



# **Program Directory for CICS Transaction Server for z/OS**

V4.1.0

Program Number 5655-S97  
FMID HCI6600

for Use with  
z/OS

Document Date: June 2009

GI13-0536-00

**Note!**

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 50.

A form for reader's comments appears at the back of this publication. When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© **Copyright International Business Machines Corporation 1974, 2009. All rights reserved.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

|   |    |
|---|----|
| <b>1.0 Introduction</b>                                 | 1  |
| 1.1 CICS Transaction Server Description                 | 2  |
| 1.2 CICS Transaction Server FMIDs                       | 4  |
| <b>2.0 Program Materials</b>                            | 5  |
| 2.1 Optional Machine-Readable Material                  | 5  |
| 2.2 Program Publications                                | 6  |
| 2.2.1 Basic Program Publications                        | 6  |
| 2.3 Program Source Materials                            | 9  |
| 2.4 Publications Useful During Installation             | 10 |
| <b>3.0 Program Support</b>                              | 11 |
| 3.1 Program Services                                    | 11 |
| 3.2 Preventive Service Planning                         | 11 |
| 3.3 Statement of Support Procedures                     | 12 |
| <b>4.0 Program and Service Level Information</b>        | 13 |
| 4.1 Program Level Information                           | 13 |
| 4.2 Service Level Information                           | 13 |
| <b>5.0 Installation Requirements and Considerations</b> | 14 |
| 5.1 Driving System Requirements                         | 14 |
| 5.1.1 Machine Requirements                              | 14 |
| 5.1.2 Programming Requirements                          | 14 |
| 5.2 Target System Requirements                          | 15 |
| 5.2.1 Machine Requirements                              | 15 |
| 5.2.2 Programming Requirements                          | 15 |
| 5.2.2.1 Installation Requisites                         | 15 |
| 5.2.2.2 Operational Requisites                          | 16 |
| 5.2.2.3 Operational Considerations                      | 18 |
| 5.2.2.4 Toleration/Coexistence Requisites               | 18 |
| 5.2.2.5 Incompatibility (Negative) Requisites           | 18 |
| 5.2.3 DASD Storage Requirements                         | 18 |
| 5.3 FMIDs Deleted                                       | 29 |
| 5.4 Special Considerations                              | 29 |
| 5.4.1 The CICS Explorer                                 | 29 |
| 5.4.1.1 Supported platforms                             | 30 |
| 5.4.1.2 Availability                                    | 30 |
| 5.4.1.3 Service and Support                             | 30 |
| <b>6.0 Installation Instructions</b>                    | 31 |
| 6.1 Installing CICS Transaction Server                  | 31 |

|  |           |
|--|-----------|
| 6.1.1 SMP/E Considerations for Installing CICS Transaction Server          | 31        |
| 6.1.2 SMP/E Options Subentry Values  | 31        |
| 6.1.3 SMP/E CALLLIBS Processing  | 32        |
| 6.1.4 Sample Jobs  | 32        |
| 6.2 Copy RELFILE(2) from the Distribution Tape                             | 33        |
| 6.2.1.1 Result of copying RELFILE(2)                                       | 34        |
| 6.3 Check that you are ready to run the Installation Jobs                  | 37        |
| 6.4 Run the installation Jobs  | 37        |
| 6.4.1.1 The DFHIHFS0 Job   | 38        |
| 6.4.1.2 The DFHIHFS1 Job   | 39        |
| 6.4.1.3 The DFHISMKD Job   | 39        |
| 6.4.1.4 The DFHALLOC Job   | 39        |
| 6.4.1.5 The DFHSMPSU Job   | 40        |
| 6.4.1.6 The DFHDDDEF Job   | 40        |
| 6.4.1.7 The DFHRECV Job  | 40        |
| 6.4.1.8 The DFHAPPLY Job   | 40        |
| 6.4.1.9 The DFHACCPT Job   | 43        |
| 6.4.2 Run REPORT CROSSZONE   | 44        |
| 6.4.3 Check the Output from the Installation Jobs                          | 44        |
| 6.5 What next?   | 46        |
| 6.5.1 Copy the CICS Transaction Server Procedures into a Procedure Library | 46        |
| 6.6 Activating CICS Transaction Server                                     | 49        |
| <b>7.0 Notices</b>   | <b>50</b> |
| 7.1 Trademarks   | 51        |
| <b>Reader's Comments</b>   | <b>52</b> |

## Figures

|  |    |
|--|----|
| 1. Optional Material   | 5  |
| 2. Optional Material File Content                            | 5  |
| 3. Basic Material: Unlicensed Publications                   | 6  |
| 4. Basic Material: Other Unlicensed or Licensed Publications | 7  |
| 5. Publications Useful During Installation                   | 10 |
| 6. PSP Upgrade and Subset ID                                 | 11 |
| 7. Component IDs   | 12 |
| 8. Driving System Software Requirements                      | 15 |
| 9. Mandatory Installation Requisites                         | 15 |
| 10. Mandatory Operational Requisites                         | 16 |
| 11. Conditional Operational Requisites                       | 16 |
| 12. Total DASD Space Required by CICS Transaction Server     | 18 |

|     |   |    |
|-----|---|----|
| 13. | Storage Requirements for CICS Transaction Server Target Libraries       | 20 |
| 14. | CICS Transaction Server HFS Paths                                       | 22 |
| 15. | Storage Requirements for CICS Transaction Server Distribution Libraries | 25 |
| 16. | SMP/E Options Subentry Values   | 31 |
| 17. | Sample Installation Jobs  | 32 |
| 18. | Sample job for copying RELFILE(2) from tape                             | 34 |
| 19. | Skeleton jobs in RELFILE(2) copied to the TDFHINST library              | 34 |
| 20. | CICS Transaction Server-supplied procedures                             | 46 |



---

## 1.0 Introduction

This Program Directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of CICS Transaction Server for z/OS. This publication refers to CICS Transaction Server for z/OS as CICS Transaction Server.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 5 identifies the basic and optional program materials and documentation for CICS Transaction Server.
- 3.0, "Program Support" on page 11 describes the IBM support available for CICS Transaction Server.
- 4.0, "Program and Service Level Information" on page 13 lists the APARs (program level) and PTFs (service level) incorporated into CICS Transaction Server.
- 5.0, "Installation Requirements and Considerations" on page 14 identifies the resources and considerations required for installing and using CICS Transaction Server.
- 6.0, "Installation Instructions" on page 31 provides detailed installation instructions for CICS Transaction Server. It also describes the procedures for activating the functions of CICS Transaction Server, or refers to appropriate publications.

Before installing CICS Transaction Server, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that were supplied with this program in softcopy form as well as this Program Directory and then keep them for future reference. Section 3.2, "Preventive Service Planning" on page 11 tells you how to find any updates to the information and procedures in this Program Directory.

CICS Transaction Server is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory is provided in softcopy form on the CBPDO tape which is identical to the hardcopy form provided with your order. Your CBPDO contains a softcopy preventive service planning (PSP) upgrade for this product. All service and HOLDDATA for CICS Transaction Server are included on the CBPDO tape.

Do not use this Program Directory if you are installing CICS Transaction Server with a SystemPac or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the Program Directory as required.

---

## 1.1 CICS Transaction Server Description

CICS Transaction Server for z/OS (CICS TS) is a modern, dependable, and cost effective application platform. In second or third quarter 2009, CICS TS V4.1 will deliver new business event capabilities, Web 2.0 programming support, and new operational tooling that will enable enterprise agility when responding to business opportunity and risk in rapidly changing markets. Its traditional qualities of security, reliability, availability, scalability, data-integrity, and application responsiveness make CICS TS the perfect transaction-server partner for Web application servers.

CICS TS V4.1 will build on the solid foundations, mature service oriented architecture (SOA) support, and open connectivity of previous previous CICS versions, bringing new levels of ease-of-use and flexibility to meet the needs of the next generation of business users. It will assist its users in their activities directed at:

- Competing for new opportunities by gaining insight into business processes and responding by modifying key business applications quickly and with confidence
- Complying with corporate, industry and government policies to manage business risk of critical business applications
- Controlling costs by simplifying IT infrastructure and improving development and operations productivity through easier-to-use interfaces and functions

An agile organization with the ability to innovate can position itself for growth even in difficult circumstances, such as a challenging world economy. New technologies, like event-driven processes, business dashboards, and Web 2.0 applications can enable businesses to respond quickly and effectively, allowing them to capture emerging opportunities as markets recover. CICS TS V4.1 will these initiatives by delivering new application capabilities to:

- Support business event detection and emission within CICS without the need to change existing applications, enabling the creation of production business views using dashboards in a matter of hours
- Create new business insight by publishing key application data, enabling rich client developers to use Web 2.0 technologies, such as Atom feeds and RESTful APIs, to create mashups and other modern applications
- Modify processes rapidly and with confidence by assembling and deploying new business applications quickly using service components

Sound governance and measured compliance are key to managing business risk - an increasing requirement for enterprise lines-of-business and for IT departments. Line-of-business managers need to know the status of critical business application processing and to identify exceptions. They must react swiftly to address such exceptions, while ensuring that compliance with corporate, industry and government standards can be accurately reported at all times.

The new CICS event technology will enable CICS to be configured to feed business event processing engines and business dashboards, without the need for application change. This will better allow the line-of-business to ensure that business processes are under control and to monitor and react to compliance requirements, security breaches, and incidents of fraud.



To support the needs of the lines-of-business, IT departments are required to manage application, resource and configuration change in a controlled manner. CICS TS V4.1 will help by logging new resource signature information to record who last made changes to the resource and when they were made. New support for identity propagation will help to improve cross-platform accountability and the auditing to improve cross-platform accountability and the auditing of access to sensitive business information and applications.

CICS TS V4.1 will also continue the process of simplifying complex infrastructure by extending its use of TCP/IP to CICS Transaction Routing. Also, responding to the need to improve operations productivity, adapt to a changing skill-base, and avoid unexpected errors, the CICS Explorer will deliver a powerful tooling environment to help highly-skilled IT staff to be more productive, while providing a more intuitive experience for less experienced personnel. Coupled with many other new capabilities, CICS TS V4.1 will enable IT departments to "do more with less".

---

## 1.2 CICS Transaction Server FMIDs

CICS Transaction Server consists of the following FMIDs:

- HCI6600
- JCI6601
- JCI6602
- JCI6603
- JCI660D
- JCI660M
- JCI660W
- H0B5110
- H0B7110
- H0Z2110
- HCIZ300

---

## 2.0 Program Materials

An IBM program is identified by a program number. The program number for CICS Transaction Server is 5655-S97.

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. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by CICS Transaction Server. Ask your IBM representative for this information if you have not already received a copy.

Information about the physical tape for the Basic Machine-Readable Materials for CICS Transaction Server can be found in the *CBPDO Memo To Users Extension*.

\* R/M = Restricted Materials of IBM

---

### 2.1 Optional Machine-Readable Material

The distribution medium for this program is 3480 cartridge.

Figure 1 describes the physical cartridge. Figure 2 describes the file content.

| <i>Figure 1. Optional Material</i> |                |                 |                             |                |        |  |
|------------------------------------|----------------|-----------------|-----------------------------|----------------|--------|--|
| Medium                             | Feature Number | Physical Volume | External Label              | Unload Utility | VOLSER |  |
| 3480 cart                          | N/A            | 1               | CICS<br>TS<br>V4R1<br>OPT.S | IEBCOPY        | CI660S |  |
| 3480 cart                          | N/A            | 2               | CICS<br>TS<br>V4R1<br>OPT.S | IEBCOPY        | CI660T |  |

| <i>Figure 2. Optional Material File Content</i> |     |       |       |          |                      |  |
|---|-----|-------|-------|----------|----------------------|--|
| Name  | ORG | RECFM | LRECL | BLK SIZE | Number of Statements |  |
| CICSTS41.OPTSRC01 (CI660S)                      | PO  | FB    | 80    | 6160     | 1002                 |  |
| CICSTS41.OPTSRC02 (CI660T)                      | PO  | FB    | 80    | 6160     | 736                  |  |

---

## 2.2 Program Publications

The following sections identify the basic and optional publications for CICS Transaction Server.

### 2.2.1 Basic Program Publications

Figure 3 identifies the basic unlicensed program publications for CICS Transaction Server. For more information contact your IBM representative.

| <i>Figure 3. Basic Material: Unlicensed Publications</i>        |                    |
|---|--------------------|
| <b>Publication Title</b>  | <b>Form Number</b> |
| CICS Transaction Server for z/OS Program Directory              | GI13-0536          |
| CICS Transaction Server for z/OS Memo to Licensees              | GI13-0537          |
| CICS Transaction Server for z/OS What's New Guide               | GC34-6994          |
| CICS Transaction Server for z/OS Non-IBM License file           | GC34-7074          |
| Licensed Program Specifications                                 | GC34-7040          |
| Rational Developer for System z V7.5: Proof of Entitlement      | GC34-7043          |
| Rational Developer for System z V7.5: Trial License Information | GC34-7042          |
| CICS Tools Trial Download Flyer                                 | GI13-0538          |
| CICS Portfolio Products Flyer                                   | GI13-0542          |
| CICS Technical Services Flyer                                   | GI13-0546          |

**Note:** Please refer to the Publications Center and Information Center to ensure that this document GI13-0536 is at the latest suffixed level. The Information Center can be found at the following URL :-

<http://www.ibm.com/software/htp/cics/library/indexes/infocenters.html>

The Publications Center can be found at the following URL :-

<http://www.ibm.com/shop/publications/order>

Figure 4 identifies the basic unlicensed or licensed publications that are not available in hardcopy form, but are available through the internet or other media for CICS Transaction Server.

Figure 4 (Page 1 of 3). Basic Material: Other Unlicensed or Licensed Publications

| <b>Publication Title</b>  | <b>Form Number</b> | <b>How Available</b>               |
|---|--------------------|------------------------------------|
| CICS Transaction Server for z/OS V4.1: Upgrading from CICS Transaction Server for z/OS V2.3 to V4.1 | GC34-6996          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Upgrading from CICS Transaction Server for z/OS V3.1 to V4.1 | GC34-6997          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Upgrading from CICS Transaction Server for z/OS V3.2 to V4.1 | GC34-6998          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: What's New   | GC34-6994          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Installation Guide   | GC34-6995          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: System Definition Guide                                      | SC34-6999          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Customization Guide  | SC34-7001          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Resource Definition Guide                                    | SC34-7000          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Operations and Utilities Guide                               | SC34-7002          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICS Supplied Transactions                                   | SC34-7004          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Application Programming Guide                                | SC34-7022          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Application Programming Reference                            | SC34-7023          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: System Programming Reference                                 | SC34-7024          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Front End Programming Interface Guide                        | SC34-7027          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: C++ OO Class Libraries                                       | SC34-7026          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Distributed Programming                                      | SC34-7028          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Business Transaction Services                                | SC34-7029          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Java Applications in CICS                                    | SC34-7025          | Infocenter and Publications Center |

Figure 4 (Page 2 of 3). Basic Material: Other Unlicensed or Licensed Publications

| <b>Publication Title</b>  | <b>Form Number</b> | <b>How Available</b>               |
|---|--------------------|------------------------------------|
| CICS Transaction Server for z/OS V4.1: Problem Determination Guide            | GC34-7034          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Messages and Codes                     | GC34-7035          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Trace Entries                          | SC34-7013          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Intercommunication Guide               | SC34-7018          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: External Interfaces Guide              | SC34-7019          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Internet Guide                         | SC34-7021          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Recovery and Restart Guide             | SC34-7012          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Performance Guide                      | SC34-7033          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: IMS Database Control Guide             | SC34-7016          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: RACF Security Guide                    | SC34-7003          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Shared Data Tables Guide               | SC34-7017          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICS DB2 Guide                         | SC34-7011          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Web Services Guide                     | SC34-7020          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Concepts and Planning      | SC34-7044          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Web User Interface         | SC34-7045          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Administration             | SC34-7005          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Operations Views Reference | SC34-7006          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Monitor Views Reference    | SC34-7007          | Infocenter and Publications Center |

Figure 4 (Page 3 of 3). Basic Material: Other Unlicensed or Licensed Publications

| <b>Publication Title</b>   | <b>Form Number</b> | <b>How Available</b>               |
|--|--------------------|------------------------------------|
| CICS Transaction Server for z/OS V4.1: CICSplex SM Managing Workloads                | SC34-7008          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Managing Resource Usage           | SC34-7009          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Managing Business Applications    | SC34-7010          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Application Programming Guide     | SC34-7030          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Application Programming Reference | SC34-7031          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Resource Tables Reference         | SC34-7032          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Messages and Codes                | GC34-7036          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: CICSplex SM Problem Determination             | GC34-7037          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Diagnosis Reference                           | GC34-7038          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Data Areas                                    | GC34-7014          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Supplementary Data Areas                      | GC34-7015          | Infocenter and Publications Center |
| CICS Transaction Server for z/OS V4.1: Debugging Tools Interface Reference           | GC34-7039          | Infocenter and Publications Center |

## 2.3 Program Source Materials

Customers with access to View Program Listings (VPL), such as through S/390 SoftwareXcel, can use the VPL facility for online viewing of available program listings. Those customers without access to VPL can contact their IBM representative.

---

## 2.4 Publications Useful During Installation

The publications listed in Figure 5 on page 10 may be useful during the installation of CICS Transaction Server. To order copies, contact your IBM representative or visit the IBM Publications Center on the World Wide Web at:

<http://www.ibm.com/shop/publications/order>

| <i>Figure 5. Publications Useful During Installation</i>               |                    |
|--|--------------------|
| <b>Publication Title</b>   | <b>Form Number</b> |
| <i>IBM SMP/E for z/OS and OS/390 User's Guide</i>                      | SA22-7773          |
| <i>IBM SMP/E for z/OS and OS/390 Commands</i>                          | SA22-7771          |
| <i>IBM SMP/E for z/OS and OS/390 Reference</i>                         | SA22-7772          |
| <i>IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis</i>    | GA22-7770          |
| <i>z/OS V1R9.0 UNIX System Services User's Guide</i>                   | SA22-7801          |
| CICS Transaction Server for z/OS V4.1 Installation Guide               | GC34-6812          |
| CICS Transaction Server for z/OS V4.1 Information Center - Windows     | SK4T-2624          |
| CICS Transaction Server for z/OS V4.1 Information Center - Linux Intel | SK4T-2626          |
| CICS Transaction Server for z/OS V4.1 Information Center - AIX         | SK4T-2627          |
| Rational Developer for System z V7.5 Trial CD Kit                      | LK4T-2623          |



---

## 3.0 Program Support

This section describes the IBM support available for CICS Transaction Server.

---

### 3.1 Program Services

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

---

### 3.2 Preventive Service Planning

Before installing CICS Transaction Server, you should review the current Preventive Service Planning (PSP) information. If you obtained CICS Transaction Server as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO.

If the CBPDO for CICS Transaction Server is more than two weeks old when you install it, you should contact the IBM Support Center, use S/390 SoftwareXcel to obtain the current "PSP Bucket" or obtain the current PSP from the web at <https://techsupport.services.ibm.com/server/390.psp390>

For program support, access the Software Support web site at:

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

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for CICS Transaction Server are:

*Figure 6 (Page 1 of 2). PSP Upgrade and Subset ID*

| UPGRADE  | SUBSET  | Description                   |
|----------|---------|-------------------------------|
| CICSTS41 | HCI6600 | CICS TS Base                  |
|          | JCI6601 | COBOL Language Parts          |
|          | JCI6602 | PL/I Language Parts           |
|          | JCI6603 | C Language Parts and XPLINK   |
|          | JCI660D | IIOP/JAVA                     |
|          | JCI660M | CICS System Manager           |
|          | JCI660W | WS-Security                   |
|          | H0B5110 | CICS REXX Runtime Facility    |
|          | H0B7110 | CICS REXX Development System  |
|          | H0Z2110 | CICS REXX Common for CICS/ESA |
|          | HCIZ300 | CICS Service Flow Feature     |

Figure 6 (Page 2 of 2). PSP Upgrade and Subset ID

| UPGRADE | SUBSET | Description           |
|---------|--------|-----------------------|
|         |        | CICS Explorer Feature |

### 3.3 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent.

Figure 7 identifies the component IDs (COMPID) for CICS Transaction Server.

Figure 7. Component IDs

| FMID    | COMPID    | Component Name                | RETAIN Release |
|---------|-----------|-------------------------------|----------------|
| HCI6600 | 5655S9700 | CICS TS Base                  | 600            |
| JCI6601 | 5655S9700 | COBOL Language Parts          | 601            |
| JCI6602 | 5655S9700 | PL/I Language Parts           | 602            |
| JCI6603 | 5655S9700 | C Language Parts              | 603            |
| JCI660D | 5655S9700 | IIO/JAVA                      | 60D            |
| JCI660M | 5655S9700 | CICS System Manager           | 60M            |
| JCI660W | 5655S9700 | WS-Security                   | 60W            |
| H0B5110 | 565508700 | CICS REXX Runtime Facility    | 110            |
| H0B7110 | 565508600 | CICS REXX Development System  | 110            |
| H0Z2110 | 565511200 | CICS REXX Common for CICS/ESA | 110            |
| HCIZ300 | 5655M1500 | Service Flow Feature          | 300            |
|         | 5655S9701 | CICS Explorer Feature         | 100            |

---

## **4.0 Program and Service Level Information**

This section identifies the program and any relevant service levels of CICS Transaction Server. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs incorporated into the program.

---

### **4.1 Program Level Information**

You can find the APARs against previous releases that have been incorporated into this release by going to [www.ibm.com/support/docview.wss?rs=1083&uid=swg21388358](http://www.ibm.com/support/docview.wss?rs=1083&uid=swg21388358).

---

### **4.2 Service Level Information**

No PTFs against this release of CICS Transaction Server have been incorporated into the product tape.

---

## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating CICS Transaction Server. The following terminology is used:

- *Driving system*: the system used to install the program.

The program may have specific operating system or product level requirements for utilizing processes such as binder or assembly utilities during the install.

- *Target system*: the system on which the program is intended to run.

The program may have specific product level requirements such as needing access to another product's library for link-edits that may directly affect the elements during the install or for its basic or enhanced operation. These requirements may be mandatory or optional.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should 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.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to 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 CICS Transaction Server.

#### 5.1.1 Machine Requirements

To install CICS Transaction Server you need a System z processor that supports z/OS Version 1 Release 9 or later, and which has sufficient DASD space for all the product data sets.

#### 5.1.2 Programming Requirements

| <i>Figure 8. Driving System Software Requirements</i> |   |
|---|---|
| <b>Program Number</b>                                 | <b>Product Name and Minimum VRM/Service Level</b> |
| 5694-A01  | z/OS V1.09.0 or later                             |
| 5655-G44  | IBM SMP/E for z/OS V3.04.0 or later               |

## 5.2 Target System Requirements

This section describes the environment of the target system required to install and use CICS Transaction Server.

CICS Transaction Server installs in the CICS (C150) 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:** An installation requisite is defined as a product that is required and **must** be present or one that is not required but **should** be present on the system for the successful installation of this product.

A mandatory installation requisite identifies products that are required, without exception, or this product **will not install** on your system. This includes products specified as PREs or REQs.

| <i>Figure 9. Mandatory Installation Requisites</i> |   |
|--|---|
| <b>Program Number</b>                              | <b>Product Name and Minimum VRM/Service Level</b> |
| 5694-A01   | z/OS Version 1.9 or later                         |

A conditional installation requisite identifies products that are **not** required for successful install but may resolve such things as certain warning messages at installation time. They include products that are specified as IF REQs.

**5.2.2.2 Operational Requisites:** An operational requisite is defined as a product that is required and **must** be present or a product that is not required but **should** be present on the system in order for this product to operate all or some of its functions.

A mandatory operational requisite identifies products that are required, without exception, or this product **will not operate** its basic function unless the requisite is met. This includes products specified as PREs or REQs.

| <i>Figure 10. Mandatory Operational Requisites</i> |   |
|--|---|
| <b>Program Number</b>                              | <b>Product Name and Minimum VRM/Service Level</b> |
| 5694-A01   | z/OS V1.9 will need PTF for APAR OA19565          |

A conditional operational requisite identifies products that are **not required** for the basic function but are needed at run time for this product to utilize specific functions. They may include products specified as IF REQs.

| <i>Figure 11 (Page 1 of 2). Conditional Operational Requisites</i> |   |                                 |
|--|---|---------------------------------|
| <b>Program Number</b>  | <b>Product Name and Minimum VRM/Service Level</b>   | <b>Function</b>                 |
| 5694-A01   | z/OS V1.9 will need APAR OA20384  | CICS IP Interconnectivity       |
| 5694-A01   | z/OS V1.9 & z/OS V1.10 will need APAR PK85446   | Communications Server XPI calls |
| 5655-J51   | z/OS XML Toolkit 1.10   | Web Services Security           |
| 5695-039   | z/OS Security Server(RACF)  | Security                        |
| 5698-A07   | Tivoli Decision Support for z/OS  | SMF Record Reporting            |
| 5688-197   | IBM COBOL for MVS and VM  | Language Compiler               |
| 5648-A25   | IBM COBOL for OS/390 and VM. For integrated CICS translator support, you need Version 2 Release 2, or later, with the appropriate PTF (UQ52879, UQ52880 or UQ52881) for APAR PQ45462, and the PTF for APAR PQ55290. | Language Compiler               |
| 5655-G53   | IBM Enterprise COBOL for z/OS and OS/390 Version 3  | Language Compiler               |
| 5688-235   | IBM PL/I for MVS and VM   | Language Compiler               |
| 5655-B22   | IBM Visual Age PL/I for OS/390. For integrated translator support, you need Version 2 Release 2.1, or later, plus PTF UQ53116 for APAR PQ45562 and PTF UQ57194 for APAR PQ51233.                                    | Language Compiler               |
| 5668-814   | CSP Version 3 or higher   | Application Development         |
| 5688-197   | SAA AD/Cycle COBOL/370  | Language Compiler               |

Figure 11 (Page 2 of 2). Conditional Operational Requisites

| Program Number | Product Name and Minimum VRM/Service Level  | Function                           |
|----------------|---|------------------------------------|
| 5688-216       | SAA AD/Cycle C/370  | Language Compiler                  |
| 5665-356       | GDDM/MVS Version 2.3  | Graphical Application Support      |
| 5655-J38       | IMS/ESA Database Manager Version 9  | IMS DBCTL Multisystem Data Sharing |
| 5635-A01       | IMS/ESA Database Manager Version 10   | IMS DBCTL Multisystem Data Sharing |
| 5625-DB2       | DB2 Universal Database Server for z/OS V8.1   | DB2                                |
| 5635-DB2       | DB2 V9.1 for z/OS   | DB2                                |
| 5655-L82       | Websphere MQ for z/OS V6.0.0  | Message Queueing                   |
| 5655-R36       | Websphere MQ for z/OS V7.0.0  | Message Queueing                   |
| 5655-D35       | IBM Software Developer Kit for z/OS, Java 2 Technology Edition V1.6 with APAR IZ52572 | Java Virtual Machine               |
| 5694-A01       | IBM z/OS V1.11 and enabling CICS PTF (APAR PK83741)                                   | z/OS Identity Propagation          |

**Note:** We recommend using only supported levels of the products listed.

If the CICSplex SM component of CICS Transaction Server for z/OS 4.1 is to be used with the CICSplex SM component of an earlier release of CICS TS, the PTFs that resolve the following APARs must be installed:

- For CICS Transaction Server for z/OS 2.3 (5697-E93) PK85932
- For CICS Transaction Server for z/OS 3.1 (5655-M15) PK65307
- For CICS Transaction Server for z/OS 3.2 (5655-M15) PK65308

If using Websphere MQ V6.0.0 the following APARs are required :-

- PK38772
- PK42616

**Note:**

The XML Toolkit can be downloaded from the following URL:  
<http://www.ibm.com/servers/eserver/zseries/software/xml/>

### 5.2.2.3 Operational Considerations

Please ensure the following APARs are applied to z/OS 1.9 systems. For higher releases of z/OS these APARs have been incorporated into the base.

- OA20352

If STGPROT=YES is specified, a SET FILE CLOSE may result in CICS terminating with a 378-14 abend. This problem is fixed in DFSMS APAR OA20352.

For 'Threadsafe File Control' function customers will need

- APAR OA20343.

Extended Addressability ESDS's that can be used in a 'combined environment', sharing CICS VSAM Record Level Sharing (VSAM RLS) files with batch applications, requires APAR OA19958 for the support of Transactional VSAM Services (TVS).

**5.2.2.4 Toleration/Coexistence Requisites:** A toleration/coexistence requisite is defined as a product which must be present on a sharing system. 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 at different time intervals.

CICS Transaction Server has no toleration/coexistence requisites.

**5.2.2.5 Incompatibility (Negative) Requisites:** A negative requisite identifies products which must *not* be installed on the same system as this product.

CICS Transaction Server has no negative requisites.

### 5.2.3 DASD Storage Requirements

CICS Transaction Server libraries can reside on all supported DASD types.

Figure 12 lists the total space required for each type of library.

| Library Type | Total Space Required |
|--------------|----------------------|
| Target       | 1115 cylinders       |
| Distribution | 552 cylinders        |
| HFS          | 45 cylinders         |

#### Notes:



1. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.

2. Abbreviations used for the data set type are:

- U** Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or Program Directories) need to be referenced for the data set size.
- S** Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other Program Directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.
- E** Existing shared data set, used by this product and others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether or not these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

3. Abbreviations used for the HFS Path type are:

- N** New path, created by this product.
- X** Path created by this product, but may already exist from a previous release.
- P** Previously existing path, created by another product.

4. All target and distribution libraries listed have the following attributes:

- The default name of the data set may be changed.
- The default block size of the data set may be changed.
- The data set may be merged with another data set that has equivalent characteristics.
- The data set may be either a PDS or a PDSE.

5. All target libraries listed have the following attributes:

- The data set may be SMS-managed.
- It is not required for the data set to be SMS-managed.
- It is not required for the data set to reside on the IPL volume.
- The values in the "Member Type" column are not necessarily the actual SMP/E element types identified in the SMPMCS.

6. All target libraries listed which contain load modules have the following attributes:

- The data set may be in the LPA.
- It is not required for the data set to be in the LPA.
- The data set may be in the LNKLST.
- It is not required for the data set to be APF-authorized.

The following figures describe the target and distribution libraries and HFS paths required to install CICS Transaction Server. The storage requirements of CICS Transaction Server must be added to the storage required by other programs having data in the same library or path.

**Note:** The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 13 (Page 1 of 3). Storage Requirements for CICS Transaction Server Target Libraries

| Library<br>DDNAME | Member<br>Type | Target<br>Volume | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>O<br>R<br>D<br>S | L<br>R<br>E<br>C<br>O<br>R<br>D<br>S | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|----------------|------------------|------------------|-------------|---------------------------------|--------------------------------------|---------------------------|--------------------------|
| SDFHINST          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 54                        | 6                        |
| SDFHAPD1          | SAMP           | ANY              | U                | PDS         | FB                              | 38                                   | 2                         | 2                        |
| SDFHAPD2          | SAMP           | ANY              | U                | PDS         | FB                              | 227                                  | 2                         | 2                        |
| SDFHCLIB          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 2                         | 2                        |
| SDFHENV           | SAMP           | ANY              | U                | PDS         | V                               | 30000                                | 6                         | 2                        |
| SDFHLANG          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 2                         | 2                        |
| SDFHMAC           | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 402                       | 28                       |
| SDFHMLIB          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 2                         | 2                        |
| SDFHMSGGS         | SAMP           | ANY              | U                | PDS         | V                               | 30646                                | 357                       | 2                        |
| SDFHMSRC          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 700                       | 20                       |
| SDFHPARM          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 2                         | 2                        |
| SDFHPLIB          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 4                         | 2                        |
| SDFHPROC          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 8                         | 3                        |
| SDFHSAMP          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 514                       | 40                       |
| SDFHLINK          | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 768                       | 18                       |
| SDFHLOAD          | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 1149                      | 178                      |
| SDFHEXCI          | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 22                        | 4                        |
| SDFHAUTH          | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 141                       | 14                       |
| SDFHLPA           | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 5040                      | 216                      |
| SDFHLLIB          | LMOD           | ANY              | U                | PDS         | U                               | 0                                    | 15                        | 2                        |
| SDFHCOB           | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 110                       | 10                       |
| SDFHPL1           | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 87                        | 8                        |
| SDFHC370          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 90                        | 6                        |
| SDFHSDCK          | SAMP           | ANY              | U                | PDS         | FB                              | 80                                   | 21                        | 2                        |

Figure 13 (Page 2 of 3). Storage Requirements for CICS Transaction Server Target Libraries

| Library DDNAME | Member Type | Target Volume | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|----------------|-------------|---------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| SDFJAUTH       | LMOD        | ANY           | U                | PDS/E       | U                     | 0                     | 7                         | NA                       |
| SDFHDLL1       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 12                        | 2                        |
| SDFHWSLD       | LMOD        | ANY           | U                | PDS/E       | U                     | 0                     | 120                       | NA                       |
| SDFHWSSX       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 36                        | 2                        |
| SEYUVIEW       | SAMP        | ANY           | U                | PDS/E       | VB                    | 32000                 | 392                       | NA                       |
| SEYUCLIB       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| SEYUCOB        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 141                       | 50                       |
| SEYUC370       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 121                       | 50                       |
| SEYUDEF        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| SEYUMAC        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 110                       | 50                       |
| SEYUPARM       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| SEYUPL1        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 127                       | 50                       |
| SEYUPROC       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 3                         | 2                        |
| SEYUSAMP       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 33                        | 3                        |
| SEYUAUTH       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 261                       | 6                        |
| SEYULOAD       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 962                       | 23                       |
| SEYULINK       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 102                       | 6                        |
| SEYULPA        | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 3600                      | 36                       |
| SCICJCL        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 7                         | 3                        |
| SCICLOAD       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 57                        | 3                        |
| SCICPNL        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| SCICDBRM       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| SCICBOOK       | SAMP        | ANY           | U                | PDS         | FB                    | 4096                  | 21                        | 2                        |
| SCICDOC        | SAMP        | ANY           | U                | PDS         | VB                    | 8192                  | 91                        | 2                        |
| SCICCMDS       | SAMP        | ANY           | U                | PDS         | VB                    | 255                   | 2                         | 2                        |
| SCICEXEC       | SAMP        | ANY           | U                | PDS         | VB                    | 255                   | 3                         | 2                        |
| SCICUSER       | SAMP        | ANY           | U                | PDS         | VB                    | 255                   | 4                         | 2                        |
| SCIZINST       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 3                         | 2                        |
| SCIZMAC        | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 33                        | 8                        |

Figure 13 (Page 3 of 3). Storage Requirements for CICS Transaction Server Target Libraries

| Library DDNAME | Member Type | Target Volume | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No. of 3390 Trks | No. of DIR Blks |
|----------------|-------------|---------------|------------------|-------------|-----------------------|-----------------------|------------------|-----------------|
| SCIZSAMP       | SAMP        | ANY           | U                | PDS         | FB                    | 80                    | 15               | 4               |
| SCIZLOAD       | LMOD        | ANY           | U                | PDS         | U                     | 0                     | 38               | 5               |

Figure 14 (Page 1 of 4). CICS Transaction Server HFS Paths

| DDNAME   | T<br>Y<br>P<br>E | Path Name   |
|----------|------------------|---|
| SDFHH001 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/en/IBM                          |
| SDFHH002 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/de/IBM                          |
| SDFHH003 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/es/IBM                          |
| SDFHH004 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/fr/IBM                          |
| SDFHH005 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/ja/IBM                          |
| SDFHH006 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/ko/IBM                          |
| SDFHH007 | N                | /usr/lpp/cicsts/@ussdir@/W2/httpmsg/zh/IBM                          |
| SDFJH008 | N                | /usr/lpp/cicsts/@ussdir@/lib/IBM                                    |
| SDFJH009 | N                | /usr/lpp/cicsts/@ussdir@/samples/dfjcorb/BankAccount/IBM            |
| SDFJH010 | N                | /usr/lpp/cicsts/@ussdir@/samples/dfjcorb/BankAccount/javaclient/IBM |
| SDFJH011 | N                | /usr/lpp/cicsts/@ussdir@/samples/dfjcorb/BankAccount/server/IBM     |
| SDFJH012 | N                | /usr/lpp/cicsts/@ussdir@/samples/dfjcics/IBM                        |
| SDFJH013 | N                | /usr/lpp/cicsts/@ussdir@/samples/dfjcics/examples/HelloWorld/IBM    |

Figure 14 (Page 2 of 4). CICS Transaction Server HFS Paths

| <b>DDNAME</b> | <b>T<br/>Y<br/>P<br/>E</b> | <b>Path Name</b>  |
|---------------|----------------------------|---|
| SDFJH014      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcics/examples/ProgramControl/IBM          |
| SDFJH015      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcics/examples/TDQ/IBM                     |
| SDFJH016      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcics/examples/TSQ/IBM                     |
| SDFJH017      | N                          | /usr/lpp/cicsts/@ussdir@/docs/IBM   |
| SDFJH018      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcorb/IBM                                  |
| SDFJH019      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcorb/HelloWorld/IBM                       |
| SDFJH020      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcorb/HelloWorld/server/IBM                |
| SDFJH021      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcorb/HelloWorld/client/IBM                |
| SDFJH022      | N                          | /usr/lpp/cicsts/@ussdir@/samples/ejb/<br>helloworld/IBM                           |
| SDFJH023      | N                          | /usr/lpp/cicsts/@ussdir@/samples/ejb/<br>bankaccount/IBM                          |
| SDFJH024      | N                          | /usr/lpp/cicsts/@ussdir@/samples/cci/<br>IBM                                      |
| SDFJH025      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>jdbc/IBM                                     |
| SDFJH026      | N                          | /usr/lpp/cicsts/@ussdir@/lib/<br>security/IBM                                     |
| SDFJH027      | N                          | /usr/lpp/cicsts/@ussdir@/utils/IBM  |
| SDFJH028      | N                          | /usr/lpp/cicsts/@ussdir@/utils/<br>namespace/IBM                                  |
| SDFJH029      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>dfjcics/examples/Web/IBM                     |
| SDFJH030      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>useroutputclass/com/ibm/cics/samples/<br>IBM |
| SDFJH031      | N                          | /usr/lpp/cicsts/@ussdir@/lib/wSDL/IBM   |

Figure 14 (Page 3 of 4). CICS Transaction Server HFS Paths

| <b>DDNAME</b> | <b>T<br/>Y<br/>P<br/>E</b> | <b>Path Name</b>   |
|---------------|----------------------------|--|
| SDFJH032      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>pipelines/IBM                       |
| SDFJH033      | N                          | /usr/lpp/cicsts/@ussdir@/pipeline/<br>configs/IBM                        |
| SDFJH034      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>webservices/JCL/IBM                 |
| SDFJH035      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>webservices/wsd/IBM                 |
| SDFJH036      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>webservices/wsbinding/provider/IBM  |
| SDFJH037      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>webservices/wsbinding/requester/IBM |
| SDFJH038      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>webservices/client/IBM              |
| SDFJH039      | N                          | /usr/lpp/cicsts/@ussdir@/IBM   |
| SDFJH040      | N                          | /usr/lpp/cicsts/@ussdir@/utils/<br>isolation/IBM                         |
| SDFJH041      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>ws-trust/IBM                        |
| SDFJH042      | N                          | /usr/lpp/cicsts/@ussdir@/lib/bundle/<br>IBM                              |
| SDFJH043      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>eventprocessing/eventbinding/IBM    |
| SDFJH044      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>eventprocessing/eventformats/IBM    |
| SDFJH045      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>web2.0/atom/IBM                     |
| SDFJH046      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>web2.0/image/IBM                    |
| SDFJH047      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>channel/IBM                         |
| SDFJH048      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/sca/<br>IBM                             |
| SDFJH049      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>xmltransform/IBM                    |

Figure 14 (Page 4 of 4). CICS Transaction Server HFS Paths

| <b>DDNAME</b> | <b>T<br/>Y<br/>P<br/>E</b> | <b>Path Name</b>                                       |
|---------------|----------------------------|--|
| SDFJH050      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>bundle/IBM        |
| SDFJH051      | N                          | /usr/lpp/cicsts/@ussdir@/schemas/<br>pipeline/IBM      |
| SDFJH052      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>web2.0/html/IBM   |
| SDFJH053      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>web2.0/script/IBM |
| SDFJH054      | N                          | /usr/lpp/cicsts/@ussdir@/samples/<br>web2.0/style/IBM  |
| SDFHH055      | N                          | /usr/lpp/cicsts/@ussdir@/<br>lib                       |

Please note the above variable '@ussdir@' should be changed to a suitable value of your choice.

Figure 15 (Page 1 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

| <b>Library<br/>DDNAME</b> | <b>T<br/>Y<br/>P<br/>E</b> | <b>O<br/>R<br/>G</b> | <b>R<br/>E<br/>C<br/>F<br/>M</b> | <b>L<br/>R<br/>E<br/>C<br/>L</b> | <b>No.<br/>of<br/>3390<br/>Trks</b> | <b>No.<br/>of<br/>DIR<br/>Blks</b> |
|---------------------------|----------------------------|----------------------|----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| ADFHINST                  | U                          | PDS                  | FB                               | 80                               | 54                                  | 6                                  |
| ADFHMOD                   | U                          | PDS                  | U                                | 0                                | 1392                                | 686                                |
| ADFHAPD1                  | U                          | PDS                  | FB                               | 38                               | 2                                   | 2                                  |
| ADFHAPD2                  | U                          | PDS                  | FB                               | 227                              | 2                                   | 2                                  |
| ADFHCLIB                  | U                          | PDS                  | FB                               | 80                               | 2                                   | 2                                  |
| ADFHENV                   | U                          | PDS                  | V                                | 30000                            | 6                                   | 2                                  |
| ADFHLANG                  | U                          | PDS                  | FB                               | 80                               | 2                                   | 2                                  |
| ADFHMAC                   | U                          | PDS                  | FB                               | 80                               | 402                                 | 28                                 |
| ADFHMLIB                  | U                          | PDS                  | FB                               | 80                               | 2                                   | 2                                  |
| ADFHMSGS                  | U                          | PDS                  | V                                | 30646                            | 357                                 | 2                                  |
| ADFHMSRC                  | U                          | PDS                  | FB                               | 80                               | 700                                 | 20                                 |
| ADFHPARAM                 | U                          | PDS                  | FB                               | 80                               | 2                                   | 2                                  |
| ADFHPLIB                  | U                          | PDS                  | FB                               | 80                               | 4                                   | 2                                  |

Figure 15 (Page 2 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

| <b>Library<br/>DDNAME</b> | <b>T<br/>Y<br/>P<br/>E</b> | <b>O<br/>R<br/>G</b> | <b>R<br/>E<br/>C<br/>F<br/>M</b> | <b>L<br/>R<br/>E<br/>C<br/>L</b> | <b>No.<br/>of<br/>3390<br/>Trks</b> | <b>No.<br/>of<br/>DIR<br/>Blks</b> |
|---------------------------|----------------------------|----------------------|----------------------------------|----------------------------------|-------------------------------------|------------------------------------|
| ADFHPROC                  | U                          | PDS                  | FB                               | 80                               | 8                                   | 3                                  |
| ADFHSAMP                  | U                          | PDS                  | FB                               | 80                               | 514                                 | 40                                 |
| ADFHCOB                   | U                          | PDS                  | FB                               | 80                               | 110                                 | 10                                 |
| ADFHPL1                   | U                          | PDS                  | FB                               | 80                               | 87                                  | 8                                  |
| ADFJMOD                   | U                          | PDS/E                | U                                | 0                                | 124                                 | NA                                 |
| ADFHC370                  | U                          | PDS                  | FB                               | 80                               | 90                                  | 6                                  |
| ADFHSDCK                  | U                          | PDS                  | FB                               | 80                               | 21                                  | 2                                  |
| ADFHH001                  | U                          | PDS                  | V                                | 32000                            | 120                                 | 60                                 |
| ADFHH002                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFHH003                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFHH004                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFHH005                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFHH006                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFHH007                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH008                  | U                          | PDS                  | V                                | 32000                            | 138                                 | 2                                  |
| ADFJH009                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH010                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH011                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH012                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH013                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH014                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH015                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH016                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH017                  | U                          | PDS                  | V                                | 32000                            | 27                                  | 2                                  |
| ADFJH018                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH019                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH020                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH021                  | U                          | PDS                  | V                                | 32000                            | 2                                   | 2                                  |
| ADFJH022                  | U                          | PDS                  | V                                | 32000                            | 4                                   | 2                                  |



Figure 15 (Page 3 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

| Library<br>DDNAME | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| ADFJH023          | U                | PDS         | V                     | 32000                 | 26                        | 2                        |
| ADFJH024          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH025          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH026          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH027          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH028          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH029          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH030          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH031          | U                | PDS         | V                     | 32000                 | 123                       | 2                        |
| ADFJH032          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH033          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH034          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH035          | U                | PDS         | V                     | 32000                 | 4                         | 2                        |
| ADFJH036          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH037          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH038          | U                | PDS         | V                     | 32000                 | 40                        | 2                        |
| ADFJH039          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH040          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH041          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH042          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH043          | U                | PDS         | V                     | 32000                 | 3                         | 2                        |
| ADFJH044          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH045          | U                | PDS         | V                     | 32000                 | 3                         | 2                        |
| ADFJH046          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH047          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH048          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH049          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH050          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH051          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |

Figure 15 (Page 4 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

| Library<br>DDNAME | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| ADFJH052          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH053          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFJH054          | U                | PDS         | V                     | 32000                 | 2                         | 2                        |
| ADFHMOD2          | U                | PDS/E       | U                     | 0                     | 120                       | NA                       |
| AEYUMOD           | U                | PDS         | U                     | 0                     | 1610                      | 880                      |
| AEYUVIEW          | U                | PDS/E       | VB                    | 32000                 | 392                       | NA                       |
| AEYUCLIB          | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| AEYUCOB           | U                | PDS         | FB                    | 80                    | 141                       | 50                       |
| AEYUC370          | U                | PDS         | FB                    | 80                    | 121                       | 50                       |
| AEYUDEF           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| AEYUMAC           | U                | PDS         | FB                    | 80                    | 110                       | 50                       |
| AEYUPARM          | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| AEYUPL1           | U                | PDS         | FB                    | 80                    | 127                       | 50                       |
| AEYUPROC          | U                | PDS         | FB                    | 80                    | 3                         | 2                        |
| AEYUSAMP          | U                | PDS         | FB                    | 80                    | 33                        | 3                        |
| ACICRMOD          | U                | PDS         | U                     | 0                     | 2                         | 2                        |
| ACICJCL           | U                | PDS         | FB                    | 80                    | 7                         | 3                        |
| ACICMOD           | U                | PDS         | U                     | 0                     | 43                        | 32                       |
| ACICPNL           | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| ACICDBRM          | U                | PDS         | FB                    | 80                    | 2                         | 2                        |
| ACICBOOK          | U                | PDS         | FB                    | 4096                  | 21                        | 2                        |
| ACICDOC           | U                | PDS         | VB                    | 8192                  | 91                        | 2                        |
| ACICCMDS          | U                | PDS         | VB                    | 255                   | 2                         | 2                        |
| ACICEXEC          | U                | PDS         | VB                    | 255                   | 3                         | 2                        |
| ACICUSER          | U                | PDS         | VB                    | 255                   | 3                         | 2                        |
| ACICDMOD          | U                | PDS         | U                     | 0                     | 2                         | 2                        |
| ACICDUSR          | U                | PDS         | VB                    | 255                   | 3                         | 2                        |
| ACIZINST          | U                | PDS         | FB                    | 80                    | 3                         | 2                        |
| ACIZMOD           | U                | PDS         | U                     | 0                     | 21                        | 6                        |

Figure 15 (Page 5 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

| Library<br>DDNAME | T<br>Y<br>P<br>E | O<br>R<br>G | R<br>E<br>C<br>F<br>M | L<br>R<br>E<br>C<br>L | No.<br>of<br>3390<br>Trks | No.<br>of<br>DIR<br>Blks |
|-------------------|------------------|-------------|-----------------------|-----------------------|---------------------------|--------------------------|
| ACIZMAC           | U                | PDS         | FB                    | 80                    | 33                        | 8                        |
| ACIZSAMP          | U                | PDS         | FB                    | 80                    | 15                        | 4                        |

The allocations for data sets in Figure 15 on page 25 contain extra space. (DFHALLOC allocates space rounded up to the next cylinder.) Revise these numbers according to your plans for adding additional function or service.

### 5.3 FMIDs Deleted

Installing CICS Transaction Server may result in the deletion of other FMIDs. To see what FMIDs will be deleted, examine the ++VER statement in the product's SMPMCS.

If you do not wish to delete these FMIDs at this time, you must install CICS Transaction Server into separate SMP/E target and distribution zones.

**Note:** These FMIDs will not automatically be deleted from the Global Zone. Consult the SMP/E manuals for instructions on how to do this.

### 5.4 Special Considerations

For this release the Java level has moved up from 1.4.2 to V5. Please remember this if using DFHISTAR.

You have a choice of install methods

- DFHISTAR when once coded and run will generate the install jobs and some post install jobs for you. DFHIHELP contains documentation to assist the coding of DFHISTAR.
- The standard method of install whereby those sample install jobs listed in Figure 16 are each edited and submitted in turn.

#### 5.4.1 The CICS Explorer

The CICS Explorer - "the new face of CICS" - is the new systems management tool framework for CICS. It provides an intuitive, easy-to-use way of managing one or more CICS regions. The CICS Explorer, provided with CICS TS V4.1, supports all of the new function in the release - for example resources associated with event processing and resource bundles. It allows the viewing and updating of resource definitions and performing system management operations for both single and multiple CICS regions, by exploiting the capabilities of the CICS Management Client Interface (CMCI). The CICS Explorer also acts

as a point of integration for other CICS tools. Developers of complementary tools, whether from IBM teams, business partners, or customers, can use the CICS Explorer Software Development Kit (SDK) to extend and integrate their software tools as plug-ins to the Explorer framework.

#### **5.4.1.1 Supported platforms**

- Microsoft Windows Vista
- Microsoft Windows XP (32-bit)
- Microsoft Windows Server 2003 and 2008 (32-bit)
- Red Hat Enterprise Linux V5 (Intel) (32-bit)

**5.4.1.2 Availability:** With the availability of CICS TS V4.1, customers can download and use a fully featured version of the CICS Explorer for CICS TS V4.1 and the CICS PA plugin. CICS IA plugin. CICS CM plugin. A version of the CICS Explorer for CICS TS V3 customers is also to be made available as a no-charge optional feature. Further information about the CICS Explorer and how to download it can be found at <http://www.ibm.com/cics/explorer/>

**5.4.1.3 Service and Support:** Details relating to service and support for the CICS Explorer are available at <http://www.ibm.com/support/docview.wss?rs=1083&uid=swg21380083>

---

## 6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of CICS Transaction Server.

Please note the following:

- If you want to install CICS Transaction Server 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.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

---

### 6.1 Installing CICS Transaction Server

#### 6.1.1 SMP/E Considerations for Installing CICS Transaction Server

This release of CICS Transaction Server is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

#### 6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 16. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

| <b>SUB-ENTRY</b>      | <b>Value</b>  | <b>Comment</b>  |
|-----------------------|---------------|---|
| DSSPACE               | 3130,950,733  | The space used if SMP/E allocates the RELFILE data sets         |
| PEMAX                 | SMP/E Default | IBM recommends using the SMP/E default for PEMAX.               |
| Binder<br>return code | 4             | IBM recommends using a minimum return code of 4 for the binder. |

### 6.1.3 SMP/E CALLLIBS Processing

CICS Transaction Server uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When CICS Transaction Server is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- MACLIB
- MODGEN
- SCEELKED
- SCEELKEX
- SCEEBND2
- SC EE OBJ
- SC EE CPP
- SCLBSID
- SCSF MOD 0
- SDSNLOAD
- SEZAR PCL
- SEZACMTX
- SIS PLOAD

**Note:** The DDDEFs above are used only to resolve the link-edit for CICS Transaction Server using CALLLIBS. These data sets are not updated during the installation of CICS Transaction Server.

### 6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install CICS Transaction Server:

*Figure 17 (Page 1 of 2). Sample Installation Jobs*

| Job Name  | Job Type | Description  | RELFILE        |
|-----------|----------|--|----------------|
| DFHIHFS0  |          | Sample job to create HFS dataset and directory                           | IBM.HCI6600.F2 |
| DFHIHFS1  |          | Sample job to create and mount HFS directory                             | IBM.HCI6600.F2 |
| DFHALLOC  | ALLOCATE | Sample job to allocate target and distribution libraries                 | IBM.HCI6600.F2 |
| DFHSMPSU  | ZONES    | Sample job to setup SMP/E zones  | IBM.HCI6600.F2 |
| DFHDDDEF  | DDDEF    | Sample job to create DDDEF entries for Target and Distribution libraries | IBM.HCI6600.F2 |
| DFHRECV   | RECEIVE  | Sample RECEIVE job from tape   | IBM.HCI6600.F2 |
| DFHRECV E | RECEIVE  | Sample RECEIVE job from DASD   | IBM.HCI6600.F2 |
| DFHAPPLY  | APPLY    | Sample APPLY job   | IBM.HCI6600.F2 |
| DFHACCPT  | ACCEPT   | Sample ACCEPT job  | IBM.HCI6600.F2 |

Figure 17 (Page 2 of 2). Sample Installation Jobs

| Job Name | Job Type | Description   | RELFILE        |
|----------|----------|---|----------------|
| DFHISMKD | MKDIR    | Sample job to invoke the supplied DFHMKDIR EXEC to allocate HFS paths | IBM.HCI6600.F2 |

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 17 on page 32 to find the appropriate relfile data set.

**There are two installation methods provided, the first follows the IBM Corporate Standards. However, some users may be familiar with DFHISTAR and this method is still available. For more information on DFHISTAR refer to member DFHIHELP in dataset 'IBM.HCI6600.F2' or refer to Chapter 3 of the CICS Transaction Server Installation Guide GC34-6426**

---

## 6.2 Copy RELFILE(2) from the Distribution Tape

The distribution tape contains several files, but at this stage, you only need to copy the third file, RELFILE(2), from the tape into a temporary installation library. (Later, all files are copied from tape to disk by SMP/E.)

To copy RELFILE(2) (named IBM.HCI6600.F2) from the tape:

1. Choose a name for the temporary installation library, TDFHINST (the default name is CICSTS41.TDFHINST). You can use another name for the library to suit your installation's naming conventions.

**Note:** Throughout this Program Directory, the CICS Transaction Server partitioned data sets are qualified by the high-level index **CICSTS41**.

2. Modify the R2 DD statement parameter (see Figure 18 on page 34) to satisfy your installation requirements. e.g. UNIT=3480 .
3. Edit any other part of the job to ensure it meets your installation requirements and submit job.

```

//COPYINST JOB (accounting information)
//*
//* Insert here instructions for mounting the tape.
//*
//COPYSTEP EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//SYSUT3 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//R2 DD UNIT={TAPE|device-type|user-group-name}
// VOL=SER=CI6600,LABEL=3,DSN=IBM.HCI6600.F2,
// DISP=(OLD,KEEP)
//TDFHINST DD DSN=CICSTS41.TDFHINST,DISP=(NEW,CATLG,DELETE),
// UNIT=SYSALLDA,
// SPACE=(TRK,(50,50,50))
//*
//SYSIN DD *
COPY INDD=((R2,R)),OUTDD=TDFHINST
/*

```

Figure 18. Sample job for copying RELFILE(2) from tape

In the sample above, update the statements as noted below:

If using TAPEIN:

**tunit** is the unit value matching the product tape.

**volser** is the volume serial matching the product tape.

**x** is the tape file number where the data set name is on the tape.

Refer to the documentation provided by CBPDO to see where IBM.fmid.Fy is on the tape.

If using FILEIN

**filevol** is the volume serial of the DASD device where the downloaded files reside.

OUT

**jcl-library-name** is the name of the output data set where the sample jobs will be stored.

**dasdvol** is the volume serial of the DASD device where the output data set will reside.

SYSIN

**xxxxIN** is either TAPEIN or FILEIN depending on your input DD statement.

**6.2.1.1 Result of copying RELFILE(2):** When you have copied RELFILE(2) from the distribution tape, the CICSTS41.TDFHINST library contains the DFHISTAR job and the skeleton jobs, listed in Figure 19, for installing CICS Transaction Server elements, creating CICS Transaction Server data sets, and running the installation verification procedures (IVPs).

Figure 19 (Page 1 of 3). Skeleton jobs in RELFILE(2) copied to the TDFHINST library

| Job      | Function   |
|----------|--|
| CAUJCLLD | Sample JCL to run Load Module Scanner component of the Affinities Utility (Detail mode)  |
| CAUJCLLS | Sample JCL to run Load Module Scanner component of the Affinities Utility (Summary mode) |
| DFHINSTE | SMP/E RECEIVE from disk  |
| DFHALLOC | Sample job to allocate target and distribution libraries                                 |



Figure 19 (Page 2 of 3). Skeleton jobs in RELFILE(2) copied to the TDFHINST library

| Job       | Function  |
|-----------|---|
| DFHDDDEF  | Sample job to define SMP/E DDDEFs   |
| DFHRECV   | Sample RECEIVE job from tape  |
| DFHAPPLY  | Sample APPLY job  |
| DFHACCPT  | Sample ACCEPT job   |
| DFHSMPSU  | Sample job to setup SMP/E zones   |
| DFHISMKD  | Sample job to invoke the supplied DFHMKDIR EXEC to allocate HFS paths   |
| DFH\$BRXJ | Sample JCL for running the link 3270 bridge EXCI business client samples DFH0CBRX and DFH\$BRXC.                              |
| DFHAUPLE  | Create CICS control tables  |
| DFHBPXPA  | MOUNT statement for HFS dataset with name defined by DFHISTAR parameter HFSADSN for inclusion in SYS1.PARMLIB BPXPRMxx member |
| DFHBPXP0  | MOUNT statement for HFS dataset with name defined by DFHISTAR parameter HFS0DSN for inclusion in SYS1.PARMLIB BPXPRMxx member |
| DFHBPXP1  | MOUNT statement for HFS dataset with name defined by DFHISTAR parameter HFS1DSN for inclusion in SYS1.PARMLIB BPXPRMxx member |
| DFHCDBMI  | Define and initialize the CDBM GROUP command file   |
| DFHCMACI  | Create CICS messages data set   |
| DFHCMACU  | Update (service) CICS messages data set   |
| DFHCOMDS  | Create data sets common to all CICS regions   |
| DFHDEFDS  | Create data sets for each CICS region   |
| DFHIHELP  | Member containing documentation relevant to DFHISTAR  |
| DFHIHFSA  | Create /usr/lpp/cicsts/ussdira directory and its associated HFS   |
| DFHIHFS0  | Create /usr/lpp/cicsts directory and its associated HFS   |
| DFHIHFS1  | Create /usr/lpp/cicsts/ussdir directory and its associated HFS  |
| DFHIJVME  | Customize a member of the SDFHENV library   |
| DFHIJVMJ  | Customize the JVM environment members by DFHISTAR   |
| DFHIJVMS  | Manually customize the JVM environment members  |
| DFHILG1   | Define log stream CF structures to the MVS logger   |
| DFHILG2   | Define log stream models for system log streams   |
| DFHILG3   | Define log stream models for individual CICS region   |
| DFHILG4   | Define specific log stream for the log of logs  |
| DFHILG5   | Sample JCL to define a DASDONLY log stream model for the CICS log streams   |
| DFHILG6   | Sample JCL to define a DASDONLY log stream model for user journals on a particular CICS region                                |
| DFHILG7   | Sample JCL to define a DASDONLY log stream model for the CICS log of logs   |
| DFHINST   | CLIST to tailor skeleton jobs   |
| DFHINSTA  | Create additional set of target libraries   |
| DFHINSTJ  | Install optional features (if any)  |
| DFHINST1  | 1st installation job (for use with DFHISTAR)  |
| DFHINST2  | 2nd installation job (for use with DFHISTAR)  |
| DFHINST3  | 3rd installation job (for use with DFHISTAR)  |
| DFHINST4  | 4th installation job (for use with DFHISTAR)  |
| DFHINST5  | 5th installation job (for use with DFHISTAR)  |
| DFHINST6  | 6th installation job (for use with DFHISTAR)  |
| DFHISTAR  | Tailor skeleton jobs to customer environment  |
| DFHIVPBT  | IVP (batch) to verify CICS startup  |

Figure 19 (Page 3 of 3). Skeleton jobs in RELFILE(2) copied to the TDFHINST library

| Job         | Function  |
|-------------|---|
| DFHIVPDB    | This job brings up CICS and attempts to connect to the DBCTL system IVP3 generated by the IMS IVP                   |
| DFHIVPOL    | IVP to run an online CICS   |
| DFHLPUMD    | Receive and apply sample SMP/E USERMOD DFH\$UMOD  |
| DFHLS2SC    | Generate SCHEMA from language structures  |
| DFHLS2WS    | Generate WSDL from language structures  |
| DFHMKDIR    | REXX EXEC to create all the HFS directories needed under /usr/lpp/cicsts  |
| DFHNADEF    | Sample JCL to define the NACT sample files and load data into them.   |
| DFHOPSRC ** | Load optional source tapes  |
| DFHSC2LS    | Generate language structures from SCHEMA  |
| DFHSMPE     | Service CICS  |
| DFHSTART    | Start up CICS   |
| DFHWS2LS    | Generate language structures from WSDL  |
| DFH0JCUS    | Define and load sample applications details data set  |
| DFH0JHLP    | Define and load sample applications help data set   |
| DFH99BLD    | Create dynamic allocation sample program  |
| DFH\$ECAT   | Sample JCL to build the catalog data file required by the base application of the web services example application  |
| DFHNOTE1    | Legal notice (1) - Please read  |
| DFHNOTE2    | Legal notice (2) - Please read  |
| DFH\$ECNF   | Sample JCL to build the configuration file required by the base application of the web services example application |
| EYUCMASJ    | In-stream procedure   |
| EYUCMASP    | Sample CMAS start up JCL  |
| EYUCMSDS    | Sample CMAS setup + create and initialize a CICS CSD  |
| EYUCMSSP    | Sample to initialize a CMAS   |
| EYUCMS0P    | Sample EYUPARM parameters for a CMAS  |
| EYUCSYDS    | Sample MAS setup + create and initialize a CICS CSD   |
| EYUCSYSJ    | In-stream procedure   |
| EYUCSYSP    | Sample MAS start up JCL   |
| EYUJHIST    | Deletes/Defines LMAS History data sets  |
| EYUJWREP    | Deletes/Defines WUI Server Repository data sets   |
| EYULMSSP    | Sample CICS SIT overrides to initialize a MAS   |
| EYULMS0P    | Sample EYUPARM parameters for a MAS   |
| EYULPMOD    | apply USERMOD EYU\$UM01 which moves local MAS modules to SEYULPA  |
| EYUWUIDS    | Sample WUI setup + create and initialize a CICS CSD   |
| EYUWUIIN    | Sample EYUWUI parameters for a WUI  |
| EYUWUIJ     | In-stream procedure for WUI   |
| EYUWUIP     | Sample WUI start up JCL   |
| EYUWUIISP   | Sample CICS SIT overrides to initialize a WUI   |
| EYUWUI0P    | Sample EYUPARM parameters for a WUI   |

\*\* more information about DFHOPSRC can be found in the CICS Transaction Server Installation Guide.

---

## 6.3 Check that you are ready to run the Installation Jobs

Check that you are now ready to run the installation jobs:

1. Check the names of the data sets to be created by these jobs, because any existing data sets with those names are deleted by the installation jobs. If you want to keep an existing data set with a name specified in one of the installation jobs, you must change the name to be used for the new data set.

**Caution:** *If you intend using an existing target or distribution zone that contains an earlier release of CICS Transaction Server, be aware that any earlier release of CICS Transaction Server will be cleared before being replaced by CICS Transaction Server.*

2. If you intend installing CICS Transaction Server using both existing and new CSIs, any new CSIs must have the same control interval size as the existing CSIs.

If your existing CSIs do not have a control interval size of 4096 bytes, you must edit the DFHSMPSU job (before running it) to change the CONTROLINTERVALSIZE(4096) parameter on the commands used to create the VSAM data sets for the new CSIs, to specify the same control interval size as the existing CSIs.

For further information about considerations for allocating CSI data sets, see the *System Modification Program Extended: Reference manual, SA22-7772*.

3. Ensure that you have appropriate RACF authority for the CICS Transaction Server data sets. For more information, see your Security Administrator and the *CICS RACF Security Guide*.

---

## 6.4 Run the installation Jobs

### OMVS requirement

Before running the installation jobs:

- Ensure the MVS image was IPLed with OMVS in full-function mode.
- Ensure the userid under which you are running the jobs has superuser authority

### Installation method choice

You must now choose which installation method to use:

- The traditional method which is documented below.
- The DFHISTAR method which will code all your install and post install jcl for you. Documentation for this can be found in SDFHINST member DFHIHELP.

**Note:** If you wish to install into a non-SMS managed environment please remember to add the appropriate STORCLAS parameter to the sample jcl.

This section describes the CICS Transaction Server installation jobs, and gives considerations that may affect how you use them.

The CICS Transaction Server jobs are in the library you created as a result of copying the installation file from the distribution tape as described in 6.2, "Copy RELFILE(2) from the Distribution Tape" on page 33.

These jobs should be run one at a time. Before you run a job, read the information about it (starting in topic DFHIHFS0 on page 38).

After you have run a job, check its output before proceeding to the next job. If a job terminates abnormally, find out why it failed (the job log lists the error messages produced on each run). Correct the error, and then proceed as advised in the job description. In any case, do not attempt to run the next job until the previous job has run successfully.

All references below to 'HFS dataset' means the dataset created by the jobs for use within the Hierarchical File Structure. The dataset created is in z/FS format.

#### **6.4.1.1 The DFHIHFS0 Job:** This job:

- Creates the `cicsts` directory at `/usr/lpp`
- Mounts the HFS at directory `/usr/lpp/cicsts`
- Changes the permission settings for the `/cicsts` directory to:
  - Owner=RWX
  - Group=RWX
  - Other=R-X

(In octal form: 775)

Where:

- R equates to Read
- W equates to Write
- X equates to Execute
- - equates to no permission

#### **Notes:**

1. **DFHIHFS0 only ever needs to be run once.**
2. RACF ALTER ACCESS to the OMVS data sets must be granted before running this DFHIHFS0.
3. The `/cicsts` directory contains only directories, each being a mount point.
4. CICS requires the MOUNT issued by DFHIHFS0 to access files stored in the HFS, but the MOUNT command is lost when you re-IPL MVS. SDFHINST member DFHBXP0 contains a MOUNT command for `/usr/lpp/cicsts`. Copy this command into a BPXPRMxx member of the SYS1.PARMLIB dataset to ensure the mount is restored when MVS is IPLed.

5. All steps of DFHIHFS0 must end with return code zero for the job to be successful.

#### **6.4.1.2 The DFHIHFS1 Job:** This job:

- Unmounts the HFS at directory `/usr/lpp/cicsts/ussdir` to allow the job to be rerun, and if necessary forces return code zero.
- Deletes from `/usr/lpp/cicsts` the directory defined by the `ussdir` parameter. This is to allow the job to rerun, and if necessary forces return code zero.
- Deletes the HFS specified in the `@hfs1dsn@` variable to allow the job to rerun, and if necessary forces return code zero.
- Creates the HFS specified by the `@hfs1dsn@` variable
- Creates the `ussdir` directory at `/usr/lpp/cicsts`, where `ussdir` is the name of the directory specified on the `ussdir` parameter.
- Mounts the HFS at directory `/usr/lpp/cicsts/ussdir`
- Changes the permission settings for the `ussdir` directory to 775.

All steps of DFHIHFS1 must end with return code zero for the job to be successful.

CICS requires the MOUNT issued by DFHIHFS1 to access files stored in the HFS, but the MOUNT command is lost when you re-IPL MVS. SDFHINST member DFHBXP1 contains a MOUNT command for `/usr/lpp/cicsts/ussdir`. Copy this command into a BPXPRMxx member of the SYS1.PARMLIB dataset to ensure the mount is restored when MVS is IPLed.

#### **6.4.1.3 The DFHISMKD Job:** This job creates the UNIX System Services directories.

**The highest expected return code is 0.**

**Note:** If you chose not to run DFHISTAR then you will need to code and run DFHIJVMS to populate these directories. Please follow the instructions provided within the job comments.

#### **6.4.1.4 The DFHALLOC Job:** This job allocates and catalogs CICS Transaction Server distribution and target libraries.

To ensure that this job can be rerun, it deletes (and uncatalogs) the data sets that are allocated in the second step of the job.

If the DFHALLOC job terminates abnormally, examine the job log to determine the cause, correct the problem, then rerun the job.

**The highest expected return code is 0.**

**6.4.1.5 The DFHSMPSU Job:** This job sets up the SMP/E zones.

**Note :** Only run this job if you are installing CICS Transaction Server into its own zone.

Edit and submit the sample job DFHSMPSU to setup the zones for CICS Transaction Server. Consult the instructions in the sample job for more information.

**The highest expected return code is 0.**

**6.4.1.6 The DFHDDDEF Job:** This job creates DDDEF entries for the SMP/E target, and distribution zones.

If the DFHDDDEF job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHDDDEF

**The highest expected return code is 0, if you install into new zones and 8 if you are installing into existing zones.**

**Before you run the DFHDDDEF job**

- If you have a DB2 SDSNLOAD library on your system, replace @DSNLOAD@ with the dataset name.
- If you do not have DB2 on your system, replace @DSNLOAD@ with the name of the SDFHLOAD dataset for this install, which contains a DB2 stub.

**6.4.1.7 The DFHRECV Job:** This job RECEIVES the CICS Transaction Server software into the Global zone.

It is the only installation job (apart from the initial IEBCOPY job) that requires the distribution tape to be mounted.

If the DFHRECV job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHRECV.

**The highest expected return code is 0.**

**6.4.1.8 The DFHAPPLY Job:** This job performs the SMP/E APPLY function needed to install CICS Transaction Server into the target libraries.

**Before you run the DFHAPPLY job**

- **DFHAPPLY must be run on the same MVS image on which the HFS is installed.**

If you have modified the other installation jobs (for example, to use existing libraries and therefore existing target and distribution zones) consider splitting the DFHAPPLY job to do APPLY CHECK, APPLY) functions as two separate jobs.

The region size for the DFHAPPLY job is currently set to 'REGION=0M'. This is because this job requires more memory than the other install jobs. You may need to adjust your JES parameters (for example, with a JES2 /\*JOBPARM LINES=99 statement) to avoid a system abend 722.

**This job gives a return code of 4 or less when all is well. (See the “GIM23903W - LINK SUCCESSFUL . . .” message, listed in the report that is output by the apply job.) DFHAPPLY job may issue messages GIM23903W and GIM23913W depending on the execution environment of the installer. Both these messages are acceptable.**

The binder produces IEW2454W messages during the APPLY stage for unresolved external references while some CICS Transaction Server load modules are being link-edited during installation, giving return code 4. You may also receive numerous IEW2646W and IEW2651W messages, which are conflicts with user-specified RMODE and AMODEs respectively. You can ignore these IEWxxxx messages, which are output for component object modules of executable CICS Transaction Server load modules.

Messages IEW2689W, IEW2470E, IEW2648E and IEW2303E might be displayed, and can also be ignored.

When you have run the DFHAPPLY job, you should see the following SMP/E message in the output from the job:

```
GIM20502I  GIMSMP PROCESSING IS COMPLETE - THE HIGHEST RETURN CODE WAS 0
```

This SMP/E message can be ignored.

If any other SMP/E messages appear, see the *SMP/E: Messages and Codes* manual for guidance information about their meaning, and take the appropriate action.

If the DFHAPPLY job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHAPPLY

**Note:** If the DFHAPPLY job fails and you are using an existing global zone you must first REJECT the CICS Transaction Server base-level function SYSMOD before rerunning the DFHALLOC job. When you rerun the installation jobs, some steps that were successfully completed in the previous run will produce return codes with a value of '8'.

Enhanced HOLDDATA introduced ERROR HOLDS against FMIDs for HIPER APARs. Prior to installing, you should ensure you have the latest Enhanced HOLDDATA (available at url

<http://service.software.ibm.com/holdata/390holddata.html>). The FMID(s) should be installed regardless of the status of unresolved HIPERs, however, the software should not be deployed until the unresolved HIPERs have been analyzed to determine applicability.

There are two methods to complete an FMID installation where ++HOLDS for HIPERs exist for the FMID(s) being installed:

1. To ensure that all recommended and critical service is installed with the FMID(s), add the SOURCEIDs of PRP, HIPER, and RSU\* to the APPLY command. There may be PE or HIPER APARs that do not have resolving PTFs available yet. You need to analyze the symptom flags to determine if you want to BYPASS the specific ERROR HOLDS and continue the FMID installation.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(PRP,HIPER,RSU*,...)
GROUPEXTEND .
```

This method requires more initial research, but will provide resolution for all HIPERs that have fixes available and are not in a PE chain. There may still be unresolved PEs or HIPERs which will require the use of BYPASS.

2. To install the FMID(s) as it would have been installed prior to Enhanced HOLDDATA, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. This will allow the FMID to be installed even though there are HIPER ERROR HOLDS against it. Note that not all ERROR HOLDS were bypassed, only the HIPER ERROR HOLDS. After the FMID(s) are installed, the SMP/E REPORT ERRSYSMODS command should be run to identify any missing HIPER maintenance.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
other parameters documented in the program directory...
```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs.

If you bypass any HOLDS during the installation of the FMID(s) because fixing PTFs were not yet available you can use the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink to be notified when the fixing PTF is available.

Once you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

**Note:** The GROUPEXTEND operand indicates that SMP/E apply all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

**Expected Return Codes and Messages from APPLY CHECK: 0**

**Expected Return Codes and Messages from APPLY: 4**



**Note!**

Using GROUPEXTEND in APPLY with maintenance with HOLDDATA may cause a return code other than 0.

**6.4.1.9 The DFHACCT Job** This job performs the SMP/E ACCEPT function needed to install CICS Transaction Server into the distribution libraries.

**Before you run the DFHACCT job**

- **DFHACCT must be run on the same MVS image on which the HFS is installed.**

If you have modified the other installation jobs (for example, to use existing libraries and therefore existing target and distribution zones) consider splitting the DFHACCT job to do ACCEPT CHECK and ACCEPT function as two separate jobs.

The region size for the DFHACCT job is currently set to 'REGION=0M'. This is because this job requires more memory than the other install jobs. You may need to adjust your JES parameters (for example, with a JES2 /\*JOBPARM LINES=99 statement) to avoid a system abend 722.

**This job gives a return code of 0 when all is well. (See the “GIM23903W - LINK SUCCESSFUL . . .” message, listed in the report that is output by the apply job.) DFHACCT job may issue messages GIM23903W and GIM23913W depending on the execution environment of the installer. Both these messages are acceptable.**

If the DFHACCT job terminates abnormally, examine the job log to determine the cause, correct the problem, then re-run DFHACCT.

**Note:** If the DFHACCT job fails and you are using an existing global zone you must first RESTORE the CICS Transaction Server base-level function SYSMOD before rerunning the DFHALLOC job. When you rerun the installation jobs, some steps that were successfully completed in the previous run will produce return codes with a value of '8'.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the ACCEPT CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

**Note:** The GROUPEXTEND operand indicates that SMP/E accept all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

#### **Expected Return Codes and Messages from ACCEPT CHECK:**

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will link-edit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

#### **Expected Return Codes and Messages from ACCEPT: 0**

### **6.4.2 Run REPORT CROSSZONE**

The SMP/E REPORT CROSSZONE command will identify requisites defined for products that have been installed in separate zones. This command will also create APPLY and ACCEPT commands in the SMPPUNCH data set which you can use to install those cross-zone requisites it identifies.

After you have installed CICS Transaction Server, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries describing all the target and distribution libraries to be reported on.

For more information on REPORT CROSSZONE, see the SMP/E manuals.

### **6.4.3 Check the Output from the Installation Jobs**

When you have successfully run all of the installation jobs described in this chapter, CICS Transaction Server will have been loaded into the following libraries:

- CICSTS41.CICS.SDFHAPD1
- CICSTS41.CICS.SDFHAPD2
- CICSTS41.CICS.SDFHAUTH
- CICSTS41.CICS.SDFHCLIB
- CICSTS41.CICS.SDFHCOB
- CICSTS41.CICS.SDFHC370
- CICSTS41.CICS.SDFHDLL1
- CICSTS41.CICS.SDFHENV
- CICSTS41.CICS.SDFHEXCI
- CICSTS41.CICS.SDFHINST
- CICSTS41.CICS.SDFHLANG
- CICSTS41.CICS.SDFHLINK
- CICSTS41.CICS.SDFHLLIB
- CICSTS41.CICS.SDFHLOAD
- CICSTS41.CICS.SDFHLPA
- CICSTS41.CICS.SDFHMAC

CICSTS41.CICS.SDFHMLIB  
CICSTS41.CICS.SDFHMSG  
CICSTS41.CICS.SDFHMSRC  
CICSTS41.CICS.SDFHPARM  
CICSTS41.CICS.SDFHPLIB  
CICSTS41.CICS.SDFHPL1  
CICSTS41.CICS.SDFHPROC  
CICSTS41.CICS.SDFHSAMP  
CICSTS41.CICS.SDFHSDCK  
CICSTS41.CICS.SDFHWSLD  
CICSTS41.CICS.SDFHWSSX  
CICSTS41.CICS.SDFJAUTH  
CICSTS41.CPSM.SEYUAUTH  
CICSTS41.CPSM.SEYUCLIB  
CICSTS41.CPSM.SEYUCOB  
CICSTS41.CPSM.SEYUC370  
CICSTS41.CPSM.SEYUDEF  
CICSTS41.CPSM.SEYULINK  
CICSTS41.CPSM.SEYULOAD  
CICSTS41.CPSM.SEYULPA  
CICSTS41.CPSM.SEYUMAC  
CICSTS41.CPSM.SEYUPARM  
CICSTS41.CPSM.SEYUPL1  
CICSTS41.CPSM.SEYUPROC  
CICSTS41.CPSM.SEYUSAMP  
CICSTS41.CPSM.SEYUVIEW  
CICSTS41.REXX.SCICBOOK  
CICSTS41.REXX.SCICMDS  
CICSTS41.REXX.SCICDBRM  
CICSTS41.REXX.SCICDOC  
CICSTS41.REXX.SCICEXEC  
CICSTS41.REXX.SCICJCL  
CICSTS41.REXX.SCICLOAD  
CICSTS41.REXX.SCICPNL  
CICSTS41.REXX.SCICUSER  
CICSTS41.SFF32.SCIZINST  
CICSTS41.SFF32.SCIZMAC  
CICSTS41.SFF32.SCIZSAMP  
CICSTS41.SFF32.SCIZLOAD

You now have CICS Transaction Server installed on your DASD. Back up the volume on which CICS Transaction Server resides. This avoids the need to re-run the installation jobs if any errors occur during customization later.

---

## 6.5 What next?

You should next copy the CICS Transaction Server procedures into a cataloged procedure library, load any CICS features that you have, and tailor the CICS Transaction Server to your needs. For information about copying the CICS Transaction Server procedures, and loading the CICS Transaction Server features, see the following sections. For information about tailoring CICS Transaction Server to your needs, see the *CICS Transaction Server for z/OS Installation Guide*.

### 6.5.1 Copy the CICS Transaction Server Procedures into a Procedure Library

CICS Transaction Server supplies the procedures listed in Figure 20.

| <b>Procedure</b> | <b>Description</b>   |
|------------------|--|
| <b>DFHASMVS</b>  | Assembles some CICS Transaction Server programs and user-written assembler language programs.  |
| <b>DFHAUPLE</b>  | Assembles and link-edits CICS Transaction Server control tables, and makes the assembly and link-edit information available to SMP/E.<br><b>Note:</b> DFHAUPLE is installed in SDFHINST. |
| <b>DFHBMSU</b>   | Runs the BMS load module disassemble utility program, DFHBMSUP.  |
| <b>DFHEBTAL</b>  | Translates, assembles, and link-edits assembler application programs using EXEC DLI commands in a batch environment under Language Environment.  |
| <b>DFHEITAL</b>  | Translates, assembles, and link-edits assembler application programs using the command-level interface.  |
| <b>DFHEXTAL</b>  | Translates, assembles, and link-edits assembler application programs using the external CICS Transaction Server interface.   |
| <b>DFHLNKVS</b>  | Link-edits CICS Transaction Server programs and application programs.  |
| <b>DFHMAPS</b>   | Prepares physical and symbolic maps.   |
| <b>DFHMAPT</b>   | Prepares physical and symbolic maps and map templates.   |
| <b>DFHSMPE</b>   | Executes SMP/E.<br><b>Note:</b> DFHSMPE is installed in SDFHINST.  |
| <b>DFHSTART</b>  | Starts CICS.<br><b>Note:</b> DFHSTART is installed in SDFHINST.  |
| <b>DFHYBTPL</b>  | Translates, compiles, and link-edits PL/I application programs using EXEC DLI commands in a batch environment under Language Environment.  |
| <b>DFHYBTVL</b>  | Translates, compiles, and link-edits COBOL application programs using EXEC DLI commands in a batch environment under Language Environment.   |

Figure 20 (Page 2 of 3). CICS Transaction Server-supplied procedures

| Procedure       | Description  |
|-----------------|--|
| <b>DFHYITDL</b> | Translates, compiles, and link-edits C application programs using the command-level interface under Language Environment.                        |
| <b>DFHYITEL</b> | Translates, compiles, and link-edits C++ application programs using the command-level interface C/370 complier                                   |
| <b>DFHYITFL</b> | Translates, compiles, and link-edits C application programs using the command-level interface under Language Environment.                        |
| <b>DFHYITGL</b> | Translates, compiles, and link-edits C++ application programs using the command-level interface under Language Environment.                      |
| <b>DFHYITPL</b> | Translates, compiles, and link-edits PL/I application programs using the command-level interface under Language Environment.                     |
| <b>DFHYITVL</b> | Translates, compiles, and link-edits COBOL application programs using the command-level interface under Language Environment.                    |
| <b>DFHYXTDL</b> | Translates, compiles, and link-edits C application programs using the external CICS Transaction Server interface under Language Environment.     |
| <b>DFHYXTEL</b> | Translates, compiles, and link-edits C++ application programs using the external CICS Transaction Server interface under Language Environment.   |
| <b>DFHYXTPL</b> | Translates, compiles, and link-edits PL/I application programs using the external CICS Transaction Server interface under Language Environment.  |
| <b>DFHYXTVL</b> | Translates, compiles, and link-edits COBOL application programs using the external CICS Transaction Server interface under Language Environment. |
| <b>DFHZITCL</b> | Translates, compiles, and link-edits COBOL application programs using the external CICS Transaction Server interface under Language Environment. |
| <b>DFHZITPL</b> | Translates, compiles, and link-edits PL/I application programs using the external CICS Transaction Server interface under Language Environment.  |
| <b>ICCFCC</b>   | CICS foundation classes  |
| <b>ICCFCL</b>   | CICS foundation classes  |
| <b>ICCFCL</b>   | CICS foundation classes  |
| <b>EYUCMASP</b> | CICSplex SM CMAS Start up<br><b>Note:</b> EYUCMASP is installed in SDFHINST.   |
| <b>EYUCSYSP</b> | CICSplex SM MAS Start up<br><b>Note:</b> EYUCSYSP is installed in SDFHINST.  |

Figure 20 (Page 3 of 3). CICS Transaction Server-supplied procedures

| Procedure   | Description  |
|---|--|
| EYUWUIP   | CICSplex SM WUI Start up<br><b>Note:</b> EYUWUIP is installed in SDFHINST. |
| <b>Note:</b><br>For further information about using the CICS Transaction Server-supplied procedures, see: <ul style="list-style-type: none"><li>• The CICS Transaction Server for z/OS for z/OS Installation Guide, GC34-6812, for information about DFHSMPE and DFHSTART</li><li>• The <i>CICS System Definition Guide</i>, SC34-5988, for information about the other procedures.</li></ul> |  |

You should copy all these procedures into a cataloged procedure library (for example, SYS1.PROCLIB).

**Before you copy the procedures**, read the following:

1. Your procedure library may already contain procedures, supplied with an earlier release of CICS, that have the same names as the new procedures but are, in fact, different. If so, you must find some way of selecting the right release. Here are some ways of using the new versions:
  - a. For the time being, rename either set of procedures, and modify the appropriate jobs to use the new names.
  - b. Insert the new procedures into the job streams that use them, and use the procedures as in-stream procedures. The inserted procedures should be placed between the JOB statement and the first EXEC statement. You must insert a // PEND statement after the inserted procedures. When the new release becomes the production system, you can copy the new procedures into your procedure library.
  - c. Indicate the DDNAME of the cataloged procedure library that is to be used to convert the JCL for the job. For example, you could use the JES2 /\*JOBPARM PROCLIB=xxxxxxx. For further information about specifying DDNAMEs in JCL, see the *MVS/ESA JCL Reference* manual.
2. If service is applied to the CICS Transaction Server procedures, it is the versions in the libraries CICSTS41.CICS.SDFHINST and CICSTS41.CICS.SDFHPROC that will be updated by SMP/E. You must then copy the updated procedures into your procedure library.
3. Change the OUTC parameter as required.

When you have read these notes, and acted on them as necessary, copy the procedures into a cataloged procedure library.

---

## 6.6 Activating CICS Transaction Server

After you have loaded CICS Transaction Server to disk, you should perform the following steps, described in the CICS Transaction Server for z/OS for z/OS Installation Guide, GC34-6812:

1. (If needed) Apply service
2. Integrate CICS Transaction Server with MVS
3. Create CICS Transaction Server system data sets
4. (Optional) Install CICS-DATABASE 2 support
5. (Optional) Install MRO and ISC support
6. (Optional) Run the installation verification procedures (IVPs).

The CICS Transaction Server for z/OS for z/OS Installation Guide also contains information about how to get CICS Transaction Server into operational status, as part of the process of verifying the installation.

---

## 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".

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, New York 10504-1785  
USA

For online versions of this book, we authorize you to:

- Copy, modify, and print the documentation contained on the media, for use within your enterprise, provided you reproduce the copyright notice, all warning statements, and other required statements on each copy or partial copy.
- Transfer the original unaltered copy of the documentation when you transfer the related IBM product (which may be either machines you own, or programs, if the program's license terms permit a transfer). You must, at the same time, destroy all other copies of the documentation.

You are responsible for payment of any taxes, including personal property taxes, resulting from this authorization.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.



Your failure to comply with the terms above terminates this authorization. Upon termination, you must destroy your machine readable documentation.

---

## 7.1 Trademarks

The following terms are trademarks of the IBM Corporation in the United States or other countries or both:

|             |              |                      |
|-------------|--------------|----------------------|
| IBM®        | DB2          | IMS/ESA              |
| AD/Cycle    | SystemPac    | Language Environment |
| CICS        | ServerPac    | MVS/ESA              |
| CICS/ESA    | ResourceLink | MVS/DFP              |
| CICS/MVS    | ServiceLink  | OS/390               |
| CICS OS/2   | ES/9000      | RACF                 |
| CICSplex SM | ESA/370      | RETAIN               |
| CICS/VSE    | ESA/390      | VTAM                 |
| CICS/400    | ESCON        | z/OS                 |
| DATABASE 2  | GDDM         |                      |

# Reader's Comments

## Program Directory for CICS Transaction Server for z/OS, June 2009

You may use this form to comment about this document, its organization, or subject matter with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

For each of the topics below please indicate your satisfaction level by circling your choice from the rating scale. If a statement does not apply, please circle N.

| RATING SCALE      |         |   |   |   |                      |                   |
|-------------------|---------|---|---|---|----------------------|-------------------|
| very<br>satisfied | <-----> |   |   |   | very<br>dissatisfied | not<br>applicable |
| 1                 | 2       | 3 | 4 | 5 | N                    |                   |

|   | Satisfaction |   |   |   |   |   |
|---|--------------|---|---|---|---|---|
| Ease of product installation                                  | 1            | 2 | 3 | 4 | 5 | N |
| Contents of Program Directory                                 | 1            | 2 | 3 | 4 | 5 | N |
| Installation Verification Programs                            | 1            | 2 | 3 | 4 | 5 | N |
| Time to install the product                                   | 1            | 2 | 3 | 4 | 5 | N |
| Readability and organization of Program Directory tasks       | 1            | 2 | 3 | 4 | 5 | N |
| Necessity of all installation tasks                           | 1            | 2 | 3 | 4 | 5 | N |
| Accuracy of the definition of the installation tasks          | 1            | 2 | 3 | 4 | 5 | N |
| Technical level of the installation tasks                     | 1            | 2 | 3 | 4 | 5 | N |
| Ease of getting the system into production after installation | 1            | 2 | 3 | 4 | 5 | N |

How did you order this product?

- CBPDO
- CustomPac
- ServerPac
- Independent
- Other

Is this the first time your organization has installed this product?

- Yes
- No

Were the people who did the installation experienced with the installation of z/OS products?

- Yes

\_\_\_ No

If yes, how many years? \_\_\_

If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Please provide the following contact information:

\_\_\_\_\_  
Name and Job Title

\_\_\_\_\_  
Organization

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone

Thank you for your participation.

Please send the completed form to (or give to your IBM representative who will forward it to the CICS Transaction Server for z/OS Development group):

IBM United Kingdom Laboratories  
User Technologies Department (MP 095)  
Hursley Park  
Winchester  
Hampshire SO21 2JN  
United Kingdom

FAX Number: (Outside the UK) +44 1962 816151

FAX Number: (Inside the UK) 01962 816151

E-Mail: [IDRCF@HURSLEY.IBM.COM](mailto:IDRCF@HURSLEY.IBM.COM)





Printed in U.S.A.

G113-0536-00

