



**Program Directory for
DB2 UDB for OS/390
Query Management Facility
Volume 3 of 6**

Version 6

Program Number 5645-DB2

FMID HSQ6610

for Use with
OS/390

Document Date: June 1999

GI10-8184-00

Note!

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

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

© **Copyright International Business Machines Corporation 1982, 1999. All rights reserved.**

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

Contents

Contents	iii
Figures	v
Notices	vi
Trademarks	vii
1.0 Introduction	1
1.1 QMF for OS/390 Description	2
1.2 QMF for OS/390 FMIDs	3
2.0 Program Materials	4
2.1 Basic Machine-Readable Material	4
2.2 Optional Machine-Readable Material	5
2.3 Program Publications	5
2.3.1 Basic Program Publications	6
2.4 Program Source Materials	6
2.5 Publications Useful During Installation	6
3.0 Program Support	7
3.1 Program Services	7
3.2 Preventive Service Planning	7
3.3 Statement of Support Procedures	7
4.0 Program and Service Level Information	8
4.1 Program Level Information	8
4.2 Service Level Information	8
4.3 Cumulative Service Tape	8
5.0 Installation Requirements and Considerations	9
5.1 Driving System Requirements	9
5.1.1 Machine Requirements	9
5.1.2 Programming Requirements	9
5.1.2.1 Required Toleration PTFs	9
5.2 Target System Requirements	10
5.2.1 Machine Requirements	10
5.2.2 Programming Requisites	10
5.2.2.1 Minimum Requisites	10
5.2.2.2 Functional Requisites	10
5.2.2.3 Toleration/Coexistence Requisites	11
5.2.2.4 Incompatibility (Negative) Requisites	11
5.2.3 DASD Storage Requirements	11

5.3	FMIDs Deleted	14
5.4	Programming Considerations	15
5.4.1	Program Considerations	15
5.4.2	Special Considerations	15
5.4.2.1	GDDM Requirements to Support Euro Currency Symbol	15
6.0	Installation Instructions	16
6.1	Installing QMF for OS/390	16
6.1.1	SMP/E Considerations for Installing QMF for OS/390	16
6.1.2	SMP/E CALLLIBS Processing	16
6.1.3	Changing Default Naming Conventions	17
6.1.4	QMF for OS/390 SMP/E Installation Steps	17
6.2	SMP/E Installation Procedures and Jobs for QMF for OS/390 - Try	17
6.2.1	Step 1—Unload Sample JCL From Tape - Try	18
6.2.2	Step 2—Allocate Distribution and Target Libraries	20
6.2.3	Step 3—Back Up QMF for OS/390 Target, Distribution, and SMP/E Libraries (Optional)	20
6.2.4	Step 4—Delete a Previous QMF for OS/390 Release from SMP/E (Optional)	20
6.2.5	Step 5—Initialize the SMP/E Environment (Optional)	21
6.2.6	Step 6—Create DDDEF Entries for Product Libraries	22
6.2.7	Step 7—Perform SMP/E RECEIVE - Try	22
6.2.8	Step 8—Perform SMP/E APPLY CHECK - Try	23
6.2.9	Step 9—Perform SMP/E APPLY - Try	23
6.2.10	Step 10—Perform SMP/E ACCEPT CHECK - Try	24
6.2.11	Step 11—Perform SMP/E ACCEPT - Try	24
6.2.12	Step 12—Customizing and Activating QMF for OS/390 - Try	25
6.3	SMP/E Installation Procedures and Jobs for QMF for OS/390 - Buy	25
6.3.1	Step 1—Unload Sample JCL From Tape - Buy	25
6.3.2	Step 2—Perform SMP/E RECEIVE - Buy	26
6.3.3	Step 3—Perform SMP/E APPLY CHECK - Buy	27
6.3.4	Step 4—Perform SMP/E APPLY - Buy	28
6.3.5	Step 5—Perform SMP/E ACCEPT CHECK - Buy	28
6.3.6	Step 6—Perform SMP/E ACCEPT - Buy	28
6.3.7	Step 4—Activating QMF for OS/390 - Buy	29
Appendix A.	QMF for OS/390 Install Logic	30
A.1	SMP/E Modification Control Statements	30
A.1.1	FMID HSQ6610	30
A.1.2	FMID JSQ6611	31
Reader's Comments		32

Figures

1.	DB2 UDB Server for OS/390 Program Directory Set	1
2.	Basic Material: Program Tape - QMF for OS/390 - Try	4
3.	Basic Material: Program Tape - QMF for OS/390 - Buy	5
4.	Program Tape: File Content - QMF for OS/390 - Try	5
5.	Program Tape: File Content - QMF for OS/390 - Buy	5
6.	Basic Material: Unlicensed Publications	6
7.	Publications Useful During Installation	6
8.	PSP Upgrade and Subset ID	7
9.	Component IDs	7
10.	Driving System Software Requirements	9
11.	Minimum Requisites	10
12.	Total DASD Space Required by QMF for OS/390	11
13.	Storage Requirements for SMP/E Work Data Sets	12
14.	Storage Requirements for SMP/E Data Sets	12
15.	Storage Requirements for QMF for OS/390 Target Libraries	13
16.	Storage Requirements for QMF for OS/390 Distribution Libraries	14
17.	Storage Requirements for QMF for OS/390 Non-SMP/E Data Sets	14
18.	FMIDs Deleted	14
19.	Sample JCL to Unload Sample JCL from Tape - Try.	19
20.	Sample JCL to Unload Sample JCL from Tape - Buy.	26

Notices

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

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

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

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

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

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

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

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

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

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

Trademarks

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

IBM	International Business Machine
DB2	DATABASE 2
CBIPO	Custom Built Installation Process Offering
CBPDO	Custom Built Product Delivery Offering (MVS)
CICS/ESA	Customer Information Control Systems/Enterprise systems Architecture
CICS/MVS	Customer Information Control Systems/Multiple Virtual Storage
CustomPac	
GDDM	Graphical Data Display Manager
OS/390	
QMF	Query Management Facility
SAA	System Application Architecture
SMP/E	System Modification Program Extended
SP	System Product
SystemPac	

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 **Query Management Facility for OS/390 Version 6**. This publication refers to Query Management Facility for OS/390 as QMF for OS/390. You should read all of this program directory before installing the program and then keep it for future reference.

With the delivery of DB2 UDB for OS/390 Version 6, additional features and their product specific materials and program directories are included. Please refer to Figure 1 on page 1 for a complete list of program directory volumes of the server features available.

This program directory is Volume 3 of 6. To fully install all of the features that comprise DB2 UDB for OS/390 Version 6, please read each product's program directory carefully.

The additional features included with this delivery of DB2 UDB for OS/390 Version 6 may be installed and used on a trial basis (also known as "**Try and Buy**" basis) for 90 days from the date of installation of the feature "**Try**" except for Query Management Facility (QMF) for Windows Feature, which may be installed and used on a trial basis for 60 days from the date of installation. There is no program directory for QMF for Windows, so refer to the QMF for Windows books for installation information. These optional, priced features are shipped with DB2 UDB for OS/390 Version 6 so that you can install and explore them and discover the value they can bring to your DB2.

A full-use license for each of the priced features may be obtained by ordering the appropriate billing feature number and media feature number, labeled as "**Buy**", for the optional priced feature, as indicated in the announcement letter for DB2 UDB for OS/390 Version 6.

Program Directory Title	Volume in Set
IBM Database 2 Universal Database Server for OS/390 Version 6	1 of 6
DB2 UDB for OS/390 Version 6 DB2 Performance Monitor	2 of 6
DB2 UDB for OS/390 Version 6 Query Management Facility	3 of 6
DB2 UDB for OS/390 Version 6 Query Management Facility High Performance Option	4 of 6
DB2 UDB for OS/390 Version 6 DB2 Administration Tool	5 of 6
DB2 UDB for OS/390 Version 6 DB2 Buffer Pool Tool	6 of 6

The **QMF for OS/390** product consists of the following:

- **QMF for OS/390 - Try**
- **QMF for OS/390 - Buy**

The program directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic and optional program materials and documentation for QMF for OS/390.
- 3.0, “Program Support” on page 7 describes the IBM support available for QMF for OS/390.
- 4.0, “Program and Service Level Information” on page 8 lists the APARs (program level) and PTFs (service level) incorporated into QMF for OS/390.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations for installing and using QMF for OS/390.
- 6.0, “Installation Instructions” on page 16 provides detailed installation instructions for QMF for OS/390. It also describes the procedures for activating the functions of QMF for OS/390, or refers to appropriate publications.
- Appendix A, “QMF for OS/390 Install Logic” on page 30 provides the install logic for QMF for OS/390.

Before installing QMF for OS/390, 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 QMF for OS/390 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 QMF for OS/390 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 QMF for OS/390 are included on the CBPDO tape.

1.1 QMF for OS/390 Description

IBM Query Management Facility (QMF) is a tightly integrated, powerful, and reliable tool that performs query and reporting for IBM's DB2 Relational Database Management System Family. It offers an easy-to-learn, interactive interface. Users with little or no data processing experience can easily retrieve, create, update, insert, or delete data that is stored in DB2.

QMF offers a total solution that includes accessing large amounts of data and sharing central repositories of queries and enterprise reports. It also allows you to implement tightly-controlled, distributed, or client/server solutions. In addition, you can use QMF to publish reports to the World Wide Web that you can view with your favorite web browser.

QMF for OS/390 - Try is the fully functional product to be used for a 90 day trial basis. **QMF for OS/390 - Buy** enables the full-use license of QMF for OS/390 V6.

1.2 QMF for OS/390 FMIDs

QMF for OS/390 consists of the following FMIDs:

HSQ6610 - QMF for OS/390 - Try
JSQ6611 - QMF for OS/390 - Buy

2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for QMF for OS/390 is 5645-DB2.

The program announcement material describes the features supported by QMF for OS/390. Ask your IBM 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
- Publications useful during installation

2.1 Basic Machine-Readable Material

The distribution medium for this program is one of the following:

- a 9-track magnetic tape, written at 6250 BPI or
- a 3480 cartridge or
- a 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 16 for more information about how to install the program.

For a description of the basic material program tape or cartridge for QMF for OS/390 - Try, refer to Figure 2. Refer to Figure 3 on page 5 for QMF for OS/390 - Buy. For a description of the file content of the program tape or cartridge for QMF for OS/390 - Try, refer to Figure 4 on page 5. Refer to Figure 5 on page 5 for QMF for OS/390 - Buy.

Note: If you are installing QMF for OS/390 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.

Medium	Feature Number	Physical Volume	External Label Identification	VOLSER
6250 tape	5821	1	QMF for OS/390 Try	SQ6610
3480 cart	5822	1	QMF for OS/390 Try	SQ6610
4mm cart	6270	1	QMF for OS/390 Try	SQ6610

Figure 3. Basic Material: Program Tape - QMF for OS/390 - Buy

Medium	Feature Number	Physical Volume	External Label Identification	VOLSER
6250 tape	5861	1	QMF for OS/390 Buy	SQ6611
3480 cart	5862	1	QMF for OS/390 Buy	SQ6611
4mm cart	5856	1	QMF for OS/390 Buy	SQ6611

Figure 4. Program Tape: File Content - QMF for OS/390 - Try

VOLSER	File	Name	Dist Library	RECFM	LRECL	BLK SIZE
SQ6610	1	SMPMCS	N/A	FB	80	8800
	2	IBM.HSQ6610.F1	N/A (JCLIN)	FB	80	8800
	3	IBM.HSQ6610.F2	ADSQOBJ	U	0	6144
	4	IBM.HSQ6610.F3	ADSQMACE	FB	80	8800
	5	IBM.HSQ6610.F4	ADSQDBMD	FB	80	8800
	6	IBM.HSQ6610.F5	ADSQPMSE	FB	80	8800

Figure 5. Program Tape: File Content - QMF for OS/390 - Buy

VOLSER	File	Name	Dist Library	RECFM	LRECL	BLK SIZE
SQ6611	1	SMPMCS	N/A	FB	80	8800
	2	IBM.JSQ6611.F1	N/A (JCLIN)	FB	80	8800
	3	IBM.JSQ6611.F2	ADSQOBJ	U	0	6144
	4	IBM.JSQ6611.F3	ADSQMACE	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for QMF for OS/390.

2.3 Program Publications

The following sections identify the basic and optional publications for QMF for OS/390.

2.3.1 Basic Program Publications

Figure 6 on page 6 identifies the basic unlicensed program publications for QMF for OS/390. One copy of each of these publications is included with the basic materials for QMF for OS/390 - Try. For additional copies, contact your IBM representative.

Note: No additional publications are sent with QMF for OS/390 - Buy orders.

<i>Figure 6. Basic Material: Unlicensed Publications</i>	
Publication Title	Form Number
<i>Introducing QMF</i>	GC26-9576
<i>Using QMF</i>	SC26-9578
<i>QMF Messages and Codes</i>	GC26-9580
<i>QMF Reference</i>	SC26-9577
<i>Installing and Managing QMF on OS/390</i>	GC26-9575

2.4 Program Source Materials

No program source materials or viewable program listings are provided for QMF for OS/390.

2.5 Publications Useful During Installation

Refer to *Installing and Managing QMF on OS/390* for a listing of documentation related to the installation and execution of this product. Additionally, the publications listed in Figure 7 may be useful during the installation of QMF for OS/390. To order copies, contact your IBM representative.

<i>Figure 7. Publications Useful During Installation</i>	
Publication Title	Form Number
Any one of the following:	
<i>SMP/E User's Guide</i>	SC28-1302
<i>SMP/E Reference</i>	SC28-1107
<i>SMP/E Messages and Codes</i>	SC28-1108
<i>OS/390 SMP/E User's Guide</i>	SC28-1740
<i>OS/390 SMP/E Reference</i>	SC28-1806
<i>OS/390 SMP/E Messages and Codes</i>	SC28-1738

3.0 Program Support

This section describes the IBM support available for QMF for OS/390.

3.1 Program Services

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

3.2 Preventive Service Planning

Before installing QMF for OS/390, you should review the current Preventive Service Planning (PSP) information. If you obtained QMF for OS/390 as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO tape.

If you obtained QMF for OS/390 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 to obtain the current "PSP Bucket".

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 QMF for OS/390 are:

UPGRADE	SUBSET	Description
DB2610	HSQ6610	QMF for OS/390 V6 - Try
DB2610	JSQ6611	QMF for OS/390 V6 - Buy

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 QMF for OS/390.

FMID	COMPID	Component Name	RETAIN Release
HSQ6610	566872101	QMF/390 BASE	610
JSQ6611	566872101	QMF/390 BASE 'Buy'	611

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of QMF for OS/390. 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.

4.1 Program Level Information

QMF for OS/390 Version 6 has incorporated all closed APARS from previous versions/releases which were closed prior to October 8, 1998.

4.2 Service Level Information

Check the DB2610 PSP bucket for any additional PTFs that should be installed or any additional install information.

4.3 Cumulative Service Tape

Cumulative service for QMF for OS/390 V6 is available through a monthly, or as requested, corrective service tape, Expanded Service Option, ESO.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating QMF for OS/390. 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 datasets 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 QMF for OS/390.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

Figure 10. Driving System Software Requirements

Program Number	Product Name and Minimum VRM/Service Level
5645-001	OS/390 Version 1 Release 3, or higher

5.1.2.1 Required Toleration PTFs: In order to avoid syntax errors on the DESCRIPTION operand, introduced with OS/390 Version 2 Release 7, during the SMP/E installation of QMF for OS/390, you are required to install one of the following:

Toleration PTFs

- OS/390 Version 1 Release 3 and Version 2 Release 4:
 - PTF UR51067
- OS/390 Version 2 Release 5 and Release 6:
 - PTF UR51068

5.2 Target System Requirements

This section describes the environment of the target system required to install and use QMF for OS/390.

5.2.1 Machine Requirements

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

5.2.2 Programming Requisites

5.2.2.1 Minimum Requisites: A minimum requisite is defined as one of the following:

1. *Installation Requisite:* A product that is required at installation time. i.e. this product **will not install** successfully unless this requisite is met. This includes products that are specified as REQs, PREs, or CALLLIBs.
2. *Run Time Requisite:* A product that is **not** required for the successful installation of this product, but **is** needed at run time in order for this product to work.

Figure 11. Minimum Requisites

Program Number	Product Name and Minimum VRM/Service Level	Install Req?
5645-DB2	DB2 UDB for OS/390 Version 6	No
For CICS:		
5683-083	CICS/ESA Version 3 Release 3, or higher	No

5.2.2.2 Functional Requisites: A functional requisite is defined as a product that is *not* required for the successful installation of this product or for the base function of the product, but *is* needed at run time for a specific function of this product to work. This includes products that are specified as IF REQs.

There are no functional requisites for QMF for OS/390.

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.

There are no toleration/coexistence requisites for QMF for OS/390.

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

There are no negative requisites for QMF for OS/390.

5.2.3 DASD Storage Requirements

QMF for OS/390 libraries can reside on 3380 or 3390 DASD.

Figure 12 lists the total space required for each type of library. Totals are calculated in tracks on 3390 DASD.

<i>Figure 12. Total DASD Space Required by QMF for OS/390</i>	
Library Type	Total Space Required
Target	562 Tracks
Distribution	725 Tracks

Notes:

1. The dataset sizes specified contain at least 15% extra space. You may wish to revise these numbers based on your plans for adding additional function or service.
2. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U datasets. For RECFM U datasets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.

If you choose not to use system determined block sizes, use the block sizes and numbers of blocks specified to allocate the datasets. Data sets can be reblocked to a larger size. Please note that the maximum allowable block size will depend on the type of DASD on which the dataset will reside; for example, the block size of datasets on a 3350 DASD cannot exceed 19,069.

3. Abbreviations used for the dataset type are:

U Unique dataset used by only the FMIDs listed. In order to determine the correct storage needed for this dataset, this table provides all required information; no other tables (or program directories) need to be referenced for the dataset size.

S Shared dataset used by more than the FMIDs listed. In order to determine the correct storage needed for this dataset, the storage size given in this table needs to be added to other tables (perhaps in other program directories). If the dataset already exists, it 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.

The following figure lists the storage requirements for the SMP/E work datasets for QMF for OS/390. Please note that these are temporary datasets, so they will only be needed during installation, not permanently.

Figure 13. Storage Requirements for SMP/E Work Data Sets

Library DDNAME	T Y P E	D S R G	R E C F M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
SMPWRK1	S	PO	FB	80	--	--	180	150	250
SMPWRK2	S	PO	FB	80	--	--	180	150	250
SMPWRK3	S	PO	FB	80	--	--	180	150	250
SMPWRK4	S	PO	FB	80	--	--	180	150	250
SMPWRK6	S	PO	FB	80	--	--	180	150	250

The following figure provides an estimate of the storage needed in the SMP/E datasets for QMF for OS/390 - Try. The estimates must be added to those of any other programs and service being installed to determine the total additional storage requirements.

QMF for OS/390 - Buy uses the same SMP/E datasets as QMF for OS/390 - Try. No additional space is required for the installation of QMF for OS/390 - Buy.

Figure 14 (Page 1 of 2). Storage Requirements for SMP/E Data Sets

Library DDNAME	T Y P E	D S R G	R E C F M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ 9345 Trks	No. of 3390 Trks	No. of DIR Blks
SMPLOG	S	PS	VB	260	6000	3200	508	435	0
SMPLOGA	S	PS	VB	260	6000	3200	508	435	0
SMPLTS	S	PO	U	0	1600	6144	240	210	150

Figure 14 (Page 2 of 2). Storage Requirements for SMP/E Data Sets

Library DDNAME	T Y P E	D S R G	R E C F M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ Trks	No. of 3390 Trks	No. of DIR Blks
SMPMTS	S	PO	FB	80	60	8800	18	15	60
SMPPTS	S	PO	FB	80	400	8800	90	75	300
SMPSCDS	S	PO	FB	80	1000	8800	216	180	300
SMPSTS	S	PO	FB	80	400	8800	90	75	150

The following figures list the target and distribution libraries (datasets) and their attributes required to install QMF for OS/390 - Try and QMF for OS/390 - Buy. QMF for OS/390 - Buy uses the same target and distribution libraries as QMF for OS/390 - Try. No additional space is required for the installation of QMF for OS/390 - Buy.

The storage requirements of QMF for OS/390 must be added to the storage required by other programs having data in the same dataset (library).

Figure 15. Storage Requirements for QMF for OS/390 Target Libraries

Library DDNAME	T Y P E	D S R G	R E C F M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ Trks	No. of 3390 Trks	No. of DIR Blks
SDSQLOAD	U	PO	U	0	1550	6144	223	195	20
SDSQSAPE	U	PO	FB	80	1275	8800	257	214	30
SDSQDBRM	U	PO	FB	80	60	8800	14	11	10
SDSQPLBE	U	PO	FB	80	75	8800	18	15	15
SDSQCLTE	U	PO	FB	80	300	8800	62	51	10
SDSQSLBE	U	PO	FB	80	80	8800	17	14	10
SDSQMLBE	U	PO	FB	80	80	8800	17	14	10
SDSQEXCE	U	PO	FB	80	100	8800	21	17	10
SDSQUSRE	U	PO	FB	80	180	8800	38	31	10

Figure 16. Storage Requirements for QMF for OS/390 Distribution Libraries

Library DDNAME	T Y P E	D S R G	R E C M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ Trks	No. of 3390 Trks	No. of DIR Blks
ADSQOBJ	U	PO	U	0	2600	6144	378	330	150
ADSQMACE	U	PO	FB	80	2200	8800	442	368	30
ADSQDBMD	U	PO	FB	80	65	8800	15	12	10
ADSQPMSE	U	PO	FB	80	80	8800	18	15	15

The following figure lists datasets that are not used by SMP/E, but are required for QMF for OS/390 to execute.

Figure 17. Storage Requirements for QMF for OS/390 Non-SMP/E Data Sets

Data Set Name	T Y P E	D S R G	R E C M	L R E C L	No. of Blks	BLK SIZE	No. of 3380/ Trks	No. of 3390 Trks	No. of DIR Blks
QMF610.DSQCHART	U	PO	FB	400	100	400	4	3	10
QMF610.DSQMAPE	U	PO	FB	400	260	400	7	6	10
QMF610.DSQPVARE	U	PS	V	32756	-	32760	90	90	-

5.3 FMIDs Deleted

Installing QMF for OS/390 will result in the deletion of the following FMIDs:

Figure 18. FMIDs Deleted

Deleted FMID	Deleting FMID	Description
HSQ3302	HSQ6610	Query Management Facility Version 3 Release 3
HSQ3202	HSQ6610	Query Management Facility Version 3 Release 2
HSQ3112	HSQ6610	Query Management Facility Version 3 Release 1 Modification 1
HSQ3102	HSQ6610	Query Management Facility Version 3 Release 1
HSQ2402	HSQ6610	Query Management Facility Version 2 Release 4

Note: QMF for OS/390 - Buy (FMID JSQ6611) is a dependent function and does not delete previous levels.

5.4 Programming Considerations

The following sections list the programming considerations for installing QMF for OS/390 and activating its functions.

5.4.1 Program Considerations

The QMF for OS/390 installation process assumes that QMF for OS/390 is being installed into an SMP/E environment that does not contain any prior version or release of QMF for OS/390. If a prior release level of QMF for OS/390 does exist in the SMP/E environment in which you are planning to install QMF for OS/390 then that prior level must first be deleted. To allow concurrent use of two QMF for OS/390 release levels, QMF for OS/390 must be installed using different SMP/E zones.

There are several values used in jobs which may require their values to be changed in accordance with user requirements. These parameters represent target library and distribution library prefix names, DASD device types, language keys, and volume serial numbers for the SMP/E datasets, target libraries, and distribution libraries. Consult the instructions in the comment section of the sample for detailed information on which values to change.

5.4.2 Special Considerations

5.4.2.1 GDDM Requirements to Support Euro Currency Symbol: The following GDDM V3 PTFs are required to support the Euro currency symbol:

- **UQ19469 (APAR PQ17237)**
- **UQ19909 (APAR PQ17720)**
- **UQ19910 (APAR PQ17816)**
- **UQ20206 (APAR PQ18120)**
- **UQ20203 (APAR PQ18121)**

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of QMF for OS/390.

Please note the following:

- If you want to install QMF for OS/390 into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control datasets.
- 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 QMF for OS/390

6.1.1 SMP/E Considerations for Installing QMF for OS/390

QMF for OS/390 - Try and QMF for OS/390 - Buy is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands.

Sample jobs are provided to assist you in installing QMF for OS/390. After the SMP/E RECEIVE step has been completed, the sample jobs can be found in SMPTLIB: QMF610.HSQ6610.F3 for QMF for OS/390 - Try and in SMPTLIB: QMF610.JSQ6611.F3 for QMF for OS/390 - Buy (QMF610 is the default high-level qualifier used and it can be replaced by a qualifier of your choice).

Make a copy of these jobs in your own library and modify the sample jobs to use during the installation of QMF for OS/390 - Try and QMF for OS/390 - Buy.

Verify the PSP bucket (described in 3.2, "Preventive Service Planning" on page 7) for additional information in regard to the installation and execution of QMF for OS/390. If conflicts exist, the PSP bucket takes precedence over this program directory and any other QMF for OS/390 documentation.

6.1.2 SMP/E CALLLIBS Processing

QMF for OS/390 - Buy uses the CALLLIBS function provided in SMP/E Release 8 to resolve external references during installation. Sample job *DSQ1EDEF* shipped with QMF for OS/390 - Try contains a DDDEF statement for library CICS.SDFHLOAD. If you do not have CICS installed, create a dataset and change CICS.SDFHLOAD to the name of the newly created, empty dataset. Additionally, the sample job contains a DDDEF statement for library QMF610.SDSQLOAD.

When QMF for OS/390 - Buy is installed, ensure the following:

- Verify that the SMP/E SMPLTS dataset has been allocated. Refer to *SMP/E Reference* or to the sample job *DSQ1ESMP* (an optional sample job) for information on allocating the SMPLTS dataset.

Note: For QMF for OS/390, 14 cylinders of 3390 DASD space is adequate for the SMPLTS.

- Ensure, DDDEF statements for the following are provided:
 - SDFHLOAD
 - SDSQLOAD

See 6.2.6, “Step 6—Create DDDEF Entries for Product Libraries” on page 22 for a sample job to define the DDDEFs.

Note: The DDDEFs above are used to resolve the link-edit for QMF for OS/390 - Buy using CALLLIBS.

6.1.3 Changing Default Naming Conventions

The default high-level qualifier for QMF for OS/390 datasets created during installation is QMF610.

Example

The load library for base QMF for OS/390 V6 is QMF610.SDSQLOAD.

The dataset high-level qualifier can be replaced by a qualifier of your choice. If you do change the qualifier, however, you must change all references to this qualifier in all installation jobs accordingly. Some of the supplied jobs, for example, have instream procedures in which this prefix is one of the parameters. Some QMF for OS/390 procedures import items from the QMF for OS/390 datasets.

6.1.4 QMF for OS/390 SMP/E Installation Steps

Refer to 6.2, “SMP/E Installation Procedures and Jobs for QMF for OS/390 - Try” or 6.3, “SMP/E Installation Procedures and Jobs for QMF for OS/390 - Buy” on page 25 for the appropriate SMP/E installation instructions. Remember, QMF for OS/390 - Try is a pre-requisite for QMF for OS/390 - Buy.

6.2 SMP/E Installation Procedures and Jobs for QMF for OS/390 - Try

The provided sample jobs for QMF for OS/390 - Try are:

DSQ1EJAL	Sample job to allocate target and distribution libraries
DSQ1ESMP	Sample job to initialize the SMP/E environment (optional)
DSQ1EDEF	Sample job to define SMP/E DDDEFs
DSQ1EJRC	Sample RECEIVE job
DSQ1EJAP	Sample APPLY job

- DSQ1EJAC** Sample ACCEPT job
- DSQ1EJBD** Sample job to delete an earlier QMF for OS/390 release from SMP/E (**optional**)
- DSQ1EJBK** Sample job to back up earlier QMF for OS/390 target and distribution libraries (**optional**)

In the sample SMP/E jobs provided, the name of the SMP/E CSI is QMF610.SMPCSI.CSI. The global zone name in the SMP/E CSI is GLOBAL. The distribution zone name is DSQDLIB. The target zone name is DSQTARG. The sample jobs should be updated to reflect the CSI and zone names used at your organization.

6.2.1 Step 1—Unload Sample JCL From Tape - Try

The following sample JCL will copy QMF for OS/390 - Try sample jobs from the installation tape (Figure 19 on page 19). Additionally, it will print the sample jobs.

Modify the parameters in boldface to values which conform to your site's requirements before submitting the job.

```

//DSQ1EJAA JOB MSGLEVEL=(2,1),CLASS=K
//*
//* STEP UNLOAD: RETRIEVE JCL SAMPLES FOR QMF V6 - Try
//*
//UNLOAD EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//INTAPE DD DSN=IBM.HSQ6610.F3,DISP=(OLD,KEEP),UNIT=tunit,
// VOL=(PRIVATE,,SER=SQ6610),LABEL=(4,SL)
//OUTDS DD DSN=jcl-library-name,
// DISP=(,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=dunit,
// DCB=*.UNLOAD.INTAPE,
// SPACE=(TRK,(15,10,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSUT4 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=INTAPE,OUTDD=OUTDS
SELECT MEMBER=(DSQ1EJAL,DSQ1EJRC,DSQ1EJAP,DSQ1EDEF)
SELECT MEMBER=(DSQ1EJAC,DSQ1ESMP,DSQ1EJBD,DSQ1EJBK)
/*
/*
/* STEP PRINT: PRINT THE SAMPLE JCL FOR QMF V6
/*
//PRINT EXEC PGM=IEBPTPCH
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD DSN=jcl-library-name,DISP=OLD
//SYSUT2 DD SYSOUT=A
//SYSIN DD *
PRINT TYPORG=PO,MAXFLDS=9
RECORD FIELD=(80)
/*

```

Figure 19. Sample JCL to Unload Sample JCL from Tape - Try.

where **tunit** is the unit value matching the product tape or cartridge, **jcl-library-name** is the name of the dataset where the sample jobs will reside, **dasdvol** is the volume serial of the DASD device where the dataset will reside, and **dunit** is the DASD unit type of the volume.

Expected Return Codes and Messages: You will get a return code of 0 if the job runs correctly.

6.2.2 Step 2—Allocate Distribution and Target Libraries

The installation sample jobs shipped with QMF for OS/390 - Try refer to private libraries. If you choose system libraries as your target libraries, you must modify the installation jobs to reflect the names of the system libraries used at your site.

To allocate and catalog distribution and target libraries for QMF for OS/390 - Try, edit and submit **DSQ1EJAL**.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.3 Step 3—Back Up QMF for OS/390 Target, Distribution, and SMP/E Libraries (Optional)

Attention: If you use the same QMF for OS/390 target, distribution, and SMP/E libraries as the last QMF for OS/390 release, back up the earlier QMF for OS/390 version.

Job **DSQ1EJBK** backs up QMF for OS/390 target and distribution libraries. It allocates the backup datasets for QMF for OS/390's target and distribution libraries and for the message panel file. Next, it copies the source QMF for OS/390's target and distribution libraries to the backup datasets using the MVS IEBCOPY utility and copies the QMF for OS/390 message panel file using the VSAM IDCAMS program to back up the CSI. Because QMF for OS/390 assumes you share the SMP/E datasets and CSI with DB2, QMF for OS/390 does not provide the job to do backup for the SMP/E datasets and CSI. You can use the MVS IEBCOPY and IEBGENER utilities to back up SMP/E partitioned datasets. Use the VSAM IDCAMS program to allocate and backup the CSI.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job (the default prefix name (QMF330) used in the sample job is based on QMF Version 3 Release 3 Modification 0).

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.4 Step 4—Delete a Previous QMF for OS/390 Release from SMP/E (Optional)

Job **DSQ1EJBD** physically deletes the existing QMF for OS/390 product from SMP/E but leaves other products intact. Run this job if you are installing QMF for OS/390 into an SMP/E environment that contains a prior release of QMF for OS/390.

- ___ 1. Edit sample job DSQ1EJBD.
- ___ 2. Change the default job card to match your site's requirements.

- ___ 3. Determine the release that you are deleting and its associated FMID.

QMF Release	FMID
Version 2 Release 2	HSQ2202
Version 2 Release 3	HSQ2302
Version 2 Release 4	HSQ2402
Version 3 Release 1	HSQ3102
Version 3 Release 1.1	HSQ3112
Version 3 Release 2	HSQ3202
Version 3 Release 3	HSQ3302

- ___ 4. Locate and change the FMID of the library you are deleting.

```
++VER(P115) DELETE(HSQ3302).  
/*  
//STEP2 EXEC PROC=DSQ1EJSM  
//SMPCNTL DD *  
SET BDY(GLOBAL).  
UCLIN.  
DEL GZONE FMID(DELX112).  
DEL GZONE FMID(HSQ3302).  
ENDUCL.  
RESETRC.  
SET BDY(DSQTARG).  
UCLIN.  
DEL SYSMOD(DELX112).  
DEL SYSMOD(HSQ3302).  
ENDUCL.  
RESETRC.  
SET BDY(DSQDLIB).  
UCLIN.  
DEL SYSMOD(DELX112).  
DEL SYSMOD(HSQ3302).  
ENDUCL.  
RESETRC.  
SET BDY(GLOBAL).  
LIST GZONE.
```

- ___ 5. Submit job DSQ1EJBD.

Expected Return Codes and Messages:

Expect message GIM3971 (SYSMOD DELX112 HAS NO ELEMENTS). DELX112 is a dummy function to delete the old QMF for OS/390 FMID from SMP/E.

6.2.5 Step 5—Initialize the SMP/E Environment (Optional)

Note to Installer

This job is optional. Only execute this job if you want to use new SMP/E datasets and unique zones. **If you are using existing SMP/E datasets, ignore this step.**

If you are allocating new SMP/E datasets for the installation of QMF for OS/390, edit and submit **DSQ1ESMP**. This job allocates necessary SMP/E datasets, defines the VSAM CSI dataset, and initializes the SMP/E environment.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.6 Step 6—Create DDDEF Entries for Product Libraries

To create DDDEF entries for the SMP/E target and distribution libraries for QMF for OS/390, edit and submit **DSQ1EDEF**.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

See chapter 6.1.2, "SMP/E CALLLIBS Processing" on page 16 for information about library DDDEF statements required for the CALLLIBS processing when installing QMF for OS/390 - Buy.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.7 Step 7—Perform SMP/E RECEIVE - Try

To perform the SMP/E RECEIVE for QMF for OS/390 - Try, edit and submit **DSQ1EJRC**.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Note: If you obtained QMF for OS/390 as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB dataset to RECEIVE QMF for OS/390 FMIDs as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

If the SMP/E RECEIVE operation is run on an earlier level of OS/390 than Version 2 Release 7, you will receive the following informational message:

```
GIM50050I RECEIVE PROCESSING FOR SYSMOD HSQ6610
          ENCOUNTERED THE DESCRIPTION OPERAND
          ON THE HEADER MCS. THIS OPERAND
          IS IGNORED SINCE IT IS SUPPORTED ONLY
          BY OS/390 RELEASE 7 SMP/E, OR HIGHER.
```

6.2.8 Step 8—Perform SMP/E APPLY CHECK - Try

Edit and submit sample job **DSQ1EJAP** to perform an SMP/E APPLY CHECK for QMF for OS/390 - Try.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

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.

For CHECK processing on APPLY, change the APPLY SELECT statement to match the following:

```
APPLY S(HSQ6610) CHECK GROUPEXTEND
FORFMID(HSQ6610)
BYPASS(HOLDSYS,HOLDUSER,
HOLDCLASS(UCLREL,ERREL)).
```

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.9 Step 9—Perform SMP/E APPLY - Try

Edit and submit sample job **DSQ1EJAP** to perform an SMP/E APPLY for QMF for OS/390 - Try. Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Expected Return Codes and Messages: You will get a condition code of 4.

The following messages appear during the APPLY run:

1. IEW2403W
2. IEW2454W

The warnings occur for modules DSQQMF, DSQUXIA, DSQUXIC, DSQUXIP, AND DSQUXILE and cause SMP/E to issue message GIM23903W with RC=4. This is expected and can be ignored.

6.2.10 Step 10—Perform SMP/E ACCEPT CHECK - Try

Edit and submit job **DSQ1EJAC** to perform an SMP/E ACCEPT CHECK for QMF for OS/390 - Try.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

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.

For CHECK processing on ACCEPT, change the ACCEPT SELECT statement to the following:

```
ACCEPT S(HSQ6610) CHECK GROUPEXTEND
FORFMID(HSQ6610)
BYPASS(HOLDSYS,HOLDUSER,
HOLDCLASS(UCLREL,ERREL)).
```

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.2.11 Step 11—Perform SMP/E ACCEPT - Try

Edit and submit sample job **DSQ1EJAC** to perform the SMP/E ACCEPT for QMF for OS/390 - Try. Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

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

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

If PTFs containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will linkedit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the

ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will not affect the executable system libraries.

6.2.12 Step 12—Customizing and Activating QMF for OS/390 - Try

Once you have successfully installed QMF for OS/390 - Try using SMP/E, refer to *Installing and Managing QMF on OS/390*, GC26-9575, which contains the step-by-step procedures to customize and to activate the functions of QMF for OS/390.

6.3 SMP/E Installation Procedures and Jobs for QMF for OS/390 - Buy

The provided sample jobs for QMF for OS/390 - Buy are:

DSQ1EHRC Sample RECEIVE job
DSQ1EHAP Sample APPLY job
DSQ1EHAC Sample ACCEPT job

In the sample SMP/E jobs provided, the name of the SMP/E CSI is QMF610.SMPCSI.CSI. The global zone name in the SMP/E CSI is GLOBAL. The distribution zone name is DSQDLIB. The target zone name is DSQTARG. The sample jobs should be updated to reflect the CSI and zone names used at your organization.

6.3.1 Step 1—Unload Sample JCL From Tape - Buy

The following sample JCL will copy QMF for OS/390 - Buy sample jobs necessary for the SMP/E installation from the installation tape (Figure 20 on page 26). Additionally, it will print the sample jobs.

Modify the parameters in boldface to values which conform to your site's requirements before submitting the job.

```

//DSQ1EHAA JOB MSGLEVEL=(2,1),CLASS=K
//*
//* STEP UNLOAD: RETRIEVE JCL SAMPLES FOR QMF V6 - Buy
//*
//UNLOAD EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//INTAPE DD DSN=IBM.JSQ6611.F3,DISP=(OLD,KEEP),UNIT=tunit,
// VOL=(PRIVATE,,SER=SQ6611),LABEL=(4,SL)
//OUTDS DD DSN=jcl-library-name,
// DISP=(,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=dunit,
// DCB=*.UNLOAD.INTAPE,
// SPACE=(8800,(15,10,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSUT4 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=INTAPE,OUTDD=OUTDS
SELECT MEMBER=(DSQ1EHRC,DSQ1EHAP,DSQ1EHAC)
/*
/*
/* STEP PRINT: PRINT THE SAMPLE JCL FOR QMF V6
/*
//PRINT EXEC PGM=IEBPTPCH
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD DSN=jcl-library-name,DISP=OLD
//SYSUT2 DD SYSOUT=A
//SYSIN DD *
PRINT TYPORG=PO,MAXFLDS=9
RECORD FIELD=(80)
/*

```

Figure 20. Sample JCL to Unload Sample JCL from Tape - Buy.

where **tunit** is the unit value matching the product tape or cartridge, **jcl-library-name** is the name of the dataset where the sample jobs will reside, **dasdvol** is the volume serial of the DASD device where the dataset will reside, and **dunit** is the DASD unit type of the volume.

Expected Return Codes and Messages: You will get a return code of 0 if the job runs correctly.

6.3.2 Step 2—Perform SMP/E RECEIVE - Buy

To perform the SMP/E RECEIVE for QMF for OS/390 - Buy, edit and submit **DSQ1EHRC**.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Note: If you obtained QMF for OS/390 as part of a CBPDO, you can use the RCVPDO job found in the CBPDO RIMLIB dataset to RECEIVE QMF for OS/390 FMIDs as well as any service, HOLDDATA, or preventive service planning (PSP) information included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly. If the SMP/E RECEIVE operation is run on an earlier level of OS/390 than Version 2 Release 7, the following informational message is issued:

```
GIM50050I RECEIVE PROCESSING FOR SYSMOD JSQ6611
          ENCOUNTERED THE DESCRIPTION OPERAND
          ON THE HEADER MCS. THIS OPERAND
          IS IGNORED SINCE IT IS SUPPORTED ONLY
          BY OS/390 RELEASE 7 SMP/E, OR HIGHER.
```

6.3.3 Step 3—Perform SMP/E APPLY CHECK - Buy

Edit and submit sample job **DSQ1EHAP** to perform an SMP/E APPLY CHECK for QMF for OS/390 - Buy.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

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.

For CHECK processing on APPLY, change the APPLY SELECT statement to match the following:

```
APPLY S(JSQ6611) CHECK GROUPEXTEND
FORFMID(JSQ6611)
BYPASS(HOLDSYS,HOLDUSER,
HOLDCLASS(UCLREL,ERREL)).
```

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.3.4 Step 4—Perform SMP/E APPLY - Buy

Edit and submit sample job **DSQ1EHAP** to perform an SMP/E APPLY for QMF for OS/390 - Buy. Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

Message **IEW2454W** issued during the APPLY run can be ignored.

6.3.5 Step 5—Perform SMP/E ACCEPT CHECK - Buy

Edit and submit job **DSQ1EHAC** to perform an SMP/E ACCEPT CHECK for QMF for OS/390 - Buy.

Note: Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

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.

For CHECK processing on ACCEPT, change the ACCEPT SELECT statement to the following:

```
ACCEPT S(JSQ6611) CHECK GROUPEXTEND
FORFMID(JSQ6611)
BYPASS(HOLDSYS,HOLDUSER,
HOLDCLASS(UCLREL,ERREL)).
```

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.3.6 Step 6—Perform SMP/E ACCEPT - Buy

Edit and submit sample job **DSQ1EHAC** to perform the SMP/E ACCEPT for QMF for OS/390 - Buy. Consult the instructions in the sample job for detailed information on which values to change. Modify the default job card. Additionally, modify all default values listed in the instructions of the sample job to conform to your site's requirements before submitting the job.

Expected Return Codes and Messages: You will get a condition code of 0 if the job runs correctly.

6.3.7 Step 4—Activating QMF for OS/390 - Buy

Congratulations! You have completed the installation of QMF for OS/390 - Buy. You can now use QMF for OS/390 indefinitely.

Appendix A. QMF for OS/390 Install Logic

A.1 SMP/E Modification Control Statements

The SMP/E Modification Control Statements (SMPMCS) for QMF for OS/390 are contained in the SMPMCS file on the installation tape. The SMPMCS for each FMID in the product will be loaded to the SMPPTS dataset, with a member name matching the FMID, when the FMID is SMP/E RECEIVED. You may browse or print these members using TSO/E, ISPF, or IEBGENER (or IEBPTPCH).

A.1.1 FMID HSQ6610

Below is the System Modification Program install logic for QMF for OS/390 - Try:

```
++FUNCTION(HSQ6610) FESN(6572101) REWORK(1999152) FILES(5)
  RFDSNPF(X) (IBM)
  DESCRIPTION(Query Management Facility Base Try)
  /*
  LICENSED MATERIALS-PROPERTY OF IBM
  5645-DB2 (C) COPYRIGHT IBM CORP 1982,1999
  ALL RIGHTS RESERVED.
  US GOVERNMENT USERS RESTRICTED RIGHTS -
  USE, DUPLICATION OR DISCLOSURE RESTRICTED
  BY GSA ADP SCHEDULE CONTRACT WITH IBM CORP.
  */
  .
++VER(P115)
  DELETE(HSQ3302,HSQ3202,HSQ3112,HSQ3102,HSQ2402)
  .
++JCLIN  RELFILE(1).
```

A.1.2 FMID JSQ6611

Below is the System Modification Program install logic for QMF for OS/390 - Buy:

```
++FUNCTION(JSQ6611) FESN(6572101) REWORK(1999030) FILES(3)
  RFDSNPF(X) (IBM)
  DESCRIPTION(Query Management Facility Base Buy)
  /*
  LICENSED MATERIALS-PROPERTY OF IBM
  5645-DB2 (C) COPYRIGHT IBM CORP 1998,1999
  ALL RIGHTS RESERVED.
  US GOVERNMENT USERS RESTRICTED RIGHTS -
  USE, DUPLICATION OR DISCLOSURE RESTRICTED
  BY GSA ADP SCHEDULE CONTRACT WITH IBM CORP.
  */
  .
++VER(P115) FMID(HSQ6610).
++JCLIN  CALLLIBS RELFILE(1).
```

Reader's Comments

Program Directory for Query Management Facility for OS/390 Version 6

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 1	<----->	2	3	4	5
				very dissatisfied	not applicable 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?



Program Number: 5645-DB2 5821
5822
6270
5861
5862
5856

Printed in U.S.A.

G110-8184-00

