



**Program Directory for
IBM Problem Determination Testing Solution Pack for z/OS**

V01.01.00

Program Number 5655-DTS

for use with
z/OS

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GI13-2930-00

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 15.

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1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of IBM Problem Determination Testing Solution Pack for z/OS. This publication refers to IBM Problem Determination Testing Solution Pack for z/OS as PD Testing Solution Pack, IBM Problem Determination Tools Common Component as PDTCC, IBM Debug Tool for z/OS as Debug Tool, IBM Workload Simulator for z/OS and OS/390 as WSim, IBM HourGlass as HourGlass, and IBM COBOL and CICS Command Level Conversion Aid for OS/390 & MVS & VM as CCCA.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic program materials and documentation for PD Testing Solution Pack.
- 3.0, “Program Support” on page 7 describes the IBM support available for PD Testing Solution Pack.
- 4.0, “Program and Service Level Information” on page 8 lists the APARs (program level) and PTFs (service level) that have been incorporated into PD Testing Solution Pack.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations that are required for installing and using PD Testing Solution Pack.
- 6.0, “Installation Instructions” on page 14 provides detailed installation instructions for PD Testing Solution Pack. It also describes the procedures for activating the functions of PD Testing Solution Pack, or refers to appropriate publications.

Before installing PD Testing Solution Pack, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 7 tells you how to find any updates to the information and procedures in this Program Directory.

PD Testing Solution Pack is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for PD Testing Solution Pack are included on the CBPDO tape.

Do not use this program directory if you install PD Testing Solution Pack with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.

1.1 PD Testing Solution Pack Description

The Problem Determination Solution Packs are a convenient and affordable way to purchase key products in the Problem Determination Tools family:

- **Convenient.**
Being able to purchase multiple products under a single program number can help to simplify client procurement processes.
- **Affordable.**
The Solution Pack price represents a reduction in the aggregate price of the individual component products. When trading up, customers with active Subscription and Support (S&S) contracts for a previously purchased product that is part of one of these Solution Packs can receive Value Unit credit for prior purchases.

PROBLEM DETERMINATION TESTING SOLUTION PACK FOR Z/OS, V1.1 is composed of the following tools:

- **Debug Tool for z/OS, V13.1** is the IBM interactive, source-level debugging tool for compiled applications. It is a program testing and analysis aid that helps you examine, monitor, and control the execution of application programs written in C, C++, COBOL, PL/I, or Assembler on a z/OS system. It provides debugging capability for applications running in a variety of environments, such as batch, TSO, CICS, IMS, DB2, DB2 Stored Procedures, and UNIX System Services. Debug Tool also includes features to help you identify old OS/VS and VS COBOL II source code and to upgrade the code to Enterprise COBOL.
 - Delivers a single debugging tool for batch, TSO, CICS, DB2, DB2 stored procedures, and IMS applications written in COBOL, PL/I, C/C++, and Assembler.
 - Includes tools to quickly identify and convert OS/VS COBOL code to ANSI 85 standard.
 - Supplies tools to help you determine how thoroughly your code was tested.
- **Workload Simulator for z/OS and OS/390, V1.1** lets you simulate terminals and the associated messages. You can alter message loads during a run. Workload Simulator can be used to generate large volumes of messages to evaluate the reliability and to approximate performance characteristics of a network under expected operating conditions.
 - Delivers native support of multiple client applications that run on top of TCP/IP.
 - Includes System Network Architecture (SNA) logical units that can be simulated while executing as an IBM VTAM application program
 - Includes Workload Simulator Test Manager that helps you develop and manage test cases, the automation of test runs, and the analysis of results.
 - Includes flexible script-generating utilities, extensive run-time utilities, and powerful, post-test, analysis utilities.
- **HourGlass V7.1** is a z/OS clock-simulator application for altering the date and time returned to a z/OS application when a time request is made. HourGlass enables automation of the date and time testing process to help companies deliver reliable applications without requiring changes to application code,

re-IPLing the CPU or LPAR, or making runtime JCL changes. HourGlass features and flexibility help enable easy, accurate, and comprehensive application testing.

The testing of time-sensitive applications is less disruptive with HourGlass where you may set as many altered date and time values as needed and eliminate multiple system Power-On-Reset (POR) procedures. Altered values affect only the applications you specify. HourGlass intercepts all system time-of-day requests that internally issue an SVC 11 or requests to the PC Time system service.

HourGlass handles time requests originating from the MVS STCKSYNC system service, which is important for sysplex-wide applications impacted by time and date. You can alter the date-time by specifying patterns or specific applications, transactions, users, and address space names.

The HourGlass Repository provides the capability to save and manage HourGlass date and time settings in a permanent storage facility. Date and time settings are preserved across executions of the product. You can manage the contents of the repository with the HourGlass Control Center.

1.2 PD Testing Solution Pack FMIDs

PD Testing Solution Pack consists of the following FMIDs:

- PDTCC:
 - HVWR170
 - JVWR171
 - JVWR172
- Debug Tool:
 - HADRD10
 - JADRD1J
 - JADRD1K
- WSim:
 - H281110
- HourGlass:
 - HAD5710
- CCCA:
 - H09F210
 - J09F210

2.0 Program Materials

An IBM program is identified by a program number and feature numbers. The program number for PD Testing Solution Pack is 5655-DTS and the feature numbers are 6002, 6003, and 6004.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product.

The program announcement material describes the features supported by PD Testing Solution Pack. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 14 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for PD Testing Solution Pack in the *CBPDO Memo To Users Extension*.

To view the Program File Content of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for PD Testing Solution Pack.

2.3 Program Publications

The following sections identify the basic publications for PD Testing Solution Pack.

Figure 1 identifies the basic unlicensed publications for PD Testing Solution Pack. Publications can be accessed at the IBM Publications Center website at <http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss>

Figure 1. Basic Material: Unlicensed

Publication Title	Form Number
IBM Problem Determination Testing Solution Pack for z/OS Agreements and License Information	LC27-4558
IBM Problem Determination Tools Common Component Program Directory	GI10-8969
IBM Debug Tool for z/OS Program Directory	GI13-3004
IBM Workload Simulator for z/OS and OS/390 Program Directory	GI10-3234
IBM HourGlass Program Directory	GI13-2928
IBM COBOL and CICS Command Level Conversion Aid for OS/390 & MVS & VM Program Directory	GI10-5080 (English), and GI10-6976 (Japanese)

To view the unlicensed publications content of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

2.3.1 Optional Program Publications

No optional publications are provided for PD Testing Solution Pack.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for PD Testing Solution Pack.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 2 during the installation of PD Testing Solution Pack.

Figure 2. Publications Useful During Installation

Publication Title	Form Number	Media Format
<i>IBM SMP/E for z/OS User's Guide</i>	SA22-7773	PDF and BookManager
<i>IBM SMP/E for z/OS Commands</i>	SA22-7771	PDF and BookManager
<i>IBM SMP/E for z/OS Reference</i>	SA22-7772	PDF and BookManager
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA22-7770	PDF and BookManager

3.0 Program Support

This section describes the IBM support available for PD Testing Solution Pack.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

To view the Preventive Service Planning (PSP) of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

To identify the component IDs (COMPID) for the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of PD Testing Solution Pack. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been incorporated into the program.

4.1 Program Level Information

To view the list of APAR fixes against the previous releases of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

4.2 Service Level Information

To view the Service Level Information of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating PD Testing Solution Pack. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.
The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install PD Testing Solution Pack.

5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

5.1.2 Programming Requirements

Figure 3. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any one of the following:				
5694-A01	z/OS	V01.12.00	N/A	No
5650-ZOS	z/OS	V02.01.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

Note: Installation might require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use PD Testing Solution Pack.

PD Testing Solution Pack installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required and *must* be present on the system or products that are not required but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product.

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time.

To view the Installation Requisites of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass

- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

5.2.2.2 Operational Requisites: Operational requisites are products that are required and *must* be present on the system or products that are not required but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions.

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions.

To view the Operational Requisites of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

5.2.2.3 Toleration/Coexistence Requisites: Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

PD Testing Solution Pack has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites: Negative requisites identify products that must *not* be installed on the same system as this product.

PD Testing Solution Pack has no negative requisites.

5.2.3 DASD Storage Requirements

PD Testing Solution Pack libraries can reside on all supported DASD types.

To review the individual DASD Storage Requirements of each of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

5.3 FMIDs Deleted

Installing any of the products that constitute PD Testing Solution Pack, may result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in each of the SMPMCS of these products.

If you do not want to delete these FMIDs at this time, install the relevant product into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

5.4 Special Considerations

5.4.1 Subcapacity Reporting Tool Registration

If you are installing any of the products purchased as part of the PD Testing Solution Pack, you are required to register these products to run under the PD Testing Solution Pack PID 5655-DTS.

Parmlib member IFAPRDxx needs to be updated as follows:

```
PRODUCT OWNER('IBM CORP')
NAME('IBM PD TS SO PAC')
ID(5655-DTS)
VERSION(*) RELEASE(*) MOD(*)
FEATURENAME('PR-DE-SOL-TS-PAC')
STATE(ENABLED)
```

After you have updated IFAPRDxx, issue the SET PROD=xx operator command.

Note: The IFAPRDxx parmlib member only needs to be updated once for PD Solution Pack, irrespective of the number of individual products installed.

For further instructions on registering the individual products, follow the instructions below:

1. For PDTCC:
 - No further action is required.
2. For Debug Tool:
 - Sample registration parmlib entry EQAWIFAT, is provided in your hlq.SEQASAMP data set.
3. For WSim:
 - No further action is required.
4. For HourGlass:

- No further action is required.

5. For CCCA:

- No further action is required.

5.4.2 Special Considerations for the Individual Products

To view the individual Special Considerations of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of PD Testing Solution Pack.

Please note the following points:

- If you want to install PD Testing Solution Pack into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing PD Testing Solution Pack

6.1.1 SMP/E Considerations for Installing PD Testing Solution Pack

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of PD Testing Solution Pack.

To view the individual SMP/E installation instructions of each of the products that constitute PD Testing Solution Pack, refer to the following Program Directories that are supplied with the product.

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

6.2 Activating PD Testing Solution Pack

To activate the individual products that constitute PD Testing Solution Pack, refer to their Program Directories which are supplied with the product, and follow the instructions in the corresponding section(s).

- Publication number GI10-8969 for PDTCC
- Publication number GI13-3004 for Debug Tool
- Publication number GI10-3234 for WSim
- Publication number GI13-2928 for HourGlass
- Publication numbers GI10-5080 (English), and GI10-6976 (Japanese) for CCCA

7.0 Notices

References in this document to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe on any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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Reader's Comments

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We appreciate your input on this publication. Feel free to comment on the clarity, accuracy, and completeness of the information or give us any other feedback that you might have.

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