



**Program Directory for  
IBM DB2 V9.1 for z/OS  
QMF Enterprise Edition**

V09.01.00

Program Number 5635-DB2

FMIDs HSQ9910, HHP9910

for Use with  
z/OS

Document Date: March 2007

GI10-8742-00

**Note!**

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 25.

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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 IBM DB2 UDB Server for z/OS QMF Enterprise Edition. This publication refers to IBM DB2 UDB Server for z/OS QMF Enterprise Edition as QMF Enterprise Edition.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for QMF Enterprise Edition.
- 3.0, “Program Support” on page 7 describes the IBM support available for QMF Enterprise Edition.
- 4.0, “Program and Service Level Information” on page 9 lists the APARs (program level) and PTFs (service level) incorporated into QMF Enterprise Edition.
- 5.0, “Installation Requirements and Considerations” on page 10 identifies the resources and considerations required for installing and using QMF Enterprise Edition.
- 6.0, “Installation Instructions” on page 17 provides detailed installation instructions for QMF Enterprise Edition. It also describes the procedures for activating the functions of QMF Enterprise Edition, or refers to appropriate publications.

Before installing QMF Enterprise Edition, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that were supplied with this program in softcopy form as well as this Program Directory and then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 7 tells you how to find any updates to the information and procedures in this Program Directory.

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

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

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### 1.1 QMF Enterprise Edition Description

IBM Query Management Facility (QMF) Enterprise Edition V9.1 provides all components of the QMF family in a single package, allowing robust access to multiple DB2 database platforms from multiple end user environments.

QMF Enterprise Edition V9.1 includes:

- QMF for TSO/CICS (FMID HSQ9910)
- QMF High Performance Option (QMF HPO) (FMID HHP9910)
- QMF for Workstation
- QMF for WebSphere

**Note:** The QMF Enterprise Edition provides QMF for TSO/CICS and QMF HPO on SMP/E installable tapes, and QMF for Workstation and QMF for WebSphere on CD/ROMs. QMF for Workstation can be installed on multiple operating systems via InstallShield. QMF for WebSphere is installed on WebSphere Application Server V6 on any platform supporting WebSphere Application Server V6. This program directory will guide the user through the installation of QMF for TSO/CICS and QMF HPO via SMP/E. Please refer to the specific program CD/ROM for installation instructions for that program.

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## 1.2 QMF Enterprise Edition FMIDs

QMF Enterprise Edition consists of the following FMIDs:

- HSQ9910 (QMF TSO/CICS Base)
- HHP9910 (QMF HPO)

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## 2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for QMF Enterprise Edition is 5635-DB2 and its feature number is 6002.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

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

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### 2.1 Basic Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files. 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.

Information about the physical tape for the Basic Machine-Readable Materials for QMF Enterprise Edition can be found in the *CBPDO Memo To Users Extension*.

#### Non-CBPDO Customers

If you receive the product tape and program directory outside the CBPDO process, refer to 6.1.4, "Sample Jobs" on page 18 for details (media volser, file name, tape file number) and how to proceed.

You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

#### Notes:

1. The data set attributes in this table should be used in the JCL of jobs reading the data sets, but since the data sets are in IEBCOPY unloaded format, their actual attributes may be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

Figure 1 (Page 1 of 2). Program File Content for QMF TSO/CICS Base

Name	ORG	RECFM	RECL	BLK SIZE
SMPMCS	SEQ	FB	80	8800
IBM.HSQ9910.F1	PDS	FB	80	8800

Figure 1 (Page 2 of 2). Program File Content for QMF TSO/CICS Base

<b>Name</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>BLK SIZE</b>
IBM.HSQ9910.F2	PDS	U	0	6144
IBM.HSQ9910.F3	PDS	FB	80	8800
IBM.HSQ9910.F4	PDS	FB	80	8800
IBM.HSQ9910.F5	PDS	F	400	400
IBM.HSQ9910.F6	PDS	V	30345	30349
IBM.HSQ9910.F7	PDS	FB	80	8800
IBM.HSQ9910.F8	PDS	F	400	400

Figure 2. Program File Content for QMF HPO

<b>Name</b>	<b>O R G</b>	<b>R E C F M</b>	<b>L R E C L</b>	<b>BLK SIZE</b>
SMPMCS	SEQ	FB	80	3120
IBM.HHP9910.F1	PDS	FB	80	27920
IBM.HHP9910.F2	PDS	U	0	6144
IBM.HHP9910.F3	PDS	FB	80	27920
IBM.HHP9910.F4	PDS	FB	80	27920
IBM.HHP9910.F5	PDS	FB	80	27920
IBM.HHP9910.F6	PDS	FB	80	27920
IBM.HHP9910.F7	PDS	FB	80	27920
IBM.HHP9910.F8	PDS	FB	80	27920
IBM.HHP9910.F9	PDS	FB	80	27920

## 2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for QMF Enterprise Edition.



## 2.3 Program Publications

The following sections identify the basic and optional publications for QMF Enterprise Edition.

### 2.3.1 Basic Program Publications

Figure 3 identifies the basic unlicensed program publications for QMF Enterprise Edition. One copy of each of these publications is included when you order the basic materials for QMF Enterprise Edition. For additional copies, contact your IBM representative.

<b>Publication Title</b>	<b>Form Number</b>
QMF Enterprise Edition Program Directory	GI10-8742

Figure 4 identifies the basic unlicensed or licensed publications for QMF Enterprise Edition that are not available in hardcopy form. These publications are available in PDF format on CD-ROM "DB2 Version 9.1 for z/OS Licensed Library Collection", LK3T-7195, shipped with DB2 V9.1 for z/OS. You can view or download these and other DB2 V9.1 for z/OS publications from the IBM DB2 and IMS Tools library Web site at <http://www.ibm.com/software/data/db2imstools/library.html>.

<b>Publication Title</b>	<b>Form Number</b>	<b>How Available</b>
DB2 QMF High Performance Option User's Guide for TSO and CICS	SC18-9689	CD-ROM or the IBM DB2 and IMS Tools library Web site
Installing and Managing DB2 QMF for Workstation and DB2 QMF for WebSphere	GC18-9691	CD-ROM or the IBM DB2 and IMS Tools library Web site
Getting Started with DB2 QMF for Workstation and DB2 QMF for WebSphere	GC18-9690	CD-ROM or the IBM DB2 and IMS Tools library Web site
Installing and Managing DB2 QMF for TSO and CICS	GC18-9684	CD-ROM or the IBM DB2 and IMS Tools library Web site
DB2 QMF Reference	SC18-9685	CD-ROM or the IBM DB2 and IMS Tools library Web site
Developing DB2 QMF Applications	SC18-9687	CD-ROM or the IBM DB2 and IMS Tools library Web site
Introducing DB2 QMF	GC18-9683	CD-ROM or the IBM DB2 and IMS Tools library Web site
DB2 QMF Messages and Codes	GC18-9688	CD-ROM or the IBM DB2 and IMS Tools library Web site

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

Publication Title	Form Number	How Available
Using DB2 QMF	SC18-9686	CD-ROM or the IBM DB2 and IMS Tools library Web site

## 2.3.2 Optional Program Publications

No optional publications are provided for QMF Enterprise Edition.

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## 2.4 Program Source Materials

No program source materials or viewable program listings are provided for QMF Enterprise Edition.

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## 2.5 Publications Useful During Installation

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

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

Figure 5. Publications Useful During Installation

Publication Title	Form Number
<i>IBM SMP/E for z/OS and OS/390 User's Guide</i>	SA22-7773
<i>IBM SMP/E for z/OS and OS/390 Commands</i>	SA22-7771
<i>IBM SMP/E for z/OS and OS/390 Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS and OS/390 Messages, Codes, and Diagnosis</i>	GA22-7770

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## 3.0 Program Support

This section describes the IBM support available for QMF Enterprise Edition.

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### 3.1 Program Services

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

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### 3.2 Preventive Service Planning

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

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

For program support, access the Software Support Web site at <http://www-3.ibm.com/software/support/>

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

<b>UPGRADE</b>	<b>SUBSET</b>	<b>Description</b>
DB2910	HSQ9910	QMF TSO/CICS Base
DB2910	HHP9910	QMF HPO

For additional Service related information, visit <http://www-306.ibm.com/software/data/qmf/support.html>

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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 7 identifies the component IDs (COMPID) for QMF Enterprise Edition.

<i>Figure 7. Component IDs</i>			
<b>FMID</b>	<b>COMPID</b>	<b>Component Name</b>	<b>RETAIN Release</b>
HSQ9910	566872101	QMF TSO/CICS Base	910
HHP9910	5668HPO00	QMF HPO	910

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

This section identifies the program and any relevant service levels of QMF Enterprise Edition. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs incorporated into the program.

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### **4.1 Program Level Information**

No APARs against this release of QMF Enterprise Edition have been incorporated into the product tape.

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### **4.2 Service Level Information**

No PTFs against this release of QMF Enterprise Edition have been incorporated into the product tape.

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## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating QMF Enterprise Edition. The following terminology is used:

- *Driving system*: the system used to install the program.
- *Target system*: the system on which the program is installed.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

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

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

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### 5.1 Driving System Requirements

This section describes the environment of the driving system required to install QMF Enterprise Edition.

#### 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 8. Driving System Software Requirements*

<b>Program Number</b>	<b>Product Name and Minimum VRM/Service Level</b>
Any <b>one</b> of the following:	
5694-A01	z/OS V01.07.00 or later
5655-G44	IBM SMP/E for z/OS and OS/390 V03.04.00 or later

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## 5.2 Target System Requirements

This section describes the environment of the target system required to install and use QMF Enterprise Edition.

QMF Enterprise Edition installs in the DBS (P115) SREL.

### 5.2.1 Machine Requirements

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

### 5.2.2 Programming Requirements

**5.2.2.1 Installation Requisites:** An installation requisite is defined as a product that is required and **must** be present or one that is not required but **should** be present on the system for the successful installation of this product.

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

<i>Figure 9. Mandatory Installation Requisites</i>	
<b>Program Number</b>	<b>Product Name and Minimum VRM/Service Level</b>
Any <b>one</b> of the following:	
5635-DB2	DB2 V9.1 for z/OS V09.01.00*
5625-DB2	DB2 UDB for z/OS V08.01.00
5675-DB2	DB2 UDB Server for z/OS and OS/390 V07.01.00
Any <b>one</b> of the following (for QMF under CICS only):	
5697-E93	CICS Transaction Server for z/OS V02.03.00
5655-M15	CICS Transaction Server for z/OS V03.01.00

\* Note: QMF is a separately-priced feature of DB2 V9.1 for z/OS and a V9 can be used with earlier versions of DB2, you must have a license for V9.1 for z/OS to use QMF V9 with any supported version of DB2. Refer to DB2 V9.1 for z/OS announcement letter or see your IBM representative for release information.

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

QMF Enterprise Edition has no conditional installation requisites.

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

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

<i>Figure 10. Mandatory Operational Requisites</i>	
<b>Program Number</b>	<b>Product Name and Minimum VRM/Service Level</b>
5695-167	GDDM V03.02.00
Any <b>one</b> of the following:	
5635-DB2	DB2 V9.1 for z/OS V09.01.00*
5625-DB2	DB2 UDB for z/OS V08.01.00
5675-DB2	DB2 UDB Server for z/OS and OS/390 V07.01.00
Any <b>one</b> of the following (for QMF under CICS only):	
5697-E93	CICS Transaction Server for z/OS V02.03.00
5655-M15	CICS Transaction Server for z/OS V03.01.00

\* Note: QMF is a separately-priced feature of DB2 V9.1 for z/OS and although QMF V9 can be used with earlier versions of DB2, you must have a license for DB2 V9.1 for z/OS to use QMF V9 with any supported version of DB2. Refer to the DB2 V9.1 for z/OS announcement letter or see your IBM representative for release information.

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

QMF Enterprise Edition has no conditional operational requisites.

**5.2.2.3 Toleration/Coexistence Requisites:** A toleration/coexistence requisite is defined as a product that 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.

QMF Enterprise Edition has no toleration/coexistence requisites.

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

QMF Enterprise Edition has no negative requisites.



## 5.2.3 DASD Storage Requirements

QMF Enterprise Edition libraries can reside on all supported DASD types. The values below are for 3390 DASD.

Figure 11 on page 13 lists the total space required for each type of library.

<i>Figure 11. Total DASD Space Required by QMF Enterprise Edition</i>	
<b>Library Type</b>	<b>Total Space Required</b>
Target	582 Tracks for QMF TSO/CICS Base
	500 Tracks for QMF HPO
Distribution	672 Tracks for QMF TSO/CICS Base
	500 Tracks for QMF HPO

### Notes:

1. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.
2. Abbreviations used for the data set type are:
  - U** Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or Program Directories) need to be referenced for the data set size.
  - S** Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other Program Directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.
  - E** Existing shared data set, used by this product and others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether 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.

For more information on the names and sizes of the required data sets, please refer to 6.1.8, "Allocate SMP/E Target and Distribution Libraries" on page 20.

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

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

4. All target libraries listed have the following attributes:

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

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

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

The following figures describe the target and distribution libraries required to install QMF Enterprise Edition. The storage requirements of QMF Enterprise Edition must be added to the storage required by other programs having data in the same library.

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

Figure 12 (Page 1 of 2). Storage Requirements for QMF Enterprise Edition Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C O M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SDSQLOAD	LMOD	any	U	PDS	U	0	207	17
SDSQSAPE	Sample	any	U	PDS	FB	80	107	10
SDSQDBRM	Macro	any	U	PDS	FB	80	10	4
SDSQPLBE	Panel	any	U	PDS	FB	80	11	5
SDSQCLTE	CLIST	any	U	PDS	FB	80	34	5
SDSQSLBE	SKEL	any	U	PDS	FB	80	6	5
SDSQMLBE	MSG	any	U	PDS	FB	80	6	5
SDSQEXCE	EXEC	any	U	PDS	FB	80	14	5
SDSQUSRE	Sample	any	U	PDS	FB	80	26	5
SDSQEXIT	Sample	any	U	PDS	U	0	4	5

Figure 12 (Page 2 of 2). Storage Requirements for QMF Enterprise Edition Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SDSQCHRT	Data	any	U	PDS	FB	400	2	5
SDSQMAPE	Data	any	U	PDS	FB	400	5	5
SDSQPVRE	Data	any	U	PDS	V	30345	150	5
SRAACLST	CLIST	any	U	PDS	FB	80	10	5
SRAADB RM	Macro	any	U	PDS	FB	80	20	5
SRAAEXEC	EXEC	any	U	PDS	FB	80	5	5
SRAAISPM	MSG	any	U	PDS	FB	80	15	5
SRAAISPP	Panel	any	U	PDS	FB	80	80	50
SRAALOAD	L MOD	any	U	PDS	U	0	300	25
SRAASAMP	Sample	any	U	PDS	FB	80	10	5
SRAASKEL	SKEL	any	U	PDS	FB	80	60	10

Figure 13 (Page 1 of 2). Storage Requirements for QMF Enterprise Edition Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ADSQOBJ	U	PDS	U	0	253	132
ADSQMACE	U	PDS	FB	80	234	15
ADSQPMSE	U	PDS	FB	80	16	5
ADSQDBMD	U	PDS	FB	80	11	5
ADSQCHRT	U	PDS	FB	400	3	5
ADSQMAPE	U	PDS	FB	400	5	5
ADSQPVRE	U	PDS	V	30345	150	5
ARAACLST	U	PDS	FB	80	10	5
ARAADB RM	U	PDS	FB	80	20	5
ARAAEXEC	U	PDS	FB	80	5	5
ARAAISPM	U	PDS	FB	80	15	5
ARAAISPP	U	PDS	FB	80	80	50
ARAALOAD	U	PDS	U	0	300	15

Figure 13 (Page 2 of 2). Storage Requirements for QMF Enterprise Edition Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ARAASAMP	U	PDS	FB	80	10	5
ARAASKEL	U	PDS	FB	80	60	10

The following figures list data sets that are not used by SMP/E, but are required for QMF Enterprise Edition to execute.

Figure 14. Storage Requirements for QMF Enterprise Edition Non-SMP/E Data Sets

Data Set Name	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
DSQPNLE	U	VSAM	VS	32756	135	-

### 5.3 FMIDs Deleted

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

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

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

### 5.4 Special Considerations

QMF Enterprise Edition has no special considerations for the target system.

---

## 6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of QMF Enterprise Edition.

Please note the following:

- If you want to install QMF Enterprise Edition into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

---

### 6.1 Installing QMF Enterprise Edition

#### 6.1.1 SMP/E Considerations for Installing QMF Enterprise Edition

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

#### 6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 15. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

<b>SUB-ENTRY</b>	<b>Value</b>	<b>Comment</b>
DSSPACE	(200,200,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

### 6.1.3 SMP/E CALLLIBS and SIDE DECK PROCESSING

QMF Enterprise Edition uses the SMP/E provided functions CALLLIBS and Side Deck processing to resolve external references for link-edit during installation. When QMF Enterprise Edition is installed, ensure that DDDEFs exist for the following libraries:

- SCEELKED
- SDFHLOAD
- SDSNLOAD

**Note:** The DDDEFs above are used only to resolve the link-edit for QMF Enterprise Edition using CALLLIBS and Side Deck processing. These data sets are not updated during the installation of QMF Enterprise Edition.

### 6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install QMF Enterprise Edition:

*Figure 16. Sample Installation Jobs*

Job Name	Job Type	Description	RELFILE
DSQ1BEAA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set <b>(Optional)</b>	IBM.HSQ9910.F3
DSQ1BEAB	SMP/E	Sample job to allocate SMP/E data sets <b>(Optional)</b>	IBM.HSQ9910.F3
DSQ1EJRC	RECEIVE	Sample RECEIVE job for QMF for TSO/CICS	IBM.HSQ9910.F3
DSQ1EJRH	RECEIVE	Sample RECEIVE job for QMF HPO	IBM.HSQ9910.F3
DSQ1EEAL	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HSQ9910.F3
DSQ1EEDF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HSQ9910.F3
DSQ1EEAP	APPLY	Sample APPLY job	IBM.HSQ9910.F3
DSQ1EEAC	ACCEPT	Sample ACCEPT job	IBM.HSQ9910.F3

You may access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 16 to find the appropriate relfile data set.

You may copy the jobs from the tape or product files by submitting the job below. Use either the //TAPEIN or the //FILEIN DD statement, depending on your distribution medium, by uncommenting the appropriate DD statement below. Add a job card and change the lowercase parameters to uppercase values to meet your site's requirements before submitting.

```

//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*****
/* If you wish to create a new global zone do not run the *
/* RCVPDO job supplied with CBPDO. RCVPDO assumes that *
/* you will be installing into an existing global zone. *
/* Make the //TAPEIN DD statement below active if you install*
/* from a CBPDO tape by uncommenting the DD statement below. *
//*****
/*TAPEIN DD DSN=IBM.HSQ9910.F3,UNIT=tunit,
/* VOL=SER=volser,LABEL=(x,SL),
/* DISP=(OLD,KEEP)
//*****
/* Make the //TAPEIN DD statement below active if you install*
/* from a product tape received outside the CBPDO process *
/* (using the optional SMP/E RECEIVE job) by uncommenting *
/* the DD statement below. *
//*****
/*TAPEIN DD DSN=IBM.HSQ9910.F3,UNIT=tunit,
/* VOL=SER=SQ9910,LABEL=(4,SL),
/* DISP=(OLD,KEEP)
//*****
/* Make the //FILEIN DD statement below active for *
/* downloaded DASD files. *
//*****
/*FILEIN DD DSN=IBM.HSQ9910.F3,UNIT=SYSALLDA,DISP=SHR,
/* VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(20,10,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
SELECT MEMBER=(DSQ1BEAA,DSQ1BEAB,DSQ1EJRC,DSQ1EJRH,DSQ1EEAL)
SELECT MEMBER=(DSQ1EEDF,DSQ1EEAP,DSQ1EEAC)
/*

```

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

If using TAPEIN:

**tunit** is the unit address where the product tape is mounted

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

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

Refer to the documentation provided by CBPDO to see where IBM.HSQ9910.F3 is on the tape.

If using FILEIN

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

OUT

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

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

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

### 6.1.5 Allocate SMP/E CSI (Optional)

If you are using an existing CSI, do not execute this job.

If you are allocating a new SMP/E data set for this install, edit, and submit sample job DSQ1BEAA to allocate the SMP/E data set for QMF Enterprise Edition.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

### 6.1.6 Initialize CSI zones (Optional)

Edit and submit sample job DSQ1BEAB to initialize SMP/E zones for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

### 6.1.7 Perform SMP/E RECEIVE

Perform an SMP/E RECEIVE for QMF Enterprise Edition.

Having obtained QMF Enterprise Edition as part of a CBPDO, use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the QMF Enterprise Edition 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.

- If you are installing QMF for TSO/CICS, FMID HSQ9910 for the first time, then edit and submit sample job DSQ1EJRC to perform the SMP/E RECEIVE for HSQ9910. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code 0 if this job runs correctly.

- If you are installing QMF HPO, FMID HHP9910 for the first time, then edit and submit sample job DSQ1EJRH to perform the SMP/E RECEIVE for HHP9910. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code 0 if this job runs correctly.

### 6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job DSQ1EEAL to allocate the SMP/E target and distribution libraries for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.



## 6.1.9 Create DDDEF Entries

Edit and submit sample job DSQ1EEDF to create DDDEF entries for the SMP/E target and distribution libraries for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.10 Perform SMP/E APPLY

Edit and submit sample job DSQ1EEAP to perform an SMP/E APPLY CHECK for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

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).

Enhanced HOLDDATA introduced ERROR HOLDS against FMIDs for HIPER APARs. Prior to installing, you should ensure you have the latest Enhanced HOLDDATA (available at url <http://service.software.ibm.com/holdata/390holddata.html>). The FMID(s) should be installed regardless of the status of unresolved HIPERs, however, the software should not be deployed until the unresolved HIPERs have been analyzed to determine applicability.

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

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

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

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

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

```
APPLY S(fmid,fmid,...)
BYPASS(HOLDCLASS(HIPER)).
```

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

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

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

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

**Expected Return Codes and Messages from APPLY CHECK:** You will receive a return code of 0 if this job runs correctly.

**Expected Return Codes and Messages from APPLY:** This job should complete with a return code of 4 or less, and may issue any of the following messages that do not affect product installation: GIM23903I, GIM23903W, or GIM23913W and IEW2454W.

### 6.1.11 Perform SMP/E ACCEPT

Edit and submit sample job DSQ1EEAC to perform an SMP/E ACCEPT CHECK for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

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

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

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

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

**Expected Return Codes and Messages from ACCEPT CHECK:** You will receive a return code of 0 if this 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.

**Expected Return Codes and Messages from ACCEPT if no PTFs are being installed:** You will receive a return code of 0 if this job runs correctly.

## 6.1.12 Run REPORT CROSSZONE

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

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

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

## 6.1.13 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

The following data sets, allocated and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete data sets after you delete the previous release from your system.

- hlqual.ARAASRCE
- hlqual.ARQWBASE
- hlqual.ARQWHFS
- hlqual.SRQWBASE

The following HFS paths, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete HFS paths after you delete the previous release from your system.

- /usr/lpp/qmf

The following DDDEF entries, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete DDDEF entries after you delete the previous release from your system.

- ARAASRCE
- ARQWBASE
- ARQWHFS
- SRQWBASE

**Note:** QMF Enterprise Edition V9.1 does not provide a QMF for WebSphere V9.1 EAR file for the z/OS system via SMP/E. QMF for WebSphere V9.1 is shipped only on CD-ROM, and you directly deploy the EAR file from a Web browser running on any given workstation. You should delete the QMF for WebSphere V8.1 FMID (HRWQ810) when the QMF for WebSphere V8.1 Web application is removed from WebSphere Application Server (WAS).

---

## 6.2 Activating QMF Enterprise Edition

Once you have run the APPLY and/or ACCEPT and your SMP/E installation is completed for QMF Enterprise Edition the QMF VSAM panel library, DSQPNLE, must be populated. The VSAM data set DSQPNLE was created when QMF SMP/E job, DSQ1EEAL (allocate QMF target and distribution libraries) was run in section 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 20 of this Program Directory.

To perform this task, edit and run job SDSQSAPE(DSQ1EPNL). This job will copy member DSQPNLE from the SDSQPVRE target library to the VSAM panel data set DSQPNLE.

After this job has completed successfully, refer to the publication *Installing and Managing DB2 QMF for TSO and CICS, GC18-9684*, which contains the step-by-step procedures to activate DB2 QMF for TSO/CICS.

**Note:** QMF for TSO/CICS users should reference the GDDM/MVS Program Directory GC33-1801 for further information on GDDM enablement and activation. Be sure to test the GDDM base installation following the process outlined in the GDDM Program Directory before trying to run QMF for TSO/CICS.

The publication *DB2 QMF High Performance Option User's Guide for TSO and CICS, SC18-9689*, contains the step-by-step procedures to activate DB2 QMF High Performance Option.

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# Reader's Comments

## Program Directory for IBM DB2 UDB Server for z/OS QMF Enterprise Edition, March 2007

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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?

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- CustomPac
- ServerPac
- Independent
- Other

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

- Yes
- No

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

- Yes

\_\_\_ No

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

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

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