

# ASG-SmartTest™ IMS User's Guide

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## Preface

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This *ASG-SmartTest IMS User's Guide* provides user information for ASG-SmartTest (herein called SmartTest), which provides testing and debugging processes for applications in the IMS environment. ASG-SmartTest IMS (herein called SmartTest-IMS) is fully integrated with SmartTest. All basic and extended facilities are available including: program view, execution control, breakpoints, monitoring and changing data, pseudocode, abend processing, backtrack, and the COBOL Intelligent Search Function. SmartTest-IMS provides COBOL, Assembler, and PL/I programmers information about testing IMS/DC programs interactively. You should be familiar with the SmartTest commands and techniques. The IMS/DC setup information, features, and screens that SmartTest provides are described in this manual.

Allen Systems Group, Inc. (ASG) provides professional support to resolve any questions or concerns regarding the installation or use of any ASG product. Telephone technical support is available around the world, 24 hours a day, 7 days a week.

ASG welcomes your comments, as a preferred or prospective customer, on this publication or on any ASG product.

## About this Publication

This publication consists of these chapters:

- [Chapter 1, "Introduction,"](#) provides an overview of SmartTest-IMS.
- [Chapter 2, "Getting Started,"](#) describes the procedures for accessing the SmartTest-IMS environment and verifying transactions to be tested.
- [Chapter 3, "3270 Terminal Emulation,"](#) presents SmartTest-IMS specific commands for 3270 emulation mode and describes the procedures and screens for setting up, initiating a test, and for viewing and modifying program and test information using 3270 terminal emulation mode.
- [Chapter 4, "Native IMS Terminal Support,"](#) describes native IMS terminal support procedures.
- [Chapter 5, "File Allocation,"](#) describes the procedures and screens used to allocate the IMS datasets required for correct operation.

## Related Publications

The documentation library for ASG-SmartTest-IMS consists of these publications (where *nn* represents the product version number):

- *ASG-Center Installation Guide* (CNX0300-*nn*) contains installation and maintenance information for ASG-Center, the common set of libraries shared by the ASG-ESW suite of products.
- *ASG-ESW Enhancement Summary* (ESW1000-*nn*) highlights the new functionality for this release.
- *ASG-SmartTest CICS User's Guide* (STC0200-*nn*) contains specific commands and test session setup information for the CICS environments.
- *ASG-SmartTest for COBOL and Assembler User's Guide* (STA0200-*nn*) contains introductory and usage information for COBOL and Assembler. It also contains test session setup information for the TSO, ISPF, IMS/DB, DB/2, BTS, and Batch environments.
- *ASG-SmartTest IMS User's Guide* (STM0200-*nn*) contains specific commands and test session setup information for the IMS/DC environments.
- *ASG-SmartTest Installation Guide* (STX0300-*nn*) contains information for installing and maintaining ASG-SmartTest.
- *ASG-SmartTest PLI User's Guide* (STL0200-*nn*) contains introductory and usage information about how to use ASG-SmartTest with the PL/I language. It also contains test session setup information for the TSO, ISPF, IMS/DB, DB/2, BTS, and Batch environments.
- *ASG-SmartTest Quick Start for COBOL/ASM* (STA0900-*nn*) summarizes how to use ASG-SmartTest with the COBOL or Assembler language.
- *ASG-SmartTest Quick Start for PL/I* (STL0900-*nn*) summarizes how to use ASG-SmartTest with the PL/I language.
- *ASG-SmartTest Reference Guide* (STX0400-*nn*) contains detailed reference information about CUA pull-downs and pop-ups, ASG-SmartTest command syntax, and pseudo code.
- *ASG-SmartTest Reference Summary* (STX0600-*nn*) summarizes the syntax and usage of ASG-SmartTest commands.
- *ASG-SmartTest TCA User's Guide* (STT0200-*nn*) contains procedures for using the ASG-SmartTest-TCA (Test Coverage Analysis) option.

**Note:** \_\_\_\_\_

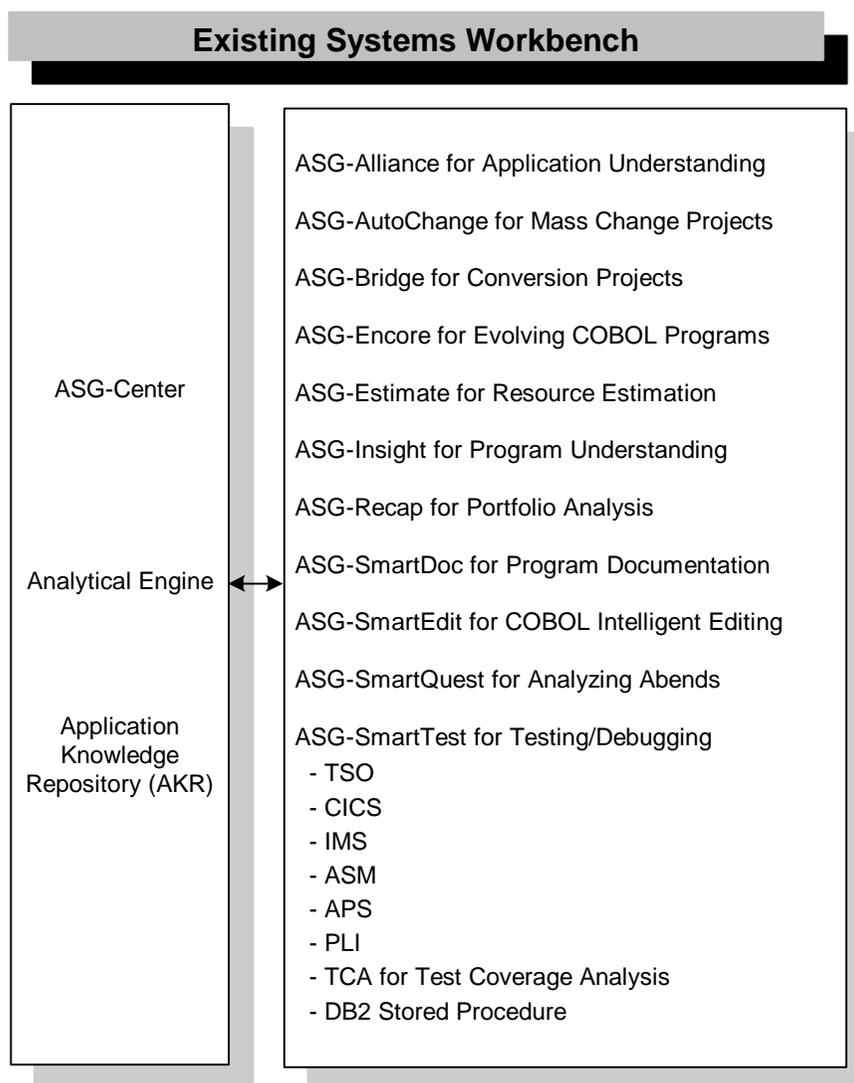
To obtain a specific version of a publication, contact ASG Customer Support.

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## ASG-Existing Systems Workbench (ASG-ESW)

ASG-ESW (herein called ESW) is an integrated suite of components designed to assist organizations in enhancing, redeveloping, or re-engineering their existing systems. ESW products use the Application Knowledge Repository (AKR) to store source program analysis information generated by the Analytical Engine. [Figure 1](#) represents the components of ESW.

**Figure 1 • ASG Existing Systems Workbench**



This table contains the name and description of each ESW component:

ESW Product	Herein Called	Description
ASG-Alliance	Alliance	The application understanding component that is used by IT professionals to conduct an analysis of every application in their environment. Alliance supports the analysis and assessment of the impact of change requests upon an entire application. Alliance allows the programmer/analyst to accurately perform application analysis tasks in a fraction of the time it would take to perform these tasks without an automated analysis tool. The impact analysis from Alliance provides application management with additional information for use in determining the resources required for application changes.
ASG-AutoChange	AutoChange	The COBOL code change tool that makes conversion teams more productive by enabling quick and safe changes to be made to large quantities of code. AutoChange is an interactive tool that guides the user through the process of making source code changes.
ASG-Bridge	Bridge	The bridging product that enables field expansion for program source code, without being required to simultaneously expand the fields in files or databases. Because programs are converted in smaller groups, or on a one-by-one basis, and do not require file conversion, testing during the conversion process is simpler and more thorough.
ASG-Center	Center	The common platform for all ESW products. Center provides the common Analytical Engine to analyze the source program and store this information in the AKR. This common platform provides a homogeneous environment for all ESW products to work synergistically.

ESW Product	Herein Called	Description
ASG-Encore	Encore	The program re-engineering component for COBOL programs. Encore includes analysis facilities and allows you to extract code based on the most frequently used re-engineering criteria. The code generation facilities allow you to use the results of the extract to generate a standalone program, a callable module, a complement module, and a CICS server. Prior to code generation, you can view and modify the extracted Logic Segment using the COBOL editor.
ASG-Estimate	Estimate	The resource estimation tool that enables the user to define the scope, determine the impact, and estimate the cost of code conversion for COBOL, Assembler, and PL/I programs. Estimate locates selected data items across an application and determines how they are used (moves, arithmetic operations, and compares). Time and cost factors are applied to these counts, generating cost and personnel resource estimates.
ASG-Insight	Insight	The program understanding component for COBOL programs. Insight allows programmers to expose program structure, identify data flow, find program anomalies, and trace logic paths. It also has automated procedures to assist in debugging program abends, changing a computation, and resolving incorrect program output values.
ASG-Recap	Recap	The portfolio analysis component that evaluates COBOL applications. Recap reports provide function point analysis and metrics information, program quality assessments, intra-application and inter-application comparisons and summaries, and historical reporting of function point and metrics information. The portfolio analysis information can also be viewed interactively or exported to a database, spreadsheet, or graphics package.
ASG-SmartDoc	SmartDoc	The program documentation component for COBOL programs. SmartDoc reports contain control and data flow information, an annotated source listing, structure charts, program summary reports, exception reports for program anomalies, and software metrics.

ESW Product	Herein Called	Description
ASG-SmartEdit	SmartEdit	The COBOL editing component that can be activated automatically when the ISPF/PDF Editor is invoked. SmartEdit provides comprehensive searching, inline copybook display, and syntax checking. SmartEdit allows you to include an additional preprocessor (for example, the APS generator) during syntax checking. SmartEdit supports all versions of IBM COBOL, CICS, SQL, and CA-IDMS.
ASG-SmartQuest	SmartQuest	The diagnostic tool for analyzing batch and CICS transaction abends. SmartQuest has been designed to make the maximum use of simple point-and-shoot techniques to enable fast and easy navigation through any data dump.
ASG-SmartTest	SmartTest	The testing/debugging component for COBOL, PL/I, Assembler, and APS programs in the TSO, MVS Batch, CICS (including file services), and IMS environments. SmartTest features include program analysis commands, execution control, intelligent breakpoints, test coverage, pseudo code with COBOL source update, batch connect, disassembled object code support, and full screen memory display.

## Invoking ESW Products

The method you use to invoke an ESW product depends on your system setup. If you need assistance to activate a product, see your systems administrator. If your site starts a product directly, use the ISPF selection or CLIST as indicated by your systems administrator. If your site uses the ESW screen to start a product, initiate the ESW screen using the ISPF selection or CLIST as indicated by your systems administrator and then typing in the product command on the command line.

The product names can also vary depending on whether you access a product directly or through ESW. See ["ESW Product Integration" on page xi](#) for more information about using ESW.

To initialize ESW products from the main ESW screen, select the appropriate option on the action bar pull-downs or type the product shortcut on the command line.

Product Name (ESW Name)	Shortcut	ESW Pull-down Options
Alliance (Application Understanding)	AL	Understand ▶ Application
AutoChange (Conversion Set)	CC	Change ▶ Conversion Set
Bridge	BR	Change ▶ ASG-Bridge
Encore (Program Re-engineering)	EN	Re-engineer ▶ Program
Estimate	ES	Measure ▶ ASG-Estimate
Insight (Program Understanding)	IN	Understand ▶ Program
Recap (Portfolio Analysis)	RC	Measure ▶ Portfolio
SmartDoc (Program Documentation)	DC	Document ▶ Program
SmartEdit	SE	Change ▶ Program <b>Or</b> Change ▶ Program with Options
SmartQuest	SQV	Understand ▶ Abend/Dump
SmartTest (Testing/Debugging)	ST	Test ▶ Module/Transaction

## ESW Product Integration

Because ESW is an integrated suite of products, you are able to access individual ESW products directly, or through the main ESW screen. As a result, different fields, values, action bar options, and pull-down options display on a screen or pop-up depending on how you accessed the screen or pop-up.

Certain ESW products also contain functionality that interfaces with other ESW products. Using SmartTest as an example, if Alliance is installed, SmartTest provides a dynamic link to Alliance that can be used to display program analysis information. If Insight is installed and specified during the analyze, the Insight program analysis functions are automatically available for viewing logic/data relationships and execution path. For example, the Scratchpad option is available on the Options pull-down if you have Insight installed.



[Figure 3](#) shows the Encore Primary screen that displays when you access Encore through ESW by selecting Re-engineer ► Program from the ESW action bar menu. Notice that the Primary screen name changes to ASG-ESW - Program Re-engineering when you enter Encore through ESW. Also, the Logic menu item displays if Insight is installed.

**Figure 3 • ESW Encore Primary Screen**

```

File View Extract Generate Search Logic List Options Help
-----
ASG-ESW - Program Re-engineering
Command ==> -----

*****
*****
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*****

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```

**Example 2**

[Figure 4](#) shows the File - Analyze Submit pop-up that displays when you access SmartTest directly. [Figure 5 on page xiv](#) shows the File - Analyze Submit pop-up that displays when you access SmartTest through ESW.

**Figure 4 • File - Analyze Submit Screen**

```

Command ==> -----
File - Analyze Submit
-----
E - Edit JCL          S - Submit JCL

Compile and link JCL (PDS or sequential):
Data set name -----

Analyze features (Y/N):
ASG-SmartTest: Y   Extended Analysis: N

AKR data set name -----
AKR program name NEWDEMO          (if overriding PROGRAM-ID)

Analyze options:
-----
-----
-----

Compile? (Y/N) . . . . . Y   (Y if needed by features)
Link load module reusable? (Y/N) Y

```

The actions shown on these screens can also vary. For example, the D - Doc Options action is only available on the File Prepare Program screen (or File - Analyze Submit screen) if SmartDoc is installed on your system. In [Figure 4 on page xiii](#), the Doc Options action is not displayed.

**Figure 5 • ASG-ESW - Prepare Program Screen (accessed through ESW)**

```

ASG-ESW - Prepare Program
Command ==> _____
          E - Edit JCL   S - Submit JCL   D - Doc Options

Compile and link JCL (PDS or sequential):
Data set name _____

Analyze features (Y/N):
  Understand: N  Test: Y  Extended Analysis: N  Document: N
  Re-engineer: N  Abend/Dump: N
AKR data set name _____
AKR program name  NEUDEMO _____ (if overriding PROGRAM-ID)

Analyze options:
_____
_____

Compile? (Y/N) . . . . . Y      (Y if needed by features)
Link load module reusable? (Y/N) Y      (Test and Abend/Dump only)
    
```

Notice that the Analyze features field in [Figure 5](#) lists additional ESW products than shown on [Figure 4 on page xiii](#). This field is automatically customized to contain the ESW products you have installed on your system. These are the names of the analyze types:

Analyze Type	Analyze Type (ESW)
ASG-Encore	Re-engineer
ASG-Insight	Understand
ASG-SmartDoc	Document
ASG-SmartQuest	Abend/Dump
ASG-SmartTest	Test
Extended Analysis (ASG-SmartTest with Insight installed)	Extended Analysis

## Publication Conventions

ASG uses these conventions in technical publications:

Convention	Represents
ALL CAPITALS	Directory, path, file, dataset, member, database, program, command, and parameter names.
Initial Capitals on Each Word	Window, field, field group, check box, button, panel (or screen), option names, and names of keys. A plus sign (+) is inserted for key combinations (e.g., Alt+Tab).
<i>lowercase italic monospace</i>	Information that you provide according to your particular situation. For example, you would replace <i>filename</i> with the actual name of the file.
Monospace	Characters you must type exactly as they are shown. Code, JCL, file listings, or command/statement syntax. Also used for denoting brief examples in a paragraph.
Vertical Separator Bar ( ) with underline	Options available with the default value underlined (e.g., Y  <u>N</u> ).
<u>Underline</u>	Denotes a cursor-selectable field or line.

## ASG Customer Support

ASG provides support throughout the world to resolve questions or problems regarding installation, operation, or use of our products. We provide all levels of support during normal business hours and emergency support during non-business hours.

**ASG Third-party Support.** ASG provides software products that run in a number of third-party vendor environments. Support for all non-ASG products is the responsibility of the respective vendor. In the event a vendor discontinues support for a hardware and/or software product, ASG cannot be held responsible for problems arising from the use of that unsupported version.

## Intelligent Support Portal (ISP)

Online product support is available at: <http://www.asg.com/support/support.asp> via the ASG Intelligent Support Portal (ISP). Your logon information for ISP online support is:

Customer ID = *NNNNNNNNNN*

Password = *XXXXXXXXXX*

where:

*NNNNNNNNNN* is your customer ID supplied by ASG Product Distribution.

*XXXXXXXXXX* is your unique password supplied by ASG Product Distribution.

The *ASG-Intelligent Support Portal User's Guide* provides instructions on how to use the ISP and is located on the ASG Support web page.

## Telephone Support

To expedite response time, please have this information ready:

- Product name, version number, and release number
- List of any fixes currently applied
- Any alphanumeric error codes or messages written precisely as displayed
- A description of the specific steps that immediately preceded the problem
- Verify whether you received an ASG Service Pack or cumulative service tape for this product. It may include information to help you resolve questions regarding installation of this ASG product. The Service Pack instructions are in a text file on the distribution media included with the Service Pack. You can access the latest software corrections and Service Packs via the ISP.
- The severity code (ASG Customer Support uses an escalated severity system to prioritize service to our clients. The severity codes and their meanings are listed below.)

### Severity Codes and Expected Support Response Times

Severity	Meaning	Expected Support Response Time
1	Production down, critical situation	Within 30 minutes
2	Major component of product disabled	Within 2 hours
3	Problem with the product, but customer has work-around solution	Within 4 hours
4	"How-to" questions and enhancement requests	Within 4 hours

*The Americas*

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*Europe, Middle East, and Africa (EMEA)*

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<b>French</b>	33.141.028590	33.141.028589	support.fr@asg.com
<b>German</b>	49.89.45716.200	49.89.45716.400	support.de@asg.com
<b>Italian</b>	39.0290450025		support.it@asg.com
<b>Dutch</b>	31.30.241.6133		support.nl@asg.com
<b>Spanish</b>	34.913.523.800	34.917.156.961	support.es@asg.com
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<b>Hong Kong</b>	800.96.2800		support.hk@asg.com
<b>Japan</b>	81.3.5326.3684	81.3.5326.3001	support.au@asg.com
<b>Singapore</b>	65.224.3080	65.224.8516	support.sg@asg.com

*All Other Countries (Also for any non-working numbers)*

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Submit all product and documentation suggestions to ASG's product management team at <http://www.asg.com/asp/emailproductsuggestions.asp>.

If you do not have access to the web, FAX your suggestions to product management at (239) 263-3692. Please include your name, company, work phone, e-mail ID, and the name of the ASG product you are using. For documentation suggestions include the publication number located on the publication's front cover.

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# 1

## Introduction

---

This chapter provides an introduction to SmartTest-IMS, and contains these sections:

Section	Page
<a href="#">Overview of SmartTest-IMS</a>	<a href="#">1</a>
<a href="#">3270 Terminal Emulation Mode</a>	<a href="#">2</a>

SmartTest-IMS is the testing/debugging component of ESW for COBOL, PL/I, Assembler, and APS programs in an IMS environment. SmartTest features include program analysis commands, execution control, intelligent breakpoints, test coverage, pseudo code with COBOL source update, batch connect, disassembled object code support, and full screen memory display.

## Overview of SmartTest-IMS

SmartTest-IMS is fully integrated with SmartTest. All basic and extended facilities are available including: Program View, execution control, breakpoints, monitoring and changing data, pseudo code, abend processing, backtrack, and the COBOL Intelligent Search Function.

Programs and transactions may be tested without affecting the version existing in your test or production IMS control region. Additionally, you may interrogate and modify the contents of various IMS queues, as well as the Scratch Pad Area (SPA) during testing.

Because SmartTest-IMS allows you to generate a simulated control block, programs and transactions may be tested without modifying the IMS control region or IMS control blocks. New programs and transactions can be tested by defining their IMS characteristics to SmartTest-IMS.

You can use new terminals or terminal types (LTERMS and devices) for testing without an IMS control block modification. This unique feature allows you to access and test your IMS programs through your TSO session even if your terminal is not defined to the IMS control region.

Once you have selected a testing mode, you can test programs in one of five execution region types. The region type you choose (with the exception of IFP) is not directly related to the program type, but to how the databases are to be accessed. This table describes the database access method for each region type:

Region Type	Access Description
DLI	Private databases and DBD and PSB definitions are accessed through DBDLIB and PSBLIB
DBB	Private databases and DBD and PSB definitions are accessed through ACBLIB
BMP	Public databases using the IMS Control Region
IFP	Public databases are accessed through the Fast Path region associated with the IMS Control Region

## 3270 Terminal Emulation Mode

In the 3270 terminal emulation mode, SmartTest-IMS emulates IMS terminal communications and IMS queue activity using TSO. IMS/DC terminal input is received through TSO and passed to the application program executing in SmartTest-IMS. Screens sent by IMS/DC application programs are displayed through TSO. Using one terminal to switch between SmartTest-IMS and the IMS/DC application provides added flexibility and eliminates the need for multiple terminal sessions.

### *Advantages*

Using 3270 terminal emulation mode provides the flexibility of using either private databases allocated to the user's TSO region and not shared with another user, or public databases owned and allocated by the IMS control region.

These are the advantages of using 3270 emulation mode:

- The IMS message queues are local to the user's TSO region. This allows browsing and editing of the contents during the test session. The contents of the message queues are not available to IMS transactions executing in other environments, whether SmartTest-IMS or online IMS. This provides absolute security of the contents and ensures that test messages are not sent to IMS terminals or transactions outside the user's SmartTest-IMS test session.
- Only one physical or logical terminal is required for a SmartTest-IMS test session.

- You can add, change, delete, and test MFS formats by simply performing the appropriate function against the MFS library used for the test session. This MFS library can be one of a concatenated group. Some formats may be shared while others are unique to the test session.
- Application program libraries may be manipulated in much the same way as MFS libraries. This allows unique test versions of some programs while sharing other programs with other SmartTest-IMS users or online message regions.
- LTERM definitions unique to the SmartTest-IMS session allow testing of programs containing internal references to LTERM names, while not requiring that the LTERM actually exist.

These advantages apply when using private databases:

- The user is completely isolated from the IMS online system. This guarantees protection of that system and its databases from the test environment.
- Critical system resource requirements, such as CSA space requirements, are usually lower.
- It is not necessary for an IMS Control Region to be active during testing.
- Abnormal termination of the application program does not affect the status of the transaction or PSB.

## **Disadvantages**

These are the disadvantages of using 3270 emulation mode:

- Only 3270 type terminals are supported for the IOPCB LTERM.
- Alternate PCB output is maintained in internal message queue format. It is not formatted and sent to the associated device.
- Some IMS system service calls are either non-functional or do not provide output equivalent to output received in the normal message region environment.
- Some PSB scheduling restrictions are encountered that do not occur in the normal message region environment.
- Transactions in the test region must be executed serially.



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# 2

## Getting Started

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This chapter describes the procedures for accessing the SmartTest-IMS environment and verifying transactions to be tested, and contains these sections:

Section	Page
<a href="#">Setting Up a Test Session</a>	<a href="#">5</a>
<a href="#">Specifying Terminal Options</a>	<a href="#">8</a>
<a href="#">Selecting Eligible Transactions</a>	<a href="#">10</a>

### Setting Up a Test Session

Procedures for setting up and testing in 3270 terminal emulation mode are described in ["3270 Terminal Emulation" on page 17](#). Procedures for setting up and testing in Native IMS terminal support mode are discussed in ["Native IMS Terminal Support" on page 49](#).

*To set up a test session for programs in the SmartTest-IMS environment*

- 1 Select File ► Setup test environment. The File - Setup Test Environment pop-up, shown in [Figure 6](#), displays.

**Figure 6 • File - Setup Test Environment Pop-up**

```
File - Setup Test Environment
Command ==> -----
Select the desired Setup option. Then press Enter.
Current environment is IMS/DC
Setup Options
-- 1. Setup current environment
   2. Specify execution environment, AKR, loadlibs and proclibs
   3. Select saved test session profile
   4. Tailor test session
   5. Specify load module intercepts
```

**Note:**

You can also select Test ► Setup Wizards to save time in setting up common types of test environments. These wizards are self-explanatory and walk you through the process of setting up the appropriate environment.

- 2 Select Specify execution environment, AKR, LOADLIBS and PROCLIBS. The Environment Selection pop-up, shown in [Figure 7](#), displays. You can also display the Environment Selection screen by typing ENV on the command line and pressing Enter.

**Figure 7 • Environment Selection Pop-up**

```
Environment Selection
Command ==> -----
A - Specify additional AKRs      L - Specify additional LOADLIBS
P - Specify PROCLIBS           D - Display AKR Directory

Environment selection: Current environment is IMS/DC
Online: 1 - TSO                 5 - IMS/DB   Batch Connect: 9 - MVS Batch
        2 - CICS                 6 - BTS     10 - IMS Batch
        3 - ISPF Dialog          7 - DB2     11 - BTS Batch
        4 - IMS/DC              8 - DB2 Procedure 12 - DB2 Batch

Application Knowledge Repositories (AKR): 1 Specified
'USER12.GENERAL.AKR'
-----

Application Load Libraries: 2 Specified
'USER12.GENERAL.LOAD'
'COB2.U400.COB2LIB'
-----
```

- 3 Specify the AKRs, load libraries, and IMS/DC and press Enter. The IMS/DC Session Setup screen, shown in [Figure 8](#), displays. You can also display the IMS/DC Session Setup screen using the SETUP command.

Figure 8 • IMS/DC Session Setup Screen

```

Command ==> _____ IMS/DC Session Setup
                               |-----|
                               |
                               | Enter WIZ for IMS Setup Wizard
                               |
                               | C - Connect to IMS (RUN)           E - 3270 Terminal emulation
                               | D - Disconnect from IMS         N - Native IMS terminal
                               | T - Select transactions          A - GSAM/User file allocation
                               |
                               | Options:
                               | Break on entry (Y/N) YES
                               | Break CSECT/pgm id  _____
                               |
                               | Current Test Session Status:
                               | SESSION IS NOT ACTIVE
                               |
                               | Current Setup Options:
                               | TEST SESSION WILL USE PRIVATE DATABASES
                               | TEST SESSION WILL USE 3270 EMULATION FOR LTERM ACTIVITY
                               | TEST SESSION WILL NOT CONNECT TO AN ONLINE IMS REGION

```

## Options

Option	Description
C	Initiates the IMS/DC test session. This is the equivalent of typing RUN.
D	Ends the IMS/DC test session.
T	Displays the IMS/DC Select Transactions pop-up used to specify, review and/or modify the transaction list.
E	Displays the IMS/DC Setup 3270 Terminal Emulation pop-up used to select the appropriate 3270 terminal setup option.
N	Displays the IMS/DC Setup IFP pop-up used to select the appropriate extended region terminal setup option.
A	Displays the IMS/DC GSAM/User File CLIST pop-up for entering the CLIST dataset and member name. From the IMS/DC GSAM/User File CLIST pop-up, type C to display the Convert Batch JCL pop-up which allows conversion of batch JCL to an allocation CLIST. The converted allocation CLIST can be used to allocate files (databases) that are not dynamically allocated by the IMS/DC region during the test session.

## Fields

Field	Description
Options: Break on entry	YES causes the test session to stop on entry at the start of the load module. Additional break on entry options are available on the Session Tailoring screen for each program to be tested. YES is the default value for this field.
Break CSECT/ pgm id	Entering a program name causes the test session to stop on entry at the start of the specified CSECT in a statically linked module. A break on the start of the CSECT occurs regardless of any session tailoring options for that CSECT. Break on entry to the CSECT can be disabled before or during a test session by removing the CSECT name from this screen or by typing NO in the BREAK ON ENTRY (Y/N) field.
Current Test Session Status	This field indicates whether the test session is active.
Current Setup Options	Three messages are displayed depicting the current options selected. The first line indicates whether the databases are private (allocated to the TSO region) or public (allocated to the IMS Control Region). The second line indicates whether Native IMS Terminal support or 3270 emulation is used for IMS terminals. The third line indicates whether an IMS Control Region is required for the test session.

## Specifying Terminal Options

### To select 3270 terminal emulation

- 1 Type E on the IMS/DC Session Setup screen and press Enter. The IMS/DC Setup 3270 Terminal Emulation pop-up, shown in [Figure 9](#), displays.

**Figure 9 • IMS/DC Setup 3270 Terminal Emulation**

```

                                IMS/DC Setup 3270 Terminal Emulation
Command ==> -----
Select the desired Setup option. Then press Enter.

Setup Options
- 1. Test MPP/BMP using private databases and DBD/PSB libraries
  2. Test MPP/BMP using private databases and ACB library
  3. Test MPP/BMP using public databases and online IMS
    
```

- 2 Select your Setup Option from the list.

- 3 On the resulting pop-up, select items in term to specify:
  - LTERM definition dataset
  - Test region IMS datasets
  - Test region parameters
  - Execution options
- 4 Press Enter to display the Program View screen. Proceed with your test session.

***To select a Native IMS terminal***

- 1 Type N on the IMS/DC Session Setup screen and press Enter. The IMS/DC Setup IFP pop-up, shown in [Figure 10](#), displays.

**Figure 10 • IMS/DC Setup IFP**

```
                                IMS/DC Setup IFP
Command ===> -----
Select the desired Setup option. Then press Enter.

      Setup Options
  _  1. Specify test region IMS data sets
     2. Specify test region parameters
```

- 2 On the resulting pop-up, select items in term to specify:
  - Test region IMS datasets
  - Test region parameters
- 3 Press Enter to display the Program View screen. Proceed with your test session.

## Selecting Eligible Transactions

*To specify, review, or modify the list of transactions eligible for the test session*

- 1 Type T in the primary command input area on the IMS/DC Session Setup screen and press Enter. The IMS/DC Select Transactions pop-up shown in [Figure 11](#) displays.

**Figure 11 • IMS/DC Select Transactions Pop-up**

```

                                IMS/DC Select Transactions
Command ==> -----
Select the desired Setup option. Then press Enter.

      Setup Options
- 1. List all eligible transactions
  2. Specify user transaction list
```

- 2 Enter the number of the desired setup option and press Enter.

Selecting List all eligible transactions displays the IMS/DC Transaction Definitions screen used to identify transactions eligible for execution during the test session. For more information about the IMS/DC Transaction Definitions screen, see ["Listing and Selecting IMS/DC Transactions" on page 11](#).

Selecting Specify user transaction list displays the IMS/DC Transaction pop-up used to specify the origin of the transaction names to be used for the test session. For more information about the IMS/DC Transaction pop-up, see ["Specifying the File of Transactions" on page 14](#).

- 3 Press PF3/PF15 to return to the IMS/DC Session Setup screen.

## Listing and Selecting IMS/DC Transactions

To list, modify, and select transactions eligible for execution during a test session

- 1 Select List all eligible transactions on the IMS/DC Select Transaction pop-up and press Enter. The IMS/DC Transaction Definition screen, similar to the one shown in [Figure 12](#), displays.

**Figure 12 • IMS/DC Transaction Definitions Screen**

```

IMS/DC Transaction Definitions
Command ==> _____ Scroll ==> CSR

Use the Command column to Insert, Delete, or Repeat a line.

S (Select) transactions to be tested. E (Edit) Scratch Pad Area.

C Trancode  Program  PSB name  Type   SPA   PLC  M  Edit rtn  PLAN  OPT
-----
* ***** TOP OF DATA *****
- ADDINV    DFSSAM04  DFSSAM04  MPP    _____
- ADDPART   DFSSAM04  DFSSAM04  MPP    _____
- AZPLAN5   AZPLAN5   AZPLAN5   MPP    _____
- BMCLINK   BMCLINK   BMCLINK   BMP    _____
- CLOSE     DFSSAM05  DFSSAM05  MPP    _____
- DFSIVPC   DFSIVPC   DFSIVPC   BMP    _____
- DFSIVP6   DFSIVP6   DFSIVP6   BMP    _____
- DFSIVP7   DFSIVP7   DFSIVP7   BMP    _____
- DFSIVP8   DFSIVP8   DFSIVP8   BMP    _____
- DISBURSE  DFSSAM06  DFSSAM06  MPP    _____
- DLETINV   DFSSAM04  DFSSAM04  MPP    _____
- DLETPART  DFSSAM04  DFSSAM04  MPP    _____
- DSPALLI   DFSSAM07  DFSSAM07  MPP    _____

```

**Note:**

In Native IMS Terminal support mode, all fields on this screen, except the C (line command area) field, are display only. The line command area accepts only the S (Select a transaction for testing) command.

- 2 If you are in 3270 terminal emulation mode:
  - a Modify the desired transaction information by typing over the existing information.
  - b To change the transaction list, type the desired line command.
 

When the attributes of transactions in the IMS/DC MODBLKS dataset are changed from their default values, the new information is highlighted. To restore the MODBLKS default value for an attribute, erase the field before pressing Enter.
  - c Select the transactions for testing by typing S in the line command area.
- 3 Press PF3/PF15 to return to the IMS/DC Select Transaction pop-up.

## Line Commands

Option	Description
I	Inserts a new transaction. For more information about inserting a transaction, see <a href="#">"Usage Notes" on page 13</a> .
D	Deletes a line.
E	Edits a Scratch Pad Area (See <a href="#">"Specifying a Scratch Pad Area" on page 15</a> ).
R	Repeats a line.
S	Selects a transaction for testing. The Trancode for selected transactions is highlighted.

## Fields

Field	Description
Trancode	Specifies the IMS/DC transaction code.
Program	Specifies the load module name containing the program executed for this transaction code. If you leave this field blank, SmartTest attempts to determine the name from IMS. If not found, PSB name is the default.
PSB name	Specifies the name of the IMS Program Specification Block to be used for this transaction. If you leave this field blank, SmartTest attempts to determine the name from IMS. If not found, TRANCODE is the default.
Type	Indicates the transaction type. Available types are: IFP (fast path program) and BMP (message driven batch message program). If you leave this field blank, SmartTest attempts to determine the type from IMS.
SPA	Defines the size of the Scratch Pad Area for the transaction. A non-zero specification defines this transaction as conversational. If this field is blank, SmartTest attempts to determine the size from IMS. If not found, zero is the default size. The minimum value is 15.

Field	Description
PLC	Indicates the Process Limit Count for the transaction. This must be a number 1 through 65535. If you specify 65535, blanks are displayed.
M	Indicates whether the transaction is found in the IMS/DC MODBLKS dataset. If this column is blank, the transaction is defined to IMS. Otherwise, an * (asterisk) is placed in this field. A D in this field indicates that the transaction was defined in the Delta IMS Log dataset field on the IMS/DC Transaction pop-up.
Edit <i>rtn</i>	Specifies the name of an optional user-written input transaction edit routine that is called to edit each input message segment for this transaction. This field is optional.
PLAN	Specifies the DB2 plan name for this transaction. If you use public databases, or if DB2 is not used, leave this field blank.
OPT	Specifies that 3270 emulation environment is used with public databases. Type C to indicate that this transaction issues CMD calls to IMS.

### Usage Notes

When you insert a new transaction using the I line command, SmartTest-IMS attempts to determine the transaction attributes by searching the IMS/DC MODBLKS dataset. If found, the PROGRAM, PSB NAME, TYPE, SPA, and PLC fields are automatically initialized to their respective values. If the transaction is not found, the transaction name is copied into the PROGRAM and PSB NAME fields, the SPA is set to zero (displayed as blanks), the PLC is set to 65535 (displayed as blanks), and the M column is set to \* (to indicate that transaction was not found). In either case, the EDIT RTN and PLAN fields are initialized to blanks.

When you insert a new transaction, it only remains in the transaction list for the current test session. To add a transaction name to the list of eligible transactions for future test sessions, edit the specified member of the transaction definition dataset and insert the transaction name.

## Specifying the File of Transactions

To specify the file of transaction names to be eligible for the test session

- 1 Select Specify user transaction list on the IMS/DC Select Transactions pop-up and press Enter. The IMS/DC Transaction pop-up shown in [Figure 13](#) displays.

Figure 13 • IMS/DC Transaction Pop-up

```

                                IMS/DC Transaction
Command ==> -----

All MODBLKS transactions:
(Y/N) . . . . YES

Transaction definition data set:
Data set name 'ASGINIT.CEXXL100.CNTL'
Member . . . ASGETRAN

Delta IMS Log data set:
Data set name -----
    
```

- 2 Type YES to indicate that all transactions defined in the MODBLKS dataset are eligible for the test session. As an alternative, you may specify the dataset name and member of the file containing the names of transactions to be eligible.
- 3 Press PF3/PF15 to return to the IMS/DC Select Transaction pop-up.

### Fields

Field	Description
All MODBLKS transactions	Indicates whether all transaction from the MODBLKS dataset are eligible in the test session. Type YES (or Y) to indicate that all transactions are eligible and transaction definition dataset entries are ignored. Type NO (or N) to indicate that only transactions named in the transaction definition dataset file are eligible in the test session.
Transaction definition dataset name	Indicates whether the card image PDS that contains a member listing the transactions are eligible for testing during an IMS/DC test session. The IMS/DC Transaction Definitions screen allows you to review and/or modify the list of transaction codes that are eligible for execution during a test session, and select those transactions to be tested with SmartTest-IMS.

Field	Description
Member	Specifies the name of the member containing the IMS/DC transaction list.
Delta IMS Log dataset Dataset name	Specifies the name of a valid Delta IMS Log dataset. If you enter a name, the log dataset is read sequentially and all active transaction definitions are merged with those from the MODBLKS dataset. If duplicate transaction names are found, the definition found on the Delta IMS Log is retained and the MODBLKS entry is discarded. No attempt is made to verify that the Delta IMS Log actually corresponds to the IMS system in use by the test session. This field is optional.

### Specifying a Scratch Pad Area

**Note:**

This feature is available only when using 3270 terminal emulation.

You can view or modify the Scratch Pad Area (SPA) of a conversational transaction when a program is suspended during program execution in an active test session. Modify the SPA with new entries and resume program execution.

#### *To view the SPA*

- 1 From the IMS/DC Select Transactions pop-up, specify List all eligible transactions and press Enter. The IMS/DC Transaction Definitions screen displays.
- 2 Type E in the line command area of the appropriate conversational transaction and press Enter to display the Memory Display screen. On this screen, you can verify the values in the SPA or modify the values if required.

For more information about the Memory Display screen, see the online help or the *ASG-SmartTest Reference Guide*.



---

# 3

## 3270 Terminal Emulation

---

This chapter describes SmartTest-IMS specific commands for 3270 emulation mode and the procedures and screens for setting up and initiating a test, viewing and modifying program and test information using 3270 terminal emulation mode, and contains these sections:

Section	Page
<a href="#">Specific Commands for 3270 Terminal Emulation</a>	<a href="#">17</a>
<a href="#">Selecting Terminal Emulation Options</a>	<a href="#">21</a>
<a href="#">Using Terminal Emulation with Private Databases</a>	<a href="#">22</a>
<a href="#">Using Terminal Emulation with Public Databases</a>	<a href="#">28</a>
<a href="#">Defining LTERM Datasets</a>	<a href="#">33</a>
<a href="#">IMS/DC Execution Options</a>	<a href="#">36</a>
<a href="#">Connecting to IMS/DC</a>	<a href="#">37</a>
<a href="#">Listing Application Queues</a>	<a href="#">39</a>

### Specific Commands for 3270 Terminal Emulation

Several commands apply only when working with SmartTest-IMS. The first five commands listed are standard IMS/DC commands supported through SmartTest-IMS. The other commands described are exclusive to SmartTest-IMS. With the exception of the TOGGLE command, you can only enter them on an IMS screen.

These are the 3270 terminal emulation commands:

Command	See...
<code>_/FORMAT <i>modname mapname</i></code>	<a href="#">The /FORMAT <i>modname mapname</i> Command</a>
<code>_/EXIT</code>	<a href="#">The /EXIT Command</a>
<code>_/RCLSDST</code>	<a href="#">The /RCLSDST Command</a>
<code>_/START PROGRAM <i>program name</i></code>	<a href="#">"The /START PROGRAM <i>program name</i> Command" on page 19</a>
<code>_/START TRANSACTION <i>transaction name</i></code>	<a href="#">"The /START TRANSACTION <i>transaction name</i> Command" on page 19</a>
<code>_/BMP <i>loadmodule</i></code>	<a href="#">"The /BMP <i>loadmodule</i> Command" on page 19</a>
<code>_/QBLD</code>	<a href="#">"The /QBLD Command" on page 19</a>
<code>_/QEND</code>	<a href="#">"The /QEND Command" on page 19</a>
<code>_/TOGGLE</code>	<a href="#">"The /TOGGLE Command" on page 20</a>
<code>_TOGGLE</code>	<a href="#">"The TOGGLE Primary Command" on page 20</a>
<code>_/IMSQ <i>tranname</i></code>	<a href="#">"The /IMSQ <i>tranname</i> Command" on page 20</a>

### **The /FORMAT *modname mapname* Command**

Use the /FORMAT command to invoke Message Format Service (MFS) and display a screen format for entering data to the transaction. The features and usage of this command are the same as in IMS.

This command is abbreviated as `/FOR modname mapname`.

### **The /EXIT Command**

Use the /EXIT command to exit a conversational program. The features and usage of this command are the same as in IMS.

### **The /RCLSDST Command**

Use the /RCLSDST command to terminate your SmartTest-IMS session. The features and usage of this command are the same as in IMS.

This command is abbreviated as `/RCL`.

### **The /START PROGRAM program name Command**

Use the /START PROGRAM command to restart an abended program causing a PSTOP condition in the IMS control region. This command is only valid when testing a BMP program with SmartTest-IMS running using public databases. The features and usage of this command are the same as is in IMS.

Check with your IMS system administrator to see if this command has been authorized for general use.

This command is abbreviated as `/STA PROG program name`.

### **The /START TRANSACTION transaction name Command**

Use the /START TRANSACTION command to restart a transaction associated with an abended program causing a PSTOP condition in the IMS control region. This command is only valid when testing a BMP program with SmartTest-IMS running using public databases.

Check with your IMS system administrator to see if this command has been authorized for general use.

This command is abbreviated as `/STA TRAN transaction name`.

### **The /BMP loadmodule Command**

Use the /BMP command to start a BMP program from SmartTest-IMS in lieu of starting the BMP program through JCL submission. The name of the load module to be invoked in the region is the only operand.

The /BMP command performs a /QEND command internally to facilitate access to any messages on the input queue. If the program under test is a message-driven BMP, you need to build a queue of input messages. This queue can be built using the /QBLD command.

### **The /QBLD Command**

Use the /QBLD command to build input message queues to test programs needing multiple input messages, such as BMPs. A /QBLD command suspends transaction processing until a /QEND command is issued. The /QBLD command is used in conjunction with the /QEND command to assist you in building input message queues to test processing limit counts.

### **The /QEND Command**

Use the /QEND command following a /QBLD command to cause the transactions in the input queue to be processed. The /QEND command is used in conjunction with the /QBLD command to assist you in building input message queues.

## **The /TOGGLE Command**

Use the /TOGGLE command to switch from an IMS screen to a TSO/ISPF screen (e.g., Program View) during a test session.

## **The TOGGLE Primary Command**

Use the TOGGLE command to switch from a TSO/ISPF screen to the last IMS screen during a test session.

## **The /IMSQ tranname Command**

Use this command to test a message-driven BMP program using the message queues of the IMS control region for IOPCB I/O and ALTPCB output. The name of the transaction to be tested is the only operand. It is entered on the SmartTest-IMS screen and immediately invokes the specified transaction. All requests to the IOPCB or ALTPCB are passed directly to IMS for processing. Be aware of these operational considerations:

- Only the specified transaction is invoked by SmartTest-IMS and has SmartTest facilities available to it. Other transactions that message-switch to the transaction under test, or that are initiated by message-switch from the transaction under test, execute in their normal message region environment.
- A separate physical or logical IMS terminal must be available to provide input and output for the transaction under test (i.e., a real IMS terminal).
- The /IMSQ command requires a database region type of BMP (public databases, SmartTest-IMS must connect to an IMS control region).
- If the transaction under test is a WFI (wait-for-input) transaction, the SmartTest TSO region is frozen while the transaction is awaiting input from IMS. For this reason, it is recommended that a breakpoint be established on statements containing GetUnique/GetNext calls to the IOPCB. This ensures that the SmartTest-IMS screen is updated to reflect the last activity completed.
- Transactions whose PSB specifies PGMTYPE=TP and SCHDTYP=PARALLEL cannot be invoked using the /IMSQ command. If attempted, a pseudo-abend 432 results due to IMS scheduling restrictions. You must change the PSB to SCHDTYP=SERIAL before the transaction can be invoked.
- Transactions invoked through the /IMSQ command can be scheduled in only one SmartTest-IMS region at a time. Concurrent attempts to execute the same transaction (PSB) in a different SmartTest-IMS region causes the transaction to be terminated with a U457 abend. Concurrent attempts to execute the transaction in a normal IMS message region causes it to wait for scheduling until the transaction (PSB) is no longer in use by SmartTest-IMS.
- Transactions invoked through the /IMSQ command must be valid BMP transactions defined to the IMS control region used by SmartTest-IMS.

It is the user's responsibility to ensure that the transaction to be tested is not eligible for scheduling in a message region for the duration of the test (use the /ASSIGN command to assign it to an unused class, the /STOP command to assign the eligible message regions, etc.).

Use this IMS command to cause a QC status code to be returned to a WFI transaction under test:

```
/PSTOP REGION region number TRANSACTION tranname
```

## Selecting Terminal Emulation Options

*To select the appropriate 3270 terminal emulation option*

- 1 On the IMS/DC Session Setup screen, type E in the command input area and press Enter to display the IMS/DC Setup Terminal Emulation pop-up shown in [Figure 14](#).

**Figure 14 • IMS/DC Setup 3270 Terminal Emulation Pop-up**

```

                                IMS/DC Setup 3270 Terminal Emulation
Command ==> -----
Select the desired Setup option. Then press Enter.

      Setup Options
-  1. Test MPP/BMP using private databases and DBD/PSB libraries
   2. Test MPP/BMP using private databases and ACB library
   3. Test MPP/BMP using public databases and online IMS

```

- 2 Enter the number of the desired option and press Enter.

Option	Description
Test MPP/BMP using private databases and DBD/PSB libraries	Displays the IMS/DC Setup DBD/PSB pop-up used to define or list LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options for testing BMP programs using private databases and DBD and PSB libraries. For information about the IMS/DC Setup DBD/PSB pop-up, see <a href="#">"Setting up DBD/PSB" on page 23</a> .

Option	Description
Test MPP/BMP using private databases and ACB library	Displays the IMS/DC Setup ACB pop-up used to define or list LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options for testing BMP programs using private databases and the ACB library. For information about the IMS/DC Setup ACB pop-up, see <a href="#">"Setting up ACB" on page 24</a> .
Test MPP/BMP using public databases and online IMS	Displays the IMS/DC Setup Emulation BMP pop-up used to define or list LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options for testing BMP programs using public databases and Online IMS. For information about the IMS/DC Setup Emulation BMP pop-up, see <a href="#">"Specifying DLI/DBB Test Region Parameters" on page 26</a> .

- 3 Press PF3/PF15 to return to the IMS/DC Session Setup screen.

## Using Terminal Emulation with Private Databases

After setting up the session for 3270 terminal emulation using private databases, SmartTest-IMS executes as a Batch DL/I or DBB program. If you select Test BMP using private databases and DBD/PSB libraries during test session setup, SmartTest-IMS executes as a Batch DL/I program. When you use Test BMP using private databases and ACB library during test session setup, SmartTest-IMS executes as a DL/I batch program.

Using either of these session setups, you can test message-driven BMP programs. All IMS databases, libraries, and IMS queues are accessed through SmartTest-IMS. These include:

- FORMAT
- DBDLIB (if DBD/PSB is selected)
- PSBLIB (if DBD/PSB is selected)
- ACBLIB (is ACBLIB is selected)
- Load libraries
- IMS databases

## Setting up DBD/PSB

*To define or list the LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options*

- 1 On the IMS/DC Select 3270 Terminal Emulation pop-up, select Test MPP/BMP using private databases and DBD/PSB libraries and press Enter. The IMS/DC Setup DBD/PSB pop-up, shown in [Figure 15](#), displays.

**Figure 15 • IMS/DC Setup DBD/PSB Pop-up**

```

                                IMS/DC Setup DBD/PSB
Command ==> -----
Select the desired Setup option. Then press Enter.

      Setup Options
- 1. Specify LTERM definition data set
  2. List LTERM definitions for test session
  3. Specify test region IMS data sets
  4. Specify test region parameters
  5. Specify execution options

```

- 2 Enter the number of the desired option and press Enter. A description of the setup options is provided in the table below.
- 3 Press PF3/PF15 to return to the IMS/DC 3270 Terminal Emulation pop-up.

## Options

Option	Description
Specify LTERM definition data set	Displays the IMS/DC LTERM pop-up used to define the LTERM definition dataset. For more information about the IMS/DC LTERM pop-up, see <a href="#">"Defining LTERM Datasets" on page 33</a> .
List LTERM definitions for test session	Displays the IMS/DC LTERM Definitions pop-up used to review and/or modify the list of logical terminal devices which may be used in the test session. For more information about the IMS/DC LTERM Definitions screen, see <a href="#">"Listing IMS/DC LTERM Definitions" on page 34</a> .
Specify test region IMS data sets	Displays the IMS/DC Setup IMS Data Sets pop-up used to allocate IMS/DC datasets. For more information about IMS/DC file allocation, see <a href="#">"Allocating IMS/DC Datasets" on page 64</a> .

Option	Description
Specify test region parameters	Displays the IMS DLI/DBB Parameters pop-up used to specify execution parameters used by the IMS system. For more information about the IMS DLI/DBB Parameters pop-up, see <a href="#">"Specifying DLI/DBB Test Region Parameters" on page 26.</a>
Specify execution options	Displays the IMS/DC Execution Options pop-up used to specify execution options used by SmartTest. For more information about the IMS/DC Execution Options pop-up, see <a href="#">"IMS/DC Execution Options" on page 36.</a>

## Setting up ACB

*To define or list LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options*

- 1 On the IMS/DC Select 3270 Terminal Emulation pop-up, select Test MPP/BMP using private databases and ACB library and press Enter. The IMS/DC Setup ACB pop-up, shown [Figure 16](#), displays.

**Figure 16 • IMS/DC Setup ACB Pop-up**

```
                                IMS/DC Setup ACB
Command ===> -----
Select the desired Setup option. Then press Enter.

Setup Options
- 1. Specify LTERM definition data set
  2. List LTERM definitions for test session
  3. Specify test region IMS data sets
  4. Specify test region parameters
  5. Specify execution options
```

- 2 Enter the number of the desired option and press Enter.
- 3 Press PF3/PF15 to return to the IMS/DC 3270 Terminal Emulation pop-up.

## Options

Option	Description
Specify LTERM definition data set	Displays the IMS/DC LTERM pop-up used to define the LTERM definition dataset. For more information about the IMS/DC LTERM pop-up, see <a href="#">"Defining LTERM Datasets" on page 33</a> .
List LTERM definitions for test session	Displays the IMS/DC LTERM Definitions screen used to review and/or modify the list of logical terminal devices which may be used in the test session. For more information about the IMS/DC LTERM Definitions pop-up, see <a href="#">"Listing IMS/DC LTERM Definitions" on page 34</a> .
Specify test region IMS data sets	Displays the IMS/DC Setup IMS Data Sets pop-up used to allocate IMS/DC datasets. For more information about IMS/DC file allocation, see <a href="#">"Specifying DLI/DBB Test Region Parameters" on page 26</a> .
Specify test region parameters	Displays the IMS DLI/DBB Parameters pop-up used to specify execution parameters used by the IMS system. For more information about IMS/DC file allocation, see <a href="#">"Specifying DLI/DBB Test Region Parameters" on page 26</a> .
Specify execution options	Displays the IMS/DC Execution Options pop-up used to specify execution options used by IMS/DC. For more information about the IMS/DC Execution Options pop-up, see <a href="#">"IMS/DC Execution Options" on page 36</a> .

## Specifying DLI/DBB Test Region Parameters

To specify execution parameters for the SmartTest-IMS DLI/I and DBB execution environments

**Note:**

See your IMS/DC execution JCL and PROCs for the parms used at your site.

- 1 On the IMS/DC Setup DBD/PSB pop-up or the IMS/DC Setup ACB pop-up, select Specify test region parameters and press Enter. The IMS DLI/DBB Parameters pop-up, shown in [Figure 17](#), displays.

Figure 17 • IMS DLI/DBB Parameters Pop-up

```

Command ==> _____
                                IMS DLI/DBB Parameters
-----
Enter IMS DLI/DBB Execution Parameters:
BUF      8      (ISAM/OSAM buffer pool size)
SPIE     0      (SPIE option 0 or 1)
TEST     0      (Validity check call list address 0 or 1)
EXCPUR   0      (Long term fix of buffer pool 0 or 1)
RST      0      (UCF restart 0 or 1)
PRLD    __      (DFSMLXX prefix or leave blank)
SRCH     0      (Module search 0=standard, 1=JPA and LPA first)
CKPTID   _____ (Checkpoint ID for restart or leave blank)
MON      N      (DB monitor active Y or N)
LOGA     0      (BSAM or OSAM logging 0 or 1)
FMTO     N      (Formatted dump option I, P, or N)
IMSID    ____   (Subsystem identifier)
SWAP     Y      (Address space swappable or non-swappable Y or N)
DBRC     _      (Data Base Recovery Control)
IRLM     N      (Y or N to use IRLM)
IRLMNM   ____   (IRLM subsystem name or leave blank)
BKO      N      (Dynamic backout Y or N)
APARM    _____ (APARM value or blank)

```

- 2 Specify the required IMS DLI/DBB parameters.
- 3 Press PF3/PF15.

### Fields

Field	Description
BUF	Specifies the ISAM/OSAM buffer pool size. The default value is 8.
SPIE	Indicates whether control is passed when a program exception (OC1-OCF) occurs, thus allowing the program to correct the problem without an abend occurring. The default value is 0 (zero) and indicates control is passed.

Field	Description
TEST	Indicates whether the address in the user call list is checked for validity. The address in the user call list must be greater than the high address of the MVS nucleus (NVC) and less than the highest virtual storage address of the machine. 1 indicates the address is to be checked. The default value is 0 (zero).
EXCPVR	Specifies that real storage is to be reserved for use by IMS ISAM/OSAM buffers. The default value is 0 (zero) and indicates storage is not reserved.
RST	Specifies that the Utility Control Facility (UCF) is to be used for restarts. The default value is 0 (zero) and indicates UCF is not to be used.
PRLD	Specifies a suffix for DFSMPL. The suffix can be two alphabetical characters and is used to preload modules in the region. This field can be left blank if you do not need a suffix.
SRCH	Indicates where the system is to search for modules. A value of 0 (zero) specifies the search begins in the JOBLIB/STEPLIB, then LINKLST, and then LPA. A value of 1 specifies that the search begins in JPA/LPA, then JOBLIB/STEPLIB, and then LINKLST. Link Pack Area (LPA) modules are loaded into a high storage area that is available for use by all jobs on the machine. Job Pack Area (JPA) modules are loaded into storage for a job. The default value is 0.
CKPTID	Specifies the checkpoint/restart ID used to restart a program.
MON	Indicates whether the IMS monitoring option is active. The default value is N.
LOGA	Specifies the logging access method. This parameter is no longer used and is ignored if specified.
FMTO	Specifies whether formatted dump output is to be produced. T indicates IMS/VS data areas are formatted and other areas are suppressed by the Formatted Dump Delete List (FDDL). P indicates no areas are suppressed and IMS/VS data areas are formatted. N suppresses the formatted dump output.
IMSID	Indicates the subsystem identifier of the IMS system being used. This identifier is used instead of the IMS/VS identifier specified when the IMS system was defined.
SWAP	Indicates if the address space can be swapped when the System Resource Manager (SRM) determines that an overload exists. An overload occurs when the CPU utilization or the paging rate is too high. The default value is 0 (zero) and indicates the address space can be swapped.

Field	Description
DBRC	Indicates if Database Recovery Control is to be used for this execution of IMS/VS. Y specifies that Database Recovery Control is to be used and must be entered if Y is specified for the IRLM option. N specifies that Database Recovery Control is not to be used for this execution of IMS/VS. C is used only for batch backout type runs of IMS/VS.
IRLM	Indicates whether the IMS/VS Resource Lock Manager (IRLM) is to be used. Y specifies that the IRLM is to be used. The default value is N and specifies that the IRLM is not to be used.
IRLMNM	Specifies the name of the IRLM subsystem, if IMS is sharing the database with other IMS systems. The IRLM subsystem name is first specified in the IMSCTRL macro that controls the IMS system. You can leave this field blank if you do not use the IRLM option.
BKO	Specifies whether database updates are backed out when an abend occurs. N is the default value and indicates the dynamic backout option is not active.

**Note:**

See the *IBM IMS/ESA Version 3 System Definition Reference Manual (SC26-4278)*, the *IBM IMS/ESA Version 4 System Definition Reference Manual (SC26-3076)*, the *IBM IMS/ESA Version 5 Install Volume 2 Manual (SC26-8024)*, or the *IBM IMS/ESA Version 6 Install Volume 2 Manual (GC26-8737)* for additional information about each of the IMS DLI/DBB execution parameters.

## Using Terminal Emulation with Public Databases

After selecting 3270 terminal emulation using public databases and online IMS, SmartTest-IMS executes as a Batch Message Processing program. Using this session setup, you can test message-driven BMP programs. IMS databases and the ACB library are accessed through the IMS/DC control region. The IMS FORMAT library and load libraries, as well as the terminal, are accessed through SmartTest-IMS.

## Setting up Emulation BMP

*To define or list LTERM definition datasets, specify test region IMS datasets and parameters, and specify execution options*

- 1 On the IMS/DC Setup 3270 Terminal Emulation pop-up, select Test MPP/BMP using public databases and online IMS and press Enter. The IMS/DC Setup Emulation MPP/BMP pop-up, shown in [Figure 18](#), displays.

**Figure 18 • IMS/DC Setup Emulation MPP/BMP Pop-up**

```

                                IMS/DC Setup Emulation MPP/BMP
Command ===> -----
Select the desired Setup option. Then press Enter.

Setup Options
- 1. Specify LTERM definition data set
  2. List LTERM definitions for test session
  3. Specify test region IMS data sets
  4. Specify test region parameters
  5. Specify execution options

```

- 2 Type the number of the desired option and press Enter.
- 3 Press PF3/PF15 to return to the IMS/DC Setup 3270 Terminal Emulation pop-up.

## Options

Option	Description
Specify LTERM definition data set	Displays the IMS/DC LTERM pop-up used to define the LTERM definition dataset. For more information about the IMS/DC LTERM pop-up, see <a href="#">"Defining LTERM Datasets" on page 33</a> .
List LTERM definitions for test session	Displays the IMS/DC LTERM Definitions screen used to review and/or modify the list of logical terminal devices which may be used in the test session. For more information about the IMS/DC LTERM Definitions screen, see <a href="#">"Listing IMS/DC LTERM Definitions" on page 34</a> .
Specify test region IMS data sets	Displays the IMS/DC Setup IMS Data Sets pop-up used to allocate IMS/DC datasets. For more information about IMS/DC file allocation, see <a href="#">"Allocating IMS/DC Datasets" on page 64</a> .

Option	Description
Specify test region parameters	Displays the IMS BMP Parameters pop-up used to specify execution parameters used by the IMS system. For more information about the IMS BMP Parameters pop-up, see <a href="#">Specifying BMP Parameters</a> .
Specify execution options	Displays the IMS/DC Execution Options pop-up used to specify execution options used by IMS/DC. For more information about the IMS/DC Execution Options pop-up, see <a href="#">"IMS/DC Execution Options" on page 36</a> .

### Specifying BMP Parameters

To specify execution parameters for the SmartTest-IMS BMP and IFP execution environments

- 1 On the IMS/DC Setup BMP pop-up, select Specify test region parameters and press Enter. The IMS BMP Parameters pop-up, shown in [Figure 19](#), displays.

Figure 19 • IMS BMP Parameters Pop-up

```

                                IMS BMP Parameters
Command ==> _____
Enter IMS BMP Execution parameters:
IN . . ----- (Input transaction code)
OUT . . ----- (Transaction code or logical terminal for output)
OPT . . C      (Operator option N, W, or C)
SPIE  0       (SPIE option 0 or 1)
TEST  0       (Validity check call list address 0 or 1)
DIRCA 000     (Region interregion communication area)
PRLD  --      (DFSMPLEX suffix or leave blank)
STIMER --     (Timer to be set 0 or 1)
CKPTID ----- (Checkpoint ID for restart or leave blank)
PARDLI 1      (Parallel DL/I option 0 or 1)
CPUTIME 0     (CPU time for IMS)
NBA . . ---   (Number Fast Path data buffers)
OBA . . ---   (Number additional page-fixed buffers)
IMSID  ----   (Subsystem identifier)
AGN . . ----- (Application Group Name)
SSM . . ---   (DB2 subsystems member)
PREINIT --    (DFSINTXX suffix or leave blank)
APARM  ----- (APARM value or blank)

```

- 2 Specify the required parameters.
- 3 Press PF3/PF15 to return to the previous screen or to continue to the next screen.

This is an example of typical parameters from IMS/DC execution JCL used to fill in the IMS BMP Parameters pop-up screen:

```
//STEPNAME EXEC PGM=DFSRR00 , PARM=( BMP , &MBR , &PSB , &IN ,
//                               &OUT , OPT&SPIE&TEST&DIRCA , &PRLD ,
//                               &STIMER& , &CKPTID , &PARDLI , &CPUTIME ,
//                               &NBA , &OBA , &IMSID , &AGN , &SSM , &PREINIT )
```

The parameters used at your site are specified in the execution JCL for the BMP. Contact your IMS/DC system administrator for the correct parameters.

## Fields

Field	Description
IN	Specifies that the application program is accessing the message queues. The OUT parameter is ignored when this parameter is specified.
OUT	Indicates the transaction code or logical terminal name to which an output message is to be sent. Use this parameter when the application program sends output without accessing the input queues.
OPT	Indicates the action to be performed when the IMS control region is unavailable. Valid options are N (notify), W (wait), or C (cancel). C is the default value.
SPIE	Indicates whether control is passed when a program exception (OC1-OCF) occurs, which allows the program to correct the problem without an abend occurring. The default value is 0 (zero) and indicates control is passed.
TEST	Indicates whether the address in the user call list is checked for validity. The address in the user call list must be greater than the high address of MVS nucleus and less than the highest virtual storage address of the machine. The default value is 0 (zero).
DIRCA	Specifies the interregion communication area of storage that is used by IMS to communicate with the test. The default value is 000.
PRLD	Specifies a suffix for DFSMPL. The specified suffix can be two alphabetical characters and is used to preload modules in the region. You can leave this field blank if you do not need a suffix.
STIMER	Specifies whether the timer is to be set. If you specify CPUTIME= <i>n</i> , the STIMER value must be 1. STIMER=1 results in performance degradation and should only be specified when gathering statistics. You must specify a value of 0 (zero) for SmartTest.
CKPTID	Specifies the checkpoint/restart ID used to restart a program.

Field	Description
PARDLI	Indicates where DL/I processing is to be performed. 0 (zero) specifies that DL/I processing is to be performed within the BMP region. 1 specifies that all DL/I processing is to be performed in the IMS/ESA control region.
CPUTIME	Specifies whether the CPU timer is to be set. This parameter must be 0 (zero) for SmartTest.
NBA	Specifies the number of Fast Path data buffers. You can leave this field blank if you do not use Fast Path databases.
OBA	Specifies the number of additional page-fixed buffers for Fast Path applications when the standard buffers are all used.
IMSID	Indicates the subsystem identifier for the operating system being used. This identifier is used instead of the IMS/ESA identifier specified when the system was defined.
AGN	Indicates the Application Group Name used for resource access security.
SSM	Specifies a site-specific value that is used to allow access to selected DB2 subsystems under IMS. You can leave this field blank, or you can enter 1 to 4 alphanumeric characters.
PREINIT	Specifies a suffix for DFSINT. This suffix can be two alphabetical characters. DFSINTxx contains a list of preinitialization modules to which control is to be given. You can leave this field blank if you do not need a suffix.

**Note:**

See the *IBM IMS/ESA Version 3 System Definition Reference Manual* (SC26-4278), the *IBM IMS/ESA Version 4 System Definition Reference Manual* (SC26-3076), the *IBM IMS/ESA Version 5 Install Volume 2 Manual* (SC26-8024), or the *IBM IMS/ESA Version 6 Install Volume 2 Manual* (GC26-8737) for additional information about each of the IMS BMP execution parameters.

---

## Defining LTERM Datasets

*To define the LTERM definition dataset when using 3270 terminal emulation*

- 1 On the IMS/DC Setup DBD/PSB, IMS/DC Setup ACB, or IMS/DC Setup Emulation BMP pop-up, select Specify LTERM definition dataset and press Enter. The Select IMS/DC LTERM pop-up, shown in [Figure 20](#), displays.

**Figure 20 • IMS/DC LTERM Pop-up**

```

                                IMS/DC LTERM
Command ==> -----
LTERM definition data set:
Data set name 'ASGINST.CEMXL100.CNTL'
Member . . . ASGLTERM

```

- 2 Specify the dataset and member containing the LTERMS and press Enter.
- 3 Press PF3/PF15 to return to the appropriate setup pop-up.

### Fields

Field	Description
Data set name	Specifies the card image PDS containing a member that lists the logical terminal names (LTERMs) that can be referenced during an IMS/DC test session.
Member	Specifies the name of the member containing the IMS/DC LTERM list.

## Listing IMS/DC LTERM Definitions

To review and/or modify the list of logical terminal names (LTERMS) eligible for use by your IMS applications. Multiple LTERMs can be required when performing I/O access to IOPCBs and ALTPCBs.

### *To review and/or modify the list of devices*

- 1 On the IMS/DC Setup DBD/PSB, IMS/DC Setup ACB, or the IMS/DC Setup Emulation BMP pop-up, select List LTERM definitions for test session and press Enter. The IMS/DC LTERM Definitions screen, shown in [Figure 21](#), displays.

Figure 21 • IMS/DC LTERM Definitions Screen

```

                                IMS/DC LTERM Definitions
Command ==> _____ Scroll ==> CSR
Use the Command column to Insert, Delete, or Repeat a line.
Enter the LTERM names and DEVICE types for your test session.
C LTERM      Device
-----
* ***** TOP OF DATA *****
_ IOPCB      3270,2
* ***** BOTTOM OF DATA *****
```

- 2 Specify the necessary LTERM information and press Enter.
- 3 Press PF3/PF15 to return to the setup pop-up.

**Note:** \_\_\_\_\_

IMS CALLs within your program issuing ISRT or CHNG CALLs using the ALTPCB with an alternate destination fail with an IMS status of A3 if you have not specified the proper LTERM on the IMS/DC LTERM Definitions screen.

To add LTERM information for future test sessions, edit the specified member of the LTERM definition dataset and insert the LTERM name.

## Fields

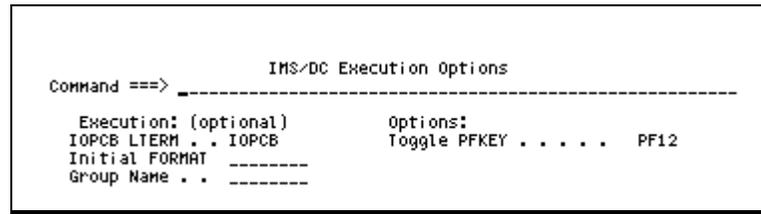
Field	Description
C	<p>Indicates the action you want to perform. You can enter these commands in the line command area:</p> <p><b>I</b> Insert a line.</p> <p><b>D</b> Delete a line.</p> <p><b>R</b> Repeat a line.</p>
LTERM	<p>Specifies the 1- to 8-character name of a logical terminal that can be referenced by an application program in an IMS/DC test session.</p>
Device	<p>Specifies the MFS device code for the terminal type associated with an LTERM name. Only 3270 keyboard device types are supported for an IOPCB. These are the valid device types for an IOPCB:</p> <p>3270,1</p> <p>3270,2</p> <p>3270-<i>Ann</i> (where <i>nn</i> may be 01 through 15)</p> <p>All non-3270 devices are treated as sequential output devices. These device types include:</p> <p>3270P,1 FIBP</p> <p>3270P,2 FIFP</p> <p>274X SCS1</p> <p>FIDS SCS2</p> <p>FIDS3 FIDS7</p> <p>FIDS4 DPM-<i>Ann</i> (where <i>nn</i> may be 0 through 15)</p> <p>FIN DPM-B<i>nn</i> (where <i>nn</i> may be 0 through 15)</p> <p>If you leave this field, the default value of 3270,2 is used.</p>

## IMS/DC Execution Options

*To specify execution options used by IMS/DC when using 3270 terminal emulation*

- 1 On the IMS/DC Setup DBD/PSB, IMS/DC Setup ACB, or IMS/DC Setup Emulation BMP pop-up, select Specify execution options and press Enter. The Select IMS/DC Execution Options pop-up, shown in [Figure 22](#), displays.

**Figure 22 • IMS/DC Execution Options Pop-up**



- 2 Specify the required execution options and press Enter.
- 3 Press PF3/PF15 to return to the setup pop-up.

### Fields

Field	Description
IOPCB LTERM	Specifies the IMS/DC IO/PCB logical terminal name. The name you enter must correspond to a valid I/O PCB entry on the IMS/DC LTERM Definitions screen. Optionally, you can enter a valid I/O PCB device type directly. When entered, device types become the LTERM name. If you leave this field blank, the default value of IOPCB is assumed. The IOPCB device type is defined as a 3270,2.
Initial FORMAT	Specifies the IMS/DC transaction MFS screens (if any) to be displayed at the beginning of an IMS/DC test session.
Group Name	Specifies the eighth field in the I/O PCB mask. This name is eight characters in length and is used by DB2 to provide security for SQL calls. In the MPP - IMS/DC environment, this field is created through IMS transactions. SmartTest-IMS does not use the MPP environment and therefore, this field is simulated by populating the Group Name entry on the Execute Options screen into the Group Name field in the I/O PCB mask. The default value is spaces.

## Options

Option	Description
Toggle PFKEY	Enables you to enter a PF key value (PF1 through PF24) that is to be used to toggle from IMS/DC back to SmartTest (running under ISPF). You should chose a PF key that is not normally used by the transactions to be executed in an IMS/DC test session. The default key is PF12. Optionally, you can type NONE in this field to indicate that no PF key is used for toggling. If you enter NONE, you can enter the /TOGGLE command on the IMS/DC screen to return to ISPF.
DB2 Subsystem name	Specifies the name assigned to DB2 when it was installed in the MVS environment. If you use public databases, this field is not needed.

## Connecting to IMS/DC

After specifying the parameters for your test session on the IMS/DC Session Setup screen, you must connect to IMS before you can initiate a test.

### *To connect to IMS*

- 1 On the IMS/DC Session Setup screen, press PF4/PF16, or type C, and press Enter.
- 2 The message `ASG2603I SmartTest-IMS is active` displays. Do not attempt to process any IMS/DC transactions until you see this message.

**Note:** \_\_\_\_\_

When you specify an initial format on the IMS/DC Execution Options pop-up, this screen is not displayed. The specified MFS format displays instead.

3 Type a SmartTest-IMS command, or your transaction ID, to initiate the application program. These are the SmartTest-IMS commands that are valid from this screen:

- /FORMAT *format name*
- /EXIT
- /RCLSDST
- /START PROGRAM *program name*
- /START TRANSACTION *transaction name*
- /BMP *loadmodule*
- /QBLD
- /QEND
- /TOGGLE
- /IMSQ
- /IFP

For more information regarding these commands, see ["Specific Commands for 3270 Terminal Emulation" on page 17.](#)

**To initiate a SmartTest VIAPIVP1 demonstration transaction**

1 Type /FORMAT VIAPIVF1 on the SmartTest-IMS active message screen and press Enter. The formatted screen for the transaction, shown in [Figure 23](#), displays.

**Figure 23 • SmartTest-IMS Application Screen**

```
ASG-SmartTest

                                IMS INSTALLATION VERIFICATION

===>

                                Enter 0C7 for abend demonstration

                                OR

To display ASG product information from the
sample database, enter a 2 character product code.

ASG-SmartTest
ST - TSO                IN - ASG-Insight
SC - CICS               EN - ASG-Encore
SM - IMS                DC - ASG-SmartDoc
SA - ASM                SE - ASG-SmartEdit
SG - APS

CLEAR=EXIT
```

- 2 Type 0C7 at the command prompt and press Enter. The Program View screen, shown in [Figure 24](#), displays.

**Figure 24 • SmartTest-IMS Program View Screen**

```

File View Test Search List Options Help
-----
                                Program View
Command ===> _____ Scroll ===> CSR

000100 *
>>>>> ENTRY 'DLITCBL' USING IO-TERM-PCB,
000102                                DB-PCB.
000103 *
000104 PERFORM GET-INPUT-TRANSACTION.
000105 IF IO-STATUS NOT EQUAL TO SPACES THEN
000106     DISPLAY IO-STATUS
000107 ELSE
000108     PERFORM PROCESS-INPUT-TRANSACTION.
000109 *
000110 IF WS-INSERT-SW = 'N' THEN
000111     MOVE SPACES TO ERR-MSG
000112     PERFORM INSERT-ERROR-MESSAGE.
000113 *
+-----+
+
|STATUS: BREAK AT START OF TEST SESSION   PROGRAM: VIAPIVP1  DATE: DDMMYYYY |
| STMT: 000101  OFF: 0003F8  AMODE: 31     MODULE: VIAPIVP1  TIME: HH:MM:SS |
|SOURCE: ENTRY 'DLITCBL' USING IO-TERM-PCB,

```

See the *ASG-SmartTest PLI User's Guide* or the *ASG-SmartTest for COBOL and Assembler User's Guide* for information about controlling test execution, monitoring and changing data or program logic during a test session, handling abend conditions, using the COBOL intelligent search, and obtaining test information and statistics.

## Listing Application Queues

*To list IMS/DC application queues for the current test session*

- 1 Select List ► IMS/DC Queues and press Enter. The Processing Queue List pop-up, shown in [Figure 25](#), appears.

**Figure 25 • Processing Queue List Screen**

```

                                Processing Queue List                                TESTCOBA.TESTCOBA
Command ===> _____ Scroll ===> CSR

Select a QUEUE for list processing.

$ Queue      Description
-----
INPUT       List the INPUT Msg Queue for the current test session (EMPTY)
OUTPUT      List the OUTPUT Msg Queue for the current test session (EMPTY)
ALTPCB      List the ALTPCB Msg Queue for the current test session (EMPTY)
_ LTERM      List the LTERM Def Queue for the current test session
_ TRANS      List the TRANS Def Queue for the current test session
***** BOTTOM OF DATA *****

```

The QUEUE function is specific to SmartTest-IMS. For information about the other selections on the List pull-down, see the *ASG-SmartTest Reference Guide*.

- 2 Type S in the S column to select a queue for display and press Enter.

**Note:** \_\_\_\_\_

If the INPUT, OUTPUT, or ALTPCB queue is empty, you are not able to select the queue. In this case, an EMPTY message displays to the right of the description.

---

### Line Command

**S.** Specifies the line command used to select an item listed on the screen. The line command area is to the left of the Keyword field. S is the only valid entry in this line command area.

### Options

Field	Description
Queue	Specifies the type of IMS/DC processing queue.
Description	Provides a description of the corresponding keyword.
INPUT	Displays the Input Message Queue List screen. (See <a href="#">"Input Message Queue List" on page 41.</a> )
OUTPUT	Displays the Output Message Queue List screen. (See <a href="#">"Output Message Queue List" on page 43.</a> )
ALTPCB	Displays the ALTPCB Message Queue List screen. (See <a href="#">"ALTPCB Message Queue List" on page 45.</a> )
LTERM	Displays the IMS/DC LTERM Definitions screen. (See <a href="#">"Listing IMS/DC LTERM Definitions" on page 34.</a> )
TRANS	Displays the IMS/DC Transaction Definitions screen. (See <a href="#">"Listing and Selecting IMS/DC Transactions" on page 11.</a> )

### Usage Notes

When you make INPUT, OUTPUT, or ALTPCB queue selections and only one message is found, the respective Message Queue List screen is bypassed and the Segment List screen displays. When more than one message is found, the respective Message Queue List screen displays to provide message selection.

If the INPUT, OUTPUT, or ALTPCB queue is empty, you are not able to select the category.

## Input Message Queue List

*To display the input messages of an IMS/DC transaction in the current test session*

**Note:** \_\_\_\_\_

The examples of the Queue List screens cannot be reproduced using the ASG-supplied programs.

- 1 On the Processing Queue List screen, type S in the S column of the INPUT entry and press Enter> The Input Segment List screen, shown in [Figure 26](#), displays.

**Figure 26 • Input Message Queue List Screen**

```

ASG-SmartTest-IMS ----- Input Message Queue List ----- VIAPIVP1.VIAPIVP1 -A
===>                                                                    SCROLL ===> CSR

      Select the TRANsaction NAME to list the message SEGMENTS.

S TRAN name  Segments  Length  Segment user data
-----
VIAPGM3           2      19  ASG-SMARTTEST
DSPALLI           1      54  DSPALLI 3009270
*****
***** BOTTOM OF DATA *****

```

- 2 To view message segments for a transaction, use the S line command to select the transaction name and press Enter. The Input Segment List screen (see ["Input Segment List" on page 42](#)) or the Memory Display screen displays.

**Note:** \_\_\_\_\_

If only one segment is contained in the message for a selected destination, the segment user data area displays on the Memory Display screen. When more than one segment is contained in the message, the Output Segment List ([Figure 29](#)) displays.

- 3 Press PF3/PF15 to return to the previous screen.

## Fields

Field	Description
S	Specifies the line command used to select a transaction to be displayed. The line command area is to the left of the TRAN name field.
TRAN name	Specifies the destination IMS/DC transaction code.
Segments	Specifies the number of segments in the message.

Field	Description
Length	Specifies the length of the first segment.
Segment user data	Specifies the first portion of data in the first segment.

## Input Segment List

*To view the segments of an input message for the current test session display*

- 1 From the Input Message Queue List screen, type S to the left of the TRAN name and press Enter. The Input Segment List screen, shown in [Figure 27](#), displays.

**Figure 27 • Input Segment List Screen**

```

ASG-SmartTest-IMS ----- Input Segment List ----- VIAPIVP1.VIAPIVP1 -A
===>                                         SCROLL ===> CSR

      TO TRAN  : IOPCB
      FROM TRAN: VIAPGM3

      Select a SEGMENT to display (in memory format) the SEGMENT USER DATA.

S Segment  Length  Segment user data
-----
          1     19   ASG-SMARTTEST
          2     19   IMSDC
***** BOTTOM OF DATA *****
    
```

- 2 To view and modify memory information for a segment, type S to the left of the appropriate segment and press Enter. The Memory Display screen displays.

For more information about the Memory Display screen, see the online help or the *ASG-SmartTest Reference Guide*.

- 3 Press PF3/PF15 to return to the previous screen.

## Fields

Field	Description
S	Specifies the line command used to select a segment to be displayed on the Memory Display screen. The line command area is to the left of Segment field.
Segment	Specifies the sequential number of the message segment.
Length	Specifies the length of the specified message segment.
Segment user data	Specifies the first portion of data in the specified segment.

## Output Message Queue List

*To display the output messages of an IMS/DC transaction in the current test session*

- 1 From the Processing Queue List screen, type S to the left of the OUTPUT entry and press Enter. The Output Segment List screen, shown in [Figure 28](#), displays.

**Note:** \_\_\_\_\_

All IMS segments inserted to the IOPCB by the application program are contained in the Output Message Queue LIST.

**Figure 28 • Output Message Queue List Screen**

```
ASG-SmartTest-IMS ----- Output Message Queue List ----- VIAPIVP1.VIAPIVP1 -A
===>                                                                    SCROLL ==> CSR

  Select a DESTINATION to list the message SEGMENTS.

S DEST          Segments  Length  Segment user data
-----
IOPCB           11        64    ASG-SmartTest-TSO
IOPCB            1        54    MESSAGE 1 ONLY SEGMENT
IOPCB           11        54    MESSAGE 2 SEGMENT 1
*****
***** BOTTOM OF DATA *****
```

- 2 To view message segments for a destination, type S to the left of the transaction name and press Enter. The Output Segment List screen (see "[Output Segment List](#)" [on page 44](#)) or the Memory Display screen displays.

**Note:** \_\_\_\_\_

If only one segment is contained in the message for a selected destination, the segment user data area displays on the Memory Display screen. When more than one segment is contained in the message, the Output Segment List screen displays.

- 3 Press PF3/PF15 to return to the previous screen.

## Fields

Field	Description
S	Specifies the line command used to select an item listed on the screen. The line command area is to the left of the Keyword field. S is the only valid entry in the line command area.
DEST	Specifies the destination name for the output message.
Segments	Specifies the number of segments in the message.

Field	Description
Length	Specifies the length of the first segment.
Segment user data	Specifies the first portion of data in the first segment.

## Output Segment List

*To view segments of an output message for the current test session*

- 1 From the Output Message Queue List screen, type S to the left of a destination IOPCB and press Enter. The Output Segment List screen, shown in [Figure 29](#), displays.

**Figure 29 • Output Segment List Screen**

```

ASG-SmartTest-IMS ----- Output Segment List ----- VIAPIVP1.VIAPIVP1 -A
====>                                     SCROLL ==> CSR
-
DEST:          3270,2
FROM TRAN:    VIAPIVP1
FORMAT:       VIAPIVF2

Select a SEGMENT to display (in memory format) the SEGMENT USER DATA.

S Segment Length Segment user data
-----
1      64 ASG-SmartTest-TSO
2      64 ASG-SmartTest is the first testing and debugging
3      64 solution to incorporate an easy-to-use 'Language
4      64 Intelligent' ISPF front-end. ASG-SmartTest locates
5      64 bugs and structural problems in programs,
6      64 regardless of complexity, language or environment,
7      64 by integrating an interactive tester/debugger with
8      64 a powerful program analyzer.
9      64
10     64 COBOL and Assembler (optional) source is supported.
11     64 Disassembled object code support for other languages.
***** BOTTOM OF DATA *****

```

- 2 To view and modify memory information for a segment, type S to the left of the appropriate segment and press Enter. The Memory Display screen displays.

For more information about the Memory Display screen, see the online help or the *ASG-SmartTest Reference Guide*.

- 3 Press PF3/PF15 to return to the previous screen.

## Fields

Field	Description
DEST	Specifies the 1- to 8-character destination name.
FROM TRAN	Specifies the IMS/DC transaction code.
FORMAT	Specifies the IMS/DC format name.
S	Specifies the line command used to select an item listed on the screen. The line command area is to the left of the Segment field. S is the only valid entry in the line command area. The entire segment user data area displays on the Memory Display screen.
Segment	Specifies the sequential number of the segment.
Length	Specifies the length of the specified segment.
Segment user data	Specifies the first portion of data in the specified segment.

## ALTPCB Message Queue List

*To display the ALTPCB messages for the current test session*

- 1 From the Processing Queue List screen, type S to the left of the ALTPCB entry and press Enter. The ALTPCB Message Queue List screen, shown in [Figure 30](#), displays.

**Figure 30 • ALTPCB Message Queue List Screen**

```

ASG-SmartTest-IMS ----- ALTPCB Message Queue List ----- VIAPIVPL.VIAPIVPL -A
===>                                                                SCROLL ==> CSR

      Select the Lterm to List the segment(s).

S DEST          Segments  Length  Segment user data
-----
LTERM002         2         54    ASG-SmartTest-IMS
LTERM003         1         54    ASG-Insight
***** BOTTOM OF DATA *****

```

**Note:**

MS message segments that are contained in the ALTPCB queue are a result of your IMS application issuing ISRT calls to the ALTPCB and the Destination parameter specified is an LTERM.

If your application issues an ISRT call to the ALTPCB, and the Destination parameter is another transaction, SmartTest-IMS places your message segment on the Input Message Queue, instead of the ALTPCB Message Queue.

- 2 To view the segment list for a destination, type S to select the DEST LTERM name and press Enter. The ALTPCB Segment List (see "[ALTPCB Segment List](#)" on [page 47](#)) screen or the Memory Display screen displays.

**Note:** \_\_\_\_\_

When a destination (DEST) is selected, if only 1 segment is contained within the message, that segment user data area displays on the Memory Display screen. When more than one segment is contained in the message, the ALTPCB Segment List screen displays.

\_\_\_\_\_

- 3 Press PF3/PF15 to return to the previous screen.

**Fields**

Field	Description
S	Specifies the line command used to select an item listed on the screen. The line command area is to the left of the DEST field. S is the only valid entry in the line command area.
DEST	Specifies the 1- to 8-character destination name.
Segments	Specifies the number of segments in the message.
Length	Specifies the length of the first segment.
Segment user data	Specifies the first portion of data in the first segment.

## ALTPCB Segment List

To view the segments of an ALTPCB message for the current test session

- 1 From the ALTPCB Message Queue List screen, type S to the left of an LTERM and press Enter. The ALTPCB Segment List screen, shown in [Figure 31](#), displays.

Figure 31 • ALTPCB Segment List Screen

```

ASG-SmartTest-IMS ----- ALTPCB Segment List ----- VIAPIVPL.VIAPIVPL -A
===>                                                                    SCROLL ==> CSR

      DEST      : LTERM002
      From TRAN: VIAPGM3
      FORMAT    : VIAF1A

      Select the Segment to display user data.

S Segment   Length   Segment user data
-----
           1         64   ASG-SmartTest-IMS
           2         64   ASG-SmartTest-IMS option provides fully
*****
***** BOTTOM OF DATA *****

```

- 2 To view and modify memory information for a destination, type S to the left of the appropriate destination and press Enter. The Memory Display screen displays.

For more information about the Memory Display screen, see the online help or the *ASG-SmartTest Reference Guide*.

- 3 Press PF3/PF15 to return to the previous screen.

## Fields

Field	Description
DEST	Specifies the 1- to 8-character destination name.
From TRAN	Specifies the IMS/DC transaction code.
FORMAT	Specifies the IMS/DC format.
S	Specifies the line command used to select an item listed on this screen. S is the only valid entry in the line command area. The entire segment user data area displays on the Memory Display screen.
Segment	Specifies the sequential number of the segment.
Length	Specifies the length of the specified segment.
Segment user data	Specifies the first portion of data in the specified segment.



---

# 4

## Native IMS Terminal Support

---

This chapter describes SmartTest-IMS native IMS terminal support, the procedures and screens for setting up and initiating tests and for viewing and modifying program and test information, and contains these sections:

Section	Page
<a href="#">Overview</a>	<a href="#">49</a>
<a href="#">Setting Up Region Type</a>	<a href="#">50</a>
<a href="#">Testing MPP Programs</a>	<a href="#">50</a>
<a href="#">Testing IMS Fast Path (IFP) Programs</a>	<a href="#">56</a>

### Overview

You need three terminal sessions to use the SmartTest-IMS-EXT (Extended Region Support) environment: TSO for SmartTest and two IMS/DC terminals - one to enter IMS commands and the other to enter messages for your test application. The IMS/DC terminals can be any devices or services that can insert input messages into the IMS message queue. The IMS/DC control region handles all IMS/DC activity including terminal I/O and transaction scheduling. You can use the TSO terminal session to enter SmartTest-IMS functions in the same way as for other SmartTest environments.

Two IMS/DC region types are available in the IMS Extended Region support environment: MPP and IFP. This chapter provides an overview of each region type and describes the procedures and screens for activating, specifying the appropriate execution parameters, and executing the test sessions for each type.

## Setting Up Region Type

*To specify the MPP or IFP terminal setup options for the Extended Region Support test environment*

- 1 On the IMS/DC Session Setup screen, select Native IMS Terminal and press Enter. The IMS/DC Setup Native IMS Terminals pop-up, shown in [Figure 32](#), displays.

Figure 32 • IMS/DC Setup Native IMS Terminals Pop-up

```
Command ==> IMS/DC Setup Native IMS terminals
-----
Select the desired Setup option. Then press Enter.

Setup Options
- 1. Test MPP using public databases
  2. Test IFP using public databases
```

- 2 Type the number that corresponds to one of these options:

**Test MPP using public databases.** Displays the IMS/DC Setup Native MPP pop-up used to specify test region IMS datasets and parameters for MPP programs using public databases.

**Test IFP using public databases.** Displays the IMS/DC Setup IFP pop-up used to specify test region IMS datasets and parameters for IFP programs using public databases.

- 3 Press Enter to display the MPP or the IFP pop-up.

## Testing MPP Programs

After you set up the session for Native IMS Terminal support and Test MPP programs using public databases, SmartTest-IMS-EXT executes an IMS/DC MPP region within your TSO region. You can test only Message Processing Programs using this setup.

Initiate the transaction through the IMS terminal or service. The IMS/DC Control Region schedules the application in your test MPP region. SmartTest-IMS loads the application program from your load library. The application program accesses IMS message queues and IMS databases through the IMS/DC Control Region. You control the monitoring process through SmartTest-IMS in your TSO session.

Select the test execution environment and specify the required parameters during test session setup.

## Setting Up MPP

### To specify test region IMS datasets and parameters

- 1 On the IMS/DC Setup Native IMS Terminals pop-up, select Test MPP using public databases and press Enter. The IMS/DC Setup Native MPP pop-up, shown in [Figure 33](#), displays.

Figure 33 • IMS/DC Setup Native MPP Pop-up

```

                                IMS/DC Setup Native MPP
Command ===> -----
Select the desired Setup option. Then press Enter.

Setup Options
- 1. Specify test region IMS data sets
  2. Specify test region parameters
  3. Specify logical terminals and transaction pipes

```

- 2 Type the number of the desired option and press Enter.
- 3 Press PF3 to return to the IMS/DC Setup Native IMS Terminals pop-up.

### Setup Options

This table describes the setup options on the IMS/DC Setup Native MPP pop-up:

Option	Description
Specify test region IMS data sets	Displays the IMS/DC Setup IMS Data Sets pop-up, which is used to allocate IMS datasets for use by the test region. For more information on IMS/DC file allocation, see <a href="#">"Allocating IMS/DC Datasets" on page 64</a> .
Specify test region parameters	Displays the IMS/DC MPP Parameters pop-up, which is used to specify execution parameters used by the IMS system. For more information on the IMS/DC MPP Parameters pop-up, see <a href="#">"Specifying MPP Execution Parameters" on page 52</a> .
Specify logical terminals and transaction pipes	Displays the IMS Logical Terminals and Transaction Pipes pop-up used to specify logical terminal names or transaction pipes that you will use to enter transactions to be tested. For more information on the IMS Logical Terminals and Transaction Pipes pop-up, see <a href="#">"IMS Logical Terminals and Transaction Pipes" on page 54</a> .

## Specifying MPP Execution Parameters

*To specify execution parameters for the SmartTest-IMS-EXT MPP programs*

**Note:**

The parameters used at your site are specified in the execution JCL for the IMS/DC Message Processing Region (DFSMPR). Contact your IMS/DC system administrator for the correct parameters.

- 1 On the IMS/DC Setup Native MPP pop-up, select Specify test region parameters and press Enter. The IMS/DC MPP Parameters pop-up, shown in [Figure 34](#), displays.

**Figure 34 • IMS/DC MPP Parameters Pop-up**

```
Command ==> _____
                    IMS/DC MPP PARAMETERS
Enter IMS MPP Execution parameters:
CLASS . 254          (Transaction class)
OPT . . C           (Operator option N, W, or C)
SPIE . -           (SPIE option 0 or 1)
VALCK . -           (Validity check option 0 or 1)
PCB . . ---        (Region interregion communication area)
PRLD . . ---        (DFSMPLEX suffix or leave blank)
STIMER 0            (Timer to be set 0 or 1)
NBA . . ---        (Number Fast Path data buffers)
OBA . . ---        (Number additional page-fixed buffers)
IMSID . ---        (Subsystem identifier)
AGN . . ---        (Application Group Name)
USFX . . ---        (DFSUFLXX suffix or leave blank)
VFREE . -           (Virtual Fetch storage freed, Y or N)
SSM . . ---        (DB2 subsystems member)
PREINIT . -         (DFSINTXX suffix or leave blank)
PWTI . -           (Pseudo wait for input, Y or N)
APARM . -           (APARM value or blank)
```

- 2 Specify all necessary information.
- 3 Press PF3 to return to the previous screen.

## Parameters

This table describes each of the parameters on the IMS/DC MPP Parameters pop-up:

Parameter	Description
CLASS	Specifies the transaction class number assigned to your test message processing region. This number must be one of those reserved by your installation for SmartTest-IMS testing. If the transaction class is valid and not in use, SmartTest-IMS assigns it your session. If blank, SmartTest-IMS assigns one from the available pool of classes and informs you which class to use for your test session. For more information, see <a href="#">"Running the MPP Test" on page 55</a> .
OPT	Indicates the action to be performed when the IMS Control Region is unavailable. These are the valid options: N (notify), W (wait), or C (cancel). The default value is C.
SPIE	Specifies whether control is passed when a program exception (OC1-OCF) occurs, thus allowing the program to correct the problem without an abend occurring. The default value is 0 (zero) and indicates control is passed.
VALCK	Indicates whether the address in the user call list is checked for validity. The address in the user call list must be greater than the high address of NVC and less than the highest virtual storage address of the machine. 1 indicates the address is to be checked. The default value is 0 (zero).
PCB	Specifies the interregion communication area of storage that is used by IMS to communicate with the test. The default value is 000.
PRLD	Specifies a suffix for DFSMPL, which can be two alphabetic characters. The suffix is used to preload modules in the region. This field can be left blank if a suffix is not needed.
STIMER	Specifies whether the timer is to be set. If CPU <sub>TIME</sub> = <i>n</i> is specified, the STIMER value must be 1. STIMER=1 results in performance degradation and should only be specified when gathering statistics. The default value is 0 (zero) and specifies that the timer is not to be set.
NBA	Specifies the number of Fast Path data buffers. This field can be left blank if Fast Path databases are not used.
OBA	Specifies the number of additional page-fixed buffers for Fast Path applications when the standard buffers are all used.

Parameter	Description
IMSID	Indicates the subsystem identifier for the operating system being used. This identifier is used instead of the IMS/VS identifier specified when the system was defined.
AGN	Indicates the Application Group Name used for resource access security.
VSFIX	Specifies a suffix for DFSVSL, which can be two alphabetic characters. This field can be left blank if a suffix is not needed.
VFREE	Specifies whether virtual fetch storage is freed. Y indicates that it is freed and N indicates that it is not freed.
SSM	Specifies a site-specific value that is used to allow access to selected DB2 subsystems under IMS. You can leave this field blank, or you can enter 1 to 4 alphanumeric characters.
PREINIT	Specifies a suffix for DFSINT that can be two alphabetic characters. DFSINTxx contains a list of pre-initialization modules to which control is to be given. This field can be left blank if a suffix is not needed.
PWFI	Specifies whether the system will pause for pseudo code input. Y indicates that the system will pause. N indicates that the system will not pause.
APARM	Specifies parameter information that will be passed by IMS to the application program.

See the *IBM IMS/ESA Version 4 System Definition Reference* manual (SC26-3076), the *IBM IMS/ESA Version 5 Install Volume 2* manual (SC26-8024), the *IBM IMS/ESA Version 6 Install Volume 2* manual (GC26-8737), or the *IBM IMS Version 7 Installation Volume 2: System Definition and Tailoring* manual (GC26-9430) for additional information on each of the IMS MPP execution parameters.

### **IMS Logical Terminals and Transaction Pipes**

Display the IMS Logical Terminals and Transaction Pipes pop-up to specify logical terminals and transaction pipes that you will use during your test session. SmartTest-IMS monitors execution of test transactions only from the terminals or sessions you specify. If you do not specify IMS logical terminal names or transaction pipes, SmartTest-IMS monitors execution of test transactions from all terminals or sessions.



- 3 Type this command:

```
/ASSIGN TRANSACTION tranname TO cls#
```

where *tranname* is the transaction code of the application program you want to test and *cls#* is the IMS transaction class assigned to your test session.

Messages that IMS routes to this transaction code (but that do not originate from one of the IMS logical terminals you specified earlier) will still execute in your TSO session, but will not be monitored. This continues until you reset the transaction class in [step 8](#).

- 4 Repeat [step 2 on page 55](#) and [step 3](#) for each transaction code you want to test during this session.
- 5 Initiate the transaction from the application testing IMS terminal.
- 6 Monitor execution of the program from your TSO session.
- 7 When the program under test ends, type RUN to exit the program. SmartTest displays a message indicating that you should switch back to the IMS/DC terminal session to view the output of the program.

You can execute the test again or execute other programs in the test session by starting the transactions as stated in [step 5](#).

- 8 When you've finished testing, use /ASSIGN as shown in [step 3](#) to restore the transaction class assignments you recorded in [step 2 on page 55](#).

## Testing IMS Fast Path (IFP) Programs

After you select native IMS terminal support on the IMS/DC Session Setup screen, SmartTest-IMS executes as an IFP region. Using this setup, only Fast Path Exclusive programs can be tested. All IMS databases and IMS queues are accessed through the IMS/DC control region. The load library and the monitoring terminal is accessed through SmartTest-IMS. The transaction terminal is accessed through the IMS/DC control region.

Selecting the test execution environment and specifying the required parameters is done during test session setup.

**Note:** \_\_\_\_\_

If IFP programs are not marked as Fast Path Exclusive, they should be run using SmartTest Terminal Emulation with Public Databases.

---

## Setting Up IFP

*To specify test region IMS datasets and parameters when using native IMS terminal support and testing IFP transactions*

- 1 From the IMS/DC Session Setup, type N on the command line and press Enter. The IMS/DC Setup IFP pop-up, shown in [Figure 36](#), displays.

Selecting Specify test region IMS datasets displays the IMS/DC Setup IMS Data Sets pop-up used to allocate IMS datasets for use by the test region. For more information about IMS/DC file allocation, see "[Allocating IMS/DC Datasets](#)" on [page 64](#).

Selecting Specify test region parameters displays the IMS IFP Parameters pop-up, shown in [Figure 37 on page 58](#), used to specify the execution parameters used by the IMS system. For more information about the IMS IFP Parameters pop-up, see [IFP Parameters](#).

**Figure 36 • IMS/DC Setup IFP Pop-up**

```

                                IMS/DC Setup IFP
Command ==> -----
Select the desired Setup option. Then press Enter.

      Setup Options
- 1. Specify test region IMS data sets
  2. Specify test region parameters

```

- 2 Enter the number of the desired option and press Enter.
- 3 Press PF3/PF15 to return to the IMS/DC Session Setup screen.

## IFP Parameters

*To specify execution parameters for the SmartTest-IMS-EXT IFP execution environments*

**Note:** \_\_\_\_\_

The parameters used at your site are specified in the execution JCL for the IMS/DC Fast Path Processing Region (IMSFP). Contact your IMS/DC system administrator for the correct parameters.

---

- 1 From the IMS/DC Setup IFP pop-up, select Specify test region parameters and press Enter. The IMS IFP Parameters pop-up, shown in [Figure 37](#), displays.

Figure 37 • IMS/DC Setup IFP Pop-up

```

                                IMS IFP Parameters
Command ==> -----
Enter IMS/DC IFP Execution parameters:

NBA . . 0      (Number Fast Path data buffers)
OBA . . 0      (Number additional page-fixed buffers)
OPT . . C      (Operator option N, W, or C)
TLIM . . 1     (Termination Limit)
DIRCA 000     (Region interregion communication area)
PRLD . . --    (DFSMPLEX suffix or leave blank)
$TIMER 0      (Timer to be set 0 or 1)
SOD . . --    (Spin-Off main storage dump SYSOUT class)
DBDL 20      (Maximum number of BDL entries )
CPUTIME 0     (CPU time for IMS)
IMSID ----   (IMS Subsystem identifier)
AGN . . ----- (Application Group Name)
SSM . . ----- (DB2 subsystems member)
PREINIT ---- (DFSINTXX suffix or leave blank)
ALID ----   (Alternate IMS system identifier )
APARM ----- (APARM value or blank)
    
```

- 2 Specify all necessary information. A description of the fields is provided in the table below.
- 3 Press PF3 to return to the IMS/DC Setup IFP pop-up.

### Parameters

This table describes the parameters on the IMS IFP Parameters pop-up: i

Parameter	Description
NBA	Specifies the number of Fast Path data buffers. You can leave this field blank if you do not use Fast Path databases.
OBA	Specifies the number of additional page-fixed buffers for Fast Path applications when the standard buffers are all used.
OPT	Indicates the action to be performed when the IMS Control Region is unavailable. The valid options are: N (notify), W (wait), or C (cancel). The default value is C.
TLIM	Specifies the application abend termination limit. This number can be 01 through 99. When the number of application abends reaches this limit, your application region is terminated.
DIRCA	Specifies the interregion communication area of storage that is used by IMS to communicate with the test. The default value is 000.

Parameter	Description
PRLD	Specifies a suffix for DFSMPL. The specified suffix can be two alphabetical characters and is used to preload modules in the region. You can leave this field if a suffix is not needed.
STIMER	Specifies whether the timer is to be set. If CPU TIME= <i>n</i> is specified, the STIMER value must be 1. STIMER=1 results in performance degradation and should only be specified when gathering statistics. 0 (zero) must be specified for SmartTest.
SOD	Specifies the 1 character SYSOUT class to be used for the spin-off main storage dump. If omitted or if you specify 0, no spin-off is taken.
DBLDL	Specifies an optional 2-digit number indicating the maximum number of BLDL entries to be kept for non-preloaded application modules. If you leave this field blank, the default is 20.
CPUTIME	Specifies the CPU timer. This parameter must be 0 (zero) for SmartTest-IMS.
IMSID	Indicates a valid 1 to 4 character subsystem identifier to the operating system being used. This identifier is used instead of the IMS/ESA identifier specified when the system was defined.
AGN	Indicates the Application Group Name used for resource access security.
SSM	Indicates a site-specific value that is used to allow access to selected DB2 subsystems under IMS. You can leave this field blank or enter 1 to 4 alphanumeric characters.
PREINIT	Specifies a suffix for DFSINT that can be two alphabetical characters. DFSINTxx contains a list of preinitialization modules to which control is to be given. You can leave this field blank if a suffix is not needed.
ALTID	Specifies a 1- to 4-character name for an alternate IMS system.

**Note:**

See the *IBM IMS/ESA Version 3 System Definition Reference Manual (SC26-4278)*, the *IBM IMS/ESA Version 4 System Definition Reference Manual (SC26-3076)*, the *IBM IMS/ESA Version 5 Install Volume 2 Manual (SC26-8024)*, or the *IBM IMS/ESA Version 6 Install Volume 2 Manual (GC26-8737)* for additional information about each of the IMS IFP execution parameters.

## Running the IFP Test

After specifying all required parameters for your IFP test session, you are ready to execute the test. To test the IFP program, you need two terminal sessions: the SmartTest TSO session and an IMS/DC terminal session. These two sessions can be on the same or different physical terminals.

### *To begin the IFP test session*

- 1 On the IMS/DC Session Setup screen, type **C** to connect to IMS/DC. A screen displays with a message to switch to your IMS/DC terminal session.
- 2 Switch to your IMS/DC terminal session and type this command:

```
STLOGON tsouserid
```

where *tsouserid* is the TSO userid you are using for the SmartTest TSO session.

If your IMS/DC terminal is the 3270 type terminal where you will be entering your transactions to test, type **STLOGON**.

If your IMS/DC terminal does not allow you to enter the connection command, you will need access to a terminal that allows command entry. In the case where the terminal to be connected to SmartTest is not the terminal where the connection command is entered, type **STLOGON *tsouserid lterm***. In this command, *lterm* is the IMS/DC logical terminal to be connected to SmartTest.

- 3 After executing **STLOGON**, you can start your transaction using one of these methods:
  - a Type the transaction ID along with any required data fields.
  - b Type the IMS/DC command **/FORMAT *formatname*** to display the screen format for starting your transaction. Enter any required data fields on the format and press Enter.
- 4 After starting your transaction on the IMS/DC terminal, switch back to the SmartTest TSO session. The Program View screen displays the source for the monitored program.

From this point, run your test session normally by selecting the appropriate SmartTest functions.

- 5 When the program under test ends, type **RUN** to exit the program. SmartTest displays a message indicating that you should switch back to the IMS/DC terminal session to view the output of the program.

You can execute the test again or execute other programs in the test session by starting the transactions as indicated in [step 3 on page 60](#).

*To disconnect the IMS/DC terminal from SmartTest*

- 1 On the IMS/DC terminal session, type this SmartTest logoff command to disconnect the lterm from the SmartTest session:

```
STLOGOFF
```

You are returned to the SmartTest terminal session.

If the IMS/DC terminal that is connected to SmartTest doesn't allow you to enter the STLOGOFF command, switch to an IMS/DC 3270 terminal session that does allow entry of the STLOGON and STLOGOFF commands. On this IMS/DC terminal session, type STLOGON with the TSO userid of the SmartTest TSO session. Then type STLOGOFF to disconnect the IMS/DC terminal from SmartTest.



---

# 5

## File Allocation

---

This chapter describes the procedures and screens used to allocate these datasets, and contains these sections:

Section	Page
<a href="#">Allocating IMS/DC Datasets</a>	<a href="#">64</a>
<a href="#">MFS FORMAT Library Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">67</a>
<a href="#">DFSRESLB Allocation (Either Mode)</a>	<a href="#">68</a>
<a href="#">MODBLKS Allocation (Either Mode)</a>	<a href="#">69</a>
<a href="#">PROCLIB Allocation (Either Mode)</a>	<a href="#">70</a>
<a href="#">PSB/DBD Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">71</a>
<a href="#">IEFRDER Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">72</a>
<a href="#">DFSVSAMP Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">74</a>
<a href="#">IMSMON Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">75</a>
<a href="#">RECON Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">77</a>
<a href="#">DFSSTAT Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">78</a>
<a href="#">IMSACB Allocation (3270 Terminal Emulation Mode)</a>	<a href="#">80</a>
<a href="#">FPTRACE Allocation (Either Mode)</a>	<a href="#">81</a>
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**Note:**

Contact your IMS systems administrator for the proper datasets and information required on the IMS setup screens and pop-ups.

---

## Allocating IMS/DC Datasets

After selecting an operating mode and an execution region type, you need to define to SmartTest-IMS the IMS datasets required for correct operation. The IMS datasets required for the test session are allocated using selections from the IMS/DC Setup IMS Data Sets pop-up.

### *To define the IMS/DC datasets*

- 1 From the IMS/DC Setup 3270 Terminal Emulation pop-up, select the type of test session to setup: public or private databases. The appropriate IMS/DC Setup pop-up displays.
- 2 From the IMS/DC Setup pop-up, select Specify test region IMS datasets and press Enter. The IMS/DC Setup IMS Data Sets pop-up displays.

**Note:** \_\_\_\_\_

The IMS/DC Setup IMS Data Sets pop-up displays different options depending on the IMS test selections you specify on the IMS/DC Setup 3270 Terminal Emulation or IMS/DC Setup IFP pop-ups.

[Figure 38](#) shows the options displayed when you select 3270 Terminal Emulation and Test BMP using private databases and DBD/PSB libraries on the IMS/DC Setup 3270 Terminal Emulation pop-up.

---

**Figure 38 • IMS/DC Setup IMS Data Sets Pop-up**

```

                                IMS/DC Setup IMS Data Sets
Command ==> -----
                                Setup Options
--  1.  FORMAT
    2.  DFSRESLB
    3.  MODBLKS
    4.  PROCLIB
    5.  IMS
    6.  IEFRDER
    7.  DFSUSAMP
    8.  IMSMON
    9.  RECON
   10.  DFSSTAT
   11.  All the above in succession
   12.  Reset to installation defaults
```

- 3 Select the appropriate option(s) for items to be allocated to IMS/DC. The allocation pop-up for the selected option displays. For example, if you select FORMAT, the IMS/DC FORMAT Allocation pop-up displays.

**Note:**

Typically, you only need to enter the information on these pop-ups once and not each time you perform a test.

- 4 Enter the information on the allocation pop-up and press PF3/PF15 to return to the IMS/DC Setup IMS Data Sets pop-up. Continue selecting options until you have allocated the appropriate datasets for your environment. If you select the All of the above in succession option, pressing PF3/PF15 displays the next pop-up in succession.

## Options

**Note:**

If you are using IMS version 1.3 or later your installation may have implemented online changes in conjunction with the MODBLKS, FORMAT, IMSTFMT, ACBLIB, and MATRIX libraries. The pop-ups that appear after selecting FORMAT, DFSRESLB, or IMS require libraries to be specified that can be part of the online change configuration at your installation. On these pop-ups, it is only necessary to specify the staging IMS library or a personal library.

Option	Description
Setup Options	Lists the dataset options. The identifier you specify on the pop-up that appears for each of these options is the DD name used by IMS in allocating the dataset to the dependent region.
FORMAT	Displays the IMS/DC FORMAT Allocation pop-up that is used to specify MFS Format libraries.
DFSRESLB	Displays the IMS/DC DFSRESLB Allocation pop-up that is used to specify the IMS load library datasets.
MODBLKS	Displays the IMS/DC MODBLKS Allocation pop-up that is used to specify the IMS/DC MODBLKS datasets.
PROCLIB	Displays the IMS/DC PROCLIB Allocation pop-up that is used to specify the IMS/DC procedure library dataset.
IMS	The IMS PSB/DBD Allocation pop-up that is used to specify the PSB and DBD library dataset names.

Option	Description
IEFRDER	Displays the IMS IEFRDER Allocation pop-up that is used to specify dataset allocation data to be used as the primary IMS system log.
DFSVSAMP	Displays the IMS/DC DFSVSAMP Allocation pop-up that is used to specify the dataset containing the VSAM buffer pool control statements.
IMSMON	Displays the IMS IMSMON Allocation pop-up that is used to specify dataset allocation data to be used by the IMS monitor.
RECON	Displays the IMS/DC RECON Allocation pop-up that is used to specify DBRC RECON datasets.
DFSSTAT	Displays the IMS/DC DFSSTAT Allocation pop-up that is used to specify dataset allocation data to be used by IMS to describe database CALLs and buffering activity.
All the above in succession	Displays each of the dataset allocation screens in succession. To display each successive pop-up, type END or press PF3/PF15.
Reset to installation defaults	Restores the default values for all of the IMS/DC allocations.

### Additional Options (for Other Setup Selections)

Option	Description
DFSESL	Displays the IMS/DC DFSESL Allocation pop-up that is used to specify the dataset names of the DB2 load library. This option is included when you select the Test BMP using public databases and online IMS option.
FPTRACE	Displays the IMS/DC FPTRACE Allocation pop-up that is used to specify the dataset information to be used to record the Fast Path trace information. This option is included when you select the Test BMP using public databases and online IMS option.
IMSACB	Displays the IMS ACB Allocation pop-up that is used to specify the dataset name of the IMS/DC ACB library. This option is included when you select the Test BMP using private databases and ACB library option.

## MFS FORMAT Library Allocation (3270 Terminal Emulation Mode)

If you are using 3270 Terminal Emulation mode, you must specify an IMS/DC FORMAT library.

### To specify the IMS/DC FORMAT libraries

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the FORMAT option in the Setup Options field and press Enter. The IMS/DC FORMAT Allocation screen, shown in [Figure 39](#), displays.

Figure 39 • IMS/DC Format Allocation Pop-up

```

IMS/DC FORMAT Allocation
Command ==> _____
Enter MFS FORMAT library names:
_____
_____
_____
_____
_____

```

- 2 Specify the required IMS/DC MFS FORMAT libraries.

This example illustrates a typical DD statement for a FORMAT library from IMS execution JCL.

```
//IMSTFMT DD DSN=IMS.TFORMAT,DISP=SHR
```

**Note:** \_\_\_\_\_

The FORMAT library names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

\_\_\_\_\_

- 3 Press PF3/PF15.

### Field

**Enter MFS FORMAT Library Names.** The name of the MFS dataset used as the FORMAT libraries by IMS/DC.

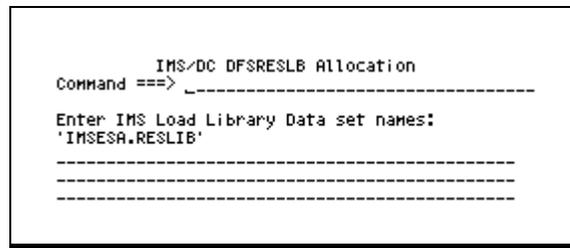
## DFSRESLB Allocation (Either Mode)

All IMS load modules, including DL/I, are expected to be accessed through DFSRESLB. You must always allocate DFSRESLD.

### To allocate IMS load library datasets

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the DFSRESLB option and press Enter. The IMS/DC DFSRESLB Allocation pop-up, shown in [Figure 40](#), displays.

Figure 40 • IMS/DC DFSRESLB Allocation Pop-up



- 2 Specify all required IMS/DC load libraries.

This example illustrates a typical DFSRESLB DD statement from IMS/DC execution JCL.

```
//DFSRESLB DD DSN=IMS.RESLIB,DISP=SHR
```

**Note:** \_\_\_\_\_

The DFSRESLB library names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

\_\_\_\_\_

- 3 Press PF3/PF15.

### Field

**Enter IMS Load Library Data set names.** The IMS load library datasets that correspond with DD statements DFSRESLB in an IMS control region. All IMS load modules, including DL/I, are contained in these libraries and they must be APF authorized.

## MODBLKS Allocation (Either Mode)

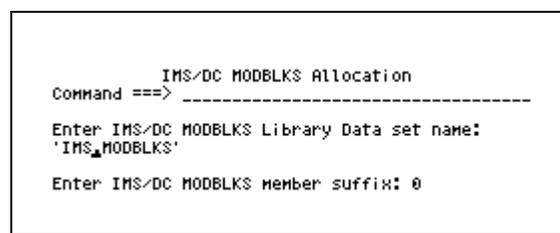
**Note:** \_\_\_\_\_

All locating the MODBLKS library is required.

### To allocate IMS/DC MODBLKS library datasets

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the MODBLKS option and press Enter. The IMS/DC MODBLKS Allocation pop-up, shown in [Figure 41](#), displays.

**Figure 41 • IMS/DC MODBLKS Allocation Pop-up**



- 2 Specify the MODBLKS library dataset name and the member suffix.

This example illustrates a typical MODBLKS DD statement from IMS/DC execution JCL.

```
//MODBLKS DD DSN=IMS.MODBLKS,DISP=SHR
```

**Note:** \_\_\_\_\_

The MODBLKS library names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

- 3 Press PF3/PF15.

### Fields

**Enter IMS/DC MODBLKS Library Data set name.** The dataset corresponding to the DD statement MODBLKSA or MODBLKSB in an IMS control region. This dataset contains information (i.e., program, PSB, SPA, PLC) about the transactions defined to IMS.

**Enter IMS/DC MODBLKS member suffix.** The suffix for the IMS/DC MODBLKS members to be used by SmartTest-IMS. This suffix is normally the same as the IMS nucleus suffix.

## PROCLIB Allocation (Either Mode)

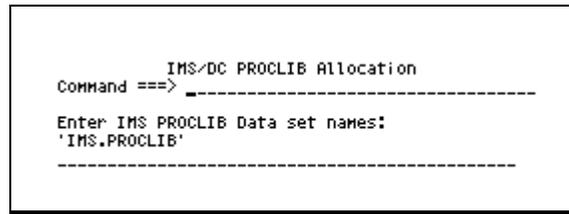
**Note:** \_\_\_\_\_

Cataloged procedures used by IMS are contained in the PROCLIB dataset. Allocating PROCLIB is required.

*To specify the IMS procedure libraries*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the PROCLIB option and press Enter. The IMS/DC PROCLIB Allocation pop-up, shown in [Figure 42](#), displays.

**Figure 42 • IMS/DC PROCLIB Allocation Pop-up**



- 2 Specify the PROCLIB dataset name.

An example of a typical PROCLIB DD statement from IMS/DC execution JCL.

```
//PROCLIB DD DSN=IMS.PROCLIB,DISP=SHR
```

**Note:** \_\_\_\_\_

The PROCLIB library names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

- 3 Press PF3/PF15.

### Field

**Enter IMS PROCLIB Data set names.** The procedure library dataset names that correspond to the DD statement PROCLIB in an IMS/DC control region.

**Note:** \_\_\_\_\_

The procedure libraries listed on this pop-up are searched before those located through the JESPROCor the PROCLIBs entry in VIA\$PRMS.



## IEFRDER Allocation (3270 Terminal Emulation Mode)

You must specify the allocation for IEFRDER if you are using 3270 Terminal Emulation mode and you selected either private databases and PSB/DBD or private databases and ACB on the IMS/DC Setup 3270 Terminal Emulation pop-up (see [Figure 14 on page 21](#)).

*To specify an IMSLOG dataset to provide back out and recovery*

**Note:** \_\_\_\_\_

If you use the public databases, the dataset is allocated by the IMS control region.

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the IEFRDER option and press Enter. The IMS IEFRDER Allocation pop-up, shown in [Figure 44](#), displays.

**Figure 44 • IMS IEFRDER Allocation Pop-up**

```

                    IMS IEFRDER Allocation
Command ==> -----
Enter Data set name, DUMMY, TEMP, or blank:
Name . . . TEMP

DSN DISP  ___      (New, Old, or Shr)
Unit . . . SYSDA
Volume . . -----

Space:
Units . . . CYL      (Cylinder, Track, or Block)
Primary  1
Secondary 1

DCB:
RECFM . . . VB
LRECL . . . 1916
BLKSIZE  1920
    
```

- 2 Specify the required IEFRDER allocation information.

This example illustrates a typical IEFRDER DD statement from IMS/DC execution JCL.

```

//IEFRDER    DD  DSN=IMSLOG,DISP=(NEW,CATLG),
//              UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),
//              DCB=(RECFM=VB,LRECL=1916,BLKSIZE=1920)
    
```

**Note:** \_\_\_\_\_

The IEFRDER library name and attributes are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

- 3 Press PF3/PF15.

## Fields

Field	Description
Name	<p>Specifies a valid dataset name or one of these values:</p> <p><b>DUMMY.</b> Indicates that allocation is performed, but no data is created.</p> <p><b>TEMP.</b> Indicates that allocation of a temporary dataset is performed.</p> <p><b>Blank.</b> Indicates that no allocation is performed.</p> <p>Since the IEFORDER dataset is used by IMS for database recovery processing, the DUMMY and blank (no allocation) options are not recommended. If you specify DUMMY, files updated during an IMS/DC test session are not recovered in the event of a transaction abend or cancel.</p>
DSN DISP	Specifies the disposition of the dataset. Disposition can be NEW, OLD, or SHR.
Unit	Specifies a generic name used to allocate the dataset if the dataset name specified in the NAME field is not cataloged, or if you specified TEMP in the NAME field.
Volume	Specifies the volume serial number containing the IEFORDER dataset.
Units	Indicates the type of space to be allocated for the dataset. Space can be specified as CYLINDER, TRACK, or BLOCK.
Primary	Indicates the number of primary cylinders, tracks, or blocks to be allocated.
Secondary	Indicates the number of secondary cylinders, tracks, or blocks to be allocated.
DCB RECFM	Specifies the record format of the IEFORDER dataset. The default is VB.
LRECL	Specifies the record length of the IEFORDER dataset. The default is 1916.
BLKSIZE	Specifies the maximum length (in bytes) of a block for the IMSMON dataset. The default is 1920.

## DFSVSAMP Allocation (3270 Terminal Emulation Mode)

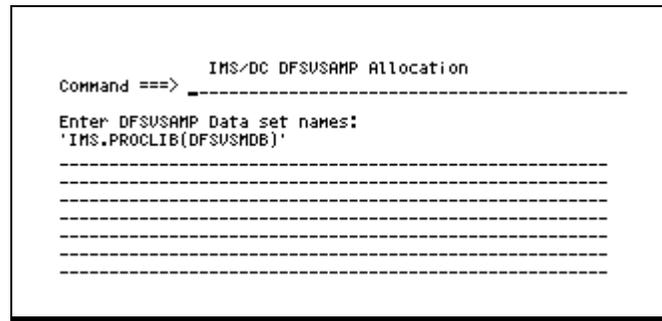
You must specify the DFSVSAMP dataset if you are using 3270 Terminal Emulation mode and you selected either private databases and PSB/DBD or private databases and ACB on the IMS/DC Setup 3270 Terminal Emulation pop-up (see [Figure 14 on page 21](#)).

The DFSVSAMP dataset must be allocated if VSAM databases and SmartTest-IMS DL/I or DBB are used.

### To specify the VSAM buffer pool datasets

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the DFSVSAMP option and press Enter. The IMS/DC DFSVSAMP Allocation pop-up, shown in [Figure 45](#), displays.

Figure 45 • IMS/DC DFSVSAMP Allocation Pop-up



- 2 Specify the required DFSVSAMP dataset names.

This example illustrates a typical DFSVSAMP DD statement from IMS/DC execution JCL.

```
//PROCLIB DD DSN=IMS.PROCLIB,DISP=SHR  
//DFSVSAMP DD DSN=IMS.PROCLIB(DFSUSMDB),DISP=SHR
```

**Note:** \_\_\_\_\_

The DFSVSAMP names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

- 3 Press PF3/PF15.

### Field

**Enter DFSVSAMP Data set names.** The dataset names and members containing VSAM buffer pool control statements. These datasets contain VSAM buffer length and buffer count information to be used by IMS/DC.

## IMSMON Allocation (3270 Terminal Emulation Mode)

You must specify the IMSMON allocation information if you are using 3270 Terminal Emulation mode and you selected either private databases and PSB/DBD or private databases and ACB on the IMS/DC Setup 3270 Terminal Emulation pop-up (see [Figure 14 on page 21](#)).

*To specify the IMS monitoring dataset for output from the IMS monitor*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the IMSMON option and press Enter. The IMS IMSMON Allocation pop-up, shown in [Figure 46](#), displays.

**Figure 46 • IMS IMSMON Allocation Popup**

```

                                IMS IMSMON Allocation
Command ==> _____
Enter Data set name, DUMMY, TEMP, or blank:
Name . . . _____

DSN DISP  ___      (New, Old, or Shr)
Unit . . . SYSDA
Volume . . _____

Space:
Units . . . CYL      (Cylinder, Track, or Block)
Primary  1
Secondary 1

DCB:
RECFM . . . UB
LRECL . . . 2044
BLKSIZE  2048

```

- 2 Specify the required IMSMON allocation information.

This example illustrates a typical IMSMON DD statement from IMS/DC execution JCL.

```
//IMSMON DD DSN=IMS.MONITOR,DISP=SHR
```

**Note:** \_\_\_\_\_

The IMSMON names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names.

- 3 Press PF3/PF15.

## Fields

Field	Description
Name	Specifies a valid dataset name or one of these values: <b>DUMMY.</b> Indicates that allocation is performed, but no data is created. <b>TEMP.</b> Indicates that allocation of a temporary dataset is performed. <b>Blank.</b> Indicates that no allocation is performed.
DSN DISP	Specifies the disposition of the dataset. Disposition can be NEW, OLD, or SHR.
Unit	Specifies a generic name used to allocate the dataset if the dataset name specified in the NAME field is not cataloged or if TEMP was specified in the NAME field.
Volume	Indicates the volume serial number containing the IMSMON dataset.
Units	Indicates the type of space to be allocated for the dataset. Space can be specified as CYLINDER, TRACK, or BLOCK.
Primary	Indicates the number of primary cylinders, tracks, or blocks to be allocated.
Secondary	Indicates the number of secondary cylinders, tracks, or blocks to be allocated.
RECFM	Specifies the record format of the IMSMON dataset. The default is VB.
LRECL	Specifies the record length of the IMSMON dataset. The default is 2044.
BLKSIZE	Specifies the blocking factor for the IMSMON dataset. The default is 2048.

**Note:**

\_\_\_\_\_

If the IMS monitor is to be used, it is necessary to allocate either a temporary dataset or a permanent dataset in conjunction with the NAME field. In addition, if the IMS monitor is to be invoked, it is necessary to specify Y in the MON field on the IMS DLI/DBB Parameters pop-up.

\_\_\_\_\_

## RECON Allocation (3270 Terminal Emulation Mode)

You must specify the RECON allocation if you are using 3270 Terminal Emulation mode and you selected either private databases and PSB/DBD or private databases and ACB on the IMS/DC Setup 3270 Terminal Emulation pop-up (see [Figure 14 on page 21](#)).

### To specify the IMS/DC DBRC datasets

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the RECON option and press Enter. The IMS/DC RECON Allocation pop-up, shown in [Figure 47](#), displays.

Figure 47 • IMS/DC RECON Allocation Pop-up

```

IMS/DC RECON Allocation
Command ==> _____
Enter DBRC RECON Data set names:
1  _____
2  _____
3  _____
  
```

- 2 Specify the required DBRC RECON dataset information.

This example illustrates a typical RECON DBRC DD statements from IMS/DC execution JCL.

```
//RECON1      DD  DSN=IMS.RECON1,DISP=SHR
//RECON2      DD  DSN=IMS.RECON2,DISP=SHR
//RECON3      DD  DSN=IMS.RECON3,DISP=SHR
```

#### Note:

The DBRC dataset names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names. The DBRC datasets associated with the DD statements RECON1, RECON2, and RECON3 can be accessed through dynamic allocation blocks when executing SmartTest-IMS using 3270 terminal emulation mode.

- 3 Press PF3/PF15.

### Field

**Enter DBRC RECON Data set names.** The DBRC RECON datasets that correspond, respectively, with DD statements RECON1, RECON2, and RECON3 in IMS. The datasets are used by the IMS Database Recovery Control feature to coordinate sharing and recovery of databases among IMS regions.

## DFSSTAT Allocation (3270 Terminal Emulation Mode)

You must specify the DFSSTAT allocation if you are using 3270 Terminal Emulation mode. If you intend to use the information in DFSSTAT, a permanent file should be allocated. A TEMP or DUMMY file allocation is lost upon completion of your IMS program.

*To specify the DFSSTAT dataset to be used for recording information describing the database calls and buffering activity for your program*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the DFSSTAT option and press Enter. The IMS/DC DFSSTAT Allocation pop-up, shown in [Figure 48](#), displays.

Figure 48 • IMS/DC DFSSTAT Allocation Pop-up

```
IMS/DC DFSSTAT Allocation
Command ==> -----
Enter Data set name, DUMMY, TEMP, or blank:
Name . . . -----
DSN DISP ___ (New, Old, or Shr)
Unit . . . SYSDA
Volume . . . -----
Space:
Units . . . CYLINDERS (Cylinder, Track, or Block)
Primary 1
Secondary 1
DCB:
RECFM . . . UBS
LRECL . . . 512
BLKSIZE 3072
```

- 2 Specify the required DFSSTAT allocation information.

**Note:** \_\_\_\_\_

The DFSSTAT dataset name and attributes are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct name and attributes.

\_\_\_\_\_

- 3 Press PF3/PF15.

## Fields

Field	Description
Name	Specifies a valid dataset name or one of these values: <b>DUMMY.</b> Indicates that allocation is performed, but no data is created. <b>TEMP.</b> Indicates that allocation of a temporary dataset is performed. <b>Blank.</b> Indicates that no allocation is performed.
DSN DISP	Specifies the disposition of the dataset. Disposition can be NEW, OLD, or SHR.
Unit	Specifies a generic name used to allocate the dataset if the dataset name specified in the NAME field is not cataloged or if TEMP was specified in the NAME field.
Volume	Indicates the volume serial number containing the allocated dataset.
Units	Indicates the type of space to be allocated for the dataset. Space can be specified as CYLINDER, TRACK, or BLOCK. CYLINDER is the default.
Primary	Indicates the number of primary cylinders, tracks, or blocks allocated. The default is 1.
Secondary	Indicates the number of secondary cylinders, tracks, or blocks allocated. The default is 1.
RECFM	Specifies the record format of the DFSSTAT dataset. The default is VBS.
LRECL	Specifies the record length of the allocated dataset. The default is 512.
BLKSIZE	Indicates the maximum length (in bytes) of a block for the allocated dataset. The default is 3072.

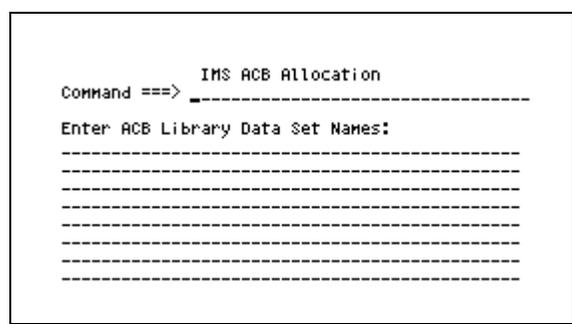
## IMSACB Allocation (3270 Terminal Emulation Mode)

You must specify the allocation for the ACB library if you are using 3270 Terminal Emulation mode and you selected private databases and ACB on the IMS/DC Setup 3270 Terminal Emulation pop-up (see [Figure 14 on page 21](#)).

### *To specify the ACB dataset to be used for testing your program*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the IMSACB option and press Enter. The IMS ACB Allocation pop-up, shown in [Figure 49](#), displays.

**Figure 49 • IMS ACB Allocation Pop-up**



```
IMS ACB Allocation
Command ==> -----
Enter ACB Library Data Set Names:
-----
-----
-----
-----
-----
-----
```

- 2 Specify the required ACB dataset name.

**Note:** \_\_\_\_\_

The ACB dataset names are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct names to use.

\_\_\_\_\_

- 3 Press PF3/PF15.

### Field

**Enter ACB Library Data Set Names.** The dataset used as the ACB library by IMS.

## FPTRACE Allocation (Either Mode)

You must specify the allocation for FPTRACE if you are using 3270 Terminal Emulation mode and you selected public databases and online IMS on the IMS/DC Setup 3270 Terminal Emulation pop-up, or if you are using Native IMS Terminal mode.

### *To specify the FPTRACE dataset and attributes to be used for testing your program*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the FPTRACE option and press Enter. The IMS/DC FPTRACE Allocation pop-up, shown in [Figure 50](#), displays.

**Figure 50 • FPTRACE Allocation Pop-up**

```

                                IMS/DC FPTRACE Allocation
Command ==> -----
Enter Data set name, DUMMY, TEMP, or blank:
Name . . . -----
DSN DISP   ___      (New, Old, or Shr)
Unit . . . SYSDA
Volume . . . -----
Space:
Units . . . CYLINDERS (Cylinder, Track, or Block)
Primary   1
Secondary 1
DCB:
RECFM . . . UBS
LRECL . . . 512
BLKSIZE  3072

```

- 2 Specify the required FPTRACE dataset name and attributes.

**Note:** \_\_\_\_\_

The FPTRACE dataset name and attributes are contained in the IMS execution JCL and PROCs for your site. Contact your IMS system administrator for the correct name and attributes.

\_\_\_\_\_

- 3 Press PF3/PF15.

## Fields

Field	Description
Name	Specifies a valid dataset name or one of these values: <b>DUMMY.</b> Indicates that allocation is performed, but no data is created. <b>TEMP.</b> Indicates that allocation of a temporary dataset is performed. <b>Blank.</b> Indicates that no allocation is performed.
DSN DISP	Specifies the disposition of the dataset. Disposition can be NEW, OLD, or SHR.
Unit	Specifies a generic name used to allocate the dataset if the dataset name the NAME field is not cataloged or if TEMP was specified in the NAME field.
Volume	Indicates the volume serial number containing the allocated dataset.
Units	Indicates the type of space to be allocated for the dataset. Space can be specified as CYLINDER, TRACK, or BLOCK. CYLINDER is the default.
Primary	Indicates the number of primary cylinders, tracks, or blocks allocated. The default is 1.
Secondary	Indicates the number of secondary cylinders, tracks, or blocks allocated. The default is 1.
RECFM	Specifies the record format of the allocated dataset. Record format can be specified as F (fixed) or V (variable).
LRECL	Specifies the record length of the allocated dataset. The default is 512.
BLKSIZE	Specifies the maximum length (in bytes) of a block for the allocated dataset. The default is 3072.

## DFSESL Allocation (Either Mode)

You must specify the allocation for the DFSESL libraries if you are using 3270 Terminal Emulation mode and you selected public databases and online IMS on the IMS/DC Setup 3270 Terminal Emulation pop-up, or if you are using Native IMS Terminal mode.

### *To specify the DFSESL dataset to be used for testing your program*

- 1 On the IMS/DC Setup IMS Data Sets pop-up, type the number corresponding to the DFSESL option and press Enter. The IMS/DC DFSESL Allocation pop-up, shown in [Figure 51](#), displays.

**Figure 51 • IMS/DC DFSESL Allocation Pop-up**

```

                    IMS/DC DFSESL Allocation
Command ==> -----
Enter DB2 Load Library Data set names:
'DSN.DSNLOAD'
-----
-----
-----

```

- 2 Specify the required DFSESL dataset names.

**Note:** \_\_\_\_\_

The DFSESL dataset names are contained in the IMS execution JCL and PROCs for site. Contact your IMS system administrator for the correct names.

\_\_\_\_\_

- 3 When this screen is complete, press PF3/PF15.

### Field

**Enter DB2 Load Library Data set names.** The dataset used as the DB2 library by IMS.



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