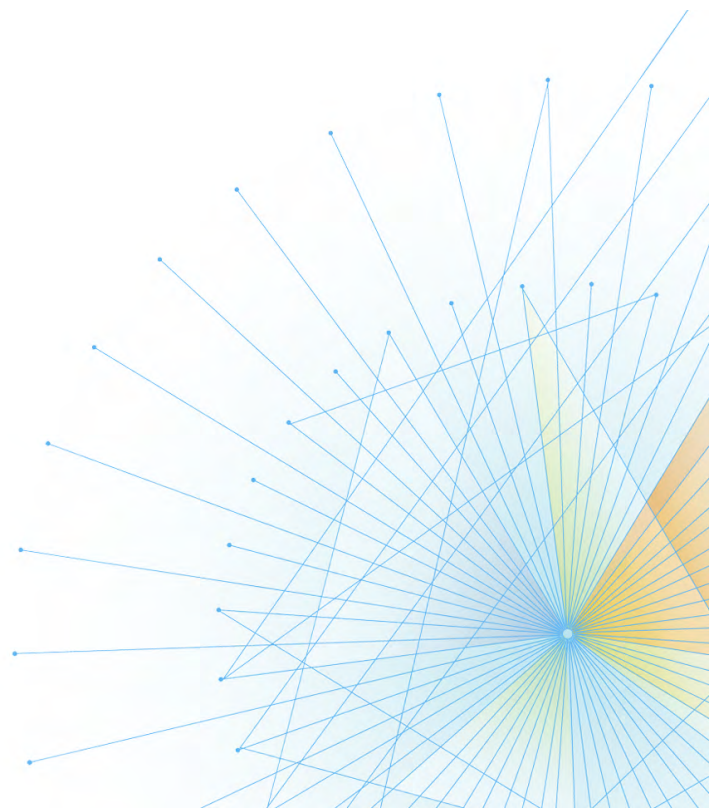




| The Mainframe Software Partner For The Next 50 Years

# Compuware Program Analyzer Mainframe Installation and Configuration Guide

**Release 18.03**



Please direct questions about Compuware Program Analyzer  
or comments on this document to:

**Compuware Program Analyzer Customer Support**

**<https://go.compuware.com/>**

This document and the product referenced in it are subject to the following legends:

Copyright 2018 Compuware Corporation. All rights reserved. Unpublished rights reserved under the Copyright Laws of the United States.

U.S. GOVERNMENT RIGHTS-Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in Compuware Corporation license agreement and as provided in DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (OCT 1988), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 52.227-14 (ALT III), as applicable. Compuware Corporation.

This product contains confidential information and trade secrets of Compuware Corporation. Use, disclosure, or reproduction is prohibited without the prior express written permission of Compuware Corporation. Access is limited to authorized users. Use of this product is subject to the terms and conditions of the user's License Agreement with Compuware Corporation.

This product contains confidential information and trade secrets of Compuware Corporation. Use, disclosure, or reproduction is prohibited without the prior express written permission of Compuware Corporation.

Adobe® Reader® is a trademark of Adobe Systems Incorporated in the United States and/or other countries.

All other company or product names are trademarks of their respective owners.

# Contents

<b>Introduction</b> .....	<b>5</b>
Product Overview .....	5
Mainframe Installation and Configuration Guide .....	5
Contents .....	5
Intended Audience .....	6
Conventions .....	6
Compuware Program Analyzer Publications .....	6
Books .....	6
Help .....	6
Product Support .....	7
<b>Planning</b> .....	<b>9</b>
Prerequisites .....	9
Supported Hardware and Software .....	9
Hardware Platforms .....	9
the Compuware Support Center Operating Systems .....	9
Languages .....	9
Corequisites .....	9
Distributed .....	9
DASD Space Requirements .....	9
<b>Getting Started</b> .....	<b>11</b>
Preinstallation Considerations for Compuware Program Analyzer .....	11
Connect to MVS Host .....	11
TP Definitions Using TCP/IP .....	11
Overview of HCI .....	11
<b>Installation Overview and Considerations</b> .....	<b>13</b>
Installation Considerations .....	13
Enterprise Common Components Installation .....	13
<b>Collect Site-Specific Information</b> .....	<b>15</b>
Product Datasets .....	15
Additional Libraries .....	15
Install Options Variables .....	16
Transaction Program Definitions .....	17
<b>Customization Procedures</b> .....	<b>19</b>
Step 1. Execute Customization Manager .....	19
Step 2. Define Dataset Names .....	19
Step 3. Specify Options .....	20
Step 4. Define Variables for TP Definitions .....	20
Step 5. Perform Customization Tasks .....	21

Step 6. Establish Security Protections . . . . . 22

Step 7. Set Up HCI Security . . . . . 22

    TP Performance Considerations . . . . . 23

Summary . . . . . 23

Using the CHANGE Command . . . . . 23

# Introduction

## Product Overview

With Compuware Program Analyzer, developers can analyze even their most complex programs. Compuware Program Analyzer provides easy to understand analysis and documentation of a COBOL program through views of the program's structure, data items, and logic to help developers solve the problems they face every day.

Compuware Program Analyzer includes the following components:

- Analyzes all your batch, CICS, DB2, COBOL, PL/I and Assembler applications, allows you to query against that collected metadata.
  - Provides impact analysis, identifying related associated artifacts from a given resource.
  - Allows your programming staff to quickly see the relationships across programs, identifying both the source and destination of critical data fields.
  - Allows your programming staff to assess the effort associated with changes by clearly identifying even the most subtle connections.
  - Improves the quality of your applications by giving you the information necessary to quickly identify and assess cause and effect across mainframe artifacts like fields within record layouts, MVS files, IMS and CICS transactions, production jobs, and DB2 tables.
- Program Analyzer, which does the following:
    - Provides a program's logic flow in both chart and diagram format with intuitive highlighting, giving you a quick grasp of how the program works.
    - Allows you to analyze and navigate through a COBOL program to refer to specific paragraphs, divisions, and sections.
    - Identifies dead code within a program.
    - Analyzes the flow of data across variables throughout the program, allowing you to quickly locate the source of bad data.

## Mainframe Installation and Configuration Guide

This guide tells you how to install and configure the Compuware Program Analyzer software on the host.

### Contents

This guide contains the following chapters:

- [Chapter 1, Getting Started](#) lists the system requirements and preinstallation requirements for the mainframe portion of Compuware Program Analyzer.
- [Chapter 2, Installation Overview and Considerations](#) provides an overview of the process used to install Compuware Program Analyzer.
- [Chapter 3, Collect Site-Specific Information](#) helps you collect the site-specific information you need to install the mainframe portion of Compuware Program Analyzer on your MVS host.
- [Chapter 4, Customization Procedures](#) walks you through the following steps for customizing the mainframe portion of Compuware Program Analyzer.

## Intended Audience

This guide is written for the person responsible for installing and maintaining MVS software products. This guide assumes that you are already familiar with SMP/E, system initialization parameters, and TCP/IP.

## Conventions

This guide uses the following convention:

- The names of menus, buttons, and other items that you must enter or press in an Compuware Program Analyzer window are printed in **bold-faced** type.

## Compuware Program Analyzer Publications

An RFN order e-mail includes a link to the *Compuware Installer Mainframe Products SMP/E Installation Guide*, which should be used to perform the installation of Compuware Program Analyzer. Preparation for installation and post-installation configuration should be done according to this *Guide*.

An RFN order e-mail includes a link to the *Compuware Installer Mainframe Products SMP/E Installation Guide*, which should be used for the SMP/E installation of Enterprise Common Components (ECC). ECC includes the mainframe component of Compuware Program Analyzer. Preparation for installation and post-installation configuration for the Compuware Program Analyzer components should be done according to the *Compuware Program Analyzer Mainframe Installation and Configuration Guide*.

Compuware Program Analyzer publications are also available to users in a variety of formats.

## Books

The following books are available on the Compuware Support Center for Compuware Program Analyzer:

- *Mainframe Installation and Configuration Guide*: Provides step-by-step instructions for preparing for installation of the mainframe portion of Compuware Program Analyzer on the MVS host, as well as post-installation configuration.
- *Distributed License Management Installation Guide*: Explains how to set up a license to use the workstation portion of Compuware Program Analyzer.
- *Enterprise Common Component Installation and Configuration Guide*: Provides information about how to install, customize, and maintain Enterprise Common Components.

Books can be viewed with Adobe Acrobat Reader. To learn more about Adobe Acrobat Reader or to download this free viewing companion to Adobe Acrobat from the World Wide Web, go to <http://www.adobe.com>.

## Help

The following help is available for Compuware Program Analyzer:

- Release Notes, which give highlights about new product features, and list system requirements, technical notes, and known issues are available on the Compuware Support Center.
- Step-by-step instructions for installing the workstation portion of Compuware Program Analyzer are available from product browser.

- The **Setting Up Compuware Program Analyzer** help is for verifying the installation and performing the one-time setup of components.
- The **Comprehensive Help** is global help covering all components of Compuware Program Analyzer. This help has an all-inclusive index and search capability across the help of all Compuware Program Analyzer components, and provides links to the help for commonly performed tasks.
- A component's help (index, table of contents, and search capabilities) is available from the **Help** menu of any window within that component.
- Dialog box help is available by clicking the **Help** button on a dialog box.

## Product Support

Visit the Compuware Support Center, <https://go.compuware.com>, to find product documentation, knowledge articles, and other technical resources. You can open a case with the Customer Solutions team, order products, and much more.

Contact Customer Solutions by phone:

- USA and Canada: 1-800-538-7822 or 1-313-227-5444.
- All other countries: Contact your local Compuware office. Contact information is available at <https://go.compuware.com>.

Visit Compuware on the web at <http://www.compuware.com> for additional product information.

If a mainframe abend occurs while you are using any workstation component that connects the mainframe, before contacting Compuware, submit the X2ZAPLST member provided in your Compuware Program Analyzer install dataset.

It lists any fixes that have been applied to your system.





# Planning

This section provides information related to planning to install Compuware Program Analyzer.

## Prerequisites

### Supported Hardware and Software

#### Hardware Platforms

- Mainframe Systems:
  - z13, z13s, z14
  - zEC12, zBC12
  - z196, z114
  - z10-EC/BC
  - z9-EC/BC
  - z900, z990
  - z800, z890
- Distributed Systems:
  - Windows x86, x64. 750 MHz minimum
  - Hard Disk: 50 MB minimum
  - Memory: 512 MB minimum; at least 1024 MB recommended

#### Operating Systems

- IBM z/OS V1.12, 1.13, 2.1, 2.2
- IBM ISPF for the supported z/OS releases
- Microsoft Windows Vista, 7, 8.1, 10 (toleration support for Windows 10)

#### Languages

- IBM Enterprise COBOL for z/OS V3.4, 4.2, 5.1, 5.2, 6.1, 6.2
- IBM Enterprise PL/I for z/OS V3.9, 4.2, 4.3, 4.4, 4.5 (4.5 with toleration support)

#### Corequisites

- Compuware Products and components:
  - Distributed License Management 4.5.4
  - Enterprise Common Components 17.02 with all current maintenance applied, which represents a single install image for the following Compuware facilities:
    - Compuware Mainframe Services Controller (CMSC)
    - License Management System (LMS)
    - Compuware Shared Services (CSS)
    - Host Communications Interface (HCI)
    - Base Services

#### Distributed

- Microsoft Internet Explorer 7, 8, 9, 10, 11 for the supported Windows releases (for using the CD browser and viewing online help)

#### DASD Space Requirements

The mainframe install image is now a part of Enterprise Common Components. Refer to the *Enterprise Common Components Installation and Configuration Guide* for DASD space requirements.



# Chapter 1

## Getting Started

This chapter lists the preinstallation considerations for installing the mainframe portion of Compuware Program Analyzer.

Refer to the release notes for the most current system requirements.

## Preinstallation Considerations for Compuware Program Analyzer

Compuware Program Analyzer requires IBM TCP/IP communications.



Compuware Program Analyzer must be installed on the same MVS image as IBM TCP/IP for MVS and Compuware's Host Communication Interface (HCI).

### Connect to MVS Host

Before you install Compuware Program Analyzer on the MVS host, you must have a connection (link) between the host on which you will install the mainframe component of Compuware Program Analyzer and the workstation on which you will install the workstation component.

### TP Definitions Using TCP/IP

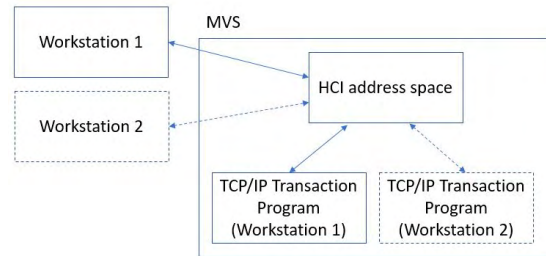
The communication between the workstation and the host is done through a TP. It uses the TCP/IP communication protocol. You must be able to run TCP/IP traffic from the workstation to the host. The Windows PING command is one way to test this. Refer to the help topic entitled *Ensuring TCP/IP connection from the workstation to the MVS host* for information on how to verify workstation to host connectivity.



To avoid any unpredictable connection issues, make sure all current IBM maintenance is applied to TCP/IP.

### Overview of HCI

Compuware Program Analyzer uses Compuware's Host Communications Interface (HCI) to provide connectivity between the workstation and the mainframe, using TCP/IP as the communications protocol.

**Figure 1** Workstation/mainframe connectivity

HCI is a component of Enterprise Common Components. Refer to the *Enterprise Common Components Installation and Configuration Guide* for more information about HCI.

The design of HCI is based on facilities available to z/OS operating systems. Refer to the software requirements for MVS host in the release notes for additional information.

- HCI itself can be started as a started task or as a batch job.
- HCI starts transaction programs (TPs) as started tasks or as batch jobs.

Started task transaction programs can also be set up with master scheduler JCL using the IEFJOBS DD concatenation of MSTJCLxx. Refer to the step detailing how to set up started task TPs with master JCL on [Step 2](#) on page 20.

- When using HCI, the HCI address space must be authorized by the Authorized Program Facility (APF). However, the application programs or the link-edited interface modules using HCI are not required to be APF-authorized. These are normal MVS non-authorized programs.

# Chapter 2

## Installation Overview and Considerations

Compuware Program Analyzer is packaged with ECC for installation using SMP/E (System Modification Program Extended). SMP/E is a method developed by IBM to install software products in the MVS environment.

Compuware Program Analyzer installation involves the following:

- Installing the appropriate release of Enterprise Common Components and applying all current maintenance. Refer to the *Enterprise Common Components Installation and Configuration Guide* for more information.
- Customizing the product to establish a link between components that communicate with the workstation and the MVS host.

This chapter provides an overview of the process used to *install* Compuware Program Analyzer. Review this summary before beginning the installation process according to the instructions provided in the *Compuware Installer Mainframe Products SMP/E Installation Guide*. Topics presented in this chapter include:

- Installation Considerations
- Compuware Program Analyzer Packaging

Refer to [Chapter 4, Customization Procedures](#) for the procedure for *customizing* Compuware Program Analyzer.

## Installation Considerations

### Enterprise Common Components Installation

Ensure that Enterprise Common Components (ECC) Release 17.2 is installed **before** installing Compuware Program Analyzer.

An executable HCI is required to complete the customization of Compuware Program Analyzer. Refer to the *Enterprise Common Components Installation and Configuration Guide* for how to create and execute the HCI.

PTF CXS352A is available as part of the ECC cumulative maintenance file or can be downloaded from the Compuware Support Center as an individual PTF. Ensure that it and all of the latest ECC cumulative maintenance are applied.



# Chapter 3

## Collect Site-Specific Information

This chapter helps you collect the site-specific information you need to customize the mainframe portion of Compuware Program Analyzer in order to establish the link between components that communicate with the workstation and the MVS host. Because the information for the installation and customization comes from different sources, it is easiest to collect it before beginning the install and customization process.

Some customization is required by the Customization Manager. This is an automated ISPF application that prompts you for the site-specific information you collect and controls the customization process. Customization Manager provides default values for most datasets, programs, and other entries that must be specified to perform the customization. However, these values may not be appropriate for your site. Use the tables in this chapter to record the correct values before beginning the customization. Then use [Chapter 4, Customization Procedures](#) to perform the customization.

### Product Datasets

Use this table to record the names of datasets loaded and used by Compuware Program Analyzer. Your value is based on the SMP/E dataset high-level qualifier you entered when specifying SMP/E high-level qualifiers as described in the *Compuware Installer Mainframe Products SMP/E Installation Guide*.

**Table 1** Compuware Program Analyzer dataset names

Description	Your Value
<b>Product Datasets</b>	
ECC Load Library	<Your SMP/E HLQ>.SLCXLOAD
Product Install Dataset	<Your SMP/E HLQ>.SLCXCNTL
ECC Authorized Library	<Your SMP/E HLQ>.SLCXAUTH

### Additional Libraries

Use the table below to record the names of the following system libraries.

- LE370 Runtime Library
- IEFJOBS Lib (Optional. Used when running TPs with master JCL. See [Step](#) on page 20.) This is the library concatenated within MSTJCLXX, which is used to place job cards for started task TPs that run with master JCL.
- System Proclib



If any of the listed components are not installed at your site, leave the space in the Customization Manager dialog box blank.

**Table 2** ECC Shared Services and System Libraries dataset names

Description	Default Value	Your Value
LE370 Runtime Library	CEE.SCEERUN	
IEFJOBS Lib	SYS1.STCJOBS	
System Proclib	SYS1.PROCLIB	

## Install Options Variables

Use this table to record variables that are specific to your site, including JCL parameters used during the installation and parameters for optional interfaces to other products.

**Table 3** Installation options

Variable	Default Value	Your Value	Comments
DTYPE	PDS		Specify the type of Compuware Program Analyzer partition dataset to allocate: PDS or PDSE.
DUNIT	SYSDA		The disk unit name. Optional.
DVOLUME			The disk VOLSER. Optional.
JESDEF	JES2		Directs Customization Manager to build a JES2 or JES3 parm card to direct the TP to the specified MVS Image in your SYSPLEX. This parm is only used in a SYSPLEX environment if your TP is running as a Batch job.
JOBCARD1 JOBCARD2 JOBCARD3 JOBCARD4	/// JOBNAME /// * /// * /// *		The jobcard that Customization Manager will use throughout the installation process. Specify a valid jobcard in JOBCARD1 through JOBCARD4.
OUTCLASS	*		The SYSOUT class used in the JCL generated to install the product.
REALIO	SYSDA		The valid DASD work unit for REALIO. If your site uses SMS, ensure that the temporary datasets that require REALIO are not directed to VIRTUAL IO.
REALVOL			Enter the VOLSER for REALVOL if your site uses certain VOLSERs for non-VIO DASD units.
STTP	NO		Set this value to YES if you intend to run the TPs as started tasks.  <b>CAUTION:</b>  Compuware strongly recommends that you set the TPs to run as batch jobs during the Compuware Program Analyzer installation and then, after verifying that they execute properly, convert them to run as started tasks. Running them as batch jobs during the installation makes it easier to verify that they execute properly. Running them as started tasks after the installation will eliminate contention for JES initiators and prevent getting 1011 error messages on a workstation when starting TPs.



**Table 3** Installation options (Continued)

Variable	Default Value	Your Value	Comments
STTPMJCL	NO		Specifies whether your started task transaction programs will run with master scheduler JCL using the IEFJOBS DD concatenation of MSTJCLxx. Refer to <a href="#">Step</a> on page 20.
SYSID	HCI0		Specify a unique four-character alphanumeric name for the MVS Subsystem that this execution of HCI is to assume. The SYSID name must be unique across all subsystems on the MVS complex.
TCPNAME	TCPIP01		Enter the TCPIPJOBNAME used to start the TCP/IP address space (up to eight characters).
VIO	VIO		Work unit for virtual IO.
XWDDPORT	12170		A dedicated TCP/IP port number used by the HCI to connect Compuware Program Analyzer to the host. The number can range from 0 to 32767.

## Transaction Program Definitions

Use this table to record custom variable names used for running the TCPIP TP.

Values that cannot be changed are indicated in the “Your Value” column.

**Table 4** TP definitions

Variable	Default Value	Your Value
• TP Name	XPPTCPIP	
• TP Type	DD	DD
• Compuware Program Analyzer PARMLIB Member Name	HCITCPIP	



# Chapter 4

## Customization Procedures

This chapter walks you through the following steps for customizing the mainframe portion of Compuware Program Analyzer. This customization establishes the link between components that communicate with the workstation and the MVS host.

- [Step 1. Execute Customization Manager](#)
- [Step 2. Define Dataset Names](#)
- [Step 3. Specify Options](#)
- [Step 4. Define Variables for TP Definitions](#)
- [Step 5. Perform Customization Tasks](#)
- [Step 6. Establish Security Protections](#)
- [Step 7. Set Up HCI Security](#)

The customization process is handled by Customization Manager, an automated ISPF-like application that prompts you to enter the site-specific information you collected and controls running a series of batch jobs that complete the customization process.

### Step 1. Execute Customization Manager

Due to naming conflicts with the DevEnterprise customization dialog, the Compuware Program Analyzer customization dialog has been packed in XMIT format as member XAXMIT in the SLCXCNTL library. Do a TSO RECEIVE command on <smpehlq>.SLCXCNTL(XAXMIT) to a new PDS named <yourhlq>.XAINST.

1. Execute the CLIST \$XASETUP from the install dataset (created when you did the TSO RECEIVE of XAXMIT above) by entering the following in an ISPF/PDF COMMAND field:

```
TSO EX '<yourhlq>.XAINST($XASETUP)'
```

The SOFTWARE LICENSE AGREEMENT screen appears.

2. Read the agreement and type **1** to accept the agreement or **2** to reject the agreement. Press **Enter**. If you accept the agreement, the **Welcome** screen appears.
3. Select option **1** to begin customization.

### Step 2. Define Dataset Names

1. Select option **1** and press **Enter** on the **SET UP** screen to define the names of datasets required for this customization. The **DATASET NAMES** screen appears.
2. Select option **1** and press **Enter** to display the **PRODUCT DATASETS** screen.
3. Confirm the correct entries for all datasets under **Dataset Name**. These entries match [Table 1](#) on page 15, which are based on the SMP/E dataset high-level qualifier you entered when specifying SMP/E high-level qualifiers as described in the *Compuware Installer Mainframe Products SMP/E Installation Guide*. Refer to [Using the CHANGE Command](#) on page 23 to easily perform search-and-replace operations on character strings.
4. Press **F3** to save your changes and return to the **DATASET NAMES** screen.

5. From the **DATASET NAMES** screen, select option **2** and press **Enter** to display the **ADDITIONAL LIBRARIES** screen.
6. Enter the dataset names to match your existing site standards, making sure to scroll down and confirm the correct entries for all datasets. Enter the fully qualified dataset names for the LE370 Runtime Library, IEFJOBS Library, and System Proclib installed at your site.



If any of the listed components are not installed at your site, leave the space in the Customization Manager dialog box blank.



The library names you specify during the Compuware Program Analyzer customization must match those used in the XPPTCPIP TP JCL member. If library names change after the customization, make corresponding changes to the JCL.

7. Press **F3** until you reach the **SET UP** screen.

## Step 3. Specify Options

In this step, you will specify the customization parameters. The table is populated with the default values delivered with the product. If you are upgrading from a prior release, make sure that the following options are **different** from the ones specified in the previous installation.

1. Select option **2** and press **Enter** on the **SET UP** screen. The **OPTIONS** screen, which is several pages long, appears. Verify and/or update the values, making sure to scroll down and confirm the correct entries for all values. These entries match [Table 3](#) on page 16.



For information on a specific field, type an H in the CMD field to display help.

Whenever you are scrolling through a list of options, make sure that **SCROLL** is not set to **MAX**. Specify either **CSR**, **HALF** or **PAGE** to ensure that you do not skip over list items.

2. If you chose to set up your started task TPs with master JCL using the IEFJOBS DD concatenation, do the following:
  - a. Verify that both **STTP** and **STTPMJCL** customization option variables are set to **YES** for TPs to run with master JCL.
  - b. Verify that the dataset name associated with DD IEFJOBS in the master scheduler JCL dataset (commonly known as the MSTJCLxx member of SYS1.PARMLIB) is specified in the **ADDITIONAL LIBRARIES** screen. Refer to [Table 2](#) on page 16. Customization Manager creates members in this dataset that contain tailored job cards and an execute card to support each started task TP.



Ensure that the HCI Authorized Library is APF-authorized and is available on all MVS images. This library must be APF-authorized on every MVS, not just on the MVS where the HCI will run.

3. Press **F3** to save your changes and return to the **SET UP** screen.

## Step 4. Define Variables for TP Definitions

In this step, you will define the variables for the Transaction Program (TP) definitions you will use with Compuware Program Analyzer. This includes the TP names and member names for the TP JCL and the TP types.

1. Select option 3 and press **Enter** on the **SET UP** screen. The **TP DEFINITIONS** screen appears.
2. Review the table and update the values where appropriate. **TPs are provided as part of the installation.** These entries match [Table 4](#) on page 17. If you are upgrading from a prior release, make sure that the TP NAME is different from the ones specified in the previous installation. Make sure to change the PARMLIB MEMBER name from the default—HCITCPIP—to the new name specific to the new release of the product. This ensures that the existing HCITCPIP will not be overwritten when a new started task is copied into your system's PROCLIB.
3. Press **F3** to save your changes and return to the **SET UP** screen.

## Step 5. Perform Customization Tasks

The **SET UP** screen's Option 4 - Installation contains a list of tasks that must be selected and processed sequentially to install Compuware Program Analyzer.

Some tasks generate a batch job and then invoke an ISPF/PDF Edit session for the job. Review this JCL and submit the job, then review the job output before moving on to the next task.

For each task, use the **S** line command to generate JCL from the values entered in Options 1-4 on the **SET UP** screen. When you use the **S** or **E** line command, a standard ISPF/PDF Edit screen appears with notes and comments that explain what to do next. **It is imperative that you read the internal notes and comments for each task to understand the steps that are taking place during the installation.** Most of the JCL or objects should not require any manual modification.

If you are upgrading from a prior release, after you have performed the following installation tasks, the new TP is independent and separate from the TPs currently running at your site.



### S Line Command vs. E Line Command for Generating and Editing JCL

To generate the JCL for the task, you must use the **S** line command before you can submit the associated job. If you make changes to the JCL immediately before submitting, your changes will be lost if you later attempt to resubmit the job after using the **S** line command (that is, the JCL is regenerated). You can resubmit the job using the most recent version of the JCL by using the **E** line command.



Before installing, make sure the library you designated for the HCI Authorized library is APF-authorized. You will receive a 047 abend from Step 8 if the library is not properly authorized.

1. Select option 4 and press **Enter** from the **SET UP** screen to display the **CUSTOMIZATION** screen.
2. Enter **S** in the **Cmd** field next to Task 1. This task generates a report from the information you entered. This information will be used to configure the workstations to connect with the host component of Compuware Program Analyzer. It also contains a report describing the definitions needed in the HCI PARMLIB.
3. Enter **S** in the **Cmd** field next to Task 2.



This task will run either as a batch job or as a started task depending on how you set the STTP installation variable earlier (see page 16). Compuware strongly recommends that you run the TPs as a batch job during the Compuware Program Analyzer installation to make it easier to verify that they execute properly, and then convert them to run as a started task (see [Step 6](#)). This will eliminate contention for JES initiators and prevent getting 1011 error messages on a workstation when starting TPs. Before you can test your TPs, the HCI must be active with the Compuware Program Analyzer definitions. Task 5 will generate a report with the HCI definitions needed for Compuware Program Analyzer.

4. Select the displayed TP JCL member and submit it and ensure that at least one member is executing the program XWXML. The XPPTCPIP TP terminates with a completion code of 56

because it was started manually rather than by HCI. Ignore this code. If your installation is correct, the results should be that the TPs execute and go to a waiting status.



The TPs must be submitted on the same MVS image that the HCI is running on. If you have JES/3 installed on your system, make sure the CLASS parm directs the job to the same MVS image that the HCI is running on.

5. Verify that the TP started and then cancel the TPs.
6. If you ran the TPs as batch jobs, Compuware recommends, now that you have verified that they can execute without errors, that you convert them to started tasks. To do this, do the following:
  - Press **PF3** until you reach the **SETUP** screen.
  - Select option **2** and press **Enter**.
  - On the **OPTIONS** screen, change the value of STTP (the install option variable for TPS) to **YES**.
  - Press **PF3** to return to the **SETUP** screen and select option 4.
  - On the **CUSTOMIZATION** screen, enter **S** in the **Cmd** field next to Task 2 and rerun it.

Running the HCI and TPs as a started task will eliminate contention for JES initiators and prevent getting 1011 error messages on a workstation when starting TPs.
7. Enter **S** in the **Cmd** field next to Task 3. This task copies the JCL members that were generated and tested in Task 2 to the PROCLIB dataset if you set up the HCI to run as a started task (or to the PARMLIB dataset if you set up to run as a batch job).



For the JCL to successfully copy your started tasks to the system's PROCLIB, the PROCLIB name must be specified on the DATASET NAMES screen and the STTP install options variable must be set to YES.

If you choose to run transaction programs as started tasks, an extra option is available to run these started tasks with master JCL using the IEFJOBS DD concatenation. Refer to the step detailing how to set up started task TPs with master JCL on page 20.

The mainframe installation is now complete. To exit the Customization Manager, select X on the **WELCOME** screen and press **Enter**.

## Step 6. Establish Security Protections

If your site uses a security package, assign the following protections for any of the datasets that were created during the installation.

Dataset	Protection
<your hlq>.SLCXCNTL	Programmers need READ access.
<your hlq>.SLCXLOAD	Programmers need READ access.

## Step 7. Set Up HCI Security

If you are running HCI as a started task, the user ID associated with this task must have READ authority to the ECC datasets.

To use HCI with TCP/IP, Open Edition MVS segment (OMVS) access also needs to be defined.

For more information on HCI security considerations, refer to [System Security for the HCI](#) on page 38.

## TP Performance Considerations

Compuware suggests assigning TPs to a performance group above BATCH but below CICS, VTAM, and JES.

## Summary

This completes the base installation of the Compuware Program Analyzer components that communicate with the host.

You can now install, set up, and verify the Compuware Program Analyzer workstation components. Refer to the help for step-by-step procedures for installing and setting up the product.

## Using the CHANGE Command

Several screens within Customization Manager provide a CHANGE command that allows you to perform a search-and-replace operation on character strings. For example, if you enter **CPWR.MLXW530** in the **FROM** field and **CPWR.MLXW160** in the **TO** field, all dataset names in the table are changed accordingly.

- If you are upgrading from a prior release, change all dataset names to be different from the existing dataset names, thus ensuring that the new release is installed in different datasets.



Customization Manager provides a comprehensive help system. After you complete the initialization of Customization Manager, you can access help by pressing **F1** on any Customization Manager screen. Additionally, Customization Manager provides help for all input fields. When an H is listed as a valid line command, enter an H in the **COMMAND** field to display a help window for that field.

