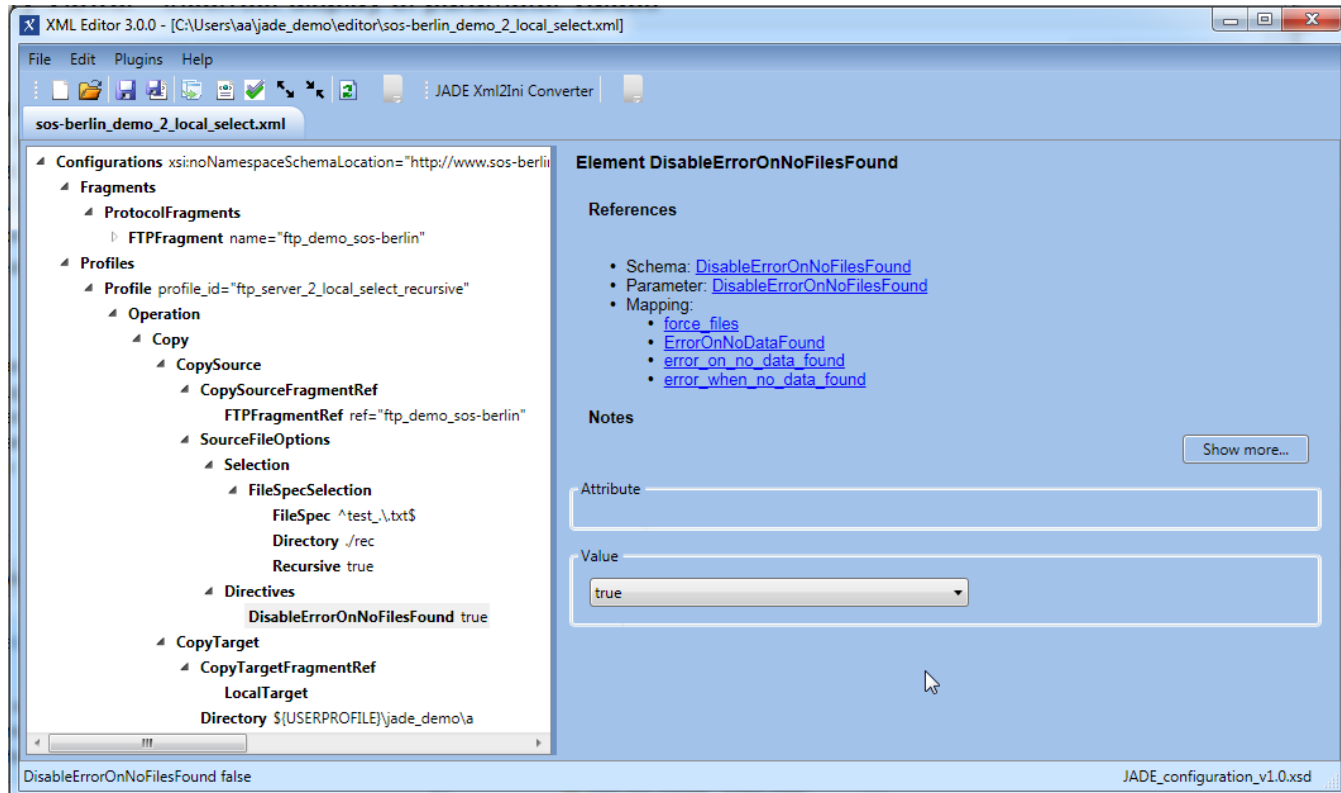
- /
  - /rec
    - test.txt
    - test\_1.txt
  - /sd
    - test\_2.txt
- YADE will download the *test\_1.txt* from the */rec* folder on the server and ignore the *test.txt* file whose name does not match with the *FileSpec* regular expression.

- 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 shows the XML Editor 3.0.0 interface. The title bar indicates the file path: `[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 main window is titled `sos-berlin_demo_2_local_select.xml`. The left pane displays a tree view of the configuration:

- Configurations `xmlns:NamespaceSchemaLocation="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 is titled **Element TransferZeroByteFiles**. It contains the following sections:

- References**
  - Schema: [TransferZeroByteFiles](#)
  - Parameter: [TransferZeroByteFiles](#)
  - Mapping:
    - [zero\\_byte\\_transfer](#)
    - [TransferZeroByteFiles](#)
    - [transfer\\_zero\\_byte\\_files](#)
- Notes**

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.
- 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 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.