



**Program Directory for  
Double Byte Feature and  
DB SCRIPT Mathematical Formula Formatter Feature  
for Document Composition Facility/MVS**

Release 4.1

Release 4.1 Service Level SMC9716

Program Number 5748-XX9

FMIDs JSR1416, JSR1417

for Use with  
MVS

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GI12-3359-00

**Note!**

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

This program directory, dated June 2020, applies to the DCF/Double Byte feature (DCF/DB), and DCF/DB SCRIPT Mathematical Formula Formatter feature (DCF/DB SMFF) of Document Composition Facility/MVS (DCF/MVS), Program Number 5748-XX9, for the following:

<b>FMIDs</b>	<b>Feature Numbers</b>	<b>System Name</b>
JSR1416	5851	MVS
JSR1417	5852	
	5706	

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## Contents

<b>Notices</b> . . . . .	vii
Trademarks and Service Marks . . . . .	viii
 <b>1.0 Introduction</b> . . . . .	 1
1.1 DCF/DB and DCF/DB SMFF Description . . . . .	2
1.2 DCF/Double Byte and DCF/DB SCRIPT Mathematical Formula Formatter FMIDs . . . . .	2
 <b>2.0 Program Materials</b> . . . . .	 3
2.1 Basic Machine-Readable Material . . . . .	3
2.2 Optional Machine-Readable Material . . . . .	4
2.3 Program Publications . . . . .	4
2.3.1 Basic Program Publications . . . . .	4
2.3.2 Optional Program Publications . . . . .	4
2.4 Program Source Materials . . . . .	5
2.5 Publications Useful During Installation . . . . .	5
 <b>3.0 Program Support</b> . . . . .	 7
3.1 Service Instructions . . . . .	7
3.2 Preventive Service Planning . . . . .	7
3.3 Statement of Support Procedures . . . . .	7
 <b>4.0 Program and Service Level Information</b> . . . . .	 9
4.1 Program Level Information . . . . .	9
4.2 Service Level Information . . . . .	9
4.3 Cumulative Service Tape . . . . .	10
 <b>5.0 Installation Requirements and Considerations</b> . . . . .	 11
5.1 Driving System Requirements . . . . .	11
5.1.1 Programming Requirements . . . . .	11
5.1.2 DASD Storage Requirements . . . . .	11
5.2 Target System Requirements . . . . .	12
5.2.1 Operating System Requirements . . . . .	12
5.2.2 Machine Requirements . . . . .	12
5.2.3 Programming Requirements . . . . .	12
5.2.3.1 Programming Requirements for DCF/DB . . . . .	12
5.2.3.2 Programming Requirements for DCF/DB SMFF . . . . .	13
5.2.4 DASD Storage Requirements . . . . .	13
5.2.5 Programming Considerations . . . . .	15
5.2.5.1 User Modification Considerations . . . . .	16
5.2.6 Special Considerations . . . . .	16
 <b>6.0 Installation Instructions</b> . . . . .	 17
6.1 SMP/E Considerations for Installing DCF/DB and DCF/DB SMFF . . . . .	17

6.1.1 SMP/E Environment	17
6.2 Installing DCF/DB and DCF/DB SMFF	17
6.2.1 Unload Sample JCL from the Product Tape	18
6.2.2 Load SMP/E Libraries Using RECEIVE	20
6.2.3 RECEIVE Cumulative Service Tape, if Applicable	21
6.2.4 Define Target and Distribution Library DDDEFS	22
6.2.4.1 Define DCF/DB DDDEFS	22
6.2.4.2 Define DCF/DB SMFF DDDEFS	26
6.2.5 Allocate Target and Distribution Libraries	27
6.2.6 Perform SMP/E APPLY CHECK	29
6.2.7 Load Target Libraries Using APPLY	30
6.2.8 Activate DCF/DB and DCF/DB SMFF	32
6.2.8.1 Create a New Font Library Index	32
6.2.8.2 Make DCF/DB and DCF/DB SMFF Load Module Available to the Command Processor	34
6.2.9 Perform SMP/E ACCEPT CHECK	34
6.2.10 Load Distribution Libraries Using ACCEPT	36
6.3 Installation Verification Procedures	37
6.3.1 Format the Sample Document for DCF/DB	37
6.3.2 Format the Sample Problem for DCF/DB SMFF	37
<b>Appendix A. Install Logic</b>	39
A.1 DCF/DB Install Logic	39
A.2 DCF/DB SMFF Install Logic	41
<b>Appendix B. JCLIN for DCF/DB and DCF/DB SMFF</b>	43
<b>Appendix C. Reader's Comments</b>	45

## Figures

1. Basic Material: Program Tape	3
2. Program Tape: File Content	3
3. Basic Material: Unlicensed Publications	4
4. Optional Material - Program Publications	4
5. PSP Upgrade and Subset ID	7
6. Component IDs	8
7. Abbreviations used for the data set type	13
8. Storage Requirements for SMP/E System Entries	13
9. Storage Requirements for DCF/DB and DCF/DB SMFF Target Libraries	14
10. Storage Requirements for DCF/DB and DCF/DB SMFF Distribution Libraries	15
11. User Modified Parts	16
12. Sample JCL to Unload the DCF/DB and DCF/DB SMFF Sample Jobs	19
13. Sample SMP/E RECEIVE Job	21

14.	RECEIVE Job for Cumulative Service Tape . . . . .	22
15.	DSMDBIS1 - JCL to Create Target and Distribution DDDEFs for DCF/DB . . . . .	24
16.	DSMDBISA - Target Library DD Statements for DCF/DB . . . . .	25
17.	DSMDBISB - Distribution Library DD Statements for DCF/DB . . . . .	26
18.	DSMDBISC - Target Library DD Statements for DCF/DB SMFF . . . . .	26
19.	DSMDBISD - Distribution Library DD Statements for DCF/DB SMFF . . . . .	26
20.	Sample Allocate Job . . . . .	28
21.	Sample SMP/E APPLY CHECK Job . . . . .	30
22.	Sample SMP/E APPLY Job . . . . .	32
23.	Sample Font Library Index Program Job . . . . .	33
24.	Sample SMP/E ACCEPT CHECK Job . . . . .	35
25.	Sample SMP/E ACCEPT Job . . . . .	36



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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 DCF/Double Byte (DCF/DB) and DCF/DB SCRIPT Mathematical Formula Formatter (DCF/DB SMFF). You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for DCF/DB and DCF/DB SMFF.
- 3.0, "Program Support" on page 7 describes the IBM support available for DCF/DB and DCF/DB SMFF.
- 4.0, "Program and Service Level Information" on page 9 lists the APARs (program level) and PTFs (service level) incorporated into DCF/DB and DCF/DB SMFF.
- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations for installing and using DCF/DB and DCF/DB SMFF.
- 6.0, "Installation Instructions" on page 17 provides detailed installation instructions for DCF/DB and DCF/DB SMFF.
- Appendix A, "Install Logic" on page 39 provides the install logic for DCF/DB and DCF/DB SMFF.
- Appendix B, "JCLIN for DCF/DB and DCF/DB SMFF" on page 43 provides a listing of the JCLIN for DCF/DB, and DCF/DB SMFF.

Before installing DCF/DB and DCF/DB SMFF, read 3.2, "Preventive Service Planning" on page 7. This section tells you how to find any updates to the information and procedures in this program directory.

Do not use this program directory if you are installing DCF/DB and DCF/DB SMFF with an MVS Custom-Built Installation Process Offering (CBIPO), 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.

If you are installing DCF/DB and DCF/DB SMFF using the MVS Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), use the softcopy program directory provided on the CBPDO tape. Your CBPDO contains a softcopy preventive service planning (PSP) upgrade for this product. All service and HOLDDATA for DCF/DB and DCF/DB SMFF are included on the CBPDO tape.

---

## 1.1 DCF/DB and DCF/DB SMFF Description

DCF/DB and DCF/DB SMFF have been service updated to incorporate PTFs and APARs against these products since they were released. These products are now at Service Level SMC9716. The Service Level represents the weekly CBPDO service tape number that DCF/DB and DCF/DB SMFF were updated to. To determine the latest level of PUT maintenance installed on the DCF/DB and DCF/DB SMFF tape, refer to 4.0, "Program and Service Level Information" on page 9.

DCF/DB is used with Document Composition Facility (DCF)/MVS Version 1 Release 4.1, and the TSO feature of DCF/MVS for double-byte capabilities.

DCF/DB SMFF is used with DCF/MVS Version 1 Release 4.1, the TSO feature of DCF/MVS, the SMFF feature of DCF/MVS, and DCF/DB feature of DCF/MVS for double-byte SCRIPT mathematical formula formatter capabilities.

Double-byte printing can be done on printers that support double-byte fonts. Refer to the *Printer Information Manual*, G544-3290 for a list of printers that support double-byte fonts.

DCF/DB is supported and can be viewed by all PS/55 family terminals that support double-byte fonts.

---

## 1.2 DCF/Double Byte and DCF/DB SCRIPT Mathematical Formula Formatter FMIDs

DCF/Double Byte (DCF/DB) feature FMID is JSR1416.

DCF/DB SCRIPT Mathematical Formula Formatter (DCF/DB SMFF) feature FMID is JSR1417.

---

## 2.0 Program Materials

An IBM program is identified by a program number and a feature code. DCF/Double Byte and DCF/DB SCRIPT Mathematical Formula Formatter can be ordered under the program number: 5748-XX9.

The program announcement material describes the functions supported by the DCF/DB feature, and the DCF/DB SMFF feature. Ask your IBM marketing representative for this information if you have not already received a copy.

The following sections identify the basic and optional program materials available with this program.

---

### 2.1 Basic Machine-Readable Material

The distribution medium for this program is 9-track magnetic tape (written at 6250 BPI), 3480 cartridge, or 4mm cartridge. The tape or cartridge contains all the programs and data needed for installation. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation Instructions" on page 17 for more information about how to install the program.

Figure 1 describes the tape or cartridge. Figure 2 describes the file content of the program tape or cartridge.

**Note:** If you are installing DCF/DB or DCF/DB SMFF using the MVS 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.

<i>Figure 1. Basic Material: Program Tape</i>				
Medium	Feature Number	Physical Volume	External Label Identification	VOLSER
6250 tape	5851	1	DCF.MVS.DB.1.4.0	SR1416
3480 cart.	5852	1	DCF.MVS.DB.1.4.0	SR1416
4MM cart.	5706	1	DCF.MVS.DB.1.4.0	SR1416

*Figure 2 (Page 1 of 2). Program Tape: File Content*

VOLSER	File	Data Set Name	DISTLIB
SR1416	1	SMPMCS	
	2	IBM.JSR1416.F1	JCLIN
	3	IBM.JSR1416.F2	DCFDIST
	4	IBM.JSR1416.F3	ADCFASM
	5	IBM.JSR1416.F4	ADSMFNT1 ADSMFNT2
	6	IBM.JSR1416.F5	ADCFMAC

Figure 2 (Page 2 of 2). Program Tape: File Content

<b>VOLSER</b>	<b>File</b>	<b>Data Set Name</b>	<b>DISTLIB</b>
	7	IBM.JSR1416.F6	ADCFSAMP
	8	IBM.JSR1416.F7	ADCFGML
	9	IBM.JSR1417.F1	JCLIN
	10	IBM.JSR1417.F2	DCFDIST
	11	IBM.JSR1417.F3	ADCFSAMP

## 2.2 Optional Machine-Readable Material

DCF/DB and DCF/DB SMFF have no optional machine-readable materials.

## 2.3 Program Publications

The following sections identify the basic and optional publications for DCF/DB and DCF/DB SMFF.

### 2.3.1 Basic Program Publications

Figure 3 identifies the basic program publications for DCF/DB and DCF/DB SMFF. One copy of these publications are included when you order the basic materials for DCF/DB. For additional copies, contact your IBM representative.

Figure 3. Basic Material: Unlicensed Publications

<b>Publication Title</b>	<b>Form Number</b>
<i>Document Composition Facility: Double Byte User's Guide</i>	S544-3795
<i>Document Composition Facility Messages</i>	SH35-0048

### 2.3.2 Optional Program Publications

Figure 4 identifies the optional licensed program publications for DCF/DB and DCF/DB SMFF. These publications are available for a fee.

<i>Figure 4 (Page 1 of 2). Optional Material - Program Publications</i>	
<b>Publication Title</b>	<b>Order/Form Number</b>
<i>Document Composition Facility Licensed Program Specifications</i>	GH20-9159
<i>Document Composition Facility: Diagnosis Guide and Reference</i>	LH40-0209
<i>Document Composition Facility: Generalized Markup Language Starter Set User's Guide</i>	SH20-9186

<i>Figure 4 (Page 2 of 2). Optional Material - Program Publications</i>	
<b>Publication Title</b>	<b>Order/Form Number</b>
<i>Document Composition Facility: Generalized Markup Language Starter Set Reference</i>	SH20-9187
<i>Document Composition Facility: SCRIPT/VS Text Programmer's Guide</i>	SH35-0069
<i>Document Composition Facility: SCRIPT/VS Language Reference</i>	SH35-0070
<i>Document Composition Facility: Generalized Markup Language (GML) Applications Guide</i>	G544-3305
<i>Document Composition Facility: ABOUT DCF</i>	G520-6362
<i>Document Composition Facility and Document Library Facility General Information</i>	GH20-9158
<i>Document Composition Facility: Text Programmer's Quick Reference</i>	SX26-3723
<i>Document Composition Facility: GML Starter Set Quick Reference Summary</i>	SX26-3719
<i>Document Composition Facility: Introduction to Generalized Markup Language</i>	G544-3192
<i>Document Composition Facility: Barcode User's Guide</i>	S544-3115
<i>Document Composition Facility: Generalized Markup Language Starter Set Implementation Guide</i>	SH35-0050
<i>Document Composition Facility Post-Processor Examples Language</i>	S544-3484
<i>Document Composition Facility: SCRIPT/VS User's Guide</i>	S544-3191
<i>Document Composition Facility: TSO Enhancements Guide</i>	G544-3345

## 2.4 Program Source Materials

No program source materials, microfiche, or viewable program listings are provided for DCF/DB and DCF/DB SMFF.

## 2.5 Publications Useful During Installation

Refer to the DCF/MVS Release 4.1 Program Directory for a list of publications that you may find useful during the installation of DCF/DB and DCF/DB SMFF.



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## 3.0 Program Support

This section describes the IBM support available for DCF/DB and DCF/DB SMFF.

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### 3.1 Service Instructions

Contact your IBM marketing representative or systems engineer (SE) for specific information about available service instructions.

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### 3.2 Preventive Service Planning

Before installing DCF/DB and DCF/DB SMFF, you should review the current Preventive Service Planning (PSP) information. If you obtained DCF/DB and DCF/DB SMFF as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO tape.

If you obtained DCF/DB and DCF/DB SMFF on a product tape, or if the CBPDO is more than two weeks old when you install it, you should contact the IBM Support Center or use S/390 SoftwareXcel (IBMLink) to obtain the current "PSP Bucket." To obtain this information, specify the following UPGRADE and SUBSET values:

*Figure 5. PSP Upgrade and Subset ID*

UPGRADE	SUBSET	DESCRIPTION
DCF141	JSR1416/9716	DCF/Double Byte
DCF141	JSR1417/9716	DCF/DB SCRIPT Mathematical Formula Formatter

**Note:** The PSP SUBSET name reflects the Function Module Identifier (FMID) that was updated and the corresponding CBPDO weekly service tape that was used to supply the integrated PTFS. (Example; FMID/YYWW, where YY is the year and WW is the week of the CBPDO weekly service tape.)

The CBPDO weekly Service tape is the Service Level Indicator for any products updated by the Software Manufacturing Center (SMC) processes. If you wish to determine the latest level of PUT maintenance installed in this product, see 4.0, "Program and Service Level Information" on page 9.

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### 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 6 identifies the component IDs (COMPIDs) for DCF/DB and DCF/DB SMFF.

*Figure 6. Component IDs*

<b>FMID</b>	<b>COMPID</b>	<b>Component Name</b>	<b>RETAIN Release</b>
JSR1416	5748XX900	DBCS Feature	416
JSR1417	5748XX900	SMFF DBCS Feature	417



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## 4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of DCF/DB and DCF/DB SMFF. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs integrated. Information about the cumulative service tape is also provided.

This program is at Service Level SMC9716.

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### 4.1 Program Level Information

The following APAR fixes against DCF/DB have been incorporated into this Service Update, Service Level SMC9716.

AN17006	AN25272	AN47965	AN72087
AN17455	AN25276	AN49526	AN73292
AN18082	AN25339	AN49725	AN75220
AN18549	AN25608	AN51243	AN83691
AN18646	AN25659	AN55930	AN83692
AN19457	AN28056	AN60880	AN85496
AN20103	AN33781	AN65484	AN92726
AN20920	AN36310	AN68001	AQ03050
AN21493	AN36437	AN69168	BN85496
AN21554	AN44113	AN69864	CN85496

The following APAR fixes against DCF/DB SMFF have been incorporated into this Service Update, Service Level SMC9716.

AN18082	AN22641	AN25608	AN36437
AN21554	AN25273		AN68001

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### 4.2 Service Level Information

The following PTFs containing the APAR fixes against DCF/DB and DCF/DB SMFF have been integrated into this Service Update Service Level SMC9716.

NOTE: COR-CLOSED PTFs are available for 'Corrective Service' and will be placed on the next available ESO Tape (Expanded Service Option, formerly known as PUT Tapes). The following sub-categories for COR-CLOSED PTFs have been provided by the Software Manufacturing Center (SMC), Poughkeepsie:

**PUTyymm** COR-CLOSED PTFs that are available on an ESO Tape, where 'yynn' indicates the year and the month that the ESO tape became available.

- RSUyymm** RSU (Recommended Service Upgrade) is a preventive service philosophy for all S/390 products that are serviced by IBM for the OS/390 and MVS platforms. RSU reduces the volume of PTFs customers need to apply for preventive maintenance. RSU became available at OS/390 Release 2 GA (9/96), and is identified via an additional SOURCEID of RSUyymm, where 'yymm' indicates the year and the month the PTF was assigned this SOURCEID.
- SMCREC** COR-CLOSED PTFs that are not yet available on an ESO Tape, but have been researched and recommended for installation by the Software Manufacturing Center (SMC) in Poughkeepsie.
- SMCCOR** COR-CLOSED PTFs that are not yet available on an ESO Tape and have no special recommendation for installation.

- FMID JSR1416

UN18166-PUT9204	UN25906-PUT9207	UN70949-PUT9412
UN19138-PUT9204	UN28966-PUT9208	UN74125-PUT9503
UN19562-SMCCOR	UN29301-PUT9207	UN75530-PUT9504
UN19765-PUT9204	UN35846-PUT9302	UN76630-PUT9505
UN21554-PUT9205	UN43991-PUT9306	UN79389-PUT9507
UN21565-PUT9205	UN45417-PUT9307	UN79899-PUT9507
UN21884-PUT9204	UN46952-PUT9307	UN81520-PUT9509
UN22803-PUT9207	UN51809-PUT9310	UN89993-PUT9604
UN23920-PUT9206	UN54708-PUT9312	UN90644-PUT9605
UN24232-PUT9207	UN54963-PUT9312	UN92387-RSU9607
UN25716-PUT9207	UN55739-PUT9401	UQ00376-PUT9701
UN25718-PUT9207	UN62852-PUT9405	UQ03488-SMCCOR
UN25770-PUT9207	UN66176-PUT9408	

- FMID JSR1417

UN19139-PUT9204	UN29294-PUT9208	UN45418-PUT9307
UN22804-PUT9207	UN29380-PUT9207	UN74126-PUT9503
UN25720-PUT9207		

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### 4.3 Cumulative Service Tape

A cumulative service tape, containing PTFs not incorporated into this release, might be included with this program. Installation instructions for cumulative service tapes can be found in the SMP/E publications.

If you received this product as part of a CBPDO or a ProductPac, PTFs not incorporated into this release are provided on the tape, and a separate cumulative service tape will not be provided.

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## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating DCF/DB and DCF/DB SMFF. In most cases, you can install DCF/DB and DCF/DB SMFF on a running system (target system). However, sometimes two systems may be required. If two systems are required, then the following terminology is used:

1. The system used to install the program (driving system)
2. The system on which the program is installed (target system).

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 DCF/DB and DCF/DB SMFF.

#### 5.1.1 Programming Requirements

The minimum SMP/E release required to install DCF/DB and DCF/DB SMFF is System Modification Program Extended, Version 1, Release 8 or later.

#### 5.1.2 DASD Storage Requirements

DCF/DB and DCF/DB SMFF use any storage device that is supported by the environment in which it is operating. See 5.2.4, "DASD Storage Requirements" on page 13 for additional information about the amount of storage required for DCF/DB and DCF/DB SMFF.

---

## **5.2 Target System Requirements**

This section describes the environment of the target system required to install and use DCF/DB and DCF/DB SMFF.

### **5.2.1 Operating System Requirements**

To utilize DCF/DB and DCF/DB SMFF, one of the following is required:

- MVS/SP Version 3, Release 1.0 and above
- MVS/ESA Version 4, Release 1.0 and above
- MVS/ESA Version 5, Release 1.0 and above
- OS/390 Release 1 (5645-001) or higher

### **5.2.2 Machine Requirements**

DCF/DB and DCF/DB SMFF operate on the IBM processors capable of supporting MVS/ESA Version 3 Release 1.0 or subsequent release and modification levels unless otherwise identified.

### **5.2.3 Programming Requirements**

#### **5.2.3.1 Programming Requirements for DCF/DB**

The following products must either be installed concurrently with DCF/DB, or SMP/E ACCEPTed prior to installing DCF/DB:

- DCF/MVS Release 4.1 (FMID HSR1401)
- TSO feature of DCF/MVS Release 4.1 (FMID JSR1413).

DCF/DB must be installed in the same consolidated software inventory (CSI) as DCF/MVS Release 4.1.

DCF/DB is supported under TSO in any of the MVS operating system environments that are specified in 5.2.1, "Operating System Requirements."

To use DCF/DB for Advanced Function Printing (AFP), at least one of the following fonts must be installed and made available to the print server and the printer:

- Japanese font (5771-AFX)
- Simplified Chinese font (5771-AEK)
- Korean font (5771-AFW)
- Traditional Chinese font (5771-AFZ).

### 5.2.3.2 Programming Requirements for DCF/DB SMFF

The following products must either be installed concurrently with DCF/DB SMFF, or SMP/E ACCEPTed prior to installing DCF/DB SMFF:

- DCF/MVS Release 4.1 (FMID HSR1401)
- TSO feature of DCF/MVS Release 4.1 (FMID JSR1413)
- SMFF feature of DCF/MVS Release 4.1 (FMID JSR1415)
- DCF/DB feature (FMID JSR1416).

DCF/DB SMFF must be installed in the same consolidated software inventory (CSI) as DCF/MVS Release 4.1.

DCF/DB SMFF is supported under TSO in any of the MVS operating system environments that are specified in 5.2.1, "Operating System Requirements" on page 12.

### 5.2.4 DASD Storage Requirements

Abbreviations describing the data set type are listed in Figure 7. These abbreviations are used in Figure 9 and Figure 10.

*Figure 7. Abbreviations used for the data set type*

Abbreviation	Data Set Type
NU	New data set used by only the FMIDs listed. In order to determine the correct storage needed for this data set, only the storage size given in the one table needs to be used. No other tables (or program directories) need to be referenced for the data set size.
EM	Existing data set used by more than the FMIDs listed. The storage for this data set reflects the total storage required to install DCF/MVS Release 4.1 base, all DCF/MVS features (TSO, CICS, DLF), the SMFF feature, the DCF/DB feature, and the DCF/DB SMFF feature.

The following table provides the SMP/E space parameters required to install DCF/DB and DCF/DB SMFF.

*Figure 8. Storage Requirements for SMP/E System Entries*

SUB-ENTRY	Value	Comment
DSSPACE	(50,20,100)	or greater
PEMAX	2000	or default

DCF/DB and DCF/DB SMFF use some of the target and distribution libraries from DCF/MVS Release 4.1. These data sets should have been allocated during the DCF/MVS Release 4.1 installation. The DCF/MVS Release 4.1 target and distribution library storage sizes listed in Figure 9 on page 14 and Figure 10 on page 15 reflect the total storage required to install DCF/MVS Release 4.1 base, all DCF/MVS features (TSO, CICS, DLF), the SMFF feature, the DCF/DB feature, and the DCF/DB SMFF feature. Check that there is enough space in these target and distribution libraries to install DCF/DB and DCF/DB SMFF. If not, these data sets must be re-allocated to the larger size. For more

information about the DCF/MVS Release 4.1 target and distribution libraries, refer to the DCF/MVS Release 4.1 Program Directory.

DCF/DB and DCF/DB SMFF also use new target and distribution libraries. The DDDEFs entries for the new libraries should be created if not already done. See 6.2.4, “Define Target and Distribution Library DDDEFs” on page 22 for information on creating these DDDEFs. The new new target and distribution libraries should also be allocated before installing the product. See 6.2.5, “Allocate Target and Distribution Libraries” on page 27 for information on allocating these data sets.

Storage requirements for DCF/DB and DCF/DB SMFF target libraries are in Figure 9.

*Figure 9. Storage Requirements for DCF/DB and DCF/DB SMFF Target Libraries*

DDDEF Name	T Y P E	D S O R G	R E C F M	L R E C L	No. of BLKS	No. of DIR BLKS
DCFASM	EM	PO	FB	80	300	4
DCFLOAD	EM	PO	U	0	1100	12
DCFMAC	EM	PO	FB	80	100	4
DCFSAMP	EM	PO	FB	80	256	6
DSMFNT1	NU	PO	VBM	8205	200	5
DSMFNT2	NU	PO	VBM	8205	10	3
DCFGML	EM	PO	FB	80	356	23

**Notes:**

- The DASD space requirements shown represent the actual storage required by the DCF/MVS Release 4.1 base, all DCF/MVS features (TSO, CICS, DLF), the SMFF feature, the DCF/DB feature, and the DCF/DB SMFF feature, after they are installed, and the data sets are compressed, plus approximately 15%. The additional 15% allows for service installation. When allocating these data sets, you can specify additional storage and directory blocks to allow for additional future maintenance.
- IBM recommends that system determined blocksizes are used for efficient DASD utilization. System determined blocksizes should be used on all non-RECFM U data sets. IBM recommends a blocksize of 32760 for RECFM U data sets, because a blocksize of 32760 is most efficient from a performance and DASD utilization perspective. Blocksizes of greater than 19069 cannot be used with 3350 devices.
- See 6.2.5, “Allocate Target and Distribution Libraries” on page 27 for JCL that allocates the new data sets.

Storage requirements for DCF/DB and DCF/DB SMFF distribution libraries are in Figure 10 on page 15.

Figure 10. Storage Requirements for DCF/DB and DCF/DB SMFF Distribution Libraries

DDDEF Name	T Y P E	D S O R G	R E C F M	L R E C L	No. of BLKS	No. of DIR BLKS
ADCFASM	EM	PO	FB	80	300	4
ADCFMAC	EM	PO	FB	80	100	4
ADCFSAMP	EM	PO	FB	80	256	6
ADSMFNT1	NU	PO	VBM	8205	200	5
ADSMFNT2	NU	PO	VBM	8205	10	3
ADCFGML	EM	PO	FB	80	356	23
DCFDIST	EM	PO	U	0	1040	116

**Notes:**

- The DASD space requirements shown represent the actual storage required by the DCF/MVS Release 4.1 base, all DCF/MVS features (TSO, CICS, DLF), the SMFF feature, the DCF/DB feature, and the DCF/DB SMFF feature, after they are installed, and the data sets are compressed, plus approximately 15%. The additional 15% allows for service installation. When allocating these data sets, you can specify additional storage and directory blocks to allow for additional future maintenance.
- IBM recommends that system determined block sizes are used for efficient DASD utilization. System determined block sizes should be used on all non-RECFM U data sets. IBM recommends a block size of 32760 for RECFM U data sets, because a block size of 32760 is most efficient from a performance and DASD utilization perspective. Block sizes of greater than 19069 cannot be used with 3350 devices.
- See 6.2.5, "Allocate Target and Distribution Libraries" on page 27 for JCL that allocates the new data sets.

## 5.2.5 Programming Considerations

The virtual-storage requirements for formatting a document with DCF/DB include the following:

- Minimum module: 540K
- Each dictionary: 27K - 162K

The virtual-storage requirements for formatting a document with DCF/DB SMFF include the following:

- Minimum module: 580K
- Each dictionary: 27K - 162K

The total working storage depends on the complexity of the document being formatted. In general, a region size of 2 megabytes is adequate.

### 5.2.5.1 User Modification Considerations

Several ASSEMBLE modules are installed and used by DCF/DB in place of DCF/MVS Release 4.1 modules. Figure 11 on page 16 identifies the DCF/MVS Release 4.1 module name, and the corresponding DCF/DB module name that is used when DCF/DB is installed.

If you have modified any of the DCF/MVS Release 4.1 modules listed in Figure 11 on page 16, and want to have those modifications included in DCF/DB or DCF/DB SMFF, then you must also change the corresponding DCF/DB module to include those modifications. Refer to *Document Composition Facility: SCRIPT/VS Text Programmer's Guide* for information concerning user modified modules.

Figure 11. User Modified Parts	
DCF/MVS MODULE NAME	DCF/DB MODULE NAME
DSMTFFIB	DSMDBFIB
DSMLPLDT	DSMDBLDT
DSMCSDM	DSMDBMDM
DSMTSUOT	DSMDTUOT

### 5.2.6 Special Considerations

The load module created when DCF/DB SMFF is installed replaces the DCF/DB load module, DSMDXS40.

DCF/DB and DCF/DB SMFF were service updated since the original release of DCF/DB and DCF/DB SMFF. They are now at Service Level SMC9716. See 4.0, "Program and Service Level Information" on page 9 for information on service that is now included in this product.

IBM recommends that DCF/DB FMID JSR1416, and DCF/DB SMFF FMID JSR1417, be installed concurrently with DCF/MVS Version 1 Release 4.1 FMID HSR1401, the TSO feature FMID JSR1413, and the SMFF feature FMID JSR1415. If DCF/DB and DCF/DB SMFF are installed at a later time, all previous DCF FMIDs must be SMP/E ACCEPTed before the SMP/E APPLY of DCF/DB and DCF/DB SMFF.

If you install DCF/MVS Release 4.1 base, and later add the DCF/DB and DCF/DB SMFF features, you should add the data sets `script.R40.DCFMAC` and `SYS1.MACLIB` to the SMP/E SYSLIB concatenation for assembly of the feature modules. This can be accomplished by using the SMP/E panels.



---

## 6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of DCF/DB, and DCF/DB SMFF.

If you obtained DCF/DB and DCF/DB SMFF as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE DCF/DB and DCF/DB SMFF as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the *MVS CBPDO Memo to User Extension* included with the CBPDO.

---

### 6.1 SMP/E Considerations for Installing DCF/DB and DCF/DB SMFF

This release of DCF/DB and DCF/DB SMFF are installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

IBM recommends that DCF/DB FMID JSR1416, and DCF/DB SMFF FMID JSR1417, be installed concurrently with DCF/MVS Version 1 Release 4.1 FMID HSR1401, and the TSO feature FMID JSR1413. If DCF/DB and DCF/DB SMFF are installed at a later time, all previous DCF FMIDs must be SMP/E ACCEPTed before the SMP/E APPLY of DCF/DB and DCF/DB SMFF.

#### 6.1.1 SMP/E Environment

All SMP/E installation jobs provided assume that all necessary DD statements for the execution of SMP/E are defined using DDDEFs.

Sample jobs are provided to assist you in installing DCF/DB and DCF/DB SMFF. After the RECEIVE step has been completed, the sample jobs can be found in SMPTLIB: IBM.JSR1416.F6, or, you may unload the sample jobs from the distribution tape as described in 6.2.1, "Unload Sample JCL from the Product Tape" on page 18. Make a copy of these jobs in your own library and modify them to use during the installation of DCF/DB and DCF/DB SMFF.

In the sample SMP/E jobs provided, the name of the SMP/E CSI is #GLOBALCSI. The global zone name in the SMP/E CSI is GLOBAL. The target zone name is #TZONE. The distribution zone name is #DZONE. The sample jobs should be updated to reflect the CSI and zone names used at your installation.

---

### 6.2 Installing DCF/DB and DCF/DB SMFF

The following steps are described in this section.

1. Unload sample JCL from the product tape
2. Receive DCF/DB and DCF/DB SMFF
3. Receive cumulative service tape, if applicable
4. Define DDDEFs

5. Allocate target and distribution libraries
6. Perform APPLY CHECK
7. Load target libraries using APPLY
8. Activate DCF/DB and DCF/DB SMFF
9. Perform ACCEPT CHECK
10. Load distribution libraries using ACCEPT

### 6.2.1 Unload Sample JCL from the Product Tape

Sample installation jobs are provided on the product tape to help install DCF/DB and DCF/DB SMFF.

Use the JCL shown in Figure 12 on page 19 to unload the sample jobs from the product tape.

You can also access the sample installation jobs by performing an SMP/E RECEIVE for FMID JSR1416, and then copying the jobs from data set IBM.JSR1416.F6 to a work data set for editing and submission. If you prefer this approach, perform the RECEIVE and continue with 6.2.3, "RECEIVE Cumulative Service Tape, if Applicable" on page 21.

If the sample jobs are unloaded into a data set with a different name from *script.dbcsr40.jcllib*, all future references in this directory to *script.dbcsr40.jcllib* should be replaced with that new name.

**Expected Return Codes and Messages:** A return code of "0" should be received from this job.

```

//UNLOAD  JOB 'account #','name',MSGLEVEL=(1,1)
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*
/*-----
/* UNLOAD SAMPLE JOBS FROM TAPE.
/* NOTE: CHANGE tape TO A VALID NAME FOR A TAPE DRIVE.
/* CHANGE vvvvvv TO A VALID VOLSER.
/* CHANGE script.dbcsr40.jcllib TO VALID DATA SET NAME
/* FOR YOUR INSTALLATION.
/*-----
/*
//INTAPE DD DSNAME=IBM.JSR1416.F6,DISP=(OLD,KEEP),
// UNIT=(tape,,DEFER),
// LABEL=(7,SL),
// VOL=SER=SR1416
//OUTDISK DD DSNAME=script.dbcsr40.jcllib,
// DISP=(NEW,CATLG,DELETE),
// UNIT=SYSDA,SPACE=(TRK,(5,1,3)),VOL=SER=vvvvvv
//SYSUT3 DD UNIT=SYSDA,SPACE=(TRK,(30,5)),DISP=(NEW,DELETE)
//SYSUT4 DD UNIT=SYSDA,SPACE=(TRK,(30,5)),DISP=(NEW,DELETE)
//SYSIN DD *
COPY OUTDD=OUTDISK,INDD=INTAPE
/*

```

Figure 12. Sample JCL to Unload the DCF/DB and DCF/DB SMFF Sample Jobs

When this job is submitted, the following sample jobs to install DCF/DB and DCF/DB SMFF are put into the *script.dbcsr40.jcllib* data set:

<b>DSMDBISA</b>	DCF/DB target library DD statements
<b>DSMDBISB</b>	DCF/DB distribution library DD statements
<b>DSMDBISC</b>	DCF/DB SMFF target library DD statement
<b>DSMDBISD</b>	DCF/DB SMFF distribution library DD statement
<b>DSMDBIS1</b>	Sample job to create DCF/DB DDDEFS
<b>DSMDBIS2</b>	Sample job to allocate DCF/DB target and distribution libraries
<b>DSMDBIS3</b>	Sample RECEIVE job
<b>DSMDBIS4</b>	Sample APPLY CHECK job
<b>DSMDBIS5</b>	Sample APPLY job
<b>DSMDBIS6</b>	Sample ACCEPT CHECK job
<b>DSMDBIS7</b>	Sample ACCEPT job
<b>DSMFLDB</b>	Sample font library index program job
<b>DSMIVCDB</b>	Sample IVP job

## 6.2.2 Load SMP/E Libraries Using RECEIVE

Execute the SMP/E RECEIVE job to unload DCF/DB and DCF/DB SMFF data from the install tape into the SMP/E data sets (SMPPTS and temporary data sets).

A sample RECEIVE job can be found in *script.dbcsr40.jcllib*(DSMDBIS3). The DSMDBIS3 job is shown in Figure 13 on page 21.

The sample JCL specifies both DCF/DB FMID (JSR1416) and DCF/DB SMFF FMID (JSR1417).

If you are installing only DCF/DB (FMID JSR1416), remove JSR1417 from the RECEIVE statement before running this job.

**Note:** This step is bypassed if receiving the product from a CBPDO.

**Expected Return Codes and Messages:** A return code of “0” should be received from this job.

```

//DSMDBIS3 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
//* MAKE THE FOLLOWING MODIFICATIONS: *
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
//* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR *
//*    GLOBAL CSI DATASET *
//* 3) CHANGE tape TO THE APPROPRIATE TAPE UNIT TYPE *
//*****
//RECEIVE EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//        DISP=SHR
//SMP.SMPPTFIN DD DSN=SMPMCS,DISP=OLD,
//              VOL=SER=SR1416,LABEL=(1,SL),
//              UNIT=(tape,,DEFER)
//SMP.SMPCNTL DD *
//        SET BDY(GLOBAL).
//        RECEIVE S(JSR1416,JSR1417) SYSMOD .
/*

```

Figure 13. Sample SMP/E RECEIVE Job

### 6.2.3 RECEIVE Cumulative Service Tape, if Applicable

A cumulative service tape may be shipped with the product package. If no cumulative service tape is shipped or if the product is received by CBPDO, skip this section.

If any of the PTFs on the tape have a system hold by the ++HOLD SYSTEM modification control statement with a reason ID equal to UCLIN, file 6 of the cumulative service tape will contain the UCLIN for that PTF. The instructions for the UCLIN are contained in the cover letter of the PTF.

You should create JCL similar to Figure 14 on page 22 to RECEIVE the PTFs and HOLDDATA from the cumulative service tape.

**Expected Return Codes and Messages:** A return code of “0” should be received from this job.

```

//DSMRCVC JOB 'account #','name',MSGLEVEL=(1,1)
//*****
/* RECEIVE CUMULATIVE SERVICE DATA. *
/* MAKE THE FOLLOWING MODIFICATIONS: *
/* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
/* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR *
/*    GLOBAL CSI DATASET *
/* 3) CHANGE tape TO THE APPROPRIATE TAPE UNIT TYPE *
/* 4) CHANGE ssssss TO SPECIFY A UNIQUE SOURCEID NAME THAT *
/*    ASSIGNS A COMMON IDENTIFIER TO THE SYSMODS RECEIVED. *
//*****
//DSMRCVC EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//        DISP=SHR
//SMPHOLD DD UNIT=tape,LABEL=(4,NL),DISP=SHR,
//        VOL=SER=CUMTAP,
//        DCB=(RECFM=FB,LRECL=80,BLKSIZE=7200)
//SMPPTFIN DD UNIT=tape,LABEL=(1,NL),DISP=SHR,
//        VOL=SER=CUMTAP,
//        DCB=(RECFM=FB,LRECL=80,BLKSIZE=7200)
//SMP.SMPCNTL DD *
//        SET BDY(GLOBAL).
//        RECEIVE SYSMODS HOLDDATA SOURCEID(sssssss).
/*

```

Figure 14. RECEIVE Job for Cumulative Service Tape

## 6.2.4 Define Target and Distribution Library DDDEFs

SMP/E DDDEF entries for the target and distribution library data sets for DCF/DB and DCF/DB SMFF should be defined before installing the product.

### 6.2.4.1 Define DCF/DB DDDEFs

DCF/DB uses DCF/MVS Release 4.1 target and distribution library DDDEFs. Ensure that the following DCF/MVS Release 4.1 DDDEFs have been defined in the target zone:

<b>DCFLOAD</b>	script.R40.DCFLOAD
<b>DCFSAMP</b>	script.R40.DCFSAMP
<b>DCFMAC</b>	script.R40.DCFMAC
<b>DCFASM</b>	script.R40.DCFASM
<b>DCFGML</b>	script.R40.MACLIB

Ensure that the following DCF/MVS Release 4.1 DDDEFs have been defined in the distribution zone:

<b>DCFDIST</b>	script.R40.DCFDIST
<b>ADCFsAMP</b>	script.R40.ADCFSAMP

<b>ADCFMAC</b>	script.R40.ADCFMAC
<b>ADCFASM</b>	script.R40.ADCFASM
<b>ADCFGML</b>	script.R40.AMACLIB

For more information about the DCF/MVS Release 4.1 DDDEFs, refer to the DCF/MVS Release 4.1 Program Directory.

The following new target and distribution library DDDEFs must be defined in the target zone for DCF/DB installation:

<b>DSMFNT1</b>	script.DBCSR40.DSMFNT1
<b>DSMFNT2</b>	script.DBCSR40.DSMFNT2
<b>ADSMFNT1</b>	script.DBCSR40.ADSMFNT1
<b>ADSMFNT2</b>	script.DBCSR40.ADSMFNT2

The following new distribution library DDDEFs must be defined in the distribution zone for DCF/DB installation:

<b>ADSMFNT1</b>	script.DBCSR40.ADSMFNT1
<b>ADSMFNT2</b>	script.DBCSR40.ADSMFNT2

Figure 15 on page 24 shows the JCL used to create the new SMP/E DDDEFs that are used to install DCF/DB. The target and distribution library data sets defined during the DCF/MVS Release 4.1 installation are not included in this job. The sample job exists in the data set *script.dbcsr40.jcllib*(DSMDBIS1).

Make a copy of the sample DSMDBIS1 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

If the target and distribution data sets that correspond to the DDDEFs will be cataloged, the UNIT and VOLUME parameters should be deleted before the job is run. See 6.2.5, “Allocate Target and Distribution Libraries” on page 27 for information on allocating the target and distribution data sets.

If this job is re-run, change the ADD command to REP to replace the existing entries.

**Note:** SMP/E dialog panels may be used to define these DDDEFs instead of this JCL.

**Expected Return Codes and Messages:** A return code of “0” should be received from this job.

```

//DSMDBIS1 JOB 'acct. no.','name',MSGLEVEL=(1,1)
//*****
//*
//* THIS JCL WILL CREATE DDDEF ENTRIES FOR DCF/DB
//*
//* CAUTION: THIS IS NEITHER A JCL PROCEDURE NOR A
//* COMPLETE JOB. BEFORE USING THIS JOB STEP, YOU WILL
//* HAVE TO MAKE THE FOLLOWING MODIFICATIONS:
//*
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS
//* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR
//*    GLOBAL CSI DATA SET
//* 3) CHANGE #TZONE TO THE NAME OF YOUR TARGET ZONE
//* 4) CHANGE #DZONE TO THE NAME OF YOUR DISTRIBUTION ZONE
//* 5) CHANGE script TO THE DESIRED HIGH-LEVEL QUALIFIER
//* 6) CHANGE tttttt TO THE VOLSER FOR THE TARGET
//*    LIBRARIES, AND tuuu TO THE CORRESPONDING UNIT TYPE.
//* 7) CHANGE dddddd TO THE VOLSER FOR THE DISTRIBUTION
//*    LIBRARIES, AND duuu TO THE CORRESPONDING UNIT TYPE.
//*
//* IF THE TARGET AND DISTRIBUTION DATA SETS THAT
//* CORRESPOND TO THE DDDEFS WILL BE CATALOGED, THE UNIT
//* AND VOLUME PARAMETERS SHOULD BE DELETED BEFORE THE JOB
//* IS RUN.
//*
//*****
//DDDEF EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//        DISP=SHR
//SMPCNTL DD *
//        SET BDY(#TZONE).
//        UCLIN .
//        ADD DDDEF(DSMFNT1)
//            DATASET(script.DBCSR40.DSMFNT1)
//            UNIT(tuuu) VOLUME(tttttt)
//            OLD .
//        ADD DDDEF(DSMFNT2)
//            DATASET(script.DBCSR40.DSMFNT2)
//            UNIT(tuuu) VOLUME(tttttt)
//            OLD .
//        ADD DDDEF(ADSMFNT1)
//            DATASET(script.DBCSR40.ADSMFNT1)
//            UNIT(tuuu) VOLUME(tttttt)
//            SHR .

```

Figure 15 (Part 1 of 2). DSMDBIS1 - JCL to Create Target and Distribution DDDEFs for DCF/DB



```

ADD DDDEF(ADSMFNT2)
  DATASET(script.DBCSR40.ADSMFNT2)
  UNIT(tuuu) VOLUME(tttttt)
  SHR .
ENDUCL.
SET BDY(#DZONE) .
UCLIN .
ADD DDDEF(ADSMFNT1)
  DATASET(script.DBCSR40.ADSMFNT1)
  UNIT(duuu) VOLUME(dddddd)
  OLD .
ADD DDDEF(ADSMFNT2)
  DATASET(script.DBCSR40.ADSMFNT2)
  UNIT(duuu) VOLUME(dddddd)
  OLD .
ENDUCL.
/*

```

Figure 15 (Part 2 of 2). DSMDBIS1 - JCL to Create Target and Distribution DDDEFs for DCF/DB

If you do not use the supplied JCL or dialog panels to create the SMP/E DDDEF entries, the DD statements in the sample *script.dbcsr40.jcllib*(DSMDBISA) can be used in the SMP/E job step for APPLY and RESTORE of DCF/DB to define the libraries for the target zone. The DSMDBISA data set is shown in Figure 16.

Make a copy of the sample DSMDBISA data set and modify it to specify the appropriate parameters for your installation.

```

//DCFLOAD DD script.R40.DCFLOAD,DISP=OLD LOAD LIB.
//DCFSAMP DD script.R40.DCFSAMP,DISP=OLD SAMPLE JCL
//DCFMAC DD script.R40.DCFMAC,DISP=OLD MACRO LIB.
//DCFASM DD script.R40.DCFASM,DISP=OLD ASSEMBLE LIB.
//DCFGML DD script.R40.MACLIB,DISP=OLD MACRO LIB.
//DSMFNT1 DD script.DBCSR40.DSMFNT1,DISP=OLD FONTS TARG
//DSMFNT2 DD script.DBCSR40.DSMFNT2,DISP=OLD 38PP FONT TARG
//ADSMFNT1 DD script.DBCSR40.ADSMFNT1,DISP=OLD FONTS DIST
//ADSMFNT2 DD script.DBCSR40.ADSMFNT2,DISP=OLD 38PP FONT DIST

```

Figure 16. DSMDBISA - Target Library DD Statements for DCF/DB

The DD statements in the sample *script.dbcsr40.jcllib*(DSMDBISB) can be used in the SMP/E job step for ACCEPT and RESTORE of DCF/DB to define the libraries for the distribution zone. The DSMDBISB data set is shown in Figure 17 on page 26.

Make a copy of the sample DSMDBISB data set and modify it to specify the appropriate parameters for your installation.

```
//DCFDIST DD script.R40.DCFDIST,DISP=OLD DIST. LIB.
//ADCFSAMP DD script.R40.ADCFSAMP,DISP=OLD SAMPLE JCL
//ADCFMAC DD script.R40.ADCFMAC,DISP=OLD MACRO LIB.
//ACFASM DD script.R40.ACFASM,DISP=OLD ASSEMBLE LIB.
//ADCFGML DD script.R40.AMACLIB,DISP=OLD MACRO LIB.
//ADSMFNT1 DD script.DBCSR40.ADSMFNT1,DISP=OLD FONT DIST.
//ADSMFNT2 DD script.DBCSR40.ADSMFNT2,DISP=OLD 38PP FONT DIST
```

Figure 17. DSMDBISB - Distribution Library DD Statements for DCF/DB

#### 6.2.4.2 Define DCF/DB SMFF DDDEFs

DCF/DB SMFF uses DCF/MVS Release 4.1 target and distribution library DDDEFs. Ensure that the following DCF/MVS Release 4.1 DDDEF has been defined in the target zone:

**DCFLOAD** script.R40.DCFLOAD

Ensure that the following DCF/MVS Release 4.1 DDDEF has been defined in the distribution zone:

**DCFDIST** script.R40.DCFDIST

For more information about the DCF/MVS Release 4.1 DDDEFs, refer to the DCF/MVS Release 4.1 Program Directory.

If these DDDEF entries are not created, you can create them using the dialog panels, or the DD statement in the sample *script.dbcsr40.jcllib*(DSMDBISC) can be used in the SMP/E job step for APPLY and RESTORE of DCF/DB SMFF to define the library for the target zone. The DSMDBISC data set is shown in Figure 18.

Make a copy of the sample DSMDBISC data set and modify it to specify the appropriate parameters for your installation.

```
//DCFLOAD DD script.R40.DCFLOAD,DISP=OLD LOAD LIB.
```

Figure 18. DSMDBISC - Target Library DD Statements for DCF/DB SMFF

The DD statement in the sample *script.dbcsr40.jcllib*(DSMDBISD) can be used in the SMP/E job step for ACCEPT and RESTORE of DCF/DB SMFF to define the library for the distribution zone. The DSMDBISD data set is shown in Figure 19.

Make a copy of the sample DSMDBISD data set and modify it to specify the appropriate parameters for your installation.

```
//DCFDIST DD script.R40.DCFDIST,DISP=OLD DIST. LIB.
```

Figure 19. DSMDBISD - Distribution Library DD Statements for DCF/DB SMFF

### 6.2.5 Allocate Target and Distribution Libraries

A sample job is provided on the distribution tape to allocate the target and distribution data sets needed for DCF/DB and DCF/DB SMFF installation. A sample job to allocate the libraries can be found in *script.dbcsr40.jcllib*(DSMDBIS2). It is shown in Figure 20 on page 28.

Make a copy of the sample DSMDBIS2 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

**Note:** The DSMDBIS2 job allocates **only** the data sets for DCF/DB. Refer to the DCF/MVS Release 4.1 Program Directory for information on allocating the DCF/MVS data sets.

**Expected Return Codes and Messages:** A return code of “0” should be received from this job.

```

//DSMDBIS2 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
//*
//* THIS JCL WILL ALLOCATE TARGET AND DISTRIBUTION
//* LIBRARIES FOR DCF/DB AND DCF/DB SMFF.
//*
//* CAUTION: THIS IS NEITHER A JCL PROCEDURE NOR A
//* COMPLETE JOB. BEFORE USING THIS JOB STEP, YOU WILL
//* HAVE TO MAKE THE FOLLOWING MODIFICATIONS:
//*
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS
//* 2) CHANGE SCRIPT TO THE DESIRED HIGH-LEVEL QUALIFIER
//* 3) CHANGE tttttt TO THE VOLSER FOR THE TARGET
//* LIBRARIES, AND tuuu TO THE CORRESPONDING UNIT TYPE
//* 4) CHANGE dddddd TO THE VOLSER FOR THE DISTRIBUTION
//* LIBRARIES, AND duuu TO THE CORRESPONDING UNIT TYPE
//*
//*****
//ALLOC PROC DSNPFX=SCRIPT,
//          TUNIT=ttuuu,TVOL=tttttt,
//          DUNIT=duuuu,DVOL=ddddd
//STEP1 EXEC PGM=IEFBR14
//*
//DSMFNT1 DD DSN=&DSNPFX..DBCSR40.DSMFNT1,
//          UNIT=&TUNIT,VOL=SER=&TVOL,DISP=(NEW,CATLG),
//          DCB=(RECFM=VBM,LRECL=8205,BLKSIZE=8209),
//          SPACE=(8209,(200,20,5))
//DSMFNT2 DD DSN=&DSNPFX..DBCSR40.DSMFNT2,
//          UNIT=&TUNIT,VOL=SER=&TVOL,DISP=(NEW,CATLG),
//          DCB=(RECFM=VBM,LRECL=8205,BLKSIZE=8209),
//          SPACE=(8209,(10,1,3))
//ADSMFNT1 DD DSN=&DSNPFX..DBCSR40.ADSMFNT1,
//          UNIT=&DUNIT,VOL=SER=&DVOL,DISP=(NEW,CATLG),
//          DCB=(RECFM=VBM,LRECL=8205,BLKSIZE=8209),
//          SPACE=(8209,(200,20,5))
//ADSMFNT2 DD DSN=&DSNPFX..DBCSR40.ADSMFNT2,
//          UNIT=&DUNIT,VOL=SER=&DVOL,DISP=(NEW,CATLG),
//          DCB=(RECFM=VBM,LRECL=8205,BLKSIZE=8209),
//          SPACE=(8209,(10,1,3))
//ENDALLO PEND
//*          =====> END OF PROC ALLOC <=====
//ALLOCAT EXEC ALLOC
//*          =====> END OF JOB ALLOC <=====

```

Figure 20. Sample Allocate Job

## 6.2.6 Perform SMP/E APPLY CHECK

Execute the SMP/E APPLY CHECK job to determine which SYSMODs, if any, are missing. Any missing SYSMODs should be installed before continuing with the installation of DCF/DB and DCF/DB SMFF.

A sample APPLY CHECK job can be found in *script.dbcsr40.jcllib*(DSMDBIS4). The DSMDBIS4 job is shown in Figure 21 on page 30. The APPLY CHECK job should specify all FMIDs that have been RECEIVED. If you are installing only DCF/DB (FMID JSR1416), remove JSR1417 from the APPLY CHECK statement before running this job.

Make a copy of the sample DSMDBIS4 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the APPLY 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).

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:

- If the load modules DSMDBS40 and DSMDXS40 have not been previously created, a return code of “4” should be received, and the following GIM61903W message is issued:

```
LMOD ddddddd WAS NOT DELETED BY SYSMOD sssssss BECAUSE ddddddd  
IS NOT IN THE TARGET ZONE.
```

- If the load modules DSMDBS40 and DSMDXS40 have been previously created, a return code of “0” should be received.

Investigate any other problems before continuing with the installation of DCF/DB and DCF/DB SMFF.

```

//DSMDBIS4 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
/* MAKE THE FOLLOWING MODIFICATIONS:                *
/* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
/* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR    *
/*    GLOBAL CSI DATASET                                *
/* 3) CHANGE #TZONE TO THE NAME OF YOUR TARGET ZONE      *
//*****
//APPLYC EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//          DISP=SHR
//SMP.SMPCNTL DD *
//          SET BDY(#TZONE).
//          APPLY CHECK S(JSR1416, JSR1417)
//          FORFMID(JSR1416, JSR1417)
//          BYPASS(HOLDSYS,HOLDUSER,HOLDCLASS(UCLREL,ERREL))
//          GROUPEXTEND.
/*

```

Figure 21. Sample SMP/E APPLY CHECK Job

## 6.2.7 Load Target Libraries Using APPLY

Execute SMP/E to load the target libraries from the SMP/E temporary data sets.

**Note:** IBM recommends that DCF/DB FMID JSR1416 and DCF/DB SMFF FMID JSR1417, be installed concurrently with DCF/MVS Version 1 Release 4.1 FMID HSR1401, the TSO feature FMID JSR1413, and the SMFF feature FMID JSR1415. If DCF/DB and DCF/DB SMFF are installed at a later time, all previous DCF FMIDs must be SMP/E ACCEPTed before the SMP/E APPLY of DCF/DB and DCF/DB SMFF.

If you install DCF/MVS Release 4.1 (FMID HSR1401), and later add the DCF/DB and DCF/DB SMFF features, you should add the data sets `script.R40.DCFMAC` and `SYS1.MACLIB` to the SMP/E SYSLIB concatenation for assembly of the feature modules. This can be accomplished by using the SMP/E panels.

A sample APPLY job can be found in `script.dbcsr40.jcllib(DSMDBIS5)`. The DSMDBIS5 job is shown in Figure 22 on page 32. The APPLY job should specify all FMIDs that have been RECEIVED. If you are installing only DCF/DB (FMID JSR1416), remove JSR1417 from the APPLY statement before running this job.

Make a copy of the sample DSMDBIS5 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

**Expected Return Codes and Messages:** A return code of “4” should be received from the APPLY job. The following messages are received:

- If the load modules DSMDBS40 and DSMDXS40 have not been previously created, the following GIM61903W message is issued:

LMOB dddddd WAS NOT DELETED BY SYSMOD ssssss BECAUSE dddddd  
IS NOT IN THE TARGET ZONE.

or the following GIM69138W message is issued:

LMOB DSMDBS40 WAS NOT DELETED FROM LIBRARY DCFLOAD BY SYSMOD  
JSR1416 BECAUSE DSMDBS40 DOES NOT EXIST IN LIBRARY DCFLOAD.

**Note:** If the load modules DSMDBS40 and DSMDXS40 have been previously created, you will not receive these messages.

- The following GIM23903W messages are issued for each module in the DCFLOAD library:

LINK-EDIT PROCESSING FOR SYSMOD ssssss WAS SUCCESSFUL FOR  
MODULE xxxxxxxx IN LMOB DSMDXS40 IN THE DCFLOAD LIBRARY.  
THE RETURN CODE WAS 04.

- The following GIM23904W messages are issued for each module in the DSMDXS40 load module:

LINK-EDIT PROCESSING FOR LOAD MODULE BUILD PROCESSING WAS  
SUCCESSFUL FOR MODULE xxxxxxxx IN LMOB DSMDXS40 IN THE  
DCFLOAD LIBRARY. THE RETURN CODE WAS 04.

- DFP linkage editor message IEW0461 or DFSMS binder message IEW2454W is issued for each of the unused dictionary modules listed.

DSMEUVER DSMCEVER  
DSMGEVER DSMDUVER  
DSMSPVER DSMITVER  
DSMFNVER DSMFCVER  
DSMDAVER DSMFIVER  
DSMICVER DSMNOVER  
DSMPOVER DSMSWVER

If you are installing DCF/DB, you will also get DFP linkage editor message IEW0461 or DFSMS binder message IEW2454W for the load module DSMDXS40 for the module DSMEQKEQ.

**Note:** If you are installing DCF/DB SMFF, you will not get this message.

Investigate any other problems before continuing with the installation of DCF/DB and DCF/DB SMFF.

```

//DSMDBIS5 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
//* MAKE THE FOLLOWING MODIFICATIONS: *
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
//* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR *
//*    GLOBAL CSI DATASET *
//* 3) CHANGE #TZONE TO THE NAME OF YOUR TARGET ZONE *
//*****
//APPLY EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//        DISP=SHR
//SMP.SMPCNTL DD *
//        SET BDY(#TZONE).
//        APPLY S(JSR1416, JSR1417)
//              FORFMID(JSR1416, JSR1417)
//              BYPASS(HOLDCLASS(UCLREL,ERREL))
//              GROUPEXTEND.
/*

```

Figure 22. Sample SMP/E APPLY Job

## 6.2.8 Activate DCF/DB and DCF/DB SMFF

A summary of the steps to get DCF/DB and DCF/DB SMFF into operational status follows:

1. Create a new font library index.
2. Make DCF/DB and DCF/DB SMFF load modules available to the command processor.

### 6.2.8.1 Create a New Font Library Index

Before running the IVP for DCF/DB or DCF/DB SMFF, a new font library index must be created to include the required DCF/MVS Release 4.1 fonts, SMFF fonts, and DCF/DB simulation fonts.

A sample FLIP job can be found in *script.dbcsr40.jcllib*(DSMFLDB). The DSMFLDB job is shown in Figure 23 on page 33.

You must run the DSMFLDB job once for the simulation fonts included with DCF/DB in the DSMFNT1 target library. This library is concatenated with the FONTLIBB font library when the DSMFLDB job is run.

Make a copy of the sample DSMFLDB job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

**Expected Return Codes and Messages:** A return code of “0” should be received from the DSMFLDB job.



```

//DSMFLDB JOB (acct info),'Programmer name',etc
//*-----*
/* Replace the job card above with your own. *
/*-----*
/* *
/* IN THIS EXAMPLE WE DELETE AND ALLOCATE A NEW DATASET FOR *
/* THE OUTPUT LISTING FROM THE FONT LIBRARY INDEX PROGRAM. IF *
/* YOU PREFER, YOU CAN JUST USE SYSOUT FOR THE SYSPRINT DDNAME *
/* ON THE DSMBOF40 STEP. *
/* *
/*-----*
//DELETE EXEC PGM=IEFBR14
//DD1 DD DSN=userid.FONTLIBB.LISTING,DISP=(MOD,DELETE),
//      SPACE=(TRK,(0)),UNIT=SYSALLDA
/*-----*
/* *
/* TABLE IS TAKEN FROM THE "SCRIPT/VS TEXT PROGRAMMER'S GUIDE" *
/*-----*
/* FONT LIBRARY INDEX PROGRAM RETURN CODES *
/*-----*
/* RC | MEANING *
/*-----*
/* *
/* 0 | NORMAL COMPLETION *
/* 4 | LISTING FILE OPEN ERROR *
/* 8 | NO FONT OBJECTS IN THE FONT LIBRARY *
/* 12 | FONT LIBRARY OPEN ERROR *
/* 16 | NOT ENOUGH STORAGE AVAILABLE FOR PROCESSING *
/* 20 | FONT LIBRARY READ ERROR *
/* 24 | UNABLE TO FIND FONT OBJECT IN THE FONT LIBRARY *
/* 28 | UNABLE TO READ OR WRITE TO DISK *
/* 32 | LIBRARIAN MACRO SERVICES ERROR *
/* 36 | FONTLIB DATA SET BLOCKSIZE TOO SMALL *
/* 40 | FONT LIBRARY MEMBER NAME TABLE OVERFLOW (MVS AND *
/*      | VSE). THE INPUT FONT LIBRARY IS TOO LARGE TO BE *
/*      | PROCESSED BY FLIP. THE LIBRARY WILL HAVE TO BE *
/*      | SUBDIVIDED INTO TWO OR MORE SMALLER FONT LIBRARIES. *
/* 44 | UNABLE TO ACCESS DISK SPECIFIED WITH FILEMODE (VM). *
/* *
/*-----*
/* To use DBCS fonts for DCF, you must create a Font Library *
/* Index that includes both the DCF DBCS simulation fonts from *
/* the 'SCRIPT.R40.DSMFNT1' data set and the normal 240-pel *
/* fonts from the 'SYS1.FONTLIBB' data set. *
/* 'SCRIPT.R40.DSMFNT1' must be first. The DCFINDEX member *

```

Figure 23 (Part 1 of 2). Sample Font Library Index Program Job

```

/* will be output to the 'SCRIPT.R40.DSMFNT1' library through *
/* the FONTLIB0 DD name. For DBCS, the SCRIPT command must *
/* use the SCRPTFNT DD name instead of the FONTLIB command *
/* option, and SCRPTFNT must use the same concatenation as the*
/* FONTLIB DD name below. *
/* *
/*-----*
//INDEXDB EXEC PGM=DSMB0F40
//STEPLIB DD DSN=SCRIPT.R40.DCFLOAD,DISP=SHR
//SYSPRINT DD DSN=*.DELETE.DD1,
//          DCB=(RECFM=VBM,LRECL=125,BLKSIZE=1022),
//          DISP=(NEW,CATLG),UNIT=SYSALLDA,VOL=SER=yourvol,
//          SPACE=(TRK,(5,5,0))
//FONTLIB DD DISP=SHR,DSN=SCRIPT.DBCSR40.DSMFNT1
//          DD DISP=SHR,DSN=SYS1.FONTLIBB
//FONTLIB0 DD DISP=OLD,DSN=SCRIPT.DBCSR40.DSMFNT1
//

```

Figure 23 (Part 2 of 2). Sample Font Library Index Program Job

Refer to *Document Composition Facility: Double Byte User's Guide* in the "Font Considerations" appendix for additional information about creating this index.

For information on concatenating the simulation fonts included with DCF/DB, refer to *Document Composition Facility: Double Byte User's Guide*.

### 6.2.8.2 Make DCF/DB and DCF/DB SMFF Load Module Available to the Command Processor

Make the load modules available to the command processor by including the load library data set *script.R40.DCFLOAD* in the TSO logon procedure. Two ways to do this are:

1. Add a STEPLIB DD statement for *script.R40.DCFLOAD* in the TSO logon procedure, then log off and log back on to TSO.
2. Add the data set *script.R40.DCFLOAD* to the LNKLIST within SYS1.PARMLIB, then re-ipl the MVS system.

After completing the above steps, you may run the IVP for DCF/DB and DCF/DB SMFF as described in 6.3, "Installation Verification Procedures" on page 37 at any time.

### 6.2.9 Perform SMP/E ACCEPT CHECK

Execute the SMP/E ACCEPT CHECK job to determine which SYSMODs, if any, are missing. Any missing SYSMODs should be installed before continuing with the installation of DCF/DB and DCF/DB SMFF.

A sample ACCEPT CHECK job can be found in *script.dbcsr40.jcllib(DSMDBIS6)*. The DSMDBIS6 job is shown in Figure 24 on page 35. The ACCEPT CHECK job should specify all FMIDs that have been

RECEIVED. If you are installing only DCF/DB (FMID JSR1416), remove JSR1417 from the ACCEPT CHECK statement before running this job.

Make a copy of the sample DSMDBIS6 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

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).

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:

- If the load modules DSMDBS40 and DSMDXS40 have not been previously created, a return code of “4” should be received, and the following GIM61903W message is issued:

```
LMOD ddddddd WAS NOT DELETED BY SYSMOD sssssss BECAUSE ddddddd
      IS NOT IN THE DLIB ZONE.
```

- If the load modules DSMDBS40 and DSMDXS40 have been previously created, a return code of “0” should be received.

Investigate any other problems before continuing with the installation of DCF/DB and DCF/DB SMFF.

```
//DSMDBIS6 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
//* MAKE THE FOLLOWING MODIFICATIONS: *
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
//* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR *
//*    GLOBAL CSI DATASET *
//* 3) CHANGE #DZONE TO THE NAME OF YOUR DISTRIBUTION ZONE *
//*****
//ACCEPTC EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//          DISP=SHR
//SMP.SMPCNTL DD *
//          SET BDY(#DZONE).
//          ACCEPT CHECK S(JSR1416, JSR1417)
//                   FORFMID(JSR1416, JSR1417)
//                   BYPASS(HOLDSYS,HOLDUSER,HOLDCLASS(UCLREL,ERREL))
//                   GROUPEXTEND.
//*
```

Figure 24. Sample SMP/E ACCEPT CHECK Job

## 6.2.10 Load Distribution Libraries Using ACCEPT

Execute the SMP/E ACCEPT job to load the distribution libraries from the SMP/E temporary data sets.

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 Reference*.

A sample ACCEPT job can be found in *script.dbcsr40.jcllib*(DSMDBIS7). The DSMDBIS7 job is shown in Figure 25. The ACCEPT job should specify all FMIDs that have been RECEIVED. If you are installing only DCF/DB (FMID JSR1416), remove JSR1417 from the ACCEPT statement before running this job.

Make a copy of the sample DSMDBIS7 job and modify it to specify the appropriate parameters for your installation, using the comments in the job as a guide.

### Expected Return Codes and Messages:

- If the load modules DSMDBS40 and DSMDXS40 have not been previously created, a return code of “4” should be received, and the following GIM61903W message is issued:

```
LMOD ddddddd WAS NOT DELETED BY SYSMOD sssssss BECAUSE ddddddd
IS NOT IN THE DLIB ZONE.
```

- If the load modules DSMDBS40 and DSMDXS40 have been previously created, a return code of “0” should be received.

```
//DSMDBIS7 JOB 'account #','name',MSGLEVEL=(1,1)
//*****
//* MAKE THE FOLLOWING MODIFICATIONS: *
//* 1) CHANGE THE JOB CARD TO MEET YOUR LOCAL REQUIREMENTS *
//* 2) CHANGE #GLOBALCSI TO THE DATA SET NAME OF YOUR *
//*    GLOBAL CSI DATASET *
//* 3) CHANGE #DZONE TO THE NAME OF YOUR DISTRIBUTION ZONE *
//*****
//ACCEPT EXEC PGM=GIMSMP,REGION=4096K
//SMPCSI DD DSN=#GLOBALCSI,
//        DISP=SHR
//SMP.SMPCNTL DD *
//        SET BDY(#DZONE).
//        ACCEPT S(JSR1416, JSR1417)
//              FORFMID(JSR1416, JSR1417)
//              BYPASS(HOLDCLASS(UCLREL,ERREL))
//              GROUPEXTEND COMPRESS(ALL).
//*
```

Figure 25. Sample SMP/E ACCEPT Job

---

## 6.3 Installation Verification Procedures

Complete the DCF/DB IVP by following the instructions to format a sample document.

Complete the DCF/DB SMFF IVP by following the instructions to format a sample problem.

### 6.3.1 Format the Sample Document for DCF/DB

A sample document is provided in the data set *script.R40.DCFSAMP*(DSMIVCDB).

Prior to formatting the sample document, ensure that one of the required font products is installed on your system. See 5.2.3.1, “Programming Requirements for DCF/DB” on page 12 for font requirements.

To format the sample document for a device capable of double-byte-character display, such as a PS/55, type the following command:

```
SCRIPTDB 'script.R40.DCFSAMP(DSMIVCDB)'  
  PROF('script.R40.MACLIB(DSMPRDB4)')  
  LIB('script.R40.MACLIB')  
  MES(I) SOSI(J)
```

The scripted file will be written to the terminal.

If the sample document formats without error, DCF/DB is installed correctly. Refer to *Document Composition Facility: Double Byte User's Guide* for a copy of the sample document created for the IVP.

### 6.3.2 Format the Sample Problem for DCF/DB SMFF

A sample problem in the data set *script.R40.DCFSAMP*(DSMDBIVS) is formatted for a page printer supported by DCF/DB SMFF.

Prior to formatting the sample problem, allocate the SCRPTFNT DD name by issuing the TSO allocate command:

```
ALLOC DD (SCRPTFNT)  
  DA('script.DBCSR40.DSMFNT1' 'SYS1.FONTLIBB') SHR REUSE
```

The data sets defined in the TSO allocate command are the same data sets as defined in the DSMFLDB job described in 6.2.8.1, “Create a New Font Library Index” on page 32. Refer to the *Document Composition Facility: Double Byte User's Guide* for a list of device-type names that are supported, and additional information about allocating the SCRPTFNT DD name.

Prior to formatting the sample document you must also ensure that one of the required font products is installed on your system. See 5.2.3.1, “Programming Requirements for DCF/DB” on page 12 for font requirements.

To format the sample problem for a supported page printer, enter the command:

```
SCRIPTDB 'script.R40.DCFSAMP(DSMDBIVS)'  
  PROF('script.R40.MACLIB(DSMFPROF)')  
  LIB('script.R40.MACLIB')  
  DEVICE(XXXX)  
  SOSI (J)  
  FI (DBSIVP)
```

Where `XXXX` is the supported device name for your printer. Refer to the *Document Composition Facility: Double Byte User's Guide* for a list of supported device-type names.

The sample problem will be placed in a sequential file called: `userid.DBSIVP.LIST38xx`.

To print this file to a double-byte-supported printer, use your installation's normal procedures.

If the sample problem formats without error, DCF/DB SMFF is installed correctly. Refer to *Document Composition Facility: Double Byte User's Guide* for a copy of the sample document created for the IVP.

---

## **Appendix A. Install Logic**

This section contains the System Modification Program install logic for DCF/DB and DCF/DB SMFF.

If you ordered DCF/DB or DCF/DB SMFF as an individual feature tape (not in CBIPO or CBPDO), you can obtain the entire set of SMP/E modification control statements for the installation by printing the first file of the DCF/DB program tape.

---

### **A.1 DCF/DB Install Logic**

This is the System Modification Program install logic for DCF/DB:

```

++FUNCTION(JSR1416 ) FESN(6596504 ) REWORK(1997104 )
                                RFDSNPFX(IBM      )  FILES(7)

```

```

/*
THIS PRODUCT CONTAINS RESTRICTED MATERIALS OF IBM
- 5748-XX9 COPYRIGHT IBM CORP 1978, 1997
  LICENSED MATERIAL - PROGRAM
  PROPERTY OF IBM
  REFER TO COPYRIGHT INSTRUCTIONS
  FORM NUMBER G120-2083

```

```

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

```

```

*/

```

```

++VER(Z038      ) FMID(HSR1401 )
    PRE(JSR1413  UL98993  UL98994  UN09657  UN09817
        UN10782  UN11291  UN11295  UN13477  UN13581
        UN15261  UN16488  UN16728  UN16917  UN17622
        UN17624 )
    REQ(UN19764  UN21553  UN21561  UN21883  UN22802
        UN24227  UN24230  UN29299  UN35841  UN35844
        UN45413  UN45424  UN46951  UN49233  UN51807
        UN54706  UN54707  UN54962  UN74121  UN74124
        UN75526  UN75529  UN76628  UN76629  UN81519
        UN89989  UN89992  UN92385  UN92386  UQ00375 )
    SUP(AN17006  AN17455  AN18082  AN18549  AN18646
        AN19457  AN20103  AN20920  AN21493  AN21554
        AN25272  AN25276  AN25339  AN25608  AN25659
        AN28056  AN33781  AN36310  AN36437  AN44113
        AN47965  AN49526  AN49725  AN51243  AN55930
        AN60880  AN65484  AN68001  AN69168  AN69864
        AN72087  AN73292  AN75220  AN83691  AN83692
        AN85496  AN92726  AQ03050  BN85496  CN85496
        UN18166  UN19138  UN19562  UN19765  UN21554
        UN21565  UN21884  UN22803  UN23920  UN24232
        UN25716  UN25718  UN25770  UN25906  UN28966
        UN29301  UN35846  UN43991  UN45417  UN46952
        UN51809  UN54708  UN54963  UN55739  UN62852
        UN66176  UN70949  UN74125  UN75530  UN76630
        UN79389  UN79899  UN81520  UN89993  UN90644
        UN92387  UQ00376  UQ03488 ) .

```



```

++IF FMID(JSR1415 )
    REQ(UN17625 UN22844 UN23919 UN24231 UN29300 UN35845
        UN45416 ) .
++IF FMID(JSR1412 )
    REQ(UN13580 UN21563 UN24229 UN35843 UN45415 UN74123
        UN75528 UN89991 ) .
++IF FMID(JSR1411 )
    REQ(UN17623 UN21562 UN24228 UN35842 UN45414 UN74122
        UN75527 UN89990 ) .
++IF FMID(JSR1417 )
    REQ(UN22804 UN29380 UN45418 UN74126 ) .
++DELETE(DSMDBS40) SYSLIB(ALL ) .
++DELETE(DSMDXS40) SYSLIB(ALL ) .
++JCLIN RELFILE(1) .

```

---

## A.2 DCF/DB SMFF Install Logic

This is the System Modification Program install logic for DCF/DB SMFF:

```

++FUNCTION(JSR1417 ) FESN(6596504 ) REWORK(1997104 )
    RFDSNPFX(IBM ) FILES(3)

/*
THIS PRODUCT CONTAINS RESTRICTED MATERIALS OF IBM
- 5748-XX9 COPYRIGHT IBM CORP 1978, 1997
  LICENSED MATERIAL - PROGRAM
  PROPERTY OF IBM
  REFER TO COPYRIGHT INSTRUCTIONS
  FORM NUMBER G120-2083

  US Government Users Restricted Rights -
  Use, Duplication or disclosure restricted by
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*/
.
++VER(Z038 ) FMID(HSR1401 )
    PRE(JSR1413 JSR1415 JSR1416 )
    REQ(UN22802 UN22803 UN22844 UN29299 UN29300
        UN29301 UN45413 UN45416 UN45417 UN45424
        UN74121 UN74124 UN74125 )
    SUP(AN18082 AN21554 AN22641 AN25273 AN25608
        AN36437 AN68001 UN19139 UN22804 UN25720
        UN29294 UN29380 UN45418 UN74126 ) .
++IF FMID(JSR1411 ) REQ(UN45414 UN74122 ) .
++IF FMID(JSR1412 ) REQ(UN45415 UN74123 ) .
++DELETE(DSMDXS40) SYSLIB(ALL ) .
++JCLIN RELFILE(1) .

```



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## **Appendix B. JCLIN for DCF/DB and DCF/DB SMFF**

The JCLIN for DCF/DB is contained on the installation tape in file IBM.JSR1416.F1 member JSR1416. This file is loaded to disk by SMP/E when DCF/DB is SMP/E RECEIVED.

The JCLIN for DCF/DB SMFF is contained on the installation tape in file IBM.JSR1417.F1 member JSR1417. This file is loaded to disk by SMP/E when DCF/DB SMFF is SMP/E RECEIVED.

You may browse or print the JCLIN files using TSO/E, ISPF, or IEBGENER.



## Appendix C. Reader's Comments

### Program Directory for DCF/Double Byte, Release 4.1 Service Level SMC9716

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 satisfied	<=====>			very dissatisfied	not 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?

- \_\_\_ CBIPO
- \_\_\_ 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 MVS 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:

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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 DCF/Double Byte Development group):

IBM Printing Systems Company  
Attention: Dept. RJXA/003G  
Box 1900  
Boulder, CO 80301-9191  
USA

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- FAX Number: 1-800-524-1519
- E-Mail: [print\\_pubs@vnet.ibm.com](mailto:print_pubs@vnet.ibm.com)



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