IBM WebSphere Transformation Extender

FS Manager Adapter

Version 8.1

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This edition of this document applies to IBM WebSphere Transformation Extender Version 8.1; and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. FS Manager adapter introduction

The FS Manager adapter is used with a Command Server, Launcher, Software Development Kit, or map in a map rule.

Overview

The FS Manager adapter is an interface betweenWebSphere Transformation Extender and FS Manager. When you specify the FS Manager adapter in a map, the WebSphere Transformation Extender sends messages to and retrieves messages from the transmission queue in FS Manager.

This is done by using the FS Manager Socket API, through which the adapter can communicate with the FS Manager Socket gateway. FS Manager can process messages on the transmission queue in the usual way. The FS Manager adapter follows the model of existing WebSphere Transformation Extender messaging adapters (for example, MQSeries and MSMQ) and provides the similar functionality. Specifically, the FS Manager adapter provides three functions:

- Get - to get one or more messages from the FS Manager transmission queue for input to WebSphere Transformation Extender.
- Put - to put one message to the FS Manager transmission queue as output from WebSphere Transformation Extender.
- Listen - to listen for messages and to trigger maps to run as messages arrive.

Installation

This product is installed as one of the components of the WebSphere Transformation Extender installation program.

For more information about supported operating systems, the installation program or how to remove this product from your system, refer to the readme.txt file included with this product. The WebSphere Transformation Extender Command Server must be installed on the computer where the FS Manager adapter is to be installed.

Chapter 2. FS Manager commands

The FS Manager commands and their options have specific functions and use.

List of Commands

The following table lists valid commands for the FS Manager adapter, the command syntax, and whether the command is supported for use with data sources (for example, in the From card), targets (for example, in the To card), or both.

These are the commands that can appear under the **Source → Command** or **Target → Command** setting.

Name	Syntax	Source	Target
Host (-HOST or -H)	-HOST [*name* |*address*]	Y	Y
Port (-PORT)	-PORT [*port_number*]	Y	Y
Service (-SERVICE or -S)	-SERVICE [*service_name*]	Y	Y
User (-USER or -US)	-USER [*user_name*]	Y	Y
Pass (-PASS or -PW)	-PASS [*password*]	Y	Y

Host (-HOST or -H)

The Host (`-HOST` or `-H`) adapter command can be used with the FS Manager adapter.

The Host adapter command (`-HOST` or `-H`) specifies the hostname or TCP/IP address of the FS Manager Sockets gateway.

`-HOST [`*name*`|`*address*`]`

Option Description

name   Name of the host.

address TCP/IP address of the FS Manager Sockets gateway.

Port (-PORT or -P)

The Port (`-PORT` or `-P`) adapter command can be used with the FS Manager adapter.

The Port adapter command (`-PORT` or `-P`) specifies the port number of the FS Manager Sockets gateway with which the map communicates.

`-PORT [`*port_number*`]`

Option Description

port_number
> The port number of the Sockets gateway. When you specify the port, you cannot specify the service (see `-SERVICE`).

Service (-SERVICE or -S)

The Service (-SERVICE or -S) adapter command can be used with the FS Manager adapter.

The Service adapter command (-SERVICE or -S) specifies the service name used to communicate with the FS Manager Sockets gateway.

-SERVICE [*service_name*]

Option Description

service_name

> The name of the service that the map uses to communicate with the Sockets gateway. The service name is like an alias that refers to the port used for the Sockets gateway. When you specify the service, you cannot specify the port (see -PORT).

User (-USER or -US)

The User (-USER or -US) adapter command can be used with the FS Manager adapter.

The User adapter command (-USER or -US) specifies the user name that gives the map permission to access the FS Manager transmission queue.

-USER [*user_name*]

Option Description

user_name

> The name of the user with access rights to the FS Manager transmission queue.

Pass (-PASS or -PW)

The Pass (-PASS or -PW) adapter command can be used with the FS Manager adapter.

The Pass adapter command (-PASS or -PW) specifies the password that is associated with the user name that you provide (see -USER), which gives the map permission to access the FS Manager transmission queue.

-PASS [*password*]

Option Description

password

> The password associated with the user name that has access rights to the FS Manager transmission queue.

Chapter 3. Using the FS Manager adapter

The FS Manager adapter is used as a data source or target in a map in several different ways. There are specific commands available for you to use with this adapter.

Using FS Manager adapter commands

Use the FS Manager adapter commands from the Map Designer or Integration Flow Designer as the data source of an input map card, the data target for an output map card, or both. You can also use the FS Manager adapter as a map card override on the command line or in a map rule using the GET, PUT, or RUN functions.

From the map editor

Use the Map Editor to designate the FS Manager adapter as a source or a target.

This is done by accessing a map's card through the Edit card option and selecting FS Manager as the adapter (either **Source** or **Target**, depending on whether you are viewing an input or output card) in the Card window. The adapter (**Source** or **Target**) settings are the same for input and output cards, with one exception. The first setting under **SourceRule** for an input is **FetchAs**, which is not there for output cards.

From the system editor

Use the System Editor to access the Launcher or Command Server execution settings for a map.

This is done by expanding the map, selecting its input or output and selecting View Card Details from the menu. The map's Input Card or Output Card window opens and you can select FS Manager as the **Source** or **Target**.

On the command line

You can specify FS Manager adapter commands using a command string on the command line.

Alternatively, you can create a command file containing adapter commands that dictate the specified execution.

For more information about the options you can use with adapter execution commands, or on creating a command file, see the *Execution Commands* documentation.

FS Manager source settings

Use **Source** settings under **GET** to configure options for input map cards that use the FS Manager adapter.

The settings below **Source** control how the input of those messages (and any warnings or errors that occur) will be handled.

Source

Use **Source** settings to select the FS Manager adapter.

Source > Command

The **Command** setting under **Source** is used to enter adapter commands. See FS Manager adapter commands for a description of the available commands.

Example of command settings under source

The **Command** setting under **Source** is used to enter commands for the FS Manager adapter. The following command is an example of **Command** settings on an input card for **Source**:

```
-HOST Trafford –PORT 4371 –USER rkeane –PASS treble
–SHORTCODE manutd –LSN 0
```

In the example input card, a connection to the `Trafford` host on port `4371` will be established, and it will be authenticated with the `rkeane` user name and `treble` password. When established, any message with the `manutd` shortcode will be retrieved from the transmission queue, as long as it is available immediately.

FS Manager target settings

Use **Target** settings under **PUT** to configure options for output map cards that use the FS Manager adapter.

The settings below **Target** control how the output of those messages (and any warnings or errors that occur) will be handled.

Target

Use **Target** settings to select the FS Manager adapter.

Target > Command

The **Command** setting under **Target** is used to enter adapter commands. See FS Manager adapter commands for a description of the available commands.

Example of command settings under target

The **Command** setting under **Target** is used to enter commands for the FS Manager adapter. The following command is an example of **Command** settings on an output card for **Target**:

The **Command** setting under **Target** is used to enter adapter commands. The following command is an example of **Command** settings on an input card for **Target**:

```
-HOST Freeway_2 –PORT 9999 –USER wilko2 –PASS wilko2 ...
```

In the example output card, a connection to the `Freeway_2` host on port `9999` will be established, and it will be authenticated with the `wilko2` user name and `wilko2` password.

Chapter 4. Troubleshooting

If you attempt to run a map that uses the FS Manager adapter and encounter problems or do not receive the expected results, you can use the adapter trace file to try to track down the problem.

Adapter Trace File

The adapter trace file contains detailed information that is provided by the adapter during execution. It records the actions that take place, such as established connections, executed statements, and so forth. The trace file can be used as a debugging aid.

To produce a trace file for the adapter, use the `-TRACE` adapter command. The default name for the file this produces is **M4MSGR.MTR**, and it is placed in the map directory.

FS Manager adapter trace file

When you use the `-TRACE` adapter command, it produces a trace file that logs the progress of the communication between the adapter and IBM® WebSphere® DataStage® TX FS Manager. If nothing happens during this process, the trace file will be empty. However, if WebSphere Transformation Extender warns you of an error or problem during the communication, the trace file should reveal the cause.

When you use the `-TRACE` command, you have the option of specifying the name of the trace file. If you do not specify a name, the default file name will be M4MSGR.MTR.

Example FS Manager adapter trace file

This is an example of an FS Manager adapter trace file.

This example trace file shows four errors. The numbers that precede each error shows the thread from where the error was generated.

```
<329- The username or password has not been specified on the command line.
296>:
<329- Warning, quantity is greater than fetch unit. Messages will have been deleted
275>: and not processed.
<329- Unable to start a socket session. Check the username or password are correct.
316>:
<329- Error in command line
296>:.
```

Chapter 5. Status return codes and error messages

When you use the -STATUS adapter command, the message status will be returned from FS Manager instead of the message itself. The status is returned as a code.

List of status return codes

The following table lists the available status return codes and messages that can be returned as a result of using the FS Manager adapter for sources or targets.

Adapter return codes with positive numbers are warning codes that indicate a successful operation. Adapter return codes with negative numbers are error codes that indicate a failed operation.

Message Status Code
  Message

-1   Message with TRN not found.

9   Message on transmission queue awaiting action from destination gateway.

10   Message accepted for transmission by gateway.

11   Message being transmitted.

12   User has re-addressed message. Gateway currently processing request.

15   Message successfully sent.

16   Failed to send.

17   Failed to send.

18   Message has been passed onto next node in address path. Awaiting delivery confirmation.

19   User cancelled message.

20   User cancelled message during transit.

48   User cancelled message. Request being processed.

66   Gateway claimed message for transmission, but transmission not yet started.

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