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# Xpediter/TSO and Xpediter/IMS Quick Configuration Guide

**Release 9.4**

Please direct questions about Xpediter/TSO and Xpediter/IMS  
or comments on this document to:

**Xpediter/TSO and Xpediter/IMS Customer Support**

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# Chapter 1.

## Xpediter/TSO and Xpediter/IMS Quick Configuration

This *Quick Configuration Guide* is intended for system programmers and database administrators responsible for the configuration of the following z/OS versions of Compuware's Xpediter products:

- Xpediter/TSO
- Xpediter/IMS.

This guide provides a checklist to configure and customize Xpediter/TSO and Xpediter/IMS once the SMP/E installation has completed (refer to the refer to the *Compuware Installer Mainframe Products SMP/E Installation Guide*). If you need more detailed information, please refer to the online HELP (PF1) and the full *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.

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## Configuration Procedures

The following steps can be used to configure Xpediter/TSO and Xpediter/IMS.

**Note:** Before you begin the Xpediter/TSO and Xpediter/IMS configuration, it is necessary to verify that Compuware Shared Services (CSS) Release 9.0 or above and License Management System (LMS) Release 3.1 or above have been installed. CSS and LMS are distributed with Enterprise Common Components (ECC), which is included when you order Xpediter/TSO and Xpediter/IMS.

### Step 1. Prepare the ISPF Edit Macro

XTUPDATE is an ISPF edit macro that can be used to automate the entry of site-specific JCL parameters. Using this macro saves you from having to repeatedly type in the same information and ensures your JCL parameters are always entered correctly.

Copy the SLXTINST(XTUPDATE) ISPF edit macro, configure it by entering your site-specific information according to the instructions provided in the macro, then move it to a CLIST library allocated to your ISPF session.

To run it, first open the JCL member for editing. You can then look at the JCL before any changes are made. Type XTUPDATE in the COMMAND field of the ISPF EDIT screen and press Enter.

**Note:** XTUPDATE is intended for use only with Xpediter-supplied JCL. Do not use XTUPDATE to edit other datasets.

### Step 2. Allocate and Load the XOPTIONS VSAM Dataset

The XOPTIONS dataset is used during the COBOL enhanced FIND processing. You configure it by entering your site-specific information according to the instructions provided in the member. First, edit SLXTINST(JCL015), then submit the job. It should complete with a return code of 0.

## Step 3. Install Site-Specific Procedures

If your site **cannot** display lowercase characters on your terminals and/or your site uses variable length CLIST libraries, continue with this step. Otherwise, skip to Step 4.

### Uppercase Support

Edit SLXTINST(JCL011) by entering your site-specific information according to the instructions provided in the member, then submit the job. It should complete with a return code of 0.

**Note:** This job is usually not required for sites where lowercase characters are displayed as Katakana (Japanese), provided the ISPF terminal type identifies the Japanese Katakana terminals.

### Variable Length CLIST Support

If your site uses variable length CLIST libraries (RECFM=VB), allocate a new VB CLIST library using a utility such as ISPF option 3.3 to copy the entire fixed block (FB) CLIST library to the newly created VB library. Do **not** delete or rename the FB library because it is part of the SMP/E target library system.

## Step 4. Establish Security Procedures

Your site may already have a set of standards for SMP/E target and distribution libraries. The following list shows suggested security levels for three sets of libraries. The first set is the distribution libraries, the second set is the target libraries, and the third set is the product run-time libraries. At some sites, the product run-time libraries and the target libraries may be the same.

Distribution libraries can be identified by the low-level qualifier prefix of ALXTxxxx.

- The individual performing the installation requires full access to these libraries.
- The individual responsible for product maintenance requires UPDATE access to these libraries.

Target libraries can be identified by the low-level qualifier prefix of SLXTxxxx.

- The individual performing the installation requires full access to these libraries.
- The individual responsible for product maintenance requires UPDATE access to these libraries.

Product run-time libraries, except XOPTIONS and XPIMSDBT, can be identified by the low-level qualifier prefix of SLXTxxxx.

**Table 1-1.** Basic and Optional Product Libraries

Library	Type	Access Required by Programmers
SLXTLOAD	Load library	READ/EXECUTE
SLXTCLIB	CLIST library	READ
SLXTHENU	Help panel library	READ
SLXTMENU	Messages library	READ
SLXTPENU	Panel library	READ
SLXTSAMP	Sample library	READ
SLXTSENU	Skeleton library	READ
SLXTTABL	Tables library	READ
XOPTIONS	Enhanced FIND support library	READ

**Table 1-1.** Basic and Optional Product Libraries

Library	Type	Access Required by Programmers
SLXTAUTH <sup>1</sup>	APF authorized library	READ/EXECUTE
XPIMSDBT <sup>2</sup>	IMS DC install verification database	UPDATE
SLXTHJPN <sup>3</sup>	Help panel library	READ
SLXTMJPN <sup>3</sup>	Messages library	READ
SLXTPJPN <sup>3</sup>	Panel library	READ

**Notes:**

1. Either authorize and use this library, or select an authorized library and copy the SLXTAUTH library members into that authorized library.
2. Use this library if Xpediter/IMS (IMS DC online support) is installed.
3. Use this library if Japanese Language support is selected.

## ACF2 Security

If you do not use ACF2 for security, or do not plan to install the optional Xpediter/TSO Multi-Batch Facility, skip this section.

Sites using ACF2 that plan to install the optional Xpediter/TSO Multi-Batch Facility must set up SAFDEF records similar to the following:

```
SAFDEF.XPEDTSO
  FUNCRET(4) FUNCRSN(0) ID() MODE(GLOBAL) NOAPFCHK PROGRAM(ADSI314)
  RACROUTE(REQUEST=AUTH CLASS=DATASET STATUS=ACCESS) RB(ADSI314) RETCODE(4)
```

```
SAFDEF.XPEDTSO
  FUNCRET(4) FUNCRSN(0) ID() MODE(GLOBAL) NOAPFCHK PROGRAM(XPMMAIN)
  RACROUTE(REQUEST=AUTH CLASS=DATASET STATUS=ACCESS) RB(XPMMAIN) RETCODE(4)
```

```
SAFDEF.XPEDTSO
  FUNCRET(4) FUNCRSN(0) ID() MODE(GLOBAL) NOAPFCHK PROGRAM(XPMECLPS)
  RACROUTE(REQUEST=AUTH CLASS=DATASET STATUS=ACCESS) RB(XPMECLPS) RETCODE(4)
```

**Note:** MODE=IGNORE must not be in effect because it will override NOAPFCHK.

## Step 5. Install Xpediter/TSO ISPF Support

Debugging interactively with Xpediter/TSO may require an increase in the default TSO LOGON region size to prevent abends caused by insufficient space. Use the following memory requirements as guidelines for the various Xpediter/TSO execution environments under TSO:

- **TSO:** 1,500,000 bytes
- **IMS:** 2,000,000 bytes
- **BTS:** 2,500,000 bytes
- **DB2:** 2,000,000 bytes

If you are using DATACOM/DB, IDMS/DB, or System 2000, the recommended memory size is 2,000,000 bytes.

These guidelines are approximate. Your actual memory requirements will vary depending on the size of the program being debugged. The amount of memory required by Xpediter/TSO is related to the number of statements in each program with a DDIO member loaded into memory. Testing has shown that 2048K to 4096K (2M to 4M) is sufficient for debugging most applications.

1. Create an ISPF logon PROC or CLIST.

Establish a way of allocating the Xpediter/TSO datasets (such as SLXTPENU, SLXTSENU, etc.) to each user of Xpediter/TSO. Choose one of the following options:

- a. Use a TSO logon PROC.

Modify an existing TSO logon PROC or create a new TSO logon PROC by concatenating Xpediter/TSO libraries to the appropriate DD cards (see below for ddnames).

or,

- b. Use the LIBDEF command.

The CLIST XPLIBDEF (located in the SLXTINST library) illustrates how to allocate the required Xpediter/TSO datasets. Tailor the CLIST by following the instructions at the beginning of its source. See Table 1-4 for a list of products associated with each node variable. After modifying XPLIBDEF, put the tailored version in a dataset that is either part of the SYSPROC concatenation or that is activated with an ALTLIB command.

**Note:** If you have not installed File-AID *for DB2*, File-AID/MVS, File-AID *for IMS*, Xpediter/CICS, or Xpediter/Code Coverage, omit the corresponding datasets below. The Xpediter/CICS dataset CPWR.cMXDnnn.SMXDOxxL is only required if you have installed Xpediter/Code Coverage and plan on using it with Xpediter/CICS.

If you use a TSO logon PROC, the following Xpediter/TSO datasets must be concatenated into the listed ddnames. Replace CPWR.MLCXnnn, CPWR.MLXTnnn, CPWR.MLXVnnn, and CPWR.cMXDnnn.SMXDOxxL with the values used at your site for the Compuware Shared Services, Xpediter/TSO, Xpediter/Code Coverage, and Xpediter/CICS libraries, respectively.

**Table 1-2.** ISPF Support Dataset Concatenation Requirements

ddname	Dataset Name	Associated Product
SYSPROC	CPWR.MLCXnnn.SLCXEXEC	Compuware Shared Services
	CPWR.MLXTnnn.SLXTCLIB	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID <i>for DB2</i> , and File-AID <i>for IMS</i> , and File-AID Common
	CPWR.MLXVnnn.SLXVCLIB	Xpediter/Code Coverage
ISPLLIB	CPWR.MLCXnnn.SLCXLOAD	Compuware Shared Services
	CPWR.MLXTnnn.SLXTLOAD	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID <i>for DB2</i> , and File-AID <i>for IMS</i> , and File-AID Common
	CPWR.MLXVnnn.SLXVLOAD	Xpediter/Code Coverage
	CPWR.cMXDnnn.SMXDOxxL	Xpediter/CICS
ISPMLIB	CPWR.MLCXnnn.SLCXMENU	Compuware Shared Services
	CPWR.MLXTnnn.SLXTMENU	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID <i>for DB2</i> , and File-AID <i>for IMS</i> , and File-AID Common
	CPWR.MLXVnnn.SLXVMENU	Xpediter/Code Coverage
ISPPLIB	CPWR.MLCXnnn.SLCXPENU	Compuware Shared Services
	CPWR.MLXTnnn.SLXTPENU	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID <i>for DB2</i> , and File-AID <i>for IMS</i> , and File-AID Common
	CPWR.MLXVnnn.SLXVPENU	Xpediter/Code Coverage

**Table 1-2.** ISPF Support Dataset Concatenation Requirements

ddname	Dataset Name	Associated Product
ISPSLIB	CPWR.MLCXnnn.SLCXSENU	Compuware Shared Services
	CPWR.MLXTnnn.SLXTSENU	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID for DB2, and File-AID for IMS, and File-AID Common
	CPWR.MLXVnnn.SLXVSENU	Xpediter/Code Coverage
ISPTLIB	CPWR.MLCXnnn.SLCXTABL	Compuware Shared Services
	CPWR.MLXTnnn.SLXTTABL	Xpediter/TSO
	Refer to the <i>File-AID Single Install Image Installation and Configuration Guide</i>	File-AID/MVS, File-AID for DB2, and File-AID for IMS, and File-AID Common

If you are using Japanese support (Kanji double-byte character support), add the datasets in Table 1-3. Concatenate the Japanese language support datasets immediately ahead of the standard dataset for each product.

**Table 1-3.** ISPF Support Dataset Concatenation Requirements for DBCS Support

ddname	Dataset Name	Associated Product
ISPMLIB or ISPMALT	CPWR.MLCXnnn.SLCXMJPN	Compuware Shared Services
	CPWR.MLXTnnn.SLXTMJPN	Xpediter/TSO
	CPWR.MLXVnnn.SLXVMJPN	Xpediter/Code Coverage
	Refer to the <i>File-AID Installation Guide</i>	File-AID/MVS, File-AID for DB2, and File-AID for IMS, and File-AID Common
ISPLLIB or ISPPALT	CPWR.MLCXnnn.SLCXPJPN	Compuware Shared Services
	CPWR.MLXTnnn.SLXTPJPN	Xpediter/TSO
	CPWR.MLXVnnn.SLXVPJPN	Xpediter/Code Coverage
	Refer to the <i>File-AID Installation Guide</i>	File-AID/MVS, File-AID for DB2, and File-AID for IMS, and File-AID Common

If you use LIBDEF, Table 1-4 lists the product associated with each node variable:

**Table 1-4.** Node Variables and Associated Products

Node Variable	Associated Product
XTNODE	Xpediter/TSO
CSSNODE	Compuware Shared Services (CSS)
XGNODE	Xpediter/ <i>Xchange</i>
FANODE	File-AID/MVS
FINODE	File-AID for IMS
F2NODE	File-AID for DB2
FACOMM	File-AID Common Components
DB2NODE	IBM DB2
CCNODE	Xpediter/Code Coverage
XDNODE	Xpediter/CICS

2. If your site uses any security processing, which regularly restricts the programs that can be used as TSO commands, verify that the XPCP program is available to your users and does not fall under these restrictions.

**Note:** If your site is installing Xpediter for DB2 Extension, verify that F2LFANAP is also available to users without these restrictions.

### 3. Register site-wide defaults.

XPCINST is the installation CLIST to register site-wide defaults. There are several ways to invoke XPCINST:

- a. If you modified a logon PROC in step 1, substep a on page 1-4, use this PROC to logon to TSO and ISPF. You should have all of the Xpediter/TSO and Xpediter/IMS datasets available to your session. From option 6 of the ISPF Primary Menu, enter the command:

```
%XPCINST
```

or use the TSO command

```
TSO %XPCINST.
```

or,

- b. If you tailored the XPLIBDEF CLIST in step 1, substep b on page 1-4:

- If the CLIST is in a library that is currently part of your SYSPROC or ALTLIB concatenation, then from option 6 of the ISPF Primary Menu, enter the command:

```
%XPLIBDEF INSTALL
```

or use the TSO command:

```
TSO %XPLIBDEF INSTALL.
```

- If the CLIST is in a library that is not part of your SYSPROC or ALTLIB concatenation, then from option 6 of the ISPF Primary Menu, enter the command:

```
EXEC 'YOUR.LIBRARY.CLIST(XPLIBDEF)' 'INSTALL'
```

or use the TSO command

```
TSO EXEC 'YOUR.LIBRARY.CLIST(XPLIBDEF)' 'INSTALL'.
```

The Installation Defaults screen is displayed. If this screen is not displayed, check your allocations, especially for block size problems.

When you enter the requirements of this screen and press Enter, you are presented with a series of screens for specifying site-wide default values. For more information about input requirements, press PF1 for help. HELP is provided for each installation screen and includes information on the fields and the values that must be entered. If you need to preview the screens you will be encountering, refer to **Appendix C, "Using the Standard Installation Options Screens"**. If you want to upgrade your default table library from a previous release of Xpediter/TSO, see "Step 6. Upgrading From Earlier Releases of Xpediter" on page 1-7.

**Important:** After you complete the installation screens, you are returned to the Save Installation Defaults screen. Press Enter (not PF3) to receive a message stating that the defaults have been saved.

### 4. Invoke Xpediter products.

- a. If you modified a logon PROC from 1a. above, the basic ISPF (internal) subcommand needed to invoke the Xpediter products is:

```
SELECT PGM(ADSI000)
```

or,

- b. If you tailored the XPLIBDEF CLIST from 1b. above,
- If the CLIST is in a library that is currently part of your SYSPROC or ALTLIB concatenation, then the command needed to invoke the Xpediter products is:

```
SELECT CMD(%XPLIBDEF)
```

- If the CLIST is in a library that is not part of your SYSPROC or ALTLIB concatenation, then the command needed to invoke the Xpediter products is:

```
SELECT CMD(EXEC 'YOUR.LIBRARY.CLIST(XPLIBDEF)')
```

You have a couple of methods to choose from to execute the command that invokes the Xpediter products:

- a. You can specify it as part of a command table entry for a verb such as Xpediter.
- or,
- b. You can establish the command as an option on an ISPF panel. If you choose this method of invoking Xpediter, then the following is recommended for the ISPF menu text:

```
XP XPEDITER - Interactive Testing and Debugging Tool
```

The processing section TRANS statement would have the following added to it:

```
XP, 'xxxx '
```

where *xxxx* is the parameter of the appropriate SELECT command described above, for example:

```
XP, 'CMD(%XPLIBDEF)',
```

## Step 6. Upgrading From Earlier Releases of Xpediter

Xpediter/TSO provides an online utility that lets you roll forward your installation defaults from any previous release of Xpediter/TSO and Xpediter/IMS. The Installation Defaults screen contains four entry fields: Output, Input, Old Prefix, and New Prefix.

1. In the Output field, enter the dsname of the table library to be used for the new release of Xpediter/TSO and Xpediter/IMS.
2. In the Input field, enter the dsname of the table library you want rolled forward.
3. In the Old Prefix field, enter the dataset name prefix for datasets shown on Xpediter's standard installation options screens for which you want to change the prefix. Those prefixes will be changed to the value you specify in the New Prefix field. For example, assume several datasets presented on the previous release's standard installation options screens began with the prefix **SYS2.XT93**, and you want them changed to **SYS2.XT94**. Instead of using the new release's installation screens to change them manually, you can enter **SYS2.XT93** in the Old Prefix field and **SYS2.XT94** in the New Prefix field, and Xpediter will change the prefixes for you.
4. Press Enter. The Roll Forward Installation Defaults screen is displayed. Roll your installation defaults forward as follows:
  - a. Verify that the table library dsnames are correct.
  - b. Verify that the Old Prefix and New Prefix, if present, are correct.
  - c. Type a **Y** (Yes) in the Continue and roll forward? field, and press Enter.

This initializes most of your site defaults, based on your previous installation of Xpediter/TSO and Xpediter/IMS. The next screen displayed is the first of a series of default screens for Release 9.4. Refer to Appendix C, "Using the Standard Installation

Options Screens” in the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for more information.

## Step 7. Install Xpediter/TSO Batch Connect Support

Follow the procedures in this step to install support for Xpediter/TSO’s Batch Connect facility.

### Define VTAM APPLIDs for Xpediter/TSO Batch Connect

If you intend to use the Xpediter/TSO Batch Connect facility or Xpediter/Eclipse, you must define a pool of VTAM APPLIDs for use by Xpediter/TSO. There must be one APPLID for each batch job using the Batch Connect facility, and there must also be an APPLID for each TSO session that is connected to a Batch Connect job. Therefore, there will be two APPLIDs for each expected active and running Xpediter batch job. Terminals that are connected directly to the batch job do not require an additional APPLID.

**Note:** If Batch Connect was installed with a previous Xpediter release, you do not need to perform this step unless the installer made modifications to JCLRA093. Refer to “Establishing Site Defaults and Customizing the Run-Time Environment” in Appendix B of the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for additional information.

Xpediter/TSO requires that the VTAM APPLID pool adhere to the following naming conventions:

- Each APPLID must be a valid VTAM APPLID.
- Each APPLID must be eight characters.
  - The first five characters are treated as a prefix for a range.
  - The last three characters are the range. These characters must be numeric (0 through 9) and occur in sequential order.

The default prefix is XPDTR. The default range for the VTAM APPLID pool is XPDTR000 through XPDTR011.

**Note:** If you must use a different VTAM APPLID prefix or range due to local naming conventions, you must also update and assemble JCLRA093 to tailor the site defaults. Refer to “Establishing Site Defaults and Customizing the Run-Time Environment” in Appendix B of the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for additional information.

An example that illustrates how to define the pool of VTAM APPLIDs to VTAM can be found in the SLXTSAMP library, member XPDTR. Entries can be added to an existing member in VTAMLST or a new member can be created. Be sure that the member is activated either by manual operator commands or by adding the member name in the VTAMLST library, member ATCCONxx.

The entries are as follows:

#### ACBNAME

The APPLID. The first ACBNAME must match the CTLOWVTM field in JCLRA093. The last ACBNAME must match the CTLHIVTM field in JCLRA093.

#### PRTCT

The password. Xpediter/TSO sets the password to XPED.

#### MODETAB

The VTAMLIB member that defines the logmodes that can be used by the application. Member **ISTINCLM** is a default mode table shipped by IBM.

**CAUTION:**

Do not modify the NSX32702 logmode used for DLOGMOD. Xpediter has dependencies on certain NSX32702 parameters, such as an RUSIZE value of 0.

**DLOGMOD**

The default logmode for this application. This must be a NON-SNA logmode. NSX32702 is a valid logmode entry in member ISTINCLM

**EAS**

The estimated application sessions. Coding the number 1 instead of using the default reduces storage allocation.

## Define Batch Connect Security

When you install the Batch Connect facility, the Batch Connect security module is automatically included. This security module enforces a standard that requires that the job name to which you are connecting must be the same as your TSO ID plus one character.

**Note:** If this is not compatible with your site's security system, you can either rewrite the Batch Connect security exit or deactivate it by modifying the JCLRA093 member of the SLXTINST library (giving CTLSEC a value of N). Refer to "Establishing Site Defaults and Customizing the Run-Time Environment" in Appendix B of the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for additional information.

For more information on defining Batch Connect security, refer to Chapter 2 of the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.

## Verify Batch Connect Installation

To verify Batch Connect installation, perform the Batch Connect verification procedures in Chapter 16, "Verify Xpediter/TSO Batch Connect Installation" in the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.

## Enable Sysplex and Cross-Domain Support (optional)

This section describes the steps required to run Xpediter Batch Connect across domains. Although the domains can be part of a SYSPLEX, they are not required to be.

1. Ensure Xpediter is available on both systems.

"Cross-domain" implies that there are at least two host computers that communicate with each other through the Virtual Telecommunications Access Method (VTAM). You may log on to Host T and submit a job on that system. However, due to load leveling or other constraints, your job may actually be routed to a different system (for example, Host B) through an application called the coupling facility. You could also do the same thing manually, or via RJE/NJE.

If your job is to run successfully on Host B, the first requirement is that Xpediter be available on that system. To use the Batch Connect user interface to submit the job and to check on the job's status periodically, Xpediter must be available on Host T as well.

2. Ensure VTAM definitions for APPLIDs are unique and ACBNAMEs are the same on both systems.

The *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* specifies the VTAM definitions that must be generated to use Batch Connect in general. The name on the left in the VTAMLST is called the APPLID. The APPLID identifies a particular node in the network and **must** be unique across the whole domain. The resource that Batch

Connect uses is the ACB, and is identified by the **ACBNAME=keyword** in the VTAM definition. The ACBNAMEs **must** be the same on both systems.

## Enqueue Definitions

The two parts of Batch Connect communicate via a Global Resource Serialization (GRS) enqueue. The two parts are:

- The front-end interface that provides the services to connect to the job from your TSO ID.
- The Batch Connect part that is running in the batch job.

Xpediter issues enqueues with a scope of *SYSTEMS* using the QNAMES:

- XPEDITER (Batch Connect data)
- XPNOTIFY (Cross-LPAR notification).

The RNAMEs contain the data that is being communicated. In a cross-domain environment, this enqueue must be propagated from Host B (the batch job system) to Host T (the TSO system).

## Additional Considerations

The CTLBCTPT value in JCLRA093 must be specified correctly to ensure proper functioning of the Xpediter/TSO Batch Connect facility's TPUT messages. For more information, refer to the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.

## Step 8. Install Multi-Batch Facility (Optional)

Follow the procedures in this step to install the Xpediter/TSO Multi-Batch Facility (MBF) and utilize the MBF Intercept Utility. Note that the Multi-Batch Facility is required for Xpediter/Eclipse.

## ACF Security

If you use ACF2 for security, you must set up SAFDEF records as described in "ACF2 Security" on page 1-3 before installing the Multi-Batch Facility.

## Administrative and Non-administrative Users

Users with RACF ALTER access to the Multi-Batch VSAM staging file have administrator capabilities within the Multi-Batch Facility. An administrative user can view and process all records, not just those that they have added to the MBF staging VSAM file. Non-administrative users **must** have RACF UPDATE access to the Multi-Batch VSAM staging file. A non-administrative user can view and process only those records that they have added to the MBF staging VSAM file and those where the **Owner** field matches their TSO user ID.

## Owner Field Modification (Optional)

Modifying the **Owner** field on the Multi-Batch screen is limited to tests that are run as unattended Code Coverage. The Test Type must be UC, UT, UF, UCF, or UTF. If you do not need this feature, go to "Prerequisite Installation Step" below.

To enable modification of the **Owner** field on the Multi-Batch screen, the user must have RACF ALTER access to the Multi-Batch pseudo dataset name, *hlq.OWNERMOD*. The *hlq* prefix is the CTLMBPDP value in JCLRA093, as specified by the user, or the default value of CWXT. See Appendix B, "Establishing Site Defaults and Customizing the Run-Time Environment" and section "CTLMBPDP" in the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for more information.

## Prerequisite Installation Step

Before continuing, verify that “Step 7. Install Xpediter/TSO Batch Connect Support” on page 1-8 has been performed.

## Define the Multi-Batch Facility Staging VSAM File

Customize the JCL provided in SLXTINST member JCLCREMB, then submit it to create the MBF staging VSAM file.

## APF Authorized Library

An APF authorized library is required. Before continuing with “Activation Procedure” below, do one of the following:

- Make the SLXTAUTH library authorized, or
- After an authorized library has been selected, copy the SLXTAUTH library members into that authorized library.

## Activation Procedure

Edit SLXTINST library member JCLACTMB, making the following changes:

1. Add a job card.
2. Change the dataset name on the STEPLIB and XTLIST DDs to the name of the authorized library where the Xpediter/TSO module XPMINIT resides.
3. Change the dataset name on the XTLIBI DD to the name of the SLXTLOAD library.
4. Change the dataset name on the XTMBF DD to the previously defined MBF staging VSAM dataset.
5. The PARM value for this execution of the program XPMINIT is:

```
PARM=ACTIVATE
```

6. Submit the job. It should complete with a return code of 0. If you receive a non-zero return code, refer to the *Xpediter/TSO and Xpediter/IMS Messages and Codes* manual for the appropriate error message.

### Notes:

- JCLACTMB must be run after each IPL to re-enable the Multi-Batch Facility. If you want JCLACTMB to run automatically during MVS startup, copy JCLACTMB from the SLXTINST library to one of your installation PROCLIBs. Modify JCLACTMB to meet your site’s standards for an MVS startup procedure. Customize the member as described above. Add a START command for JCLACTMB in MVS’s COMMNDxx in SYS1.PARMLIB. For a sample of what to add to MVS’s COMMNDxx, refer to member COMMNDXX in the SLXTINST library. Consult your site’s MVS programmer for any additional information.
- XPMDRVR is loaded into the Link Pack Area (LPA) via the CSVDYLPA service. If this service is restricted by an external security product (RACF, ACF2, Top Secret, etc.), a rule must be coded to allow it to work. For RACF, the rule is written against the RACF FACILITY class resource CSVDYLPA.ADD.*modname*, where *modname* is the name of the module being loaded. This means that for XPMDRVR the rule should be written against CSVDYLPA.ADD.XPMDRVR.

## Multi-Batch Facility Intercept Utility

This section describes how to use the Xpediter/TSO Multi-Batch Facility (MBF) Intercept Utility program, XPMINIT. The three functions of XPMINIT are:

- ACTIVATE - Installs or reactivates the MBF.

- DEACTIVATE - Deactivates the MBF.
- MAINTENANCE - Deactivates the MBF, then activates a refreshed copy of MBF taken from the authorized library.

### **ACTIVATE Function**

Use this function only if the MBF is not currently active. If the MBF has not been activated since the last IPL, the ACTIVATE function builds a list of the test specifications from the MBF VSAM dataset to determine which jobs are to be tested. Once this is completed, jobs matching the test specifications in the MBF VSAM dataset will be intercepted for testing by Xpediter/TSO.

The sample PARM for the ACTIVATE function is shown below:

```
PARM=ACTIVATE
```

### **DEACTIVATE Function**

Use the DEACTIVATE function to disable the Xpediter MBF.

The sample PARM for the DEACTIVATE function is shown below:

```
PARM=DEACTIVATE
```

### **MAINTENANCE Function**

This function deactivates the MBF, applies maintenance to the MBF, and then activates the MBF. It also reloads the test specifications from the MBF VSAM dataset. It would normally be used when directed to do so by a PTF or by Compuware Technical Support. No IPL would be necessary.

The sample PARM for the MAINTENANCE function is shown below:

```
PARM=MAINTENANCE
```

### **Specify the IMS Batch Region Controller Name (Optional)**

If a load module name other than DFSRRC00 (the default) is used for the IMS Batch Region Controller, then code the `IMSP=aaaaaaaa` (where `aaaaaaaa` is the load module name for the IMS Batch Region Controller at your site) with the ACTIVATE or MAINTENANCE function. This name should be the same as the one selected when configuring JCLRA093. (See Appendix B, "Optional Postinstallation Procedures" in the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.)

**Note:** The default name, DFSRRC00, and the IMSP name are compared to the `PGM=` name from the executing JCL. If they match, the job is identified as an IMS test, and if it matches an active Multi-Batch request, the CTLDFSR name is used to invoke IMS.

The following is the sample PARM for the ACTIVATE function:

```
PARM=('ACTIVATE,IMSP=aaaaaaaa')
```

The following is the sample PARM for the MAINTENANCE function:

```
PARM=('MAINTENANCE,IMSP=aaaaaaaa')
```

### **Multiple IMS Batch Region Controller Names**

Users who require more than one additional IMS Batch Region Controller name may have a maximum of 10 IMS Batch Region Controller names: nine user-supplied names and one default name of DFSRRC00. To implement this option, add a card to the XPMINIT JCL with `ddname XTIMSADD`. This is an input file and can be an instream file or a dataset. If a dataset is used, the DCB must have `LRECL=80`, `RECFM=FB`, and `DSORG=PS` or `PO`. The first module name is contained in columns 1 through 8. The

second through ninth module names start in columns 10, 19, 28, 37, 46, 55, 64, and 73, respectively. The first blank found in one of these columns denotes the end of the list. All of the names must be contained on one card image. A comment line can be inserted by placing an asterisk (\*) in column 1. See the examples below.

**Note:** The default name, DFSRRC00, and up to nine user-supplied names are compared to the PGM= name from the executing JCL. If they match, the job is identified as an IMS test, and if it matches an active Multi-Batch request, the CTLDFSR name is used to invoke IMS.

### *Special Considerations for IMS MPP Tests with Xpediter/Eclipse*

IMS MPP programs being tested with Xpediter/Eclipse will use this functionality, but with a minor difference. When invoking IMS, instead of using the CTLMPPRC name found in JCLRA093, Multi-Batch will utilize the user's IMS Batch Region Controller name (that is, the PGM= name from the executing JCL).

#### **Notes:**

- Using the XTIMSADD DD will result in the IMSP keyword being ignored.
- When the Multi-Batch intercept does a compare between the PGM= name and the IMS Batch Region Controller name, the DFSRRC00 name is always checked first, followed by the user's IMS Batch Region Controller name(s).
- Xpediter/TSO uses the same parameter list to invoke the user's IMS Batch Region Controller module as it does to invoke the DFSRRC00 module.

#### *Example 1 - With Three Additional Region Controller Names*

```
//XTIMSADD DD *
* This is a comment
DF1RRC00 DF2RRC00 DF3RRC00
```

#### *Example 2 - Using a Sequential File*

```
//XTIMSADD DD DISP=SHR,DSN=YOUR.SEQUENTIAL.FILE
```

#### *Example 3 - Using a Partitioned File with the Member Name*

```
//XTIMSADD DD DISP=SHR,DSN=YOUR.PARTITIONED.FILE(MEMNAME)
```

## **Multi-Batch Communication Task (Optional)**

By default, the Xpediter/TSO Multi-Batch Facility is a single-LPAR feature. The Multi-Batch Staging File (MBSF) can be located on shared DASD and shared across LPARs, but updates to the file must be communicated from the LPAR on which they are made to the LPAR on which the submitted test job will run. The Multi-Batch Communication Task (MBCT), program XPMMBCT, facilitates this cross-LPAR communication.

XPMMBCT can be run as a batch job or a started task. It must be started after the Multi-Batch Intercept. A copy of this program must be running on each LPAR that will be part of the test environment. Because XPMMBCT spends much of its time "waiting", it should be made exempt from normal Job Wait Time (JWT) restrictions. The job/task can be canceled. You can also use the MVS STOP command (**P jobname**) to end the task.

**Note:** The Multi-Batch Communication Task **must** have RACF UPDATE access to the Multi-Batch staging VSAM file.

### **Activation Procedure**

Edit SLXTINST library member JCLMBCT, making the following changes:

1. Add a job card.

2. Change the dataset name on the STEPLIB DD to the name of the SLXTLOAD library.
3. Sample MBCTIN control cards are supplied. Change them to reflect your environments as described in “Control Cards” on page 1-14.
4. Submit the job.

**Note:** JCLMBCT must be run after each IPL to re-enable Multi-Batch cross-LPAR communication. If you want JCLMBCT to run automatically during MVS startup, copy JCLMBCT from the SLXTINST library to one of your installation PROCLIBs. Modify it to meet your site’s standards for an MVS startup procedure. Customize the member as described above. Add a START command for JCLMBCT in MVS’s COMMNDxx in SYS1.PARMLIB. For a sample of what to add to MVS’s COMMNDxx, refer to member COMMNDXX in the SLXTINST library. Consult your site’s system programmer for any additional information.

### External Security Product Considerations

If you are using an external security product, you may receive an error message if you do not define an OMVS segment for the user ID. The OMVS segment is required to access TCP/IP protocols. Refer to your security product’s documentation for information on defining the OMVS segment.

In addition, if you run the MBCT as a started task, refer to your security product’s documentation and perform the following:

- **For RACF:** Associate the procedure name of the XPMMBCT task with a suitably authorized RACF user ID through the RACF table ICHRIN03. This table is resident in the Link Pack Area (LPA). RACF supplies a default ICHRIN03 table, which you can modify.
- **For ACF2:** Define the procedure name of the XPMMBCT task with a valid ACF2 user ID.
- **For Top Secret:** Define the procedure name of the XPMMBCT task to Top Secret with the following TSS ADD command:

```
TSS ADD(STC)....
```

### Control Cards

The Multi-Batch Communication Task is driven by control cards that specify the HOME and REMOTE LPARs that participate in communication. The control cards should follow the format described in Table 1-5.

**Table 1-5.** MBCTIN Control Card Format

Position	Length	Value	Comment
1-8	8	Port identifier keyword	The LPAR the MBCT is to run on is identified by keyword HOMEPORT. There must be only one HOMEPORT defined to an MBCT.  A remote LPAR is identified by keyword RMOTPORT. There must be at least one RMOTPORT defined to an MBCT.
9	1	Equal sign(=)	
10-14	5	5-digit port number.	This is a TCP/IP port number that will be used to “listen” to other MBCTs (for a HOMEPORT) or to communicate to other MBCTs (RMOTPORT).
15	1	Comma (,)	
16-22	7	<b>NAME/IP</b>	The literal NAME / IP
23	1	Equal sign(=)	

Table 1-5. MBCTIN Control Card Format

Position	Length	Value	Comment
24-67	44	Host Name or IP address associated with this port number OPTIONAL	Host Name in the format <i>x.y.z</i> (for example, SYS1.MYCOMPANY.COM), <i>or</i> IP address in the format <i>nnn.nnn.nnn.nnn</i> (for example, 198.162.83.1) Optional, only used on the HOMEPORT card.
68	1	Comma (,)	
69-71	3	TPN keyword	The literal TPN
72	1	Equal sign (=)	
73-80	8	TCPIP Name	TCP/IP Name used on the HOMEPORT LPAR.

### WTO Messages

Submitting the JCL to run the Multi-Batch Communication Task (JCLMBCT) will result in write to operator (WTO) message(s). These messages are prefixed with

```
XPDnnnn :XPMMBCT -
```

where *nnnn* is the message number, followed by one of the following:

```
A HOST NAME ENTERED IS UNABLE TO BE RESOLVED
ANOTHER MBCT ALREADY RUNNING ON THIS LPAR
ATTACH OF *GCA WAIT* TASK FAILED
ATTACH OF *LISTEN* TASK FAILED
DUMP REQUESTED/ADVISED, WILL ABEND USER 3002.
DUPLICATE RMOTPORT CONTROL CARD
ERROR WITH MBCTIN OR MBCTOUT FILE
HOST NAME / IP ADDRESS CANNOT BE BLANK
IDENTIFY FOR *GCA WAIT* TASK FAILED
IDENTIFY FOR TCPIP *LISTEN* TASK FAILED
INVALID MBCTIN CONTROL CARD
INVALID NAME/IP KEYWORD
MAXIMUM OF 50 REMOTE PORTS EXCEEDED
MBCTIN OR MBCTOUT DD STATEMENT MISSING
MISSING HOMEPORT AND RMOTPORT CONTROL CARDS
MISSING HOMEPORT CONTROL CARD
MISSING RMOTPORT CONTROL CARD
MODIFY COMMAND CONTAINS UNKNOWN VALUE - IGNORED.
MORE THAN 1 HOMEPORT CONTROL CARD
MULTI-BATCH CROSS LPAR SUPPORT ACTIVE.
MULTI-BATCH I/O MODULE COULD NOT BE LOADED
MULTI-BATCH NOT ACTIVE ON THIS LPAR
MULTI-BATCH NOT INSTALLED ON THIS LPAR
PORT NOT 5 DIGIT NUMERIC
RECEIVED UNKNOWN COMMAND - SHUTTING DOWN.
STOP COMMAND ISSUED - SHUTTING DOWN.
TPN FIELD CANNOT BE BLANK
UNABLE TO FREE CIB - SHUTTING DOWN.
XPMSTBLD XREQ BUILD MODULE COULD NOT BE LOADED
```

---

## Install Xpediter/IMS Support

This step explains how to install Xpediter/IMS (IMS/DC online) support. If your site is licensed for Xpediter/IMS, follow the procedures below to install and enable that part of the product.

## Step 9. IMS Stage 1 GEN for Xpediter/IMS

Installation of the Xpediter/IMS support requires the following three preparatory steps.

### Step 9.1. IMS Control Blocks Gen (CTLBLKS)

Define the Xpediter/IMS databases, programs, and transactions to IMS by including the following definitions in the appropriate sections of your IMS STAGE 1 SYSGEN input stream.

To define the Xpediter/IMS database, add the following:

```
DATABASE DBD=XPIMSDBT
```

The database XPIMSDBT is used to verify the install procedure and can be used for training. It is used by programs TRIMPP, TRIPMPP, TRIIFP, TRIPIFP, TRICMPP, and TRICIFP.

Add the following to define the Xpediter/IMS programs:

- If you are using SMU (the IMS Security Maintenance Utility, required if you are using IMS 8.1 or older) to control which application programs can issue operator commands and which commands they can issue, then specify:

```
APPLCTN PSB=ADSIM001,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPEDTX1,MODE=SNGL
```

```
APPLCTN PSB=XPSTOP,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPSTOP,MODE=SNGL
```

```
APPLCTN PSB=ADSIM013,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPEDTX13,MODE=SNGL
```

```
APPLCTN PSB=ADSIM016,SCHDTYP=PARALLEL,PGMTYPE=(TP,,X)
TRANSACT CODE=XPST,PARLIM=0,MODE=SNGL
```

- If you are using RACF or an equivalent product (compatible with IMS 9.1, required if newer) to control which application programs can issue operator commands and which commands they can issue, then specify:

```
APPLCTN PSB=ADSIM001,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPEDTX1,MODE=SNGL,AOI=TRAN
```

```
APPLCTN PSB=XPSTOP,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPSTOP,MODE=SNGL,AOI=TRAN
```

```
APPLCTN PSB=ADSIM013,SCHDTYP=PARALLEL,PGMTYPE=BATCH
TRANSACT CODE=XPEDTX13,MODE=SNGL,AOI=TRAN
```

```
APPLCTN PSB=ADSIM016,SCHDTYP=PARALLEL,PGMTYPE=(TP,,X)
TRANSACT CODE=XPST,PARLIM=0,MODE=SNGL,AOI=TRAN
```

Add the following to define the Xpediter/IMS associated transactions:

```
APPLCTN PSB=TRIMPP,SCHDTYP=PARALLEL, (Optional COBOL Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=TRIMPP,PARLIM=3,MODE=SNGL
```

```
APPLCTN PSB=XPEDTRAN,SCHDTYP=PARALLEL, (Optional COBOL Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=XPEDTRAN,PARLIM=0,MODE=SNGL
```

```
APPLCTN PSB=TRIPMPP,SCHDTYP=PARALLEL, (Optional PL/I Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=TRIPMPP,PARLIM=0,MODE=SNGL
```

```
APPLCTN PSB=XPEDTRNP,SCHDTYP=PARALLEL, (Optional PL/I Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=XPEDTRNP,PARLIM=0,MODE=SNGL
```

```
APPLCTN PSB=XPEDTRNA,SCHDTYP=PARALLEL, (Optional Assembler Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=XPEDTRNA,PARLIM=0,MODE=SNGL
```

```
APPLCTN PSB=TRICMPP,SCHDTYP=PARALLEL, (Optional C Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=TRICMPP,PARLIM=0,MODE=SNGL
```

```
APPLCTN PSB=XPEDTRNC,SCHDTYP=PARALLEL, (Optional C Only Sample)
PGMTYPE=(TP,,1)
TRANSACT CODE=XPEDTRNC,PARLIM=0,MODE=SNGL
```

#### Notes:

1. One of the transaction definitions listed above, ADSIM016, is the Xpediter Stop Region MPP program. The PGMTYPE of X should be replaced with the class of a message processing region which is normally up during Xpediter testing.
2. Programs TRIMPP, XPEDTRAN, TRIPMPP, XPEDTRNP, and XPEDTRNA are installation verification programs which run in a class dynamically assigned from the Xpediter class pool. These programs are usually defined as class 1, but may be changed if that class is proven inappropriate and unreliable.

If you have IMS Fast Path genned in your system and want to run the Fast Path sample programs, add the following:

```
APPLCTN PSB=TRIIFP,FPATH=YES,SCHDTYP=PARALLEL (Optional COBOL Only Sample)
TRANSACT CODE=TRIIFP
```

```
APPLCTN PSB=TRIIFP,FPATH=YES,SCHDTYP=PARALLEL (Optional PL/I Only Sample)
TRANSACT CODE=TRIIFP
```

```
APPLCTN PSB=XPEDAIFP,FPATH=YES,SCHDTYP=PARALLEL (Optional Assembler Only Sample)
TRANSACT CODE=XPEDAIFP
```

```
APPLCTN PSB=TRICIFP,FPATH=YES,SCHDTYP=PARALLEL (Optional C Only Sample)
TRANSACT CODE=TRICIFP
```

The applications TRIMPP, XPEDTRAN, TRIPMPP, XPEDTRNP, TRIIFP, TRIPIFP, TRICMPP, TRICIFP, XPEDTRNA, XPEDTRNC, and XPEDAIFP and their associated transactions are used to verify the Xpediter install procedures and can be used for Xpediter training.

**Note:** To run the Fast Path verification programs, you must have a display terminal defined to IMS with an FPBUF of 256 or more. See your IMS Stage 1 TERMINAL macro statements.

Then perform an IMS CTLBLKS gen.

## Step 9.2. Reservation of Transaction Class Code Numbers

You must reserve a set of transaction class code numbers for testing Message Processing Programs (MPPs) under Xpediter/IMS. It is **required** that Message Processing Regions (MPRs) brought up independently of Xpediter/IMS do not use these class numbers. These class numbers are a subset of the numbers 001 through 999. You will enter these numbers later.

The number of classes reserved also implicitly sets a maximum limit on the number of concurrent MPP tests under Xpediter/IMS. For example, if you want to allow up to 10 users testing MPPs concurrently, reserve 10 class codes. At install time, you can set an explicit limit to the number of concurrent MPP tests. This limit, however, should not be greater than the number of classes reserved.

**Note:** Each reserved class must be a valid IMS defined class; that is, the class number must not exceed the MAXCLASS specified in the IMSCTRL macro of the IMS

Stage 1 gen. You should also verify that the IMSCTRL parameter MAXREGN is high enough to support the additional Xpediter/IMS dependent regions.

You can also set the maximum number of concurrent batch message processing (BMP) and fast path (IFP) test sessions individually. However, these programs do not require an Xpediter/IMS reserved class.

**Note:** The maximum number of concurrent test sessions is different for MPPs than for BMPs and IFPs. The maximum number for MPP tests is 50; for BMP and IFP tests it is 255. The Maximum Users and Class Codes screen (described in Appendix C, "Using the Standard Installation Options Screens" in the *Xpediter/TSO and Xpediter/IMS Configuration Guide*) lets you tell Xpediter/IMS the class numbers you have reserved for exclusive use by Xpediter/IMS. This screen also lets you set the maximum users of MPPs, BMPs, and IFPs.

### Step 9.3. IMS Security Gen

The transactions XPEDTX1 and XPEDTX13 require the authority to issue ASSIGN, START, DISPLAY, RSTART, and STOP commands. The ASSIGN command lets Xpediter/IMS reassign the class code of a transaction as genned in IMS to one of the classes reserved for Xpediter/IMS. The START command lets Xpediter/IMS restart the transaction in case a user stops a transaction by quitting a BMP or IFP region. The DISPLAY and RSTART commands let Xpediter/IMS restart the terminal in case the terminal is locked. The STOP command will terminate an Xpediter/IMS region to end the Xpediter MPP task.

If you are using the IMS Security Maintenance Utility (SMU) to grant this authority to the XPEDTX1 transaction, include the following control statements in your existing stream of security control statements:

```
)( CTRANS XPEDTX1
   TCOMMAND ASSIGN
   TCOMMAND START
   TCOMMAND RSTART
   TCOMMAND DISPLAY
   TCOMMAND STOP
```

If you are using RACF (or an equivalent product - compatible if using IMS 9.1, required if newer) use the following control cards as a model:

```
ADDUSER XPEDTX1 NOPASSWORD DFLTGRP(SYS1)
PERMIT ASS CLASS(CIMS) ID(XPEDTX1) ACCESS(UPDATE)
PERMIT DIS CLASS(CIMS) ID(XPEDTX1) ACCESS(UPDATE)
PERMIT RST CLASS(CIMS) ID(XPEDTX1) ACCESS(UPDATE)
PERMIT STA CLASS(CIMS) ID(XPEDTX1) ACCESS(UPDATE)
PERMIT STO CLASS(CIMS) ID(XPEDTX1) ACCESS(UPDATE)
```

The transaction XPEDTX13 requires the authority to issue ASSIGN, START, DISPLAY, RSTART, and STOP commands.

To grant this authority to the XPEDTX13 transaction, run the IMS Security Maintenance Utility and include the following control statements in your existing stream of security control statements:

```
)( CTRANS XPEDTX13
   TCOMMAND ASSIGN
   TCOMMAND START
   TCOMMAND RSTART
   TCOMMAND DISPLAY
   TCOMMAND STOP
```

If you are using RACF (or an equivalent product - compatible if using IMS 9.1, required if newer) use the following control cards as a model:

```

ADDUSER XPEDTX13 NOPASSWORD DFLTGRP(SYS1)
PERMIT ASS CLASS(CIMS) ID(XPEDTX13) ACCESS(UPDATE)
PERMIT DIS CLASS(CIMS) ID(XPEDTX13) ACCESS(UPDATE)
PERMIT RST CLASS(CIMS) ID(XPEDTX13) ACCESS(UPDATE)
PERMIT STA CLASS(CIMS) ID(XPEDTX13) ACCESS(UPDATE)
PERMIT STO CLASS(CIMS) ID(XPEDTX13) ACCESS(UPDATE)

```

Transactions XPST and XPSTOP require the authority to issue the DISPLAY and STOP commands. Include the following control statements in your existing stream of Security control statements.

```

)( CTRANS XPST
   TCOMMAND DISPLAY
   TCOMMAND STOP

```

If you are using RACF (or an equivalent product - compatible if using IMS 9.1, required if newer) use the following control cards as a model:

```

ADDUSER XPST NOPASSWORD DFLTGRP(SYS1)
PERMIT DIS CLASS(CIMS) ID(XPST) ACCESS(UPDATE)
PERMIT STO CLASS(CIMS) ID(XPST) ACCESS(UPDATE)

```

```

)( CTRANS XPSTOP
   TCOMMAND DISPLAY
   TCOMMAND STOP

```

If you are using RACF (or an equivalent product - compatible if using IMS 9.1, required if newer) use the following control cards as a model:

```

ADDUSER XPSTOP NOPASSWORD DFLTGRP(SYS1)
PERMIT DIS CLASS(CIMS) ID(XPSTOP) ACCESS(UPDATE)
PERMIT STO CLASS(CIMS) ID(XPSTOP) ACCESS(UPDATE)

```

## Step 10. Perform Xpediter/IMS GENs

Perform the following gens:

1. Perform a DBDGEN for the sample program database XPIMSDBT. Include the control statements from sample library SLXTSAMP member **IMS002V** as input to your site's DBD gen procedure. **Do not make any changes to the source.**
2. Perform PSBGENs for the Xpediter/IMS programs ADSIM001, ADSIM013, XPSTOP, and ADSIM016. Use your site's standard PSBGEN utility JCL to do this. Generate PSB ADSIM001 by using sample library SLXTSAMP member **IMS003I1** as input to the PSBGEN utility. Generate PSB ADSIM013 by using sample library SLXTSAMP member **IMS003I2** as input. Generate PSB XPSTOP using sample library SLXTSAMP member **IMS003I3** as input. Generate PSB ADSIM016 using sample library SLXTSAMP member **IMS003I4** as input. Continue by performing PSBGENs for the option(s) that apply to your site:
  - If your site has the Xpediter COBOL option, generate PSBs TRIMPP, TRIIFP, and XPEDTRAN by using sample library SLXTSAMP members **IMS003V1**, **IMS003V2**, and **PSBDTRAN** as input to the PSBGEN utility.
  - If your site has the Xpediter PL/I option, generate PSBs TRIPMPP, TRIPIFP, and XPEDTRNP by using sample library SLXTSAMP members **IMS003V3**, **IMS003V4**, and **PSBDTRNP** as input to the PSBGEN utility.
  - If your site has the Xpediter C Language option, generate PSBs TRICMPP, TRICIFP, and XPEDTRNC by using sample library SLXTSAMP members **IMS003V5**, **IMS003V6**, and **PSBDTRNC** as input to the PSBGEN utility.
  - If your site has the Xpediter Assembler option, generate PSBs XPEDTRNA and XPEDAIFP by using sample library SLXTSAMP members **PSBDTRNA** and **PSBDAIFP** as input to the PSBGEN utility.

**Note:** If you installed the BTS support, you may have already generated PSBs XPEDTRAN, XPEDTRNP, XPEDTRNA, and XPEDTRNC.

3. Perform an ACBGEN for the database XPIMSDBT and the PSBs. Sample library SLXTSAMP member **IMS004I** contains the input control statements for the ACBGEN. Certain deletions may need to be performed:
  - If you do not have the Xpediter COBOL option, delete the BUILD PSB statement for PSBs TRIMPP, TRIIFP, and XPEDTRAN.
  - If you do not have the Xpediter PL/I option, delete the BUILD PSB statement for PSBs TRIPMPP, TRIPIFP, and XPEDTRNP.
  - If you do not have the Xpediter Assembler option, delete the BUILD PSB statements for PSBs XPEDTRNA and XPEDAIFP.
  - If you do not have the Xpediter C option, delete the BUILD PSB statement for PSBs TRICMPP, TRICIFP, and XPEDTRNC.
  - If you do not use the Xpediter IMS userid support option, delete the BUILD PSB statement for PSB XPED0000.

## Step 11. Activating Xpediter/IMS

The following additional steps are required to activate the Xpediter/IMS product:

1. Reload the XPIMSDBT database.
 

Edit the member **IMS005V** from the sample library SLXTSAMP. Make the following corrections:

  - Correct the JOB card to your site's standards for a non-tape job.
  - Correct the dataset name segment CPWR.XT to the dataset name segment chosen for your site.
  - Provide a valid DASD VOLSER to replace VVVVVV.
  - Do not make any other changes to the cluster parameters.
  - Provide the dataset names of your IMS RESLIB and IMS DBDLIB in the RELOADS step.

Submit the job and wait for it to complete successfully before continuing with the next step.
2. Define the reloaded databases to IMS/DC.
 

Add the reloaded Xpediter XPIMSDBT databases to the IMS control region allocations, either as dynamic allocations or as JCL.
3. Generate the Message Format Service (MFS) control blocks.

### Notes:

- Completion of the following steps may result in a return code of 4.
- On the MFS source shipped in sample library SLXTSAMP members **XPEDMFS**, **IMS006**, **IMS007**, **IMS008**, **IMS009**, **IMS010**, and **IMS011**, TYPE=(3270,2) is specified on the DEV macro. Some shops require TYPE=3270-A02. Change the TYPE operand of the DEV macro to a value appropriate for your site.

Generate the MFS control blocks for the sample verification programs as follows:

- a. Include sample library SLXTSAMP member **XPEDMFS** as input to your site's MFS gen procedure for sample programs XPEDTRAN, XPEDTRNP, XPEDTRNA, and XPEDAIFP.

**Note:** If you already generated the MFS format in sample library SLXTSAMP member XPEDMFS during the BTS installation, you do not have to repeat it.

- b. Include sample library SLXTSAMP member **XPST** as input to your site's MFS gen procedure for the Stop Region MPP program.

If your site has the Xpediter COBOL option, do the following:

- a. Include sample library SLXTSAMP member **IMS006** as input to your site's MFS gen procedure for the sample COBOL MPP program TRIMPP.
- b. Include sample library SLXTSAMP member **IMS007** as input to your site's MFS gen procedure for the sample COBOL IFP program TRIIFP.

If your site has the Xpediter PL/I option, do the following:

- a. Include sample library SLXTSAMP member **IMS008** as input to your site's MFS gen procedure for sample PL/I MPP program TRIPMPP.
- b. Include sample library SLXTSAMP member **IMS009** as input to your site's MFS gen procedure for sample PL/I IFP program TRIPIFP.

If your site has the Xpediter C Language option, do the following:

- a. Include sample library SLXTSAMP member **IMS010** as input to your site's MFS gen procedure for sample C Language MPP program TRICMPP.
- b. Include sample library SLXTSAMP member **IMS011** as input to your site's MFS gen procedure for sample C Language IFP program TRICIFP.

4. Program ADSIM016 is the Xpediter Stop Region program. It is used to stop empty Xpediter/IMS Message Processing Regions (MPR) or empty Xpediter Fast Path regions. ADSIM016 should be defined with a class to run in an available MPR. Refer to "Step 9.1. IMS Control Blocks Gen (CTLBLKS)" on page 1-16. Make this program and its subprograms ADSIM015 and ADSRA093 available by putting the Xpediter load library SLXTLOAD in the STEPLIB or the JOBLIB concatenation of the chosen MPR.
5. The Xpediter Stop Region facility executes the following IMS Automated Operator Interface command:

```
/DISPLAY ACTIVE
```

If your site has customized the length or offset of the **REGID** or **JOBNAME** output fields in the Display Active AOI command, you must make corresponding changes to the Xpediter Site Default module. For detailed instructions regarding the changing of the Xpediter Site Default module, refer to Appendix B, "Optional Postinstallation Procedures" in the *Xpediter/TSO and Xpediter/IMS Configuration Guide*.

6. Load the control blocks.

Run the IMS online change utility to load the control blocks you have generated into the inactive IMS system libraries. These control blocks are ACBLIB, MODBLKS, FMTLIB, and MATRIX members.

7. Check the buffer size.

Check that your DFSVSM $_{xx}$  IMS startup member in the IMS PROCLIB has a VSAM buffer definition for a minimum size of 4K. If not, add the following statement to it:

```
4096,3
```

8. Activate the control blocks.

Recycle the IMS system and perform the necessary /MODIFY PREPARE and /MODIFY COMMIT commands to activate your new control blocks. To ensure the activation of the security matrix, add the TRANCMDS parameter to the /MODIFY PREPARE command.

9. If your site has renamed the IMS Batch Region Controller module, you must rename field CTLDFSR in JCLRA093 to match. The default name is DFSRRRC00. (See Appendix B, “Optional Postinstallation Procedures” in the *Xpediter/TSO and Xpediter/IMS Configuration Guide* for details.)

## Transaction Code Lockout Considerations

There are three Xpediter/IMS methodologies that provide IMS transaction code lockout relief. Each of these methodologies is described in its own section below.

- “Step 12. IMS User ID Support”
- “Step 13. IMS User ID/Data Value Intercept Support”
- “Step 14. Long Running Batch Message Processing (BMP) Region”.

## Step 12. IMS User ID Support

Xpediter/IMS provides the ability to trap transactions based on IMS user ID. In addition to adding the ability for multiple users to debug the same transaction, this feature will also provide additional transaction code lockout relief.

IMS User ID Support requires use of IMS exit DFSCTRNO.

**Note:** Programs that are initiated from an insert to a Preset Destination are not supported. OTMA-initiated transactions are only supported if the connection methodology is LU 6.2.

This IMS User ID Support in Xpediter/IMS will alter the transaction code from the original to a predefined dummy trancode reserved for Xpediter's use. The IMS user ID to intercept is specified on the MPP test screen (2.8). In order for Xpediter to alter the transaction code, the Xpediter/IMS User ID Intercept must be activated.

See “Additional Considerations” on page 1-24 and “Xpediter/IMS User ID Intercept Installation Utility” on page 1-25 for additional information.

## IMS Requirements for DFSCTRNO

If your installation has a DFSCTRNO exit, it must be renamed to XPIMSRNO. The XPIMSRNO program will be invoked prior to the Xpediter DFSCTRNO program. Refer to the *IMS Customization Guide* for instructions to install the DFSCTRNO exit.

### **For IMS 8.1 through IMS 12:**

#### *IMS Stage1/Stage2 Gen*

The Xpediter supplied IMS Transaction Authorization exit, DFSCTRNO, must be installed. This will require that a full Stage1/Stage 2 IMS gen be performed. The Security macro must specify SECLVL=TRANAUTH and TYPE=(RACFTERM,TRANEXIT). As part of the IMS gen process, there is a linkedit of the IMS nucleus that includes the DFSCTRNO exit. To use the Xpediter/IMS version of the DFSCTRNO exit, copy DFSCTRNO9 to a load library that will be specified in the linkedit JCL SYSLIB concatenation. Rename the copied module **DFSCTRNO**.

### **For IMS 13:**

The Xpediter supplied IMS Transaction Authorization exit, DFSCTRNO, must be installed. This is done by customizing and running job JCLCTRNO located in the SLXTINST library. The changes can be made manually, or if you have previously configured the XTUPDATE ISPF Edit macro, you can use it to customize this JCL member. To use the Xpediter version of the DFSCTRNO exit, the linkedit JCL must be modified to include the SLXTLOAD library and the IMS RESLIB in the SYSLIB. The SYSLMOD library must be

authorized and be either the IMS RESLIB or a library concatenated to the RESLIB in the IMS Control region JCL.

### ***APPLCTN Macro***

IMS must be able to schedule the application Program Specification Block (PSB) when additional transactions are received, even though the PSB is already scheduled in the user's Xpediter/IMS debugging session. The relevant IMS sysgen parameter is SCHDTYPE. The APPLCTN macro for the application PSB must specify SCHDTYPE=PARALLEL. The IMS gen default is SCHDTYPE=SERIAL. This default does not allow IMS to schedule more than one instance of a particular PSB at a time. An IMS gen is required to change this parameter.

### ***IMS Cold Start***

IMS must be cold started and parameters TRN=Y and RCF=Y must be specified.

### ***CA-Top Secret Considerations***

For CA-Top Secret users, solution #391 may need to be applied to invoke DFSCTRN0.

## **Step 13. IMS User ID/Data Value Intercept Support**

As an alternative to the IMS User ID Support described above, Xpediter/IMS provides the ability to trap transactions based on IMS user ID and/or up to 30 bytes of transaction data. A user can intercept transactions based solely on transaction data by entering an asterisk (\*) in the IMS user ID field on the MPP test screen (2.8). A transaction will then be intercepted if any user enters the specified data in the transaction. If a user ID and transaction data are both specified, only transactions meeting both criteria will be intercepted.

In addition to enabling multiple users to debug the same transaction, IMS User ID/Data Value Intercept Support provides additional transaction code lockout relief. It also enables intercept data to be specified by IMS sites that do not require users to sign on, as well as those utilizing a common ID for all users.

The requirements for IMS User ID/Data Value Intercept Support are:

- IMS 7.1 or above
- Use of IMS exit DFSMSCE0.

### **Notes:**

1. Programs that are initiated from an insert to a Preset Destination are not supported.
2. OTMA-initiated transactions are fully supported with the use of the DFSMSCE0 exit.

This User ID/Data Value Intercept Support in Xpediter/IMS will alter the transaction code from the original to a predefined dummy trancode reserved for Xpediter's use. The IMS user ID to intercept is specified on the MPP test screen (2.8). In order for Xpediter to alter the transaction code, the Xpediter/IMS User ID Intercept must be activated.

See "Additional Considerations" on page 1-24 and "Xpediter/IMS User ID Intercept Installation Utility" on page 1-25 for additional information.

## **IMS Requirements for DFSMSCE0**

### ***IMS TM and MSC Message Routing and Control User Exit, DFSMSCE0***

The Xpediter-supplied IMS TM and MSC Message Routing and Control exit, DFSMSCE0, must be installed. Member DFSMSCE0 can simply be copied from the SLXTLOAD library to either the IMS RESLIB or a library concatenated to the RESLIB in the IMS Control region JCL.

There can only be one copy of the DFSMSCEO exit active. If your installation already makes use of the DFSMSCEO exit, your version of the exit should be renamed to XPIMSCEO. The Compuware version will locate and invoke XPIMSCEO (if present) after determining that a transaction is not to be routed to an Xpediter region.

### **APPLCTN Macro**

IMS must be able to schedule the application Program Specification Block (PSB) when additional transactions are received, even though the PSB is already scheduled in the user's Xpediter/IMS debugging session. The relevant IMS sysgen parameter is SCHDTYPE. The APPLCTN macro for the application PSB must specify SCHDTYPE=PARALLEL. The IMS gen default is SCHDTYPE=SERIAL. This default does not allow IMS to schedule more than one instance of a particular PSB at a time. An IMS gen is required to change this parameter.

## **Additional Considerations**

### **IMS Conversational Transactions**

To facilitate both IMS User ID Support and User ID/Data Value Intercept Support, Xpediter/IMS creates a clone of the original IMS transaction, which it then executes in an Xpediter MPR. Because cloned transactions each have a unique transaction code, multiple iterations of a transaction can coexist without lockout occurring. This cloning process takes place on the first execution of a transaction.

If you do **not** want Xpediter to intercept the first iteration of a conversational transaction, do the following:

1. Initiate Xpediter before the transaction begins.
2. Specify a starting transaction number.

At the first iteration, Xpediter will create a clone of the transaction, but the actual debugging session will not start until the specified starting iteration.

After you enter the EXIT command to end your session, you must also enter /EXIT to end the original IMS transaction. This is because Xpediter has already torn down the MPR used for the transaction's clone. If not ended manually, the transaction could hang because there is no longer an Xpediter MPR to process it.

### **Xpediter/IMS PSBs and Transactions**

Dummy IMS PSBs for Xpediter/IMS's use must be generated. Member XPED0000 in SLXTSAMP contains the sample definitions.

Dummy IMS Transactions codes for Xpediter/IMS's use must be defined. Member XTAPPLTS in SLXTSAMP contains the sample definitions. Create as many 'TRANSACTION CODE=XPED\*\*\*\*' entries as required; 200 may be a good initial amount if warm starts of IMS are done. The prefix must be XPED so it will match the one specified in the trancode intercept activation JCL (member JCLIMSLR). The transactions supplied specify a default class of 999. Change it to a class that is not in use by any IMS region and is not one of the classes reserved for use by Xpediter/IMS. The value specified must not exceed the MAXCLAS= value specified or accepted by default on the IMSCTRL macro statement.

### **JCLRA093**

Field CTLIMSUS in JCLRA093 must be set to Y (Yes). (See Appendix B, "Optional Postinstallation Procedures" in the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide* for details).

## Xpediter/IMS User ID Intercept Installation Utility

This section describes how to use the Xpediter/IMS User ID Intercept Installation Utility program, XPIMSTLR. The User ID Intercept must be activated to enable User ID Support and User ID/Data Value Intercept Support to function properly.

### APF Authorized Library

An APF authorized library is required for the program XPIMSTLR. Before continuing with “Activation Procedure” below, do one of the following:

- Make the SLXTAUTH library authorized, or
- After an authorized library has been selected, copy SLXTAUTH library member XPIMSTLR into that authorized library.

### Activation Procedure

Edit SLXTINST library member JCLIMSLR, making the following changes:

1. Add a job card
2. Change the dataset name on the STEPLIB DD to the name of the authorized library where the Xpediter/TSO module, XPIMSTLR, resides.
3. Change the dataset name on the XT DD to the name of the Xpediter/TSO SLXTLOAD library.
4. After the SYSIN DD \*, supply the name of the IMS subsystems and dummy transaction names. If the IMS subsystem is part of a Shared Queue environment, specify the LPAR name and four-byte identifier for the Shared Queue.
5. The PARM value for this execution of the program XPIMSTLR is  

```
PARM=ACTIVATE
```
6. Submit the job. It should complete with a return code of 0. If you receive a non-zero return code, refer to the *Xpediter/TSO and Xpediter/IMS Messages and Codes* manual for the appropriate error message.

**Note:** JCLIMSLR must be run after each IPL to re-enable the Xpediter/IMS User ID Intercept. It must be run before starting any IMS control region that makes use of its services. If you want JCLIMSLR to run automatically during MVS startup, copy JCLIMSLR from the SLXTINST library to one of your installation PROCLIBs. Modify JCLIMSLR to meet your site’s standards for an MVS startup procedure. Customize the member as described above. Add a START command for JCLIMSLR in MVS’s COMMNDxx in SYS1.PARMLIB. For a sample of what to add to MVS’s COMMNDxx, refer to member COMMNDXX in the SLXTINST library. Consult your site’s MVS programmer for any additional information.

### XPIMSTLR Functions

The four functions of XPIMSTLR are:

- ACTIVATE - Installs or reactivates the intercept.
- DEACTIVATE - Deactivates the intercept.
- FORCE - Deactivates the intercept, even if it is in use.
- MAINTENANCE - Updates the current intercept with a new copy from an authorized library.

For an explanation of any error messages issued by XPIMSTLR during the Intercept install and initialization, see the *Xpediter/TSO and Xpediter/IMS Messages and Codes* manual.

The following sections explain each of the four XPIMSTLR functions.

**ACTIVATE Function**

This function can only be used if the intercept is not currently active. You must specify a list of IMS subsystems to intercept and the prefix and range of the dummy IMS trancodes for Xpediter's use.

A sample PARM for the ACTIVATE function is

```
PARM=ACTIVATE
```

The IMS subsystem and trancode range is specified in the SYSIN DD. The format of the control is

```
XXXX/XPED9999/LLLLLLLL/SSSS
```

where

- **XXXX** = 1- to 4-character IMS Subsystem name
- **XPED** = 4-character dummy trancode prefix
- **9999** = 4 digits of max trancode number
- **LLLLLLLL** = 1- to 8-character LPAR name to which the dummy trancodes belong
- **SSSS** = 4-character Shared Queue group identifier.

and LLLLLLLL and SSSS are optional segments required for IMS Shared Queue support.

For example:

```
IMS6/XPED0025
```

means Xpediter will intercept transactions on the IMS6 subsystem. The dummy trancodes for this subsystem are XPED0000 through XPED0025.

If you have a Shared Queue environment, for example:

- LPAR 1 (LPR1):
  - IM18 is local only
  - IM19 is part of an IMSplex (IM19 and IM29)
  - IM1A is part of an IMSplex (IM1A and IM2A).
- LPAR 2 (LPR2):
  - IM28 is local only
  - IM29 is part of an IMSplex (IM29 and IM19)
  - IM2A is part of an IMSplex (IM2A and IM1A).

control cards would resemble:

```
IM18/XPED0050
IM28/XPED0050
IM19/XPED0050/LPR1/#001
IM29/XPED0100/LPR2/#001
IM1A/XPED0050/LPR1/#002
IM2A/XPED0100/LPR2/#002
```

which means Xpediter will:

- Intercept transactions on the IM18 subsystem. The dummy trancodes for this subsystem are XPED0000 through XPED0050.
- Intercept transactions on the IM28 subsystem. The dummy trancodes for this subsystem are XPED0000 through XPED0050.
- Intercept transactions on the IM19 subsystem. The dummy trancodes for this subsystem are XPED0000 through XPED0050. This subsystem is on the LPAR named LPR1 and is associated with a Shared Queue group designated by #001.
- Intercept transactions on the IM29 subsystem. The dummy trancodes for this subsystem are XPED0051 through XPED0100. This subsystem is on the LPAR named LPR2 and is associated with a Shared Queue group designated by #001.

- Intercept transactions on the IM1A subsystem. The dummy transaction codes for this subsystem are XPED0000 through XPED0050. This subsystem is on the LPAR named LPR1 and is associated with a Shared Queue group designated by #002.
- Intercept transactions on the IM2A subsystem. The dummy transaction codes for this subsystem are XPED0051 through XPED0100. This subsystem is on the LPAR named LPR2 and is associated with a Shared Queue group designated by #002.

As shown in the previous example, the dummy transaction codes for a Shared Queue are cumulative. This means the first member of a Shared Queue group follows the standard rule (XPED $nnnn$ , where the initial transaction code is XPED0000 and  $nnnn$  represents the maximum transaction code), while the initial transaction code of subsequent members is one greater than the prior member's maximum transaction code ( $nnnn+1$ ).

**Note:** Compuware recommends that, where possible, the control cards used on each LPAR to activate the Xpediter/IMS User ID Intercept be the same. This will eliminate potential specification errors and ease implementation and maintenance.

### ***DEACTIVATE and FORCE Functions***

The DEACTIVATE function is used to disable the Xpediter/IMS User ID intercept. It will not perform its function if any Xpediter/IMS debugging sessions are in progress. If you want the intercept to be disabled, regardless of the consequences, use the FORCE option.

The sample PARM for the DEACTIVATE function is

```
PARM=DEACTIVATE
```

The sample PARM for the FORCE function is

```
PARM=FORCE
```

### ***MAINTENANCE Function***

This function can only be used if the PC intercept is not active. It would normally be used when directed to do so by a PTF or by Compuware Technical Support.

The sample PARM for the MAINTENANCE function is

```
PARM=MAINTENANCE
```

## **Step 14. Long Running Batch Message Processing (BMP) Region**

This method of transaction code lockout relief allows a transaction program to run in its usual message region at the same time as an Xpediter/IMS debugging session for the same program. This should provide some relief in non-debugging sessions from getting locked out while an Xpediter session is active.

Default behavior remains the same as previous releases:

- When an Xpediter/IMS session is entered, the transaction codes specified on the MPP test screen (2.8) are assigned to the transaction class associated with the user's debugging session.
- The transactions are reassigned to their original transaction classes when the debugging session ends, and any queued transactions are processed at that time.

### **General Information**

This facility allows the class reassignment to occur as soon as the Xpediter/IMS debugging session has intercepted the maximum number of transactions that were requested on the MPP test screen (2.8) for that particular transaction code. For example, if the START and MAX values are both set to 1, Xpediter/IMS will only reassign the

transaction class for that transaction to the debugger until the first transaction has been intercepted, which should happen within a few seconds. After that first transaction has been captured, normal transaction processing can resume for that transaction code.

## Procedural Requirements

Three requirements must be met to take advantage of the transaction lockout relief in this facility:

1. A Batch Message Processing (BMP) program named ADSIM013 must be signed on to the same IMS subsystem as the Xpediter/IMS user. This BMP could be started and stopped by the same mechanism that is used to start and stop the message regions for this IMS subsystem.
2. The Xpediter/IMS user must specify a MAX value on the MPP test screen (2.8) to limit the number of transactions that will be intercepted. If this field is left blank, every transaction in the region will be intercepted.
3. IMS must be able to schedule the application Program Specification Block (PSB) when additional transactions are received, even though the PSB is already scheduled in the user's Xpediter/IMS debugging session. The relevant IMS sysgen parameters are SCHDTYPE, PARLIM, and MAXRGN:
  - The APPLCTN macro for the application PSB must specify SCHDTYPE=PARALLEL. The IMS gen default is SCHDTYPE=SERIAL. This default does not allow IMS to schedule more than one instance of a particular PSB at a time. An IMS gen is required to change this parameter.
  - The TRANSACT macro for the affected transaction code must specify PARLIM=0 to allow scheduling of multiple instances of the PSB even though no queue has built up for the transaction code. The IMS gen default is PARLIM=NONE. The BMP will automatically reassign PARLIM to 0 at the same time it reassigns the transaction class to its original value. This happens after the debugger has intercepted the last transaction for that transaction code. Xpediter/IMS will reassign the transaction PARLIM back to its original value when the debugging session ends.
  - The TRANSACT macro for the affected transaction code must *not* specify MAXRGN=1. The IMS gen default is 0, which means unlimited. This parameter is unlikely to cause problems and can be reassigned by the IMS master terminal operator, if desired.

To summarize the IMS gen requirements: the new reassignment facility is only effective for applications whose PSB is eligible for parallel scheduling because that PSB's APPLCTN macro specifies SCHDTYPE=PARALLEL. There are no requirements to specify any of the parameters on the TRANSACT macro related to load balancing or to enable parallel scheduling for any transactions. These details are handled by Xpediter/IMS for any transaction whose PSB allows parallel scheduling, and the parameters are reset to their original values when the Xpediter/IMS session completes.

The JCL shown in Figure 1-1 must be run in the control region where Xpediter/IMS testing is being done:

**Figure 1-1.** JCL for ADSIM013 Long Running BMP

```
/customer-supplied-jobcard
//stepname EXEC IMSBATCH,MBR=ADSIM013,PSB=ADSIM013,IN=XPEDTX13
//SYSPRINT DD SYSOUT=*
```

**Notes:**

1. The user must ensure the Xpediter load library SLXTLOAD is part of the STEPLIB concatenation. The BMP job monitors the Xpediter/IMS message regions and provides a quick transaction class reassign.
2. To stop the long running BMP, execute the MVS STOP command. IMS will not accept the CANCEL command.

**Step 15. Additional IMS Control Regions (Optional)**

If you need support for installing Xpediter/IMS on additional IMS control regions, refer to the *Xpediter/TSO and Xpediter/IMS Installation and Configuration Guide*.

**Step 16. IMS Shared Queue Support (Optional)**

Xpediter/IMS supports testing in an IMS Shared Queue environment. The Shared Queue can be on a single LPAR or span multiple LPARs. The requirements for this support are:

- IMS 9.1 or above
- Use of Xpediter/IMS-supplied exit DFSCCMD0 and at least one of the following Xpediter/IMS-supplied exits:
  - DFSCTRNO
  - DFSMSCEO.
- If the Shared Queue spans LPARs, the customization and activation of Compuware's Host Communication Interface (HCI).

**Enabling Shared Queue Support**

To implement Xpediter's IMS Shared Queue support, perform the following steps:

1. Install and activate the User ID Intercept Installation Utility (XPIMSTLR) on each LPAR with an IMS control region that is part of the Shared Queue.
2. Install the Xpediter/IMS 9.4 version of exit DFSCCTRNO and/or DFSMSCEO in all IMS control regions in which Shared Queue support is to be implemented. For more information, see "Transaction Code Lockout Considerations" on page 1-22.

**Note:** Any region that does not require Shared Queue support can continue to use prior versions of these exits.

3. For all IMS control regions in which Shared Queue support is to be implemented, configure the Xpediter/IMS dummy transactions (provided in SLXTSAMP member XTAPPLTS) to specify a default class that:
  - will not be used by any participating IMS region
  - is not one of the classes reserved for use by Xpediter/IMS
  - does not exceed the MAXCLAS= value specified (or accepted by default) on the IMSCTRL macro statement.
4. For all IMS control regions in which Shared Queue support is to be implemented, set PARM='AOI1=x' to one of the following:
  - PARM='AOI1=A' (for AII) if the prior value was R (for RACF) or S (for SMU)
  - PARM='AOI1=C' (for DFSCCMD0) if the prior value was N (for None).
5. For all IMS control regions in which Shared Queue support is to be implemented, install the Xpediter/IMS 9.4 version of exit DFSCCMD0. See "IMS Requirements for DFSCCMD0" on page 1-30 for more information.
6. If the Shared Queue environment spans multiple LPARs, perform the following:

- a. Install and customize Compuware's Host Communication Interface (HCI) on the LPARs that will participate. HCI is a part of Compuware's Enterprise Common Components (ECC) distribution and can be ordered separately.

**Note:** Xpediter/IMS supports up to ten IMS regions in an IMSplex.

- b. Use the Maximum Users and Class Codes screen (Figure C-30 on page C-34) to specify the LPAR ID, HCI port number, and Host Name or IP address associated with each HCI. If you are not using the default TCPIP name for a connection, specify the TCPNAME. Otherwise, it can be left blank.
- c. If Xpediter/Eclipse is to be used, customize and run SLXTINST member JCLCSPF to populate the Compuware Shared Profile Facility (CSPF).

## IMS Requirements for DFSCCMD0

### *IMS Command Authorization Exit Routine, DFSCCMD0*

The Xpediter-supplied IMS Command Authorization exit routine, DFSCCMD0, must be installed in all IMS control regions in which Shared Queue support is to be implemented.

1. Customize and run job JCLCCMD0 located in the SLXTINST library. Customization of this JCL member can either be done manually, or by using the XTUPDATE ISPF edit macro (if it was previously configured).
2. Before using the Xpediter version of the DFSCCMD0 exit, perform the following:
  - a. Modify the linkedit JCL to include the SLXTLOAD library and IMS RESLIB in the SYSLIB.
  - b. Make sure the SYSLMOD library is authorized. It can be either the IMS RESLIB or a library concatenated to the RESLIB in the IMS control region JCL.
3. If your installation already has a DFSCCMD0 exit, rename it to XPIMSMDO. The XPIMSMDO program will be invoked prior to the Xpediter DFSCCMD0 program.

### *IMS Cold Start*

To complete the implementation of Xpediter/IMS Shared Queue support, IMS must be cold started specifying PARM='AOI1=C' (if the previous value was N) or PARM='AOI1=A'.