
DIF Installation

Please note that the organization of this document is such that general information is provided first, then specific instructions are given or examples are shown. Please read each section carefully.

DIF installation for the Beta program requires:

- Java 1.4
- IBM WebSphere MQ V5.3.1
- IBM WebSphere MQ Everyplace 2.0.0.5

IBM WebSphere MQ may be downloaded from the IBM PartnerWorld website.

<http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/indexD.html>

IBM WebSphere MQ Everyplace software as well as the beta DIF code may be downloaded from the IBM DIF beta web site.

Requirements

Please read the SIF:DIF Getting Started Guide for general system requirements.

Information on System Requirements for IBM WebSphere MQ and IBM WebSphere MQ Everyplace for the Enterprise or In-Store Processor may be found at:

<http://www-3.ibm.com/software/integration/wmq/support/>

Prerequisites for Beta

IBM WebSphere MQ V5.3.1 installation with all options installed:

- Server
- Windows Client
- Java Messaging
- Development Toolkit

IBM WebSphere MQ Everyplace 2.0.0.5 installation with a gateway/bridge queue manager to MQ defined.

Information on IBM WebSphere MQ Everyplace may be found at:

<http://www-3.ibm.com/software/integration/wmqe/support/>

MQ Information You Need to Know for DIF

Name of MQ Queue Manager

Name of MQ Queue

MQue Information You Need to Know for DIF

TCP/IP address of WebSphere MQ Everyplace system

Name of the MQue gateway/bridge Queue Manager

MQue gateway bridge listener port number (Default is expected to be 8085)

The MQue JAR files are needed for the DIF installation on 4690 OS

Installing DIF on 4690 OS

Refer to the README.TXT on DIF Installation CD. There are several steps that comprise the DIF installation. DIF installation includes:

1. Setting up Java2 for 4690 OS. For Java2 to be setup on 4690 OS, VFS (Virtual File System) must be configured for the C: drive. Java programs use the Time Zone for Java defined in System Configuration. Be sure you have the correct Time Zone set, if the Time Zone is not set correctly, then the "Put Date/Time" for the MQ messages will not be correct.
2. Installing DIF software. When installing DIF, there are two components that are installed. First, the components that are needed by DIF but are common to the Store Integration Framework (SIF) are installed. Next the DIF components are installed.
3. Applying software maintenance. This step applies the installed software to the system. When applying maintenance, you may Test, Cancel, or Accept the maintenance. Choosing "Test" allows you to back the maintenance out (using "Cancel") if there is a problem. Choosing "Accept" does not allow you to back out the maintenance. You must apply maintenance to both the SIF common components and the SIF DIF components. **It is strongly recommended that you select "Test" during this Beta.**
4. Defining a DIF Disk Queue User Logical File Name. A user logical file name is simply a synonym for a longer name. The user logical file name resolves to whatever it is defined to be (much like a variable (%variable%) does in a BAT file). The DIF Disk Queue is used to communicate between DIF and the store application. The User Logical File Name resolves to a file name on the File Server Controller. To do this you may use another logical file name that points to the File Server Controller, **ADXLXACN::**. Typically data files for the applications go into the ADX_IDT1 directory. ADX_IDT1 also has a user logical file name that you may use – **ADX_IDT1::**.
5. Putting the MQe JAR files on the 4690 controller. The MQe JAR files are needed for TLOG-trickle or for any other DIF assured messaging needs. Copy the MQe JAR files from your MQe server to the ADX_IPGM directory on the File Server controller. The MQe JAR files must be renamed to 8.3 naming convention on the 4690 controller. The MQe JAR files should then be set to have a distribution attribute of 5 (Compound file, distributed at close).
6. Configuring DIF. To do this, a user properties file, **difuser.pro**, must be created in \ADX_IPGM. This file is needed to define required properties that do not have valid default values (such as the name of your MQ queue). This file can also be used to override the default values in the DIF properties files. Next, the customer XSL files (ACECust.xsl for ACE, SACust.xsl for SA, and GSACust.xsl for GSA) should be reviewed and changed as needed. The **difuser.txt** file is provided in \ADX_IPGM to help you create your **difuser.pro**. This file contains configuration options that require user modification. . After creating difuser.pro and reviewing the customer XSL files, run **difsetup.bat**.
7. Using an Alternate File Server. If you are using an Alternate File Server, you must distribute the **difuser.pro** file. Set the distribution attribute of difuser.pro to 3, and then run **difsetup.bat** on the Alternate File Server.
8. Customizing the store application for use with DIF. For ACE this means being at ACE V2 CSD1 and turning on the Store Integrator Disk Queue via personalization. For GSA and SA, this means compiling and linking in DIF code to the Checkout Sales Support application.

The following sections describe in detail how to setup DIF on the 4690 controller.

[Setting up Java2 for 4690 OS](#)

To use the DIF on the 4690, Java2 must be installed on the controller. To install Java2, VFS (Virtual File System) must be configured for the C: drive. When the VFS drive for C: is enabled, the operating system creates the logical drive M:. Drive M: information is stored on drive C:. Java programs use the Time Zone for Java defined in System Configuration. You must set the correct Time Zone. If the Time Zone is not set correctly, then the "Put Date/Time" for the MQ messages will be incorrect.

VFS Setup

To set up the M: drive, from the System Main Menu:

- Installation and Update Aids – [4] [Enter]
- Change Configuration Data – [1] [Enter]
- System Configuration – [3] [Enter]

VFS Drive Setting – [9] [Enter]
Set VFS Drive Setting to enabled on C: only – [1] [Enter]
Quit – [F3]

If you do not need to set the Time Zone for Java (otherwise, wait to activate until after you have set the Java Time Zone), Activate the System Configuration:

Activate Configuration – [4] [Enter]
System Configuration – [3] [Enter]

Note: Informational messages scroll by
At message “Additional message available. Press F10.” – [F10] to verify success of the activation
Reboot the controller.

Test to make sure the M: drive is available by running the command [**dir m:/**] from a command prompt and verifying a directory listing appears.

Java Time Zone Setup

To set up the Time Zone for Java, from the System Main Menu:

Installation and Update Aids – [4] [Enter]
Change Configuration Data – [1] [Enter]
System Configuration – [3] [Enter]
Java Configuration Data – [8] [Enter]
Select [Time Zone]
Select your Time Zone – [EST5EDT – Eastern Standard Time] (your choice)
[Save]
[Close]

Note: If you do not have a mouse or a touch screen, use the SpaceBar (not Enter) to activate the key.

Activate the System Configuration:

Activate Configuration – [4] [Enter]
System Configuration – [3] [Enter]

Note: Informational messages scroll by
At message “Additional message available. Press F10.” – [F10] to verify success of the activation
Reboot the controller.

Installing DIF Software

This step installs two components. First, the common Store Integration Framework (SIF) components that are needed by DIF are installed. Next the DIF components are installed. This step puts the DIF software in the maintenance directory, ADX_IMNT.

To install DIF:

Sign on to the 4690 master controller with full authority:

Type your Operator ID – [operatorID] [Enter]
Type your Password – [password] [Enter]

Place the DIF installation CD in the CD ROM drive on the master controller

Go to a command prompt, from System Main Menu – Command Mode – [7] [Enter]

Execute install [P:\4690\INSTALL]

Accept license agreement – [1]

Read the license by pressing [any key] until you reach the end of the document
Accept the license – [1]

Choose option to install– select Install IBM Data Integration Facility – [3]

Installation of COMMON files proceeds

Note: This installs SIF (Store Integration Framework) common components needed by DIF.

Base Installation of COMMON Components completes – [any key]

Installation of Base DIF files proceeds

Note: This installs the DIF components.
Base Installation of DIF Components completes – [any key]
Installation of DIF product completes
Check **C:\COMMINST.LOG** and **C:\DIFINST.LOG** for any errors
If there are no errors, proceed to the next step to apply software maintenance
Exit the installation process – [4]

Applying Software Maintenance

This step applies the installed software to the system. You have three choices when applying maintenance: Test, Cancel, or Accept. Choosing “Test” allows you to back the maintenance out if there is a problem. Choosing “Cancel” allows you to back out any maintenance that has been put in “Test” mode. Choosing “Accept” accepts the maintenance and does not allow you to back out the maintenance. You must apply maintenance to both the SIF common components and the SIF DIF components.

To apply and activate Software Maintenance:

Go back to the System Main Menu – [Exit]
Installation and Update Aids – [4] [Enter]
Apply Software Maintenance – [5] [Enter]
Activate Maintenance – [2] [Enter]

Find the DIF and Common components (you may need to page down) – both components should be “in maintenance”:

Common Component of SIF in maintenance
DIF Component of SIF in maintenance

Put both components in test by typing [1] by the component and then [Enter]

Note: Software maintenance is applied.

Note: If a component is “in backup”, this means that the component was previously put in “test mode”. You must first accept or cancel the previous maintenance before applying any new maintenance. If this is your first installation of DIF, this will not occur. To update a DIF installation, cancel the existing DIF installation.

If you have an alternate controller that is not attached, enter to accept the maintenance – [Enter]

Changes are ready to be applied – [Enter]

Note: Controller IPLs

Defining a DIF Disk Queue User Logical File Name

A user logical file name resolves to whatever its expanded name definition. The DIF Disk Queue is used to communicate between DIF and the store application. The User Logical File Name should resolve to a file name on the File Server Controller. Point to the DIF Disk Queue to a file in the VADX_IDT1 on the File Server Controller. Use the logical file name, **ADXLXACN::**, to point to the File Server Controller and the logical file name, **ADX_IDT1::**, to point to the ADX_IDT1 directory.

To define a User Logical File Name for the DIF Disk Queue on all controllers:

Installation and Update Aids – [4] [Enter]

Change Configuration Data – [1] [Enter]

Controller Configuration – [2] [Enter]

Are you configuring a ... - [Enter]

LAN Configuration – [Enter]

Enter Store Controller ID's ... - [Enter]

Define DIFQUEUE for the master controller:

Select controller [yourControllerID] [Enter]

Select User Logical File Names [X] [Enter]

Define a Logical File Name – [1] [Enter]

Type the logical file name being processed – [DIFQUEUE] [Enter]

Type the expanded name – [ADXLXACN::ADX_IDT1:DIFQUEUE.DAT] [Enter]

Note: ADXLXACN:: resolves to the file server controller

Note: ADX_IDT1: resolves to drive:\ADX_IDT1

Quit – [F3]

Quit – [F3]

If you have an alternate controller, define DIFQUEUE for the alternate controller:

Select controller [yourControllerID] [Enter]

Select User Logical File Names [X] [Enter]

Define a Logical File Name – [1] [Enter]

Type the logical file name being processed – [DIFQUEUE] [Enter]

Type the expanded name – [ADXLXACN::ADX_IDT1:DIFQUEUE.DAT] [Enter]

Note: ADXLXACN:: resolves to the file server controller

Note: ADX_IDT1: resolves to drive:\ADX_IDT1

Quit – [F3]

Quit – [F3]

Quit – [F3]

Quit – [F3]

Activate the Controller Configuration:

Activate Configuration – [4] [Enter]

Controller Configuration – [2] [Enter]

Note: Informational messages scroll by

At message “Additional message available. Press F10.” – [F10] to verify success of the activation

Reboot the controller

Putting the MQe JAR files on the 4690 Controller

For TLOG-trickle or for any other DIF assured messaging, the MQe JAR files are needed by DIF. Copy the MQe JAR files from your MQe server to the ADX_IPGM directory on the File Server controller. The MQe JAR files are located in \Java\Jars in your MQe directory. Some of the MQe JAR files have long names. When copying the JAR files to the File Server, the long file names need to be truncated to 8.3 naming. For example, the MQeBindings.jar should be renamed to MQeBindi.jar. Once the MQe JAR files are copied to AD_IPGM, set each file to have a distribution attribute of 5 (Compound file, distributed at close).

Using FTP to Copy Files

Note: You may use the editor XE to edit files in 4690 OS.

You can use FTP to copy the files from the MQe server to the 4690 File Server controller. Using this method will automatically truncate long file names to 8.3 naming. To use FTP with 4690 OS, the following Background Application, ADXHSI9L.286, must be set up to start at IPL.

To set up a background application:

Installation and Update Aids – [4] [Enter]

Change Configuration Data – [1] [Enter]

Controller Configuration – [2] [Enter]

Are you configuring a ... – [Enter]

LAN Configuration – [Enter]

Enter Store Controller ID's ... – [Enter]

Select controller – [UF] [Enter]

Select Background Application – [X] [Enter]

Define a Background Application – [1] [Enter]

Initial Message – [INETD Superserver] [Tab]

Program Name – [ADX_SPGM:ADXHSI9L.286] [Tab]

Parameter List (none) [Tab]

Priority – [5] [PgDn]
Start When Master – [Y] [Tab]
Stop When Not Master – [N] [Tab]
Start When Not Master – [Y] [Tab]
Stop When Master – [N] [PgDn]
Start When File Server – [Y] [Tab]
Stop When Not File Server – [N] [Tab]
Start When Not File Server – [Y] [Tab]
Stop When File Server – [N] [Enter]

To FTP to the File Server controller, from a DOS window on your MQe server:

[FTP]

[open xxx.xxx.xxx.xxx] (TCP/IP address of your controller)

Note: The TCP/IP address is defined in \ADX_SDT1\ADXIPxx.bat, where xx is the Controller ID

User – [ftpuser]

Password – [4690tcpip]

Note: The user and password are the defaults defined in the file \ADX_SDT1\ADXHSIU.F.DAT. If you want to add your own user and password, simply copy the “ftpuser/password” section and rename to your user id and password.

User logged in – change to ADX_IPGM directory – [cd \adx_ipgm]

Turn off the prompt (do not have to answer “y” all the time) – [prompt] (your choice)

Copy the files to the 4690 – [mput c:\MQe\Java\Jars*.ext]

Transfer complete – [quit]

The following files are copied:

MQeBase.jar	→→	MQEBASE.JAR
MQeBinding.jar	→→	MQEBINDI.JAR
MQeBundle.jar	→→	MQEBUNDL.JAR
MQeClientBundle.jar	→→	MQECLIEN.JAR
MQeCore.jar	→→	MQECORE.JAR
MQeDeprecated.jar	→→	MQEDEPRE.JAR
MQeDiagnostics.jar	→→	MQEDIAGN.JAR
MQeExamples.jar	→→	MQEEXAMP.JAR
MQeGateway.jar	→→	MQEGATEW.JAR
MQeJMS.jar	→→	MQEJMS.JAR
MQeMidp.jar	→→	MQEMIDP.JAR
MQeMigration.jar	→→	MQEMIGRA.JAR
MQeRetail.jar	→→	MQERETAI.JAR
MQeSecurity.jar	→→	MQESECUR.JAR
MQeServerBundle.jar	→→	MQESERVE.JAR
MQeTraceDecode.jar	→→	MQETRACE.JAR

Setting File Distribution Attributes to 5

Once the files are copied to the 4690 File Server controller, the files should be set to a distribution attribute of 5 (Compound file, distributed at close). This mirrors the files to the alternate controller.

You can look at the distribution attributes of the files:

From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]

Look at the current file distribution value – [dir MQe*.jar -d]

Note: The number [1] indicates the distribution for the files (1 is local).

To set the MQe jar file distribution values, from the System Main Menu:

File Utilities – [3] [Enter]

Distributed File Utilities – [3] [Enter]
Modify File Distribution Type – [3] [Enter]
Type the file name – [ADX_IPGM:MQEBASE.JAR] [Enter]
Note: ADX_IPGM: is a user logical file name pointing to the \ADX_IPGM directory
Set distribution type to Compound file, distributed at close – [5] [Enter]

If you look at the distribution attributes of the files again:

From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]

Look at the current file distribution value – [dir MQe*.jar -d]

Note: The number [5] indicates the new distribution for the files (5 is Compound file, distributed at close).

Configuring DIF

In order for DIF to run, it must be configured. To do this, a user properties file, **difuser.pro**, must be created in \ADX_IPGM. Typically modifications are made in **difuser.pro**. Do NOT modify **difsetup.pro** and **difsrcv.pro**. The **difuser.pro** file defines the required properties that do not have valid default values. These are properties that are user-specific (such as the name of your MQ queue). In addition, **difuser.pro** can be used to override other default values in the DIF properties files. Properties in **difuser.pro** override properties in both **difsetup.pro** and **difsrcv.pro**. For this installation, the defaults are not changed. The **difuser.txt** file is provided in \ADX_IPGM to help you create your **difuser.pro**. This file contains configuration options that require user modification. If you are using an Alternate File Server, distribute the **difuser.txt** file with a distribution attribute of 3.

To understand the DIF default installation, you must understand the use of some of the properties defined in **difsetup.pro** and **difsrcv.pro**. The **difsetup.pro** file defines the TLOG-trickle implementation of DIF. The **difsrcv.pro** file defines the default Services and Director (list of Actors) for TLOG-trickle.

The DIF default setup defines TLOG-trickle for sending binary data only. The DIF default setup is defined in the **difsetup.pro** file with the property, **setup.profiles=tlog-trickle**.

TLOG-trickle is a DIF implementation that reads the application TLOG and, using MQe, sends the TLOG data to an MQ queue. The properties for TLOG-trickle setup are defined in **difsetup.pro**. You must override four properties (**tlog-trickle.gateway.qmgr**, **tlog-trickle.gateway.ip**, **tlog-trickle.mq.qmgr**, **tlog-trickle.mq.queue**) with user-specific information. If these properties are not defined in **difuser.pro**, TLOG-trickle will not work. The default TLOG-trickle definition sends binary TLOG data to the MQ Queue. The TLOG-trickle definition can be changed via **difuser.pro** to send iXRetail data (see "Using Parsing and Transformation").

All TLOG messages are persistent by default. Persistence of the TLOG messages can be changed using the **MqeActor.TLOG.mom.persistence** property. This property defaults to 1 for a persistent queue. Set the value to 2 to change to a non-persistence queue.

If the IBM Websphere MQe gateway listener port number is not 8085 (the default), then the **tlog-trickle.gateway.port** property must be set to the correct port number.

In the **difsrcv.pro** file, an **MqeActor** for TLOG-trickle is defined. You must override two properties (**MqeActor.TLOG.mom.target.qmgr**, **MqeActor.TLOG.mom.target.queue**) with user-specific information in **difuser.pro**. If these properties are not defined in **difuser.pro**, DIF will log an error at runtime specifying that these properties are not defined.

Also in the **difsrcv.pro** file, the TLOG-trickle Director defines the default list of Actors to be used for TLOG-trickle. The TLOG Director actors are defined with the property, **Director.TLOG.actors=WmqiRetailFormatActor MqeActor**. The **WmqiRetailFormatActor** packages the raw data as a SOAP message and sets SOAP header properties. However, in order for

this actor to work, you must override the `WmqiRetailFormatActor.TLOG.header-element.POSType` property with type of application header needed. The header must correspond with the application (SA, GSA, or ACE) running on the system.

If you wish to use TLOG-trickle for sending TLOG data in iXRetail XML format, you must override some of the properties and add some additional properties. The `setup.profiles` property must be overridden to include the profiles "file-subst" and "xmogrify" (`setup.profiles= tlog-trickle file-subst xmogrify`). The profile "file-subst" (file substitution) requires that `file-subst.files` property be set to an application-specific file (`SACust.xsl`, `GSACust.xsl`, or `ACECust.xsl`).

Note: File substitution replaces the string, `%store%`, for your store number for any files listed in the `file-subst.files` property. During setup, all instances of the string `%store%` are replaced with the actual store number in the specified files, thus minimizing the need to have a different XSL file for each individual store.

In addition, the profile "xmogrify" (for parsing and transformation) requires that `xmogrify.inFile` property be set to an application-specific input file for transforming the tlog data into iXRetail XML format (`poslgSA.xsl`, `poslgGSA.xsl`, or `poslgACE.xsl`). The `Director.TLOG.actors` property must be overridden to include the ParsingTransformer actor (`Director.TLOG.actors=ParsingTransformer WmqiRetailFormatActor MqeActor`). An application-specific parsing format file must be defined with the `ParserActor.parseFormatFile` property (`C:/ADX_IPGM/saspecs.xml`, `C:/ADX_IPGM/gsaspecs.xml`, or `C:/ADX_IPGM/acespecs.xml`). Finally, the `WmqiRetailFormatActor.TLOG.header-element.TlogFormat` property must be overridden to set the TLOG format to iXRetail XML format (`WmqiRetailFormatActor.TLOG.header-element.TlogFormat=IXRetail`).

After `difuser.pro` is defined, `difsetup.bat` is run to finish the DIF installation setup. Check `diflog` in `ADX_IPGM` for any errors.

Note: This BAT file must be run from within `ADX_IPGM`.

The following section describes how to setup `difuser.pro`.

Defining `difuser.pro`

The file, `difuser.txt`, located in `ADX_IPGM` documents the DIF properties that must be provided by the user, as well as the properties that are required for TLOG-trickle. You may use this file as the basis for creating your `difuser.pro`.

Setting Up TLOG-trickle

To begin, the file DIF user properties file `ADX_IPGM\difUser.pro` must be created. To finish enabling the use of the TLOG-trickle function, copy following lines from `difuser.txt` into `difuser.pro`:

```
-----  
#tlog-trickle.gateway.qmgr=REQUIRED  
#tlog-trickle.gateway.ip=REQUIRED  
#tlog-trickle.mq.qmgr=REQUIRED  
#tlog-trickle.mq.queue=REQUIRED  
-----
```

Note: Be sure to "uncomment" each line by deleting the #.

If the IBM Websphere MQe gateway listener port number is not 8085, then the following property must be set in `difuser.pro`, and modified to match the MQe listener port number:

```
-----  
tlog-trickle.gateway.port=xxxx  
-----
```

Note: xxxx is your MQe listener port number.

Change the properties to use your user-specific values. The `tlog-trickle.gateway.qmgr` property is the name of the WebSphere MQe queue manager associated with the MQe Bridge Server. The `tlog-trickle.gateway.ip` property is the TCP/IP address or hostname of the WebSphere MQe Bridge Server machine. The `tlog-trickle.mq.qmgr` property is the target WebSphere MQ Queue Manager that is linked to the MQe Bridge Server. Finally, the `tlog-trickle.mq.queue` property is the target WebSphere MQ Queue that will receive the TLOG information from DIF.

Defining Persistence

All TLOG messages are persistent by default. If you wish to change the persistence of the TLOG messages queue to a non-persistence queue, change the value of the property to 2. Since persistence is the default, this property does not need to be defined if want to use a persistent TLOG messages queue.

To use a non-persistent queue for TLOG messages:

```
-----  
#MqeActor.TLOG.mom.persistence=2  
-----
```

Configuring MqeActor

In order to use MQe assured messaging, the target MQ Queue Manager and the target MQ Queue must be defined for the MqeActor in `difuser.pro`. The MqeActor is used to pass messages to the local MQe queue manager for routing to the remote MQ Queue. All other MqeActor configuration properties are defined in `difsvrc.pro`. Any of the MqeActor properties may be overridden in `difuser.pro` as needed.

To finish configuring the MqeActor, copy following lines from `difuser.txt` into `difuser.pro`:

```
-----  
#MqeActor.TLOG.mom.target.qmgr=UserMustProvide  
#MqeActor.TLOG.mom.target.queue=UserMustProvide  
-----
```

Note: Be sure to “uncomment” each line by deleting the #.

Change the properties to use your user-specific values. The `MqeActor.TLOG.mom.target.qmgr` property specifies the target Queue Manager for all messages for the Message Profile ID of TLOG. It should be set to point to the WebSphere MQ Queue Manager. The `MqeActor.TLOG.mom.target.queue` property specifies the target Queue within the Queue Manager for all messages for the Message Profile ID of TLOG. It should be set to point to the WebSphere MQ Queue being used for TLOG messages.

Configuring SOAP Header Type

The Director for using the TLOG-trickle is defined in `difsvrc.pro`. The Director manages the flow of the message to a series of Actors. The default DIF installation sends “raw” binary TLOG data with a SOAP header.

The default Actors defined in `difsvrc.pro` is:

```
-----  
Director.TLOG.actors=WmqiRetailFormatActor MqeActor  
-----
```

The `WmqiRetailFormatActor` packages the raw data as a SOAP message and sets SOAP header properties. The details of the header must be defined. The `WmqiRetailFormatActor.TLOG.header-element.POSType` property must be set to one of the following:

- IBM SA
- IBM GSA
- IBM ACE

Of the following, use the line that corresponds to the application that is installed:

```
-----
WmqiRetailFormatActor.TLOG.header-element.POSType =IBM SA
WmqiRetailFormatActor.TLOG.header-element.POSType =IBM GSA
WmqiRetailFormatActor.TLOG.header-element.POSType =IBM ACE
-----
```

Initial difuser.pro for Binary TLOG

The minimum **difuser.pro** for TLOG trickle of binary data contains the following:

```
-----
# Properties defining targets for use of TLOG-trickle
tlog-trickle.gateway.qmgr=gatewayBridgeServerName
tlog-trickle.gateway.ip=xxx.xxx.xxx.xxx
tlog-trickle.mq.qmgr=MQ_QueueManagerName
tlog-trickle.mq.queue=MQ_QueueName

# Property for IBM Websphere MQe gateway listener port number
tlog-trickle.gateway.port=xxxx //use if port is not default, 8085

# Properties defining targets for MqeActor
MqeActor.TLOG.mom.target.qmgr=MQ_QueueManagerName
MqeActor.TLOG.mom.target.queue=MQ_QueueName

# Property defining SOAP header type for application
WmqiRetailFormatActor.TLOG.header-element.POSType=IBM xxx //xxx is appl name
-----
```

Note: **Bold** denotes user-specific information.

Using Parsing and Transformation

The initial difuser.pro described above sets up TLOG-trickle to send binary data only. If you wish to send data in iXRetail format, you must define additional properties.

Adding Additional Setup Profiles

The property for setup profiles is defined in difsetup.pro as **setup.profiles=tlog-trickle**. This sets up binary TLOG-trickle only. The profiles “file-subst” and “xmogrify” must also be defined in order to send data in iXRetail format. Copy the following line from difuser.txt into **difuser.pro** to setup the additional profiles:

```
-----
#setup.profiles= tlog-trickle file-subst xmogrify
-----
```

Note: Be sure to “uncomment” each line by deleting the #.

Using File Substitution

DIF only requires File Substitution for In-Store parsing and transformation. File substitution allows you to use the **%store%** string for your store number. Any files listed in the property, **file-subst.files**, can use **%store%** in place of the actual store number. If it is configured to do so, DIF runs file substitution when **difsetup.bat** is run. This process replaces the string **%store%** with the actual store number during setup.

The setup profile, "file-subst" (defined above) requires the **file-subst.files** property to be defined. The **file-subst.files** property should match the application being used:

- For ACE: ACECust.xml
- For GSA: GSACust.xml
- For SA: SACust.xml

Of the following, use the line from difuser.txt that corresponds to the application that is installed:

```
-----  
#file-subst.files =ACECust.xml  
#file-subst.files =GSACust.xml  
#file-subst.files =SACust.xml  
-----
```

Note: Be sure to "uncomment" the appropriate line by deleting the #.

In addition, you may add your own files to the **file-subst.files** property. By adding your files to the property, those files will also be processed by file substitution during setup. These files can then use **%store%** in place of the store number. To add your own file, add the file with a space between the names to the **file-subst.files** property in **difuser.pro**:

```
-----  
file-subst.files=SACust.xml yourfile.xml  
-----
```

Any time a change is made to the **file-subst.files** property, you must run **difsetup.bat** again. If you do not do this, the **%store%** variable will not be replaced for your files.

Using xmogrify

DIF only requires "xmogrify" for In-Store parsing and transformation. This property defines the input file needed for transforming the tlog data into iXRetail XML format. The setup profile, "xmogrify" (defined above) requires the **xmogrify.inFile** property to be defined. The **xmogrify.inFile** property should match the application being used:

- For ACE: poslgACE.xml
- For GSA: poslgGSA.xml
- For SA: poslgSA.xml

Of the following, use the line from difuser.txt that corresponds to the application that is installed:

```
-----  
#xmogrify.inFile=poslgACE.xml  
#xmogrify.inFile=poslgGSA.xml  
#xmogrify.inFile=poslgSA.xml  
-----
```

Note: Be sure to "uncomment" each line by deleting the #.

Adding the ParsingTransformer Actor to the Director

For In-Store parsing and transformation to be used, the ParsingTransformer Actor must be added to the Director Actor list. The default Actors for the Director are defined in **difsvrc.pro** with the following property:

```
-----  
#Director.TLOG.actors=WmqiRetailFormatActor MqeActor  
-----
```

You must override the **Director.TLOG.actors** property and add the ParsingTransformer actor to the beginning of the list before the WmqiRetailFormatActor and MqeActor. Copy following line from difuser.txt into **difuser.pro**:

```
#Director.TLOG.actors=ParsingTransformer WmqiReatilFormatActor MqeActor
```

Note: Be sure to “uncomment” each line by deleting the #.

Defining the Parsing Format File

In-Store parsing and transformation requires a property that defines the parsing format file. The **ParserActor.parseFormatFile** property should define the file that should matches the application being used:

- For ACE: `acespecs.xml`
- For GSA: `gsaspecs.xml`
- For SA: `saspecs.xml`

Of the following, use the line from `difuser.txt` that corresponds to the application that is installed:

```
#ParserActor.parseFormatFile=C:/ADX_IPGM/acespecs.xml  
#ParserActor.parseFormatFile=C:/ADX_IPGM/gsaspecs.xml  
#ParserActor.parseFormatFile=C:/ADX_IPGM/saspecs.xml
```

Note: Be sure to “uncomment” each line by deleting the #.

Setting Up iXRetail TLOG Format

In-Store parsing and transformation also requires a change to the TLOG format from binary to iXRetail. The default TLOG format is defined in **difsvrc.pro** with the following property:

```
#WmqiRetailFormatActor.TLOG.header-element.TlogFormat=Binary
```

You must override the **WmqiRetailFormatActor.TLOG.header-element.TlogFormat** property and change the format to iXRetail. Copy following line from `difuser.txt` into **difuser.pro**:

```
#WmqiRetailFormatActor.TLOG.header-element.TlogFormat=iXRetail
```

Note: Be sure to “uncomment” each line by deleting the #.

Enhancing Performance of Parsing and Transformation

To help improve the performance of parsing and transformation, the **difxform.xsl** file may be copied into a RAM disk.

Create a 4690 RAM disk

First create a 4690 RAM disk called T: with 15 32KB blocks:

- From the System Main Menu, select Installation and Update Aids – [4] [Enter]
- Change Configuration Data – [1] [Enter]
- Controller Configuration – [2] [Enter]
- Are you configuring a ... - [Enter]
- LAN Configuration – [Enter]
- Enter Store Controller ID's ... - [Enter]
- Place an [X] next to RAM Disks then [Enter]
 - Add a RAM Disk Definition – [1]
 - Type the RM disk drive designation – [T]
 - Enabled on IPL – [Y] [Enter]
 - Number of 32K blocks – [15]
 - Number of directory sectors – [3] [Enter]
- Activate Configuration – [4] [Enter]

System Configuration – [3] [Enter]

Note: Informational messages scroll by

At message “Additional message available. Press F10.” – [F10] to verify success of the activation
Reboot the controller.

Set Up the RAM Disk file in **difsetup.bat**

Before running **difsetup.bat**, add the following property to **difuser.pro**:

```
-----  
TransformerActor.transformationFileName=T:/difxform.xml  
-----
```

Copy **difxform.xml** to RAM Disk

After running **difsetup.bat** (as described in the next section), edit **difsvc.bat** to copy the **difxform.xml** file into RAM disk. Add the copy line immediately after the **:rundif** line, as follows:

```
-----  
.br/>.br/>.br/>:rundif  
copy %DIFTOP%\difxform.xml T:\br/>.br/>.br/>-----
```

Now difsvc.bat will now copy the difxform.xml into RAM disk.

Initial **difuser.pro** for **iXRetail TLOG**

The minimum **difuser.pro** for TLOG trickle of iXRetail XML data contains the following:

```
-----  
# Properties defining targets for use of TLOG-trickle  
tlog-trickle.gateway.qmgr=gatewayBridgeServerName  
tlog-trickle.gateway.ip=xxx.xxx.xxx.xxx  
tlog-trickle.mq.qmgr=MQ_QueueManagerName  
tlog-trickle.mq.queue=MQ_QueueName  
  
# Property for IBM Websphere MQe gateway listener port number  
tlog-trickle.gateway.port=xxxxx //use if port is not default, 8085  
  
# Properties defining targets for MqeActor  
MqeActor.TLOG.mom.target.qmgr=MQ_QueueManagerName  
MqeActor.TLOG.mom.target.queue=MQ_QueueName  
  
# Property defining SOAP header type for application  
WmqiRetailFormatActor.TLOG.header-element.POSType=IBM xxx //xxx is appl name  
  
# Property overridden to add “file-subst” and “xmogrify” to setup  
setup.profiles= tlog-trickle file-subst xmogrify  
  
# Property to define application-specific file substitution definitions  
file-subst.files =xxxCust.xml //xxx is appl name  
  
# Property to define application-specific input file for “xmogrify”  
xmogrify.inFile =poslgxxx.xml //xxx is appl name  
-----
```

```
# Property overridden to add ParsingTransformer actor to list of Actors
Director.TLOG.actors=ParsingTransformer WmqiRetailFormatActor MqeActor

# Property to define application-specific parsing format file
ParserActor.parseFormatFile=C:/ADX_IPGM/xxxspecs.xml //xxx is appl name

# Property overridden to change TLOG format to iXRetail XML format
WmqiRetailFormatActor.TLOG.header-element.TlogFormat=IXRetail

TransformerActor.transformationFileName=T:/difxform.xml //use for performance
```

Note: **Bold** denotes user-specific information.

Reviewing Customer Style Sheets

Review the customer style sheet that applies to your application: SACust.xml, GSACust.xml, ACECust.xml. Make any changes that are necessary.

Running difsetup.bat

After you have created difuser.pro and reviewed the customer XSL files, run **difsetup.bat**:

```
\ADX_IPGM\difsetup
```

You should get the following informational messages at the end of the difsetup run:

```
-----
INFO hh:mm:ss,ms Setup:  SUCCEDED
INFO hh:mm:ss,ms Setup:  Done
-----
```

If any error occurs, check \ADX_IPGM\diflog.

Using an Alternate File Server

If you are using an Alternate File Server, set the **difuser.pro** distribution attribute to 3 (Mirrored file, distributed at close) and then run **difsetup.bat** on the Alternate File Server.

Setting difuser.pro File Distribution Attributes to 3

If you are using an Alternate File Server, set the **difuser.pro** distribution attribute to 3 (Mirrored file, distributed at close). This mirrors the file to the alternate file server.

You can look at the distribution attributes of the files:

```
From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]
Look at the current file distribution value – [dir difuser.pro -d]
Note: The number [1] indicates the distribution for the files (1 is local).
```

To set the difuser.pro file distribution attribute to 3, from the System Main Menu:

```
File Utilities – [3] [Enter]
Distributed File Utilities – [3] [Enter]
Modify File Distribution Type – [3] [Enter]
Type the file name – [ADX_IPGM:DIFUSER.PRO] [Enter]
Note: ADX_IPGM: is a user logical file name pointing to the \ADX_IPGM directory
Set distribution type to Mirrored file, distributed at close – [3] [Enter]
```

If you look at the distribution attributes of the files again:

From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]

Look at the current file distribution value – [dir difuser.pro -d]

Note: The number [3] indicates the new distribution for the files (3 is Mirrored file, distributed at close).

Running difsetup.bat

After you have created difuser.pro and reviewed the customer XSL files, run **difsetup.bat** on the Alternate File Server:

```
\ADX_IPGM\difsetup
```

You should get the following informational messages at the end of the difsetup run:

```
-----  
INFO hh:mm:ss,ms Setup:  SUCCEEDED  
INFO hh:mm:ss,ms Setup:  Done  
-----
```

If any error occurs, check \ADX_IPGM\diflog.

Customizing the Application for use with DIF

The application prerequisites for ACE are ACE V2 CSD1 or later. For SA and GSA, the applications must be customized to use the DIF User Exit code.

ACE

Be sure you are at ACE V2 CSD1 or later. In personalization, turn on the Store Integrator Disk Queue:

From the System Main Menu, select SurePOS ACE Application – [1] [Enter]

Personalization – [P]

Misc – [Alt+M]

Select Store Integrator – down arrow to [Store Integrator] [Enter]

Data Integration Facility:

Disk Queue On – [Y]

Select [OK]

[Enter]

Reboot the controller

SA

Update the application to use the DIF User Exit code. The DIF installation copies the following files to ADX_UPGM:

- DIF.L86 Link module for DIF
- DIFACTIV.J86 Global variables for DIF
- DIFCSU12.J86 SA Include file for the SA interface for Checkout Sales Support with DIF
- DIFCSU16.J86 SA Include file for the SA interface for Checkout Sales Support with DIF
- DIFCSU18.J86 SA Include file for the SA interface for Checkout Sales Support with DIF
- DIFCSUSU.J86 SA Include file for the SA interface for Checkout Sales Support with DIF

Changing Session Numbers Values

The SA user exit code uses the following 2 session numbers:

- DIF.DISKQ.SESS% defaults to 77
- DIF.CHKPT.SESS% defaults to 78

If this causes a conflict with your application, you may change the session numbers to a different value. The session number variables are declared in `DIFACTIV.J86`. To change the value of either session number, include `DIFACTIV.J86` in `EAMCSUVA.J86` and set the variables in `EAMCUS12.J86` before the include of `DIFCSU12.J86`.

Review DIF Variables

Review the other variables defined in `DIFACTIV.J86`. Make any modifications to avoid conflict with your own user exit code.

Update SA Sales Support INP File to Include DIF

Make a backup of the SA Sales Support INP file, `EAMCSMLL.INP`. Edit `EAMCSMLL.INP` and add `[,DIF.L86 [S]]`, to the end of the file:

```
-----  
.   
.   
.   
, DIF.L86 [S]  
-----
```

Note: You may sure the editor XE to edit files in 4690 OS.

Note: Changes are shown in **bold**.

Note: Do NOT forget the preceding comma (,).

Add J86 Include Files to Checkout Support Include Files

Edit `EAMCSUSU.J86` (Include file for Common Subroutines for Checkout Support User Exits) and add the following line:

```
-----  
%include difcsusu.j86  
-----
```

Edit `EAMCSU12.J86` (Include file for User Exit for after opening all total files) and add the following line:

```
-----  
%include difcsu12.j86  
-----
```

Edit `EAMCSU16.J86` (Include file for User Exit for after processing store closing record) and add the following line:

```
-----  
%include difcsu16.j86  
-----
```

Edit `EAMCSU18.J86` (Include file for User Exit for after read of summary log (TLOG)) and add the following line:

```
-----  
%include difcsu18.j86  
-----
```

Compile the User Exit

You may wish to save the current `EAMCSUPC.OBJ` before compiling.

Compile by running:

```
basic eamcsupc [u
```

This creates the file **EAMCSUPC.OBJ**.

Link Checkout Sales Support Application

You may wish to save the current EAMCSMLL.286 before compiling.

Link the Checkout Sales Support Application by running:

```
link86 eamcsml1 [i
```

This creates the file **EAMCSMLL.286**.

PostLink Checkout Sales Support Application

PostLink the Checkout Sales Support Application by running:

```
postlink eamcsml1.286
```

This creates the new Checkout Sales Support file, also called **EAMCSMLL.286**.

Use the new Checkout Sales Support Application

To use the new Checkout Sales Support file, **EAMCSMLL.286**, it must be copied into **ADX_IPGM**. The file cannot be copied until Checkout Sales Support is stopped.

To stop Checkout Sales Support:

- Go to the Background Applications – [Alt + SysRq] [B]
- Select Checkout Sales Support – [EAMCSMLL]
- Stop Checkout Sales Support – [F8]
- Are you sure? – [Y]

Use the Checkout Sales Support:

- Change to ADX_IPGM – [CD \ADX_IPGM]
- Rename the original Checkout Sales Support to [EAMCSMLL.SAV] (or whatever you want)
- Copy \ADX_IPGM\EAMCSMLL.286 to ADX_IPGM

To restart Checkout Sales Support:

- Go to the Background Applications – [Alt + SysRq] [B]
- Select Checkout Sales Support – [EAMCSMLL]
- Start Checkout Sales Support – [F7]
- Are you sure? – [Y]

Setting File Distribution Attribute to 5

Set EAMCSMLL.286 to have a distribution attribute of 5.

To set **EAMCSMLL.286** to have a distribution attribute of 5, from the System Main Menu:

- File Utilities – [3] [Enter]
- Distributed File Utilities – [3] [Enter]
- Modify File Distribution Type – [3] [Enter]
- Type the file name – [ADX_IPGM:EAMCSMLL.286] [Enter]
- Note: ADX_IPGM: is a user logical file name pointing to the \ADX_IPGM directory
- Set distribution type to Compound file, distributed at close – [5] [Enter]

If you look at the distribution attributes of the files again:

- From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]
- Look at the current file distribution value – [dir EAMCSMLL.286 -d]

Note: The number [5] indicates the new distribution for the files (5 is Compound file, distributed at close).

Turn on the User Exits

To turn on the User Exit:

- Supermarket Application – [1] [Enter]
- Application Personalization – [6] [Enter]
- Store Options – [2] [Enter]
- Change Store Options – [1] [Enter]
- User Exit – [15] [Enter]
- Turn on User Exit 12 – [Y]
- Turn on User Exit 16 – [Y]
- Turn on User Exit 18 – [Y] [Enter]

GSA

Update the application to use the DIF User Exit code. The DIF installation copies the following files to ADX_UPGM:

- DIF.L86 Link module for DIF
- DIFACTIV.J86 Global variables for DIF
- DIFGSA01.J86 GSA Include file for the GSA interface for Checkout Sales Support with DIF
- DIFGSA06.J86 GSA Include file for the GSA interface for Checkout Sales Support with DIF

Changing Session Numbers Values

The SA user exit code uses the following 2 session numbers:

- DIF.DISKQ.SESS% defaults to 77
- DIF.CHKPT.SESS% defaults to 78

If this causes a conflict with your application, you may change the session numbers to a different value. The session number variables are declared in **DIFACTIV.J86**. To change the value of either session number, set the variables in **EALCUS01.J86** before the include of **DIFGSA01.J86**.

Review DIF Variables

Review the other variables defined in **DIFACTIV.J86**. Make any modifications to avoid conflict with your own user exit code.

Update GSA Sales Support INP File to Include DIF

Make a backup of the GSA Sales Support INP file, EALCS00L.INP. Edit **EALCS00L.INP** and add [DIF.L86 [S]], to the end of the file:

```
.....  
.   
.   
.   
.   
, DIF.L86 [S]  
.....
```

Note: You may use the editor XE to edit files in 4690 OS.

Note: Changes are shown in **bold**.

Note: Do NOT forget the preceding comma (,).

Add J86 Files to Checkout Support User Exits

Edit **EALCSU01.BAS** (Checkout Support User Exit 1 – Transaction Summary Log Read) and add the following line [%include difgsa01.j86] both before the TLOG\$ function and in the TLOG\$ function:

```
%INCLUDE DIFGSA01.J86

FUNCTION TLOG$ 9TLOG.STRING$) PUBLIC
STRING TLOG$.STRING$.TLOG$

%INCLUDE DIFGSA01.J86

END FUNCTION
```

Note: Changes are shown in **bold**.

Edit **EALCSU06.BAS** (Checkout Support User Exit 6 – Close Record Processed) and add the following line [%include difgsa06.j86] both before the TLOG\$ function and in the TLOG\$ function:

```
%INCLUDE DIFGSA06.J86

FUNCTION TLOG$ 9TLOG.STRING$) PUBLIC
STRING TLOG$.STRING$.TLOG$

%INCLUDE DIFGSA06.J86

END FUNCTION
```

Note: Changes are shown in **bold**.

Compile the User Exits

You may wish to save the current **EALCSU01.OBJ** before compiling.

Compile Controller User Exit 1 by running:

```
basic ealcsu01 [u
```

This creates the file **EALCSU01.OBJ**.

You may wish to save the current **EALCSU06.OBJ** before compiling.

Compile Controller User Exit 6 by running:

```
basic ealcsu06 [u
```

This creates the file **EALCSU06.OBJ**.

Link Checkout Sales Support Application

You may wish to save the current **EALCS00L.286** before compiling.

Link the Checkout Sales Support Application by running:

```
link86 ealcs001 [i
```

This creates the file **EALCS00L.286**.

PostLink Checkout Sales Support Application

PostLink the Checkout Sales Support Application by running:

```
postlink ealcs001.286
```

This creates the new Checkout Sales Support file, also called **EALCS00L.286**.

Use the new Checkout Sales Support Application

To use the new Checkout Sales Support file, **EALCS00L.286**, it must be copied into **ADX_IPGM**. The file cannot be copied until Checkout Sales Support is stopped.

To stop Checkout Sales Support:

- Go to the Background Applications – [Alt + SysRq] [B]
- Select Checkout Sales Support – [EALCS00L]
- Stop Checkout Sales Support – [F8]
- Are you sure? – [Y]

Use the Checkout Sales Support:

- Change to ADX_IPGM – [CD \ADX_IPGM]
- Rename the original Checkout Sales Support to [EALCS00L.SAV] (or whatever you want)
- Copy \ADX_UPGM\EALCS00L.286 to ADX_IPGM

To restart Checkout Sales Support:

- Go to the Background Applications – [Alt + SysRq] [B]
- Select Checkout Sales Support – [EALCS00L]
- Start Checkout Sales Support – [F7]
- Are you sure? – [Y]

Setting File Distribution Attribute to 5

Set **EALCS00L.286** to have a distribution attribute of 5.

To set **EALCS00L.286** to have a distribution attribute of 5, from the System Main Menu:

- File Utilities – [3] [Enter]
- Distributed File Utilities – [3] [Enter]
- Modify File Distribution Type – [3] [Enter]
- Type the file name – [ADX_IPGM:EALCS00L.286] [Enter]
- Note: ADX_IPGM: is a user logical file name pointing to the \ADX_IPGM directory
- Set distribution type to Compound file, distributed at close – [5] [Enter]

If you look at the distribution attributes of the files again:

- From a command window, change to the ADX_IPGM directory – [cd \adx_ipgm]
- Look at the current file distribution value – [dir EALCS00L.286 -d]

- Note: The number [5] indicates the new distribution for the files (5 is Compound file, distributed at close).

Turn on the User Exits

To turn on the User Exit:

- General Sales Application – [1] [Enter]
- Application Personalization – [6] [Enter]
- Enable User Exits – [6] [Enter]
- Sales Support User Exits – [2] [Enter]
- CSU01 – Transaction Summary Log Read – [Y]
- CSU06 – Close Record Processed – [Y] [Enter]

Running DIF

DIF TLOG-trickle must be run on the File Server controller. The batch file, **difsrvc.bat**, starts DIF TLOG-trickle.

Note: For TLOG-trickle to work, the MQ services must be running and the MQe Bridge Server must be running.

Running DIF from Command Mode

You may run DIF from command mode on the file server. To start DIF from Command mode:

```
adx_ipgm:difsrvc
```

Note: **adx_ipgm:** is a User Logical File name resolving to **\adx_ipgm**.

Setting Up DIF as a Background Application

Set up the DIF as a background application on the file server and the alternate file server. To start DIF as a background application with attributes of "Start When File Server" and "Stop When Not File Server":

```
Installation and Update Aids – [4] [Enter]
Change Configuration Data – [1] [Enter]
Controller Configuration – [2] [Enter]
Are you configuring a ... – [Enter]
LAN Configuration – [Enter]
Enter Store Controller ID's ... – [Enter]
Select controller – [yourControllerID] [Enter] (choose your controller ID)
Select Background Application – [X] [Enter]
Define a Background Application – [1] [Enter]
  Initial Message – [DIF Service] [Tab]
  Program Name – [adx_spgm:command.286] [Tab]
  Parameter List – [adx_ipgm:difsrvc.bat] [Tab]
  Priority – [5] [PgDn]
  Start When Master – [N] [Tab]
  Stop When Not Master – [N] [Tab]
  Start When Not Master – [N] [Tab]
  Stop When Master – [N] [PgDn]
  Start When File Server – [Y] [Tab]
  Stop When Not File Server – [Y] [Tab]
  Start When Not File Server – [N] [Tab]
  Stop When File Server – [N] [Enter]
Quit – [F3]
Quit – [F3]
Quit – [F3]
Quit – [F3]
Activate the Controller Configuration:
  Activate Configuration – [4] [Enter]
  Controller Configuration – [2] [Enter]
  Note: Informational messages scroll by
  At message "Additional message available. Press F10." – [F10] to verify success
Reboot the controller.
```

Looking at the DIF Queue

The following commands are available on the 4690 for checking the DIF queue:

- DQPEEK – displays but does not removes the messages on a queue
- DQLIST – displays but does not removes the messages on a queue
- DQSTATUS – displays current status of the queue
- DQRESET – resets the queue

Use the following syntax:

Command -q **xxxxxxxx**

Where -q **xxxxxxxx** specifies the name of the queue. Use the User Logical File Name, DIFQUEUE, here. See the DIF Guide for more information on 4690 DIF commands. Please note that these are designed for debug use. Using these commands lock access to the DIF queue and therefore, affect DIF performance when used.

IBM Proprietary - Draft