Installation instructions for usermod TPFM001 for IBM WebSphere Developer for z/OS (FMID HHOP700)

The usermod is shipped as file IBM.HHOP700.TPFM001.

The File Manager code that goes with this usermod is located in a separate file and is shipped as IBM.HHOP700.TPFM001.FMNLOAD.BIN.

Overview of the installation steps

Steps required to install the usermod:

1. Allocate host data sets for the usermod and accompanying File Manger file.
2. Upload the usermod and the File Manager file from your workstation to z/OS.
3. Expand the File Manager file by using the TSO Receive command.
4. Perform SMP/E RECEIVE and APPLY for the usermod.
5. Perform customization tasks.

Allocate host data sets for the usermod and accompanying File Manger file

A sequential data set must be allocated on the z/OS system to receive the usermod and accompanying File Manger file that you will upload from your workstation. You can do this by submitting the job below. Add a job card and modify the parameters to meet your site's requirements before submitting.

```
//ALLOC     EXEC PGM=IEFBR14
//*
//TPFM001  DD DSN=hlq.IBM.HHOP700.TPFM001,
//           DISP=(NEW,CATLG,DELETE),
//           DSORG=PS,
//           RECFM=FB,
//           LRECL=80,
//           UNIT=SYSALLDA,
//*          VOL=SER=volser,
//*          BLKSIZE=6160,
//           SPACE=(TRK,(5,1))
//*
//FMNLOAD  DD DSN=hlq.IBM.HHOP700.TPFM001.FMNLOAD.BIN,
//           DISP=(NEW,CATLG,DELETE),
//           DSORG=PS,
//           RECFM=FB,
//           LRECL=80,
//           UNIT=SYSALLDA,
//*          VOL=SER=volser,
//*          BLKSIZE=6160,
//           SPACE=(TRK,(425,5))
//*
```

Upload the usermod and the File Manager file from your workstation to z/OS

Upload the files in binary format from your workstation to the z/OS data set. On a Windows system, you can use FTP from a command prompt to upload the file. In the sample dialog shown below, commands or other information entered by the user are in bold, and the following values are assumed:

User enters:	Values
mvsaddr	TC P/IP address of the z/OS system
tsouid	Your TSO user ID
tsopw	Your TSO password
d:	Your drive containing the usermod files
hlq	High-level qualifier that you used for the data set that you allocated in the job above

```
C:\>ftp mvsaddr
Connected to mvsaddr.
220-FTPD1 IBM FTP CS V2R8 at mvsaddr, 04:43:52 on 2002-03-15.
220 Connection will close if idle for more than 60 minutes.

User (mvsaddr:(none)): tsouid
331 Send password please.

Password: tsopw
230 tsouid is logged on.  Working directory is "tsouid.".

ftp> cd ..
250 "" is the working directory name prefix.

ftp> cd hlq
250 "hlq." is the working directory name prefix.

ftp> binary
200 Representation type is Image

ftp> put c:\IBM.HHOP700.TPFM001
200 Port request OK.
125 Storing data set hlq.IBM.HHOP700.TPFM001
250 Transfer completed successfully
96240 bytes sent in 0.02 seconds

ftp> put c:\IBM.HHOP700.TPFM001.FMNLOAD.BIN
200 Port request OK.
125 Storing data set hlq.IBM.HHOP700.TPFM001.FMNLOAD.BIN
250 Transfer completed successfully
19646000 bytes sent in 3.08 seconds

ftp> quit
221 Quit command received. Goodbye.
```

Expand the File Manager file by using the TSO Receive command

The uploaded File Manager file is a compressed partitioned data set in TSO Transmit format. To restore the original content, the data must be received using the TSO Receive command.

```
RECEIVE INDA('hlq.IBM.HHOP700.TPFM001.FMNLOAD.BIN')
```

When prompted on the TSO Receive command, reply with the following statement:

```
DS('hlq.IBM.HHOP700.TPFM001.FMNLOAD')
```

This will create a data set named hlq.IBM.HHOP700.TPFM001.FMNLOAD.

Perform SMP/E RECEIVE and APPLY for the usermod

SMP/E RECEIVE and APPLY the usermod.

Perform customization tasks

The WebSphere Developers File Manager technology preview usermod requires some modifications to the WebSphere Developer host setup.

Steps required to activate the usermod:

1. (USS) rsed.envvars must include fmiExtensions.jar in its CLASSPATH configuration.
2. (USS) mvsExtension.dat must include com.ibm.fmi.server.FMIMVSMinerExtension.
3. (USS) Copy FMIEXT.properties and fmiSub to the rsed.envvars directory.
4. (USS) Customize FMIEXT.properties.
5. (USS) Customize fmiSub.
6. (MVS) Customize hlq.SFEKPROC(FEKFFMI4).

(USS) rsed.envvars must include fmiExtensions.jar in its CLASSPATH configuration

rsed.envvars must include fmiExtensions.jar in its CLASSPATH configuration. This can be done by adding the following lines to the END of rsed.envvars:

```
#==============================================================
# File Manager technology preview (usermod TPFM001)
#==============================================================
CLASSPATH=$CLASSPATH:$RSE_LIB/fmiExtensions.jar
```

Note: rsed.envvars resides by default in the RSE install path (default: /usr/lpp/wd4z/rse/lib), but could have been copied to a different location to avoid overwriting customizations when applying maintenance.

(USS) mvsExtension.dat must include com.ibm.fmi.server.FMIMVSMinerExtension

mvsExtension.dat must include com.ibm.fmi.server.FMIMVSMinerExtension. mvsExtension.dat resides in the RSE install path (default: /usr/lpp/wd4z/rse/lib). The update can be done by adding the following lines to the END of mvsExtension.dat:

```
#=============================================================
# File Manager technology preview (usermod TPFM001)
#=============================================================
com.ibm.fmi.server.FMIMVSMinerExtension
```

(USS) Copy FMIEXT.properties and fmiSub to the rsed.envvars directory

rsed.envvars resides by default in the RSE install path (default: /usr/lpp/wd4z/rse/lib), but could have been copied to a different location to avoid overwriting customizations when applying maintenance. If so, both FMIEXT.properties and fmiSub must be copied to the same location. The following sample copy commands will copy these files from the current directory to a directory named /etc/wd4z.

```
$ cp FMIEXT.properties /etc/wd4z
$ cp fmiSub /etc/wd4z
```

(USS) Customize FMIEXT.properties

FMIEXT.properties holds several variables used by the File Manager plugin for WebSphere Developer. Customize as directed in the file.

```
# FMI Extension properties
# CUSTOMIZATION STEPS:
# 1) Replace -PathPrefix- with the path prefix used to install WD/z.
#    The minimal replacement is a forward slash (/).
#    If file fmiSub got copied to a different location, then change
#    this path reference accordingly
# 2) (optional) Replace 1957 with a preferred starting port.
# 3) (optional) Replace 100 with a different range of ports to use.
startup.script=-PathPrefix-usr/lpp/wd4z/rse/lib/fmiSub
startup.port=1957
startup.range=100
```

(USS) Customize fmiSub

fmiSub starts a CLIST that resides in a MVS data set. Customize as directed in the file.

```
/* CONFIGURATION STEP:                                           */
/* Replace "hlq" with the high level qualifier used to install   */
/* WebSphere Developer for System z v7.0 (HHOP700).              */
/* The IBM supplied default for this value is FEK.               */
/*                                                               */
/* Note:                                                         */
/* You can change the default member name (FEKFFMI4) or copy the */
/* member to a different location to avoid overwriting           */
/* customizations when applying maintenance. If so, change this  */
/* reference accordingly.                                        */

  address tso
  "exec 'hlq.SFEKPROC(FEKFFMI4)' '" port||ip "'"
```

(MVS) Customize hlq.SFEKPROC(FEKFFMI4)

Member FEKFFMI4 submits a job to start the File Manager connection. It is by default located in hlq.SFEKPROC, where hlq equals the high level qualifier used to install WebSphere Developer. The IBM supplied default for the hlq value is FEK. Customize as directed in the file.

```
//FEK&SUBSTR(4:8,&PIP) JOB (,,,,),&SYSUID,
//            &ltcomplete job card>
//*
//* CUSTOMIZATION STEPS:
//* 1) Complete the current job card according to your site standards.
//*    Do NOT change the job name, this is to ensure a unique name.
//* 2) Replace "hlq" with the high level qualifier used to install
//*    the File Manager data set.
//*
//FMBAT    EXEC PGM=IKJEFT01,DYNAMNBR=100,REGION=0M
//STEPLIB  DD DISP=SHR,DSN=hlq.IBM.HHOP700.TPFM001.FMNLOAD
```