

Program Directory for IBM MQSeries for MVS/ESA

Version 1 Release 2, Modification Level 0

Program Number 5695-137

FMID HML7130

for use with MVS/ESA

Document Date: January 1998

xxxx-yyyy-zz

- Note! -

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

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1.0 Introduction

This program directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of IBM MQSeries for MVS/ESA. This publication refers to IBM MQSeries for MVS/ESA as MQSeries for MVS/ESA. 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 MQSeries for MVS/ESA.
- 3.0, "Program support" on page 9 describes the IBM support available for MQSeries for MVS/ESA.
- 4.0, "Program and service level information" on page 11 lists the APARs (program level) and PTFs (service level) incorporated into MQSeries for MVS/ESA.
- 5.0, "Installation requirements and considerations" on page 13 identifies the resources and considerations for installing and using MQSeries for MVS/ESA.
- 6.0, "Installation instructions" on page 23 provides detailed installation instructions for MQSeries for MVS/ESA. It also describes the procedures for activating the functions of MQSeries for MVS/ESA, or refers to appropriate publications.
- Appendix A, "MQSeries for MVS/ESA installation logic" on page 48 provides the install logic for MQSeries for MVS/ESA.

Before installing MQSeries for MVS/ESA, read 3.2, "Preventive service planning" on page 9. This section tells you how to find any updates to the information and procedures in this program directory.

Do not use this program directory if you are installing MQSeries for MVS/ESA with an MVS Custom-Built Installation Process Offering (CBIPO), SystemPac, or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the program directory as required.

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

1.1 MQSeries for MVS/ESA FMIDs

MQSeries for MVS/ESA consists of the following FMIDs:

HML7130 JML7131 JML7132 JML7133 JML7134 JML7135 JML7136 JML7138 JML7139 JML7140 JML7141 JML7142 JML7143

An IBM program is identified by a program number and a feature number. The program number for MQSeries for MVS/ESA is 5695-137.

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

The program announcement material describes the features supported by MQSeries for MVS/ESA. 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 9-track magnetic tape (written at 6250 BPI), 3480 cartridge, 3590 cartridge, or 4mm cartridge. The tape or cartridge contains all the programs and data needed for installation. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation instructions" on page 23 for more information about how to install the program.

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

Note: If you are installing MQSeries for MVS/ESA using the MVS Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), some of the information in these figures may not be valid. Consult the CBPDO documentation for actual values.

Figure 1. B	Figure 1. Basic Material: Program Tape					
Medium	Feature Number	Physical Volume	External Label Identification	VOLSER		
6250 tape	5811	1	MQS MVS/ESA 1.2	ML7130		
3480 cart.	5812	1	MQS MVS/ESA 1.2	ML7130		
4mm DAT	5337	1	MQS MVS/ESA 1.2	ML7130		

Figure 2 (Page 1 of 3). Program tapes: file content							
VOLSER	File	Name	RECFM	LRECL	BLK SIZE	Number of Elements	
ML7130	1	SMPMCS	FB	80	8800	1	
	2	IBM.HML7130.F1	FB	80	8800	1	
	3	IBM.HML7130.F2	FB	80	8800	25	

Figure 2 (Page 2 of 3). Program tapes: file content						
VOLSER	File	Name	RECFM	LRECL	BLK SIZE	Number of Elements
	4	IBM.HML7130.F3	FB	80	8800	50
	5	IBM.HML7130.F4	U	0	6144	2660
	6	IBM.HML7130.F5	FB	80	8800	57
	7	IBM.HML7130.F6	FB	80	8800	23
	8	IBM.HML7130.F7	FB	80	8800	8
	9	IBM.HML7130.F8	FB	80	8800	23
	10	IBM.HML7130.F9	FB	80	8800	42
	11	IBM.HML7130.F10	FB	80	8800	15
	12	IBM.HML7130.F11	FB	80	8800	4
	13	IBM.HML7130.F12	FB	80	8800	1
	14	IBM.HML7130.F13	FB	80	8800	6
	15	IBM.HML7130.F14	FB	80	8800	9
	16	IBM.HML7130.F15	FB	80	8800	15
	17	IBM.HML7130.F16	FB	80	8800	3
	18	IBM.HML7130.F17	FB	80	8800	30
	19	IBM.JML7133.F1	FB	80	8800	1
	20	IBM.JML7133.F2	U	0	6144	22
	21	IBM.JML7143.F1	FB	80	8800	1
	22	IBM.JML7143.F2	U	0	6144	9
	23	IBM.JML7131.F1	FB	80	8800	1
	24	IBM.JML7131.F2	U	0	6144	36
	25	IBM.JML7131.F3	FB	80	8800	17
	26	IBM.JML7131.F4	FB	80	8800	443
	27	IBM.JML7131.F5	FB	80	8800	2
	28	IBM.JML7132.F1	FB	80	8800	1
	29	IBM.JML7132.F2	U	0	6144	43
	30	IBM.JML7132.F3	FB	80	8800	17
	31	IBM.JML7132.F4	FB	80	8800	446
	32	IBM.JML7132.F5	FB	80	8800	2
	33	IBM.JML7134.F1	FB	80	8800	1
	34	IBM.JML7134.F2	U	0	6144	43

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Figure 2 (Page 3 of 3). Program tapes: file content						
VOLSER	File	Name	RECFM	LRECL	BLK SIZE	Number of Elements
	35	IBM.JML7134.F3	FB	80	8800	17
	36	IBM.JML7134.F4	FB	80	8800	442
	37	IBM.JML7134.F5	FB	80	8800	2
	38	IBM.JML7135.F1	FB	80	8800	1
	39	IBM.JML7135.F2	U	0	6144	36
	40	IBM.JML7135.F3	FB	80	8800	17
	41	IBM.JML7135.F4	FB	80	8800	435
	42	IBM.JML7135.F5	FB	80	8800	2
	43	IBM.JML7138.F1	FB	80	8800	1
	44	IBM.JML7138.F2	U	0	6144	3
	45	IBM.JML7140.F1	FB	80	8800	1
	46	IBM.JML7140.F2	U	0	6144	1
	47	IBM.JML7141.F1	FB	80	8800	1
	48	IBM.JML7141.F2	U	0	6144	1
	49	IBM.JML7142.F1	FB	80	8800	1
	50	IBM.JML7142.F2	U	0	6144	1
	51	IBM.JML7139.F1	FB	80	8800	1
	52	IBM.JML7139.F2	U	0	6144	1

2.2 Optional machine-readable material

The following optional language features are supplied on the same tape as the base product and U.S. English (mixed case) language feature.

- Japanese, FMIDs JML7132 and JML7141
- Simplified Chinese, FMIDs JML7134 and JML7142

The feature numbers for these languages are shown in Figure 3 and Figure 4 on page 6.

U.S. English (uppercase) features are also provided on the base tape; the FMIDs for these features are JML7135 and JML7139.

Figure 3. Optional material (Japanese): program tapes							
Medium	Feature Number	Physical Volume	External Label Identification	VOLSER			
6250 tape	5821	1	MQS MVS/ESA 1.2	ML7130			
3480 cart.	5822	1	MQS MVS/ESA 1.2	ML7130			
4mm DAT	6180	1	MQS MVS/ESA 1.2	ML7130			

Figure 4. Optional material (simplified Chinese): program tapes						
Medium	Feature Number	Physical Volume	External Label Identification	VOLSER		
6250 tape	6181	1	MQS MVS/ESA 1.2	ML7130		
3480 cart.	6182	1	MQS MVS/ESA 1.2	ML7130		
4mm DAT	6183	1	MQS MVS/ESA 1.2	ML7130		

2.2.1 Client attachment feature

Figure 5. Client attachment feature: program tape					
Medium	Feature Number	Physical Volume	External Label Identification	VOLSER	
6250 tape	6004	1	CLIENT FEATURE 120	ML7136	
3480 cart.	6005	1	CLIENT FEATURE 120	ML7136	
4mm DAT	6085	1	CLIENT FEATURE 120	ML7136	

Figure 6. Client attachment feature: file content							
VOLSER	File	Name	RECFM	LRECL	BLK SIZE	Number of Elements	
ML7136	1	SMPMCS	FB	80	8800	1	
	2	IBM.JML7136.F1	FB	80	8800	1	
	3	IBM.JML7136.F2	U	0	6144	1	

2.3 **Program publications**

The following sections identify the basic and optional publications for MQSeries for MVS/ESA.

2.3.1 Basic program publications

Figure 7 identifies the basic unlicensed program publications for MQSeries for MVS/ESA. One copy of each of these publications is included when you order the basic materials for MQSeries for MVS/ESA. For additional copies, contact your IBM representative.

Figure 7. Basic material: unlicensed publications					
Publication Title	Form Number				
MQSeries for MVS/ESA System Management Guide	SC33-0806				
MQSeries Application Programming Guide	SC33-0807				
MQSeries for MVS/ESA Problem Determination Guide	GC33-0808				
MQSeries for MVS/ESA Messages and Codes	GC33-0819				
MQSeries Intercommunication	SC33-1872				
MQSeries Application Programming Reference	SC33-1673				
MQSeries Planning Guide	GC33-1349				
MQSeries for MVS/ESA Licensed Program Specifications	GC33-1350				
MQSeries Command Reference	SC33-1369				
MQSeries Programmable System Management	SC33-1482				
MQSeries Clients	GC33-1632				
MQSeries Application Programming Reference Summary	SX33-6095				
Transaction Processing and Data Collection (CD)	SK2T-0730				

2.3.2 Optional program publications

No optional publications are provided for MQSeries for MVS/ESA.

2.4 Program source materials

No program source materials or viewable program listings are provided for MQSeries for MVS/ESA.

2.5 Publications useful during installation

No additional publications are provided for MQSeries for MVS/ESA.

3.0 Program support

This section describes the IBM support available for MQSeries for MVS/ESA.

3.1 Program services

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

3.2 Preventive service planning

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

If you obtained MQSeries for MVS/ESA on a product tape, or if the CBPDO is more than two weeks old when you install it, you should contact the IBM Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for MQSeries for MVS/ESA are:

Figure 8. PSF	PUpgrade and Subset ID	
UPGRADE	SUBSET	Description
MQMESA	HML7130	Base program
MQMESA	JML7131	U.S. English (mixed case)
MQMESA	JML7132	Japanese
MQMESA	JML7133	IBM TCP/IP
MQMESA	JML7134	Simplified Chinese
MQMESA	JML7135	U.S. English (uppercase)
MQMESA	JML7136	Client attachment
MQMESA	JML7138	MQSeries-CICS bridge base function
MQMESA	JML7139	CICS bridge - U.S. English (uppercase)
MQMESA	JML7140	CICS bridge - U.S. English (mixed case)
MQMESA	JML7141	CICS bridge - Japanese
MQMESA	JML7142	CICS bridge - Simplified Chinese
MQMESA	JML7143	Interlink SNS/TCPaccess

3.3 Statement of support procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent.

Figure 9 on page 10 identifies the component IDs (COMPID) for MQSeries for MVS/ESA.

Figure 9. Co	mponent IDs						
	EMID COMPID Component Name						
FMID	COMPID	Component Name	Release				
HML7130	569513700	Base program	120				
JML7131	569513700	U.S. English (mixed case)	120				
JML7132	569513700	Japanese	120				
JML7133	569513700	IBM TCP/IP	120				
JML7134	569513700	Simplified Chinese	120				
JML7135	569513700	U.S. English (uppercase)	120				
JML7136	569513700	Client attachment	120				
JML7138	569513700	MQSeries-CICS bridge base function	120				
JML7139	569513700	CICS bridge - U.S. English (uppercase)	120				
JML7140	569513700	CICS bridge - U.S. English (mixed case)	120				
JML7141	569513700	CICS bridge - Japanese	120				
JML7142	569513700	CICS bridge - Simplified Chinese	120				
JML7143	569513700	Interlink SNS/TCPaccess	120				

4.0 Program and service level information

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

4.1 Program level information

The following APAR fixes against previous releases of MQSeries for MVS/ESA have been incorporated into this release.

• PN884
 PN886
 PN889
 PN892
 PN894
 PN895
 PN898
 PN907
 PN907
 PN907
 PN908
 PN911
 PN912
 PN915
 PN915
 PN915
 PN917
 PN917
 PN924
 PN925
 PN927
 PN928
 PQ002
• PQ002
• PQ004

89

80

09 57

11

78

75

05

98

98

47

- 58
- 56
- 02
- 03
- 52
- 21
- 79
- 16
- 59
- 61 70
- 52
- 53 73

- PQ01686 PQ01737
 - PQ02135
 - PQ02325

PQ00619

PQ00736

PQ00752

PQ00978

PQ01032

• PQ01148

PQ01258

PQ01675

- PQ02333
- PQ03144 PQ03167
- PQ03357
- PQ04115
- PQ04366
- PQ04483
- PQ04576
- PQ04640
- PQ04878
- PQ05553
- PQ05863

4.2 Service level information

No PTFs against this release of MQSeries for MVS/ESA have been incorporated into the product tape.

4.3 Cumulative service tape

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

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

The following sections identify the system requirements for installing and activating MQSeries for MVS/ESA. 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 MQSeries for MVS/ESA.

5.1.1 Machine requirements

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

5.1.2 Programming requirements

To install MQSeries for MVS/ESA, the prerequisite products listed in Figure 10 are required.

Figure 10 (Page 1 of 2). Installation requirements								
Function MVS Runtime libraries Other								
Without optional communications features	4.3		SMP/E 1.8.0 with APAR IR29060					

Figure 10 (Page 2 of 2). Installation requirements								
Function	MVS	Runtime libraries	Other					
With optional IBM TCP/IP feature	4.3	LE/370 1.5 with the following APARs:	 SMP/E 1.8.0 with APAR IR29060 					
		 PN78163 PN80015 PN80739 PN82174 PN82557 PN86618 PQ03507 	• TCP/IP 3.1 or 3.2 only					
With optional Interlink SNS/TCPaccess feature	4.3	LE/370 1.5 with the following APARs:	 SMP/E 1.8.0 with APAR IR29060 					
		 PN78163 PN80015 PN80739 PN82174 PN82557 PN86618 PQ03507 	 Interlink SNS/TCPaccess** 3.1 or later. 					
Notes:		·	·					

1. Unless otherwise noted, any later level is acceptable.

2. The APARs listed might not apply to all versions of the prerequisite products.

3. If you are using the DFSMS/MVS binder utility, ensure that APAR OW05347 has been applied.

5.1.3 DASD storage requirements

There are no special storage requirements for installing MQSeries for MVS/ESA other than those requirements for the target system described in section 5.2.4 "DASD Storage Requirements."

5.2 Target system requirements

This section describes the environment of the target system required to install and use MQSeries for MVS/ESA.

5.2.1 Machine requirements

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

5.2.2 Programming requisites

To use MQSeries for MVS/ESA, the prerequisite products listed in Figure 11 are required.

Figure 11. Programming requirements							
Function	MVS	Other					
General	4.3 with the following APARs: • OW07179 • OY64365 • OY67606	 JES2 or JES3 3.1.0 DFP 3.1 ESA machine 					
Security	4.3	RACF 2.1					
Measured usage license charges	4.3	MVS APAR OW02855					
Batch applications	4.3	C/370, COBOL, LE/370, or PL/I runtime libraries					
IMS applications	4.3	 IMS 3.1.0 C/370, COBOL, LE/370, or PL/I runtime libraries 					
CICS V2 applications	4.3	 CICS 2.1.2 only C/370, COBOL, LE/370, or PL/I runtime libraries 					
CICS V3 applications	4.3	 CICS 3.3.0 C/370, COBOL, LE/370, or PL/I runtime libraries 					
Operations and controls panels	4.3	ISPF/PDF 3.2.0 TSO/E 2.0.0					
MQSeries-IMS bridge	5.1	IMS 5.1 with the following APARs:					
		• PN87811					
Distributed queuing	4.3	See Figure 12 on page 15					
Distributed queuing (using CICS)	4.3	 CICS 3.2.1 (for local administration) CICS 3.3.0 (for remote administration) VTAM as needed by MVS 					
Notes:		<u>.</u>					

Unless otherwise noted, any later level is acceptable.
 The APARs listed might not apply to all versions of the prerequisite products.

Figure 12. Additional requirements for distributed queuing					
Runtime libraries	Other				
LE/370 1.5 with the following APARs:	LU 6.2 communications				
• PN78163	 VTAM as needed by MVS 				
 PN80015 PN80730 	TCP/IP communications				
• PN82174	Either:				
• PN82557	• TCP/IP 3.1 or 3.2 only with APAR 85260				
PN86618PQ03507	Interlink SNS/TCPaccess 3.1 or later				

5.2.2.1 Program numbers

- MQSeries for MVS/ESA (5695-137)
- MVS/ESA 4.3 or later (5695-047 (JES2), 5695-048 (JES3))
- MVS/ESA 5.1 or later (5655-068 (JES2), 5655-069 (JES3))
- SMP/E 1.8 (5668-949)
- DFSMS/MVS binder utility (5695-DF1)
- DFP 3.1 or later (5665-XA3)
- RACF 2.1 (5695-039)
- ISPF/PDF or later (5685-054)
- TSO/E 2.0 or later (5685-025)
- CICS/MVS 2.1.2 (5665-403)
- CICS/ESA 3.2.1 or later (5685-083)
- CICS/ESA 3.3 or later (5685-083)
- IMS/ESA 3.1 or later (5665-409)
- IMS/ESA 5.1 or later (5695-176)
- SAA AD/Cycle LE/370 (5688-198)
- ACF/VTAM 3.4.1 (5685-085)
- IBM TCP/IP 3.1 and 3.2 (5655-HAL)

Figure 13. C	Figure 13. Compilers supported					
Language	Compilers	Program number				
Assembler	Assembler HIBM High level assembler MVS	5668-9625696-234				
COBOL	VS COBOL IIIBM SAA AD/Cycle COBOL/370	5668-9585688-197				
С	C/370 Release 2.1.0 (with APAR UN37741)IBM SAA AD/Cycle C/370	5688-1875688-216				
PL/I	OS PL/I Optimizing CompilerSAA AD/Cycle PL/I Compiler	5668-9105688-235				

5.2.3 DASD storage requirements

The following figures list the target and distribution libraries (data sets) and their attributes required to install MQSeries for MVS/ESA. Note that these are the minimum requirements. Refer to the notes following the figures for advice on further allocations you should consider.

Figure 14 on page 17 through Figure 17 on page 19 show the storage requirements for the target libraries; for these tables:

Notes:

- 1. If required, data sets may be reblocked to a larger size.
- 2. Abbreviations used for the data set type are:
- 16 MQSeries for MVS/ESA V1R2 Program Directory

- **NU** New data set used only by this program.
- **NM** New data set used by more than one program.
- **EU** Existing data set only used by this program.
- **EM** Existing data set used by more than one program.

Figure 14 (Page 1 of 2). Storage requirements for target libraries for the base, dist queuing, U.S. English, and client attachment features

	_	D	R	L			
Data Sot Namo	I V	S	E	R		No	No.
Or	P	R	F	C.	BI K	of	DIR
Library Name	Ē	G	M	Ĺ	SIZE	BLKS	BLKS
SCSQANLE	EU	PO	U	0	6144	93	7
SCSQASMS	EU	PO	FB	80	8800	46	3
SCSQAUTH	EU	PO	U	0	6144	2520	214
SCSQCICS	EU	PO	U	0	6144	277	9
SCSQCIC2	EU	PO	U	0	6144	83	6
SCSQCLST	EU	PO	FB	80	8800	7	1
SCSQCOBC	EU	PO	FB	80	8800	65	10
SCSQCOBS	EU	PO	FB	80	8800	216	4
SCSQC37S	EU	PO	FB	80	8800	200	2
SCSQC370	EU	PO	FB	80	8800	46	2
SCSQEXEC	EU	PO	FB	80	8800	65	2
SCSQINST	EU	PO	FB	80	8800	46	3
SCSQLINK	EU	PO	U	0	6144	19	1
SCSQLOAD	EU	PO	U	0	6144	37	9
SCSQMACS	EU	PO	FB	80	8800	97	3
SCSQMAPS	EU	PO	FB	80	8800	13	1
SCSQMSGE	EU	PO	FB	80	8800	13	3
SCSQMVR1	NU	PO	U	0	6144	450	2
SCSQMVR2	NU	PO	U	0	6144	279	3
SCSQPLIC	EU	PO	FB	80	8800	46	1
SCSQPLIS	EU	PO	FB	80	8800	13	1
SCSQPNLE	EU	PO	FB	80	8800	155	74
SCSQPNLA	EU	PO	FB	80	8800	20	6
SCSQPROC	EU	PO	FB	80	8800	65	9
SCSQSKL	EU	PO	FB	80	8800	20	3

Figure 14 (Page 2 of 2). Storage requirements for target libraries for the base, dist queuing, U.S. English, and client attachment features

		D	R	L			
	т	S	Е	R			No.
Data Set Name	Y	0	С	Е		No.	of
or	Р	R	F	С	BLK	of	DIR
Library Name	Е	G	М	L	SIZE	BLKS	BLKS
SCSQSNLE	EU	PO	U	0	6144	19	2
SCSQTBLE	EU	PO	FB	80	8800	7	1

Note: The number of blocks and directory blocks specified is the actual minimum storage required by MQSeries for MVS/ESA after the program is installed and the data sets are compressed. When allocating these data sets, you are recommended to specify additional storage and directory blocks to allow for maintenance. Job CSQ8ALOE is provided to allocate the data sets, and specifies extra storage and directory block space.

Figure 15. Additional storage requirements for target libraries for the Japanese language feature							
Data Set Name or Library Name	T Y P E	D S O R G	R E C F M	L R E C L	BLK SIZE	No. of BLKS	No. of DIR BLKS
SCSQANLK	EU	PO	U	0	6144	120	9
SCSQMSGK	EU	PO	FB	80	8800	13	3
SCSQPNLK	EU	PO	FB	80	8800	161	75
SCSQSNLK	EU	PO	U	0	6144	19	2
SCSQTBLK	EU	PO	FB	80	8800	7	1
Note: The number of blocks and directory blocks energified is the actual misimum storage required by MOS arise							

Note: The number of blocks and directory blocks specified is the actual minimum storage required by MQSeries for MVS/ESA after the program is installed and the data sets are compressed. When allocating these data sets, you are recommended to specify additional storage and directory blocks to allow for maintenance. Job CSQ8ALOK is provided to allocate these data sets.

Figure 16 (Page 1 of 2). Additional storage requirements for target libraries for the simplified Chinese language feature

		D	R	L			
	т	S	Е	R			No.
Data Set Name	Y	Ο	С	E		No.	of
or	Р	R	F	С	BLK	of	DIR
Library Name	Е	G	М	L	SIZE	BLKS	BLKS
SCSQANLC	EU	PO	U	0	6144	111	9
SCSQMSGC	EU	PO	FB	80	8800	13	3
SCSQPNLC	EU	PO	FB	80	8800	149	74

Figure 16 (Page 2 of 2). Additional storage requirements for target libraries for the simplified Chinese language feature

		D	R	L			
	т	S	Е	R			No.
Data Set Name	Υ	Ο	С	E		No.	of
or	Ρ	R	F	С	BLK	of	DIR
Library Name	Е	G	М	L	SIZE	BLKS	BLKS
SCSQSNLC	EU	PO	U	0	6144	19	2
SCSQTBLC	EU	PO	FB	80	8800	7	1

Note: The number of blocks and directory blocks specified is the actual minimum storage required by MQSeries for MVS/ESA after the program is installed and the data sets are compressed. When allocating these data sets, you are recommended to specify additional storage and directory blocks to allow for maintenance. Job CSQ8ALOC is provided to allocate simplified Chinese data sets.

Figure 17. Additional storage requirements for target libraries for the uppercase English language feature							
Data Set Name or Library Name	T Y E	D S O R G	R E C F M	L R E C L	BLK SIZE	No. of BLKS	No. of DIR BLKS
SCSQANLU	EU	PO	U	0	6144	93	7
SCSQMSGU	EU	PO	FB	80	8800	13	3
SCSQPNLU	EU	PO	FB	80	8800	155	73
SCSQSNLU	EU	PO	U	0	6144	19	2
SCSQTBLU	EU	PO	FB	80	8800	7	1
Note: The number of blocks and directory blocks specified is the actual minimum storage required by MQSeries for MVS/ESA after the program is installed and the data sets are compressed. When allocating these data sets, you are recommended to specify additional storage and directory blocks to allow for maintenance. Job CSQ8ALOU is provided to allocate U.S. English (uppercase) data sets.							

Figure 18 through Figure 21 on page 21 show the storage requirements for the distribution libraries; for these tables, abbreviations used for the data set type are:

- **NU** New data set used only by this program.
- **NM** New data set used by more than one program.
- **EU** Existing data set used only by this program.
- **EM** Existing data set used by more than one program.

Figure 18. Storage reqts for distribution libraries for base, dist queuing, U.S. English, and client attachment features							
Data Set Name or Library Name	T Y P E	D S O R G	R E C F M	L R E C L	BLK SIZE	No. of BLKS	No. of DIR BLKS
ACSQASMS	EU	PO	FB	80	8800	46	3
ACSQCLST	EU	PO	FB	80	8800	7	1
ACSQCOBC	EU	PO	FB	80	8800	65	10
ACSQCOBS	EU	PO	FB	80	8800	213	4
ACSQC37S	EU	PO	FB	80	8800	200	2
ACSQC370	EU	PO	FB	80	8800	46	2
ACSQEXEC	EU	PO	FB	80	8800	65	2
ACSQINST	EU	PO	FB	80	8800	46	3
ACSQMACS	EU	PO	FB	80	8800	97	3
ACSQMAPS	EU	PO	FB	80	8800	13	1
ACSQMOD	EU	PO	U	0	6144	4214	407
ACSQMSGE	EU	PO	FB	80	8800	13	3
ACSQPLIC	EU	PO	FB	80	8800	46	1
ACSQPLIS	EU	PO	FB	80	8800	13	1
ACSQPNLE	EU	PO	FB	80	8800	155	74
ACSQPNLA	EU	PO	FB	80	8800	20	6
ACSQPROC	EU	PO	FB	80	8800	65	9
ACSQSKL	EU	PO	FB	80	8800	20	3
ACSQTBLE	EU	PO	FB	80	8800	7	1

Figure 19. Additional storage requirements for distribution libraries for the Japanese language feature							
Data Set Name or Library Name	T Y P E	D S O R G	R E C F M	L R E C L	BLK SIZE	No. of BLKS	No. of DIR BLKS
ACSQMSGK	EU	PO	FB	80	8800	13	3
ACSQPNLK	EU	PO	FB	80	8800	161	75
ACSQTBLK	EU	PO	FB	80	8800	7	1

Figure 20. Additional storage requirements for distribution libraries for the simplified Chinese language feature							
Data Set Name or Library Name	T Y P E	D S O R G	R E C F M	L R E C L	BLK SIZE	No. of BLKS	No. of DIR BLKS
ACSQMSGC	EU	PO	FB	80	8800	13	3
ACSQPNLC	EU	PO	FB	80	8800	149	74
ACSQTBLC	EU	PO	FB	80	8800	7	1

Figure 21. Additional storage requirements for distribution libraries for the U.S. English (uppercase) language feature

Teature							
		D	R	L			
	т	S	Е	R			No.
Data Set Name	Y	0	С	E		No.	of
or	Р	R	F	С	BLK	of	DIR
Library Name	Е	G	М	L	SIZE	BLKS	BLKS
ACSQMSGU	EU	PO	FB	80	8800	13	3
ACSQPNLU	EU	PO	FB	80	8800	155	73
ACSQTBLU	EU	PO	FB	80	8800	7	1

5.3 FMIDs deleted

Installing MQSeries for MVS/ESA will result in the deletion of the following FMIDs:

Figure 22 (Page 1 of 2). FMIDs Deleted		
Deleted FMID	Deleting FMID	Description
HML7122, HML7118, HML7115, HML7112, HML7110	HML7130	Base program
JML7123, JML7119, JML7116, JML7113, JML7111	JML7131	U.S. English (mixed case)
JML7124, JML7120, JML7117, JML7114, JML7112	JML7132	Japanese
JML7125, JML7121	JML7133	IBM TCP/IP
JML7126	JML7134	Simplified Chinese
JML7127	JML7135	U.S. English (uppercase)
JML7128	JML7136	Client attachment

Figure 22 (Page 2 of 2). FMIDs Deleted		
Deleted FMID	Deleting FMID	Description
JML7129	JML7143	Interlink SNS/TCPaccess

5.4 Special considerations

MQSeries for MVS/ESA has no special considerations for the target system.

This chapter describes the installation method and step-by-step procedures to install MQSeries for MVS/ESA. The *MQSeries for MVS/ESA System Management Guide* describes the further step-by-step procedures to customize the functions of MQSeries for MVS/ESA.

MQSeries for MVS/ESA can be installed using either of the following methods:

- As part of a system package, such as CBIPO, CBPDO, or CustomPac
- Stand-alone using SMP/E

If you are installing MQSeries for MVS/ESA with an MVS Custom-Built Installation Process Offering (CBIPO), use the CBIPO Related Installation Materials (RIMs) provided with the CBIPO. The CBIPO RIMs point you to specific sections of the program directory as required.

If you are installing MQSeries for MVS/ESA using the MVS Custom-Built Product Delivery Offering (CBPDO) (5751-CS3), use the softcopy program directory provided on the CBPDO tape. Your CBPDO contains a softcopy preventive service planning (PSP) upgrade for this product. All service and HOLDDATA for MQSeries for MVS/ESA are included on the CBPDO tape. Follow the instructions supplied with the CBPDO package to RECEIVE MQSeries for MVS/ESA onto your system. Follow the steps in this program directory to complete the installation, substituting the names you have used to RECEIVE MQSeries for MVS/ESA where appropriate, and omitting the RECEIVE step as shown in 6.3.5.1, "SMP/E RECEIVE" on page 38 of this program directory.

If you are installing MQSeries for MVS/ESA as part of a CustomPac, refer to the documentation supplied with the package for instructions.

When you have installed MQSeries for MVS/ESA, refer to 6.4.1, "Library contents after installation" on page 45 for information on where MQSeries for MVS/ESA resides, and the *MQSeries for MVS/ESA System Management Guide* for information on testing and activating MQSeries for MVS/ESA.

If you are installing MQSeries for MVS/ESA stand-alone, follow the instructions in 6.3, "Installing MQSeries for MVS/ESA" on page 24. There are several decisions that you have to make before you start to install MQSeries for MVS/ESA. You are strongly recommended to read the whole of this section before you start, in order to make the right choices.

6.1 The components of MQSeries for MVS/ESA

MQSeries for MVS/ESA has several components, and optional features. These are explained here:

Required features:

BASE

This comprises all the basic function for MQSeries.

• U.S. English (mixed case) language support

Optional features

- Language support features
 - Japanese language support
 - Simplified Chinese language support
 - U.S. English (uppercase) support
- Distributed queuing features

Support for distributed queuing using CICS ISC is included in the base product; if you want to use this for distributed queuing, you do not need to install either of the features described below.

If you are going to use one of these features, your choice of communications protocols defines which one of the two features you need to install:

Communications protocol and product	FMID to install
LU 6.2 only	JML7143
TCP/IP using IBM TCP/IP (with or without LU 6.2)	JML7133
TCP/IP using SNS/TCPaccess (with or without LU 6.2)	JML7143

• Client attachment feature

Select this feature if you want to connect MQSeries clients to MQSeries for MVS/ESA. To use this feature, you must also install either the JML7133 or the JML7143 feature.

- MQSeries-CICS bridge feature, with the following language support features:
 - U.S. English (mixed case) support
 - Japanese language support
 - Simplified Chinese language support
 - U.S. English (uppercase) support

6.2 MQSeries for MVS/ESA libraries

All MQSeries for MVS/ESA supplied load modules in library SCSQAUTH are reentrant and can be placed in the LPA if desired.

6.3 Installing MQSeries for MVS/ESA

The installation process for MQSeries for MVS/ESA uses the SMP/E RECEIVE, APPLY, and ACCEPT commands to read the installation tape and place MQSeries for MVS/ESA into the appropriate system libraries. If you need more information than is given in this document, refer to a full description of SMP/E in the *SMP/E User's Guide* and *SMP/E Reference* books.

SMP/E is also used to apply preventive or corrective service after MQSeries for MVS/ESA has been installed.

This section covers the following:

- 6.3.1, "Installation summary for MQSeries for MVS/ESA"
- 6.3.2, "Prepare to install MQSeries for MVS/ESA" on page 26
- 6.3.3, "Create the installation JCL" on page 29
- 6.3.4, "Prepare the installation environment" on page 35
- 6.3.5, "Use SMP/E to install MQSeries for MVS/ESA" on page 37

You are recommended to read all these sections before you start to install MQSeries for MVS/ESA.

When you have installed and customized MQSeries for MVS/ESA, you need to perform an IPL of MVS to activate changes made to the early code.

6.3.1 Installation summary for MQSeries for MVS/ESA

- 1. Obtain the latest Preventive Service Planning (PSP) information, which contains the list of required actions and service and apply any relevant service. See Section 3.0, "Program support" on page 9 for details.
- 2. Before installing MQSeries for MVS/ESA, you must choose names and values for a number of parameters. These names and values depend on the standards that apply to your enterprise. You also need to decide whether you want to install any of the optional features.
- 3. Read the sample installation JCL and CLIST from tape and customize it. The names and values you have chosen above are used to modify the required JCL, as shown in 6.3.3, "Create the installation JCL" on page 29.
- 4. Set up an SMP/E environment. This environment must be tailored for MQSeries for MVS/ESA.
- 5. Add DDDEF statements to SMP/E environment to define the target and distribution libraries to SMP/E.
- 6. Allocate the target and distribution libraries.
- 7. Run the SMP/E RECEIVE job to unload the required features from the base product tape.
- 8. Run the SMP/E APPLY job to install the features into the target libraries.
- 9. If you are installing the IBM TCP/IP, Interlink SNS/TCPaccess, MQSeries-CICS bridge features, run the appropriate jobs to resolve the external references to LE/370 and TCP/IP.
- 10. Run the SMP/E ACCEPT job to install the features into the distribution libraries.
- 11. If required, install the client attachment feature, using the procedure described in 6.3.6, "Installing the client attachment feature" on page 43

Notes:

- 1. Sample JCL is provided for all these steps except 1, 2, and 3.
- 2. Once MQSeries for MVS/ESA has been installed, use SMP/E to install preventative or corrective service if required.

6.3.2 Prepare to install MQSeries for MVS/ESA

Before you install MQSeries for MVS/ESA, you must make the following decisions and preparations. The decisions that you make here effect the customization of the sample JCL provided with MQSeries for MVS/ESA. You should write down the appropriate values as you work through this section. Where applicable, space has been provided in Figure 23, Figure 24 on page 27, and Figure 25 on page 29 to note the values assigned.

- 1. Decide which parts of MQSeries for MVS/ESA you wish to install; the parts available are described in 6.1, "The components of MQSeries for MVS/ESA" on page 23.
- Ensure that you have the correct pre-requisite products installed. For information about pre-requisite products, and the levels of these products required to install and use MQSeries for MVS/ESA, see tables 10 through 13.
- 3. Plan the environment that you are going to install MQSeries for MVS/ESA in to. You need to decide:
 - The space requirements (see 5.2.3, "DASD storage requirements" on page 16)
 - The high-level qualifiers to use (see 6.3.2.1, "High-level qualifiers")
 - Disk volume and unit names (see 6.3.2.2, "Volume and unit names" on page 27)
 - The SMP/E environment, for which you need to decide whether to install into a new SMP/E environment or into an existing SMP/E environment (see 6.3.2.3, "SMP/E environment" on page 28).

6.3.2.1 High-level qualifiers: Use Figure 23 to plan the high-level qualifiers for the MQSeries for MVS/ESA data sets.

Figure 23 (Page 1 of 2). High-level qualifiers for data set names					
Parameter name in the sample JCL provided	Default value	Assigned value	Description		
SHLQUAL	MQSERIES.SMPE		High-level qualifiers for the new SMP/E data sets that you are going to use to install MQSeries for MVS/ESA. If you are going to install into existing data sets, this name is already defined.		
THLQUAL	MQSERIES.TLIB		High-level qualifiers for the MQSeries for MVS/ESA target data sets.		

Figure 23 (Page 2 of 2). High-level qualifiers for data set names					
Parameter name in the sample JCL provided	Default value	Assigned value	Description		
DHLQUAL	MQSERIES.DLIB		High-level qualifiers for the MQSeries for MVS/ESA distribution data sets.		
DHQ	DHQ		High-level qualifiers for the UCSQINST data set into which the installation JCL will be loaded from tape.		
THQ	THQ		High-level qualifiers for the TCSQINST data set into which the customized installation JCL will be placed.		
LEQUAL ¹	PP.ADLE370		High-level qualifiers for the LE/370 target libraries.		
TCPQUAL1	PP.TCPIP		High-level qualifiers for the IBM TCP/IP target libraries.		
Note: 1 These only apply if APAR PQ08362 has been applied.					

Note: If required, DHQ can be the same as DHLQUAL and THQ can be the same as THLQUAL.

If these high-level qualifiers do not already exist, you must define them to RACF, or any other security product you are using, and have ALIAS definitions in the master catalog.

Note: The TSO user ID used to install or service MQSeries for MVS/ESA requires RACF ALTER access to these high-level qualifiers. See the *MQSeries for MVS/ESA System Management Guide* for details of the security authorization required for running MQSeries for MVS/ESA.

If you are going to use the Spool Display and Search Facility (SDSF) to look at the output from the installation jobs, you must have authorization to use the prefix CSQ8* to view them, or you must customize the names of the jobs to use a prefix to which you are authorized. This may be done using the JCPREF option in CSQ8SYSJ as described in 6.3.3.2, "Customize the sample installation JCL" on page 30.

6.3.2.2 Volume and unit names: Plan the volume and unit names shown in Figure 24. These are used by the supplied sample JCL during the installation of MQSeries for MVS/ESA. You must decide where you are going to install the product, taking into account the space requirements (see Figure 18 on page 19 and Figure 14 on page 17) and how frequently the data sets are going to be accessed.

Figure 24 (Page 1 of 2). Volume and unit names					
Parameter Name in the Sample Jobs	Values Required	Value Specified	Description		
SMPVOL	VOLSER and unit type		SMP/E data set volume if installing into new SMP/E data sets. Also used for temporary libraries.		

Figure 24 (Page 2 of 2). Volume and unit names				
Parameter Name in the Sample Jobs	Values Required	Value Specified	Description	
TARVOL	VOLSER and unit type		MQSeries for MVS/ESA target data set volume.	
DISVOL	VOLSER and unit type		MQSeries for MVS/ESA distribution data set volume.	
TAPEUNIT	Tape unit type		Unit type of the tape drive used to read the MQSeries for MVS/ESA tapes.	

Notes:

- 1. You can use esoteric values such as SYSDA or SYSALLDA for the unit type of TARVOL and DISVOL by substituting a period (.) for the VOLSER in the customization step in section 6.3.3.2, "Customize the sample installation JCL" on page 30.
- 2. SMPVOL must have both the VOLSER and the unit type specified.

6.3.2.3 SMP/E environment: You must decide whether to install MQSeries for MVS/ESA into a new or an existing SMP/E environment; one of the factors that will effect this is which features you are installing.

- If you are installing any of the following features:
 - IBM TCP/IP (FMID JML7133)
 - Interlink SNS/TCPaccess (FMID JML7143)
 - MQSeries-CICS bridge and associated language features (FMIDs JML7138, JML7139, JML7140, JML7141, and JML7142)

You must install MQSeries for MVS/ESA in a different target zone from LE/370.

 If you are installing the IBM TCP/IP feature you must install MQSeries in a different target zone from IBM TCP/IP.

Remember that installing a new release of MQSeries for MVS/ESA into the same SMP/E zones as an existing release will cause the earlier level to be deleted from both the SMP/E zones and the existing release data sets.

If you are going to install into the same SMP/E zones, then to preserve your current release while you install and test the new release you should copy the existing release data sets into data sets with different names. Do not rename or delete the current data sets because they need to be available to SMP/E for delete processing during the installation of the new release. If they are not available, the APPLY and ACCEPT steps will fail with a return code of 12. After running a successful ACCEPT of the MQSeries for MVS/ESA products, the previous release data sets are no longer required and can be deleted when testing of the new release has been completed.

If you use existing SMP/E data sets, you need to know the names of your target zone and distribution zone, and the data set name of your global CSI.

Note: If you are installing into existing zones:

- The PEMAX options entry must be at least 4500 or left to default.
- The DSSPACE options entry must specify at least 400 directory blocks.

You must decide upon the names for the SMP/E zones.

Figure 25. Target and distribution zone names			
Parameter Name in the Sample Jobs	Default Value	Assigned Value	Description
GZONECSI	NEW		The data set name of your global zone CSI
TZNAME	TZONE		The name of your target zone
DZNAME	DZONE		The name of your distribution zone
LETZN1	LE370TZN LETZN ²		The name of the target zone in which LE/370 is installed (only required if installing the IBM TCP/IP, Interlink SNS/TCPaccess, or MQSeries-CICS bridge base function features).
TCPTZN1	TCPIPTZN TCPTZN ²		The name of the target zone in which IBM TCP/IP is installed (only required if installing the IBM TCP/IP feature).
NI. A			

Note:

1. If you are installing into a separate global zone from LE/370 and IBM TCP/IP (if installing the IBM TCP/IP feature), and you are not able make updates to the LE/370 or IBM TCP/IP global zones, set both these to the same value.

2. This is the default if APAR PQ08362 has been applied.

6.3.3 Create the installation JCL

You must read in the sample installation JCL and customize it for your enterprise.

6.3.3.1 Read in the sample installation JCL: Read the sample installation JCL from tape. (Alternatively, you can use SMP/E RECEIVE to load the jobs into temporary libraries, copy them into private data sets, and modify and run the jobs from these data sets.)

1. Type in the following JCL as DHQ.XCSQINST as a sequential data set, substituting the values you have chosen for **dhq** and **tapeunit** into the JCL, and adding job statement information if required:

//OFFTAPE JOB
//TALLOC EXEC PGM=IEBCOPY,REGION=1024K
//SYSPRINT DD SYSOUT=*
//IN DD DSN=IBM.HML7130.F2,
// LABEL=(3,SL),
// UNIT=tapeunit,

```
11
           VOL=SER=ML7130,
11
           DISP=OLD
//OUT
           DD DSN=dhq.UCSQINST,
           DCB=(LRECL=80, RECFM=FB, BLKSIZE=8800),
11
11
           SPACE=(CYL, (1,1,20)),
11
           UNIT=SYSDA,
           DISP=(MOD,CATLG)
11
//SYSUT3
           DD SPACE=(TRK, (5)), UNIT=SYSDA
//SYSUT4
          DD SPACE=(TRK,(5)),UNIT=SYSDA
//SYSIN
           DD *
  COPY INDD=IN,OUTDD=OUT
/*
11
```

- 2. Mount the tape.
- 3. Run the above job to load the samples. The job should finish with a return code of 0.

If the return code is not 0, check the job output carefully to ensure that the sample jobs have been copied correctly. If the sample jobs have not been copied correctly, correct any errors found, and re-submit the job.

You have now read all the sample jobs into the data set DHQ.UCSQINST. To confirm that you have the correct set of jobs, check the list of members in DHQ.UCSQINST against the list in 6.3.3.2.1, "Customizing the sample installation manually." Jobs CSQ8SYSC and CSQ8SYSJ should also be present. The next step is to customize the sample jobs for your system.

6.3.3.2 Customize the sample installation JCL: To customize the sample installation JCL, you can either customize the sample installation jobs manually, or you can use the customization job (CSQ8SYSJ) provided with MQSeries for MVS/ESA. If you use CSQ8SYSJ, you can customize the sample jobs by adding the names you chose in section 6.3.2, "Prepare to install MQSeries for MVS/ESA" on page 26 to CSQ8SYSJ in DHQ.UCSQINST and running this job.

We recommend that you customize all the installation jobs together, although you might not need some of them until later.

6.3.3.2.1 Customizing the sample installation manually: You may customize the sample jobs manually using your preferred editor, However, we recommend that you use CSQ8SYSJ to customize the jobs. If you choose to customize the sample jobs manually, you will find that comments are provided in the JCL to help you. However, you should read the rest of this chapter before you start.

If you want to customize the sample installation jobs manually, these are the jobs that you must customize:

CSQ8GZON Sets up an SMP/E global zone.

- **CSQ8TZON** Sets up an SMP/E target zone.
- **CSQ8DZON** Sets up an SMP/E distribution zone.

- **CSQ8ALOE** Allocates the MQSeries for MVS/ESA base product and U.S. English (mixed case) language target and distribution libraries.
- **CSQ8DDDF** Defines MQSeries for MVS/ESA target and distribution libraries to SMP/E.
- **CSQ8RECV** Runs the SMP/E RECEIVE step for MQSeries for MVS/ESA. When customizing this job you must add the list of FMIDs you want to install. Look at the comments in the job for details.
- **CSQ8RECL** Runs the SMP/E RECEIVE step for the MQSeries for MVS/ESA client attachment feature. (Remember that to use this feature, you must also install either the IBM TCP/IP or the Interlink SNS/TCPaccess feature.)
- **CSQ8APLY** Runs the SMP/E APPLY step for MQSeries for MVS/ESA. When customizing this job you must add the list of FMIDs you want to install. Look at the comments in the job for details.
- **CSQ8APLL** Runs the SMP/E APPLY step for the MQSeries for MVS/ESA client attachment feature.
- **CSQ8ACPT** Runs the SMP/E ACCEPT step for MQSeries for MVS/ESA. When customizing this job you must add the list of FMIDs you want to install. Look at the comments in the job for details.
- **CSQ8ACPL** Runs the SMP/E ACCEPT step for the MQSeries for MVS/ESA client attachment feature.
- **Note:** It is recommended that you RECEIVE, APPLY, and ACCEPT all of the components apart from the client attachment feature at the same time. If you must RECEIVE, APPLY, and ACCEPT the national language, IBM TCP/IP, or Interlink SNS/TCPaccess features separately from the base and U.S. English (mixed case), you must ACCEPT the base and U.S. English (mixed case) features before trying to APPLY the other features.

If you are installing any of the following features, you will also need to customize the appropriate jobs:

Feature	Job name	Description
IBM TCP/IP	CSQ8LDQM	Links LE/370 and TCP/IP modules into IBM TCP/IP feature load modules.
Interlink SNS/TCPaccess	CSQ8LIQM	Links LE/370 modules into Interlink SNS/TCPaccess feature load modules.
MQSeries-CICS bridge base function	CSQ8LCBB	Links LE/370 modules into MQSeries-CICS bridge load modules.
CICS bridge - U.S. English (mixed case)	CSQ8LCBE	Links LE/370 modules into MQSeries-CICS bridge U.S. English load modules.
CICS bridge - Japanese	CSQ8LCBK	Links LE/370 modules into MQSeries-CICS bridge Japanese load modules.
CICS bridge - Simplified Chinese	CSQ8LCBC	Links LE/370 modules into MQSeries-CICS bridge simplified Chinese load modules.
CICS bridge - U.S. English (uppercase)	CSQ8LCBU	Links LE/370 modules into MQSeries-CICS bridge U.S. English (uppercase) load modules.

In addition, if you are intending to install support for one of the optional national languages, you must customize:

- **CSQ8ALOK** Allocates the MQSeries for MVS/ESA Japanese language target and distribution libraries.
- **CSQ8ALOC** Allocates the MQSeries for MVS/ESA simplified Chinese language target and distribution libraries.
- **CSQ8ALOU** Allocates the MQSeries for MVS/ESA U.S. English (uppercase) language target and distribution libraries.

If you want to reduce the number of MQSeries for MVS/ESA target libraries that need to be added to the link list, you must customize the following job:

CSQ8ERLY A user modification that moves the CSQ3ECMX load module into the SCSQLINK data set, from the specified language data set.

Finally, if you want to enable the measured usage license charge (MULC) feature, you must customize the following job:

- **CSQ8UBPX** A user modification that moves the MQSeries for MVS/ESA exit program into the SYS1.SIFALIB data set.
- Note: The order in which these jobs should be run is described in the following sections:
 - 6.3.4, "Prepare the installation environment" on page 35
 - 6.3.5, "Use SMP/E to install MQSeries for MVS/ESA" on page 37
 - 6.3.7, "Enabling measured usage license charges" on page 44

6.3.3.2.2 Using CSQ8SYSJ to customize the sample installation JCL: CSQ8SYSJ calls a CLIST to copy and edit the sample jobs from DHQ.UCSQINST to THQ.TCSQINST. If THQ.TCSQINST does not exist, it is created by CSQ8SYSJ. Full instructions for modifying CSQ8SYSJ are included in its comments. Where selections are to be made, this is usually done by removing the leading asterisk.

The following rules apply when updating CSQ8SYSJ:

- The keywords in the JCL can appear in any order and starting in any column as long as they are the first nonblank characters on a line and are within columns 1 through 72.
- If you place a nonblank character before a keyword, the line is treated as a comment. Use an asterisk as the nonblank character to avoid accidentally forming a valid keyword.
- Do not delete lines in CSQ8SYSJ, as you may need them in the future. If they do not apply, comment them out by placing an asterisk at the beginning of the unwanted lines.

Use your usual editor to update CSQ8SYSJ in DHQ.UCSQINST as follows:

 Change the job statement at the top of CSQ8SYSJ to match the requirements of your enterprise. If you need to code a 'TIME=' parameter on your JCL, a value of 10 minutes CPU time is enough to run CSQ8SYSJ.

- Customize the JCL statements in Section 2 of CSQ8SYSJ with the names you have chosen for DHQ and THQ. Replace the variable DHQ for the SYSPROC and MINPUT lines, and the variable THQ for the MOUTPUT line.
- 3. Select the features you want:
 - a. By default, both the base and U.S. English (mixed case) FMIDs are selected for installation; do **not** change this.
 - b. If you want to install any of the other national language features, remove the appropriate leading asterisks.
 - c. If you want to install either the IBM TCP/IP or Interlink SNS/TCPaccess feature, remove the leading asterisk from the one you require. Do **not** remove the leading asterisk from both features because they are mutually exclusive in SMP/E terms.
 - d. If you want to install the Client attachment feature, remove the leading asterisk; You must also select either the IBM TCP/IP or Interlink SNS/TCPaccess feature.
 - e. If you want to install the MQSeries-CICS bridge base function feature, remove the leading asterisk, and also remove the leading asterisk from the associated national language support features that you require.

The following tokens are used in CSQ8SYSJ:

MQM

Base product

DQM

Optional IBM TCP/IP feature.

IQM Optional Interlink SNS/TCPaccess feature.

MQMNL US ENGLISH

U.S. English (mixed case) language support.

MQMNL JAPANESE

Optional Japanese language support.

MQMNL SIMPLIFIED CHINESE

Optional simplified Chinese language support.

MQMNL UPPERCASE ENGLISH

Optional U.S. English (uppercase) language support.

CBR

Optional MQSeries-CICS bridge feature. If you are installing this feature, you must also install one of the associated language features.

MQMNL CBR US ENGLISH

Optional MQSeries-CICS bridge U.S. English (mixed case) language support.

MQMNL CBR JAPANESE

Optional MQSeries-CICS bridge Japanese language support.

MQMNL CBR SIMPLIFIED CHINESE

Optional MQSeries-CICS bridge simplified Chinese language support.

MQMNL CBR UPPERCASE ENGLISH

Optional MQSeries-CICS bridge U.S. English (uppercase) language support.

Note: It is recommended that you RECEIVE, APPLY, and ACCEPT all of the components apart from the client attachment feature at the same time. If you must RECEIVE, APPLY, and ACCEPT the national language, IBM TCP/IP or Interlink SNS/TCPaccess features separately from the base and U.S. English (mixed case), you must ACCEPT the base and U.S. English (mixed case) features before trying to APPLY other features.

The following token is used in CSQ8SYSJ for the optional feature. If you want to install this feature, customize the JCL now, but do not install it until you have accepted the base and national language features:

CQM

Client attachment support. (Remember that to use this feature, you must also install either the IBM TCP/IP feature or the Interlink SNS/TCPaccess feature.)

- 4. Choose which sample jobs you want to customize. CSQ8SYSJ is supplied with no jobs selected; this will customize all jobs. This is correct for a new installation requiring all features to be installed. If, however, you do not require all options, you may select specific jobs by overtyping the asterisk at the beginning of the appropriate lines with a blank before running CSQ8SYSJ.
- 5. Type job statement information for the sample jobs. You must leave the characters

JOB //xxxxxxx JOB

intact and insert your parameters after the second 'JOB' on this line. If your enterprise does not require any additional information on the job statement you must still leave this line intact. You can also add lines such as /*ROUTE or /*JOBPARM by using the JOB keyword.

You can enter more than one line for your JOB statement. Begin each line with the keyword JOB followed by at least one blank, and type the text as you would expect to see it in the resulting JCL, including all punctuation such as start of line '//' and end of line commas.

If your enterprise needs a 'TIME=' parameter, you must specify a value large enough to run the SMP/E apply step. This can take up to 120 minutes for MQSeries for MVS/ESA.

Below is an example of a JOB statement with some additional information:

JOB //XXXXXXX JOB (ACCOUNT),CLASS=A,MSGLEVEL=(1,1)

Whilst the following lines show a case where there is so much information added that a continuation statement has been created:

JOB //XXXXXXX JOB (ACCOUNT),CLASS=A,MSGLEVEL=(1,1), JOB // USER=USERID,NOTIFY=USERID

The first four characters of the job name can be changed from 'CSQ8' to a one to four character prefix which should be entered in place of 'CSQ8' next to the 'JCPREF' keyword. The last four characters of the jobname will match the last four characters of the JCL member name.

6. Type the values you have chosen for your high-level qualifiers, volume serial numbers, and unit types where they are different from the defaults.

The volumes for the target and distribution libraries (TARVOL and DISVOL) may have esoteric values specified. This can be done by changing 'VOLSER' to a '.' and changing 'UNITTYPE' to the esoteric value, for example 'SYSDA'. (Quotes should not be used in the JCL). The SMP/E volume and unit type must be changed to an existing volume name and its actual unit type.

7. Type the SMP/E zone names you have chosen if they are different from the defaults. If you use your existing SMP/E data sets, you must customize the names of your target zone, distribution zone, and global CSI data set. If you are installing the IBM TCP/IP, Interlink SNS/TCPaccess, or MQSeries-CICS bridge base function features, you must customize the name of the target zone in which LE/370 is installed. If you are installing the IBM TCP/IP feature, you must also customize the name of the target zone in which IBM TCP/IP is installed. If you are installed. If you are installed. If you are installed. If you are installed. If you intend to let MQSeries for MVS/ESA create a new SMP/E environment, leave the SMP/E information as it is.

Specifying NEW for GZONECSI means that the customization step will add the name SHLQUAL.GLOBAL.CSI for the global zone CSI. If you wish to use a different global zone CSI you must specify the fully qualified name for GZONECSI.

8. Run CSQ8SYSJ. It should finish with a return code of 0.

If the return code is not 0, inspect the output to discover what caused the problem. CSQ8SYSJ can be run again when the error has been corrected, but running it many times may cause the output data set THQ.TCSQINST to need compressing.

Now carry out the installation steps in the following sections, using the customized versions of the sample jobs from the THQ.TCSQINST data set.

6.3.4 Prepare the installation environment

You must create the environment in which to run SMP/E to install MQSeries for MVS/ESA.

Note: The job output listings produced by the following jobs may be split into a number of separate data sets.

6.3.4.1 SMP/E environment

6.3.4.1.1 High-level assembler consideration: If you create a new global zone, the default utility for ASM (assembler) will be used for the SMP/E environment. If your site uses the high-level assembler, you may need to do the following:

1. Add an SMP/E UTILITY for this assembler to your global zone, by adding a UTILITY definition to CSQ8GZON, for example:

ADD UTILITY(ASMA90) NAME(ASMA90) PRINT(SYSPRINT) RC(4) .

2. Update the OPTIONS(TZNOPTN) defined in CSQ8GZON (global zone) to reference your utility, for example:

ADD OPTIONS(DZNOPTN) ASM(ASMA90) .

 Change the ADD DLIBZONE statement in the CSQ8DZON (distribution zone) job so that it references an OPTIONS entry (via OPTIONS()) which in turn references this different assembler utility entry, for example:

ADD DLIBZONE(DZONE) OPTIONS(DZNOPTN) ...

6.3.4.1.2 Global zone

- If you are installing into an existing global zone, check that:
 - The PEMAX option entry is set to at least 4500, or left to default.
 - The DSSPACE options entry specifies at least 400 directory blocks.
- If you are installing into a new global zone, run CSQ8GZON from THQ.TCSQINST; this has a number of steps, all of which should complete with a return code of 0.
 - **Note:** If you are running under JES3, you must edit it to remove the comment asterisks for the whole of step DUMMYCSI. This is to avoid the problem of defining and using VSAM data sets in the same jobstream under JES3.

If any of the return codes is not 0, inspect the job output to determine what caused the problem and correct it, then rerun the job from the step that failed.

6.3.4.1.3 Target and distribution zones: If you are installing any of the following features:

- IBM TCP/IP
- Interlink SNS/TCPaccess
- MQSeries-CICS bridge base function and associated languages

you must install MQSeries for MVS/ESA into separate target and distribution zones from LE/370. In addition if you are installing the IBM TCP/IP feature you must install MVS/ESA into separate target and distribution zones from IBM TCP/IP.

If you are using an existing target zone, and wish to make use of the automatic cross zone link-editing provided by SMP/E, you must make sure that the XZLINK subentry for your target zone is set to AUTOMATIC.

If you need to create new target and distribution zones, then run:

- 1. CSQ8TZON to create a target zone, and
- 2. CSQ8DZON to create a distribution zone.

Both jobs consist of a number of steps, all of which should complete with a return code of 0.

Note: If you are running CSQ8TZON and CSQ8DZON under JES3, you must edit them to remove the comment asterisks for the whole of step DUMMYCSI. This is to avoid the problem of defining and using VSAM data sets in the same jobstream under JES3.

If any of the return codes is not 0, inspect the job output to determine what caused the problem, correct it, and then rerun the job from the step that failed.

6.3.4.2 Allocate distribution and target libraries for MQSeries for MVS/ESA: Before using SMP/E to install MQSeries for MVS/ESA, you must allocate two groups of data sets, the target and distribution libraries, for MQSeries for MVS/ESA. Run the job **CSQ8ALOE** from THQ.TCSQINST to allocate the libraries. This job has two steps; each should complete with a return code of 0.

If the return code is not 0, check the job output carefully to ensure that the data sets have been allocated correctly. If you need to rerun the job, you must delete any data sets that were created by the unsuccessful attempt. These all begin with the THLQUAL or DHLQUAL high-level qualifiers. (Be careful not to delete any SMP/E data sets.)

If you have chosen to install an additional language feature, you must also run the appropriate job from the following list, in the same way that you ran CSQ8ALOE:

Language	Data set allocation job
Japanese	CSQ8ALOK
Simplified Chinese	CSQ8ALOC
U.S. English (uppercase) CSQ8ALOU

6.3.4.3 Update SMP/E DDDEF information: SMP/E needs to know the name of the MQSeries for MVS/ESA data sets; **CSQ8DDDF** is provided to add the appropriate DDDEFs to your SMP/E environment. Run the job CSQ8DDDF from THQ.TCSQINST to build your SMP/E DDDEF statements. It should complete with a return code of 0 or 4.

If the return code is not 0 or 4, check the job output carefully to ensure that the DDDEFs have been allocated correctly. CSQ8DDDF can be re-run if required. If you get a return code of 4, this should be caused by the following message:

GIM27701W DDDEF ENTRY dddddddd WAS ADDED INSTEAD OF REPLACED BECAUSE IT DID NOT EXIST

6.3.5 Use SMP/E to install MQSeries for MVS/ESA

SMP/E uses three steps to install each part of MQSeries for MVS/ESA:

- 1. RECEIVE
- 2. APPLY
- 3. ACCEPT

Notes:

- 1. You must run the steps in this order.
- 2. The IBM TCP/IP, Interlink SNS/TCPaccess, and MQSeries-CICS bridge base function and national language features require an extra LINK step after the APPLY step.

6.3.5.1 SMP/E RECEIVE: Receive MQSeries for MVS/ESA using SMP/E by mounting the tape and running the sample job **CSQ8RECV** from THQ.TCSQINST.

The RECEIVE job should complete with a return code of 0, and the following messages should appear in the SMPLOG, depending on which features you have decided to install:

```
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD HML7130
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7131
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7132
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7133
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7134
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7135
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7138
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7138
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7139
GIM227011 RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7140
```

If the return code is not 0, check the job output listing to find out why the job failed, correct the error, and then rerun the job.

6.3.5.2 SMP/E APPLY: Run the sample job **CSQ8APLY** from data set THQ.TCSQINST to apply the FMIDs selected when you customized the JCL. This job can take a long time to run, depending on the capacity of your system, and on what other jobs are running. Added per Mary Dunn - 26 Jan 1998 - Clare Sprenger

Note: If you are migrating directly from Version 1.1.3 to Version 1.2, delete the existing Version 1.1.3 SCSQCICS modules before running the APPLY step (having made backup copies in case you need to revert to Version 1.1.3). Failure to do so will result in message IEW2611 in the APPLY step.

The APPLY step should finish with a return code of 4.

If you are installing the IBM TCP/IP or Interlink SNS/TCPaccess, the return code of 4 will be due to GIM23903W or GIM23904W messages associated with IEW2454W messages; if you are not installing either of these features, the return code of 4 will be due to GIM43401W messages. If you get any other result, check the output listing to find out why, and correct the error. Refer to Figure 27 on page 54 for diagnostic information.

The job can be rerun, but if one of the FMIDs was successfully applied, you must first delete the lines from CSQ8APLY that refer to this product FMID. Products successfully applied result in the following messages in the output listing of CSQ8APLY, depending which features you have decided to install:

GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODHML7130GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7131GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7132GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7133GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7134GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7135GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7138GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7140GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7140GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7141GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7141GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011APPLYPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011AP

If desired, the APPLY step may be run initially with the 'CHECK' operand added to the APPLY command in the CSQ8APLY job. If this is done the job will not update any libraries, instead it will test for any errors other than those that could occur when the libraries are updated. (For instance, the APPLY CHECK will not generate an error if there is insufficient disk space available).

The job must be rerun without the CHECK operand to update the libraries.

If you encounter any problems when performing the SMP/E APPLY step, see Appendix B, "Diagnosing problems with the APPLY step" on page 54 for diagnostic information.

6.3.5.3 Cross zone preparation: If you are installing any features other than the base program and associated language features, you will need to prepare the appropriate zones for cross zone link-edits using the SMP/E LINK command, as follows:

- If you are installing in to a global zone which is shared with LE/370 and IBM TCP/IP (if installing the IBM TCP/IP feature), then no further preparation is required.
- If you are installing into a separate global zone from LE/370 and IBM TCP/IP (if installing the IBM TCP/IP feature), and you are able to make updates to the LE/370 and IBM TCP/IP global zones then:
 - 1. Create a ZONEINDEX in the MQSeries for MVS/ESA global zone for the LE/370 target and distribution zones.
 - 2. Create a ZONEINDEX in the LE/370 global zone for the MQSeries for MVS/ESA target and distribution zones.
 - 3. If you are installing the IBM TCP/IP feature:
 - a. Create a ZONEINDEX in the MQSeries for MVS/ESA global zone for the IBM TCP/IP target and distribution zones.
 - b. Create a ZONEINDEX in the IBM TCP/IP global zone for the MQSeries for MVS/ESA target and distribution zones.

An example of adding a ZONEINDEX entry using UCLIN:

```
SET BOUNDARY(GZNAME) .
UCLIN .
ADD GLOBALZONE
ZONEINDEX((TZNAME,HLQS.TZNAME.CSI,TARGET)
(DZNAME,HLQS.DZNAME.CSI,DLIB)) .
ENDUCL .
Where:
GZNAME - The name of the global zone
TZNAME - The name of the target zone
DZNAME - The name of the distribution zone
HLQS - The high-level qualifiers for the target and
distribution zones
```

- **Note:** The names of the target and distribution zones must be the same in each of the global zones in which ZONEINDEXs are defined. For example if the MQSeries target zone name is MQTZON in the MQSeries global zone ZONEINDEX, then it must also be MQTZON in the LE/370 global zone ZONEINDEX, and the IBM TCP/IP global zone ZONEINDEX if the IBM TCP/IP feature is being installed.
- If you are installing into a separate global zone from LE/370 and IBM TCP/IP (if installing the IBM TCP/IP feature), and you are not able to make updates to the LE/370 and IBM TCP/IP global zones then:
 - 1. Obtain APAR PQ08362, which contains new versions of CSQ8SYSJ and CSQ8SYSC, the installation JCL customization tools, and a new job, CSQ8FZON.
 - Customize CSQ8FZON either by using the new versions of CSQ8SYSJ and CSQ8SYSC, or manually. CSQ8FZON creates an additional target zone which contains the appropriate DDDEFs, MOD and LMOD entries to enable MQSeries for MVS/ESA to be link-edited with LE/370 and IBM TCP/IP (if the IBM TCP/IP feature is being installed) without ZONEINDEXs having to be set up in the real LE/370 or IBM TCP/IP global zones.

The parameters in CSQ8FZON which need to be set are:

- SHLQUAL High-level qualifiers for the MQSeries for MVS/ESA SMP/E data sets.
- **SMPVOL** Volume name for the MQSeries for MVS/ESA SMP/E data sets.
- **SMPUNIT** Volume type for the MQSeries for MVS/ESA SMP/E data sets, for example 3390.
- **GZONECSI** The name of your global zone.
- **LETZN** The name of the new target zone that CSQ8FZON will create.
- **LEQUAL** The high-level qualifiers for the real LE/370 target libraries.
- **TCPQUAL** The high-level qualifiers for the real IBM TCP/IP target libraries.

Notes:

- a. See 6.3.3.2, "Customize the sample installation JCL" on page 30 for details on customizing the installation JCL.
- b. For SHLQUAL, SMPVOL, SMPUNIT and GZONECSI you must use the same values as you used for the rest of the installation, as determined in 6.3.2, "Prepare to install MQSeries for MVS/ESA" on page 26.
- c. If you are not installing the IBM TCP/IP feature, set TCPQUAL to its default PP.TCPIP; do not delete it, comment it out, or set in to nothing.
- d. It is recommended that you customize the required LINK jobs (CSQ8Lxxx) at this time to reflect the name of the new zone that will be created by the CSQ8FZON job.
- 3. Run CSQ8FZON, which has a number of steps, all of which should complete with a return code of 0.
 - **Note:** If you are running under JES3, you must edit it to remove the comment asterisks for the whole of step DUMMYCSI. This is to avoid the problem of defining and using VSAM data sets in the same jobstream under JES3.

If any of the return codes is not 0, inspect the job output to determine what caused the problem and correct it, then rerun the job from the step that failed.

6.3.5.4 SMP/E LINK: This section only applies if you are installing any of the following features:

- IBM TCP/IP
- Interlink SNS/TCPaccess
- MQSeries-CICS bridge base function

Run the required jobs from the following table. If you are installing the MQSeries-CICS bridge base function feature you must also run the job for the appropriate language feature.

Notes:

- DDDEFs for SCEESPC and SCEELKED are required in the LE/370 target zone. DDDEFs for SEZACMTX are required in the TCP/IP target zone. It is assumed these DDDEF entries were made during the installation of TCP/IP and LE/370.
- If you are running either CSQ8LDQM or CSQ8LIQM and are using LE/370 version 1.5 only (not later releases of LE/370), you need to edit the job and change EDC4£05A to EDC4£00D in the LINK command for either the load module CSQUCVX (in the CSQ8LDQM job) or CMQUCVX (in the CSQ8LIQM job).
- 3. If you are running CSQ8LDQM making use of the additional target zone created by CSQ8FZON, you should edit CSQ8LDQM and ensure that the FROMZONE parameter on each LINK command refers to the additional target zone, unless you customized it as recommended in 6.3.5.3, "Cross zone preparation" on page 39.

Feature	Job to run	Expected return code
IBM TCP/IP	CSQ8LDQM	4
Interlink SNS/TCPaccess	CSQ8LIQM	0
MQSeries-CICS bridge base function	CSQ8LCBB	0
CICS bridge - U.S. English (mixed case)	CSQ8LCBE	0
CICS bridge - Japanese	CSQ8LCBK	0
CICS bridge - Simplified Chinese	CSQ8LCBC	0
CICS bridge - U.S. English (uppercase)	CSQ8LCBU	0
Note: The return code 4 is due to the following message: GIM69053W LINK PROCESSING WAS SUCCESSFUL FOR LMOD 1111111 IN SYSLIB sssssss and associated IEW2454W messages.		

6.3.5.5 SMP/E ACCEPT: Run the sample job **CSQ8ACPT** from data set THQ.TCSQINST to accept all the products selected when you customized the JCL. This job takes a few minutes to run, depending on the capacity of your system, and on what other jobs are running.

The ACCEPT step should complete with a return code of 0.

If the return code is not 0, check the job output listing to find out why the job failed and correct the error. The job can be rerun, but if one of the FMIDs was successfully accepted, you must first delete the line from CSQ8ACPT that refers to this FMID. Products successfully accepted result in the following messages in the output listing of CSQ8ACPT depending which features you have decided to install:

GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODHML7130GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7131GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7132GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7133GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7134GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7135GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7138GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7140GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7140GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7141GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7142GIM227011ACCEPTPROCESSINGWASSUCCESSFULFORSYSMODJML7143GIM22

If desired, the ACCEPT step may be run initially with the 'CHECK' operand added to the ACCEPT command in the CSQ8ACPT job. If this is done the job will not update any libraries, instead it will test for any errors other than those that could occur when the libraries are updated. (For instance, the ACCEPT CHECK will not generate an error if there is insufficient disk space available).

The job must be rerun without the CHECK operand to update the libraries.

6.3.6 Installing the client attachment feature

Notes:

- 1. This is a separately orderable feature, and so comes on a different tape. The following steps only apply if you have a copy of the feature tape. See the *MQSeries Clients* manual for information about obtaining and installing the client code to work with this feature.
- When you have completed the SMP/E APPLY step for this feature, you cannot use SMP/E to de-install it. This is because some of the base code is modified during the installation process. To remove the client attachment feature, you will have to reinstall the base product.

6.3.6.1 SMP/E RECEIVE for the client attachment feature: Receive the MQSeries for MVS/ESA client attachment feature by mounting the feature tape and running sample job **CSQ8RECL** from THQ.TCSQINST.

Note: If you are installing the client attachment feature as part of CBPDO, you do not need to run this step. Instead, follow the instructions supplied with the CBPDO package to receive this feature.

The RECEIVE job should complete with a return code of 0, and the following message should appear in the SMPLOG:

GIM22701I RECEIVE PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7136

If the return code is not 0, check the job listing to find out why the job failed, correct the error, and then re-run the job.

When the RECEIVE step has been completed successfully, the tape is no longer required.

6.3.6.2 SMPE/APPLY for the client attachment feature: Run the sample job **CSQ8APLL** from data set THQ.TCSQINST to apply the client attachment feature.

This job should complete with a return code of 0, and the following message should appear in the SMPLOG:

GIM22701I APPLY PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7136

If desired, the APPLY step may be run initially with the 'CHECK' operand added to the APPLY command in the CSQ8APLL job. If this is done the job will not update any libraries, instead it will test for any errors other than those that could occur when the libraries are updated. (For instance, the APPLY CHECK will not generate an error if there is insufficient disk space available).

The job must be rerun without the CHECK operand to update the libraries.

6.3.6.3 SMP/E ACCEPT for the client attachment feature: Run the sample job **CSQ8ACPL** from data set THQ.TCSQINST to accept the client attachment feature.

This job should complete with a return code of 4, and the following message should appear in the SMPLOG:

GIM22701I ACCEPT PROCESSING WAS SUCCESSFUL FOR SYSMOD JML7136

The return code of 4 should be accompanied by the following message:

GIM61903W LMOD CSQXJCL WAS NOT DELETED BY SYSMOD JML7136 BECAUSE CSQXJCL IS NOT IN THE dist ZONE

where dist is the name you allocated for the distribution zone.

If desired, the ACCEPT step may be run initially with the 'CHECK' operand added to the ACCEPT command in the CSQ8ACPL job. If this is done the job will not update any libraries, instead it will test for any errors other than those that could occur when the libraries are updated. (For instance, the ACCEPT CHECK will not generate an error if there is insufficient disk space available).

The job must be rerun without the CHECK operand to update the libraries.

6.3.7 Enabling measured usage license charges

If you want to enable measured usage license charges, run job CSQ8UBPX from data set THQ.TCSQINST. This job has two steps, the first step should complete with return code zero, and the second step should complete with return code 4. On successful completion, this job will have copied the measured usage license charge exit program into the SIFALIB data set.

The return code of 4 should be accompanied by the following message:

GIM61901W LMOD CSQ8UBEX WAS NOT MOVED BY SYSMOD CSQ8UBX BECAUSE CSQ8UBEX IS NOT IN THE dist ZONE

Where dist is the name you allocated for the distribution zone.

6.3.8 Preparing link list data sets

By default, two MQSeries for MVS/ESA data sets have to be added to the link list SCSQLINK, and one of the following:

- SCSQSNLE
- SCSQSNLC
- SCSQSNLK
- SCSQSNLU

A user modification is provided in CSQ8ERLY in data set THQ.TCSQINST that moves the contents of the SCSQSNLx data set into SCSQLINK so that only one data set needs to be added to the link list. Customize job CSQ8ERLY and run it; it should complete with return code 4.

The return code of 4 should be accompanied by the following message:

GIM61901W LMOD CSQNL28x WAS NOT MOVED BY SYSMOD CSQ8RLY BECAUSE CSQNL28x IS NOT IN THE dist ZONE

Where dist is the name you allocated for the distribution zone and x is the language suffix used in customizing the job.

6.4 What SMP/E has done

You have now taken the information off the distribution tape that IBM supplied and installed it onto your system.

6.4.1 Library contents after installation

After the successful completion of SMP/E processing, your libraries have the names and contents shown in Figure 26.

Figure 26 (Page 1 of 3). Library contents after installation			
Target library	Distribution library	Description	
SCSQANLC		Load modules - MQSeries for MVS/ESA product code and utilities (Simplified Chinese)	
SCSQANLE		Load modules - MQSeries for MVS/ESA product code and utilities (U.S. English mixed case)	
SCSQANLK		Load modules - MQSeries for MVS/ESA product code and utilities (Japanese)	
SCSQANLU		Load modules - MQSeries for MVS/ESA product code and utilities (U.S. English uppercase)	
SCSQASMS	ACSQASMS	Assembler sample source	
SCSQAUTH		Load modules - MQSeries for MVS/ESA product code and utilities	
SCSQCICS		Load modules required by CICS DFHRPL	
SCSQCIC2		Load modules required only by CICS Version 2 users	
SCSQCLST	ACSQCLST	Sample CLISTS	
SCSQCOBC	ACSQCOBC	COBOL Copybooks (sample and product copybooks)	
SCSQCOBS	ACSQCOBS	COBOL Sample source	
SCSQC37S	ACSQC37S	C/370 Sample source	
SCSQC370	ACSQC370	C/370 Headers (sample and product headers)	
SCSQEXEC	ACSQEXEC	Exec files	
SCSQINST	ACSQINST	Install jobs JCL	

Figure 26 (Page 2 of 3). Library contents after installation			
Target library	Distribution library	Description	
SCSQLINK		Load modules - early code (must be in link list)	
SCSQLOAD		Load modules - non APF authorized samples, user exits, IVPs, stubs, utilities	
SCSQMACS	ACSQMACS	Sample, product, and ZPARM macros	
SCSQMAPS	ACSQMAPS	Sample MAPS	
	ACSQMOD	Object code library	
SCSQMSGC	ACSQMSGC	Simplified Chinese messages to be included in ISPMLIB concatenation	
SCSQMSGE	ACSQMSGE	U.S. English (mixed case) messages to be included in ISPMLIB concatenation	
SCSQMSGK	ACSQMSGK	Japanese messages to be included in ISPMLIB concatenation	
SCSQMSGU	ACSQMSGU	U.S. English (uppercase) messages to be included in ISPMLIB concatenation	
SCSQMVR1		Load modules required by the IBM TCP/IP feature	
SCSQMVR2		Load modules required by the Interlink SNS/TCPaccess feature	
SCSQPLIC	ACSQPLIC	PL/I Headers	
SCSQPLIS	ACSQPLIS	PL/I Sample source	
SCSQPNLA	ACSQPNLA	Sample panels	
SCSQPNLC	ACSQPNLC	Simplified Chinese panels to be included in ISPPLIB concatenation	
SCSQPNLE	ACSQPNLE	U.S. English (mixed case) panels to be included in ISPPLIB concatenation	
SCSQPNLK	ACSQPNLK	Japanese panels to be included in ISPPLIB concatenation	
SCSQPNLU	ACSQPNLU	U.S. English (uppercase) panels to be included in ISPPLIB concatenation	
SCSQPROC	ACSQPROC	Sample JCL	
SCSQSKL	ACSQSKL	Skeletons to be included in the ISPSLIB concatenation	
SCSQSNLC		Load modules required for specialized function (simplified Chinese)	
SCSQSNLE		Load modules required for specialized function (U.S. English mixed case)	
SCSQSNLK		Load modules required for specialized function (Japanese)	
SCSQSNLU		Load modules required for specialized function (U.S. English uppercase)	
SCSQTBLC	ACSQTBLC	Simplified Chinese tables to be included in ISPMLIB concatenation	
SCSQTBLE	ACSQTBLE	U.S. English (mixed case) tables to be included in ISPMLIB concatenation	
SCSQTBLK	ACSQTBLK	Japanese tables to be included in ISPMLIB concatenation	

Figure 26 (Page 3 of 3). Library contents after installation		
Target library	Distribution library	Description
SCSQTBLU	ACSQTBLU	U.S. English (uppercase) tables to be included in ISPMLIB concatenation

6.4.2 What to do next

You have now installed MQSeries for MVS/ESA. Before you can start to use MQSeries, it must be customized. This is described in the *MQSeries for MVS/ESA System Management Guide*. See Appendix C, "Changes to the customization process" on page 55 for information about changes to the customization process documented in this book.

The customization steps require changes to SYS1.PARMLIB and an IPL to activate the changes.

If you are migrating from a previous version of MQSeries for MVS/ESA, you do not need to perform all the customization tasks. To find out what you need to do, read the chapter about migrating from previous versions.

Installation verification programs are provided with MQSeries for MVS/ESA. These cannot be run until MQSeries for MVS/ESA has been customized and an MQSeries for MVS/ESA subsystem activated.

Appendix A. MQSeries for MVS/ESA installation logic

If you ordered MQSeries for MVS/ESA as an individual product (not in CBIPO or CBPDO), the entire set of SMP/E modification control statements for the installation can be obtained by printing the first file of the MQSeries for MVS/ESA program tape.

```
++FUNCTION(HML7130) REWORK(1997223) FILES(17) RFDSNPFX(IBM)
/* Licensed Materials - Property of IBM
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/*
                                          */
/* 5695-137 (C) Copyright IBM Corp. 1993,1997
                                          */
/*
                                          */
/* All rights reserved.
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/*
                                          */
/* U.S. Government Users Restricted Rights - use,
                                          */
/* duplication or disclosure restricted by GSA ADP */
/* Schedule Contract with IBM Corp.
                                          */
/*
                                          */
++VER(Z038)
 SUP(HML7122,HML7118,HML7115,HML7112,HML7110)
 DELETE(HML7122,HML7118,HML7115,HML7112,HML7110).
++JCLIN
                                            RELFILE(1).
++FUNCTION(JML7133) REWORK(1997223) FILES(2) RFDSNPFX(IBM)
/* Licensed Materials - Property of IBM
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/*
                                          */
/* 5695-137 (C) Copyright IBM Corp. 1993,1997
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/*
                                          */
/* All rights reserved.
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/*
                                          */
/* U.S. Government Users Restricted Rights - use, */
/* duplication or disclosure restricted by GSA ADP */
/* Schedule Contract with IBM Corp.
                                          */
/*
                                          */
++VER(Z038) FMID(HML7130)
 SUP(JML7125, JML7121)
 DELETE(JML7125, JML7121).
++JCLIN
                                           RELFILE(1).
++FUNCTION(JML7143) REWORK(1997223) FILES(2) RFDSNPFX(IBM)
/* Licensed Materials - Property of IBM
                                          */
/*
                                          */
```

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DELETE(JML7124, JML7120, JML7117, JML7114, JML7112). ++JCLIN RELFILE(1). ++FUNCTION(JML7134) REWORK(1997223) FILES(5) RFDSNPFX(IBM) /* Licensed Materials - Property of IBM */ /* */ /* 5695-137 (C) Copyright IBM Corp. 1993,1997 */ /* */ /* All rights reserved. */ /* */ /* U.S. Government Users Restricted Rights - use, */ /* duplication or disclosure restricted by GSA ADP */ /* Schedule Contract with IBM Corp. */ /* */ ++VER(Z038) FMID(HML7130) SUP(JML7126) DELETE(JML7126). ++JCLIN RELFILE(1). ++FUNCTION(JML7135) REWORK(1997223) FILES(5) RFDSNPFX(IBM) /* Licensed Materials - Property of IBM */ /* */ /* 5695-137 (C) Copyright IBM Corp. 1993,1997 */ /* */ /* All rights reserved. */ /* */ /* U.S. Government Users Restricted Rights - use, */ /* duplication or disclosure restricted by GSA ADP */ /* Schedule Contract with IBM Corp. */ /* */ ++VER(Z038) FMID(HML7130) SUP(JML7127) DELETE(JML7127). ++JCLIN RELFILE(1). ++FUNCTION(JML7138) REWORK(1997223) FILES(2) RFDSNPFX(IBM) /* Licensed Materials - Property of IBM */ */ /* /* 5695-137 (C) Copyright IBM Corp. 1993,1997 */ /* */ /* All rights reserved. */

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Installation logic

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DELETE(JML7128).
++DELETE(CSQXJCL) SYSLIB(SCSQAUTH).
++JCLIN

RELFILE(1).

Appendix B. Diagnosing problems with the APPLY step

Figure 27. Common problems experienced during APPLY step for MQSeries for MVS/ESA				
Symptoms	Likely cause	Action to take		
Return code 8 or 12: SMP/E reports that it was unable to find modules in the distribution zone when installing the optional IBM TCP/IP or Interlink SNS/TCPaccess feature (FMID JML7133 or JML7143). One or more of these	This is probably because the RECEIVE and APPLY steps have been performed for the base product (FMID HML7130), but not the ACCEPT step. This means that when the APPLY step is attempted for the optional feature, the required modules from the base product are not in the distribution zone because the base product has not been accepted.	 If possible, ACCEPT the base product and language features If any of the GIM67301W messages refer to SYSLIB SCSQAUTH, delete any members of the SCSQAUTH library with names beginning CSQX, except for CSQXMTXT and CSQXPARM. Re-run the apply step: If you have accepted the base product and language 		
messages will be reported: GIM23901E GIM23902E GIM65801W GIM67301W		 features, run the APPLY step for FMID JML7133 or JML7143 only Otherwise, run the APPLY step for all the FMIDs that you are installing together using the REDO option. 		

Appendix C. Changes to the customization process

The following changes should be made to the *MQSeries for MVS/ESA System Management Guide* (SC33-0805-05) and the *MQSeries Application Programming Guide* (SC33-0807-07). This information will be added to the manuals for the next edition.

C.1 System Management Guide

Chapter 2. Preparing for customization

- In the section headed "Installable features," note that the distributed queuing features (DQM and Interlink) are not mutually exclusive.
- In "Table 3. MQSeries libraries that exist after installation," add the following two entries:

thlqual.SCSQMVR1 Contains the load modules for distributed queuing when using the DQM feature. This library must be APF authorized.

th1qual.SCSQMVR2 Contains the load modules for distributed queuing when using the Interlink SNS/TCPaccess feature. This library must be APF authorized.

Chapter 3. Customizing the queue managers

• In the section headed "Task 4: APF authorize the MQSeries load libraries," change the second sentence of the first paragraph to the following:

You must also APF authorize the libraries for your national language feature (thlqual.SCSQANLx and thlqual.SCSQSNLx) and for distributed queuing (thlqual.SCSQMVR1 or thlqual.SCSQMVR2).

• In the same section, change the second sentence of the fifth paragraph to the following:

So must the library for the language you are using (thlqual.SCSQANLx where x is the language letter) and for distributed queuing (thlqual.SCSQMVR1 or thlqual.SCSQMVR2).

Chapter 5. Enabling the distributed queuing facility

• In the section headed "Defining the channel initiator procedure and data sets," add the following to the second paragraph in item number 3:

Choose the appropriate distributed queuing library: thlqual.SCSQMVR1 if you are using the DQM feature, and thlqual.SCSQMVR2 if you are using the Interlink feature.

Chapter 6. Migrating from previous versions of MQSeries for MVS/ESA

- In the section headed "Migrating from version 1.1.4 to version 1.2," add the following item to the list:
 - There are new libraries for distributed queuing: thlqual.SCSQMVR1 if you are using the DQM feature and thlqual.SCSQMVR2 if you are using the Interlink feature. Add the appropriate library to the STEPLIB DD statement of the JCL used for your channel initiator started task procedures (xxxxCHIN) and data conversion utility (CSQUCVX).

- In the section headed "Reverting to version 1.1.4 from a later version," add the following item to the list:
 - Remove the distributed queuing libraries (thlqual.SCSQMVR1 and thlqual.SCSQMVR2) from any JCL.
- In the section headed "Migrating from version 1.1.3 to version 1.2," change the table as follows:

Authorized	Distributed queuing	Non-authorized	CICS/ESA	CICS/MVS
SCSQANLx	SCSQANLx SCSQMVRy	SCSQANLx	SCSQANLx	SCSQSNLx SCSQANLx SCSQCIC2
SCSQAUTH	SCSQAUTH	SCSQLOAD	SCSQCICS	SCSQCICS

Where x is the language letter of your national language, and y is 1 if you are using the DQM feature or 2 if you are using the Interlink feature.

Chapter 28. MQSeries security considerations

• In the section headed "Security installation tasks," change table 55 as follows:

Figure 28. RACF access to data sets associated with distributed queuing		
RACF access	Data sets	
READ	 thlqual.SCSQAUTH, thlqual.SCSQANLx (where x is the language letter for your national language), and thlqual.SCSQMVR1 or thlqual.SCSQMVR2. LE/370 library data sets. The data sets referred to by CSQXLIB and CSQINPX in the distributed queuing started task procedure. 	
UPDATE	 Data set CSQOUTX Dynamic queues SYSTEM.CSQXCMD.* 	

C.2 Application Programming Guide

Chapter 11.Data-conversion exits

 In the section headed "Invoking the CSQUCVX utility on MVS/ESA," change the sample JCL as follows:

//CVX EXEC	PGM=CSQUCVX
//STEPLIB DD	DISP=SHR,DSN=thlqual.SCSQANLE
// DD	DISP=SHR,DSN=thlqual.SCSQMVRy
// DD	DISP=SHR,DSN=thlqual.SCSQAUTH
// DD	DISP=SHR,DSN=1e370.library
//SYSPRINT DD	SYSOUT=*
//CSQUINP DD	<pre>DISP=SHR,DSN=MY.MQSERIES.FORMATS(MSG1)</pre>
//CSQUOUT DD	<pre>DISP=OLD,DSN=MY.MQSERIES.EXITS(MSG1)</pre>

Figure 29. Sample JCL used to invoke the CSQUCVX utility

Where y is 1 if you are using the DQM feature, and 2 if you are using the Interlink feature.

Reader's comments

Program Directory for IBM MQSeries for MVS/ESA Version 1 Release 2, Modification Level 0

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— RATING SCALE —

Г

very				very	not
satisfied	<=====>			dissatisfied	applicable
1	2	3	4	5	N

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of program directory	1	2	3	4	5	Ν
Installation Verification Programs	1	2	3	4	5	Ν
Time to install the product	1	2	3	4	5	Ν
Readability and organization of program directory tasks	1	2	3	4	5	Ν
Necessity of all installation tasks		2	3	4	5	Ν
Accuracy of the definition of the installation tasks		2	3	4	5	Ν
Technical level of the installation tasks	1	2	3	4	5	Ν
Ease of getting the system into production after installation		2	3	4	5	Ν

How did you order this product?

 CBIPO
 CBPDO
 CustomPac
 ServerPac
Independent

- Other

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

____ No

Were the people who did the installation experienced with the installation of MVS products?

____ Yes ___ No

If yes, how many years? ____

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

Please provide the following contact information:

Name and Job Title

Organization

Address

Telephone

Thank you for your participation.

Please send the completed form to (or give to your IBM representative who will forward it to the IBM MQSeries for MVS/ESA Development group):

MQSeries for MVS/ESA Development, Mailpoint 127, IBM United Kingdom, Hursley Park, Winchester, Hampshire SO21 2JN, England.

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Program Number: 5695-137 5811,5812,5337 5821,5822,6180 6181,6182,6183

Printed in U.S.A.

