



**Program Directory for
IBM DB2 UDB Server for z/OS
QMF Enterprise Edition**

V08.01.00

Program Number 5625-DB2

FMIDs HSQ8810, HHP8810, HRQW810

for Use with
z/OS

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G110-8519-00

Note!

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 26.

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Contents

1.0 Introduction	1
1.1 QMF Enterprise Edition Description	1
1.2 QMF Enterprise Edition FMIDs	3
2.0 Program Materials	4
2.1 Basic Machine-Readable Material	4
2.2 Optional Machine-Readable Material	6
2.3 Program Publications	6
2.3.1 Basic Program Publications	6
2.3.2 Optional Program Publications	7
2.4 Program Source Materials	7
2.5 Publications Useful During Installation	7
3.0 Program Support	8
3.1 Program Services	8
3.2 Preventive Service Planning	8
3.3 Statement of Support Procedures	8
4.0 Program and Service Level Information	10
4.1 Program Level Information	10
4.2 Service Level Information	10
5.0 Installation Requirements and Considerations	11
5.1 Driving System Requirements	11
5.1.1 Machine Requirements	11
5.1.2 Programming Requirements	11
5.2 Target System Requirements	12
5.2.1 Machine Requirements	12
5.2.2 Programming Requirements	12
5.2.2.1 Installation Requisites	12
5.2.2.2 Operational Requisites	13
5.2.2.3 Toleration/Coexistence Requisites	14
5.2.2.4 Incompatibility (Negative) Requisites	14
5.2.3 DASD Storage Requirements	14
5.3 FMIDs Deleted	18
5.4 Special Considerations	18
6.0 Installation Instructions	19
6.1 Installing QMF Enterprise Edition	19
6.1.1 SMP/E Considerations for Installing QMF Enterprise Edition	19
6.1.2 SMP/E Options Subentry Values	19
6.1.3 SMP/E CALLLIBS Processing	19

6.1.4 SMP/E CALLLIBS and SIDE DECK PROCESSING	20
6.1.5 Sample Jobs	20
6.1.6 Allocate SMP/E CSI (Optional)	21
6.1.7 Initialize CSI zones (Optional)	22
6.1.8 Perform SMP/E RECEIVE	22
6.1.9 Allocate SMP/E Target and Distribution Libraries	22
6.1.10 Allocate HFS Paths	23
6.1.11 Create DDDEF Entries	23
6.1.12 Perform SMP/E APPLY	23
6.1.13 Perform SMP/E ACCEPT	24
6.1.14 Run REPORT CROSSZONE	25
6.2 Activating QMF Enterprise Edition	25
7.0 Notices	26
7.1 Trademarks	27
Reader's Comments	28

Figures

1. Program File Content - QMF TSO/CICS Base	5
2. Program File Content for - QMF HPO	5
3. Program File Content for - QMF WebSphere z/OS	5
4. Basic Material: Other Unlicensed or Licensed Publications	6
5. Publications Useful During Installation	7
6. PSP Upgrade and Subset ID	8
7. Component IDs	9
8. Driving System Software Requirements	11
9. Mandatory Installation Requisites	12
10. Mandatory Operational Requisites	13
11. Conditional Operational Requisites	14
12. Total DASD Space Required by QMF Enterprise Edition	14
13. Storage Requirements for QMF Enterprise Edition Target Libraries	16
14. QMF Enterprise Edition HFS Paths	17
15. Storage Requirements for QMF Enterprise Edition Distribution Libraries	17
16. Storage Requirements for QMF Enterprise Edition Non-SMP/E Data Sets	18
17. SMP/E Options Subentry Values	19
18. Sample Installation Jobs	20

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 QMF Enterprise Edition.

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 Enterprise Edition.
- 3.0, "Program Support" on page 8 describes the IBM support available for QMF Enterprise Edition.
- 4.0, "Program and Service Level Information" on page 10 lists the APARs (program level) and PTFs (service level) incorporated into QMF Enterprise Edition.
- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations required for installing and using QMF Enterprise Edition.
- 6.0, "Installation Instructions" on page 19 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 8 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.

1.1 QMF Enterprise Edition Description

IBM Query Management Facility (QMF) Enterprise Edition V8.1 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 V8.1 includes:

- QMF for TSO/CICS

- QMF High Performance Option (QMF HPO)
- QMF for Windows
- QMF for WebSphere
- QMF Visionary Studio

The QMF family enables enterprise-wide:

- querying
- reporting
- data visualization
- rapid application development
- centralized end user management

The QMF family also supports mixed end user environments, including those connected via:

- Web browsers over intranets or the Internet
- Windows workstations
- traditional mainframe terminals

and single- or multiple-platform database environments that include:

- DB2 Universal Database for z/OS and OS/390
- DB2 Server for VSE & VM
- DB2 Universal Database (AIX, Linux, HP-UX, Sun, and Windows)
- DB2 Universal Database for iSeries
- ODBC-compliant databases from other vendors

Developed in parallel with DB2 since Version 1, QMF is designed to promote the distribution of business intelligence throughout the enterprise, scale to virtually any need, and deliver excellent return on DB2 investments through advanced database query processing.

QMF simplifies tasks associated with accessing, visualizing, and integrating data and covers a broad base of business needs, making end users capable of quickly developing and sharing:

- Structured Query Language (SQL) queries
- Summary, across, and other types of reports
- Multidimensional analysis
- Charts
- Spatial data maps
- Spreadsheets and other popular applications populated with data warehouse or operational data

In addition, the QMF family supports task automation and rapid application development through:

- QMF procedure scripting
- Query and expression building tools
- Conversion of queries and reports into DB2 stored procedures and compiled COBOL programs
- Application programming interfaces (APIs) included in z/OS and Windows platform releases

Note: The QMF Enterprise Edition provides QMF for TSO/CICS, QMF HPO and QMF for WebSphere on SMP/E installable tapes. QMF for Windows, QMF Visionary Studio and QMF for WebSphere are provided on a CD-ROM. QMF for WebSphere can be installed on multiple operating systems. The SMP/E tape is used for all other operating systems. This program directory will guide the user through the installation of QMF for TSO/CICS, QMF HPO and QMF for WebSphere from tape using SMP/E.

1.2 QMF Enterprise Edition FMIDs

QMF Enterprise Edition consists of the following FMIDs:

- HSQ8810 (QMF TSO/CICS Base)
- HHP8810 (QMF HPO)
- HRQW810 (QMF WebSphere z/OS)

2.0 Program Materials

An IBM program is identified by a program number and feature numbers. The program number for QMF Enterprise Edition is 5625-DB2 and the feature numbers are 5976, and 6015.

The QMF Enterprise Edition feature provides QMF for TSO/CICS, QMF HPO and QMF for WebSphere on SMP/E installable tapes. QMF for Windows, QMF Visionary Studio and QMF for WebSphere can be installed on multiple operating systems. The SMP/E tape is used for an installation on z/OS and the CD-ROM is used for all other operating system installations. This section refers to the QMF for TSO/CICS, QMF HPO and QMF for WebSphere product tapes.

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.

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 19 for more information about how to install the program.

The QMF Enterprise Edition feature also includes the following three products on CD-ROM, QMF for WebSphere, QMF for Windows and QMF Visionary Studio. Please refer to the specific CD-ROM for installation instructions for that product.

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*.

The following three figures describe the program file contents for QMF Enterprise Edition.

Figure 1 describes the program file content for QMF TSO/CICS Base.

Figure 2 on page 5 describes the program file content for QMF HPO.

Figure 3 on page 5 describes the program file content for QMF WebSphere z/OS.

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. Program File Content - QMF TSO/CICS Base

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HSQ8810.F1	PDS	FB	80	8800
IBM.HSQ8810.F2	PDS	U	0	6144
IBM.HSQ8810.F3	PDS	FB	80	27920
IBM.HSQ8810.F4	PDS	FB	80	27920
IBM.HSQ8810.F5	PDS	F	400	400
IBM.HSQ8810.F6	PDS	V	27960	27964
IBM.HSQ8810.F7	PDS	FB	80	27920
IBM.HSQ8810.F8	PDS	F	80	400

Figure 2. Program File Content for - QMF HPO

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HHP8810.F1	PDS	FB	80	8800
IBM.HHP8810.F2	PDS	U	0	6144
IBM.HHP8810.F3	PDS	FB	80	27920

Figure 3. Program File Content for - QMF WebSphere z/OS

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HRQW810.F1	PDS	FB	80	8800
IBM.HRQW810.F2	PDS	VB	256	6233

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 4 identifies the basic unlicensed or licensed publications that are not available in hardcopy form, but are available through the internet or other media for QMF Enterprise Edition.

To order copies, contact your IBM representative or visit the IBM Publications Center on the world wide web to order or view publications at:

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

Figure 4. Basic Material: Other Unlicensed or Licensed Publications

Publication Title	Form Number	How Available
DB2 QMF High Performance Option User's Guide for TSO/CICS	SC18-7450	internet or CD-ROM
Installing and Managing DB2 QMF for Windows and DB2 QMF for WebSphere	GC18-7448	internet or CD-ROM
Getting Started with DB2 QMF for Windows and DB2 QMF for WebSphere	SC18-7449	internet or CD-ROM
Installing and Managing DB2 QMF for TSO/CICS	GC18-7444	internet or CD-ROM
DB2 QMF Reference	SC18-7446	internet or CD-ROM
Developing DB2 QMF Applications	SC18-7651	internet or CD-ROM
Introducing DB2 QMF	GC18-7443	internet or CD-ROM
DB2 QMF Messages and Codes	GC18-7447	internet or CD-ROM
Using DB2 QMF	SC18-7445	internet or CD-ROM
DB2 QMF Visionary Studio Getting Started Guide	GC18-9092	internet or CD-ROM
DB2 QMF Visionary Studio Developer's Guide	GC18-9093	internet or CD-ROM

Note: The above QMF publications are also provided in PDF format on CD "DB2 UDB for z/OS Version 8 Licensed Library Collection", LK3T-7128, shipped with DB2 UDB for z/OS V8.1. You may also find some of these publications in PDF format on the product CDs that shipped with the QMF Enterprise Edition feature.

2.3.2 Optional Program Publications

No optional publications are provided for QMF Enterprise Edition.

2.4 Program Source Materials

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

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>

<i>Figure 5. Publications Useful During Installation</i>	
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

3.0 Program Support

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

3.1 Program Services

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

3.2 Preventive Service Planning

Before installing QMF Enterprise Edition, you must 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 or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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

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

UPGRADE	SUBSET	Description
DB2810	HSQ8810	QMF TSO/CICS Base
DB2810	HHP8810	QMF HPO
DB2810	HRQW810	QMF WebSphere z/OS

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.

Figure 7. Component IDs

FMID	COMPID	Component Name	RETAIN Release
HSQ8810	566872101	QMF TSO/CICS Base	810
HHP8810	5668HPO00	QMF HPO	810
HRQW810	5668RQW01	QMF WebSphere z/OS	810

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.

4.1 Program Level Information

All APARs which were closed before 03/19/04 are incorporated into the QMF Enterprise Edition V8.1 products, with the following exceptions:

- APARs PQ74337, PQ76597, PQ78230, PQ81406 and PQ83178 have not been incorporated into the QMF TSO/CICS FMID HSQ8810
- APAR PQ80834 has not been incorporated into the QMF HPO FMID HHP8810
- APARs PQ84998 and PQ84894 have not been incorporated into the QMF for WebSphere FMID HRQW810

4.2 Service Level Information

All PTFs which were closed before 03/19/04 are incorporated into the QMF Enterprise Edition V8.1 products, with the following exceptions:

- PTFs UQ77741, UQ79145, UQ80137, UQ82977 and UQ84982 have not been incorporated into the QMF TSO/CICS FMID HSQ8810
- PTF UQ83093 has not been incorporated into the QMF HPO FMID HHP8810
- PTFs UQ85843 and UQ85859 have not been incorporated into the QMF for WebSphere FMID HRQW810

Note: The above PTFs must be installed right after the QMF V8.1 product FMIDs are SMP/E APPLyed.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating the three QMF Enterprise Edition products, QMF TSO/CICS, QMF HPO and QMF for WebSphere. The following terminology is used:

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

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

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

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

5.1 Driving System Requirements

This section describes the environment of the driving system required to install 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

<i>Figure 8. Driving System Software Requirements</i>	
Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5647-A01	OS/390 V2.10.0
5694-A01	z/OS V1.01.0 or later
5655-G44	IBM SMP/E for z/OS and OS/390 V3.02.0 or later

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.

Figure 9. Mandatory Installation Requisites

Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5697-E93	CICS Transaction Server for z/OS V02.02.00 or V02.03.00
5655-147	CICS Transaction Server for OS/390 V01.03.00
Any one of the following:	
5625-DB2	DB2 UDB for z/OS V08.01.00 or later
5675-DB2	DB2 UDB for OS/390 V07.01.00
5645-DB2	DB2 UDB for OS/390 V06.01.00

Note:

- The CICS requisite is only for QMF TSO/CICS users who will run under CICS.
- For additional QMF for WebSphere installation requisites and steps to perform after SMP/E installation work is complete, please refer to the publication, *Installing and Managing DB2 QMF for Windows and DB2 QMF for WebSphere*, GC18-7448.

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>	
Program Number	Product Name and Minimum VRM/Service Level
5655-F31	WebSphere Application Server V04.00.01 for z/OS and OS/390 or later
5695-167	GDDM V03.02.00 or later
Any one of the following:	
5697-E93	CICS Transaction Server for z/OS V02.02.00 or V02.03.00
5655-147	CICS Transaction Server for OS/390 V01.03.00
Any one of the following:	
5625-DB2	DB2 UDB for z/OS V08.01.00 or later
5675-DB2	DB2 UDB for OS/390 V07.01.00
5645-DB2	DB2 UDB for OS/390 V06.01.00

Note:

- WebSphere Application Server V04.00.01 requisite only applies to QMF for WebSphere. For additional QMF for WebSphere operational requisites and steps to perform after SMP/E, please refer to the publication, *Installing and Managing DB2 QMF for Windows and DB2 QMF for WebSphere, GC18-7448*.
- GDDM V03.02.00 requisite only applies to QMF TSO/CICS.
- The CICS requisite is only for QMF TSO/CICS users running under CICS.

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.

Note: The Conditional Operational Requisites identified in Figure 11 do not apply if DB2 UDB for z/OS Version 8 (5625-DB2) is installed.

Figure 11. Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
Any one of the following:		
5675-DB2	DB2 UDB for OS/390 V07.01.00 with PTFs, UQ57178, UQ60456, UQ60033, UQ66553	QMF Enhanced List Tables Command
5645-DB2	DB2 UDB for OS/390 V06.01.00 with PTFs, UQ57177, UQ60455, UQ60032	QMF Enhanced List Tables Command

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.

QMF Enterprise Edition has no toleration/coexistence requisites.

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

QMF Enterprise Edition has no negative requisites.

5.2.3 DASD Storage Requirements

QMF Enterprise Edition libraries can reside on all supported DASD types.

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

Figure 12. Total DASD Space Required by QMF Enterprise Edition

Library Type	Total Space Required
Target	3435 Blocks for QMF TSO/CICS Base 500 Blocks for QMF HPO 20 Blocks for QMF for WebSphere
Distribution	4070 Blocks for QMF TSO/CICS Base 700 Blocks for QMF HPO 820 Blocks for QMF for WebSphere
HFS	10848 Sectors (512 bytes per sector) for QMF for WebSphere

Notes:

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

2. Abbreviations used for the data set type are:

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

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

For more information on the names and sizes of the required data sets, please refer to 6.1.9, "Allocate SMP/E Target and Distribution Libraries" on page 22.

3. Abbreviations used for the HFS Path type are:

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

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

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

5. All target libraries listed have the following attributes:

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

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

- The data set may be in the LPA.

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

The following figures describe the target and distribution libraries and HFS paths required to install 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 or path.

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

Figure 13 (Page 1 of 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	10
SDSQSAPE	Sample	any	U	PDS	FB	80	107	10
SDSQDBRM	Macro	any	U	PDS	FB	80	10	5
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	Message	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
SDSQCHRT	Data	any	U	PDS	FB	400	2	5
SDSQMAPE	Data	any	U	PDS	FB	400	5	5
SDSQPVRE	Data	any	U	NONE	V	27960	150	5
SRAALOAD	LMOD	any	U	PDS	U	0	300	25
SRAASAMP	Sample	any	U	PDS	FB	80	10	5
SRAADBDM	Macro	any	U	PDS	FB	80	20	5
SRAAISPP	Panel	any	U	PDS	FB	80	80	50
SRAACLST	Clist	any	U	PDS	FB	80	10	5
SRAASKEL	Skel	any	U	PDS	FB	80	60	10
SRAAISPM	Message	any	U	PDS	FB	80	15	5
SRAAEXEC	Exec	any	U	PDS	FB	80	5	5

Figure 13 (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
SRQWBASE	Sample	any	U	PDS	FB	80	4	5

Figure 14. QMF Enterprise Edition HFS Paths

DDNAME	T Y P E	Path Name
SRQWHFS	N	/usr/lpp/qmf/IBM/

Figure 15. 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	105
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	NONE	V	27960	150	5
ARAALOAD	U	PDS	U	0	300	15
ARAASRCE	U	PDS	FB	80	400	30
ARQWBASE	U	PDS	FB	80	4	5
ARQWHFS	U	PDS	VB	256	151	20

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

Note: For information pertaining to the usage of the VSAM panel data set below, please refer to Section 6.2, "Activating QMF Enterprise Edition" on page 25.

Figure 16. 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.

Note: Upon completion of the installation for QMF Enterprise Edition please refer to Section 6.2, “Activating QMF Enterprise Edition” on page 25 for required activation 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 17. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

<i>Figure 17. SMP/E Options Subentry Values</i>		
SUB-ENTRY	Value	Comment
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 Processing

6.1.4 SMP/E CALLLIBS and SIDE DECK PROCESSING

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

- SDFHLOAD
- SCEELKED

QMF Enterprise Edition also uses Side Deck processing during link edits. When QMF Enterprise Edition is installed, ensure that the DDDEFs exist for the following libraries:

- 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.

6.1.5 Sample Jobs

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

Figure 18. 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 (Optional)	IBM.HSQ8810.F3
DSQ1BEAB	SMP/E	Sample job to allocate SMP/E data sets new SMP/E CSI data set (Optional)	IBM.HSQ8810.F3
DSQ1EJRC	RECEIVE	Sample RECEIVE job for QMF for TSO/CICS	IBM.HSQ8810.F3
DSQ1EJRH	RECEIVE	Sample RECEIVE job for QMF HPO	IBM.HSQ8810.F3
DSQ1EJRW	RECEIVE	Sample RECEIVE job QMF for WebSphere	IBM.HSQ8810.F3
DSQ1EEAL	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HSQ8810.F3
DSQ1BMKD	MKDIR	Sample job to invoke the supplied DSQ1BDIR EXEC to allocate HFS paths	IBM.HSQ8810.F3
DSQ1EEDF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HSQ8810.F3
DSQ1EEAP	APPLY	Sample APPLY job	IBM.HSQ8810.F3
DSQ1EEAC	ACCEPT	Sample ACCEPT job	IBM.HSQ8810.F3

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 18 to find the appropriate relfile data set.

You may also choose to 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, and comment out or delete the other statement. 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=*
//TAPEIN DD DSN=IBM.HSQ8810.F3,UNIT=tunit,
// VOL=SER=volser,LABEL=(x,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HSQ8810.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,(20,10,10))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
SELECT MEMBER=(DSQ1BEAA,DSQ1BEAB,DSQ1BMKD,DSQ1BDIR)
SELECT MEMBER=(DSQ1EJRC,DSQ1EJRH,DSQ1EJRW)
SELECT MEMBER=(DSQ1EEAL,DSQ1EEDF,DSQ1EEAP,DSQ1EEAC)
/*
```

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

If using TAPEIN:

tunit is the unit value matching the product tape.

volser is the volume serial matching the product tape.

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

Refer to the documentation provided by CBPDO to see where IBM.HSQ8810.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.

6.1.6 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.

6.1.7 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.

6.1.8 Perform SMP/E RECEIVE

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 HSQ8810 for the first time, then edit and submit sample job DSQ1EJRC to perform the SMP/E RECEIVE for HSQ8810. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for DSQ1EJRC: You will receive a return code 0 if this job runs correctly.

- If you are installing QMF HPO, FMID HHP8810 for the first time, then edit and submit sample job DSQ1EJRH to perform the SMP/E RECEIVE for HHP8810. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for DSQ1EJRH: You will receive a return code 0 if this job runs correctly.

- If you are installing QMF for WebSphere, FMID HRQW810 for the first time, then edit and submit sample job DSQ1EJRW to perform the SMP/E RECEIVE for HRQW810. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for DSQ1EJRW: You will receive a return code 0 if this job runs correctly.

6.1.9 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 0 if this job runs correctly.

6.1.10 Allocate HFS Paths

Edit and submit sample job DSQ1BMKD to allocate the HFS paths for QMF Enterprise Edition. Consult the instructions in the sample job for more information.

The DSQ1BMKD job invokes the DSQ1BDIR exec to create the QMF directory under -PathPrefix-/usr/lpp where -PathPrefix- is the high level directory name. Insure the directory path -PathPrefix-/usr/lpp exists prior to running the job.

If you plan to create a new HFS for this product, you should consider updating the BPXPRMxx PARMLIB member to mount the new HFS at IPL time. This may be helpful if an IPL occurs before the installation is complete.

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

6.1.11 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 0 if this job runs correctly.

6.1.12 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.

This job must run on a system that has z/OS UNIX or OS/390 UNIX in full-function mode (with the shell and utilities available) and have access to the file system containing the QMF for WebSphere HFS path -PathPrefix-/usr/lpp. The user ID under which the job executes must be defined to use z/OS UNIX or OS/390 UNIX (must have an OMVS segment). In addition, the user ID must have access permissions to the -PathPrefix-usr/lpp directory so that it can create subdirectories. Superuser status is required to preserve access permission bits.

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).

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 4 or less, and may issue any of the following messages which do not affect product installation: GIM23903I, GIM23903W or GIM23913W and IEW2454W.

Note!

Make sure the QMF Enterprise Edition PTFs which were listed under section 4.2, "Service Level Information" on page 10 are installed after this SMP/E APPLY step.

6.1.13 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: You will receive a return code of 0 if this job runs correctly.

6.1.14 Run REPORT CROSSZONE

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

After you have installed 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.

6.2 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 6.1.9, "Allocate SMP/E Target and Distribution Libraries" on page 22 of this Program Directory.

To perform this task, edit and run job SDSQSAPE(DSQ1EPLN). This job will copy member DSQPNLE from the SDSQPVRE target library to the VSAM panel data set DSQPNLE.

After this this job has completed successfully, refer to the the publication, *Installing and Managing DB2 QMF for TSO/CICS, GC18-7444* which contains the step-by-step procedures to activate 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/CICS, SC18-7450*, contains the step-by-step procedures to activate DB2 QMF High Performance Option.

After the SMP/E installation of QMF Enterprise Edition, the following z/OS shell command should be run to expand the installation archive into the various components for the QMF for WebSphere product. Run this command from the -PathPrefix-/usr/lpp/qmf/ directory:

```
jar -xf ./ARQWHFS.JAR
```

Refer to the ASCII readme.txt file you will find in the -PathPrefix-/usr/lpp/qmf/ directory. The publication, *Installing and Managing DB2 QMF for Windows and DB2 QMF for WebSphere, GC18-7448*, contains the step-by-step procedures to activate QMF for WebSphere.

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Program Directory for QMF Enterprise Edition, March 2004

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

How did you order this product?

- CBPDO
- CustomPac
- ServerPac
- Independent
- Other

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

- Yes
- No

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

- Yes

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