



**Program Directory for
Query Management Facility
for VM/ESA®**

National Language Features

Version 7 Release 2.0

Program Number 5697-F42

for Use with
z/VM™ Version 4
z/VM Version 3 Release 1
VM/ESA Version 2 Release 4
VM/ESA Version 2 Release 3

Document Date: March 2002

Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 44.

This program directory, dated March 2002, applies to Query Management Facility for VM/ESA National Language Features (QMF™ NLV), Version 7 Release 2.0, program number 5697-F42.

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, 2002. All rights reserved.**

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Contents

1.0 Introduction	1
1.1 Program Description	1
1.2 National Language Feature Identifications	2
2.0 Program Materials	3
2.1 Basic Machine-Readable Material	3
2.2 Optional Machine-Readable Material	5
2.2.1 Basic Program Publications	6
2.2.2 Optional Program Publications	6
2.3 Microfiche Support	7
2.4 Publications Useful During Installation	8
3.0 Program Support	9
3.1 Preventive Service Planning	9
3.2 Statement of Support Procedures	9
4.0 Program and Service Level Information	11
4.1 Program Level Information	11
4.2 Service Level Information	11
4.3 Cumulative Service Tape	11
5.0 Installation Requirements and Considerations	12
5.1 Hardware Requirements	12
5.2 Program Considerations	12
5.2.1 Operating System Requirements	12
5.2.2 Other Program Product Requirements	12
5.2.3 Program Installation and Service Considerations	12
5.3 DASD Storage and User ID Requirements	13
6.0 Installation Instructions	15
6.1 VMSES/E Installation Process Overview	15
6.2 Plan Your Installation For QMF NLF	16
6.3 Allocate Resources for Installing QMF NLF	19
6.4 Install QMF NLF	19
6.4.1 Update Build Status Table for QMF NLF	22
6.5 Place QMF NLF Into Production	22
6.5.1 Define and Build the QMF NLF Saved Segments Using VMSES/E	23
6.5.2 Copy QMF NLF Files Into Production	29
6.6 Post-Installation Considerations	29
7.0 Service Instructions	30
7.1 VMSES/E Service Process Overview	30

7.2 Servicing QMF NLF	31
7.2.1 Prepare to Receive Service	31
7.2.2 Receive the Service	33
7.2.3 Apply the Service	34
7.2.4 Update the Build Status Table	35
7.2.5 Build Serviced Objects	37
7.3 Place the New QMF NLF Service Into Production	37
7.3.1 Rebuild the Saved Segments	37
7.3.2 Copy the New QMF NLF Serviced Files Into Production	39
Appendix A. Create Product Parameter File (PPF) Override	41
Notices	44
Trademarks and Service Marks	45
Reader's Comments	46

Figures

1. National Language Identifiers	2
2. Basic Material: Program Tape - QMF NLF	3
3. Program Tape: File Content - QMF NLF	5
4. Basic Material: Unlicensed Publications	6
5. Basic Material: Translated Unlicensed Publications	6
6. Optional Material: Unlicensed Publications	6
7. Optional Material: Translated Unlicensed Publications	7
8. Publications Useful During Installation / Service on VM/ESA Version 2.3.0 or 2.4.0	8
9. Publications Useful During Installation / Service on z/VM Version 3.1.0	8
10. Publications Useful During Installation / Service on z/VM Version 4	8
11. PSP Upgrade and Subset ID in Retain	9
12. COMPIDs, Release and FESN Numbers in Retain	10
13. DASD Storage Requirements for Target Minidisks	14
14. Segment Map panel example.	24
15. Add Segment Definition panel example.	25
16. Add Segment Definition panel showing the new segments	26
17. Segment Map panel with added segments.	27

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 a **Query Management Facility for VM/ESA National Language Feature Version 7 Release 2.0** (abbreviated to QMF NLF in this document). You should read all of this program directory before installing the program and then keep it for future reference.

The program directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for QMF NLF.
- 3.0, “Program Support” on page 9 describes the IBM support available for QMF NLF.
- 4.0, “Program and Service Level Information” on page 11 lists the APARs (program level) and PTFs (service level) incorporated into QMF NLF.
- 5.0, “Installation Requirements and Considerations” on page 12 identifies the resources and considerations for installing and using QMF NLF.
- 6.0, “Installation Instructions” on page 15 provides detailed installation instructions for QMF NLF.
- 7.0, “Service Instructions” on page 30 provides detailed servicing instructions for QMF NLF.
- Appendix A, “Create Product Parameter File (PPF) Override” on page 41 provides detailed information on overriding the Product Parameter File (PPF).

Before installing QMF NLF, read 3.1, “Preventive Service Planning” on page 9. This section tells you how to find any updates to the information and procedures in this program directory.

1.1 Program Description

This is the National Language Feature of the Query Management Facility for VM/ESA product. 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.

1.2 National Language Feature Identifications

Throughout this document the term NLF is used to represent any of the National Language Features available with QMF Version 7 Release 2.0. For each QMF NLF available, there is a unique language letter identifier, a PPFNAME, a PRODID and a DCSS name assigned for that language. Please refer to Figure 1 on page 2 for a list of these assigned values for all languages provided with QMF Version 7 Release 2.0.

In this document the **PPFNAME** and the **PRODID** are referred to as **5697F4BE**. For each language installation, it is necessary to replace **5697F4BE** with the appropriate PPFNAME and PRODID assigned for that National Language Feature. In this document the QMF saved segment (**DCSS**) name is referred to as **QMF720U**. For each language installation, it is necessary to replace **QMF720U** with the appropriate DCSS name assigned for that National Language Feature. Refer to the following table for the appropriate values assigned to each National Language Feature provided with QMF Version 7 Release 2.0.

Figure 1. National Language Identifiers

Language	Language Letter Identifier	PPFNAME and PRODID	DCSS NAME
Brazilian Portuguese	P	5697F4BG	QMF720P
Canadian French	C	5697F4BL	QMF720C
Danish	Q	5697F4BM	QMF720Q
French	F	5697F4BB	QMF720F
German	D	5697F4BC	QMF720D
Italian	I	5697F4BH	QMF720I
Japanese	K	5697F4BD	QMF720K
Korean	H	5697F4BN	QMF720H
Spanish	S	5697F4BP	QMF720S
Swedish	V	5697F4BJ	QMF720V
Swiss French	Y	5697F4BQ	QMF720Y
Swiss German	Z	5697F4BK	QMF720Z
Uppercase English	U	5697F4BE	QMF720U

2.0 Program Materials

An IBM program is identified by a program number. The program number for Query Management Facility National Language Feature Version 7 is 5697-F42.

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

The following sections identify:

- 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 as follows:

- One 3480 tape cartridge or
- One 4mm tape cartridge or
- One 9 track magnetic tape (written at 6250 BPI) or
- One 1/4" tape cartridge

The tape or cartridge contains all the programs and data needed for installation. QMF NLF is installed using VMSES/E. See section 6.0, "Installation Instructions" on page 15 for more information about how to install the program. Figure 2 describes the tape or cartridge. Figure 3 on page 5 describes the file content of the program tape or cartridge.

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
6141	3480 cart.	1	QMF for VM V7.2 Brazilian Portuguese	QMF for VM V7.2 (P)
6142	4mm cart.	1	QMF for VM V7.2 Brazilian Portuguese	QMF for VM V7.2 (P)
6143	6250 tape	1	QMF for VM V7.2 Brazilian Portuguese	QMF for VM V7.2 (P)
6140	1/4" cart.	1	QMF for VM V7.2 Brazilian Portuguese	QMF for VM V7.2 (P)
6208	3480 cart.	1	QMF for VM V7.2 Canadian French	QMF for VM V7.2 (C)
6209	4mm cart.	1	QMF for VM V7.2 Canadian French	QMF for VM V7.2 (C)
6210	6250 tape	1	QMF for VM V7.2 Canadian French	QMF for VM V7.2 (C)
6207	1/4" cart.	1	QMF for VM V7.2 Canadian French	QMF for VM V7.2 (C)
6157	3480 cart.	1	QMF for VM V7.2 Danish	QMF for VM V7.2 (Q)
6158	4mm cart.	1	QMF for VM V7.2 Danish	QMF for VM V7.2 (Q)

Figure 2 (Page 2 of 3). Basic Material: Program Tape - QMF NLF

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
6159	6250 tape	1	QMF for VM V7.2 Danish	QMF for VM V7.2 (Q)
6156	1/4" cart.	1	QMF for VM V7.2 Danish	QMF for VM V7.2 (Q)
6096	3480 cart.	1	QMF for VM V7.2 French	QMF for VM V7.2 (F)
6097	4mm cart.	1	QMF for VM V7.2 French	QMF for VM V7.2 (F)
6098	6250 tape	1	QMF for VM V7.2 French	QMF for VM V7.2 (F)
6095	1/4" cart.	1	QMF for VM V7.2 French	QMF for VM V7.2 (F)
6117	3480 cart.	1	QMF for VM V7.2 German	QMF for VM V7.2 (D)
6118	4mm cart.	1	QMF for VM V7.2 German	QMF for VM V7.2 (D)
6119	6250 tape	1	QMF for VM V7.2 German	QMF for VM V7.2 (D)
6116	1/4" cart.	1	QMF for VM V7.2 German	QMF for VM V7.2 (D)
6181	3480 cart.	1	QMF for VM V7.2 Italian	QMF for VM V7.2 (I)
6182	4mm cart.	1	QMF for VM V7.2 Italian	QMF for VM V7.2 (I)
6183	6250 tape	1	QMF for VM V7.2 Italian	QMF for VM V7.2 (I)
6180	1/4" cart.	1	QMF for VM V7.2 Italian	QMF for VM V7.2 (I)
6104	3480 cart.	1	QMF for VM V7.2 Japanese	QMF for VM V7.2 (K)
6105	4mm cart.	1	QMF for VM V7.2 Japanese	QMF for VM V7.2 (K)
6106	6250 tape	1	QMF for VM V7.2 Japanese	QMF for VM V7.2 (K)
6103	1/4" cart.	1	QMF for VM V7.2 Japanese	QMF for VM V7.2 (K)
6125	3480 cart.	1	QMF for VM V7.2 Korean	QMF for VM V7.2 (H)
6126	4mm cart.	1	QMF for VM V7.2 Korean	QMF for VM V7.2 (H)
6127	6250 tape	1	QMF for VM V7.2 Korean	QMF for VM V7.2 (H)
6124	1/4" cart.	1	QMF for VM V7.2 Korean	QMF for VM V7.2 (H)
6133	3480 cart.	1	QMF for VM V7.2 Spanish	QMF for VM V7.2 (S)
6134	4mm cart.	1	QMF for VM V7.2 Spanish	QMF for VM V7.2 (S)
6135	6250 tape	1	QMF for VM V7.2 Spanish	QMF for VM V7.2 (S)
6132	1/4" cart.	1	QMF for VM V7.2 Spanish	QMF for VM V7.2 (S)
6149	3480 cart.	1	QMF for VM V7.2 Swedish	QMF for VM V7.2 (V)
6150	4mm cart.	1	QMF for VM V7.2 Swedish	QMF for VM V7.2 (V)
6151	6250 tape	1	QMF for VM V7.2 Swedish	QMF for VM V7.2 (V)
6148	1/4" cart.	1	QMF for VM V7.2 Swedish	QMF for VM V7.2 (V)
6165	3480 cart.	1	QMF for VM V7.2 Swiss French	QMF for VM V7.2 (Y)

Figure 2 (Page 3 of 3). Basic Material: Program Tape - QMF NLF

Feature Number	Medium	Physical Volume	Tape Content	External Tape Label
6166	4mm cart.	1	QMF for VM V7.2 Swiss French	QMF for VM V7.2 (Y)
6167	6250 tape	1	QMF for VM V7.2 Swiss French	QMF for VM V7.2 (Y)
6164	1/4" cart.	1	QMF for VM V7.2 Swiss French	QMF for VM V7.2 (Y)
6173	3480 cart.	1	QMF for VM V7.2 Swiss German	QMF for VM V7.2 (Z)
6174	4mm cart.	1	QMF for VM V7.2 Swiss German	QMF for VM V7.2 (Z)
6175	6250 tape	1	QMF for VM V7.2 Swiss German	QMF for VM V7.2 (Z)
6172	1/4" cart.	1	QMF for VM V7.2 Swiss German	QMF for VM V7.2 (Z)
6189	3480 cart.	1	QMF for VM V7.2 Uppercase English	QMF for VM V7.2 (U)
6190	4mm cart.	1	QMF for VM V7.2 Uppercase English	QMF for VM V7.2 (U)
6191	6250 tape	1	QMF for VM V7.2 Uppercase English	QMF for VM V7.2 (U)
6188	1/4" cart.	1	QMF for VM V7.2 Uppercase English	QMF for VM V7.2 (U)

Figure 3. Program Tape: File Content - QMF NLF

Tape File	Content
1	Tape Header
2	Tape Header
3	Product Header
4	Product Memo
5	Service Apply Lists
6	PTFPARTs
7	QMF NLF Service
8	QMF NLF Service
9	QMF NLF Base Code
10	QMF NLF Sample
11	QMF NLF Production
12	QMF NLF Distribution

2.2 Optional Machine-Readable Material

There are no optional machine-readable materials for QMF NLF.

2.2.1 Basic Program Publications

One copy of the following publication is included when you order the basic materials for QMF NLF. To order additional hardcopy books, contact your IBM representative or visit the IBM Publications website at <http://www.ibm.com/shop/publications/order>. To view or download a free PDF version of the publication, go to the QMF website at <http://www.ibm.com/software/data/qmf/library.html>.

If a country provides a translated publication, the customer will receive the translated publication instead. Refer to Figure 5 for a list of the countries that provide translated publications and the form number for each translated publication.

Publication Title	Form Number
<i>Installing and Managing QMF</i>	GC27-0720
<i>QMF Messages and Codes</i>	GC27-0717

National Language	Publication Title	Form Number
Japanese	Installing and Managing QMF	GC88-9067
Japanese	QMF Messages and Codes	GC88-8621
Korean	Installing and Managing QMF	GA30-1426
Korean	QMF Messages and Codes	GA30-1050

2.2.2 Optional Program Publications

The following are the optional publications that can be ordered.

If a country provides a translated optional publication, the customer can order the translated publication instead. Refer to Figure 7 on page 7 for a list of the countries that provide translated publications and the form number for each translated publication.

To order hardcopy books, contact your IBM representative or visit the IBM Publications website at <http://www.ibm.com/shop/publications/order>. To view or download a free PDF version of the publication, go to the QMF website at <http://www.ibm.com/software/data/qmf/library.html>.

Publication Title	Form Number
<i>Introducing QMF</i>	GC27-0714

Figure 6 (Page 2 of 2). Optional Material: Unlicensed Publications

Publication Title	Form Number
<i>QMF Reference</i>	SC27-0715
<i>Using QMF</i>	SC27-0716
<i>Developing QMF Applications</i>	SC27-0718

Figure 7. Optional Material: Translated Unlicensed Publications

National Language	Publication Title	Form Number
Brazilian Portuguese	Introducing QMF	G517-7132
Brazilian Portuguese	QMF Reference	S517-6998
Brazilian Portuguese	Using QMF	S517-6999
French	Introducing QMF	GC11-1685
French	Using QMF	SC11-1687
German	Introducing QMF	GC12-2858
German	QMF Reference	SC12-2849
German	Using QMF	SC12-2850
Italian	Introducing QMF	GC13-2904
Italian	QMF Reference	SC13-2905
Italian	Using QMF	SC13-2906
Japanese	Introducing QMF	GC88-8618
Japanese	QMF Reference	SC88-8619
Japanese	Using QMF	SC88-8620
Japanese	Developing QMF Applications	SC88-8622
Korean	Introducing QMF	GA30-1047
Korean	QMF Reference	SA30-1048
Korean	Using QMF	SA30-1049
Korean	Developing QMF Applications	SA30-1051
Spanish	Introducing QMF	GC10-3530
Spanish	QMF Reference	SC10-3531
Spanish	Using QMF	SC10-3532

2.3 Microfiche Support

There is no microfiche for QMF NLF.

2.4 Publications Useful During Installation

The publications listed in Figure 8 on page 8, Figure 9 on page 8, or Figure 10 on page 8, depending on your VM release, may be useful during the installation of QMF NLF. To order copies, contact your IBM representative.

Figure 8. Publications Useful During Installation / Service on VM/ESA Version 2.3.0 or 2.4.0

Publication Title	Form Number
<i>VM/ESA: VMSES/E Introduction and Reference</i>	GC24-5837
<i>VM/ESA: Service Guide</i>	GC24-5838
<i>VM/ESA: Planning and Administration</i>	SC24-5750
<i>VM/ESA: CMS Command Reference</i>	SC24-5776
<i>VM/ESA: CMS File Pool Planning, Administration, and Operation</i>	SC24-5751
<i>VM/ESA: System Messages and Codes</i>	GC24-5841

Figure 9. Publications Useful During Installation / Service on z/VM Version 3.1.0

Publication Title	Form Number
<i>z/VM: VMSES/E Introduction and Reference</i>	GC24-5947
<i>z/VM: Service Guide</i>	GC24-5946
<i>z/VM: Planning and Administration</i>	SC24-5948
<i>z/VM: CMS Command Reference</i>	SC24-5969
<i>z/VM: CMS File Pool Planning, Administration, and Operation</i>	SC24-5949
<i>z/VM: System Messages and Codes</i>	GC24-5974

Figure 10. Publications Useful During Installation / Service on z/VM Version 4

Publication Title	Form Number
<i>z/VM: VMSES/E Introduction and Reference</i>	GC24-5994
<i>z/VM: Service Guide</i>	GC24-5993
<i>z/VM: Planning and Administration</i>	SC24-5995
<i>z/VM: CMS Command and Utility Reference</i>	SC24-6010
<i>z/VM: CMS File Pool Planning, Administration, and Operation</i>	SC24-5949
<i>z/VM: System Messages and Codes - Other Components</i>	GC24-6032
<i>z/VM: System Messages and Codes - CMS</i>	GC24-6031
<i>z/VM: System Messages and Codes - CP</i>	GC24-6030
<i>z/VM: Installation Guide</i>	GC24-5992

3.0 Program Support

This section describes the IBM support available for QMF NLF.

3.1 Preventive Service Planning

Before installing QMF NLF, check with your IBM Support Center or use IBMLink™ (ServiceLink) to see whether there is additional Preventive Service Planning (PSP) information. To obtain this information, specify the following UPGRADE and SUBSET values:

Figure 11. PSP Upgrade and Subset ID in Retain

COMPID	Release	Upgrade	Subset	National Language
566872101	7BB	DB2VSEVM720	QMF/7BB	Brazilian Portuguese
566872101	7BG	DB2VSEVM720	QMF/7BG	Canadian French
566872101	7B5	DB2VSEVM720	QMF/7B5	Danish
566872101	7B6	DB2VSEVM720	QMF/7B6	French
566872101	7B7	DB2VSEVM720	QMF/7B7	German
566872101	7B8	DB2VSEVM720	QMF/7B8	Italian
566872101	7B9	DB2VSEVM720	QMF/7B9	Japanese
566872101	7BA	DB2VSEVM720	QMF/7BA	Korean
566872101	7BC	DB2VSEVM720	QMF/7BC	Spanish
566872101	7BD	DB2VSEVM720	QMF/7BD	Swedish
566872101	7BE	DB2VSEVM720	QMF/7BE	Swiss French
566872101	7BF	DB2VSEVM720	QMF/7BF	Swiss German
566872101	7B1	DB2VSEVM720	QMF/7B1	Uppercase English

3.2 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 tell you where to send any needed documentation.

Figure 12 identifies the component ID (COMPID), Retain Release and Field Engineering Service Number (FESN) for QMF NLF.

Figure 12. COMPIDs, Release and FESN Numbers in Retain

COMPID	Release	Component Name	National Language	FESN
566872101	7BB	QMF/VM BRAZ PORTUGU	Brazilian Portuguese	6472101
566872101	7BG	QMF/VM CANADA FRENCH	Canadian French	6472101
566872101	7B5	QMF/VM DANISH	Danish	6472101
566872101	7B6	QMF/VM FRENCH	French	6472101
566872101	7B7	QMF/VM GERMAN	German	6472101
566872101	7B8	QMF/VM ITALIAN	Italian	6472101
566872101	7B9	QMF/VM JAPANESE	Japanese	6472101
566872101	7BA	QMF/VM KOREAN	Korean	6472101
566872101	7BC	QMF/VM SPANISH	Spanish	6472101
566872101	7BD	QMF/VM SWEDISH	Swedish	6472101
566872101	7BE	QMF/VM SWISS FRENCH	Swiss French	6472101
566872101	7BF	QMF/VM SWISS GERMAN	Swiss German	6472101
566872101	7B1	QMF/VM U/C ENGLISH	Uppercase English	6472101

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of QMF NLF. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs shipped with this product. Information about the cumulative service tape is also provided.

4.1 Program Level Information

QMF NLF Version 7 Release 2.0 has incorporated all closed APARS from previous versions/releases which were closed prior to December 31, 2001.

4.2 Service Level Information

Check the DB2VSEVM720 PSP bucket for any additional PTFs that should be installed or any additional install information.

4.3 Cumulative Service Tape

Cumulative service for QMF NLF Version 7 Release 2.0 is available through a monthly 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 NLF.

5.1 Hardware Requirements

There are no special hardware requirements for QMF NLF.

5.2 Program Considerations

The following sections list the programming considerations for installing and activating QMF NLF.

5.2.1 Operating System Requirements

QMF NLF supports the following VM operating systems:

- z/VM Version 4
- z/VM Version 3 Release 1
- VM/ESA Version 2 Release 4

RSU9904 service level or above must be applied to VMSES/E on VM/ESA 2.4.0 prior to installing QMF NLF

- VM/ESA Version 2 Release 3

RSU9905 service level or above must be applied to VMSES/E on VM/ESA 2.3.0 prior to installing QMF NLF

5.2.2 Other Program Product Requirements

You must install the QMF for VM/ESA V7.2 base product prior to installing a QMF NLF. All product requisites of QMF for VM/ESA V7.2 base are also product requisites of QMF NLF. For details, see the list of base product requisites in the QMF for VM/ESA V7.2 base product program directory. The QMF for VM/ESA V7.2 base product distribution and production disks are required for the QMF NLF installation.

5.2.3 Program Installation and Service Considerations

This section describes items that should be considered before you install or service QMF NLF.

- VMSES/E is required to install and service this product.
- If multiple users install and maintain licensed products on your system, there may be a problem getting the necessary access to MAINT's 51D disk. If you find that there is contention for write access to the 51D disk, you can eliminate it by converting the Software Inventory from minidisk to Shared File

System (SFS). See the *VMSES/E Introduction and Reference* manual, section "Changing the Software Inventory to an SFS Directory", for information on how to make this change.

- Customers will no longer install and service QMF NLF strictly using the MAINT user ID, but will use a new user ID--P697F4BA. This is the IBM suggested user ID name. You are free to change this to any user ID name you wish; however, a PPF override must be created.

Note: It may be easier to make the above PPF override change during the installation procedure 6.2, "Plan Your Installation For QMF NLF" step 6 on page 17, rather than after you have installed this product.

5.3 DASD Storage and User ID Requirements

Figure 13 lists the user IDs, minidisks and default SFS directory names that are used to install and service QMF NLF.

Important Installation Notes:

- User ID(s) and minidisks or SFS directories will be defined in 6.2, "Plan Your Installation For QMF NLF" on page 16 and are listed here so that you can get an idea of the resources that you will need prior to allocating them.
- P697F4BA is a default user ID and can be changed. If you choose to change the name of the installation user ID you need to create a Product Parameter Override (PPF) to reflect this change. This can be done in 6.2, "Plan Your Installation For QMF NLF" step 6 on page 17.
- If you choose to install QMF NLF on a common user ID the default minidisk addresses for QMF NLF may already be defined. If any of the default minidisks required by QMF NLF are already in use you will have to create an override to change the default minidisks for QMF NLF so they are unique.

Note!

The QMF NLF will be installed with the same user ID and minidisks or SFS directories as the QMF for VM/ESA V7.2 base product. However, the QMF NLF installation requires additional DASD be added to the existing QMF base product minidisks or SFS directories. Additional DASD must be added to addresses 2B2, 401, 400, 501 and 500. Figure 13 is the DASD table, which has been taken from the QMF for VM/ESA V7.2 base product program directory and updated accordingly to reflect the new DASD requirements for disks containing both the QMF for VM/ESA V7.2 base product and a single QMF NLF.

Figure 13. DASD Storage Requirements for Target Minidisks

Minidisk owner (user ID)	Default Address	Storage in Cylinders		FB-512 Blocks	SFS 4K Blocks	Usage
		DASD	CYLS			Default SFS Directory Name
P697F4BA	2B2	3390 3380 9345	32 37 37	44400	5500	Contains all the base code shipped with QMF NLF VMSYS:P697F4BA.QMF.OBJECT
P697F4BA	2C2	3390 3380 9345	2 2 2	2400	300	Contains customization files. This disk may also be used for local modifications. VMSYS:P697F4BA.QMF.SAMPLE
P697F4BA	2D2	3390 3380 9345	5 5 5	6000	750	Contains serviced files VMSYS:P697F4BA.QMF.DELTA
P697F4BA	2A6	3390 3380 9345	2 2 2	2400	300	Contains AUX files and software inventory tables that represent the test service level of QMF NLF VMSYS:P697F4BA.QMF.APPLYALT
P697F4BA	2A2	3390 3380 9345	2 2 2	2400	300	Contains AUX files and software inventory tables that represent the service level of QMF NLF that is currently in production. VMSYS:P697F4BA.QMF.APPLYPROD
P697F4BA	501	3390 3380 9345	19 22 22	26400	3300	Test Build disk for QMF NLF Distribution Code. After testing, copy to 500 disk. VMSYS:P697F4BA.QMF.TDISTRIB
P697F4BA	500	3390 3380 9345	19 22 22	26400	3300	QMF NLF Distribution Code minidisk. VMSYS:P697F4BA.QMF.DISTRIB
P697F4BA	401	3390 3380 9345	23 26 26	31200	3900	Test Build disk for QMF NLF Production Code. After testing, copy to 400 disk. VMSYS:P697F4BA.QMF.TQMFPROD
P697F4BA	400	3390 3380 9345	23 26 26	31200	3900	QMF NLF Production Code minidisk. VMSYS:P697F4BA.QMF.QMFPROD
P697F4BA	191	3390 3380 9345	9 10 10	12000	1500	P697F4BA user ID's 191 minidisk VMSYS:P697F4BA.

Note: Cylinder values defined in this table are based on a 4K block size. FB-512 block and SFS values are derived from the 3380 cylinder values in this table. The FBA blocks are listed as 1/2K but should be CMS formatted at 1K size. 23,050 4K blocks are needed for SFS install.

6.0 Installation Instructions

This chapter describes the installation methods and the step-by-step procedures to install and activate QMF NLF.

The step-by-step procedures are in two-column format. The steps to be performed are in bold, large numbers. Commands for these steps are on the left-hand side of the page in bold print. Additional information for a command may exist to the right of the command. For more information about the two-column format see "Understanding Dialogs with the System" in the *Installation Guide*.

Each step of the installation instructions must be followed. Do not skip any step unless directed to do so.

Throughout these instructions, the use of IBM-supplied default minidisk addresses and user IDs is assumed. If you use different user IDs, minidisk addresses, or SFS directories to install QMF NLF, adapt these instructions as needed for your environment.

Note

The sample console output presented throughout these instructions was produced on a VM/ESA 2.4.0 system. If you're installing QMF NLF on a different VM/ESA system, the results obtained for some commands may differ from those depicted here.

Important NLF Note

In the following installation process the **PPFNAME** and the **PRODID** are referred to as **5697F4BE**. For each language installation, it is necessary to replace **5697F4BE** with the appropriate PPFNAME and PRODID assigned for that National Language Feature. The QMF saved segment (**DCSS**) name is referred to as **QMF720U**. For each language installation, it is necessary to replace **QMF720U** with the appropriate DCSS name assigned for that National Language Feature. Please refer to 1.2, "National Language Feature Identifications" on page 2 for the appropriate values assigned to each National Language Feature provided with QMF Version 7 Release 2.0.

6.1 VMSES/E Installation Process Overview

The following is a brief description of the main steps in installing QMF NLF using VMSES/E.

- Plan Your Installation

Use the VMFINS command to load several VMSES/E files from the product tape and to obtain QMF NLF resource requirements.

- Allocate Resources

The information obtained from the previous step is used to allocate the appropriate minidisks (or SFS directories) and user IDs needed to install and use QMF NLF.

- Install the QMF NLF Product

Use the VMFINS command to load the QMF NLF product files from tape to the test BUILD and BASE minidisks/directories. VMFINS is then used to update the VM SYSBLDS file used by VMSES/E for software inventory management.

- Perform Post-installation Tasks

Information about file tailoring and initial activation of the program is presented in 6.6, “Post-Installation Considerations” on page 29.

- Place QMF NLF Files into Production

Once the product files have been tailored and the operation of QMF NLF is satisfactory, the product files are copied from the test BUILD disk(s) to production BUILD disk(s).

For a complete description of all VMSES/E installation options refer to *VMSES/E Introduction and Reference*.

6.2 Plan Your Installation For QMF NLF

The VMFINS command will be used to plan the installation. This section has 2 main steps that will:

- load the first tape file, containing installation files
- generate a 'PLANINFO' file listing
 - all user ID and mdisks/SFS directory requirements
 - required products

To obtain planning information for your environment:

- 1** Log on as QMF NLF installation planner.

This user ID can be any ID that has read access to MAINT's 5E5 minidisk and write access to the MAINT 51D minidisk.

- 2** Mount the QMF NLF installation tape and attach it to the user ID at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

- 3** Establish read access to the VMSES/E code.

**link MAINT 5e5 5e5 rr
access 5e5 b**

The 5E5 disk contains the VMSES/E code.

- 4** Establish write access to the Software Inventory disk.

**link MAINT 51d 51d mr
access 51d d**

The MAINT 51D disk is where the VMSES/E system-level Software Inventory and other dependent files reside.

Note: If another user already has the MAINT 51D minidisk linked in write mode (R/W), you will only obtain read access (R/O) to this minidisk. If this occurs, you will need to have that user re-link the 51D in read-only mode (RR), and then re-issue the above LINK and ACCESS commands. Do not continue with these procedures until a R/W link is established to the 51D minidisk.

5 Load the QMF NLF product control files to the 51D minidisk.

vmfins install info (nomemo)

The NOMEMO option will load the memos from the tape but will not issue a prompt to send them to the system printer. Specify the MEMO option if you want to be prompted for printing the memo.

This command will perform the following:

- load Memo-to-Users
- load various product control files, including the Product Parameter File (PPF) and the PRODPART files
- create VMFINS PRODLIST on your A-disk. The VMFINS PRODLIST contains a list of products on the installation tape.

```
VMFINS2760I VMFINS processing started
VMFINS1909I VMFINS PRODLIST created on your A-disk
VMFINS2760I VMFINS processing completed successfully
Ready;
```

6 Obtain resource planning information for QMF NLF.

Notes:

- a. The product will **not** be loaded by the VMFINS command at this time.

vmfins install ppf 5697F4BE {QMF | QMFSFS} (plan nomemo)

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

The PLAN option indicates that VMFINS will perform requisite checking, plan system resources, and provide an opportunity to override the defaults in the product parameter file.

You can override any of the following:

- the name of the product parameter file
- the default user IDs
- minidisk/directory definitions

Notes:

- a. If you change the PPF name, a default user ID, or other parameters via a PPF override, you will need to use your changed values instead of those indicated (when appropriate), throughout the rest of the installation instructions, as well as the instructions for servicing QMF NLF. For example, you will need to specify your PPF override file name instead of 5697F4BE for certain VMSES/E commands.
- b. If you're not familiar with creating PPF overrides using VMFINS, you should review the "Using the Make Override Panel" section in Chapter 3 of the *VMSES/E Introduction and Reference* before you continue.
- c. For more information about changing the VMSYS file pool name refer to Chapter 3 in the *VMSES/E Introduction and Reference*.

```
VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5697F4BE QMF
             :PRODID 5697F4BE%QMF?
             Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5697F4BE QMF :PRODID
             5697F4BE%QMF
VMFREQ1909I 5697F4BE PLANINFO created on your A-disk
VMFREQ2805I Product :PPF 5697F4BE QMF :PRODID 5697F4BE%QMF
             has passed requisite checking
VMFINT2603I Planning for the installation of product :PPF 5697F4BE QMF
             :PRODID 5697F4BE%QMF
VMFRMT2760I VMFRMT processing started
VMFRMT2760I VMFRMT processing completed successfully
VMFINS2760I VMFINS processing completed successfully
```

Note

Complete this step only if you received message VMFREQ2806W.

If you receive the following VMFREQ2806W message, you must do some additional processing.

```
VMFREQ2806W The following requisites for product :PPF 5697F4BE QMF
:PRODID 5697F4BE%QMF are not satisfied:
```

Type	Product	Component	PTF
-----	-----	-----	-----
Requisite	5697F4BA		

This message indicates that product QMF for VM/ESA V7.2 is a pre-requisite product for QMF NLF. You need to install this pre-requisite product before continuing the install for QMF NLF.

- 7 Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *System Messages and Codes*, or use on-line HELP.

vmfview install

6.3 Allocate Resources for Installing QMF NLF

Since QMF NLF shares the same user ID, P697F4BA, and minidisks or SFS directories as QMF for VM V7.2 base product, at this time it is only necessary to make any required increases to DASD for addresses 2B2, 401, 400, 501 and 500. For the additional DASD space requirements to these 5 addresses, please refer to 5.3, "DASD Storage and User ID Requirements" on page 13.

6.4 Install QMF NLF

The *ppfname* used throughout these installation instructions is **5697F4BE**, which assumes you are using the PPF supplied by IBM for QMF NLF. If you have your own PPF override file for QMF NLF, you should use your file's *ppfname* instead of **5697F4BE**. The *ppfname* you use should be used **throughout** the rest of this procedure.

- 1 Logon to the installation user ID **P697F4BA**.
- 2 Create a PROFILE EXEC that will contain the ACCESS commands for MAINT 5E5 and 51D minidisks.

```
xedit profile exec a
====> input /**/
====> input 'access 5e5 b'
====> input 'access 51d d'
====> file
```

If either 5E5 or 51D is in a shared file system (SFS) then substitute your SFS directory name in the access command.

- 3 Run the profile to access MAINT's minidisks.

profile

- 4 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user who has it linked R/W link it as R/O. You then can issue the following commands to obtain R/W access to it.

```
link MAINT 51d 51d mr
access 51d d
```

- 5 Have the QMF NLF installation tape mounted and attached to P697F4BA at virtual address 181. The VMFINS EXEC requires the tape drive to be at virtual address 181.

- 6 Install QMF NLF.

Notes:

- a. If you've already created a PPF override file, you should specify your override file name, in place of the default PPF name (5697F4BE), after the **PPF** keyword for the following VMFINS command.
- b. You may be prompted for additional information during VMFINS INSTALL processing depending on your installation environment. If you're unsure how to respond to a prompt, refer to the "Installing Products with VMFINS" and "Install Scenarios" chapters in the *VMSES/E Introduction and Reference* to decide how to proceed.

```
vmfins install ppf 5697F4BE {QMF | QMFSFS} (nomemo nolink
```

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

The NOLINK option indicates that you don't want VMFINS to link to the appropriate minidisks, only access them if not accessed.


```

VMFINS2767I Reading VMFINS DEFAULTS B for additional options
VMFINS2760I VMFINS processing started
VMFINS2601R Do you want to create an override for :PPF 5697F4BE QMF
:PRODID 5697F4BE%QMF?
Enter 0 (No), 1 (Yes) or 2 (Exit)
0
VMFINS2603I Processing product :PPF 5697F4BE QMF :PRODID
5697F4BE%QMF
VMFREQ2805I Product :PPF 5697F4BE QMF :PRODID 5697F4BE%QMF
has passed requisite checking
VMFINT2603I Installing product :PPF 5697F4BE QMF :PRODID
5697F4BE%QMF
VMFSET2760I VMFSETUP processing started
VMFUTL2205I Minidisk|Directory Assignments:
String Mode Stat Vdev Label/Directory
VMFUTL2205I LOCALSAM E R/W 2C2 QMF2C2
VMFUTL2205I APPLY F R/W 2A6 QMF2A6
VMFUTL2205I G R/W 2A2 QMF2A2
VMFUTL2205I DELTA H R/W 2D2 QMF2D2
VMFUTL2205I BUILD0 I R/W 401 QMF401
VMFUTL2205I BUILD2 J R/W 501 QMF501
VMFUTL2205I BASE1 K R/W 2B2 QMF2B2
VMFUTL2205I SYSTEM L R/O 195 SQL195
VMFUTL2205I ----- A R/W 191 QMF191
VMFUTL2205I ----- B R/O 5E5 MNT5E5
VMFUTL2205I ----- D R/W 51D MNT51D
VMFUTL2205I ----- S R/O 190 MNT190
VMFUTL2205I ----- Y/S R/O 19E RE-19E
VMFSET2760I VMFSETUP processing completed successfully
VMFREC2760I VMFREC processing started
VMFREC1852I Volume 1 of 1 of INS TAPE 0200
VMFREC1851I (1 of 8) VMFRCAXL processing AXLIST
VMFRCX2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (2 of 8) VMFRCPTF processing PARTLST
VMFRCP2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (3 of 8) VMFRCCOM processing DELTA
VMFRCC2159I Loading 0 part(s) to DELTA 2D2 (H)
VMFREC1851I (4 of 8) VMFRCALL processing APPLY
VMFRCA2159I Loading part(s) to APPLY 2A6 (F)
VMFRCA2159I Loaded 1 part(s) to APPLY 2A6 (F)
VMFREC1851I (5 of 8) VMFRCALL processing BASE
VMFRCA2159I Loading part(s) to BASE1 2B2 (K)
VMFRCA2159I Loaded 145 part(s) to BASE1 2B2 (K)
VMFREC1851I (6 of 8) VMFRCALL processing SAMPLE
VMFRCA2159I Loading part(s) to LOCALSAM 2C2 (E)
VMFRCA2159I Loaded 1 part(s) to LOCALSAM 2C2 (E)
VMFREC1851I (7 of 8) VMFRCALL processing BUILD400
VMFRCA2159I Loaded 68 part(s) to BUILD0 401 (I)
VMFREC1851I (8 of 8) VMFRCALL processing BUILD500
VMFRCA2159I Loading part(s) to BUILD2 501 (J)
VMFRCA2159I Loaded 29 part(s) to BUILD2 501 (J)
VMFREC2760I VMFREC processing completed successfully
VMFINT2603I Product installed
VMFINS2760I VMFINS processing completed successfully

```

Note

Note: The above console example is based on a SBCS (Single Byte Character Set) NLF installation. For a DBCS (Double Byte Character Set) NLF installation, the numbers vary slightly. The following differences should be observed:

- VMFRCA2159I Loaded **141** part(s) to BASE1 2B2 (K)
- VMFRCA2159I Loaded **64** part(s) to BUILD0 401 (I)

- 7** Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview install

6.4.1 Update Build Status Table for QMF NLF

- 1** Update the VM SYSBLDS software inventory file for QMF NLF.

vmfins build ppf 5697F4BE {QMF | QMFSFS} (serviced nolink

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

The SERVICED option will build any parts that were not built on the installation tape (if any) and update the Software Inventory build status table showing that the product 5697F4BE has been built.

- 2** Review the install message log (\$VMFINS \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *System Messages and Codes*, or use on-line HELP.

vmfview install

6.5 Place QMF NLF Into Production

6.5.1 Define and Build the QMF NLF Saved Segments Using VMSES/E

It is recommended that segments be built for QMF NLF. First the segments are defined to the system using the segment mapping tool VMFSGMAP. Once the segments are defined VMFBLD is used to build them.

For more information on using VMSES/E for saved segments, review the chapter, "Using VMSES/E to Define, Build, and Manage Saved Segments" in the *VM Planning and Administration* manual.

Note: The defining and building of the QMF NLF saved segments should be performed from the installation user ID. If you move any segments that are currently defined on your system you must ensure that they are rebuilt from the user ID that maintains them.

- 1** Logon to the installation user ID **P697F4BA**.
- 2** Establish write access to the VMSES/E and software inventory disks.

```
link MAINT 51d 51d mr  
access 51d d
```

- 3** Add QMF NLF segment object definitions to the SEGBLIST EXC00000 build list.

```
vmfsgmap segbld esasegs segblist
```

This command displays a panel for making segment updates. See Figure 14 on page 24 for an example of the Segment Map panel that will be displayed.

```

VMFSGMAP - Segment Map
More: +
Lines 1 to nn of nn

Meg          000-MB      001-MB      002-MB      003-MB
St Name      Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
M CMS        SYS W-W-----1.....2.....3.....
M GCS        SYS W-----1.....2.....3.....

Meg          004-MB      005-MB      006-MB      007-MB
St Name      Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
CMSPIPES    DCS 4.....5.....6.....RRRR-----
M GCS        SYS RRRRRNNNNNNNNNNNNNNNNNNNNNNNNNNNN6.....7.....
M HLASM      DCS 4.....5.....RRRRRRRRRRRRRRR7.....

Meg          008-MB      009-MB      00A-MB      00B-MB
St Name      Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
DOSBAM      SPA 8.....9.....A.....=====
CMSBAM      MEM 8.....9.....A.....BRRR.....
CMSDOS      MEM 8.....9.....A.....R.....
CMSVLIB     DCS RRRRRRRRRRRRRRR9.....A.....B.....
DOSINST     DCS 8.....R-----A.....B.....

Meg          00C-MB      00D-MB      00E-MB      00F-MB
St Name      Typ 0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
HELPIINST   DCS RRRRRRRRRRRRRRD.....E.....F.....
M CMS        SYS C.....D.....RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR>

===== 16-MB Line =====

          010-MB      011-MB      012-MB      013-MB
F1=Help     F2=Chk Obj  F3=Exit    F4=Chg Obj  F5=File    F6=Save
F7=Bkwd     F8=Fwd     F9=Retrieve F10=Add Obj F11=Del Obj F12=Cancel
====> _

```

Figure 14. Segment Map panel example.

4 Go to Add Segment Definition panel by pressing PF10.

F10

F10 takes you from the Segment Map panel to the Add Segment Definition panel. See Figure 15 on page 25 to see the Add Segment Definition panel that will be displayed.

```

                                Add Segment Definition
                                Lines 1 to nn of nn

OBJNAME.....: QMF720U
DEFPARMS....:
SPACE.....:
TYPE.....: SEG
OBJDESC....:
OBJINFO....:
GT_16MB....: NO
DISKS.....:
SEGREQ.....:
PROPID.....: 5697F4BE QMF
BLDPARMS...: UNKNOWN

F1=Help      F2=Get Obj   F3=Exit      F4=Add Line  F5=Map       F6=Chk MEM
F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Seginfo F11=Adj MEM  F12=Cancel
====>

```

Figure 15. Add Segment Definition panel example.

- 5 Obtain the QMF NLF segment definitions from the PRODPART file by filling in the appropriate fields on the add segment definition panel.

OBJNAME.....: **QMF720U**
 PROPID.....: **5697F4BE QMF**

Use **QMF** for building segments from a minidisk or **QMFSFS** for building segments from SFS directories.

F10

F10 will obtain the QMF NLF segment information from the 5697F4BE PRODPART file. See Figure 16 on page 26 for the refreshed Add Segment definition panel that will be displayed.

```

                                Add Segment Definition
                                More: +
                                Lines 1 to nn of nn

OBJNAME....: QMF720U
DEFPARMS...: 1B00-1DFF SR
SPACE.....:
TYPE.....: SEG
OBJDESC....: QMF DCSS
OBJINFO....: Do not overlap DB2 and GDDM® base segments. You must
              : link to these product at addresses listed below while
              : building the QMF DCSS.
GT_16MB....: YES
DISKS.....: 195 194
SEGREQ.....:
PROPID....: 5697F4BE QMF
BLDPARMS...: PPF(5697F4BE QMF DSQ2UBSG

VMFSMD2760I SEGINFO processing completed SUCCESSFULLY

F1=Help      F2=Get Obj   F3=Exit      F4=Add Line  F5=Map      F6=Chk MEM
F7=Bkwd     F8=Fwd       F9=Retrieve  F10=Seginfo F11=Adj MEM F12=Cancel
====>

```

Figure 16. Add Segment Definition panel showing the new segments

At this point you can modify the segment definition by updating the Add Segment Definition panel. Some things to keep in mind are:

- a. You must be linked to the DB2 for VM production disk and to the GDDM base production (TXTLIB) disk when you load the QMF NLF shared segment. The cuu addresses (or SFS directories) must be specified in the DISKS field in the panel above. The default address for the DB2 for VM production disk is 195. The default address for the GDDM base production (TXTLIB) disk is 194. If you are using MAINT 19E as the GDDM production disk, remove the 194 entry from the DISKS field.
- b. If you have your own PPF override then you need to change the BLDPARMS field to reflect this.
- c. The QMF NLF DCSS should not overlap the DCSS of the QMF NLF interface products, (ie. GDDM, DB2 for VM, ISPF).

6 Go back to the Segment Map panel.

ipl cms parm clear nosprof instseg no

IPL CMS to clear your virtual machine. This command bypasses the execution of the system profile (SYSPROF EXEC) and without loading the installation saved segment (CMSINST).

**** DO NOT press ENTER at the VM READ!****

access (nosprof

Bypass the execution of the PROFILE EXEC.

b Access the VMSES/E code

access 5e5 b

c Establish write access the Software Inventory Disk

**link MAINT 51d 51d mr
access 51d d**

d You must be linked to the DB2 for VM production disk and to the GDDM base production (TXTLIB) disk to load the QMF NLF shared segment. The default addresses are 195 for DB2 for VM and 194 for GDDM. These were specified in the Add Segment Definition panel. Link to your DB2 for VM and GDDM disks at the address you specified on the Add Segment Definition Panel.

link sqlmach 195 195 rr

link p68416a 401 194 rr

If GDDM is using the MAINT 19E for its production disk, then do not issue the link for the 194 disk; nor a link for MAINT 19E as it should already be linked.

9 Issue VMFBLD command to build the QMF NLF segments.

vmfbld ppf segbld esasegs segblist QMF720U (serviced

Note: If you received the message:

VMFBDS2003W The SYSTEM SEGID D(51D) file has been changed and must be moved to the S disk.

then the SYSTEM SEGID file on the CMS system disk (MAINT 190) and CMS test system disk (MAINT 490) must be updated. You need to log on to your MAINT user ID and copy the SYSTEM SEGID file from the MAINT 51D disk to the MAINT 190 and MAINT 490 disks. (The SYSTEM SEGID must have a filemode of 2.)

6.5.2 Copy QMF NLF Files Into Production

- 1 Logon to the installation user ID **P697F4BA**.
- 2 To copy QMF NLF Test Distribution files to the QMF NLF Distribution disk when installing using minidisks:

```
access 501 e
access 500 f
vmfcopy ** e = f (prodid 5697F4BE%QMF olddate replace
```

The VMFCOPY command will update the VMSES PARTCAT file on the 500 distribution disk.

Note: When installing using Shared File System directories instead of the **access 501 e** and **access 500 f** do **access P697F4BA.qmf.tdistrib e** and **access P697F4BA.qmf.distrib f**.

- 3 To copy QMF NLF Test Production files to the QMF NLF Production disk when installing using minidisks:

```
access 401 e
access 400 f
vmfcopy ** e = f (prodid 5697F4BE%QMF olddate replace
```

The VMFCOPY command will update the VMSES PARTCAT file on the 400 production disk.

Note: When installing using Shared File System directories instead of the **access 401 e** and **access 400 f** do **access P697F4BA.qmf.tqmfprod e** and **access P697F4BA.qmf.qmfprod f**.

QMF NLF is now installed and built on your system.

6.6 Post-Installation Considerations

Now that you have completed the VMSES/E installation of QMF NLF V7.2 and built the QMF DCSS, you must follow the steps in *Installing and Managing QMF* (GC27-0720) to install QMF NLF V7.2 into the DB2 for VM database and run the IVP. *Installing and Managing QMF*, GC27-0720, also contains information on starting QMF NLF.

7.0 Service Instructions

This section of the Program Directory contains the procedure to install CORrective service to QMF NLF. VMSES/E is used to install service for QMF NLF.

To become more familiar with service using VMSES/E, you should read the introductory chapters in the *VMSES/E Introduction and Reference*. This manual also contains the command syntax for the VMSES/E commands listed in the procedure.

Note: Each step of the servicing instructions must be followed. Do not skip any step unless directed to do so. All instructions showing accessing of disks assume the use of default minidisk addresses. If different minidisk addresses are used, or if using a shared file system, change the instructions appropriately.

Important NLF Note

In the following service process the **PPFNAME** and the **PRODID** are referred to as **5697F4BE**. For each language installation, it is necessary to replace **5697F4BE** with the appropriate PPFNAME and PRODID assigned for that National Language Feature. The QMF saved segment (**DCSS**) name is referred to as **QMF720U**. For each language installation, it is necessary to replace **QMF720U** with the appropriate DCSS name assigned for that National Language Feature. Please refer to 1.2, "National Language Feature Identifications" on page 2 for the appropriate values assigned to each National Language Feature provided with QMF Version 7.

7.1 VMSES/E Service Process Overview

The following is a brief description of the main steps in servicing QMF NLF using VMSES/E.

- Setup Environment
Access the software inventory disk. Use VMFSETUP command to establish the correct minidisk access order.
- Merge Service
Use the VMFMRDSK command to clear the alternate apply disk before receiving new service. This allows you to remove the new service if a serious problem is found.
- Receive Service
The VMFREC command receives service from the delivery media and places it on the Delta disk.
- Apply Service
The VMFAPPLY command updates the version vector table (VVT), which identifies the service level of all the serviced parts. In addition, AUX files are generated from the VVT for parts that require them.
- Reapply Local Service (if applicable)

All local service (mods) must be entered into the software inventory to allow VMSES/E to track the changes and build them into the system. Refer to Chapter 7 in the *Service Guide* for this procedure.

- Build New Levels

The build task generates the serviced level of an object and places the new object on a test BUILD disk.

- Place the New Service into Production

Once the service is satisfactorily tested it should be put into production by copying the new service to the production disk, re-saving the NSS (Named Saved System) or DCSS (Discontiguous Saved Segments), etc.

7.2 Servicing QMF NLF

7.2.1 Prepare to Receive Service

Electronic Service (envelope file)

If you have received the service electronically or on CD-ROM, follow the appropriate instructions to retrieve and decompress the envelope file to your A-disk. The decompression is currently done by using the DETERSE MODULE. The file names of the decompressed files will be of the format:

- VLST*num* for the documentation envelope
- VPTF*num* for the service envelope

The file type for both of these files must be SERVLINK. You will need to enter the file name on the VMFREC commands that follow.

The *ppfname* used throughout these servicing instructions is **5697F4BE**, which assumes you are using the PPF supplied by IBM for QMF NLF. If you have your own PPF override file for QMF NLF, you should use your file's *ppfname* instead of **5697F4BE**. The *ppfname* you use should be used **throughout** the rest of this procedure, unless otherwise stated differently.

1 Logon to QMF NLF service user ID **P697F4BA**

2 If the Software Inventory disk (51D) was accessed R/O (read only) then establish write access to the Software Inventory disk.

Note: If the MAINT 51D minidisk was accessed R/O, you will need to have the user that has it accessed R/W link it R/O. You then can issue the following commands to obtain R/W access to it.

**link MAINT 51d 51d mr
access 51d d**

The 51D minidisk is where the VMSES/E Software Inventory files and other product dependent files reside.

3 Have the QMF NLF CORrective service tape mounted and attached to **P697F4BA**. (If you have a SERVLINK file make sure that it is available on the A-disk.)

4 Receive the documentation.

a If receiving the service from tape

vmfrec info

The INFO option loads the documentation (including the product service memo) to the 191 disk and displays a list of products on the tape.

b If receiving the service from an envelope file

vmfrec info (env vlstnum

The INFO option loads the documentation (including the product service memo) to the 191 disk and displays a list of products on the tape.

5 Check the receive message log (\$VMFREC \$MSGLOG) for warning and error messages.

vmfview receive

Also make note of which products and components have service on the tape. To do this, use the PF5 key to show all status messages which identify the products on the tape.

6 Read the product memo (5697F4BE MEMO) before going on.

7 Setup the correct product access order.

vmfsetup 5697F4BE {QMF | QMFSFS}

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

8 Merge previously applied service to ensure that you have a clean alternate APPLY disk for new service.

vmfmrdsk 5697F4BE {QMF | QMFSFS} apply

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

This command clears the alternate APPLY disk.

- 9 Review the merge message log (\$VMFMRD \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview mrd

7.2.2 Receive the Service

Note: If you are installing multiple service tapes, you can receive all of the service for this prodid before applying and building it.

For **each** service tape or electronic envelope you want to receive, do the following:

- 1 Receive the service.
 - a If receiving the service from tape

vmfrec ppf 5697F4BE {QMF | QMFSFS}

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

This command receives service from your service tape. All new service is loaded to the DELTA disk.

- b If receiving the service from the PTF envelope file

vmfrec ppf 5697F4BE {QMF | QMFSFS} (env vptfnum

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

This command receives service from your service envelope. All new service is loaded to the DELTA disk.

- 2 Review the receive message log (\$VMFREC \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview receive

7.2.3 Apply the Service

- 1 Apply the new service.

vmfapply ppf 5697F4BE {QMF | QMFSFS}

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

This command applies the service that you just received. The version vector table (VVT) is updated with all serviced parts and all necessary AUX files are generated on the alternate APPLY disk.

You must review the VMFAPPLY message log if you receive a return code (RC) of a 4, as this may indicate that you have local modifications that need to be reworked.

- 2 Review the apply message log (\$VMFAPP \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview apply

Note

If you get the message VMFAPP2120W then re-apply any local modifications before building the new QMF NLF. Refer to chapter 7 in the *Service Guide*. Follow the steps that are applicable to your local modification.

The following substitutions need to be made:

- **esa** or **zvm** should be **5697F4BE**
- *compname* should be **QMF** or **QMFSFS** (minidisk or SFS)
- *appid* should be **5697F4BE**
- *fm-local* should be the fm of 2C2
- *fm-applyalt* should be the fm of 2A6
- **outmode localmod** should be **outmode localsam**

If you have changed any of the installation parameters through a PPF override, you need to substitute your changed values where applicable.

Keep in mind that when you get to the "Return to the Appropriate Section to Build Remaining Objects" or "Rebuild Remaining Objects" step in the VM *Service Guide*, you should return back to this program directory at 7.2.4, "Update the Build Status Table" on page 35.

7.2.4 Update the Build Status Table

- 1 Update the Build Status Table with serviced parts.

vmfbld ppf 5697F4BE {QMF | QMFSFS} (status

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

This command updates the Build Status Table.

Note

If the \$PPF files have been serviced you will get the following prompt:

VMFBLD2185R The following source product parameter files have been serviced:
VMFBLD2185R 5697F4BE \$PPF
VMFBLD2185R When source product parameter files are serviced, all product parameter files built from them must be recompiled using VMFPPF before VMFBLD can be run.
VMFBLD2185R Enter zero (0) to have the serviced source product parameter files built to your A-disk and exit VMFBLD so you can recompile your product parameter files with VMFPPF.
VMFBLD2185R Enter one (1) to continue only if you have already recompiled your product parameter files with VMFPPF.

0 Enter a 0 and complete the following steps before you continue.

VMFBLD2188I Building 5697F4BE \$PPF
on 191 (A) from level \$PFnnnnn

vmfppf 5697F4BE *

Note: If you've created your own PPF override then use your PPF name instead of 5697F4BE.

**copyfile 5697F4BE \$PPF a = = d (olddate replace
erase 5697F4BE \$PPF a**

Note: **Do not** use your own PPF name in place of 5697F4BE for the COPYFILE and ERASE commands.

vmfbl d ppf 5697F4BE {QMF | QMFSFS} (status

1

Re-issue VMFBLD to complete updating the build status table.

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories. When you receive the prompt that was previously displayed, enter a 1 to continue.

2 Use VMFVIEW to review the build status messages, and see what objects need to be built.

vmfview build

7.2.5 Build Serviced Objects

- 1 Rebuild QMF NLF serviced parts.

vmfbld ppf 5697F4BE {QMF | QMFSFS} (serviced

Use **QMF** for installing on minidisks or **QMFSFS** for installing in Shared File System directories.

Note: If your software inventory disk (51D) is not owned by the MAINT user ID then make sure the VMSESE PROFILE reflects the correct owning user ID.

- 2 Review the build message log (\$VMFBLD \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview build

7.3 Place the New QMF NLF Service Into Production

7.3.1 Rebuild the Saved Segments

Note: Before saving the QMF DCSS, QMF720U, you can build a test DCSS. The commands to do this for a test DCSS called QMF720T are below. You must be linked to the DB2 for VM 195 disk as 195 and the GDDM production disk as 194.

- VMLINK SQLDBA 195 <195
- VMLINK GDDM <194
- DEFSEG QMF720T 1B00-1DFF SR
- DSQ2ESEG QMF720T

You can test the QMF720T DCSS by using the test QMF libraries and the test DCSS.

Once satisfied with the test, you can then save the production DCSS, QMF720U, using the process below.

- 1 Prepare to build the segments.

a IPL CMS to clear the virtual storage

ipl cms parm clear nosprof instseg no

**** DO NOT press ENTER at the VM READ!****

IPL CMS to clear your virtual machine. This command bypasses the execution of the system profile (SYSPROF EXEC) and without loading the installation saved segment (CMSINST).

access (nosprof

Bypass the execution of the PROFILE EXEC.

b Access the VMSES/E code

access 5e5 b

c Establish write access the Software Inventory Disk

link MAINT 51d 51d mr

access 51d d

d You must be linked to the DB2 for VM production disk and to the GDDM base production (TXTLIB) disk to load the QMF NLF shared segment. The default addresses are 195 for DB2 for VM and 194 for GDDM. These were specified in the Add Segment Definition panel. Link to your DB2 for VM and GDDM disks at the address you specified on the Add Segment Definition Panel.

link sqlmach 195 195 rr

link p68416a 401 194 rr

If GDDM is using the MAINT 19E for its production disk, then do not issue the link for the 194 disk; nor a link for MAINT 19E as it should already be linked.

e Re-save the QMF NLF segments.

vmfbld ppf segbld esasegs segbld QMF720U (serviced

Note: If you received the message:

VMFBDS2003W The SYSTEM SEGID D(51D) file has been changed and must be moved to the S disk.

then the SYSTEM SEGID file on the CMS system disk (MAINT 190) and CMS test system disk (MAINT 490) must be updated. You need to log on to

your MAINT user ID and copy the SYSTEM SEGID file from the MAINT 51D disk to the MAINT 190 and MAINT 490 disks.

- 2 Review the build message log (\$VMFBLD \$MSGLOG). If necessary, correct any problems before going on. For information about handling specific error messages, see *VM System Messages and Codes*, or use on-line HELP.

vmfview build

7.3.2 Copy the New QMF NLF Serviced Files Into Production

- 1 Logon to the installation user ID **P697F4BA**.
- 2 To copy QMF NLF Test Distribution files to the QMF NLF Distribution disk when installing using minidisks:

access 501 e

access 500 f

vmfcopy * * e = f (prodid 5697F4BE%QMF olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the 500 distribution disk.

Note: When installing using Shared File System directories instead of the **access 501 e** and **access 500 f** do **access P697F4BA.qmf.tdistrib e** and **access P697F4BA.qmf.distrib f**.

- 3 To copy QMF NLF Test Production files to the QMF NLF Production disk when installing using minidisks:

access 401 e

access 400 f

vmfcopy * * e = f (prodid 5697F4BE%QMF olddate replace

The VMFCOPY command will update the VMSES PARTCAT file on the 400 production disk.

Note: When installing using Shared File System directories instead of the **access 401 e** and **access 400 f** do **access P697F4BA.qmf.tqmfprod e** and **access P697F4BA.qmf.qmfprod f**.

You have finished servicing QMF NLF.

Appendix A. Create Product Parameter File (PPF) Override

This section provides information to help you create a product parameter file (PPF) override. The example used in this section shows how to change the shared file system (SFS) file pool where QMF NLF files reside.

Note: Do **not** modify the product supplied 5697F4BE \$PPF or 5697F4BE PPF files to change the file pool name or any other installation parameters. If the 5697F4BE \$PPF file is serviced, the existing \$PPF file will be replaced, and any changes to that file will be lost; by creating your own \$PPF override, your updates will be preserved.

The following process describes changing the default file pool name, VMSYS, to MYPOOL1:

- 1 Create a new \$PPF override file, or edit the override file created via the 'Make Override Panel' function.

xedit *overname* \$PPF *fm*2

overname is the PPF override file name (such as 'myqmf') that you want to use.

fm is an appropriate file mode. If you create this file yourself, specify a file mode of A.

If you modify an existing override file, specify a file mode of A or D, based on where the file currently resides (A being the file mode of a R/W 191 minidisk, or equivalent; D, that of the MAINT 51D minidisk).

- 2** Create (or modify as required) the Variable Declarations (:DCL.) section for the qmfsfs override area, so that it resembles the :DCL. section shown below. This override will be used for the installation of QMF NLF. Modifications needed are denoted in **boldprint**.

```

:OVERLST. QMFSFS
*
* ===== *
* Override Section for Initial Installation (Using SFS Directories) *
* ===== *
*
:QMFSFS. QMFSFS 5697F4BE
:DCL. REPLACE
&INST191 DIR MYP00L1:P697F4BA.
&SAMPZ DIR MYP00L1:P697F4BA.QMF.SAMPLE
&DELTZ DIR MYP00L1:P697F4BA.QMF.DELTA
&APPLX DIR MYP00L1:P697F4BA.QMF.APPLYALT
&APPLZ DIR MYP00L1:P697F4BA.QMF.APPLYPROD
&BAS1Z DIR MYP00L1:P697F4BA.QMF.OBJECT
&BLD0Z DIR MYP00L1:P697F4BA.QMF.TQMFPROD
&DISK9 DIR MYP00L1:P697F4BA.QMF.TDISTRIB
&BLD1Z DIR MYP00L1:P697F4BA.QMF.QMFPROD
&DISK10 DIR MYP00L1:P697F4BA.QMF.DISTRIB
&QMFID1 USER P697F4BA
:EDCL.
:END.
*

```

(This override will replace the :DCL. section of the qmfsfs override area of the 5697F4BE \$PPF file.)

- 3** If your \$PPF override file was created at file mode A, copy it to file mode D—the Software Inventory minidisk (MAINT 51D). Then erase it from file mode A.

file

copyfile *overname* \$PPF *fm* = = d (olddate)

erase *overname* \$PPF *fm*

- 4** Compile your changes to create the usable *overname* PPF file.

vmfppf *overname* **QMFSFS**

where *overname* is the file name of your \$PPF override file.

Now that the *overname* PPF file has been created, you should specify *overname* instead of 5697F4BE as the PPF name to be used for those VMSES/E commands that require a PPF name.

Notices

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described 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:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes to the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
Mail Station P300
2455 South Road
Poughkeepsie, NY 12601-5400
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same

on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities on non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the IBM programming interfaces. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.

Trademarks and Service Marks

The following terms are trademarks of the International Business Machines Corporation (IBM) in the United States, or other countries, or both:

IBM
VM/ESA
z/VM
IBMLink
QMF
DB2
GDDM

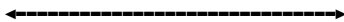
Other company, product, and service names may be trademarks or service marks of others.

Reader's Comments

Query Management Facility National Language Feature for VM/ESA National Language Feature Version 7 Release 2.0.

You may use this form to comment about this document, its organization, or subject matter. Please understand that your feedback is of importance to IBM, but IBM makes no promises to always provide a response to your feedback.

For each of the topics below please indicate your satisfaction level by circling your choice from the rating scale. If a statement does not apply, please circle N.

RATING SCALE						
very satisfied					very dissatisfied	not applicable
1	2	3	4	5	N	

	Satisfaction					
	1	2	3	4	5	N
Ease of product installation	1	2	3	4	5	N
Time required to install the product	1	2	3	4	5	N
Contents of program directory	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
Installation verification procedure	1	2	3	4	5	N
Ease of customizing the product	1	2	3	4	5	N
Ease of migrating the product from a previous release	1	2	3	4	5	N
Ease of putting the system into production after installation	1	2	3	4	5	N
Ease of installing service	1	2	3	4	5	N

- Did you order this product as an independent product or as part of a package?

- Independent
- Package

What type of package was ordered?

- System Delivery Offering (SDO)
- Other - Please specify type: _____

- 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 VM products using VMSES/E?
 - Yes
 - How many years of experience do they have? _____
 - No
- How long did it take to install this product? _____
- If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

Please provide the following contact information:

Name and Job Title

Organization

Address

Telephone

Thank you for your participation.

Please send the completed form to the following address, or give to your IBM representative who will forward it to the Query Management Facility National Language Feature Development group:

IBM Corporation
 P. O. Box 49023
 San Jose, CA 95161-9023
 Attention: QMF Department, J49



Program Number: 5697-F42

Printed in U.S.A.

G110-8331-01

