WebSphere MQ z/OS a-z
Proof of Technology

MQ v7.1 Installation

An IBM Educational Approach

MQ z/OS v7.1Installation

Installation Overview

- SMP/E, used for installation on the z/OS platform
- Media
- Program Directory
- Roles
- Pre Reqs
- Using command prefix strings

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Installation summary for WebSphere MQ for z/OS

1. Preventive Service Planning (PSP)
2. Choose names and values
3. Sample installation JCL and CLIST
4. SMP/E environment
5. Allocate libraries.
6. File system
7. SMP/E DDDEF statements.
8. SMP/E RECEIVE.
9. SMP/E APPLY
10. SMP/E ACCEPT
11. SMP/E LINK

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High Level qualifiers

Parameter name	Default value	Assigned value	Description
CSSQUAL	SYS1		High-level qualifiers for the OS/390 callable service library CSSLIB.
DHLQUAL	MQ.DLIB		High-level qualifiers for the WebSphere MQ for z/OS distribution data sets.
DHQ	DHQ		High-level qualifiers for the UCSQINST data set into which the installation JCL will be loaded from tape.
LEQUAL	PP.ADLE370		High-level qualifiers for the Language Environment target libraries.
MACQUAL	SYS1		High-level qualifier for the SYS1.MACLIB library. This library is referenced during definition of the SMP/E global zone to initialize the VSAM CLUSTER as an SMP/E CSI.
PATHPREFIX	/usr/lpp/mqm/V7R1M0		Install path for the IBM WebSphere MQ for z/OS Unix System Services Components
SHLQUAL	MQ.SMPE		High-level qualifiers for the new SMP/E data sets that you are going to use to install WebSphere MQ for z/OS. If you are going to install into existing data sets, this name is already defined.

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High Level qualifiers (cont)

Parameter name	Default value	Assigned value	Description
SSLPREFIX			Any prefix required on the driver system for the /usr/lpp/gskssl directory. Installation will use /SSLPREFIX/usr/lpp/gskssl
THLQUAL	MQ.TLIB		High-level qualifiers for the WebSphere MQ for z/OS target data sets.
THQ	THQ		High-level qualifiers for the TCSQINST data set into which the customized installation JCL will be placed.
ZFSNAME	ZFSNAME		The data set name used by CSQ8J8ZF for creaton of a zFS file system on which to install IBM WebSphere MQ for z/OS Unix System Services Components.

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Sample Jobs

Job Name	Default value	Job Type	RELFILE
CSQ8B0GZ	GZONE	Sample job to set up an SMP/E global zone	IBM.HMS7100.F2
CSQ8C0TZ	TZONE	Sample job to set up an SMP/E target zone	IBM.HMS7100.F2
CSQ8D0DZ	DZONE	Sample job to set up an SMP/E distribution zone	IBM.HMS7100.F2
CSQ8E1AL	ALLOCATE	Sample job to allocate WebSphere MQ for z/OS base target and distribution libraries	IBM.HMS7100.F2
CSQ8F2AL	ALLOCATE	Sample job to allocate WebSphere MQ for z/OS Japanese language target and distribution libraries	IBM.HMS7100.F2
CSQ8G3AL	ALLOCATE	Sample job to allocate WebSphere MQ for z/OS simplified Chinese language target and distribution Libraries	IBM.HMS7100.F2
CSQ8H4AL	ALLOCATE	Sample job to allocate WebSphere MQ for z/OS U.S. English (uppercase) language target and distribution libraries	IBM.HMS7100.F2
CSQ8H5AL	ALLOCATE	Sample job to allocate WebSphere MQ for z/OS French language target and distribution libraries	IBM.HMS7100.F2
CSQ8I8AL	ALLOCATE	Sample job to allocates the libraries for IBM WebSphere MQ for z/OS Unix System Services Components	IBM.HMS7100.F2
CSQ8J8ZF	ZFS Create	Sample job to create, format, mount and make active a zFS file system for &BOMPNAM9.	IBM.HMS7100.F2

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Sample Jobs (cont)

Job Name	Default value	Job Type	RELFILE
CSQ8K8MK	MKDIR	Sample job to create the file system path for IBM WebSphere MQ for z/OS Unix System Services Components	IBM.HMS7100.F2
CSQ8L0DD	DDDEF	Sample job to define WebSphere MQ for z/OS target and distribution libraries to SMP/E	IBM.HMS7100.F2
CSQ8M8DD	DDDEF	Sample job to define libraries for IBM WebSphere MQ for z/OS Unix System Services Components to SMP/E.	IBM.HMS7100.F2
CSQ8N0RC	RECEIVE	Sample RECEIVE job for WebSphere MQ for z/OS	IBM.HMS7100.F2
CSQ8O7RC	RECEIVE	Sample RECEIVE job for WebSphere MQ for z/OS Client Attachment feature	IBM.HMS7100.F2
CSQ8P0AP	APPLY	Sample APPLY job for WebSphere MQ for z/OS	IBM.HMS7100.F2
CSQ8Q0AC	ACCEPT	Sample ACCEPT job for WebSphere MQ for z/OS	IBM.HMS7100.F2
CSQ8SLDQ	LINK	Optional link job	IBM.HMS7100.F2
CSQ8TUBP	USERMOD	User modification that moves the WebSphere MQ for z/OS exit program into the SYS1.SIFALIB data set	IBM.HMS7100.F2
CSQ8UERL	USERMOD	User modification that moves the CSQ3ECMX load module into the SCSQLINK data set	IBM.HMS7100.F2

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Sample Jobs (cont)

```
//OFFTAPE JOB
//TALLOC EXEC PGM=IEBCOPY,REGION=124K
//SYSPRINT DD SYSOUT=
//IN DD DSN=IBM.HMS71.F2,
// LABEL=(3,SL),
// UNIT=tapeunit,
// VOL=SER=MS71,
// DISP=OLD
//OUT DD DSN=dhq.UCSQINST,
// DCB=(LRECL=8,RECFM=FB,BLKSIZE=88),
// SPACE=(CYL,(1,1,2)),
// VOL=SER=disvol,UNIT=SYSALLDA,
// DISP=(NEW,CATLG)
//SYSUT3 DD SPACE=(TRK,(5)),UNIT=SYSALLDA
//SYSUT4 DD SPACE=(TRK,(5)),UNIT=SYSALLDA
//SYSIN DD
COPY INDD=IN,OUTDD=OUT
/*/
```

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What SMP/E has done - Libraries

- thlqual.SCSQANLE

- thlqual.SCSQASMS
- thlqual.SCSQAUTH

- thlqual.SCSQCICS

- thlqual.SCSQCOBC

- thlqual.SCSQCOBS
- thlqual.SCSQEXEC

- thlqual.SCSQINST
- thlqual.SCSQLOAD

- thlqual.SCSQPROC

- Contains the load modules for the U.S. English (mixed case) version of WebSphere MQ
- Contains source for assembler sample programs
- The main repository for all WebSphere MQ product load modules; it also contains the default parameter module, CSQZPARM
- Contains extra load modules that must be included in the CICS DFHRPL concatenation
- Contains COBOL copybooks, including copybooks required for the sample programs.
- Contains source for COBOL sample programs.
- Contains REXX executable files to be included in the SYSEXEC or SYSPROC concatenation if you are using the WebSphere MQ operations and control panels
- Contains JCL for installation jobs
- Load library. Contains load modules for non-APF code, user exits, utilities, samples, installation verification programs, and adapter stubs
- Contains sample JCL and default system initialization data sets

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