IBM

Program Directory for

CICS Transaction Server for z/OS

V3.1.0

Program Number 5655-M15
FMID HCI6400

for Use with
z/OS

Document Date: January 2006

GI10-2586-02

> **Note!**
>
> Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 47.

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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 3 identifies the basic and optional program materials and documentation for CICS Transaction Server.

- 3.0, "Program Support" on page 13 describes the IBM support available for CICS Transaction Server.

- 4.0, "Program and Service Level Information" on page 15 lists the APARs (program level) and PTFs (service level) incorporated into CICS Transaction Server.

- 5.0, "Installation Requirements and Considerations" on page 17 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 softcopy as well as this Program Directory and then keep them for future reference. Section 3.2, "Preventive Service Planning" on page 13 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 softcopy on the CBPDO tape which is identical to the hard copy 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 TS V3.1 introduces an important range of new functions. They fall into the following groups :-

Access to CICS.

Major new capabilities are provided in the areas of Web services, HTTP function, and security.

Systems management.

Functional and usability improvements are provided to the CICSPlex SM Web User interface.

A new update mechanism is provided for the CICSPlex SM batch repository.

Application modernization.

C/C++ capability is enhanced by support for XPlink.

The CICS Web API commands are now thread safe

Language Environment configuring Assembler MAIN programs is supported.

A new mechanism is provided for inter-program data transfer.

New codepage conversion facilities are provided for Unicode.

The Information Centre has moved to the Eclipse platform.

1.2 CICS Transaction Server FMIDs

CICS Transaction Server consists of the following FMIDs:

HCI6400
JCI6401
JCI6402
JCI6403
JCI640D
HCP3100
JCP3102
HBDD110
H0B5110
H0B7110
H0Z2110
HCIZ100
JCI640W

2.0 Program Materials

An IBM program is identified by a program number. The program number for CICS Transaction Server is 5655-M15.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature number, 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.

2.1 Basic Machine-Readable Material

The distribution medium for this program is a 3480 cartridge. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation Instructions" on page 31 for more information about how to install the program.

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*.

Figure 1 describes the physical tape and 3480 cartridge. Figure 2 on page 4 describes the file content.

Notes:

1. The data set attributes in these tables should be used in the JCL of jobs reading the data sets, but since the data sets are in IEBCOPY unloaded format, their actual attributes may be different.

2. If you are installing CICS Transaction Server using the Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), some of the information in these figures may not be valid. Consult the CBPDO documentation for actual values.

3. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

			Figure 1 (Page 1 of 2). Basic Material: Program Tape		
Medium	**Feature Number**	**Physical Volume**	**External Label**	**R/M ***	**VOLSER**
3480 cart	5802	1 2 3	CICS Base (NLV) IIOP/Java support CICSPlex SM and others	Y	CI6400 CI640D CP3100
3480 cart	5822	1 2 3	CICS Base (NLV) IIOP/Java Support CICSPlex SM and others	Y	CI6400 CI640D CP3100

Figure 1 (Page 2 of 2). Basic Material: Program Tape					
Medium	**Feature Number**	**Physical Volume**	**External Label**	**R/M ***	**VOLSER**
3480 cart	5812	1	CICS Base (NLV)	Y	CI6400
		2	IIOP/Java		CI640D
		3	CICSPlex SM and others		CP3100

* R/M = Restricted Materials of IBM

Figure 2 (Page 1 of 5). Program File Content				
Name	**ORG**	**RECFM**	**LRECL**	**BLK SIZE**
SMPMCS (Tape 1 - CI6400)	SEQ	FB	80	6080
IBM.HCI6400.F1 (JCLIN)	PDS	FB	80	8880
IBM.HCI6400.F2 (ADFHINST)	PDS	FB	80	8880
IBM.HCI6400.F3 (ADFHMOD)	PDS	U	0	6144
IBM.HCI6400.F4 (ADFHAPD1)	PDS	FB	38	27968
IBM.HCI6400.F5 (ADFHAPD2)	PDS	FB	227	27921
IBM.HCI6400.F6 (ADFHCLIB)	PDS	FB	80	8880
IBM.HCI6400.F7 (ADFHENV)	PDS	FB	30000	30004
IBM.HCI6400.F8 (ADFHLANG)	PDS	FB	80	8880
IBM.HCI6400.F9 (ADFHMAC)	PDS	V	80	8880
IBM.HCI6400.F10 (ADFHMLIB)	PDS	FB	80	8880
IBM.HCI6400.F11 (ADFHMSGS)	PDS	FB	30646	30650
IBM.HCI6400.F12 (ADFHMSRC)	PDS	FB	80	8880
IBM.HCI6400.F13 (ADFHPARM)	PDS	V	80	8880
IBM.HCI6400.F14 (ADFHPLIB)	PDS	FB	80	8880
IBM.HCI6400.F15 (ADFHPROC)	PDS	FB	80	8880
IBM.HCI6400.F16 (ADFHSAMP)	PDS	FB	80	8880
IBM.JCI6401.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCI6401.F2 (ADFHMOD)	PDS	U	0	6144
IBM.JCI6401.F3 (ADFHCOB)	PDS	FB	80	8880
IBM.JCI6401.F4 (ADFHMAC)	PDS	FB	80	8880

Name	O R G	R E C F M	L R E C L	BLK SIZE
Figure 2 (Page 2 of 5). Program File Content				
IBM.JCI6402.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCI6402.F2 (ADFHMOD)	PDS	U	0	6144
IBM.JCI6402.F3 (ADFHPL1)	PDS	FB	80	8880
IBM.JCI6402.F4 (ADFHSAMP)	PDS	FB	80	8880
IBM.JCI6403.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCI6403.F2 (ADFHMOD)	PDS	U	0	6144
IBM.JCI6403.F3 (ADFHMODX)	PDS	U	0	6144
IBM.JCI6403.F4 (ADFJMOD)	PDS	U	0	6144
IBM.JCI6403.F5 (ADFHC370)	PDS	FB	80	8880
IBM.JCI6403.F6 (ADFHSAMP)	PDS	FB	80	8880
IBM.JCI6403.F7 (ADFHSDCK)	PDS	FB	80	8880
SMPMCS (Tape 2 - CI640D)	SEQ	FB	80	6080
IBM.JCI640D.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCI640D.F2 (ADFJMOD)	PDSE	U	0	6144
IBM.JCI640D.F3 (ADFHSAMP)	PDS	FB	80	8880
IBM.JCI640D.F4 (ADFJH001)	PDS	V	32000	32004
IBM.JCI640D.F5 (ADFJH002)	PDS	V	32000	32004
IBM.JCI640D.F6 (ADFJH003)	PDS	V	32000	32004
IBM.JCI640D.F7 (ADFJH004)	PDS	V	32000	32004
IBM.JCI640D.F8 (ADFJH005)	PDS	V	32000	32004
IBM.JCI640D.F9 (ADFJH006)	PDS	V	32000	32004
IBM.JCI640D.F10 (ADFJH007)	PDS	V	32000	32004
IBM.JCI640D.F11 (ADFJH008)	PDS	V	32000	32004
IBM.JCI640D.F12 (ADFJH009)	PDS	V	32000	32004
IBM.JCI640D.F13 (ADFJH010)	PDS	V	32000	32004
IBM.JCI640D.F14 (ADFJH011)	PDS	V	32000	32004
IBM.JCI640D.F15 (ADFJH012)	PDS	V	32000	32004
IBM.JCI640D.F16 (ADFJH013)	PDS	V	32000	32004
IBM.JCI640D.F17 (ADFJH014)	PDS	V	32000	32004

Name	ORG	RECFM	LRECL	BLK SIZE
IBM.JCI640D.F18 (ADFJH015)	PDS	V	32000	32004
IBM.JCI640D.F19 (ADFJH016)	PDS	V	32000	32004
IBM.JCI640D.F20 (ADFJH017)	PDS	V	32000	32004
IBM.JCI640D.F21 (ADFJH018)	PDS	V	32000	32004
IBM.JCI640D.F22 (ADFJH019)	PDS	V	32000	32004
IBM.JCI640D.F23 (ADFJH020)	PDS	V	32000	32004
IBM.JCI640D.F24 (ADFJH021)	PDS	V	32000	32004
IBM.JCI640D.F25 (ADFJH022)	PDS	V	32000	32004
IBM.JCI640D.F26 (ADFJH023)	PDS	V	32000	32004
IBM.JCI640D.F27 (ADFJH024)	PDS	V	32000	32004
IBM.JCI640D.F28 (ADFJH025)	PDS	V	32000	32004
IBM.JCI640D.F29 (ADFJH026)	PDS	V	32000	32004
IBM.JCI640D.F30 (ADFJH027)	PDS	V	32000	32004
IBM.JCI640D.F31 (ADFJH028)	PDS	V	32000	32004
IBM.JCI640D.F32 (ADFJH029)	PDS	V	32000	32004
IBM.JCI640D.F33 (ADFJH030)	PDS	V	32000	32004
IBM.JCI640D.F34 (ADFJH031)	PDS	V	32000	32004
IBM.JCI640D.F35 (ADFJH032)	PDS	V	32000	32004
IBM.JCI640W.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCI640W.F2 (ADFHMOD2)	PDS	U	0	6144
IBM.JCI640W.F3 (ADFHW001)	PDS	V	32000	32004
SMPMCS (Tape 3 - CP3100)	SEQ	FB	80	6080
IBM.HCP3100.F1 (JCLIN)	PDS	FB	80	8880
IBM.HCP3100.F2 (AEYUINST)	PDS	FB	80	8880
IBM.HCP3100.F3 (AEYUMOD)	PDS	U	0	6144
IBM.HCP3100.F4 (AEYUADEF)	PDS	FB	80	8880
IBM.HCP3100.F5 (AEYUCLIB)	PDS	FB	80	8880
IBM.HCP3100.F6 (AEYUCOB)	PDS	FB	80	8880
IBM.HCP3100.F7 (AEYUC370)	PDS	FB	80	8880

Figure 2 (Page 3 of 5). Program File Content

Name	O R G	R E C F M	L R E C L	BLK SIZE
IBM.HCP3100.F8 (AEYUDEF)	PDS	FB	80	8880
IBM.HCP3100.F9 (AEYUJCL)	PDS	FB	80	8880
IBM.HCP3100.F10 (AEYUMAC)	PDS	FB	80	8880
IBM.HCP3100.F11 (AEYUMLIB)	PDS	FB	80	8880
IBM.HCP3100.F12 (AEYUPARM)	PDS	FB	80	8880
IBM.HCP3100.F13 (AEYUPLIB)	PDS	FB	80	8880
IBM.HCP3100.F14 (AEYUPL1)	PDS	FB	80	8880
IBM.HCP3100.F15 (AEYUPROC)	PDS	FB	80	8880
IBM.HCP3100.F16 (AEYUSAMP)	PDS	FB	80	8880
IBM.HCP3100.F17 (AEYUTLIB)	PDS	FB	80	8880
IBM.HCP3100.F18 (AEYUVDEF)	PDS	FB	80	8880
IBM.HCP3100.F19 (AEYUVIEW)	PDS	V	32000	32004
IBM.JCP3102.F1 (JCLIN)	PDS	FB	80	8880
IBM.JCP3102.F2 (AEYUCOMM)	PDS	U	0	6144
IBM.HBDD110.F1 (JCLIN)	PDS	FB	80	8800
IBM.HBDD110.F2 (AERCINST)	PDS	FB	80	8800
IBM.HBDD110.F3 (AERCMOD)	PDS	U	0	6144
IBM.H0B5110.F1 (JCLIN)	PDS	FB	80	8880
IBM.H0B5110.F2 (ACICJCL)	PDS	FB	80	8880
IBM.H0B5110.F3 (ACICRMOD)	PDS	U	0	6144
IBM.H0Z2110.F1 (JCLIN)	PDS	FB	80	8800
IBM.H0Z2110.F2 (ACICPNL)	PDS	FB	80	8800
IBM.H0Z2110.F3 (ACICCMDS)	PDS	VB	255	27998
IBM.H0Z2110.F4 (ACICMOD)	PDS	U	0	6144
IBM.H0Z2110.F5 (ACICDOC)	PDS	VB	8192	27998
IBM.H0Z2110.F6 (ACICBOOK)	PDS	FB	4096	24576
IBM.H0B7110.F1 (JCLIN)	PDS	FB	80	8880
IBM.H0B7110.F2 (ACICJCL)	PDS	FB	80	8880
IBM.H0B7110.F3 (ACICDUSR)	PDS	VB	255	27998

Figure 2 (Page 4 of 5). Program File Content

Figure 2 (Page 5 of 5). Program File Content	ORG	RECFM	LRECL	BLK SIZE
Name				
IBM.H0B7110.F4 (ACICDMOD)	PDS	U	0	6144
IBM.HCIZ100.F1 (JCLIN)	PDS	FB	80	8880
IBM.HCIZ100.F2 (SCIZINST)	PDS	FB	80	8880
IBM.HCIZ100.F3 (ACIZMOD)	PDS	U	0	6144
IBM.HCIZ100.F4 (ACIZMAC)	PDS	FB	80	8880
IBM.HCIZ100.F5 (ACIZSAMP)	PDS	FB	80	8880

2.2 Optional Machine-Readable Material

The distribution medium for this program is magnetic tape.

Figure 3 describes the physical tape. Figure 4 describes the file content.

Figure 3. Optional Material					
Medium	Feature Number	Physical Volume	External Label	Unload Utility	VOLSER
3480 cart	5832	1	CICS TS V3R1 OPT.S	IEBCOPY	CI640S
3480 cart	5832	2	CICS TS V3R1 OPT.S	IEBCOPY	CI640T

Figure 4. Optional Material File Content					
Name	ORG	RECFM	LRECL	BLK SIZE	Number of Statements
CICSTS31.OPTSRC01 (CI640S)	PO	FB	80	6160	1115
CICSTS31.OPTSRC02 (CI640T)	PO	FB	80	6160	604

2.3 Program Publications

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

2.3.1 Basic Program Publications

Figure 5 identifies the basic unlicensed program publications for CICS Transaction Server which are available in HTML and PDF formats within the CICS Information Center.

Publications marked with an asterisk (*) are also supplied, in hardcopy, as part of the entitlement materials. One copy of each of these publications is included when you order the basic materials for CICS Transaction Server. For additional copies, contact your IBM representative.

Figure 5 (Page 1 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
CICS Transaction Server for z/OS Program Directory *	GI10-2586
CICS Transaction Server for z/OS Licensed Program Specifications *	GC34-6608
Memo to Licensees *	GI10-2585
CICS Transaction Server for z/OS Release Guide *	GC34-6421
CICS Transaction Server for z/OS Migration Guide	GC34-6425
CICS Application Programming Guide	SC34-6433
CICS Application Programming Reference	SC34-6434
CICS Business Transaction Services	SC34-6439
CICS Customization Guide	SC34-6429
CICS C++ OO Class Libraries	SC34-6437
CICS DB2 Guide	SC34-6457
CICS Distributed Transaction Processing Guide	SC34-6438
CICS External Interfaces Guide	SC34-6449
CICS Front End Programming Interface User's Guide	SC34-6436
CICS IMS Database Control Guide	SC34-6453
CICS Intercommunication Guide	SC34-6448
CICS Internet Guide	SC34-6450
CICS Messages and Codes	GC34-6442
CICS Operations and Utilities Guide	SC34-6431
CICS Performance Guide	SC34-6452
CICS Problem Determination Guide	SC34-6441

Figure 5 (Page 2 of 2). Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
CICS RACF Security Guide	SC34-6454
CICS Recovery and Restart Guide	SC34-6451
CICS Resource Definition Guide	SC34-6430
CICS Shared Data Tables Guide	SC34-6455
CICS Supplied Transactions	SC34-6432
CICS System Definition Guide	SC34-6428
CICS System Programming Reference	SC34-6435
CICS Trace Entries	SC34-6443
CICS Transaction Affinities Utility Guide	SC34-6456
CICS Family: Communicating from CICS on System/390	SC34-6474
CICS Family: Interproduct Communication	SC34-6473
CICSPlex SM Administration	SC34-6462
CICSPlex SM Application Programming Guide	SC34-6468
CICSPlex SM Application Programming Reference	SC34-6469
CICSPlex SM Concepts and Planning	SC34-6459
CICSPlex SM Managing Business Applications	SC34-6467
CICSPlex SM Managing Resource Usage	SC34-6466
CICSPlex SM Managing Workloads	SC34-6465
CICSPlex SM Messages and Codes	GC34-6471
CICSPlex SM Monitor Views Reference	SC34-6464
CICSPlex SM Operations Views Reference	SC34-6463
CICSPlex SM Problem Determination	GC34-6472
CICSPlex SM Resource Tables Reference	SC34-6470
CICSPlex SM User Interface Guide	SC34-6460
CICSPlex SM Web User Interface Guide	SC34-6461

Figure 6 identifies the basic licensed program publications for CICS Transaction Server. These are provided in PDF format as part of the CICS Information Center.

Figure 6. Basic Material: Licensed Publications	
Publication Title	**Form Number**
Data Areas	LY33-6107
Supplementary Data Areas	LY33-6108
Debugging Tools Interface Reference	LY33-6109
Diagnosis Reference	LY33-6110

2.4 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.

2.5 Publications useful during Installation

The publications listed in Figure 7 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

Figure 7. Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS and OS/390 User's Guide	SA22-7773
IBM SMP/E for z/OS and OS/390 Commands	SA22-7771
IBM SMP/E for z/OS and OS/390 Reference	SA22-7772
IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis	GA22-7770
OS/390 UNIX System Services User's Guide	SC28-1891
CICS Transaction Server for z/OS Installation Guide *	GC34-6426
CICS Transaction Server Information Center	K3T-6965

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 or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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:

UPGRADE	SUBSET	Description
Figure 8 (Page 1 of 2). PSP Upgrade and Subset ID		
CICSTS31	HCI6400	CICS TS Base
	JCI6401	COBOL Language Parts
	JCI6402	PL/I Language Parts
	JCI6403	C Language Parts and XPLINK
	JCI640D	IIOP/JAVA
	HCP3100	CICSPLEX SM V3R1 (z/OS and OS/2 Remote MAS Support, CMAS and local MAS Support)
	JCP3102	CICSPLEX SM V3R1 (SAS components)
	HBDD110/0103	CICS Application Migration Aid
	H0B5110/0103	CICS REXX Runtime Facility
	H0B7110/0103	CICS REXX Development System
	H0Z2110/0103	CICS REXX Common for CICS/ESA
	HCIZ100/0103	CICS Integrator Adapter for z/OS

Figure 8 (Page 2 of 2). PSP Upgrade and Subset ID		
UPGRADE	**SUBSET**	**Description**
	JCI640W/040W	WS-Security

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

Figure 9. Component IDs			
FMID	**COMPID**	**Component Name**	**RETAIN Release**
HCI6400	5655M1500	CICS TS Base	400
JCI6401	5655M1500	COBOL Language Parts	401
JCI6402	5655M1500	PL/I Language Parts	402
JCI6403	5655M1500	C Language Parts	403
JCI640D	5655M1500	IIOP/JAVA	40D
HCP3100	5655M1501	CICSPlex SM (z/OS and OS/2 Remote MAS Support)	100
JCP3102	5655M1501	CICSPlex SM (SAS components)	102
HBDD110	5695-061	CICS Application Migration Aid (FESN 0562275)	110
H0B5110	565508700	CICS REXX Runtime Facility	110
H0B7110	565508600	CICS REXX Development System	110
H0Z2110	565511200	CICS REXX Common for CICS/ESA	110
HCIZ100	6000INT00	CICS Integrator Adapter for z/OS	100
JCI640W	5655M1500	WS-Security	40W

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.

4.1 Program Level Information

You can find the APARs against previous releases that have been incorporated into this release by going to `www-1.ibm.com/support/docview.wss?rs=166&uid=swg1199090`.

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.

- *Target system*: the system on which the program is installed.

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/390 processor that supports z/OS Version 1 Release 4 or later, and which has sufficient DASD space for all the product datasets.

5.1.2 Programming Requirements

Figure 10. Driving System Software Requirements	
Program Number	**Product Name and Minimum VRM/Service Level**
5694-A01	z/OS Version 1 Release 4 or later
5655-G44	IBM SMP/E for z/OS and OS/390 Version 3 Release 1 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.

Figure 11. Mandatory Installation Requisites	
Program Number	**Product Name and Minimum VRM/Service Level**
5694-A01	z/OS Version 1.4 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.

CICS Transaction Server customers using CICS/TS 1.3.0 or CICS/TS 2.2.0 with CICS/TS 3.1 must install some pre-req service.

1. For CICS/TS 1.3.0 the APAR/PTF is PQ65166 / UQ71532
2. For CICS/TS 2.2.0 the APAR/PTF is PQ65168 / UQ71534

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.

CICS Transaction Server has no mandatory operational requisites.

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.

Program Number	Product Name and Minimum VRM/Service Level	Function
Figure 12 (Page 1 of 2). Conditional Operational Requisites		
5695-039	OS/390 Security Server(RACF)	Security
5698-TD9	Tivoli Decision Support os OS/390 with a PTF	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
5655-121	IBM C/C++ Release 1	Language Compiler
5668-814	CSP Version 3 or higher	Application Development
5688-197	SAA AD/Cycle COBOL/370	Language Compiler
5688-235	SAA AD/Cycle PL/I	Language Compiler
5688-216	SAA AD/Cycle C/370	Language Compiler
5665-356	GDDM/MVS Version 2.3	Graphical Application Support
5694-A01	OS/390 Language Environment with APAR PQ99064	
5695-010	CICS VSAM Recovery (CICSVR) Version 2.3 or higher	VSAM File Recovery
5655-158	IMS/ESA Database Manager Version 7.1 or higher	IMS DBCTL Multisystem Data Sharing
5675-DB2	DB2 Version 7.1 with APARs PQ46501, PQ44614, PQ45691, PQ45692, PQ50703 and PQ51847 **OR**	DATABASE 2 (DB2) Data sharing
5625-DB2	DB2 Version 8.1 with APARs PQ99819 and PK00223	DATABASE 2 (DB2) Data sharing
5655-A95	MQSeries for OS/390 Version 2.1 with APAR PQ35501	MQSeries Messaging Mechanism for use with 3270-bridge

Figure 12 (Page 2 of 2). Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5655-D35	IBM Software Developer Kit for z/OS, Java 2 Technology Edition V1.4 with PTF for APAR PQ79281 - see note below.	Java Virtual Machine
5655-JAV	IBM Visual Age for Java, Enterprise Edition for OS/390, Version 2.0 with PTFs UQ90004, UQ90006, UQ90007 and UQ54258 for the runtime library.	

Note: To obtain the IBM Software Developer Kit for z/OS Java 2 Technology edition, with the persistent reusable Java Virtual Machine technology, go to:

`http://www.ibm.com/servers/eserver/zseries/software/java/`

For information about prerequisites for the IBM Software Developer Kit for z/OS, Java 2 Technology Edition with persistent reusable Java Virtual Machines, go to:

`http://www.ibm.com/servers/eserver/zseries/software/java/`
`prereqs14.html`

5.2.2.3 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.

5.2.2.4 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 13 lists the total space required for each type of library.

Figure 13 (Page 1 of 2). Total DASD Space Required by CICS Transaction Server	
Library Type	**Total Space Required**
Target	710 cylinders
Distribution	839 cylinders

Figure 13 (Page 2 of 2). Total DASD Space Required by CICS Transaction Server	
Library Type	**Total Space Required**
HFS	40 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

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 14 (Page 1 of 3). Storage Requirements for CICS Transaction Server Target Libraries								
Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SDFHINST	Sample	ANY	U	PDS	FB	80	24	4
SDFHSDCK	Data	ANY	U	PDS	FB	80	3	2
SDFHAPD1	Data	ANY	U	PDS	FB	38	2	2
SDFHAPD2	Data	ANY	U	PDS	FB	227	2	2
SDFHAUTH	LMOD	ANY	U	PDS	U	0	89	10
SDFHCLIB	CLIST	ANY	U	PDS	FB	80	2	2
SDFJAUTH	LMOD	ANY	U	PDSE	U	0	72	2
SDFHCOB	Source	ANY	U	PDS	FB	80	77	8
SDFHC370	Sample	ANY	U	PDS	FB	80	62	6
SDFHEXCI	LMOD	ANY	U	PDS	U	0	4	4
SDFHLANG	Source	ANY	U	PDS	FB	80	2	2
SDFHLLIB	LMOD	ANY	U	PDS	U	0	5	2
SDFHLOAD	LMOD	ANY	U	PDS	U	0	718	146
SDFHLODX	LMOD	ANY	U	PDS	U	0	1	12
SDFHMAC	Macro	ANY	U	PDS	FB	80	313	26
SDFHMLIB	Message	ANY	U	PDS	FB	80	2	2
SDFHMSGS	Message	ANY	U	PDS	V	30646	251	2
SDFHPARM	PARM	ANY	U	PDS	FB	80	1	2

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SDFHPLIB	Panel	ANY	U	PDS	FB	80	3	2
SDFHPL1	Source	ANY	U	PDS	FB	80	58	7
SDFHPROC	PROC	ANY	U	PDS	FB	80	5	3
SDFHSAMP	Sample	ANY	U	PDS	FB	80	351	34
SDFHMSRC	Source	ANY	U	PDS	FB	80	475	19
SDFHDLL1	LMOD	ANY	U	PDS	U	0	3	2
SDFHLINK	LMOD	ANY	U	PDS	U	0	190	5
SDFHLPA	LMOD	ANY	U	PDS	U	0	1680	72
SDFHENV	Data	ANY	U	PDS	V	30000	13	2
SDFJLOAD	LMOD	ANY	U	PDSE	U	0	1436	2
SDFJLPA	LMOD	ANY	U	PDSE	U	0	4	2
SERCLMD	LMOD	ANY	U	PDS	U	0	10	7
SEYUINST	Sample	ANY	U	PDS	FB	80	11	2
SEYUSAMP	Sample	ANY	U	PDS	FB	80	11	3
SEYUPARM	PARM	ANY	U	PDS	FB	80	2	2
SEYUMAC	Macro	ANY	U	PDS	FB	80	84	46
SEYUJCL	PROC	ANY	U	PDS	FB	80	18	5
SEYUDEF	Sample	ANY	U	PDS	FB	80	25	3
SEYULOAD	LMOD	ANY	U	PDS	U	0	528	22
SEYUAUTH	LMOD	ANY	U	PDS	U	0	838	260
SEYUCMOD	LMOD	ANY	U	PDS	U	0	70	110
SEYUADEF	Data	ANY	U	PDS	FB	80	54	13
SEYUCLIB	EXEC	ANY	U	PDS	FB	80	16	3
SEYUMLIB	Message	ANY	U	PDS	FB	80	9	5
SEYUPLIB	Panel	ANY	U	PDS	FB	80	123	43
SEYUTLIB	Table	ANY	U	PDS	FB	80	3	2
SEYUVDEF	Data	ANY	U	PDS	FB	80	227	29
SEYUPROC	PROC	ANY	U	PDS	FB	80	1	2
SEYUC370	Source	ANY	U	PDS	FB	80	89	44

Figure 14 (Page 2 of 3). Storage Requirements for CICS Transaction Server Target Libraries

Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SEYUCOB	Source	ANY	U	PDS	FB	80	106	44
SEYUPL1	Macro	ANY	U	PDS	FB	80	93	44
SEYULINK	LMOD	ANY	U	PDS	U	0	10	2
SEYULPA	LMOD	ANY	U	PDS	U	0	1200	12
SEYUVIEW	Data	ANY	U	PDS	V	32000	2648	2
SCICJCL	Sample	ANY	U	PDS	FB	80	6	3
SCICPNL	Panel	ANY	U	PDS	FB	80	1	2
SCICDBRM	Data	ANY	U	PDS	FB	80	1	2
SCICBOOK	Book	ANY	U	PDS	FB	4096	18	2
SCICLOAD	LMOD	ANY	U	PDS	U	0	24	3
SCICCMDS	Data	ANY	U	PDS	VB	255	1	2
SCICEXEC	EXEC	ANY	U	PDS	VB	255	2	2
SCICUSER	Data	ANY	U	PDS	VB	255	3	2
SCICDOC	Book	ANY	U	PDS	VB	8192	76	2
SCIZINST	Sample	ANY	U	PDS	FB	80	1	1
SCIZLOAD	LMOD	ANY	U	PDS	U	0	25	4
SCIZMAC	Macro	ANY	U	PDS	FB	80	25	9
SCIZSAMP	Sample	ANY	U	PDS	FB	80	54	18
SDFHWSLD	LMOD	ANY	U	PDS	U	0	1	12

Figure 14 (Page 3 of 3). Storage Requirements for CICS Transaction Server Target Libraries

DDNAME	TYPE	Path Name
SDFJH001	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/lib/IBM
SDFJH002	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/BankAccount/IBM
SDFJH003	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/BankAccount/javaclient/IBM

Figure 15 (Page 1 of 3). CICS Transaction Server HFS Paths

DDNAME	TYPE	Path Name
SDFJH004	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/BankAccount/server/IBM
SDFJH005	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcics/IBM
SDFJH006	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcics/examples/HelloWorld/IBM
SDFJH007	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcics/examples/ProgramControl/IBM
SDFJH008	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcics/examples/TDQ/IBM
SDFJH009	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcics/examples/TSQ/IBM
SDFJH010	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/docs/IBM
SDFJH011	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/IBM
SDFJH012	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/HelloWorld/IBM
SDFJH013	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/HelloWorld/server/IBM
SDFJH014	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ dfjcorb/HelloWorld/client/IBM
SDFJH015	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ ejb/helloworld/IBM
SDFJH016	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ ejb/bankaccount/IBM
SDFJH017	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ cci/IBM
SDFJH018	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/samples/ jdbc/IBM
SDFJH019	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/lib/ security/IBM
SDFJH020	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ utils/configtool/IBM
SDFJH021	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ utils/IBM

Figure 15 (Page 2 of 3). CICS Transaction Server HFS Paths

DDNAME	T Y P E	Path Name
		Figure 15 (Page 3 of 3). CICS Transaction Server HFS Paths
SDFJH022	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ utils/namesapce/IBM
SDFJH023	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/dfjcics/examples/Web/IBM/
SDFJH024	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/useroutputclass/com/ibm/cics/ samples/IBM/
SDFJH025	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ lib/wsdl/IBM/
SDFJH026	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/pipelines/IBM/
SDFJH027	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ pipeline/configs/IBM/
SDFJH028	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/webservices/JCL/IBM/
SDFJH029	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/webservices/wsdl/IBM/
SDFJH030	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/webservices/wsbind/provider/IBM/
SDFJH031	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/webservices/wsbind/requester/IBM/
SDFJH032	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ samples/webservices/client/IBM/
SDFHH033	N	/@pathprefix@/usr/lpp/cicsts/@ussdir@/ lib/IBM

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

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
						Figure 16 (Page 1 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries
ADFHINST	U	PDS	FB	80	24	4

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ADFHSDCK	U	PDS	FB	80	2	2
ADFHAPD1	U	PDS	FB	38	1	2
ADFHAPD2	U	PDS	FB	227	1	2
ADFHCLIB	U	PDS	FB	80	1	2
ADFHCOB	U	PDS	FB	80	77	8
ADFHC370	U	PDS	FB	80	62	6
ADFHENV	U	PDS	V	30000	13	2
ADFHLANG	U	PDS	FB	80	1	2
ADFHMAC	U	PDS	FB	80	313	26
ADFHMLIB	U	PDS	FB	80	1	2
ADFHMOD	U	PDS	U	0	1045	612
ADFHMOD2	U	PDS	U	0	2	12
ADFHMODX	U	PDS	U	0	1	10
ADFJMOD	U	PDSE	U	0	2302	2
ADFHMSGS	U	PDS	V	30646	251	2
ADFHPARM	U	PDS	FB	80	1	2
ADFHPLIB	U	PDS	FB	80	3	2
ADFHPL1	U	PDS	FB	80	58	7
ADFHPROC	U	PDS	FB	80	5	3
ADFHSAMP	U	PDS	FB	80	351	34
ADFHMSRC	U	PDS	FB	80	475	19
ADFHW001	U	PDS	V	32000	1	10
ADFJH001	U	PDS	V	32000	98	2
ADFJH002	U	PDS	V	32000	1	2
ADFJH003	U	PDS	V	32000	1	2
ADFJH004	U	PDS	V	32000	1	2
ADFJH005	U	PDS	V	32000	1	2
ADFJH006	U	PDS	V	32000	1	2
ADFJH007	U	PDS	V	32000	1	2

Figure 16 (Page 2 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
					Figure 16 (Page 3 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries	
ADFJH008	U	PDS	V	32000	1	2
ADFJH009	U	PDS	V	32000	1	2
ADFJH010	U	PDS	V	32000	18	2
ADFJH011	U	PDS	V	32000	1	2
ADFJH012	U	PDS	V	32000	1	2
ADFJH013	U	PDS	V	32000	1	2
ADFJH014	U	PDS	V	32000	1	2
ADFJH015	U	PDS	V	32000	3	2
ADFJH016	U	PDS	V	32000	22	2
ADFJH017	U	PDS	V	32000	1	2
ADFJH018	U	PDS	V	32000	1	2
ADFJH019	U	PDS	V	32000	1	2
ADFJH020	U	PDS	V	32000	4	2
ADFJH021	U	PDS	V	32000	1	2
ADFJH022	U	PDS	V	32000	1	2
ADFJH023	U	PDS	V	32000	1	2
ADFJH024	U	PDS	V	32000	1	2
ADFJH025	U	PDS	V	32000	49	2
ADFJH026	U	PDS	V	32000	1	2
ADFJH027	U	PDS	V	32000	1	2
ADFJH028	U	PDS	V	32000	66	41
ADFJH029	U	PDS	V	32000	1	2
ADFJH030	U	PDS	V	32000	1	2
ADFJH031	U	PDS	V	32000	1	2
ADFJH032	U	PDS	V	32000	30	4
AERCINST	U	PDS	FB	80	2	2
AERCMOD	U	PDS	U	0	10	8
AEYUINST	U	PDS	FB	80	11	2
AEYUMOD	U	PDS	U	0	1838	1369

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AEYUSAMP	U	PDS	FB	80	11	3
AEYUPARM	U	PDS	FB	80	2	2
AEYUMAC	U	PDS	FB	80	84	46
AEYUJCL	U	PDS	FB	80	18	5
AEYUDEF	U	PDS	FB	80	25	3
AEYUCOMM	U	PDS	U	0	5	6
AEYUCOSM	U	PDS	U	0	26	41
AEYUCOBM	U	PDS	U	0	41	65
AEYUADEF	U	PDS	FB	80	54	13
AEYUCLIB	U	PDS	FB	80	16	3
AEYUMLIB	U	PDS	FB	80	9	5
AEYUPLIB	U	PDS	FB	80	123	43
AEYUTLIB	U	PDS	FB	80	3	2
AEYUVDEF	U	PDS	FB	80	227	29
AEYUPROC	U	PDS	FB	80	1	2
AEYUC370	U	PDS	FB	80	89	44
AEYUCOB	U	PDS	FB	80	106	44
AEYUPL1	U	PDS	FB	80	93	44
AEYUVIEW	U	PDS	V	32000	2648	2
ACICRMOD	U	PDS	U	0	1	2
ACICMOD	U	PDS	U	0	37	32
ACICDMOD	U	PDS	U	0	1	2
ACICJCL	U	PDS	FB	80	6	3
ACICPNL	U	PDS	FB	80	1	2
ACICDBRM	U	PDS	FB	80	1	2
ACICBOOK	U	PDS	FB	4096	18	2
ACICDOC	U	PDS	VB	8192	76	2
ACICCMDS	U	PDS	VB	255	1	2
ACICEXEC	U	PDS	VB	255	2	2

Figure 16 (Page 4 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ACICUSER	U	PDS	VB	255	2	2
ACICDUSR	U	PDS	VB	255	2	2
ACIZINST	U	PDS	FB	80	2	1
ACIZMAC	U	PDS	FB	80	37	4
ACIZMOD	U	PDS	U	0	19	2
ACIZSAMP	U	PDS	FB	80	57	7

Figure 16 (Page 5 of 5). Storage Requirements for CICS Transaction Server Distribution Libraries

The allocations for data sets in Figure 16 on page 26 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

CICS Transaction Server has no special considerations for the target system.

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:

For this release of CICS Transaction Server the installation method has been changed in line with IBM Corporate Standards. However, the traditional method of installing CICS Transaction Server is still available. For more information on DFHISTAR refer to member DFHIHELP in dataset 'IBM.HCI6400.F2' or refer to Chapter 3 of the CICS Transaction Server Installation Guide GC34-6426

- 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 17. 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.

SUB-ENTRY	Value	Comment
DSSPACE	500,50,350	The space used if SMP/E alocates the RELFILE datasets
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.
Binder return code	4	IBM recommends using a minimum return code of 4 for the binder.

Figure 17. SMP/E Options Subentry Values

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:

- SISPLOAD
- CSSLIB
- SCEELKED
- SCEELKEX
- SCEEBND2
- SCEEOBJ
- SCEECPP
- SEZARPCL
- SEZACMTX
- SDSNLOAD
- MACLIB
- MODGEN

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:

Job Name	Job Type	Description	RELFILE
DFHIHFS0		Sample job to create HFS dataset and directory	IBM.HCI6400.F2
DFHIHFS1		Sample job to create and mount HFS directory	IBM.HCI6400.F2
DFHALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HCI6400.F2
DFHSMPSU	ZONES	Sample job to setup SMP/E zones	IBM.HCI6400.F2
DFHDDDEF	DDDEF	Sample job to create DDDEF entries for Target and Distribution libraries	IBM.HCI6400.F2
DFHRECV	RECEIVE	Sample RECEIVE job	IBM.HCI6400.F2
DFHAPPLY	APPLY	Sample APPLY job	IBM.HCI6400.F2
DFHACCPT	ACCEPT	Sample ACCEPT job	IBM.HCI6400.F2
DFHISMKD	MKDIR	Sample job to invoke the supplied DFHMKDIR EXEC to allocate HFS paths	IBM.HCI6400.F2

Figure 18. Sample Installation Jobs

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 18 to find the appropriate relfile data set. Run the jobs in the order shown in Figure 18

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.HCI6400.F2) from the tape:

1. Choose a name for the temporary installation library, TDFHINST (the default name is CICSTS31.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 **CICSTS31**.

2. Modify the R2 DD statement parameter (see Figure 19) 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=CI6400,LABEL=3,DSN=IBM.HCI6400.F2,
//    DISP=(OLD,KEEP)
//TDFHINST DD DSN=CICSTS31.TDFHINST,DISP=(NEW,CATLG,DELETE),
//    UNIT=SYSALLDA,
//    SPACE=(TRK,(24,6,5))
//*
//SYSIN    DD *
 COPY INDD=((R2,R)),OUTDD=TDFHINST
 /*
```

Figure 19. Sample job for copying RELFILE(2) from tape

6.2.1.1 Result of copying RELFILE(2):

When you have copied RELFILE(2) from the distribution tape, the CICSTS31.TDFHINST library contains the DFHISTAR job and the skeleton jobs, listed in Figure 20 on page 34, for installing CICS Transaction Server elements, creating CICS Transaction Server data sets, and running the installation verification procedures (IVPs).

Job	Function
Figure 20 (Page 1 of 2). Skeleton jobs in RELFILE(2) copied to the TDFHINST library	
DFHALLOC	Sample job to allocate target and distribution libraries
DFHDDDEF	Sample job to define SMP/E DDDEFs
DFHRECV	Sample RECEIVE job
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 *pathprefix*/usr/lpp/cicsts/*ussdira* directory and its associated HFS
DFHIHFS0	Create /*pathprefix*/usr/lpp/cicsts directory and its associated HFS
DFHIHFS1	Create /*pathprefix*/usr/lpp/cicsts/*ussdir* directory and its associated HFS
DFHIJVME	Customise a member of the SDFHENV library
DFHIJVMJ	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)

Job	Function
	Figure 20 (Page 2 of 2). Skeleton jobs in RELFILE(2) copied to the TDFHINST library
DFHINST5	5th installation job (for use with DFHISTAR)
DFHINST6	6th installation job (for use with DFHISTAR)
DFHIPUBS	Obsolete job - to be ignored.
DFHISMKD	Create UNIX System Services directories
DFHISTAR	Tailor skeleton jobs to customer environment
DFHIVPBT	IVP (batch) to verify CICS startup
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
DFHLS2WS	Generate WSDL from language structures
DFHMKDIR	REXX EXEC to create all the HFS directories needed under /pathprefix/usr/lpp/cicsts
DFHNADEF	Sample JCL to define the NACT sample files and load data into them.
DFHOPSRC **	Load optional source tapes
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

** 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

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 36).

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.

6.4.1.1 The DFHIHFS0 Job: This job:

- Creates the `cicsts` directory at `/pathprefix/usr/lpp`
- Mounts the HFS at directory `/pathprefix/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 is common to all releases of CICS TS from 1.3 onwards.

4. The `/cicsts` directory contains only directories, each being a mount point.

5. 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 DFHBPXP0 contains a MOUNT command for /pathprefix/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.

6. 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 `/pathprefix/usr/lpp/cicsts/ussdir` to allow the job to be rerun, and if necessary forces return code zero.

- Deletes from `/pathprefix/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 `/pathprefix/usr/lpp/cicsts`, where *ussdir* is the name of the directory specified on the *ussdir* parameter.

- Mounts the HFS at directory `/pathprefix/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 DFHBPXP1 contains a MOUNT command for /pathprefix/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.

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 datset 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 04 -
```

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'.

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

Before you run the DFHACCPT job

- **DFHACCPT 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 DFHACCPT job to do ACCEPT
  CHECK and ACCEPT function as two separate jobs.

The region size for the DFHACCPT 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.) DFHACCPT job may issue messages
GIM23903W and GIM23913W depending on the execution environment of the installer. Both these
messages are acceptable.**

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

Note: If the DFHACCPT 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'.

6.4.1.10 The DFHIJVMJ Job: This job is provided to create a customized version of member
DFHJVMEV from the SDFHENV data set. This dataset contains the JVM environment variables that are
needed if you want to run a JVM program in CICS. Information about the JVM environment variables is
given in the *CICS System Definition Guide*.

6.4.2 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:

    CICSTS31.AMA.SERCLMD
    CICSTS31.CICS.SDFHAPD1
    CICSTS31.CICS.SDFHAPD2
    CICSTS31.CICS.SDFHAUTH
    CICSTS31.CICS.SDFHCLIB
    CICSTS31.CICS.SDFHCOB
    CICSTS31.CICS.SDFHC370
    CICSTS31.CICS.SDFHDLL1
    CICSTS31.CICS.SDFHENV

```
CICSTS31.CICS.SDFHEXCI
CICSTS31.CICS.SDFHINST
CICSTS31.CICS.SDFHLANG
CICSTS31.CICS.SDFHLINK
CICSTS31.CICS.SDFHLLIB
CICSTS31.CICS.SDFHLOAD
CICSTS31.CICS.SDFHLPA
CICSTS31.CICS.SDFHMAC
CICSTS31.CICS.SDFHMLIB
CICSTS31.CICS.SDFHMSGS
CICSTS31.CICS.SDFHMSRC
CICSTS31.CICS.SDFHPARM
CICSTS31.CICS.SDFHPLIB
CICSTS31.CICS.SDFHPL1
CICSTS31.CICS.SDFHPROC
CICSTS31.CICS.SDFHSAMP
CICSTS31.CICS.SDFHSDCK
CICSTS31.CICS.SDFJAUTH
CICSTS31.CICS.SDFJLOAD
CICSTS31.CICS.SDFJLPA
CICSTS31.CPSM.SEYUADEF
CICSTS31.CPSM.SEYUAUTH
CICSTS31.CPSM.SEYUCLIB
CICSTS31.CPSM.SEYUCMOD
CICSTS31.CPSM.SEYUCOB
CICSTS31.CPSM.SEYUC370
CICSTS31.CPSM.SEYUDEF
CICSTS31.CPSM.SEYUINST
CICSTS31.CPSM.SEYUJCL
CICSTS31.CPSM.SEYULINK
CICSTS31.CPSM.SEYULOAD
CICSTS31.CPSM.SEYULPA
CICSTS31.CPSM.SEYUMAC
CICSTS31.CPSM.SEYUMLIB
CICSTS31.CPSM.SEYUPARM
CICSTS31.CPSM.SEYUPLIB
CICSTS31.CPSM.SEYUPL1
CICSTS31.CPSM.SEYUPROC
CICSTS31.CPSM.SEYUSAMP
CICSTS31.CPSM.SEYUTLIB
CICSTS31.CPSM.SEYUVDEF
CICSTS31.CPSM.SEYUVIEW
CICSTS31.REXX.SCICBOOK
CICSTS31.REXX.SCICCMDS
CICSTS31.REXX.SCICDBRM
CICSTS31.REXX.SCICDOC
```

```
CICSTS31.REXX.SCICEXEC
CICSTS31.REXX.SCICJCL
CICSTS31.REXX.SCICLOAD
CICSTS31.REXX.SCICPNL
CICSTS31.REXX.SCICUSER
```

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 21.

Figure 21 (Page 1 of 3). CICS Transaction Server-supplied procedures	
Procedure	**Description**
DFHASMVS	Assembles some CICS Transaction Server programs and user-written assembler language programs.
DFHAUPLE	Assembles and link-edits CICS Transaction Server control tables, and makes the assembly and link-edit information available to SMP/E. **Note:** DFHAUPLE is installed in SDFHINST.
DFHBMSU	Runs the BMS load module disassemble utility program, DFHBMSUP.
DFHEBTAL	Translates, assembles, and link-edits assembler application programs using EXEC DLI commands in a batch environment under Language Environment.
DFHEITAL	Translates, assembles, and link-edits assembler application programs using the command-level interface.
DFHEXTAL	Translates, assembles, and link-edits assembler application programs using the external CICS Transaction Server interface.
DFHLNKVS	Link-edits CICS Transaction Server programs and application programs.
DFHMAPS	Prepares physical and symbolic maps.
DFHMAPT	Prepares physical and symbolic maps and map templates.

Figure 21 (Page 2 of 3). CICS Transaction Server-supplied procedures	
Procedure	**Description**
DFHSMPE	Executes SMP/E. **Note:** DFHSMPE is installed in SDFHINST.
DFHSTART	Starts CICS. **Note:** DFHSTART is installed in SDFHINST.
DFHUPDVS	Update utility using IEBUPDTE
DFHYBTPL	Translates, compiles, and link-edits PL/I application programs using EXEC DLI commands in a batch environment under Language Environment.
DFHYBTVL	Translates, compiles, and link-edits COBOL application programs using EXEC DLI commands in a batch environment under Language Environment.
DFHYITDL	Translates, compiles, and link-edits C application programs using the command-level interface under Language Environment.
DFHYITEL	Translates, compiles, and link-edits C++ application programs using the command-level interface C/370 complier
DFHYITFL	Translates, compiles, and link-edits C application programs using the command-level interface under Language Environment.
DFHYITGL	Translates, compiles, and link-edits C++ application programs using the command-level interface under Language Environment.
DFHYITPL	Translates, compiles, and link-edits PL/I application programs using the command-level interface under Language Environment.
DFHYITVL	Translates, compiles, and link-edits COBOL application programs using the command-level interface under Language Environment.
DFHYXTDL	Translates, compiles, and link-edits C application programs using the external CICS Transaction Server interface under Language Environment.
DFHYXTEL	Translates, compiles, and link-edits C++ application programs using the external CICS Transaction Server interface under Language Environment.
DFHYXTPL	Translates, compiles, and link-edits PL/I application programs using the external CICS Transaction Server interface under Language Environment.
DFHYXTVL	Translates, compiles, and link-edits COBOL application programs using the external CICS Transaction Server interface under Language Environment.
DFHZITCL	Translates, compiles, and link-edits COBOL application programs using the external CICS Transaction Server interface under Language Environment.
DFHZITPL	Translates, compiles, and link-edits PL/I application programs using the external CICS Transaction Server interface under Language Environment.
ICCFCC	CICS foundation classes
ICCFCCL	CICS foundation classes

Figure 21 (Page 3 of 3). CICS Transaction Server-supplied procedures	
Procedure	**Description**
ICCFCL	CICS foundation classes
Note:	
For further information about using the CICS Transaction Server-supplied procedures, see:	
• The CICS Transaction Server for z/OS for z/OS Installation Guide, GC34-5985, for information about DFHSMPE and DFHSTART	
• The *CICS System Definition Guide*, SC34-5988, for information about the other procedures.	

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=xxxxxxxx`. 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 CICSTS31.CICS.SDFHINST and CICSTS31.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, GC34-5985:

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.

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Reader's Comments

Program Directory for CICS Transaction Server for z/OS January 2006

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   very                              very          not
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     1         2       3       4         5             N
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	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
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