

StorageTek Enterprise Library Software
Command, Control Statement, and Utility Reference
Release 7.2 for MSP
E48494-02

June 2016

StorageTek Enterprise Library Software Command, Control Statement, and Utility Reference, Release 7.2 for MSP

E48494-02

Copyright © 2013, 2016, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface	xxxix
Audience	xxxix
Documentation Accessibility	xxxix
Related Documents	xl
Conventions	xl
What's New?	xlv
1 ELS Command Interfaces	
Unified User Interface (UI) Support	1-1
SMC Command Interfaces	1-1
Issuing SMC Commands from the Console	1-2
Issuing Commands Using an SMC Command Prefix	1-2
Issuing SMC Commands Using the MSP Modify Command	1-2
Keyword Parameters	1-3
Specifying SMC Commands in the SMCCMDS or SMCPARMS Data Sets	1-3
SMC Commands that Specify JOBname, STEPname, and PROCstep	1-4
Issuing SMC Commands from a Utility	1-4
HSC and VTCS Command Interfaces	1-5
Issuing HSC and VTCS Commands from the Console	1-5
Issuing HSC and VTCS Commands Using a Command Prefix	1-5
Issuing HSC and VTCS Commands Using the MSP Modify Command	1-5
Keyword Parameters	1-6
Issuing HSC and VTCS Commands from a Utility	1-6
Issuing HSC and VTCS Commands from PARMLIB	1-7
HSC Service Levels	1-8
Base Service Level Functions	1-8
Mount Requests Intercepted During Base Service Level Operations	1-8
Full Service Level Functions	1-8
2 SMC Commands, Utilities, and Control Statements	
ALLOCDef	2-1
Description	2-1
Syntax	2-1
Parameters	2-2

Optional Parameters	2-3
ALLOCJob	2-6
Description	2-7
Syntax.....	2-7
Parameters.....	2-7
Optional Parameters	2-7
CMDDef	2-9
Description	2-9
Syntax.....	2-9
Parameters.....	2-9
COMMtest	2-10
Description	2-10
Syntax.....	2-10
Parameters.....	2-11
DISMount	2-12
Description	2-12
Syntax.....	2-12
Parameters.....	2-12
Display DRive	2-13
Description	2-13
Syntax.....	2-13
Parameters.....	2-14
Display POLicy	2-15
Description	2-15
Syntax.....	2-15
Parameters.....	2-16
Display RC	2-16
Description	2-16
Syntax.....	2-16
Parameters.....	2-16
Display SERVer	2-17
Description	2-17
Syntax.....	2-17
Parameters.....	2-17
Display SMC	2-18
Description	2-18
Syntax.....	2-18
Parameters.....	2-18
Display STORMNGR	2-18
Description	2-18
Syntax.....	2-19
Parameters.....	2-19
Display TAPEplex	2-19
Description	2-19
Syntax.....	2-19
Parameters.....	2-20
Display Volume	2-20

Description	2-20
Syntax.....	2-20
Parameters.....	2-21
DRIVemap	2-21
Description	2-21
Syntax.....	2-21
Parameters.....	2-22
Optional Parameters	2-22
Help	2-23
Description	2-23
Syntax.....	2-23
Parameters.....	2-23
HTTP	2-24
Description	2-24
Syntax.....	2-24
Parameters.....	2-25
Tuning Parameters.....	2-26
LIMIT	2-26
Description	2-27
Syntax.....	2-27
Parameters.....	2-28
List	2-29
Description	2-30
Syntax.....	2-30
Parameters.....	2-30
LOG	2-31
Description	2-31
Syntax.....	2-31
Parameters.....	2-32
Optional Parameters	2-32
METAdata	2-34
Description	2-34
Syntax.....	2-34
Parameters.....	2-34
MONitor	2-35
Description	2-36
Syntax.....	2-36
Parameters.....	2-36
Monitor Parameters	2-36
MOunt	2-38
Description	2-38
Syntax.....	2-38
Parameters.....	2-38
MOUNTDef	2-39
Description	2-39
Syntax.....	2-40
Parameters.....	2-40

Optional Parameters	2-41
MSGDef	2-43
Description	2-44
Syntax.....	2-44
Parameters.....	2-44
Optional Parameters	2-45
MSGJob	2-46
Description	2-46
Syntax.....	2-46
Parameters.....	2-46
Optional Parameters	2-47
POLicy	2-47
Description	2-48
Syntax.....	2-49
Parameters.....	2-49
Named Policy Parameters	2-51
READ	2-54
Description	2-54
Syntax.....	2-54
Parameters.....	2-54
RESYNChronize	2-56
Description	2-56
Syntax.....	2-56
Parameters.....	2-57
Route	2-57
Description	2-57
Syntax.....	2-57
Parameters.....	2-57
SERVER	2-58
Description	2-58
Syntax.....	2-58
Parameters.....	2-59
Named SERVER Parameters.....	2-60
SIMulate	2-61
Description	2-62
Syntax.....	2-62
Parameters.....	2-62
Examples	2-64
STORMNGR	2-64
Description	2-64
Syntax.....	2-64
Parameters.....	2-65
TAPEPlex	2-66
Description	2-66
Syntax.....	2-66
Parameters.....	2-67
Named TAPEPlex Parameters	2-68

TCPIP	2-69
Description	2-69
Syntax.....	2-69
Parameters.....	2-70
TCPIP Parameters	2-70
TRace	2-71
Description	2-71
Syntax.....	2-71
Parameters.....	2-72
Jobname/Component Parameters.....	2-73
TREQDef	2-74
Description	2-75
Syntax.....	2-75
Parameters.....	2-75
TAPEREQ Control Statement.....	2-76
Syntax	2-77
Parameters.....	2-78
Disabling a TAPEREQ Definition.....	2-82
UEXit	2-82
Description	2-82
Syntax.....	2-83
Parameters.....	2-83
UNITAttr	2-84
Description	2-84
Syntax.....	2-85
Parameters.....	2-85
Device Attributes	2-86
USERMsg	2-87
Description	2-87
Syntax.....	2-87
Parameters.....	2-87
VMSG	2-88
Description	2-88
Syntax.....	2-88
Parameters.....	2-89
XCLIENT	2-90
Description	2-91
Syntax.....	2-91
Parameters.....	2-91
XUDB	2-92
Description	2-92
Syntax.....	2-93
Parameters.....	2-93
XUDB Security Data set.....	2-94

3 HSC Commands, Utilities, and Control Statements

ACTivities	3-1
-------------------------	-----

Description	3-1
Syntax.....	3-2
Parameters.....	3-2
Additional JCL Requirements	3-3
Additional Sort Control Cards.....	3-4
ACTMVCgn	3-4
Description	3-4
Syntax.....	3-4
Parameters.....	3-5
Additional JCL Requirements	3-5
ARCHive	3-6
Description	3-6
Syntax.....	3-6
Parameters.....	3-6
Examples	3-7
ARCHive Report (MOVEVTV not specified)	3-7
Fields.....	3-8
Fields (MVC Report)	3-8
ARCHive MOVEVTV Report (MOVEVTV specified).....	3-9
AUDit	3-10
Description	3-10
Syntax.....	3-10
Parameters (Real Volume Audit).....	3-11
Optional Parameters (ALL or ACS)	3-12
Optional Parameters (ACS Only)	3-13
Parameters (Virtual Volume Audit)	3-14
Parameters (Virtual Volume Audit)	3-14
Audit Report	3-15
AUDit Report Messages.....	3-16
BACKup	3-18
Description	3-18
Syntax.....	3-19
Parameters.....	3-19
Additional JCL Requirements	3-19
CANcel	3-19
Description	3-19
Syntax.....	3-19
Parameters.....	3-20
CAPPref	3-20
Description	3-20
Syntax.....	3-21
Parameters.....	3-21
CDs	3-23
Description	3-23
Syntax.....	3-23
Parameters.....	3-23
CDSCREat	3-24

Description	3-25
Syntax.....	3-25
Parameters.....	3-25
Additional JCL Requirements	3-26
CDSData	3-27
Description	3-27
Syntax.....	3-27
Parameters.....	3-27
CDSDEF	3-28
Description	3-28
Syntax.....	3-29
Parameters.....	3-29
Clean	3-30
Description	3-31
Syntax.....	3-31
Parameters.....	3-31
COMMPath	3-31
Description	3-31
Syntax.....	3-32
Parameters.....	3-32
CONFIg	3-33
Description	3-34
Syntax.....	3-34
Parameters.....	3-34
CONFIg CLINK Statement	3-35
Syntax	3-36
Parameters.....	3-36
CONFIg CLUSTER Statement.....	3-37
Syntax	3-38
Parameters.....	3-38
CONFIg GLOBAL Statement	3-38
Syntax	3-38
Parameters.....	3-39
CONFIg HOST Statement.....	3-46
Syntax	3-46
Parameters.....	3-46
CONFIg MVCVOL Statement	3-47
CONFIg RECLAIM Statement	3-47
Syntax	3-47
Parameters.....	3-47
CONFIg RTDpath Statement.....	3-49
Syntax	3-49
Parameters.....	3-50
CONFIg STORMNGR Statement.....	3-51
Syntax	3-51
Parameters.....	3-52
CONFIg TAPEPLEX Statement.....	3-52

Syntax	3-52
Parameters.....	3-53
CONFIg VTD Statement	3-53
Syntax	3-54
Parameters.....	3-54
Specifying VTD Unit Addresses	3-54
CONFIg VTSS Statement	3-55
Syntax	3-55
Parameters.....	3-56
CONFIg VTVVOL Statement	3-58
CONSolid	3-58
Description	3-58
Syntax.....	3-58
Parameters.....	3-59
CONSolid Report Messages	3-59
DBSERVer	3-60
Description	3-60
Syntax.....	3-61
Parameters.....	3-61
DEComp	3-62
Description	3-62
Syntax.....	3-62
Parameters.....	3-62
Output.....	3-62
FLATDD Parameter Output.....	3-62
SLSPRINT Output.....	3-63
DELETSCR	3-63
Description	3-64
Syntax.....	3-64
Parameters.....	3-64
DELETSCR Report	3-65
DIRBLD	3-66
Description	3-66
Syntax.....	3-66
Parameters.....	3-66
DISMount	3-67
Description	3-67
Syntax.....	3-67
Parameters.....	3-67
Display	3-68
Display ACS.....	3-69
Description	3-70
Syntax	3-70
Parameters.....	3-70
Output.....	3-70
Display ACTIVE	3-71
Description.....	3-71

Syntax	3-71
Parameters.....	3-71
Output.....	3-71
Fields.....	3-72
Display ALL	3-78
Description.....	3-79
Syntax	3-79
Parameters.....	3-79
Display Cap.....	3-79
Description.....	3-79
Syntax	3-79
Parameters.....	3-79
Output.....	3-80
Display CDS.....	3-81
Description.....	3-81
Syntax	3-81
Parameters.....	3-82
Output.....	3-82
Display CLInk.....	3-82
Description.....	3-83
Syntax	3-83
Parameters.....	3-83
Output.....	3-83
Fields.....	3-84
Display CLUster	3-85
Description.....	3-85
Syntax	3-85
Parameters.....	3-86
Output.....	3-86
Fields.....	3-86
Display CMD	3-88
Description.....	3-88
Syntax	3-88
Parameters.....	3-88
Display COMMPath	3-89
Description.....	3-89
Syntax	3-89
Parameters.....	3-89
Display CONFIG.....	3-89
Description.....	3-90
Syntax	3-90
Parameters.....	3-90
Output.....	3-90
Fields.....	3-91
Display DRives	3-93
Description.....	3-93
Syntax	3-93

Parameters.....	3-94
Display DRIVE_INFO	3-96
Description.....	3-96
Syntax	3-96
Parameters.....	3-96
Display EXceptns	3-98
Description.....	3-98
Syntax	3-98
Parameters.....	3-98
Output.....	3-98
Display LINKSto	3-99
Description.....	3-100
Syntax	3-100
Parameters.....	3-100
Output.....	3-100
Display LMUPDEF	3-101
Description.....	3-101
Syntax	3-101
Parameters.....	3-101
Display LOCKs.....	3-101
Description.....	3-101
Syntax	3-101
Parameters.....	3-102
Output.....	3-102
Fields.....	3-102
Display Lsm	3-103
Description.....	3-103
Syntax	3-103
Parameters.....	3-103
Output.....	3-104
Display Message.....	3-104
Description.....	3-105
Syntax	3-105
Parameters.....	3-105
Display MGMTDEF	3-105
Description.....	3-105
Syntax	3-106
Parameters.....	3-106
Display MIGrate.....	3-106
Description.....	3-106
Syntax	3-106
Parameters.....	3-106
Output (Display Migrate)	3-107
Fields.....	3-107
Output (Display Migrate DETail).....	3-107
Fields.....	3-108
Output (Display MIGrate AUTO)	3-109

Output (Display MIGrate DELAY)	3-109
Display MNTD	3-109
Description	3-109
Syntax	3-109
Parameters.....	3-110
Display MONitor	3-110
Description.....	3-110
Syntax	3-110
Parameters.....	3-110
Display MVC	3-110
Description.....	3-111
Syntax	3-111
Parameters.....	3-111
Output.....	3-111
Fields.....	3-111
Display MVCPool	3-116
Description.....	3-116
Syntax	3-116
Parameters.....	3-116
Output.....	3-117
Fields.....	3-117
Display OPTion	3-118
Description.....	3-119
Syntax	3-119
Parameters.....	3-119
Display PATH.....	3-119
Description.....	3-119
Syntax	3-119
Parameters.....	3-119
Output.....	3-120
Fields.....	3-120
Display Queue	3-121
Description.....	3-121
Syntax	3-121
Parameters.....	3-122
Output.....	3-122
Display REPlicat.....	3-122
Description.....	3-122
Syntax	3-122
Parameters.....	3-122
Output.....	3-122
Fields.....	3-123
Display Requests	3-123
Description.....	3-123
Syntax	3-123
Parameters.....	3-124
Display RTD.....	3-124

Description.....	3-124
Syntax	3-124
Parameters.....	3-124
Output.....	3-124
Fields.....	3-125
Output.....	3-127
Fields.....	3-127
Display SCRAtch.....	3-128
Description.....	3-128
Syntax	3-128
Parameters.....	3-128
Output.....	3-129
Display SEN	3-131
Description.....	3-131
Syntax	3-131
Parameters.....	3-132
Supported HSC SEN Events.....	3-132
Supported VTCS SEN Events.....	3-132
Display SERVER.....	3-133
Description.....	3-133
Syntax	3-133
Parameters.....	3-133
Output.....	3-133
Display SRVlev	3-134
Description.....	3-134
Syntax	3-134
Parameters.....	3-134
Display Status	3-134
Description.....	3-134
Syntax	3-134
Parameters.....	3-135
Output.....	3-135
Display STORCLas.....	3-135
Description.....	3-135
Syntax	3-135
Parameters.....	3-136
Output.....	3-136
Display STORMNgr.....	3-137
Description.....	3-137
Syntax	3-137
Parameters.....	3-137
Output.....	3-137
Fields.....	3-137
Display TASKs.....	3-138
Description.....	3-138
Syntax	3-138
Parameters.....	3-139

Output.....	3-139
Fields.....	3-139
Display THReshld	3-140
Description.....	3-140
Syntax	3-140
Parameters.....	3-141
Output.....	3-142
Display Volser.....	3-143
Description.....	3-143
Syntax	3-143
Parameters.....	3-143
Output.....	3-143
Display VOLume_Info	3-145
Description.....	3-145
Syntax	3-145
Parameters.....	3-145
Display VSCRatch.....	3-146
Description.....	3-146
Syntax	3-146
Parameters.....	3-146
Output.....	3-146
Fields.....	3-147
Display VTD.....	3-147
Description.....	3-147
Syntax	3-147
Parameters.....	3-148
Output.....	3-148
Fields.....	3-148
Display VTSS	3-150
Description.....	3-150
Syntax	3-150
Parameters.....	3-150
Output.....	3-150
Fields.....	3-151
Display VTSS DETail Output.....	3-152
Fields.....	3-152
Display VTV.....	3-154
Description.....	3-154
Syntax	3-154
Parameters.....	3-155
Output.....	3-155
Fields.....	3-155
DRAIn	3-158
Description	3-158
Syntax.....	3-158
Parameters.....	3-158
DRCHKPT	3-159

Description	3-159
Syntax.....	3-159
Parameters.....	3-159
DRMONitr	3-160
Description	3-160
Syntax.....	3-160
Parameters.....	3-160
DRTEST	3-162
DRTEST CREATE	3-162
Description.....	3-162
Syntax	3-163
Parameters.....	3-163
Additional JCL Requirements	3-164
DRTEST PRIMEprd	3-166
Description.....	3-166
Syntax	3-166
Parameters.....	3-167
DRTEST RESET	3-168
Description.....	3-168
Syntax	3-168
Parameters.....	3-168
DRTEST START	3-169
Description.....	3-169
Syntax	3-169
Parameters.....	3-169
DRTEST STOP	3-169
Description.....	3-170
Syntax	3-170
Parameters.....	3-170
EEXPORT	3-170
Description	3-170
Syntax.....	3-170
Parameters.....	3-171
Eject	3-173
Description	3-173
Syntax.....	3-173
Parameters.....	3-174
Option 1 Parameters	3-175
Option 2 Parameters	3-176
ENter	3-177
Description	3-177
Syntax.....	3-177
Parameters.....	3-178
EXECParM	3-178
Description	3-179
Syntax.....	3-179
Parameters.....	3-179

EXPORT	3-180
Description	3-180
Syntax.....	3-180
Parameters.....	3-181
Additional JCL Requirements	3-182
FMTLOG	3-182
Description	3-182
Syntax.....	3-183
Parameters.....	3-183
Additional JCL Requirements	3-183
IMPORT	3-183
Description	3-183
Syntax.....	3-184
Parameters.....	3-184
Additional JCL Requirements	3-186
INITialize	3-186
Description	3-186
Syntax.....	3-186
Parameters.....	3-187
Additional JCL Requirements	3-188
INVENTORY	3-188
Description	3-189
Syntax.....	3-189
Parameters.....	3-189
Return Codes	3-190
Inventory Report	3-191
LIBGen	3-191
Description	3-191
Syntax.....	3-191
Parameters.....	3-192
Additional JCL Requirements	3-192
Output.....	3-192
LMUPDEF	3-193
Description	3-193
Syntax.....	3-194
Parameters.....	3-194
LMUPATH Control Statement.....	3-195
Syntax	3-195
Parameters.....	3-195
LOGUTIL	3-196
Description	3-197
Syntax.....	3-197
Parameters.....	3-197
LOGUTIL FOR_LOSTMVC Statement	3-198
Syntax	3-198
Parameters.....	3-198
LOGUTIL GENAUDIT Statement	3-199

Syntax	3-199
Parameters.....	3-199
LOGUTIL LOCATE_VTV Statement	3-200
Syntax	3-200
Parameters.....	3-200
LOGUTIL UNDELETE Statement	3-201
Syntax	3-201
Parameters.....	3-201
MEDVERfy	3-202
Description	3-202
Syntax.....	3-202
Parameters.....	3-202
MEDVERfy Reports	3-204
MERGEcds	3-204
Description	3-204
Syntax.....	3-205
Parameters.....	3-205
Additional JCL Requirements	3-206
SLSMERGE Control Statement	3-206
Syntax	3-207
Parameters.....	3-207
Parameters (Real Volumes)	3-208
Parameters (CDS Containing Virtual Data)	3-208
Parameters (CDS Containing VAULT Data).....	3-208
MERGMFST	3-209
Description	3-209
Syntax.....	3-209
Parameters.....	3-209
Additional JCL Requirements	3-209
METAdata	3-210
Description	3-210
Syntax.....	3-210
Parameters.....	3-210
Tags Produced	3-210
MGMTDEF	3-211
Description	3-211
Syntax.....	3-212
Parameters.....	3-212
MGMTclas Control Statement.....	3-212
Syntax	3-213
Parameters.....	3-214
MIGRSEL Control Statement.....	3-221
Syntax	3-221
Parameters.....	3-222
MIGRVTV Control Statement	3-223
Syntax	3-223
Parameters.....	3-224

MVCATTR Control Statement	3-225
Syntax	3-225
Parameters.....	3-225
STORclas Control Statement	3-226
Syntax	3-226
Parameters.....	3-227
Dynamic Reclaim Usage	3-229
STORMNGR and ACS Parameter Interactions	3-231
FROMLST Parameter Usage	3-231
STORLST Control Statement	3-232
Syntax	3-232
Parameters.....	3-232
STORSEL Control Statement	3-233
Syntax	3-233
Parameters.....	3-233
VTSSLST Control Statement.....	3-234
Syntax	3-235
Parameters.....	3-235
VTSSSEL Control Statement.....	3-236
Syntax	3-236
Parameters.....	3-236
MIGrate	3-238
Description	3-238
Syntax (Format 1)	3-238
Parameters (Format 1)	3-239
Syntax (Format 2)	3-240
Parameters (Format 2)	3-240
MNTD	3-240
Description	3-241
Syntax.....	3-241
Parameters.....	3-241
MODify	3-245
Description	3-245
Syntax.....	3-246
Parameters.....	3-246
MOUNT	3-249
Description	3-249
Syntax.....	3-249
Parameters.....	3-250
Parameters (To Mount a Specific Volume on a Transport)	3-250
To Mount a Scratch Volume on a Transport.....	3-251
To Mount a VTV on a VTD and Optionally, Assign a Management Class to the VTV.....	3-252
MOVE	3-252
Description	3-252
Syntax.....	3-252
Parameters.....	3-253

MVCDRain	3-254
Description	3-254
Syntax.....	3-254
Parameters.....	3-255
MVCMaint	3-256
Description	3-256
Syntax.....	3-257
Parameters.....	3-257
Additional JCL Requirements	3-259
Return Codes	3-260
MVCMaint Report	3-260
MVCPLRPT	3-261
Description	3-261
Syntax.....	3-261
Parameters.....	3-261
Named MVC Pool Report	3-262
Fields.....	3-262
MVCRPt	3-265
Description	3-266
Syntax.....	3-266
Parameters.....	3-266
MVC Reports	3-267
MVC Summary Report.....	3-267
Fields.....	3-267
MVC Detailed Report	3-271
Fields.....	3-272
OFFload	3-272
Description	3-273
Syntax.....	3-273
Parameters.....	3-273
Additional JCL Requirements	3-274
OPTION TITLE Control Statement	3-274
Syntax.....	3-274
Parameters.....	3-274
OPTion	3-275
Description	3-275
Syntax.....	3-275
Parameters.....	3-276
RECall	3-278
Description	3-279
Syntax.....	3-279
Parameters.....	3-279
RECLaim	3-280
Description	3-280
Syntax.....	3-280
Parameters.....	3-281
RECONcil	3-282

Description	3-282
Syntax.....	3-283
Parameters.....	3-283
RECONcil Reports	3-284
RECONcil Report (MOVEVTV Not Specified).....	3-284
Fields.....	3-285
MVC Report Fields	3-286
RECONcil MOVEVTV Report	3-286
RECOVer	3-287
Description	3-287
Syntax.....	3-287
Parameters.....	3-287
RELease	3-288
Description	3-288
Syntax.....	3-288
Parameters.....	3-288
REPLaceall	3-289
Description	3-289
Syntax.....	3-289
Parameters.....	3-289
REStore	3-289
Description	3-290
Syntax.....	3-290
Parameters.....	3-290
Additional JCL Requirements	3-290
SCRAtch	3-291
Description	3-291
Syntax.....	3-291
Parameters.....	3-291
SCREdist	3-291
Description	3-292
Syntax.....	3-292
Parameters.....	3-293
SCRPT	3-294
Description	3-295
Syntax.....	3-295
Parameters.....	3-295
SCRPT Report	3-295
Fields.....	3-296
SENter	3-296
Description	3-297
Syntax.....	3-297
Parameters.....	3-297
SET	3-297
SET CLNPRFX	3-298
Description.....	3-298
Syntax	3-299

Parameters.....	3-299
SET CLNPRFX Procedure.....	3-299
SET COMPREFX.....	3-299
Description.....	3-299
Syntax	3-300
Parameters.....	3-300
SET DRVHOST	3-301
Description.....	3-301
Syntax	3-302
Parameters.....	3-302
SET EJCTPAS.....	3-302
Description.....	3-302
Syntax	3-302
Parameters.....	3-303
SET EJCTSKP	3-303
Description.....	3-303
Syntax	3-303
Parameters.....	3-303
SET FREEZE.....	3-304
Description.....	3-304
Syntax	3-304
Parameters.....	3-304
SET HOSTID	3-305
Description.....	3-305
Syntax	3-306
Parameters.....	3-306
SET HSCLEVEL.....	3-306
Description.....	3-306
Syntax	3-307
Parameters.....	3-307
SET LOGFILE.....	3-307
Description.....	3-307
Syntax	3-308
Parameters.....	3-308
SET MAJNAME.....	3-309
Description.....	3-309
Syntax	3-309
Parameters.....	3-309
SET MIGOPT.....	3-309
Description.....	3-309
Syntax	3-310
Parameters.....	3-310
SET NEWHOST	3-310
Description.....	3-311
Syntax	3-311
Parameters.....	3-311
SET RMM	3-311

Description.....	3-311
Syntax	3-312
Parameters.....	3-312
SET SCRLABL.....	3-312
Description.....	3-312
Syntax	3-313
Parameters.....	3-313
SET SLIDRIVS.....	3-313
Description.....	3-313
Syntax	3-314
Parameters.....	3-314
Running SET SLIDRIVS With the HSC Active.....	3-316
SET SLIDRIVS Procedure	3-316
For the 9310 and 9740:.....	3-316
For the SL3000 and SL8500:.....	3-317
SET SLISTATN	3-317
Description.....	3-317
Syntax	3-317
Parameters.....	3-317
SET SMF.....	3-318
Description.....	3-318
Syntax	3-318
Parameters.....	3-318
SET TAPEPlex.....	3-319
Description.....	3-319
Syntax	3-319
Parameters.....	3-319
SET TCHNIQE.....	3-319
Description.....	3-320
Syntax	3-320
Parameters.....	3-320
SET TCHNIQE Procedure	3-320
SET VAULT.....	3-321
Description.....	3-321
Syntax	3-321
Parameters.....	3-321
SET VAULTVOL	3-322
Description.....	3-323
Syntax	3-323
Parameters.....	3-323
SET VOLPARM	3-323
Description.....	3-324
Syntax	3-324
Parameters.....	3-325
Additional JCL Requirements.....	3-325
Using SET VOLPARM to Disable POOLPARM/VOLPARM.....	3-325
POOLPARM Control Statement	3-326

Syntax	3-326
Parameters	3-327
TYPE(SCRATCH) Subparameters.....	3-327
TYPE(CLEAN) Subparameters.....	3-328
TYPE(MVC) Subparameters	3-328
TYPE(EXTERNAL) Subparameters	3-331
VOLPARM Control Statement.....	3-331
Syntax	3-332
Parameters	3-332
SET VOLPARM UPDATE.....	3-333
Description.....	3-333
Syntax	3-333
Parameters.....	3-333
Additional JCL Requirements.....	3-334
POOLPARM Change Control Statement	3-334
Syntax	3-334
Parameters	3-334
VOLPARM Change Control Statement	3-335
Syntax	3-335
Parameters	3-335
SET VOLPARM JOIN	3-336
Description.....	3-336
Syntax	3-336
Parameters.....	3-336
Additional JCL Requirements.....	3-336
SRVlev	3-337
Description	3-337
Syntax.....	3-337
Parameters.....	3-337
STOPMN	3-337
Description	3-338
Syntax.....	3-338
Parameters.....	3-338
SWitch	3-338
Description	3-339
Syntax.....	3-339
Parameters.....	3-340
Examples	3-342
TRace	3-342
Description	3-342
Syntax.....	3-342
Parameters.....	3-343
TRACELKP	3-344
Description	3-344
Syntax.....	3-344
Parameters.....	3-344
UEXIT	3-345

Description	3-345
Syntax.....	3-346
Parameters.....	3-346
UNSCratch	3-347
Description	3-347
Syntax.....	3-347
Parameters.....	3-348
UNSElect	3-348
Description	3-348
Syntax.....	3-348
Parameters.....	3-349
Vary	3-349
Description	3-349
Syntax.....	3-349
Parameters.....	3-350
View	3-352
Description	3-352
Syntax.....	3-353
Parameters.....	3-353
VLEMAINT	3-356
Description	3-356
Syntax.....	3-357
Parameters.....	3-357
Optional Parameters (VLEMAINT COPYMVC).....	3-358
VOLPCONV	3-358
Description	3-358
Syntax.....	3-358
Parameters.....	3-359
Additional JCL Requirements	3-359
VOLRpt	3-359
Description	3-360
Syntax.....	3-360
Parameters.....	3-361
Additional JCL Requirements	3-366
Volume Report.....	3-366
Fields.....	3-367
Total Reports.....	3-368
Volume Report Totals	3-368
Subpool Totals.....	3-368
VTVMaint	3-369
Description	3-369
Syntax.....	3-369
Parameters.....	3-369
Return Codes	3-371
VTVMaint Report	3-371
VTVRpt	3-372
VTVRpt BASIC	3-372

Description.....	3-372
Syntax	3-372
Parameters.....	3-373
VTV Report (Basic)	3-374
Fields.....	3-374
VTVRPt COPIES.....	3-376
Description.....	3-376
Syntax	3-376
Parameters.....	3-376
VTV Report (COPIES)	3-377
Fields.....	3-377
VVAUDIT	3-378
Description	3-379
Syntax.....	3-379
Parameters.....	3-379
Warn	3-379
Description	3-379
Syntax.....	3-380
Parameters.....	3-380

4 SMC Utilities

SMC Utility Return Codes and Messages	4-1
Unified User Interface Utility (SMCUUI)	4-2
Sample JCL	4-3
Parameters.....	4-3
Required Data Set Definition (DD) Statements	4-4
UUIIN Data Set.....	4-5
Syntax rules.....	4-5
Control Statements	4-5
STDOUT Data Set	4-7
Output Data Set Definition (DD) Statements	4-7
Remote UI Input and Output	4-8
Remote UI Input.....	4-8
Remote UI Output	4-8
SDD Command	4-8
Syntax	4-9
Parameters	4-9
CONFIG Command Example.....	4-10
IMPORT Command Example	4-11
EXPORT Command Example	4-12
MERGMST Command Example.....	4-12
POLicy and TAPEREQ Batch Test Utility (SMCUTRQ)	4-13
Sample JCL	4-14
Control Cards.....	4-14
Sample Input.....	4-15
Example 1	4-15
Example 2	4-16

Example 3	4-16
Sample Output.....	4-16
Tape Management Extract Utility (SMCUDBX)	4-17
Running the SMC Scratch Extract Utility	4-18
Using SMCUDBX with CA-1 Release 4.9 or Below.....	4-20
Syntax.....	4-20
Parameters.....	4-20
Date Related Parameters	4-21
JCL Requirements	4-22
Output Description	4-22
SMC UII Simulation Utility (SMCUSIM)	4-23
Phase 1 Processing	4-23
Phase 2 Processing	4-24
Sample JCL	4-24
Parameters.....	4-25
Required Data Set Definition (DD) Statements	4-27
UUIIN Data Set.....	4-27
Syntax Rules	4-27
Control Statements	4-27
STDOUT Data Set	4-28
SMCUSIM Utility Sample CSV	4-28
Trace Format Utility (SMCUGTF)	4-28
Sample JCL	4-28
VSM console SMF Offload utility (SMCUSMF)	4-29
Sample JCL	4-29
Parameters.....	4-29
Required Data Set Definition (DD) Statements	4-30
SMCUSMF Usage.....	4-31

5 HSC Standalone Utilities

Utility Administrator (SLUADMIN)	5-1
Invoking SLUADMIN	5-1
SLUADMIN Execution Parameters.....	5-2
SLUADMIN Definition Statements.....	5-3
General Definition Statements	5-3
CDS Definition Statements	5-4
UUI Output Definition Statements	5-4
Requesting SLUADMIN Output.....	5-5
Requesting XML Output.....	5-5
Requesting CSV Output.....	5-5
CSV Command.....	5-6
SLUADMIN Program Return Codes.....	5-8
Reports Created by Utility Commands.....	5-9
Report Headings	5-9
SLICREAT	5-9
Creating Control Data Set Initialization JCL.....	5-10
DD Statements	5-11

Executing the SLICREAT Program.....	5-12
SLICREAT EXEC Statement	5-12
Verifying Successful Completion of the SLICREAT Program.....	5-12
Calculating Cartridge Capacity - SL8500 and SL3000	5-12
Using SLICREAT to Create Only the Standby CDS.....	5-13
SLICREAT EXEC Statement to Create Standby CDS	5-13
Using SLICREAT to Calculate DASD Space	5-13
Scratch Conversion Utility (SLUCONDB)	5-13
Input Formats	5-14
Keyword Format	5-14
Syntax	5-14
Parameters	5-15
Positional Format	5-17
Syntax	5-17
Parameters	5-17
Date Related Parameters.....	5-18
JCL Requirements	5-19
JCL Examples.....	5-20
Output Description	5-21

6 VTCS Standalone Utilities

RTV Utility	6-1
Syntax.....	6-1
Parameters.....	6-1
JCL Requirements	6-4
RTV Utility Report Messages	6-4
RTV LISTONLY Listing	6-7
RTV Decompress Listing.....	6-8

A MEDia, RECtech, and MODel Values

Media Type (MEDia)	A-1
Recording Technique (RECtech).....	A-3
Model Type (MODel).....	A-6

B Library Identification

ACSid.....	B-1
LSMid	B-1
CAPid.....	B-1
CAP Numbers.....	B-1
Panels, Rows and Columns	B-2
Panels	B-2
Rows.....	B-3
Columns.....	B-4

C Tape Management System Interface (SLUDR*) Routines

SLUDRCA1.....	C-1
---------------	-----

SLUDRRMM.....	C-1
SLUDRTL.....	C-2
SLUDRSMC	C-2
SLUDRZAR.....	C-2

Index

List of Examples

1-1	JCL Defining Sequential PARMLIB Data Sets	1-7
1-2	JCL Defining Partitioned PARMLIB Data Sets	1-8
2-1	SIMulate Command Output - No Tape Policies Applied	2-64
3-1	ARCHive report (MOVEVTV not specified)	3-7
3-2	ARCHive MOVEVTV report	3-9
3-3	Audit report	3-15
3-4	DEComp FLATDD output	3-62
3-5	DEComp SLSPRINT output	3-63
3-6	DELETSCR report	3-65
3-7	Display ACS output	3-70
3-8	Display ACTive output (no detail)	3-71
3-9	Display Active DETail output	3-72
3-10	Display Cap output	3-80
3-11	Display CDS output	3-82
3-12	Display CLink output (no parameters)	3-83
3-13	Display CLink output (FROMvtss specified)	3-84
3-14	Display CLUster output	3-86
3-15	Display CONFIG output	3-90
3-16	Display LINKSto output	3-100
3-17	Display LOCKs output	3-102
3-18	Display MIGrate output	3-107
3-19	Display MIGrate DETail output	3-108
3-20	Display MIGrate AUTO output	3-109
3-21	Display MIGrate DELAY output	3-109
3-22	Display MVC output	3-111
3-23	Display MVCPool output (NAME POOL1)	3-117
3-24	Display MVCPool output (no NAME specified)	3-117
3-25	Display PATH output	3-120
3-26	Display Active output (no detail)	3-122
3-27	Display REPlicat output	3-122
3-28	Display RTD output	3-124
3-29	Display RTD output (Display RTD Queued)	3-127
3-30	Display SCRatch output (all)	3-130
3-31	Display SCRatch output (subpool)	3-130
3-32	Display SCRatch output (ACS)	3-130
3-33	Display SCRatch output (LSM)	3-131
3-34	Display SERVER output	3-133
3-35	Display STORCLas output	3-136
3-36	Display STORMNgr output	3-137
3-37	Display TASKs output	3-139
3-38	Display THReshld command output	3-142
3-39	Display VSCRatch output	3-146
3-40	Display VTD output	3-148
3-41	Display VTSS output	3-150
3-42	Display VTSS Detail output	3-152
3-43	Display VTV output	3-155
3-44	SLSSTATN	File 3-165
3-45	SLSVTSS	File 3-165
3-46	INVENTORY report	3-191
3-47	MEDVERfy report (1 of 2)	3-204
3-48	MEDVERfy report (2 of 2)	3-204
3-49	MVCMAlNT Report	3-260
3-50	Named MVC Pool report	3-262
3-51	MVCRPt MVC summary report	3-267

3-52	MVCRPt MVC detailed report (additional fields)	3-271
3-53	RECONcil report (MOVEVTV not specified)	3-285
3-54	RECONcil MOVEVTV report.....	3-286
3-55	SCRPT report	3-295
3-56	VOLRpt report.....	3-366
3-57	VTVMAINT report	3-371
3-58	VTVRPt BASIC report	3-374
3-59	VTVRPt COPIES report.....	3-377
4-1	JCL to Execute the SMCUUUI Utility	4-3
4-2	JCL to Execute the SMCUTRQ Utility	4-14
4-3	SMCUTRQ Utility Output	4-16
4-4	Sample JCL for Scratch Extraction Utility	4-22
4-5	Scratch Extraction Utility Sample Output Messages	4-23
4-6	JCL to Execute the SMCUSIM Utility.....	4-24
4-7	JCL to Execute the SMCUGTF Utility	4-29
4-8	JCL to Execute the SMCUSMF Utility.....	4-29
5-1	JCL to Invoke SLUADMIN.....	5-2
5-2	CSV Output for the MVCRPT command	5-8
5-3	SLICREAT JCL	5-10
5-4	JCL to Process TMS Database with Active HSC.....	5-20
5-5	JCL to Process TMS Database with HSC CDS DDnames	5-20
5-6	JCL to Process DFSMSrmm Database.....	5-21
5-7	JCL to Process SMC Extract File	5-21
5-8	JCL to Process from SMC to a Remote TapePlex	5-21
5-9	Scratch Conversion Utility output (without LIBONLY or TAPEPLEX)	5-21
5-10	Scratch Conversion Utility output (with LIBONLY or TAPEPLEX).....	5-22
6-1	RTV LISTONLY Listing	6-7
6-2	RTV Decompress Listing	6-8

List of Figures

2-1	ALLOCDef command syntax.....	2-2
2-2	ALLOCJob command syntax	2-7
2-3	CMDDef command syntax	2-9
2-4	COMMtest command syntax	2-11
2-5	DISMOunt command syntax.....	2-12
2-6	Display DRive command syntax	2-14
2-7	Display POLicy command syntax	2-16
2-8	Display RC command syntax.....	2-16
2-9	Display SERVer command syntax.....	2-17
2-10	Display SMC command syntax.....	2-18
2-11	Display STORMNGR command syntax	2-19
2-12	Display TAPEPlex command syntax	2-20
2-13	Display Volume command syntax	2-21
2-14	DRIVemap command syntax	2-22
2-15	Help command syntax	2-23
2-16	HTTP command syntax	2-25
2-17	LIMIT command syntax.....	2-28
2-18	List command syntax	2-30
2-19	LOG command syntax	2-32
2-20	METAdata command syntax.....	2-34
2-21	MONitor command syntax.....	2-36
2-22	MOunt command syntax	2-38
2-23	MOUNTDef command syntax	2-40
2-24	MSGDef command syntax.....	2-44
2-25	MSGJob command syntax	2-46
2-26	POLicy command syntax.....	2-49
2-27	READ command syntax.....	2-54
2-28	RESYNChronize command syntax.....	2-56
2-29	Route command syntax.....	2-57
2-30	SERVer command syntax	2-59
2-31	SIMulate command syntax	2-62
2-32	STORMNGR command syntax.....	2-65
2-33	TAPEPlex command syntax	2-67
2-34	TCPip command syntax.....	2-69
2-35	TRace command syntax	2-72
2-36	TREQDef command syntax	2-75
2-37	TAPEREQ control statement syntax	2-78
2-38	UEXit command syntax	2-83
2-39	UNITAttr command syntax.....	2-85
2-40	USERMsg command syntax	2-87
2-41	VMSG command syntax	2-89
2-42	XCLIENT command syntax.....	2-91
2-43	XUDB command syntax.....	2-93
3-1	ACTIvities command syntax.....	3-2
3-2	ACTMVCgn command syntax.....	3-5
3-3	ARCHive command syntax.....	3-6
3-4	AUDit command syntax	3-11
3-5	BACKup command syntax.....	3-19
3-6	CANcel command syntax.....	3-19
3-7	CAPPref command syntax	3-21
3-8	CDs command syntax	3-23
3-9	CDSCREat command syntax.....	3-25
3-10	CDSDAta command syntax.....	3-27
3-11	CDSDEF command syntax	3-29

3-12	Clean command syntax.....	3-31
3-13	COMMPath command syntax	3-32
3-14	CONFIg command syntax	3-34
3-15	CONFIg CLINK statement syntax.....	3-36
3-16	CONFIg CLUSTER statement syntax	3-38
3-17	CONFIg GLOBAL statement syntax.....	3-39
3-18	CONFIg HOST statement syntax	3-46
3-19	CONFIg RECLAIM statement syntax.....	3-47
3-20	CONFIg RTDpath statement syntax	3-50
3-21	CONFIg STORMNGR statement syntax	3-52
3-22	CONFIg TAPEPLEX statement syntax	3-52
3-23	CONFIg VTD statement syntax	3-54
3-24	CONFIg VTSS statement syntax.....	3-55
3-25	CONSolid command syntax.....	3-59
3-26	DBSERVer command syntax	3-61
3-27	DEComp command syntax.....	3-62
3-28	DELETSCR command syntax.....	3-64
3-29	DIRBLD command syntax	3-66
3-30	DISMOUNT command syntax.....	3-67
3-31	Display Acs command syntax.....	3-70
3-32	Display ACTive command syntax.....	3-71
3-33	Display ALl command syntax.....	3-79
3-34	Display Cap command syntax	3-79
3-35	Display CDS command syntax	3-82
3-36	Display CLink command syntax	3-83
3-37	Display CLUster command syntax	3-86
3-38	Display CMD command syntax.....	3-88
3-39	Display COMMPath command syntax.....	3-89
3-40	Display CONFIg command syntax	3-90
3-41	Display DRives command syntax.....	3-94
3-42	Display DRIVE_INFO command syntax.....	3-96
3-43	Display EXceptns command syntax.....	3-98
3-44	Display LINKSto command syntax.....	3-100
3-45	Display LMUPDEF command syntax.....	3-101
3-46	Display LOCKS command syntax	3-102
3-47	Display Lsm command syntax.....	3-103
3-48	Display Message command syntax	3-105
3-49	Display MGMTDEF command syntax.....	3-106
3-50	Display MIGrate command syntax	3-106
3-51	Display MNTD command syntax.....	3-109
3-52	Display MONitor command syntax.....	3-110
3-53	Display MVC command syntax.....	3-111
3-54	Display MVCPool command syntax.....	3-116
3-55	Display OPTion command syntax.....	3-119
3-56	Display PATH command syntax	3-119
3-57	Display Queue command syntax.....	3-121
3-58	Display REPLICat command syntax	3-122
3-59	Display Requests command syntax	3-123
3-60	Display RTD command syntax	3-124
3-61	Display SCRatch command syntax	3-128
3-62	Display SEN command syntax	3-132
3-63	Display SERVER command syntax	3-133
3-64	Display SRVlev command syntax	3-134
3-65	Display Status command syntax.....	3-134
3-66	Display STORCLas command syntax	3-135

3-67	Display STORMNgr command syntax	3-137
3-68	Display TASKs command syntax	3-139
3-69	Display THReshld command syntax	3-141
3-70	Display Volser output example	3-143
3-71	Display VOLume_Info command syntax	3-145
3-72	Display VSCRatch command syntax	3-146
3-73	Display VTD command syntax	3-147
3-74	Display VTSS command syntax	3-150
3-75	Display VTV command syntax	3-155
3-76	DRAIn command syntax	3-158
3-77	DRCHKPT command syntax	3-159
3-78	DRMONitr command syntax	3-160
3-79	DRTEST CREATE command syntax	3-163
3-80	DRTEST PRIMEprd syntax	3-167
3-81	DRTEST RESET command syntax	3-168
3-82	DRTEST START command syntax	3-169
3-83	DRTEST STOP command syntax	3-170
3-84	EEXPORT command syntax	3-171
3-85	Eject command syntax	3-174
3-86	ENter command syntax	3-178
3-87	EXECParm command syntax	3-179
3-88	EXPORT command syntax	3-181
3-89	FMTLOG command syntax	3-183
3-90	IMPORT command syntax	3-184
3-91	INITialize command syntax	3-187
3-92	INVENTORY command syntax	3-189
3-93	LIBGen command syntax	3-192
3-94	LMUPDEF command syntax	3-194
3-95	LMUPATH control statement syntax	3-195
3-96	LOGUTIL command syntax	3-197
3-97	LOGUTIL FOR_LOSTMVC statement syntax	3-198
3-98	LOGUTIL GENAUDIT statement syntax	3-199
3-99	LOGUTIL LOCATE_VTV statement syntax	3-200
3-100	LOGUTIL UNDELETE statement syntax	3-201
3-101	MEDVERfy command syntax	3-202
3-102	MERGEcds command syntax	3-205
3-103	SLSMERGE control statement syntax	3-207
3-104	MERGMFST command syntax	3-209
3-105	METAdata command syntax	3-210
3-106	MGMTDEF command syntax	3-212
3-107	MGMTclas control statement syntax	3-214
3-108	MIGRSEL control statement syntax	3-221
3-109	MIGRVTV control statement syntax	3-224
3-110	MVCATTR control statement syntax	3-225
3-111	STORclas control statement syntax	3-227
3-112	VLE to VLE Replication (Versus VTSS to VLE)	3-231
3-113	STORLST control statement syntax	3-232
3-114	STORSEL control statement syntax	3-233
3-115	VTSSLST control statement syntax	3-235
3-116	VTSSSEL control statement syntax	3-236
3-117	MIGrate command syntax (Format 1)	3-239
3-118	MIGrate command syntax (Format 2)	3-240
3-119	MNTD command syntax	3-241
3-120	MODify command syntax	3-246
3-121	Mount command syntax	3-250

3-122	MOVE command syntax	3-253
3-123	MVCDRAIN command syntax	3-255
3-124	MVCMaint command syntax.....	3-257
3-125	MVCPLRPT command syntax	3-261
3-126	MVCRPt command syntax	3-266
3-127	OFFload command syntax.....	3-273
3-128	OPTION TITLE control statement syntax	3-274
3-129	OPTion command syntax	3-276
3-130	RECall command syntax.....	3-279
3-131	RECLaim command syntax	3-281
3-132	RECONcil command syntax.....	3-283
3-133	RECOVer command syntax.....	3-287
3-134	RELease command syntax	3-288
3-135	REPLaceall command syntax	3-289
3-136	RESTore command syntax.....	3-290
3-137	SCRAtch command syntax	3-291
3-138	SCREdist command syntax	3-293
3-139	SCRPT command syntax.....	3-295
3-140	SENter command syntax	3-297
3-141	SET CLNPRFX command syntax.....	3-299
3-142	SET COMPRFX command syntax	3-300
3-143	SET DRVHOST command syntax	3-302
3-144	SET EJCTPAS command syntax	3-302
3-145	SET EJCTSKP command syntax.....	3-303
3-146	SET FREEZE command syntax	3-304
3-147	SET HOSTID command syntax.....	3-306
3-148	SET HSCLEVEl command syntax	3-307
3-149	SET LOGFILE command syntax	3-308
3-150	SET MAJNAME command syntax	3-309
3-151	SET MIGOPT command syntax.....	3-310
3-152	SET NEWHOST command syntax	3-311
3-153	SET RMM command syntax.....	3-312
3-154	SET SCRLABL command syntax	3-313
3-155	SET SLIDRIVS command syntax	3-314
3-156	SET SLISTATN command syntax.....	3-317
3-157	SET SMF command syntax	3-318
3-158	SET TAPEPlex command syntax	3-319
3-159	SET TCHNIQE command syntax	3-320
3-160	SET VAULT command syntax	3-321
3-161	SET VAULTVOL command syntax.....	3-323
3-162	SET VOLPARM command syntax.....	3-325
3-163	POOLPARM control Statement syntax.....	3-327
3-164	VOLPARM Control Statement syntax	3-332
3-165	SET VOLPARM UPDATE command syntax	3-333
3-166	POOLPARM Change control statement syntax	3-334
3-167	VOLPARM Change control statement syntax	3-335
3-168	SET VOLPARM JOIN command syntax	3-336
3-169	SRVlev command syntax	3-337
3-170	STOPMN command syntax.....	3-338
3-171	SWitch command syntax	3-340
3-172	SL8500 Cluster Library IDs.....	3-341
3-173	TRace command syntax	3-343
3-174	TRACELKP command syntax.....	3-344
3-175	UEXIT command syntax	3-346
3-176	UNSCratch command syntax.....	3-347

3-177	UNSElect command syntax	3-349
3-178	Vary command syntax	3-350
3-179	Vlew command syntax.....	3-353
3-180	VLEMAINT command syntax	3-357
3-181	VOLPCONV command syntax	3-359
3-182	VOLRpt command syntax	3-360
3-183	VTVMAINT command syntax.....	3-369
3-184	VTVRpt BASIC syntax	3-373
3-185	VTVRpt COPIES syntax	3-376
3-186	VVAUDIT command syntax	3-379
3-187	Warn command syntax	3-380
4-1	SDD command syntax.....	4-9
4-2	Scratch Synchronization Between SMC Client Host and HSC CDS	4-18
4-3	SMCUDBX PARM parameter syntax.....	4-20
5-1	CSV command syntax	5-6
5-2	SLUCONDB PARM parameter syntax (keyword format).....	5-15
5-3	SLUCONDB PARM parameter syntax (positional format)	5-17
6-1	RTV utility syntax	6-1

List of Tables

3-1	Display Options.....	3-68
3-2	Display EXceptns Error Messages	3-99
3-3	HSC SEN Events	3-132
3-4	VTCS SEN Events	3-132
3-5	DRTEST Options	3-162
3-6	LIBGen Output Labels.....	3-193
3-7	MGMtclas ACslist/DUPlex Scenarios	3-217
3-8	IMMDELAY and IMMEdmig Equivalent Values	3-218
3-9	Valid MVC Media Names and Compatible SWAPTO RTD Device Types.....	3-226
3-10	STORSEL Functions.....	3-234
3-11	VTSSSEL Functions.....	3-237
3-12	Valid Wildcards.....	3-239
3-13	SET Options	3-297
3-14	Mapping of Command Prefix Codes to Characters.....	3-300
3-15	HSC State/SET SLIDRIVS Operation	3-316
3-16	LSM ID and Library ID	3-341
3-17	TRace Components	3-343
3-18	TRACELKP Lookup Names	3-345
3-19	VTVRPt Options.....	3-372
4-1	SLUADMIN Return Codes	4-1
4-2	Control Card 1 Information.....	4-14
4-3	Control Card 2 Information.....	4-14
4-4	Control Card 3 Information.....	4-15
4-5	Tape Management Subsystem Extract File Format.....	4-19
6-1	RTV Label Types	6-3
A-1	Media Types.....	A-1
A-2	Media Type Defaults	A-3
A-3	Recording Techniques	A-4
A-4	Recording Technique Defaults.....	A-6
A-5	Model Types	A-6

Preface

This publication describes commands, control statements, and utilities provided by ELS base software products, SMC, HSC, VTCS and CDRT.

This software solution consists of the following base software:

- Oracle's StorageTek Storage Management Component (SMC)
(includes the product formerly known as StorageTek HTTP Server)
- Oracle's StorageTek Host Software Component (HSC)
- Oracle's StorageTek Virtual Tape Control Software (VTCS)
- Oracle's StorageTek Concurrent Disaster Recovery Test (CDRT)

Audience

This document is intended for storage administrators, system programmers and operators responsible for configuring and maintaining ELS.

To perform the tasks described in this publication, you should already understand the following:

- MSP/EX operating system
- JES
- Enterprise Library Software (ELS)

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

Visit the Oracle Technical Network (OTN) at the following URL to access related documentation for StorageTek libraries, tape drives, and associated software and hardware:

<http://docs.oracle.com>

Conventions

The following text conventions are used in this document:

Typographic Conventions

Typographic conventions include the following:

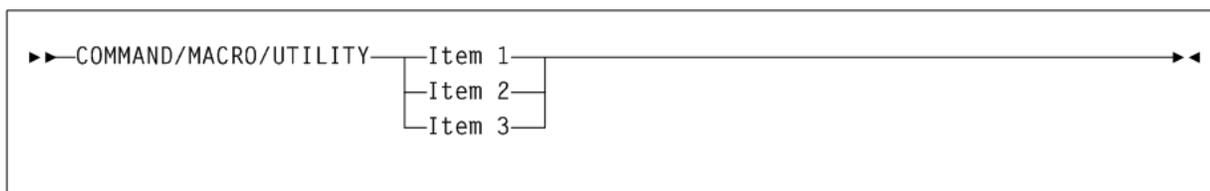
Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Syntax Conventions

Syntax flow diagramming conventions include the following:

Flow Lines

Syntax diagrams consist of a horizontal base line, horizontal and vertical branch lines, and the text for a command, control statement, macro, or utility. Diagrams are read left to right, and top to bottom. Arrows indicate flow and direction. For example:



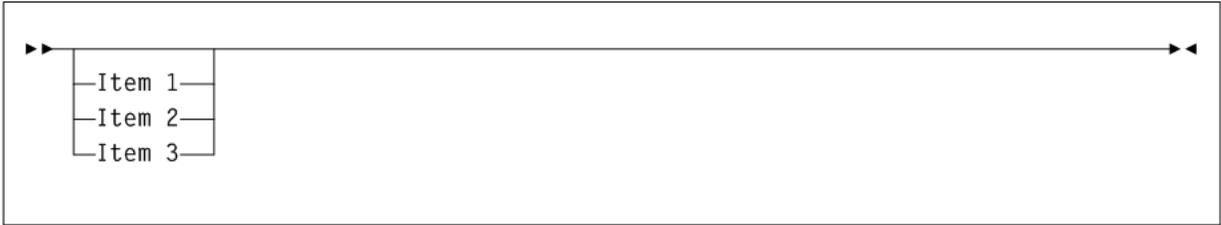
Single Required Choice

Branch lines (without repeat arrows) indicate that a single choice must be made. If one of the items to choose from is positioned on the baseline of the diagram, one item must be selected. For example:



Single Optional Choice

If the first item is positioned on the line below the baseline, one item may be optionally selected. For example:

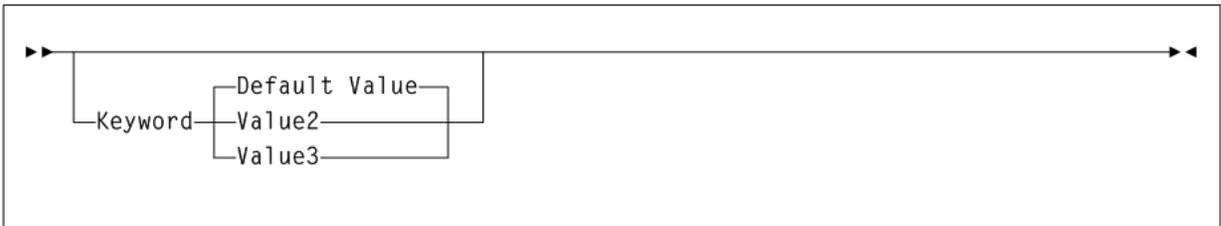


Defaults

Default values and parameters appear above the baseline. For example:



Some keyword parameters provide a choice of values in a stack. When the stack contains a default value, the keyword and the value choices are placed below the baseline to indicate that they are optional, and the default value appears above the keyword line. For example:



Repeat

A repeat symbol indicates that more than one choice can be made or that a single choice can be made more than once. The following example indicates that a comma is required as the repeat delimiter. For example:



Keywords

All command keywords are shown in all upper case or in mixed case. When commands are not case sensitive, mixed case implies that the lowercase letters may be omitted to form an abbreviation.

Variables

Italic type indicates a variable.

Alternatives

A bar (|) separates alternative parameter values.

Optional

Brackets [] indicate that a command parameter is optional.

Delimiters

If a comma (,), a semicolon (;), or other delimiter is shown with an element of the syntax diagram, it must be entered as part of the statement.

Ranges

An inclusive range is indicated by a pair of elements of the same length and data type, joined by a dash. The first element must be strictly less than the second element.

A hexadecimal range consists of a pair of hexadecimal numbers (for example, 0A2-0AD, or 000-0FC).

A decimal range consists of a pair of decimal numbers (that is, 1-9, or 010-094). Leading zeros are not required. The decimal portion is an incremental range. The character positions of the incremental portion of both range elements must match, and the non incremental characters of the first element must be identical to those of the second element.

A numeric VOLSER range (vol-range) consists of a pair of VOLSER elements containing a decimal numeric portion of 1 to 6 digits (for example, ABC012-ABC025, or X123CB-X277CB). The decimal portion is an incremental range. The following additional restrictions apply:

- The character positions of the incremental portion of both range elements must match.
- The non incremental characters of the first element must be identical to those of the second element.
- You cannot increment two portions of a range element. If 111AAA is the first element, you cannot specify 112AAB for the second element.
- If a VOLSER range contains more than one decimal portion, any portion is valid as the incremental range. For example:
 - A00B00 - The largest range that can be specified is A00B00 through A99B99.
 - A0B0CC - The largest range that can be specified is A0B0CC through A9B9CC.
 - 000XXX - The largest range that can be specified is 000XXX through 999XXX.

An alphabetic VOLSER range (vol-range) consists of a pair of VOLSER elements containing an incremental portion of 1 to 6 characters (for example, 000AAA-000ZZZ, or 9AAA55-9ZZZ55). This portion is an incremental range. The following additional restrictions apply:

- The character positions of the incremental portion of both range elements must match.
- The non incremental characters of the first element must be identical to those of the second element.
- You cannot increment two portions of a range element. If 111AAA is the first element, you cannot specify 112AAB for the second element.
- The alphabetic portion of the VOLSER range is defined as being from character A to Z. To increment multi-character sequences, each character increments to Z. For instance, ACZ is part of the AAA-AMM range. Examples are:
 - A00A0-A99A0
increments VOLSERs A00A0 through A09A0, then A10A0 through A99A0.
 - 9AA9A-9ZZ9A

increments VOLSERs 9AA9A through 9AZ9A, then 9BA9A through 9ZZ9A.

– 111AAA-111ZZZ

increments VOLSERs 111AAA through 111AAZ, then 111ABA through 111ZZZ

– 999AM8-999CM8

increments VOLSERs 999AM8 through 999AZ8, then 999BA8 through 999CM8

– A3BZZ9-A3CDE9

increments VOLSERs A3BZZ9 through A3CAA9, then A3CAB9 through A3CDE9

– AAAAAA-AAACCC

increments VOLSERs AAAAAA through AAAAAZ, then AAAABA through AAACCC

– CCNNN-DDDNNN

increments VOLSERs CCNNN through CCNNZ, then CCCNOA through DDDNNN. This is a very large range.

The number of volumes in an alphabetic VOLSER range depends on the number of elements in the incrementing portion of the VOLSER range. For an A to Z range in each character position, the number of volumes can be calculated by 26 to the power of the number of positions that are being incremented.

– A-Z is equivalent to 26^1 or 26 volumes.

– AA-ZZ is equivalent to 26^2 or 676 volumes.

– AAA-ZZZ is equivalent to 26^3 or 17,576 volumes.

– AAAA-ZZZZ is equivalent to 26^4 or 456,976 volumes.

– AAAAA-ZZZZZ is equivalent to 26^5 or 11,881,376 volumes.

– AAAAAA-ZZZZZZ is equivalent to 26^6 or 308,915,776 volumes.

Lists

A list consists of one or more elements. If more than one element is specified, the elements must be separated by a comma or a blank space, and the entire list must be enclosed in parentheses.

Blanks

Keyword parameters and values may be separated by any number of blanks.

Control Statement Conventions

The standard syntax conventions for control statements are as follows:

- The only valid control statement information area is from column 1 to column 72. Columns 73-80 are ignored.
- Parameters may be separated by one or more blanks or a comma.
- A value is associated with a parameter by an equal (=) sign or by enclosing the value in parentheses, and concatenating it immediately after the parameter.
- Case (upper or lower) is ignored in actual control statements.

- Continuations are supported by including a plus (+) sign at the end of the line to be continued. A control statement is terminated if the statement is not continued.
- Use /* and */ to enclose comments in the job stream. HSC PARMLIB members and definition data sets must specify comments in this format.
 - A comment is not required as the first control statement of any PARMLIB member.
 - Comments can be continued over multiple lines, but cannot be nested.
- The maximum length for any control statement is 1024 characters.

What's New?

This revision includes the following updates:

- The new `SET VOLPARM UPDATE` command defines the changes to the volume and pool information for a server complex.
See "[SET VOLPARM UPDATE](#)" on page 3-333.
- The new `POOLPARM` Change control statement defines new pool information for a server complex in the form of named pools of specific types.
See "[POOLPARM Change Control Statement](#)" on page 3-334.
- The new `VOLPARM` Change control statement defines or remove a specific volser, volser list, or volser range associated with the previous `POOLPARM UPDATE` change statement.
See "[VOLPARM Change Control Statement](#)" on page 3-335
- The new `SET VOLPARM JOIN` utility command merges contiguous volume ranges defined on multiple `VOLPARM` statements into one new `VOLPARM` statement.
See "[SET VOLPARM JOIN](#)" on page 3-336.
- Updated the `STORclas` control statement to indicate that you can specify both `STORMNGR` and `ACS` parameters to restrict selection of MVCs to the library in the remote tapeplex with the designated ACS number.
See "[STORclas Control Statement](#)" on page 3-226.
- `Display RTD` output is enhanced to display the VTSS that has paths to the Storage Manager containing the `vRTD`, along with new associated status values.
See "[Display RTD](#)" on page 3-124.
- The `SET VOLPARM` command `APPLY (YES)` parameter has been enhanced to store the date and time in the CDS. This information is output by the `Display CDS` command.
See "[SET VOLPARM](#)" on page 3-323.
- Updated the `MGMTDEF CONTGT` parameter description.
See "[MGMTDEF](#)" on page 3-211.
- Updated `CONFIG CLINK IPIF` parameter values.
See "[CONFIG CLINK Statement](#)" on page 3-35.
- Updated numeric and alphabetic `VOLSER` range conventions for VTV and MVC six-digit numeric ranges. See "[Ranges](#)" on page 2-xlii.

ELS Command Interfaces

This chapter describes the various interfaces you can use to issue ELS commands. It is organized in the following sections:

- [Unified User Interface \(UII\) Support](#)
- [SMC Command Interfaces](#)
- [HSC and VTCS Command Interfaces](#)

Unified User Interface (UII) Support

Certain SMC, HSC, and VTCS commands described in this publication include support for the ELS UII (Unified User Interface).

The UII interface is designed to standardize both internal and external interfaces into SMC, HSC and VTCS functions. The UII enables you to do the following:

- Execute commands from a utility.
- Invoke commands from a programmatic interface.
- Request output in text, XML or Comma Separated Values (CSV) format.
- Invoke commands to an HSC server from a remote client.

ELS expands the commands available through the UII interface to include all functions previously supported by the HSC `PGMI` and batch API interfaces. Although the existing interfaces will continue to be supported for an undetermined number of future releases, these interfaces will not be enhanced to add new data items.

Note:

- Refer to the *ELS Programming Reference* for detailed information about the UII.
 - See "[Unified User Interface Utility \(SMCUUI\)](#)" on page 4-2 for information about the `SMCUUI` utility, used to issue UII supported SMC, HSC, and VTCS commands from a batch job.
-
-

SMC Command Interfaces

This section includes the following topics:

- [Issuing SMC Commands from the Console](#)
- [Specifying SMC Commands in the `SMCCMDS` or `SMCPARMS` Data Sets](#)

- [SMC Commands that Specify JOBname, STEPname, and PROCstep](#)
- [Issuing SMC Commands from a Utility](#)

Issuing SMC Commands from the Console

This section describes how to issue SMC commands from the console.

Issuing Commands Using an SMC Command Prefix

Use an SMC command prefix to issue a command from the SMC console.

To define your prefix, specify the SMC `CMDDef` command with the `PREFIX` parameter in the `SMCPARMS` data set.

In the following example, the command prefix is defined as `B@F$`:

```
CMDDEF PREFIX(B@F$)
```

Note: The `PREFIX` parameter can only be specified in the `SMCPARMS` data set. See "[CMDDef](#)" on page 2-9 for more information about the `CMDDef` command.

Use the following format to issue an SMC command using a command prefix:

```
PREFIXcommand-name [parameter]
```

- `PREFIX` is the command prefix.
- *command-name* indicates a SMC operator command.
- *parameter* indicates an optional or required command parameter.

The command must appear immediately following (concatenated to) the prefix character.

A null character can be specified as the command prefix character. In this case, you must use the `MSP Modify` command to issue commands. See "[Issuing SMC Commands Using the MSP Modify Command](#)" on page 1-2.

Issuing SMC Commands Using the MSP Modify Command

Use the following command format to issue an SMC command from the MSP console using the `MSP Modify (F)` command:

```
F started-task-name,command-name [parameter]
```

- `F` indicates the `MSP Modify` command
- *started-task-name* indicates the SMC started task name.
- *command-name* indicates a SMC operator command.
- *parameter* indicates an optional or required command parameter.

Note:

- The started task name and command name must be separated with a comma. Spaces are not allowed between the subsystem name and command name.
- Parameters and values may be separated with any number of spaces, and may optionally include an equal (=) sign. Values may also be included in parentheses.

The following are equivalent commands:

```
F SMC1MSP,MSGDEF LVL 4
F SMC1MSP,MSGDEF LVL=4
F SMC1MSP,MSGDEF LVL(4)
```

Keyword Parameters

Keyword parameters that require or allow a user-supplied value can be specified in either of following formats:

- Enclosing the user-supplied value(s) in parentheses and concatenating it to the keyword. For example:

```
MINLVL(minlevel)
```

- Concatenating the user-supplied value(s) to the keyword with an equal sign. For example:

```
MINLVL=minlevel
```

Note:

- Unless otherwise specified, a list of user-supplied values must be enclosed in parentheses. See “Lists” on page 43 for more information about specifying lists.
- Except as noted, parameters can be separated by a comma or a blank. Consecutive blanks following either of these delimiters are ignored.
- Commands and parameters can be entered in any combination of uppercase and lowercase letters.
- Command replies are always sent to the issuing console and, in some cases such as mounts and dismounts, are routed to other consoles such as the tape library console and tape pool console.

Specifying SMC Commands in the SMCCMDS or SMCPARMS Data Sets

SMC operator commands specified in the *SMCPARMS* or *SMCCMDS* data set are automatically processed at startup.

The *SMCCMDS* data set specifies user-configured settings that can be changed while the SMC is active. Issue the *READ* command from the console to reprocess the *SMCCMDS* data set at any time.

The following is a sample *SMCCMDS* member entry:

```
MSGDEF CASE(MIXED) LVL(4)
TAPEPLEX NAME(HSCPLEX) LOCSUB(HSC0)
READ DSN('MY.PARMLIB(POL)')
TREQDEF DSN('MY.PARMLIB(TREQ)')
RESYNCHRONIZE
```

The SMCPARMS data set specifies user-configured items that cannot be changed while the SMC is active. SMCPARMS cannot be reprocessed using the READ command.

The following is a sample SMCPARMS member entry:

```
CMDDEF PREFIX(B@F$)
```

Note:

- It is recommended that you include only the CMDDEF PREFIX and USERMSG ID parameter settings in the SMCPARMS data set. Specify all other commands in the SMCCMDS data set.
 - See “Control Statements” on page 43 for syntax conventions used when specifying commands in the SMCPARMS or SMCCMDS data set.
-
-

SMC Commands that Specify JOBname, STEPname, and PROCstep

SMC ALLOCJOB, MSGJOB, and TRACE commands allow specification of JOBname, STEPname, or PROCstep. These commands are evaluated by the SMC in order of most specific to least specific job name specification. Therefore, commands can be entered in any order. Consider the following example:

Two ALLOCJOB commands are entered:

```
ALLOCJOB JOBNAME=NOALLOC* MINLVL=4
ALLOCJOB JOBNAME=NOALLOC1 MINLVL=3
```

Regardless of the order in which these commands are entered, job name NOALLOC1 is processed with MINLVL 3 because this command's job name is more specific than job name NOALLOC*.

Note:

- If an SMC ALLOCJOB or MSGJOB command is entered specifying only JOBname, STEPname, or PROCstep, the command is interpreted as if LIST had also been specified.
 - The above behavior does not apply to TAPEREQ statements, which are always evaluated in the order in which they appear in the TREQDEF DD.
-
-

Issuing SMC Commands from a Utility

Use the SMCUUUI utility to issue UI-supported SMC, HSC, and VTCS commands in a batch job. These commands can be routed to a local or remote HSC TapePlex.

The SMCUUUI utility can generate several types of output, including plain text, structured XML, and Comma Separated Values (CSV).

See "[Unified User Interface Utility \(SMCUUUI\)](#)" on page 4-2 for more information about the SMCUUUI utility.

Note: SMC commands cannot be issued from the utility administrator (SLUADMIN).

HSC and VTCS Command Interfaces

This section includes the following topics:

- Issuing HSC and VTCS Commands from the Console
- Issuing HSC and VTCS Commands from a Utility
- Issuing HSC and VTCS Commands from PARMLIB
- HSC Service Levels

Issuing HSC and VTCS Commands from the Console

You can use either the `MSP Modify` command or a command prefix to issue HSC and VTCS operator commands.

Issuing HSC and VTCS Commands Using a Command Prefix

Use a command prefix to issue a HSC or VTCS command from the console. This prefix is assigned during the `LIBGEN` process. Examples include `."` and `"#"`.

Use the `SET COMPRFX` command to define a new prefix. This command specifies the 2-character hexadecimal code of the command prefix.

- The command prefix is not valid until the HSC or VTCS system is recycled.
- See [Table 3–14](#) under the `SET COMPRFX` command for a list of characters associated with each code.
- See ["SET COMPRFX"](#) on page 3-299 for more information about the `SET COMPRFX` command and prefix restrictions.

Use the following format to issue a command using a command prefix:

```
PREFIX command-name [parameter]
```

- `PREFIX` is the command prefix.
- `command-name` indicates a HSC or VTCS operator command.
- `parameter` indicates an optional or required command parameter.

The command must appear immediately following (concatenated to) the prefix character.

A null character can be specified as the command prefix character. In this case, you must use the `MSP Modify` command to issue commands.

Note: The `VT` command prefix is no longer required for VTCS commands. If entered, it is ignored.

Issuing HSC and VTCS Commands Using the MSP Modify Command

Use the following format to issue a command from the console using the `MSP Modify` (`F`) command:

```
F started-task-name,command-name [parameter]
```

- F indicates the MSP `Modify` command
- *started-task-name* indicates the entry in the subsystem name table for the HSC.
A system programmer specifies this one- to four-character HSC subsystem name by adding an element to the `IEFSSNxx` entry in the `SYS1.PARMLIB`. For example, `SLS0`).
- *command-name* indicates a HSC or VTCS operator command.
- *parameter* indicates an optional or required command parameter.

Keyword Parameters

Keyword parameters that require or allow a user-supplied value can be specified in either of following formats:

- Enclosing the user-supplied value(s) in parentheses and concatenating it to the keyword. For example:
`HOSTID(host-id)`
- Concatenating the user-supplied value(s) to the keyword with an equal sign. For example:
`HOSTID=host-id`

Note:

- Unless otherwise specified, a list of user-supplied values must be enclosed in parentheses. See “Lists” on page 43 for more information about specifying lists.
 - Except as noted, parameters can be separated by a comma or a blank. Consecutive blanks following either of these delimiters are ignored.
 - Commands and parameters can be entered in any combination of uppercase and lowercase letters.
 - Command replies are always sent to the issuing console and, in some cases such as mounts and dismounts, are routed to other consoles such as the tape library console and tape pool console.
-
-

Issuing HSC and VTCS Commands from a Utility

HSC and VTCS contain utility functions designed to help you manage library resources. Certain HSC and VTCS commands initiate these utilities. These commands are specified using the utility administrator (`SLUADMIN`).

Additionally, you can use the `SMCUUUI` utility to issue UI-supported SMC, HSC, and VTCS commands in a batch job. These commands can be routed to a local or remote HSC TapePlex.

Both `SLUADMIN` and `SMCUUUI` can generate several types of output, including plain text, structured XML, and Comma Separated Values (CSV).

Note:

- SWSADMIN and SWUADMIN are alias names for SLUADMIN, and are still honored.
- See "Utility Administrator (SLUADMIN)" on page 5-1 for more information about the SLUADMIN utility.
- See "Unified User Interface Utility (SMCUUUI)" on page 4-2 for more information about the SMCUUUI utility.

Issuing HSC and VTCS Commands from PARMLIB

Certain HSC or VTCS commands can be defined in a user-defined sequential data set or single partitioned data set (PDS) member that is processed when HSC is initialized. These commands enable you to tailor HSC startup options to meet your requirements.

Unless otherwise specified, options defined in this user-defined PARMLIB data set can be dynamically changed during normal operations by issuing the corresponding operator command from the console.

PARMLIB commands are invoked by specifying MEMBER (xx) or M (xx) on the input parameter in the startup procedure. The suffix "xx" is concatenated with SLSSYS to form a name. The name is used as the ddname in the startup procedure.

- If the data set named in the SLSSYSxx DD is a partitioned data set (PDS), you MUST specify the member name containing the commands.
- If the SLSSYSxx DD is a sequential data set, only the data set name (DSN) must be specified.
- If the ddname is not specified in the startup procedure, then the SYS1.PARMLIB data set is dynamically allocated and a search for the member name is made in that data set.

When HSC is initialized, it reads the PARMLIB data set to obtain its operating parameters.

Note: Although you can define PARMLIB commands in SYS1.PARMLIB, it is recommended that a user-defined data set, other than SYS1.PARMLIB, be used.

The following JCL examples for HSC execution contain DD statements defining data sets and members that contain PARMLIB command definitions:

Example 1-1 JCL Defining Sequential PARMLIB Data Sets

```
//IEFPROC EXEC PGM=SLSBINIT,
// TIME=1440,
// REGION=2000K,
// DPRTY=(7,5),
// PARM='E(E086) F(23) M(00) '
//*
//STEPLIB DD DISP=SHR,DSN=your.sea.SEALINK
//*
//SLSSYS00 DD DISP=SHR,DSN=parmlib0data set
//SLSSYS01 DD DISP=SHR,DSN=parmlib1data set
//SLSSYS02 DD DISP=SHR,DSN=parmlib2data set
```

Example 1–2 JCL Defining Partitioned PARMLIB Data Sets

```
//IEFPROC EXEC PGM=SLSBINIT,  
// TIME=1440,  
// REGION=2000K,  
// DPRTY=(7,5),  
// PARM='E(E086) F(23) M(00) '  
//*  
//STEPLIB DD DISP=SHR,DSN=your.sea.SEALINK  
//*  
//SLSSYS00 DD DISP=SHR,DSN=parmlib0data set(member)  
//SLSSYS01 DD DISP=SHR,DSN=parmlib1data set(member)  
//SLSSYS02 DD DISP=SHR,DSN=parmlib2data set(member)
```

Note:

- At HSC startup, a specific PARMLIB member can be specified at your discretion by specifying the 'M(nn)' startup parameter.
 - Sample SLSSYSxx command streams and PARMLIB commands are contained in member SLSSYS00 of the ELS SAMPLIB.
-
-

HSC Service Levels

The HSC subsystem can operate at either **BASE** or **FULL** service level.

Base Service Level Functions

The **BASE** service level is the nucleus of the HSC subsystem. It provides the functions necessary to execute as an extension of the operating system, and satisfies the requirements defined by the operating environment in place at the time of execution.

All HSC commands can be issued with the HSC executing at the **BASE** service level. However, commands that involve library hardware cannot perform their function completely.

VTCS commands cannot be issued with the HSC executing at the **BASE** service level.

Mount Requests Intercepted During Base Service Level Operations

Mount messages intercepted by the SMC while the HSC is operating at the **BASE** service level are not sent to the HSC, but are left pending until the HSC reaches the **FULL** service level.

When the SMC recognizes that the HSC has reached the **FULL** service level, the mounts are redriven. These mount messages that occur with SMC intervention, and that are subsequently redriven when the HSC reaches the **FULL** service level, have their subpool specification honored.

Full Service Level Functions

The **FULL** service level of operation for the HSC provides all of the functions available and necessary to invoke and sustain complete library operations. These functions include:

- mount/dismount processing
- CAP processing

- cartridge and cell inventory management
- LMU access
- library resource recovery
- support for all library utilities
- support for all HSC and VTCS commands

Note: All VTCS commands require a HSC executing at FULL service level.

SMC Commands, Utilities, and Control Statements

This chapter contains reference information about SMC commands and control statements.

See [Chapter 4, "SMC Utilities"](#) for information about SMC utilities.

ALLOCDef

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

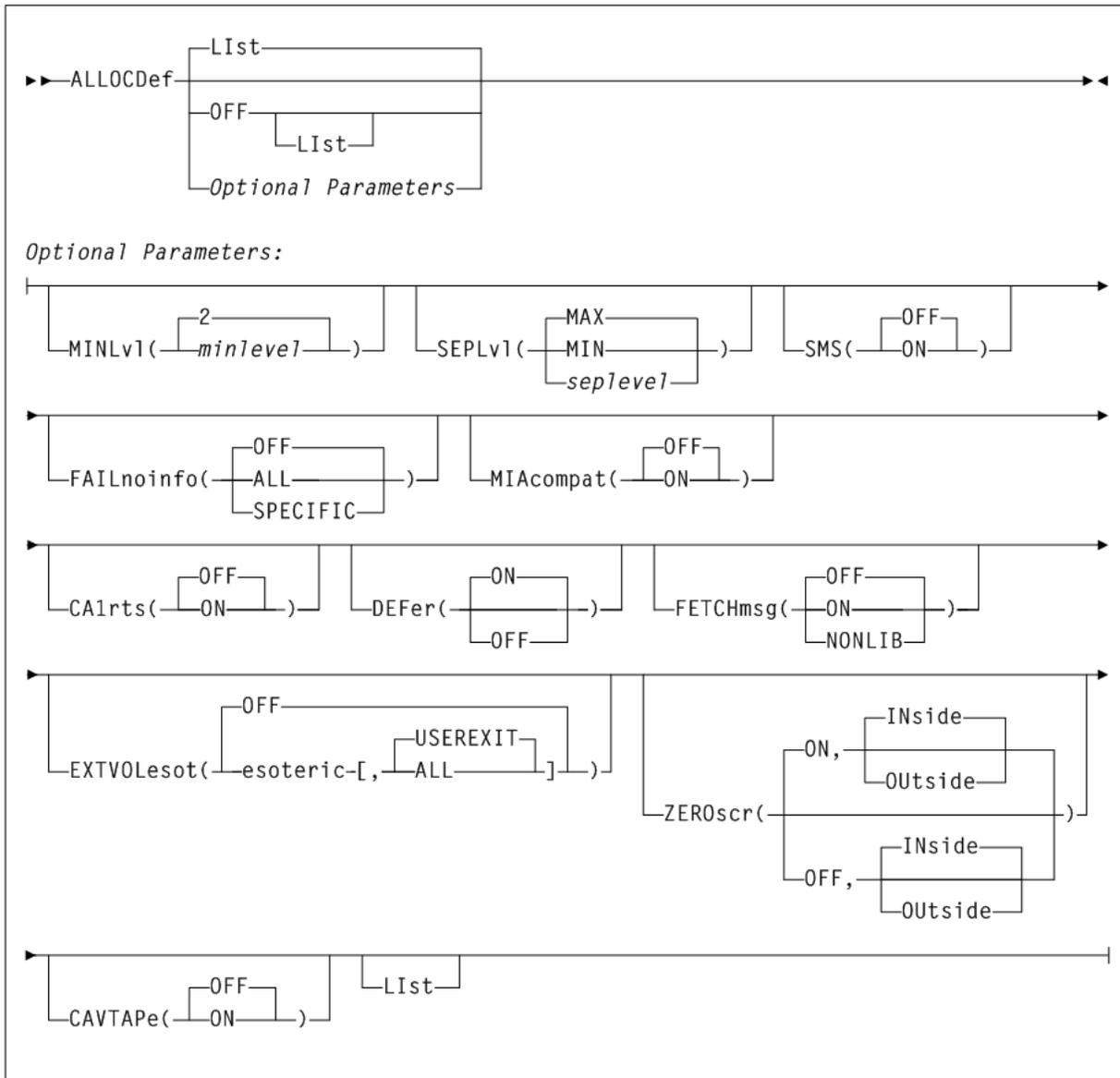
Description

The SMC ALLOCDef command specifies default allocation settings for the SMC subsystem.

Syntax

[Figure 2–1](#) shows ALLOCDef command syntax.

Figure 2-1 ALLOCDf command syntax



Parameters

As shown in Figure 2-1, the ALLOCDf command includes the following parameters:

Llist

optionally, lists current default allocation settings.

- Llist is the default when no parameters are specified on the ALLOCDf command.
- Llist may be specified with other parameters. In this case, the Llist is generated after the other parameters are processed.

OFF

optionally, resets all default allocation values to original SMC default settings. Specify Llist with this parameter to list these settings.

Optional Parameters

MINLvl(minlevel)

optionally, specifies the minimum level of drive exclusion. If a job is not allocatable at the minimum exclusion level, the SMC still excludes drives to the minimum level and allows the job to fail.

minlevel indicates the minimum allocation exclusion level. Valid values are 0-8. 2 is the default.

Specifying `MINLVL=0` indicates that the job will not be failed by the SMC even if the device and specific volume are incompatible. You can use `MINLVL=0` to force SMC to allow allocation to succeed when a “foreign” tape cartridge has the same volume serial number as an existing library or virtual volume.

Increasing *minlevel* has no effect unless message SMC0045 or SMC0091 has been issued for a specific job step.

Refer to Oracle’s ELS publication *Configuring and Managing SMC* for more information about SMC exclusion levels.

SEPLvl

optionally, specifies the exclusion level at which affinity and GDG chains are separated.

Specify one of the following values:

seplevel

an exclusion level between the minimum and maximum levels. When sufficient drives exist, SMC attempts to separate chains at this level. This value cannot be less than the *minlevel* value.

MAX

Separate affinity and GDG chains for conflicting exclusion criteria whenever sufficient drives are available. This is the default.

MIN

Do not to separate affinity and GDG chains beyond the minimum level.

If HSC allocation previously specified `UNITAFF(NOSEP)` and `GDGALL(NOSEP)`, the default SMC exclusion tables can specify `SEPLvl=3` in order to preserve existing behavior for scratch affinity chains with different media types.

Refer to Oracle’s ELS publication *Configuring and Managing SMC* for more information about SMC exclusion levels.

SMS

optionally, enables or disables the DFSMS interface. When the DFSMS interface is enabled, the SMC invokes the DFSMS ACS routines. The returned constructs are used to influence device allocation of data sets. See “SMSDef” on page 156 for information about using specific SMS features.

Specify one of the following values:

OFF

Disable the DFSMS interface. This is the default.

ON

Enable the DFSMS interface.

FAILnoinfo

optionally, specifies whether the SMC fails a job step during allocation when a communication failure prevents the retrieval of volume information from a TapePlex, or when no TapePlexes are available.

Specify one of the following values:

OFF

SMC does not fail the job step. This is the default.

ALL

SMC marks all devices ineligible and fails the job step.

SPECIFIC

If a communication failure occurs during the volume lookup process for a specific volume, or if no TapePlexes are available and the step contains allocations for specific volumes, the SMC marks all devices ineligible and fails the job step.

If the job step contains only scratch allocations, then the job step is allowed to proceed and allocation is based solely on SMC tape policy specifications.

MIAcompat

optionally, specifies whether the EDL is updated at SSI24 time for compatibility with Computer Associates Unicenter CA-MIA Tape Sharing for MSP/EX and OS/390 product.

Specify one of the following values:

OFF

Do not update the EDL. This is the default.

ON

Update the EDL. Specify this value if you use Unicenter CA-MIA.

CA1rts

optionally, specifies whether the DEFER processing is performed at SSI24 time for compatibility with Computer Associates Real Time Stacking feature of its CA-1 tape management system.

Specify one of the following values:

OFF

Do not update DEFER status. This is the default.

ON

Update DEFER status. Specify this value if you use the Real Time Stacking feature of CA-1.

DEFer

optionally, enables or disables deferred mount processing for library mounts. With deferred mounting enabled, a library resident volume is mounted when the data set is opened. If the data set is not opened, the cartridge is not mounted, freeing the robot to perform other work. If the data set is opened, however, the job waits until the cartridge is mounted.

Specify one of the following values:

OFF

Disable deferred mount processing and honor user JCL specifications.

ON

Enable deferred mount processing. This parameter overrides the user's JCL and defers all ACS mounts until the data set is opened. This is the default.

EXTVOLesot

optionally, directs the SMC to use a specified esoteric to allocate a specific external volume (that is, a volume that is not in a TapePlex). When this esoteric is used depends upon the setting of the modifier value specified after the esoteric, and whether the specified esoteric is valid (intersects with the original esoteric specification).

Specify one of the following values:

OFF

Disable **EXTVOLesot** processing. If possible, select Nonlibrary drives when a specific external volume is allocated. This is the default.

esoteric,USEREXIT

Specifies an esoteric to be used to allocate a specific external volume when the "use specvol" (UX08) or "use library drives" (UX13) return code is specified. If the specific volume user exit returns the "use specvol" (UX08) or "use library drives" (UX13) return code for this DD, then any drives in the specified esoteric that intersect with the original esoteric will be selected for allocation. This is the default if esoteric is specified.

esoteric,ALL

Whenever an external volume is allocated, select drives in the specified esoteric.

ZEROscr

optionally, specifies the exclusion action when there are no scratch volumes in any TapePlex (**ON** or **OFF**), or in one or more ACSs within a TapePlex in a multiple ACS environment (**INside** or **OUTside**).

Specify one of the following values:

OFF

If an SMC **POLICY** object applies to an allocation event, then user exit 02 and user exit 08 are not called, even if active. The SMC **POLICY** object supplies all of the SMC tape policy in such instances. This is the default.

- **INside** specifies that all nonlibrary drives are excluded when there are no scratch volumes in any ACS, and there are library drives eligible for allocation. This is the default.
- **OUTside** specifies that all library drives are excluded when there are no scratch volumes in any ACS, and there are nonlibrary drives eligible for allocation.

ON

This is the default. **ON** indicates one of the following:

- If scratch subpools are not being used, and one or more ACSs contain zero scratch volumes, then drives in those ACSs are excluded from the list of eligible devices.
- If a scratch subpool is being requested (either through **TAPEREQ** or User Exit 02/04), and one or more ACSs contain zero scratch volumes in the requested subpool, then drives in those ACSs are excluded from the list of eligible devices.

INside specifies that all nonlibrary drives are excluded when there are no scratch volumes in any ACS, and there are library drives eligible for allocation. This is the default.

OUTside specifies that all library drives are excluded when there are no scratch volumes in any ACS, and there are nonlibrary drives eligible for allocation.

OFF

All drives in all ACSs are to remain eligible for selection.

INside specifies that all nonlibrary drives are excluded when there are no scratch volumes in any ACS, and there are library drives eligible for allocation. This is the default.

OUTside specifies that all library drives are excluded when there are no scratch volumes in any ACS, and there are nonlibrary drives eligible for allocation.

CAVTAPe

optionally, specifies whether scratch user exit 02 or specific user exit 08 are called when an SMC POLICY object is found that applies to the allocation event.

Specify one of the following values:

OFF

If an SMC POLICY object applies to an allocation event, then user exit 02 and user exit 08 are not called, even if active. The SMC POLICY object supplies all of the SMC tape policy in such instances. This is the default.

ON

If an SMC POLICY object applies to an allocation event, then the scratch user exit 02 or specific user exit 08 are called and any non-conflicting user exit policy is applied to the same allocation event.

Note:

- This setting is recommended only for those customers with CA-Vtape installed who are using a default SMC POLICY object but where CA-Vtape supplied user exits are required.
 - Only non-conflicting policies from the user exit are applied. Thus, if the SMC policy specifies an esoteric, or a TapePlex name, and user exit 02 or user exit 08 also specifies an esoteric or TapePlex name, the SMC policy specifications will apply. Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information about SMC interaction with CA-Vtape.
-
-

ALLOcJob

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

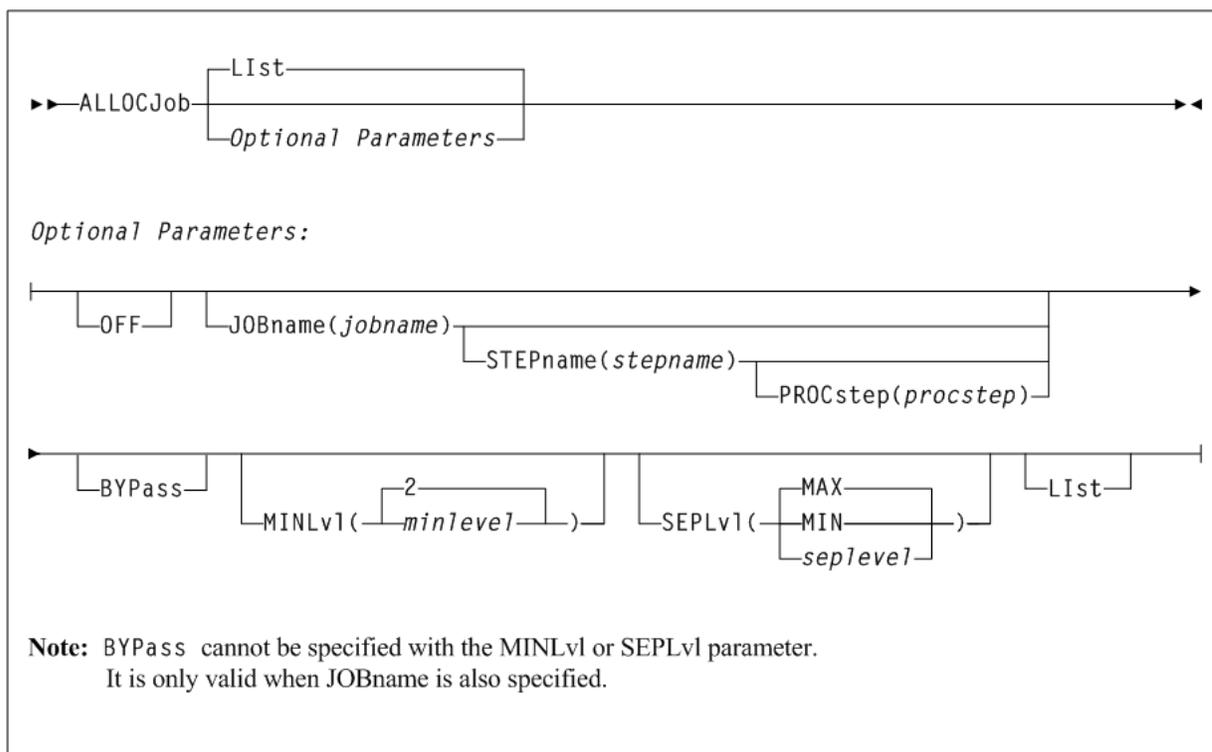
The SMC ALLOcJob command enables you to override SMC default allocation parameters by job name, step name, and PROC step.

Note: The SMS parameter is no longer supported for this command. If necessary, code your SMS ACS routines to select jobnames.

Syntax

Figure 2–2 shows ALLOcJob command syntax.

Figure 2–2 ALLOcJob command syntax



Parameters

As shown in Figure 2–2, the ALLOcJob command includes the following parameters:

List

optionally, lists current default allocation settings and override settings (in the order they are processed) by job name, step name, and PROC step.

- LIst is the default when no parameters are specified on the ALLOcJob command.
- LIst may be specified with other parameters. In this case, the LIst is generated after the other parameters are processed.

Optional Parameters

OFF

optionally, removes all job name, step name, and PROC step overrides for allocation.

- If no other parameters are specified, allocation overrides are removed for all jobs.
- If only `JOBname` is specified, allocation overrides are removed for ALL ALLOcJob entries for that job name.
- If `JOBname`, `STEPname` and `PROCstep` are specified, allocation overrides are removed only for the specified entry.

Global allocation settings are not affected by this parameter.

JOBname(jobname)

optionally, specifies a job name. This parameter is required unless `LIst` or `OFF` is specified.

jobname indicates the job name. The value entered must be one to eight characters in length. An asterisk (*) can be used as a wildcard when included as the last character. ALLOcJob is set for all jobs whose job names match the characters preceding the asterisk.

STEPname(stepname)

optionally, specifies a step name. This parameter is only valid when `JOBname` is also specified.

stepname indicates the step name. The value entered must be one to eight characters in length. An asterisk (*) can be used as a wildcard when included as the last character.

PROCstep(procstep)

optionally, specifies a PROC step. This parameter is only valid when `JOBname` and `STEPname` are also specified.

procstep indicates the PROC step. The value entered must be one to eight characters in length. An asterisk (*) can be used as a wildcard when included as the last character.

BYPass

optionally, specifies that SMC allocation influencing is not performed for the indicated job (*jobname*, *stepname*, or *procstep*).

This parameter cannot be specified with the `MINLV1`, `SEPLV1`, or `SMS` parameter. It is only valid when `JOBname` is also specified.

Note: It is recommended that you use `MINLV=0` instead of `BYPASS`, unless no mounts will be performed (that is, IEFBR14 jobs).

MINLvl(minlevel)

optionally, specifies the desired minimum level of drive exclusion. If a job is not allocatable at the minimum exclusion level, the SMC still excludes drives to the minimum level and allows the job to fail.

This parameter cannot be specified with the `BYPass` parameter. It is only valid when `JOBname` is also specified.

minlevel indicates the desired minimum allocation exclusion level. Valid values are 0-8. 0 indicates that the SMC will not exclude any drives, even if all drives would be excluded during level 1 exclusion processing. The default is the current value of the `ALLOcDEF MINLVL` setting. Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information about SMC exclusion levels.

`MINLVL=0` indicates that the job will not be failed by the SMC even if the device and specific volume are incompatible. `MINLVL=0` may be used to force SMC to allow

allocation to succeed when a “foreign” tape cartridge has the same volume serial number as an existing library or virtual volume.

Increasing *minlevel* has no effect unless message SMC0045 or SMC0091 has been issued for a specific job step.

SEPLvl

optionally, specifies the exclusion level at which affinity and GDG chains are separated. This parameter cannot be specified with the *BYPass* parameter. It is only valid when *JOBname* is also specified.

Specify one of the following values:

seplevel

an exclusion level between the minimum and maximum levels. When sufficient drives exist, the SMC attempts to separate chains at this level. Refer to Oracle’s ELS publication *Configuring and Managing SMC* for more information about SMC exclusion levels. The *seplevel* value cannot be less than the *minlevel* value.

MIN

Do not separate Affinity and GDG chains beyond the minimum level.

MAX

Separate Affinity and GDG chains for conflicting exclusion criteria whenever sufficient drives are available. This is the default.

CMDDef

Interfaces:

- Console, utility, or *SMCPARMS* data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required

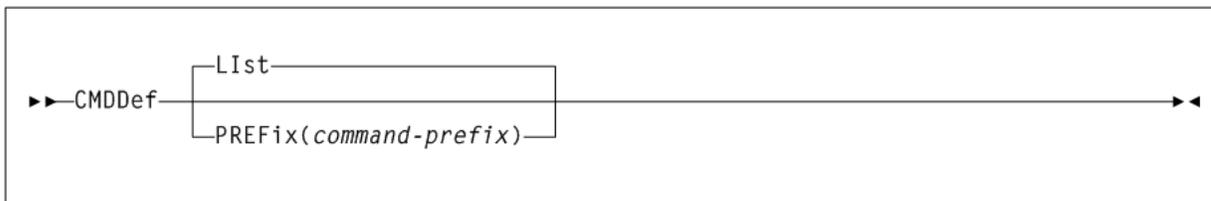
Description

The SMC *CMDDef* command specifies an SMC command prefix.

Syntax

Figure 2–3 shows *CMDDef* command syntax.

Figure 2–3 *CMDDef* command syntax



Parameters

As shown in Figure 2–3, the *CMDDef* command includes the following parameters:

List

optionally, lists the current command prefix.

This is the default if no parameters are specified. It cannot be specified with any other parameter.

PREFix(command-prefix)

optionally, specifies a command prefix for the SMC subsystem. This parameter may only be specified in the `SMCPARMS` data set.

command-prefix indicates the command prefix. The value entered must be one to eight characters in length and meet the following requirements:

- Valid characters include A-Z 0-9 @ ¢ \$ # , . / ' () < > * & + - = | ! ; : " % _ ?
- The command prefix cannot include a command string, a command abbreviation, or any string that invokes a command.
- The command prefix cannot include a string that is a subset or superset of an existing prefix beginning with the same character.

Note: The MSP command, `DISPLAY OPDATA`, displays all active command prefixes and their corresponding subsystem name.

COMMtest

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

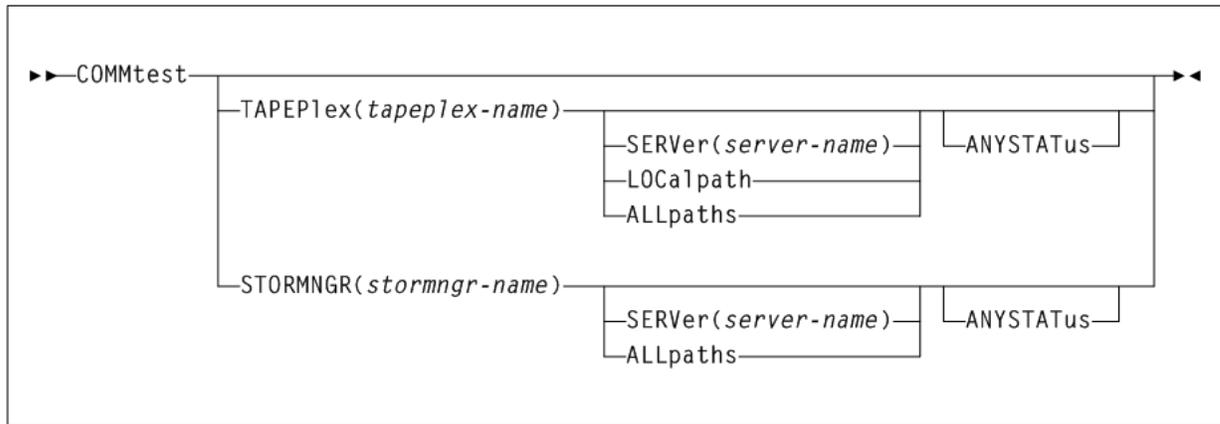
The SMC `COMMtest` command performs an end-to-end communication test between SMC and defined TapePlexes or VLEs. This command can generate a request for all paths to all TapePlexes, regardless of their status. The `COMMtest` command does not update any error statistics or path status, but does display messages indicating the communication result.

Note: Only HSC TapePlexes or VLEs are eligible for the `COMMtest` command.

Syntax

Figure 2–4 shows `COMMtest` command syntax.

Figure 2–4 COMMtest command syntax



Parameters

As shown in Figure 2–4, the COMMtest command includes the following parameters:

TAPEPLEX(tapeplex-name)

optionally, restricts communication to the specified TapePlex. By default, communication with all defined TapePlexes is attempted.

tapeplex-name indicates the TapePlex name as defined by the SMC TAPEPLEX command. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

TAPEPLEX and STORMNGR are mutually exclusive.

STORMNGR(stormngr-name)

optionally, restricts communication to the specified VLE. By default, communication with all defined VLEs is attempted.

stormngr-name indicates a VLE name as defined by the SMC STORMNGR command.

TAPEPLEX and STORMNGR are mutually exclusive.

SERVER(server-name)

optionally, restricts communication to the specified server path. When specifying this parameter, TAPEPLEX or STORMNGR must also be specified. By default, communication with all server paths is attempted.

server-name indicates the server path name as defined by the SMC SERVER command. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

LOCALpath

The local server path, if any, is tested. By default, only defined remote server paths are tested.

ALLpaths

All server paths, both local and remote, are tested.

ANYSTATUS

Communication is attempted on all communication paths, including paths that were disabled by an operator command or by the SMC. By default, the communications test is performed on any communication path that is active, inactive, or never active. Specification of `ANYSTATUS` also includes disabled communication paths.

DISMount

Interfaces:

- Console or utility
- UII Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

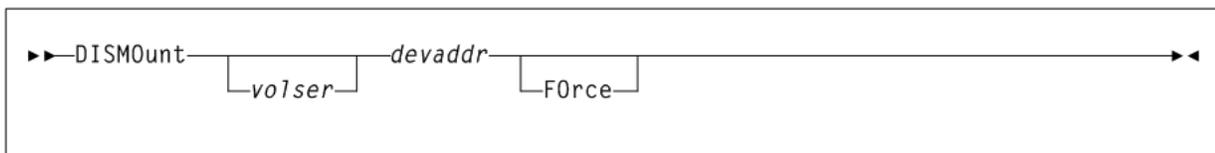
Description

The SMC `DISMount` command requests the dismount of a volume from a drive.

Syntax

Figure 2–5 shows `DISMount` command syntax.

Figure 2–5 *DISMount* command syntax



Parameters

As shown in Figure 2–5, the `DISMount` command includes the following parameters:

volser

optionally, the volume to be dismounted. The volume is dismounted only if the volume on the drive matches the specified `volser`. If `volser` is omitted, any volume that is on the drive is dismounted.

devaddr

The MSP device address for which the volume is to be dismounted. The device must be defined by a TapePlex known to SMC.

This is a required value.

Note: If *volser* is omitted, a comma must precede the device address.

FOrce

optionally, indicates that if a loaded volume is found on the drive, it should be rewound and unloaded before attempting the requested dismount. This parameter is not supported for virtual drives.

Display DRive

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

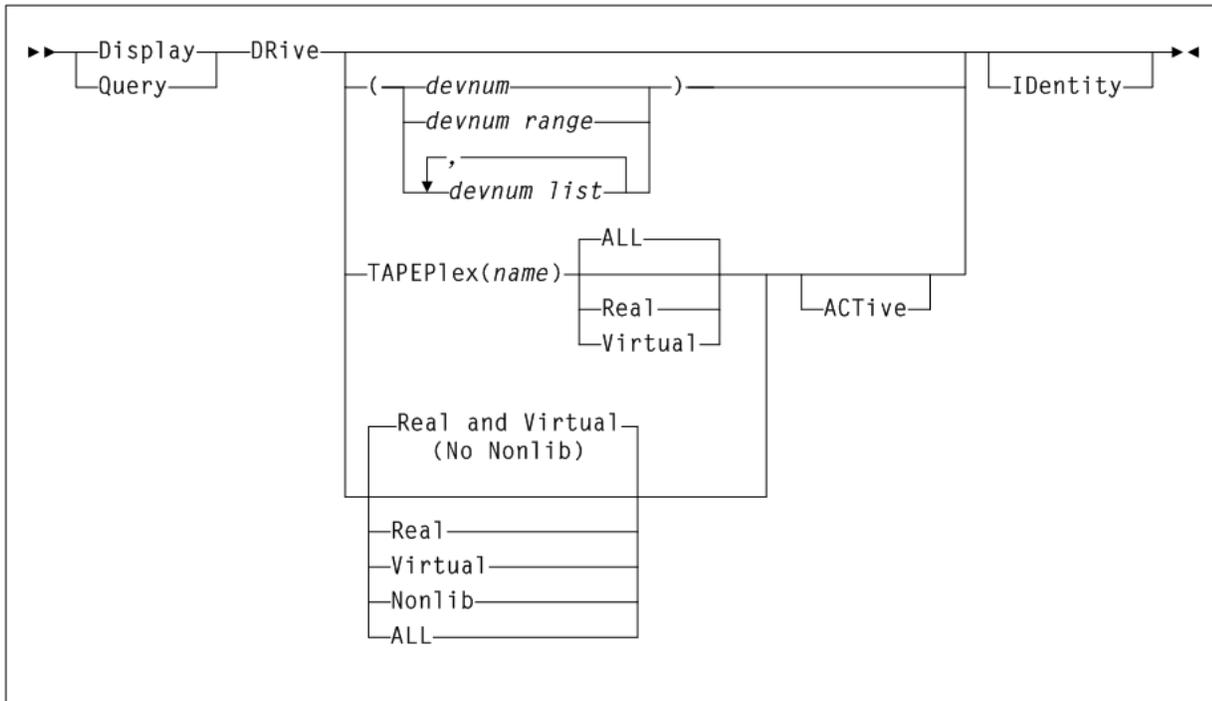
The SMC `Display DRive` command displays SMC drive attribute and TapePlex ownership information.

Note: TapePlex drive information can also be obtained by issuing the HSC `Display DRives` command through the SMC `Route` command.

Syntax

Figure 2–6 shows `Display DRive` command syntax.

Figure 2–6 Display DRive command syntax



Parameters

As shown in [Figure 2–6](#), the `Display DRive` command includes the following parameters:

devnum, devnum-range, or devnum-list

a device number, range of device numbers, or list of device numbers to be processed. If specified, all device addresses specified are displayed. The *devnum* form of the `Display DRive` command is the only way that defined devices that are not TapePlex owned, or not defined by an `SMC UNITAttr` command, can be displayed.

devnum, *devnum-range*, and *devnum-list* are mutually exclusive with all other `Display DRive` parameters.

TAPEPlex(name)

optionally, lists only devices owned by the specified TapePlex.

name indicates the TapePlex name. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

Real

optionally, lists only “real” (that is, nonvirtual) devices owned by the specified TapePlex.

Virtual

optionally, lists only virtual devices owned by the specified TapePlex.

ALL

optionally, lists all devices owned by the specified TapePlex. This is the default if no parameters are specified.

Real

optionally, lists only “real” (that is, nonvirtual) devices owned by SMC-defined TapePlexes.

Virtual

optionally, lists only virtual devices owned by SMC-defined TapePlexes.

Nonlib

optionally, lists only “real” devices that are not owned by any SMC-defined TapePlex, but have UNITATTR statements defined.

ALL

optionally, lists all devices owned by SMC-defined TapePlexes.

ACTive

optionally, lists only drives currently mounted or awaiting mounts according to SMC internal data.

Note: If a `Display DRive` command is issued without any parameters, by default, the SMC lists all real and virtual devices owned by SMC-defined TapePlexes.

IDentity

optionally, displays informational message SMC0178, identifying the drive serial number.

Display POLicy

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (supports XML and CSV)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

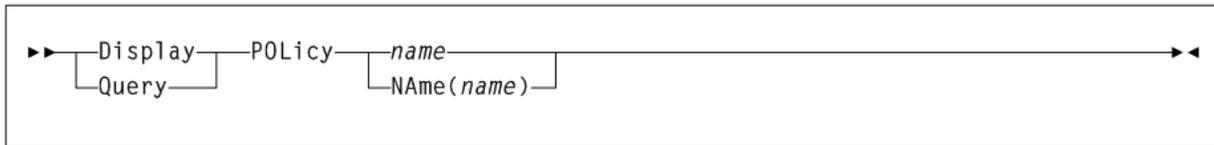
Description

The SMC `Display POLicy` command displays information for a named policy. This command provides the same output as the SMC `POLicy` command with the `LISt` keyword.

Syntax

Figure 2–7 shows `Display POLicy` command syntax.

Figure 2-7 Display POLicy command syntax



Parameters

As shown in [Figure 2-7](#), the `Display POLicy` command includes the following parameters:

name or NAME(name)

optionally, specifies the name of a policy that matches the name specified in a `TAPEREQ` or `DFSMS ACS` routine management class.

name may be specified with or without the keyword `NAME`. If the keyword `NAME` is not specified, the *name*, if specified, must be the first parameter.

This is a required value.

Display RC

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UII Support: Yes (supports XML and CSV)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

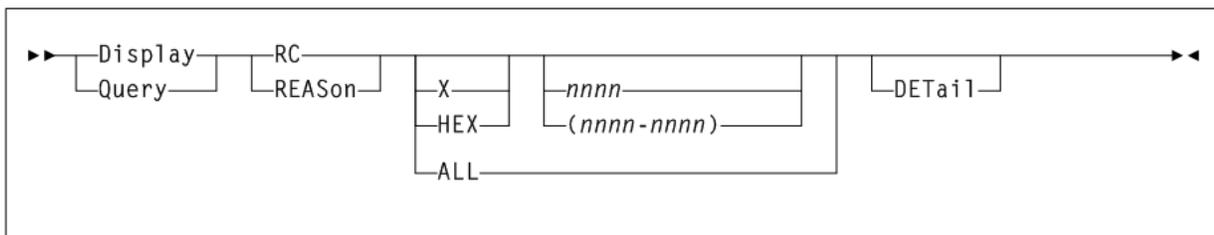
Description

The `SMC Display RC` command displays information about the meaning of an SMC return or reason code, or an HSC or VTCS UII reason code.

Syntax

[Figure 2-8](#) shows `Display RC` command syntax.

Figure 2-8 Display RC command syntax



Parameters

As shown in [Figure 2-8](#), the `Display RC` command includes the following parameters:

The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

Display SMC

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (supports XML and CSV)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

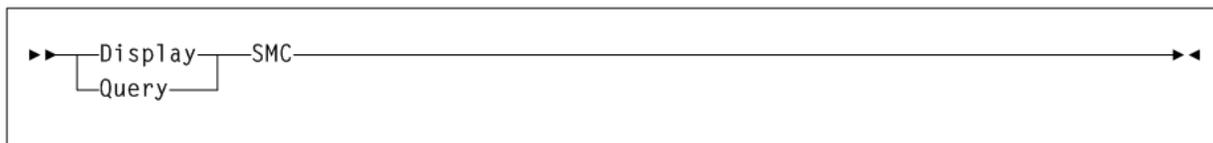
Description

The SMC `Display SMC` command displays SMC status information, including start time, release, and host information.

Syntax

Figure 2–10 shows `Display SMC` command syntax.

Figure 2–10 *Display SMC command syntax*



Parameters

None.

Display STORMNGR

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (supports XML and CSV)

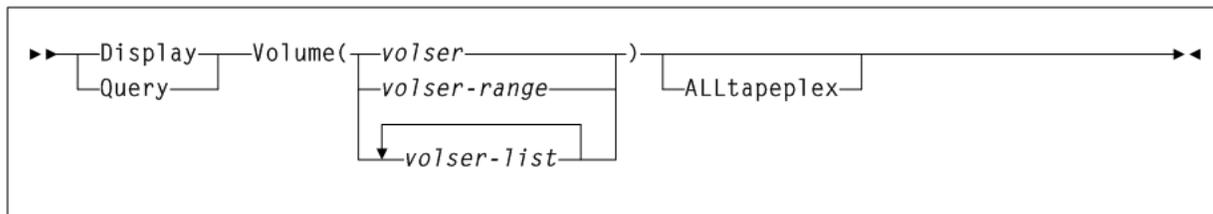
Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC `Display STORMNGR` command displays information for a named VLE. This command provides the same output as the SMC `STORMNGR` command with the `List` keyword.

Figure 2–13 Display Volume command syntax



Parameters

As shown in [Figure 2–13](#), the `Display Volume` command includes the following parameters:

volser, volser-range, or volser-list

indicates the *volser*, *volser range*, or *volser list* to be processed. If multiple volumes are specified, only the first 100 are queried. This is a required value.

ALLtapeplex

optionally, specifies that all active TapePlexes are queried for the specified *volser*, *volser-range*, or *volser-list*. If specified, multiple display lines may be listed for the same *volser* if it is defined in multiple TapePlexes.

If this parameter is not specified, the `Display Volume` command queries TapePlexes in the order they are defined and lists only the first occurrence of the volume.

DRIVemap

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

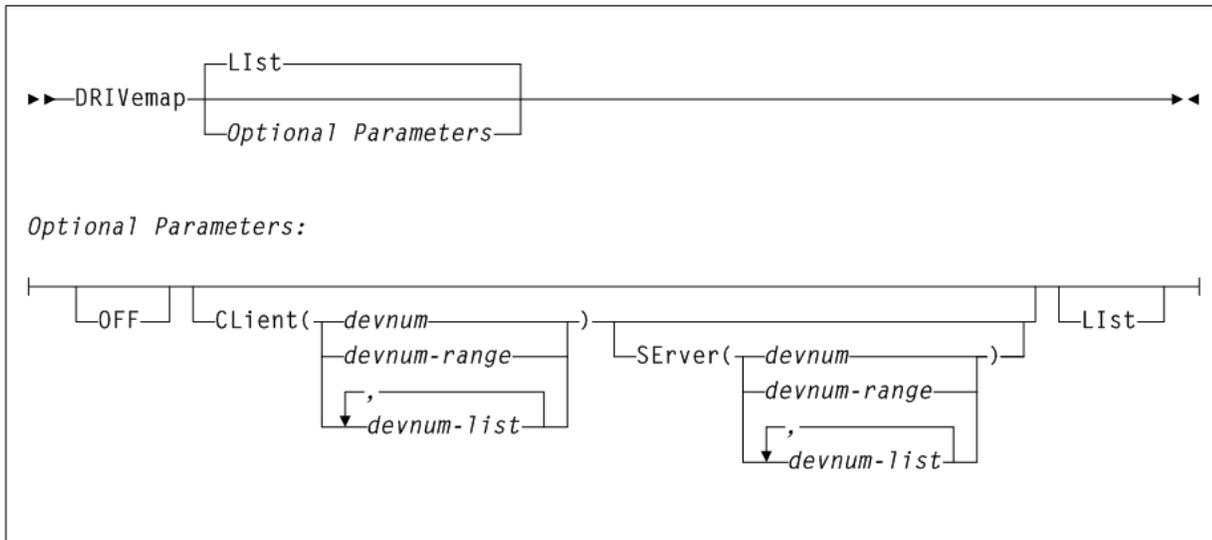
Description

The SMC `DRIVemap` command maps client drive addresses to server drive addresses. This command enables users to specify different MSP device addresses on different hosts for the same TapePlex or virtual drives in client/server mode.

Note: Refer to Oracle’s ELS publication *Configuring and Managing SMC* for more information about drive mapping and for information about using `DRIVemap` commands and the `HSC DRVHOST` parameter when client and server addresses differ.

Syntax

[Figure 2–14](#) shows `DRIVemap` command syntax.

Figure 2–14 DRIVemap command syntax

Parameters

As shown in [Figure 2–14](#), the MNTD command includes the following parameters:

List

optionally, lists all current DRIVemap mappings.

- `List` is the default when no parameters are specified on the DRIVemap command. In this case, all DRIVemap entries are listed.
- `List` may be specified with other parameters. In this case, the `List` is applied after the other parameters are processed.

Optional Parameters

OFF

optionally, removes all current DRIVemap mappings. When specified with `CLient`, this parameter removes DRIVemap ranges specified in the `CLient` parameter.

CLient(devnum, devnum-range, or devnum-list)

optionally, specifies the device numbers mapped by the DRIVemap command.

devnum, *devnum-range*, or *devnum-list* indicates the device number, device number range, or device number list.

SErver(devnum, devnum-range, or devnum-list)

optionally, specifies the device numbers that are defined on the HSC server.

devnum, *devnum-range*, or *devnum-list* indicates the device number, device number range, or device number list.

The ranges and lists must match those in the `CLient` parameter. For example:

- `CL(AA0-AA2) SE(BA0-BA2)` is valid.
- `CL(AA0-AA2) SE(BA0, BA1, BA2)` is invalid.

Help

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

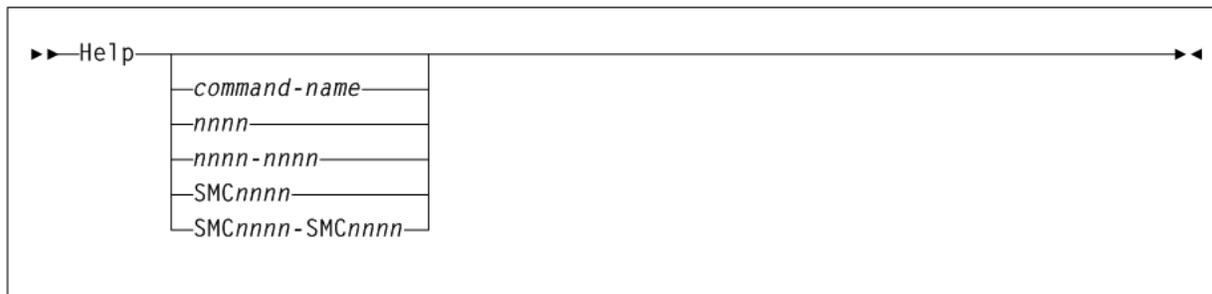
Description

The SMC `Help` command displays SMC command and message information.

Syntax

Figure 2–15 shows `Help` command syntax.

Figure 2–15 Help command syntax



Parameters

As shown in Figure 2–15, the `Help` command includes the following parameters:

Note: If you enter the `Help` command without any parameters, information is displayed for all available SMC commands.

command-name

optionally, indicates an SMC command name.

nnnn

optionally, indicates the four-digit numeric portion of an SMC message identifier. Leading zeros are not required.

nnnn-nnnn

optionally, indicates a range of SMC messages specified using the four-digit numeric portion of the message identifier.

SMCnnnn

optionally, indicates a full SMC message identifier.

SMCnnnn-SMCnnnn

optionally, indicates a range of SMC messages specified using full message identifiers.

HTTP

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: All (No XML/CSV output)

Subsystem Requirements:

Active SMC required

Description

The SMC `HTTP` command starts an SMC socket listener component that supports a limited subset of HTTP capabilities, and enables the local SMC subsystem to act as an HTTP server for SMC client subsystems on other hosts. Requests that are sent from other SMC client subsystems to this SMC with an active HTTP Server component are processed by the local HSC.

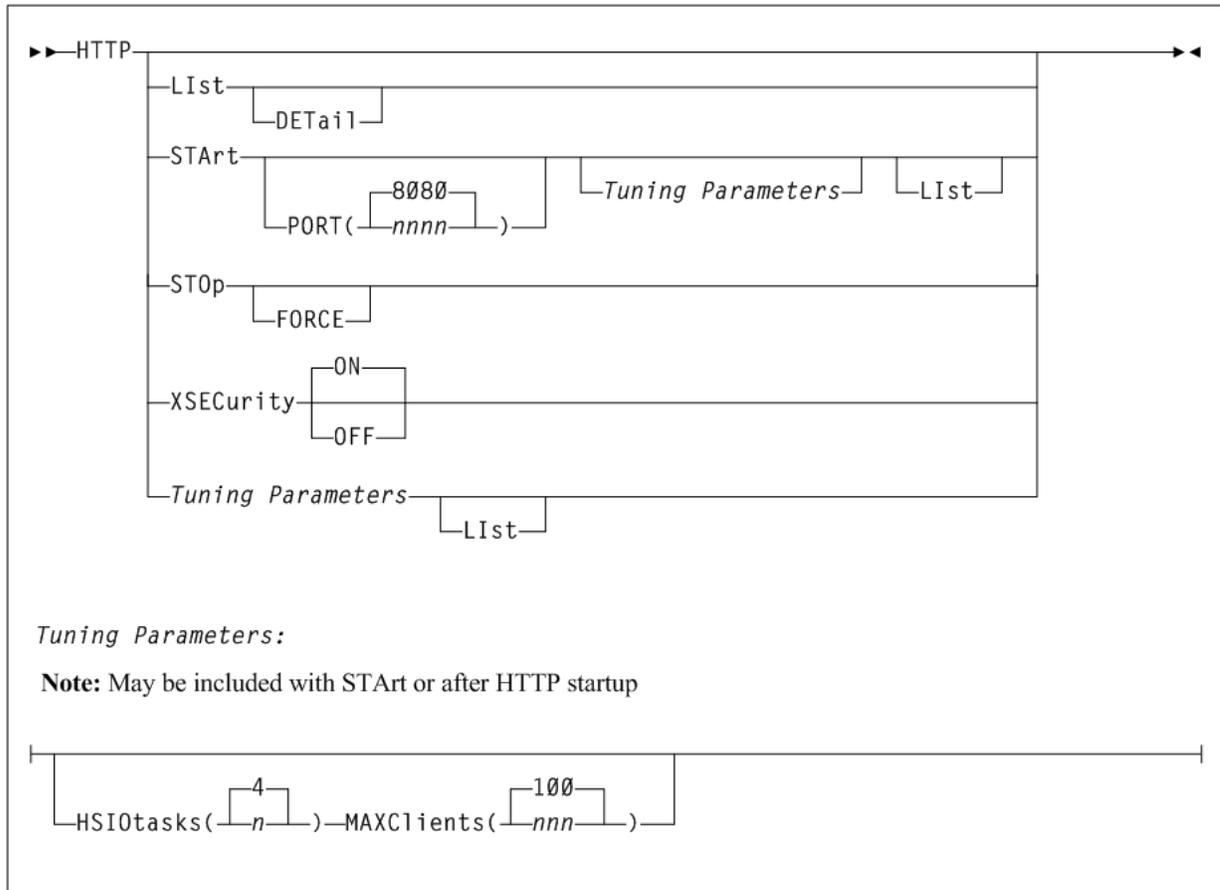
The SMC `HTTP` command should only be executed on hosts where an HSC subsystem is executing; otherwise the `HTTP` command provides no operational benefit.

SMC subsystems on other hosts that will be clients to this local SMC with active HTTP Server component must use the SMC `SERVER` command to define the communications path to this host.

Syntax

[Figure 2–16](#) shows `HTTP` command syntax.

Figure 2–16 HTTP command syntax



Parameters

As shown in [Figure 2–16](#), the HTTP command includes the following parameters:

List

optionally, displays SMC HTTP server status information and interval statistics.

DETail

optionally, lists I/O, error, accept and reject counts, and CGI module use count information in addition to information displayed in the List command.

STArt

optionally, starts the SMC HTTP server.

PORT(nnnn)

optionally, specifies the port number to be listened to for incoming requests.

nnnn indicates the TCP/IP port number. It is recommended that you do not specify well known TCP/IP port numbers. If not specified, The default is 8080.

STOp

optionally, stops the SMC HTTP server.

FORCE

optionally, directs SMC to process the HTTP STOp command even if the status of the SMC HTTP server is not active. Use this parameter only if there has been an

unrecoverable HTTP service task termination and the normal SMC HTTP STOP command has been rejected.

XSecurity

optionally, specifies whether the XAPI user password security protocol is globally enforced for requests processed by this HTTP server.

ON

specifies that the XAPI security protocol is enforced for this server. This is the default setting.

OFF

specifies that the XAPI security protocol is not enforced for this server.

FORCE

optionally, directs SMC to process the HTTP STOP command even if the status of the SMC HTTP server is not active. Use this parameter only if there has been an unrecoverable HTTP service task termination and the normal SMC HTTP STOP command has been rejected.

Tuning Parameters

The following parameters can be entered with START or after HTTP startup. It is strongly recommended that you do not change the default values for these parameters unless directed by Oracle StorageTek Software Support.

HSIOtasks(n)

optionally, specifies the maximum number of SMC HTTP socket I/O tasks to start.

n indicates the number of I/O tasks.

Note: The HSIOTasks parameter cannot be specified after HTTP server startup, it must be specified as part of the HTTP START command. However the remaining tuning parameters, MAXClients, SQUELEN, and WQUELEN may be changed after SMC HTTP server startup has completed.

MAXClients(nnn)

optionally, specifies the maximum number of connected requests that will be allowed simultaneously.

nnn indicates the number of requests. This value must be between 1 and 300. The default value is 100.

LIMIT

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required. Not allowed as input to the SMCUSIM utility.

Description

The SMC `LIMIT` command enables you to limit resource usage in the SMC subsystem. This command can limit exposure to Sx78 type abends.

By default, the SMC subsystem starts a new SMC work task whenever a new request is received but no free SMC work task is available. This default behavior manifests using the default `LIMIT` settings of `LIMIT AUTO OFF` and `LIMIT MAXTASKS OFF`.

However, depending upon the SMC subsystem work load, the SMC subsystem may attempt to start work tasks beyond the limits of SMC subsystem resource availability. This may cause Sx78 type abends due to virtual memory constraints. Such abends may lead to misdirected allocation, lost mount conditions, or loss of the SMC subsystem altogether.

If you specify `LIMIT AUTO ON` or `LIMIT MAXTASKS nnn` to override the default SMC subsystem behavior, then SMC queues requests for new work when the calculated or specified SMC work task limit is reached.

- `LIMIT AUTO ON` causes SMC to use a calculated work task limit based upon SMC subsystem availability.
- `LIMIT MAXTASKS nnn` causes SMC to use the specified work task limit.

The calculated or specified SMC work task limit acts to slow the processing for new requests. For example, if the calculated or specified SMC work task limit is 200, and a new request is received when 200 SMC work tasks are already active, then the new request is queued and waits until either an existing SMC work task completes its processing, or the `LIMIT MAXIDLE nnn` time elapses.

If the `LIMIT MAXIDLE nnn` time elapses and no existing SMC work task completes its processing, then the SMC starts a new work task to process the new request even though the number of work tasks now exceeds the calculated or specified work task limit. Therefore, the calculated or specified work task limit is a "soft" limit.

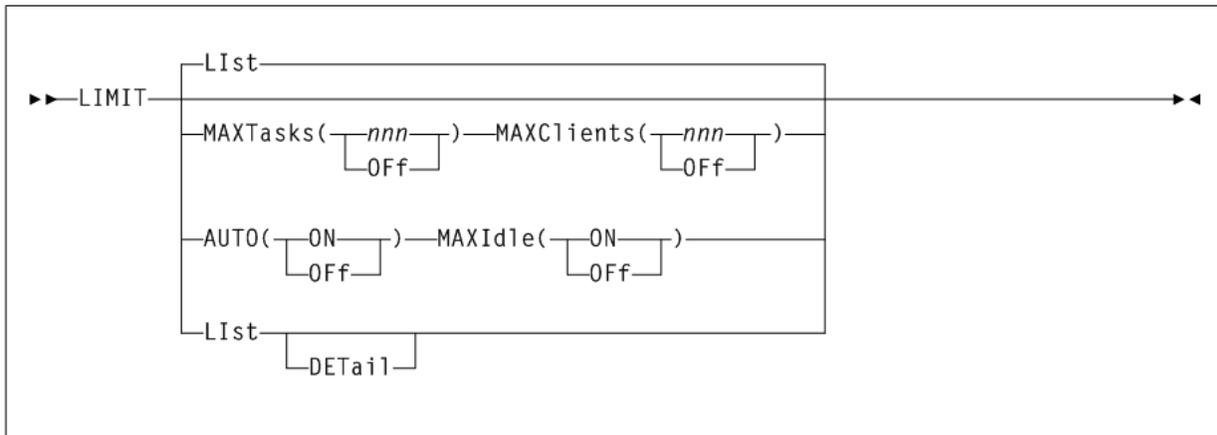
The default `LIMIT MAXIDLE` time is ten seconds. Therefore, the number of additional SMC work tasks above the calculated or specified work task limit is limited to one new work task every ten seconds until existing work tasks complete their processing.

Note: Oracle recommends that you only use the `LIMIT` command to change the default `LIMIT` settings if your SMC subsystem experiences Sx78 type abends.

Syntax

Figure 2-17 shows `LIMIT` command syntax.

Figure 2-17 LIMIT command syntax



Parameters

As shown in Figure 2-17, the `LIMIT` command includes the following parameters:

MAXTasks

limits the number of work tasks within the SMC subsystem. Work tasks process operator commands, allocation queries, mount and dismount requests, and TCP/IP connections to remote hosts, and other system processes. Typically these requests are short lived and their resources are reusable.

nnn

the maximum number SMC subsystem work tasks, between 16 and 500.

OFF

specifies no `MAXTasks` limit. The default value is `OFF` which implies the maximum `MAXTasks` limit of 500 work tasks.

MAXClients

optionally, limits the number of work tasks within the SMC subsystem that can be connected to a remote server at once. These work tasks are a subset of `MAXTASKS`.

The `LIMIT MAXClients` command is different from the `HTTP MAXCLIENTS` command:

- The `LIMIT MAXClients` limits the number of client connections on the client side of client/server.
- The `HTTP MAXClients` limits the number of client connections on the server side of client/server.

nnn

The number of SMC subsystem socket I/O work tasks between 1 and 500.

OFF

specifies no `MAXClients` limit. The default value is `OFF` which implies the maximum `MAXCLIENTS` limit of 500 SMC work tasks.

MAXIdle

optionally, limits the amount of time that the SMC subsystem waits before starting a new work task in excess of the calculated or specified work task limit when new requests are received.

nnn

The number of seconds between 0 and 2400. The default is 10 seconds.

OFF

Restores the default value of 10 seconds.

AUTO

optionally, specifies whether the SMC subsystem automatically sets a `MAXTasks` limit based on the amount of resources available.

ON

specifies that the SMC subsystem will automatically set a `MAXTasks` limit if not overridden by the `MAXTasks` parameter.

OFF

Specifies that the SMC subsystem will not automatically set a `MAXTasks` limit.

OFF

optionally, resets all `LIMIT` settings to their default values.

Llst

optionally, lists the current `LIMIT` parameter settings. If `LIMITS` is entered without any command parameters, a `Llst` is performed.

DETail

optionally, lists SMC resource usage and calculated maximum number of work subtasks supported.

Note:

- When `LIMIT AUTO ON` is specified, the SMC calculates the maximum number of SMC work tasks that it can support. This calculation is performed whenever the SMC starts a new work task that results in a new hi-water SMC work task count.
- The calculation for maximum number of SMC work tasks is based on storage usage in various subpools. However, the actual maximum number of SMC work tasks than can be supported in practice is based on the types and timing of requests, and general system workload. The calculation only results in a rough estimate which can change as new subtasks are started.
- `LIMIT MAXTASKS nnn` overrides the `LIMIT AUTO ON` or `LIMIT AUTO OFF` setting. Therefore, if both `LIMIT MAXTASKS 190` and `LIMIT AUTO ON` are specified, SMC limit processing is triggered when the number of SMC work tasks reaches 190, regardless of the SMC subsystem calculation of the maximum number of work tasks.
- `LIMIT MAXCLIENTS` is different from `HTTP MAXCLIENTS`. `LIMIT MAXCLIENTS` imposes restrictions on TCP/IP socket connections on the client side of client/server while `HTTP MAXCLIENTS` imposes restrictions on TCP/IP socket connections on the server side of client/server.

Llst**Interfaces:**

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UII Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

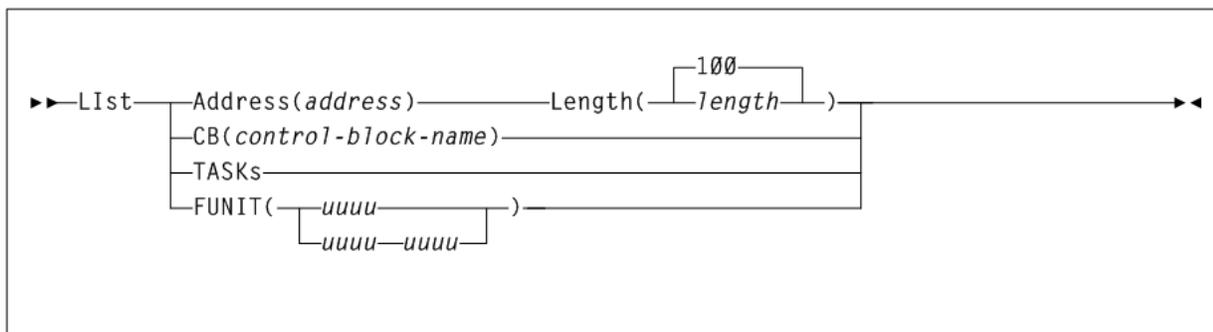
The SMC LIst command displays storage accessible from the SMC started task address space.

This command is intended to be used primarily as directed by Oracle StorageTek Software Support. Output is intended for debugging and support purposes.

Syntax

Figure 2–18 shows LIst command syntax.

Figure 2–18 LIst command syntax



Parameters

As shown in Figure 2–18, the LIst command includes the following parameters:

Address(address)

optionally, specifies the address at which to begin listing SMC memory contents.

address indicates the address. The value entered must be a valid hexadecimal address.

Length(length)

optionally, specifies the length of SMC memory (bytes) to be listed. *Length* is required if *Address* is specified.

length indicates the value entered must be a valid hexadecimal value between 1 and FFFF. Memory is listed beginning at the location specified in the *Address* parameter. The default value is 100 (decimal 256).

CB(control-block-name)

optionally, specifies the internal SMC control block to be listed.

control-block-name indicates the control block name.

SMC control blocks are listed for diagnostic purposes. Specify *control-block-name* only as directed by Oracle StorageTek Software Support.

TASKs

optionally, lists the tasks in the SMC subsystem address space.

FUNIT(uuuu or uuuu-uuuu)

optionally, lists SMC control blocks associated with the specified unit address(es).

uuuu or *uuuu-uuuu* indicates a unit address or range of unit addresses.

LOG

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required

Description

The SMC LOG command logs data communications from either or all of the following:

- SMC Library Interface Component
- SMC Client Configuration Component
- SMC HTTP Server Component
- SMC Operator Command Component

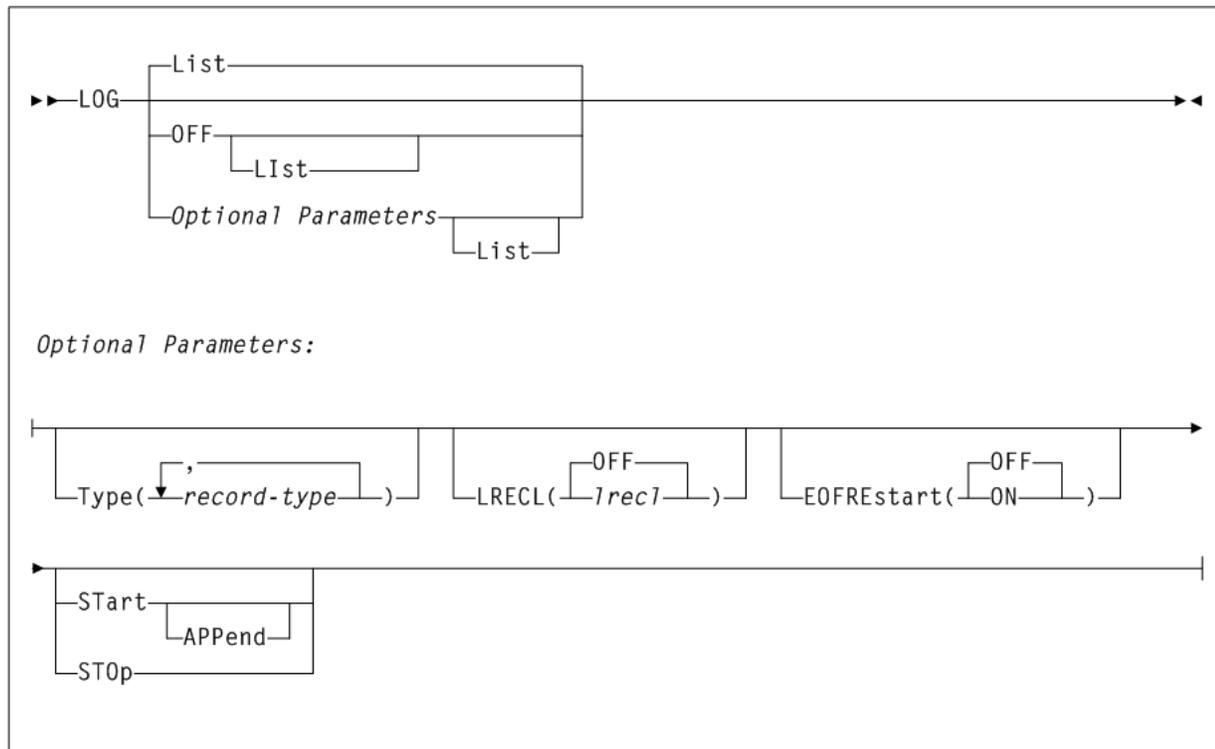
These communication transactions are logged to the SMC log file.

This command is intended to be used primarily as directed by Oracle StorageTek Software Support.

Syntax

Figure 2-19 shows LOG command syntax.

Figure 2–19 LOG command syntax



Parameters

As shown in [Figure 2–19](#), the LOG command includes the following parameters:

List

optionally, displays HTTP Server status information and interval statistics.

- `List` is the default when no parameters are specified on the LOG command.
- `List` may be specified with other parameters. In this case, the `List` is applied after the other parameters are processed.

OFF

optionally, resets all LOG settings to original SMC default settings. `OFF` closes the LOG, turns off all record `TYPES`, and sets `LRECL` to 0. If a subsequent LOG `START` command is issued after the `OFF` command, no records are logged until specific LOG `TYPES` are specified.

Optional Parameters

Type(record-type)

Optionally, specifies what record types are to be logged.

record-type indicates one of the following record types:

LLS

For local LIBTRANS XML transactions sent from the SMC Library Interface Component

LLR

For local LIBTRANS XML responses received by the SMC Library Interface Component

CLS

For remote LIBTRANS XML transactions sent from the SMC Client Communication Component

CLR

For remote LIBTRANS XML responses received by the SMC Client Communication Component

CUS

For remote UUI transactions sent from the SMC Client Communication Component

CUR

For remote UUI responses received by the SMC Client Communication Component

CER

For all errors detected by the SMC Client Communications Component

SAS

For all data sent outbound by the SMC HTTP Server Component

SAR

For all data received inbound by the SMC HTTP Server Component

SER

For all errors detected by the SMC HTTP Server Component

CMD

For all operator commands received by the SMC Operator-Command Component

ALL

Sets all types ON.

OFF

Sets all types OFF.

LRECL

optionally, specifies the line length written to the LOG file.

lrecl

a value from 80 to 32767, used to limit the logical line length.

If the data sent or received exceeds the specified LRECL, then multiple lines are written. If LRECL is specified, then the log date and time stamp are written as separate LOG records. If this value exceeds the DCB LRECL, then the DCB LRECL is used.

OFF

The DCB LRECL controls the maximum line length. The LOG record is appended to the log date and time stamp. This is the default.

EOFREstart

optionally, specifies the response when the LOG file reaches End of File (EOF).

OFF

Logging stops at EOF.

ON

The LOG file closes and re-opens at EOF, and logging continues.

STArt

optionally, starts logging.

APPend

optionally, specifies that data is appended to the current LOG file when logging is started. If not specified, then data is added to the LOG file from the beginning of the log file, and any data currently in the log file is lost. APPend can only be specified when STArt is also specified.

STOp

optionally, stops logging. Current LOG settings are preserved.

METAdata

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active SMC required

Description

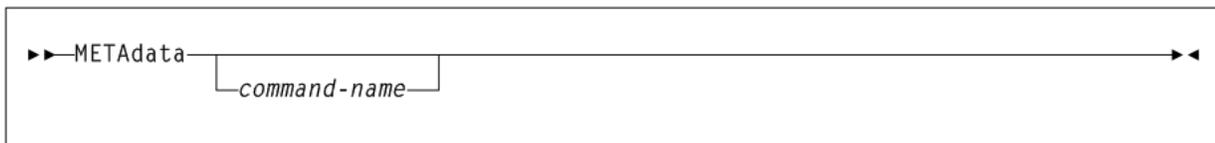
The SMC METAdata command displays XML tags associated with a function that produces XML output.

Note: The METAdata command produces no text output. If neither XML nor CSV output is requested, the command will not produce any output.

Syntax

Figure 2–20 shows METAdata command syntax.

Figure 2–20 METAdata command syntax



Parameters

As shown in Figure 2–20, the METAdata command includes the following parameters:

command-name

The command for which metadata is to be produced.

When the command contains "two parts" such as `Display Volume`, both portions should be entered. The `METADATA` command uses the same abbreviations for the *command-name* as the command itself, for example:

```
METADATA D V
```

The `METADATA` command itself does not support metadata.

The `METADATA` command produces the following tags:

<command_name>

The full name of the command.

<security_level>

Required security level if command authorization is in effect. Values are `QUERY`, `SET`, and `ADMIN`.

<command_tags>

Header tag for all XML tags.

The following tags are produced for each XML tag in the requested command:

<tag_data>

Header tag for each XML tag.

<tag_name>

The XML tag name, for example, `volser`.

<tag_type>

Values are header (header XML tag), data (XML data tag, normally associated with a value), and trailer (indicates the position of the trailer tag associated with a header tag).

<occurrences>

The maximum number of expected occurrences, for tags that may occur multiple times. This may be either a numeric value or `unlimited`.

The following tags are produced only for data-type tags:

<data_type>

Indicates the type of data expected in the tag value. Produced only for data tags. Values include: `char`, `numeric`, `flag`, `hex`, `date`, `time`.

<maximum_size>

Indicates the maximum output data size.

MONitor

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

- Active SMC required
- Cannot be input to the `SMCUSIM` utility

Description

The SMC `MONitor` command defines parameters associated with SMC monitoring.

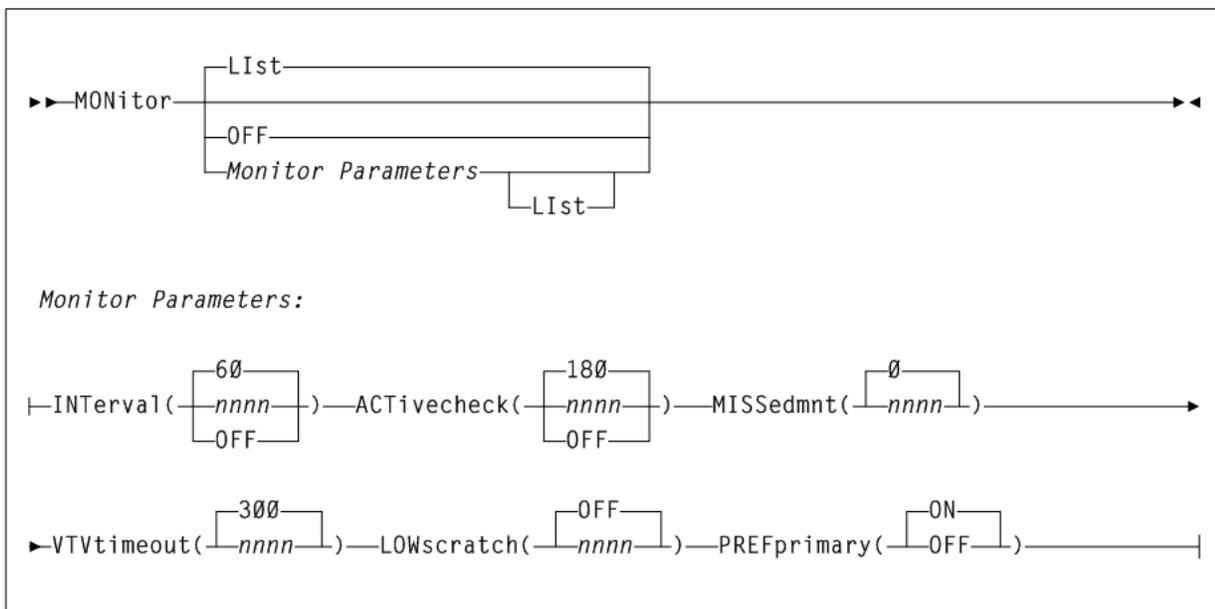
Note: SMC cannot detect pending mounts when either of the following conditions are present:

- `ALLOCDEF DEFER(OFF)` has been specified.
- The mount was requested before SMC had initialized and the mount request did not request the `DEFER` option.

Syntax

Figure 2–21 shows `MONitor` command syntax.

Figure 2–21 *MONitor* command syntax



Parameters

As shown in Figure 2–21, the `MONitor` command includes the following parameters:

Lst

Optionally, lists the current `MONitor` command settings.

OFF

Optionally, resets all `MONitor` parameters to their default values.

Monitor Parameters

INTerval

Optionally, specifies the base SMC monitor scan interval in seconds. The default value is 60.

At each monitor interval, SMC performs the following actions:

1. SMC attempts to find an active communication path for any inactive TapePlex or Storage Manager.
2. If `PREFprimary(ON)` is set, SMC attempts to change the communication path from a non-primary path to the primary server.
3. SMC checks to ensure that the SMC `IEFJFRQ` exit is active, so that SMC is influencing tape allocation.
4. SMC clears orphaned task tokens.
5. SMC attempts to redrive pending mounts.

Note: It is strongly recommended that you do not set the `MONitorINTERval` to 0 or `OFF`. With these values set, SMC is not able to re-drive pending mounts, honor the `PREFprimary` setting automatically, or verify that the `IEFJFRQ` exit is active.

ACTivecheck(nnnn)

Optionally, specifies the interval in seconds after which SMC should verify that communication is still accessible on an active communication path that has had no activity since the prior active check.

nnn indicates the interval in seconds. The default value is 180, or 3 times the `INTERval` value.

If `ACTivecheck` is set to 0 or `OFF`, SMC does not monitor active communication paths. If the `ACTivecheck` interval is not a multiple of the base `INTERval`, it is rounded up to a number of seconds that is a multiple of the `INTERval` value.

MISSEdmt(nnnn)

Optionally, specifies the interval in seconds after which SMC should issue a message indicating that an outstanding mount is pending. The message is repeated after each interval if the mount remains unsatisfied.

nnnn indicates the interval in seconds. The default value is 0, meaning that the message does not appear.

If the `MISSEdmt` interval is not a multiple of the base `INTERval`, it is rounded up to a number of seconds that is a multiple of the `INTERval` value. It is recommended that you set this interval to at least 600 (10 minutes) to allow the SMC mount monitor processing to attempt to redrive missing mounts before producing the periodic missed mount message.

VTVtimeout(nnnn)

Optionally, specifies the time in seconds (*nnnn*) after which SMC will issue the `SMC0231` message and attempt to re-drive a mount request for a VTV.

nnnn indicates the time in seconds. The default value is 300 seconds (5 minutes).

If the `VTVtimeout` value is not a multiple of the base `INTERval`, it is rounded up a number of seconds that is a multiple of the interval value.

The minimum value of `VTVtimeout` is 300 seconds; the maximum is 1800 seconds.

LOWscratch(nnnn)

Optionally, specifies the interval in seconds after which SMC should report on server scratch subpools that are below their threshold value.

nnnn indicates the interval in seconds. The default value is `OFF`.

LOWSCRATCH does not report on scratch shortages that are not associated with a subpool name, except for scratch subpool zero.

If LOWSCRATCH is set to 0 or OFF, SMC does not perform scratch threshold checking.

If the LOWSCRATCH interval value is not a multiple of the base INTERVAL, it is rounded up to a number of seconds that is a multiple of the INTERVAL value.

PREFprimary

Optionally, indicates whether SMC attempts to establish communication on a higher priority server path when communication is currently active on a server that is not the first defined server for a TapePlex. The default value of ON indicates that at each MONITOR INTERVAL, SMC attempts to communicate on the first defined server path if that is not the current active path.

If PREFprimary is set to OFF, then SMC continues to communicate on an active path even if one defined earlier becomes available.

The PREFprimary setting also controls the behavior of the RESYNChronize command. When PREFprimary (ON) is set, a RESYNChronize attempts to communicate to the first defined server. When PREFprimary (OFF) is set, a RESYNChronize does not change the current active communication path, if one exists.

MOUNT

Interfaces:

- Console or utility
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

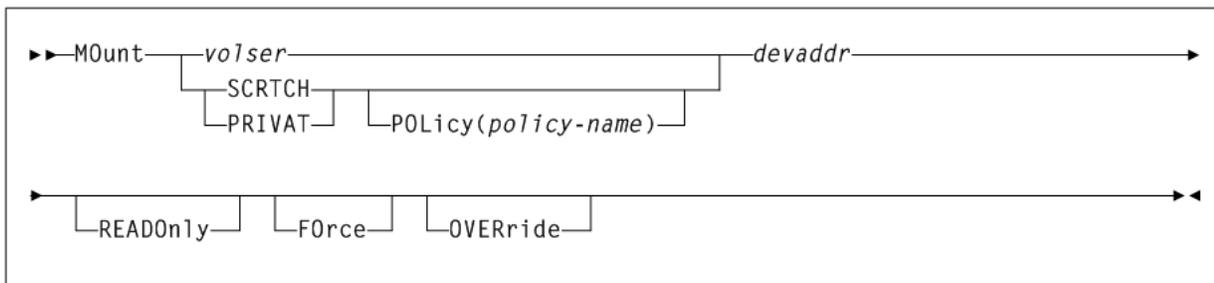
Description

The SMC MOUNT command requests a mount of a specific or scratch volume on a tape device.

Syntax

Figure 2-22 shows MOUNT command syntax.

Figure 2-22 MOUNT command syntax



Parameters

As shown in Figure 2-22, the MOUNT command includes the following parameters:

volser

the volume serial number of the volume to be mounted.

SCRATCH or PRIVAT

indicates a scratch mount.

POLicy(policy-name)

optionally, when the volume is specified as `SCRATCH` (or `PRIVAT`), specifies the name of an SMC policy that defines the subpool name and management class name (if applicable) to be applied for the scratch mount.

policy-name indicates the policy name.

devaddr

the MSP device address for which the volume is to be mounted. The device must be defined by a TapePlex known to SMC. This is a required value.

READOnly

optionally, indicates that the volume is to be mounted with write protect enabled.

FORCE

optionally, indicates that if a loaded volume is found on the drive, it should be rewound and unloaded before attempting the requested mount. `FORCE` is not supported for virtual drives.

OVERride

optionally, indicates that if SMC detects a pending mount for the drive, indicates that the volume specified in the `MOunt` command should override the volume indicated in the pending mount.

MOUNTDef

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

The SMC `MOUNTDef` command enables you to control message processing options (mounts or dismounts) previously controlled by the HSC `MNTD` command, HSC input parameters and `LIBGEN` options. The `MOUNTDef` command also applies to VTVs.

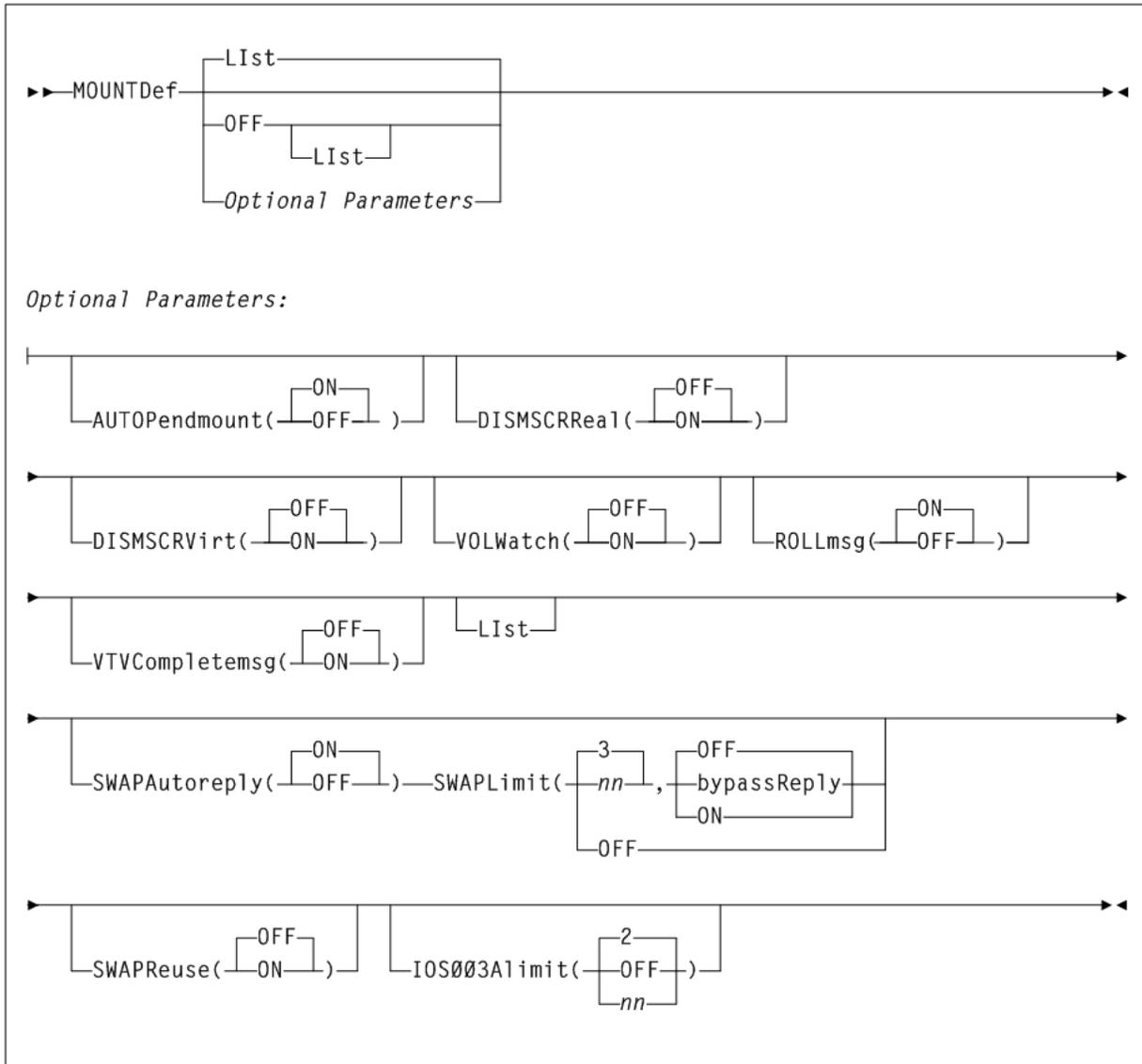
These options control the following:

- automation of pending mounts
- delete disposition at dismount time
- whether mount and dismount messages are issued
- when mount messages are rolled off of the console
- swap processing behavior

Syntax

Figure 2–23 shows MOUNTDef command syntax.

Figure 2–23 MOUNTDef command syntax



Parameters

As shown in Figure 2–23, the MOUNTDef command includes the following parameters:

LIst

optionally, lists current SMC MOUNTDef settings.

- LIst is the default when no parameters are specified on the MOUNTDef command.
- LIst may be specified with other parameters. In this case, the LIst is generated after the other parameters are processed.

OFF

optionally, resets all MOUNTDef settings to original SMC default settings. Specify LIST with this parameter to list these settings.

Optional Parameters**AUTOPendmount**

optionally, specifies whether the pending mounts are automated for library or virtual drives found when SMC is first initialized and the owning TapePlex is first activated.

ON

Pending mounts are automated. This is the default.

OFF

Pending mounts are not automated.

Note: If AUTOPendmount is OFF, you must issue an HSC MOUNT command to complete any pending mounts found when a TapePlex is first activated.

DISMSCRReal

optionally, specifies how the SMC interprets the delete disposition on a dismount message for real (nonvirtual) volumes.

Note: The DISMSCRReal and DISMSCRVirt parameters replace the DELDISP= parameter of the HSC LIBGEN SLILIBRY macro.

OFF

The real cartridge is retained as nonscratch when MSP indicates delete disposition in the dismount message. This is the default, and is recommended for CA-1 or CA-TLMS users to leave volumes in a consistent nonscratch status during the CA-1 and CA-TLMS grace period.

ON

The real cartridge is scratched when MSP indicates delete disposition in the dismount message.

DISMSCRVirt

optionally, specifies how the SMC interprets the delete disposition on a dismount message for VTVs.

Note: The DISMSCRReal and DISMSCRVirt parameters replace the DELDISP= parameter of the HSC LIBGEN SLILIBRY macro.

OFF

The VTV is retained as nonscratch when MSP indicates delete disposition in the dismount message. This is the default.

ON

The VTV is scratched when MSP indicates delete disposition in the dismount message.

VOLWatch

optionally, specifies whether an SMC message is issued when a library volume is to be mounted on a nonlibrary drive.

OFF

No message is issued when a library volume is to be mounted on a nonlibrary drive.

ON

A console message is issued when a library volume is to be mounted on a nonlibrary drive.

ROLLmsg

optionally, specifies whether mount messages handled by the SMC are allowed to roll off the operator console before mount requests are satisfied.

ON

Mount messages are allowed to roll off the console screen before mounts are satisfied. This is the default.

You can limit the rolling of specific mount messages (for example, TMS007) by presetting the messages xxxxRCDC (Request to Change Descriptor Codes) flag word xxxxBFB1. The SAMPLIB includes a sample MPF USEREXIT to preset the xxxxRCDC flag.

OFF

Mount messages remain on the console screen until mount requests are satisfied.

VTVCompletemsg

optionally, specifies whether VTV mount and dismount messages are issued.

OFF

VTV mount (SLS5075I) and VTV dismount (SLS5076I) messages are not issued on the host where the server is running. This is the default.

ON

The VTV mount (SLS5075I) and VTV dismount (SLS5076I) messages are issued on the host where the server is running.

SWAPAutoreply

optionally, specifies whether the SMC enhanced swap process automatically responds NO to the IBM IGF500D - REPLY 'YES' DEVICE OR 'NO' message when no compatible swap-to device is found.

ON

SMC automatically replies NO to the IBM IGF500D - REPLY 'YES' DEVICE OR 'NO' message after the SMC fails to find compatible devices and issues its own SMC0108 No compatible drive found for SWAP processing message. This is the default.

OFF

SMC does not automatically reply to the IBM IGF500D - REPLY 'YES' DEVICE OR 'NO' message after the SMC fails to find compatible devices.

SWAPLimit

optionally, specifies the maximum number of system initiated swaps that SMC influences for the same job step and volume serial.

nn

a swap value of 0-99, or OFF.

- If the value specified is 0 or OFF, then the SMC continues to attempt to influence the swap indefinitely.
- If the value is not specified, the default value is 3.
- For any SWAPLimit value other than 0 or OFF, SMC stops attempting to influence the swap after *nn* attempts for the same job step and volume serial.

Note: Any operator-initiated SWAP commands are not applied to the SWAPLimit value.

bypassReply

Substitute one of the following values for *bypassReply*:

- ON optionally, indicates that SMC should not reply to the system message IGF509D if another swap attempt is detected after the SWAPLIMIT count is exhausted.
- OFF optionally, SMC generates a response of NO to an IGF509D message after *nn* swap attempts. This is the default.

SWAPReuse

optionally, specifies whether previously used swap-to devices are to be excluded as possible swap-to devices for the current job step and volume serial.

OFF

Previously used swap-to devices are excluded as possible swap-to devices for the current job step and volume serial. If no eligible device is found then SMC issues message SMC0108 and if the MOUNTDef SWAPAutoreply is set to ON then the IGF500D or IGF509D message is replied to with NO. This is the default.

ON

Previously used swap-to devices are eligible to be used for the current job step and volume serial.

OS003Alimit

optionally, specifies the maximum number of attempts to re-drive a mount request that has failed with an IOS003A message.

OFF

perform an unlimited number of attempts to re-drive the mount request for a given drive following an IOS003A message for a given drive.

nn

the maximum number of attempts to re-drive the mount request. Valid values are 0-99. The default is 2. A value of 0 is equivalent to IOS003Alimit (OFF).

MSGDef**Interfaces:**

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

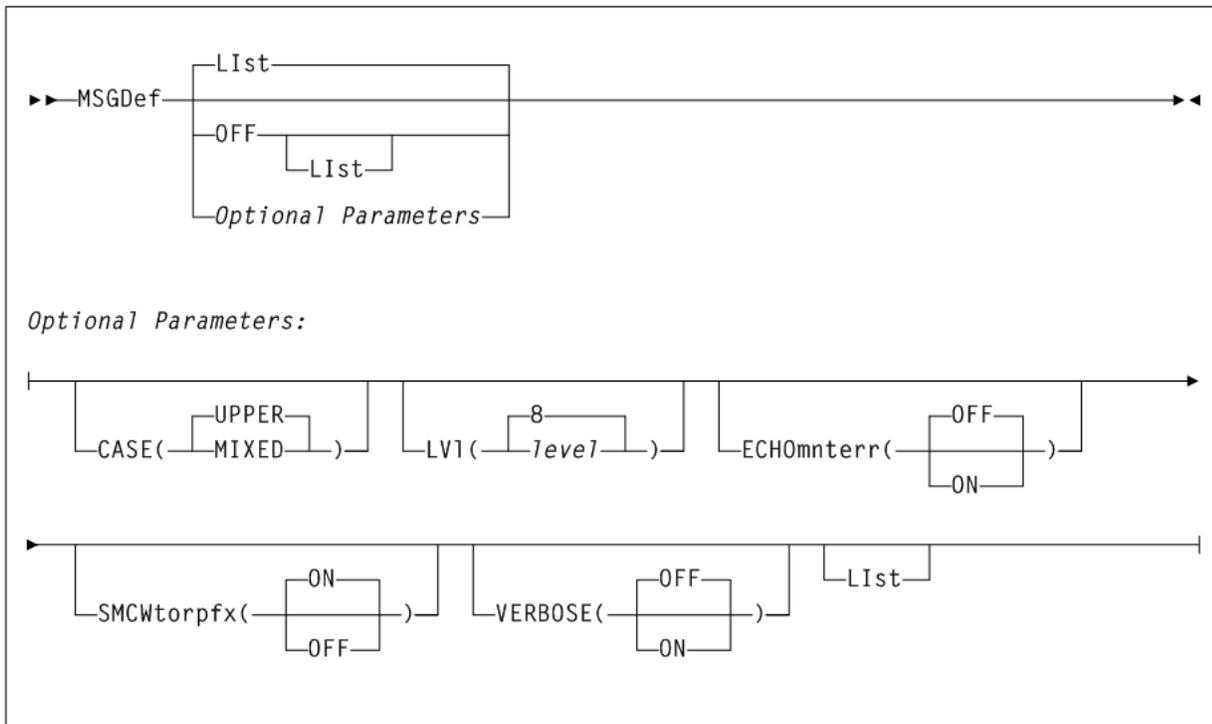
Description

The SMC `MSGDef` command defines the appearance of SMC system messages, and controls which messages are displayed and suppressed.

Syntax

Figure 2–24 shows `MSGDef` command syntax.

Figure 2–24 *MSGDef* command syntax



Parameters

As shown in Figure 2–24, the `MSGDef` command includes the following parameters:

List

optionally, lists current default SMC message settings.

- `List` is the default when no parameters are specified on the `MSGDef` command.
- `List` may be specified with other parameters. In this case, the `List` is generated after the other parameters are processed.

OFF

optionally, resets all `MSGDef` values to original SMC default settings. Specify `List` with this parameter to list these settings. `MSGDef` cannot be specified with any other parameter.

Optional Parameters

CASE

optionally, specifies the message case. Valid values are UPPER or MIXED.

UPPER

specifies upper case. This is the default.

MIXED

specifies mixed case.

LVI

optionally, specifies the default level used to control which SMC messages are displayed and suppressed.

level

the default level. Valid values include the following:

- 0 - Display error messages only.
- 4 - Display error and warning messages from the SMC subsystem.
- 8 - Display all SMC subsystem messages and allocation job log warning messages. This is the default if the MSGDef parameter is not specified.

Note: Levels higher than 8 are used for diagnostic purposes and should only be specified as directed by Oracle StorageTek Software Support.

ECHOmnterr

optionally, specifies whether mount errors generated by the HSC are echoed directly to the console for the SMC client.

ON

Mount errors generated by the HSC are echoed to the console for the SMC client. This parameter is valid for both local and remote servers.

OFF

Mount errors generated by the HSC are not to the console for the SMC client. This is the default.

SMCWtorpfx

optionally, specifies whether the SMC0137 prefix is displayed for HSC WTOR messages generated by WTORDEST (CLIENT) on the TAPEplex command.

ON

The SMC0137 prefix is displayed. This is the default.

OFF

The SMC0137 prefix is not displayed.

VERBOSE

optionally, specifies whether SMC0190 and SMC0191 messages are displayed whenever any SMC settings are altered.

ON

SMC0190 and SMC0191 messages are displayed.

OFF

SMC0190 and SMC0191 messages are not displayed.

MSGJob

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UII Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

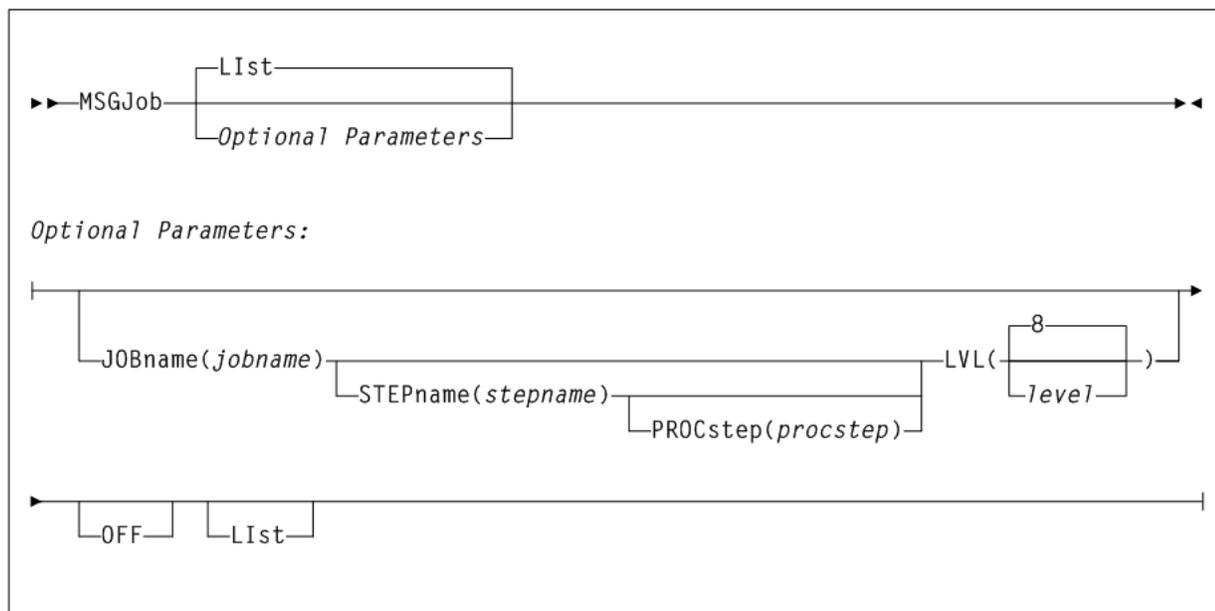
Description

The SMC MSGJob command enables you to override of the default message level by job name, step name, and PROC step.

Syntax

Figure 2–25 shows MSGJob command syntax.

Figure 2–25 MSGJob command syntax



Parameters

As shown in Figure 2–25, the MDGJob command includes the following parameters:

LIst

optionally, lists current default SMC message settings and job name, step name, and PROC step exceptions (in the order of evaluation).

- LIst is the default when no parameters are specified on the MSGJob command.
- LIst may be specified with other parameters. In this case, the LIst is generated after the other parameters are processed.

Optional Parameters

JOBname(jobname)

optionally, specifies a job name.

jobname indicates the job name. The value entered must be one to eight characters in length. An asterisk (*) can be used as a wildcard when included as the last character. In this case, the message level is set for all jobs whose job names match the characters preceding the asterisk.

STEPname(stepname)

optionally, specifies a step name. It is only valid when **JOBname** is also specified (may be **JOB=***).

stepname indicates the step name. The value entered must be one to eight characters in length. This parameter is only valid if **JOBname** is also specified.

PROCstep(procstep)

optionally, specifies a PROC step. It is only valid when **JOBname** and **STEPname** are also specified.

procstep indicates the PROC step. The value entered must be one to eight characters in length. This parameter is only valid if **JOBname** and **STEPname** are also specified.

LVL(level)

optionally, specifies the default level used to control which SMC messages are displayed. This parameter is required when **JOBname** is specified.

level indicates the default level. Valid values include the following:

- 0 - Display error messages only.
- 4 - Display error and warning messages from the SMC subsystem.
- 8 - Display all SMC subsystem messages and allocation job log warning messages. This is the default if the **MSGDef** parameter is not specified.

Note: Levels higher than 8 are used for diagnostic purposes and should only be specified as directed by Oracle StorageTek Software Support.

OFF

optionally, removes **MSGJob** overrides.

- If no other parameters are specified, **MSGJob** overrides are removed for all jobs.
- If only **JOBname** is specified, **MSGJob** overrides are removed for all **MSGJob** entries for that job name.
- If **JOBname**, **STEPname** and **PROCstep** are specified, **MSGJob** overrides are removed only for the specified entry.

The global **MSGJob** is not affected by this parameter.

POLicy

Interfaces:

- Console, utility, **SMCCMDS** data set, or **SMCPARMS** data set
- UI Support: Yes (supports XML and CSV)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC POLicy command specifies all tape policy specifications in a single named policy object. It can be used with SMC TAPEREQ statements or SMC DFSMS routines to associate a named policy with an allocation or mount event. Additionally, the POLicy VALidate option can be used to validate policy objects.

Note: Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information about the use of SMC policies.

Policies defined using the SMC POLicy command create SMC policy objects that can be referenced by name from either SMC TAPEREQ control statements using the TAPEREQ POLicy parameter. A policy name may be associated with two policy objects: a scratch policy with the specified name, and a specific policy with the specified name. Policies referenced from SMC TAPEREQ control statements must be defined before executing the TREQDEF command that processes the TAPEREQ control statements.

By default, and SMC POLICY command applies ONLY to SCRATCH volumes. If you want to set a policy for specify volumes, you must specify VOLTYPE (SPECIFIC). If you want to specify a policy to apply to both SCRATCH and SPECIFIC volumes, you must specify two separate POLICY commands with the same POLICY name.

When a policy to be added to the SMC contains a policy specification error, for example, specifying a scratch subpool name with VOLTYPE (SPECIFIC), the SMC still creates the policy object to find it. When a policy is marked as in error, the policy is empty, indicating that the default tape policy attributes will be applied to an event that specifies this policy name.

To update an SMC policy, enter a new SMC POLicy command for the given policy Name and VOLType. Be aware that the new POLicy command replaces the existing scratch or specific policy object. Therefore, when updating a policy, you must enter all values you want to preserve.

For example, if the original scratch policy object is defined as:

```
POLICY NAME (POL1) VOLTYPE (SCRATCH) MEDIA (VIRTUAL) MGMTCLAS (MGMT1)
```

and you want to add a subpool to the policy, you must enter:

```
POLICY NAME (POL1) VOLTYPE (SCRATCH) MEDIA (VIRTUAL) MGMTCLAS (MGMT1)  
SUBPOOL (SUBP1)
```

This behavior enables you to modify one or more POLicy commands in a file and reload all policies using the SMC READ command. When using the SMC READ command to reload the SMC POLICY file, it is recommended that you specify the option REPlacepolicy to receive notifications about POLICY commands present in the original definitions but missing in the new definitions.

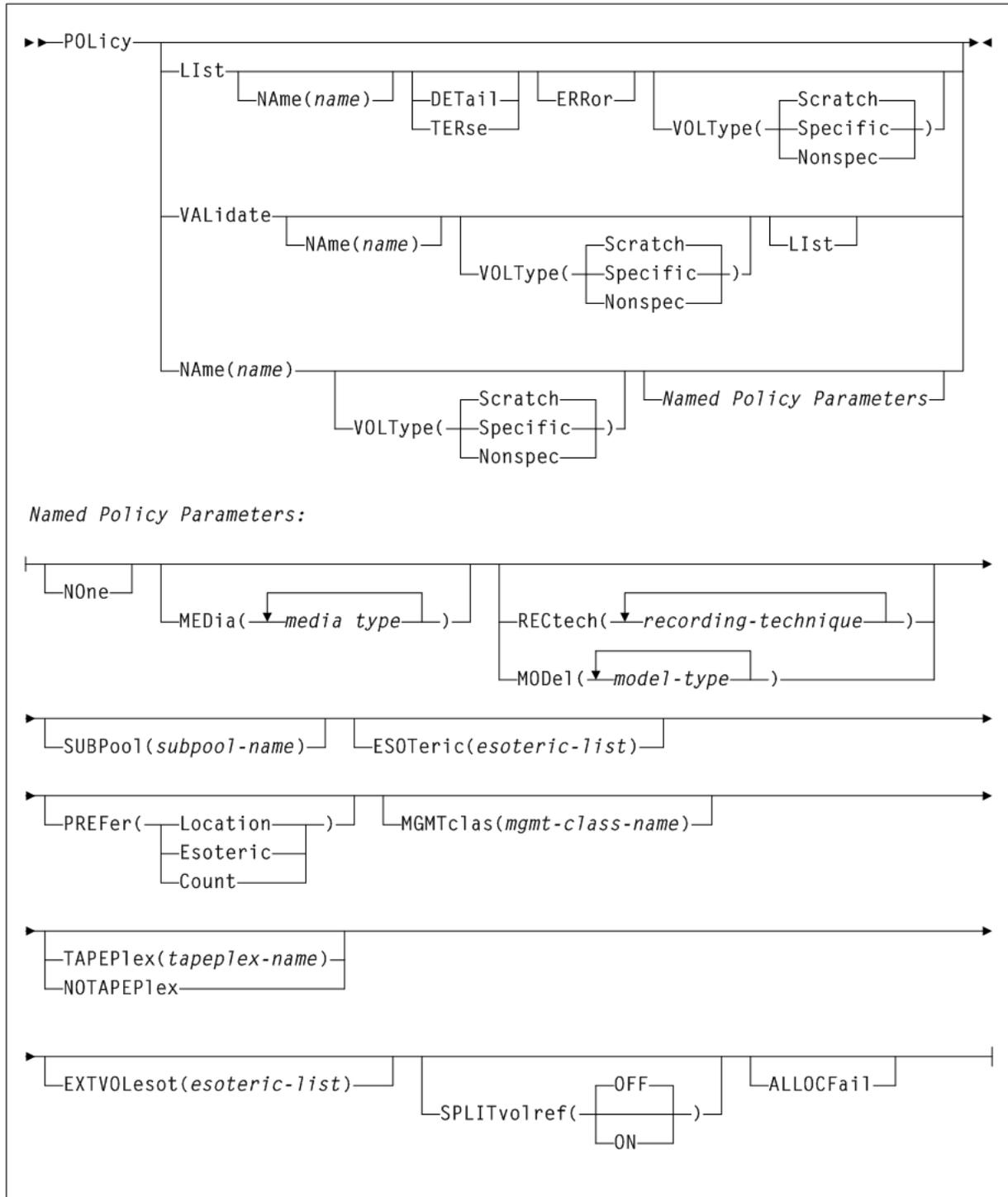
When an SMC policy object to be updated contains a policy specification error, for example, specifying a scratch subpool name with VOLType (SPecific), the SMC will not update any part of the existing policy object. The policy object is not marked in error, and the complete update is discarded.

DEVTYPREF is not supported on this command. However, you can use an esoteric list to specify preferencing for different device types.

Syntax

Figure 2–26 shows POLicy command syntax.

Figure 2–26 POLicy command syntax



Parameters

As shown in Figure 2–26, the POLicy command includes the following parameters:

List

optionally, displays all policy information. Additional parameters allow you to limit which policies are listed, and how much detail is displayed.

If name is also specified, only policies that match the specified name or generic name are listed. If name is not specified, then all policies are listed.

Note: Matching policies are listed in alphabetic order, regardless of the order in which they were defined to the SMC. When specified with other parameters, the `LISt` is performed after the other parameters have been processed.

Name(name)

optionally, specifies the name of a policy that matches the name specified in a `TAPEREQ` or `DFSMS ACS` routine management class. If the keyword `NAme` is omitted, the policy name is assumed to be the first parameter following the `POLicy` command (if that parameter is not a valid keyword).

name indicates the policy name.

DETail

optionally, displays audit detail information about the policy, including last update date, time, and source. `DETail` and `TERse` are mutually exclusive.

TERse

optionally, lists only policy names and whether each policy name applies to scratch, specific, or all allocations. `TERse` and `DETail` are mutually exclusive.

ERRor

optionally, displays each policy in error status.

When a policy to be added to the SMC contains a policy specification error, for example, specifying a scratch subpool name with `VOLTYPE (SPECIFIC)`, the SMC still creates the policy object. However, the SMC marks the policy object in error, allowing any reference to the named policy object to find it. However, the returned policy will be empty, indicating that the default tape policy attributes will be applied to the event. `ERRor` lists only those policies that contain an error.

VOLType

optionally, specifies whether the list applies to scratch or specific policy types.

SCRatch or Nonspec

List only scratch (nonspecific) policies. This is the default.

SPecific

List only specific policies.

VALidate

optionally, validates and lists policy information against the current TapePlex environment. Additional parameters allow you to limit which policies are validated, and whether all results or just warnings and errors are displayed.

Name(name)

optionally, specifies the name of a policy to be validated.

If the last character is an asterisk (*), all policies that begin with the prefix are displayed. For example, `POL VAL NA V*` validates all policies that begin with "V".

If the `NAME` parameter is omitted, a non-keyword parameter following the `POLICY` command is interpreted as the `NAME`.

name indicates the policy name.

VOLType

optionally, specifies whether the list applies to scratch or specific policy types.

SCrash or Nonspec

List only scratch (nonspecific) policies. This is the default.

SPecific

List only specific policies.

List

optionally, specifies whether only warnings and errors are listed, or all tested policies are listed. If not specified, then only a single line for each policy that generates a warning or error message is listed.

Name(name)

optionally, specifies the name of a policy. *name* may be specified with or without the keyword `NAME`. If the keyword `NAME` is not specified, the name, if specified, must be the first parameter.

The policy name must match the name specified in a `TAPEREQ` or `DFSMS ACS` routine management class name.

name indicates the policy name.

When a policy is not being added or updated, the policy name can be a generic name, for example `POLICY V*` lists information for all policies that begin with `V`.

VOLType

optionally, specifies whether the policy applies to scratch or specific allocation.

SCrash or Nonspec

The policy applies only to scratch (nonspecific) allocations. This is the default.

SPecific

The policy applies only to specific allocations.

See individual parameters for restrictions on the `VOLType` that is permitted or not allowed.

Note: If you want to specify a policy that applies to both scratch and specific volumes, you must use two separate `POLICY` commands with the same `POLICY NAME`, one with `VOLType (SCrash)` (or not specified) and one with `VOLType (SPecific)`.

Named Policy Parameters

When a new policy is added, the default `VOLType` is `SCrash` (or `Nonspec`). You can add the same policy name for both `SCrash` and `SPecific` `VOLTypes`.

The following parameters require a *name* or `NAME (name)` parameter:

NOne

optionally, removes all policy parameters associated with the named policy. Specifying NOne for a policy implies that the default behavior is applied, for example, any media or rectech, subpool 0, and so on.

MEDia(media-type)

optionally, specifies the desired media type for a data set being created. You can enter a list of media types, separated by commas. A list specifies a generic pool from which a selection is made. There is no implied priority.

media-type indicates the media type. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *media-type* values.

If this parameter is not specified, a default is chosen based on the value of the RECtech parameter. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for default values used if the MEDia parameter is omitted.

MEDia and VOLType(SPecific) are mutually exclusive unless the NOTAPEplex parameter is specified. If both media type and recording technique are omitted, all available device types are eligible for allocation.

RECtech(recording-technique)

optionally, specifies the method used to record data tracks on the tape surface for the desired data set. You can enter a list of recording techniques, but they must be separated by commas. A list specifies a generic pool from which a selection is made. There is no implied priority.

recording-technique indicates the recording technique. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *recording-technique* values.

MODel(model-type)

optionally, specifies the model number of a transport. You can enter a list of models, separated by commas. A list specifies a generic pool from which a selection is made. There is no implied priority.

MODel provides the same type of information as RECtech, but a user may find it more convenient to specify a transport model rather than a recording technique. MODel and RECtech are mutually exclusive.

model-type indicates the model type. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *model-type* values.

SUBPool(subpool-name)

optionally, specifies the subpool used to satisfy a scratch request. SUBPool and VOLType(SPecific) are mutually exclusive.

subpool-name indicates the subpool name.

ESOTeric(esoteric-group-name or esoteric-list)

optionally, specifies the name of a device esoteric group, or list of device groups defining the list of eligible transports to be used to satisfy a tape request.

esoteric-group-name or *esoteric-list* indicates the esoteric group name. The name specified can consist of one to eight alphanumeric or national (#, @, \$) characters. A slash (/) or hyphen (-) is also valid.

If the esoteric list contains devices not currently in the Eligible Device List, SMC allocation cannot add devices to the list, but can exclude devices not in the specified esoteric. During drive exclusion, devices in any of the listed esoterics are included. During drive prioritization, devices are ordered according to their position in the esoteric list.

PREFer

optionally, specifies the relative value of the esoteric list and additional preferencing information. PREFer is only valid when a list of esoterics is specified.

Location

Drives are preferred based on LSM location of a specific volume. This is the default for specific volumes. Location is only valid for VOLType (SPecific).

Esoteric

Drives are preferred based on the order specified in the esoteric list. This is the default for scratch allocations.

Count

Drives are preferred based on scratch counts in the LSM. Count is mutually exclusive with VOLTYPE(SPecific).

MGMTclas(name)

optionally, specifies a Management Class defined on the VTCS MGMTclas control statement. See "[MGMTclas Control Statement](#)" on page 3-212 for more information.

name indicates the Management Class name.

TAPEPlex(name)

optionally, specifies the name of a TapePlex defined to SMC. SMC uses the specified TapePlex name to determine the owner of an allocation request. Only the specified TapePlex name is queried to determine specific volume information or scratch availability.

name indicates the TapePlex name. This must be a TapePlex name specified on a TAPEPlex command. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

The named TapePlex must be defined using a TAPEPlex command before the POLicy command is processed. TAPEPlex and NOTAPEPlex are mutually exclusive.

NOTAPEPlex

optionally, specifies that SMC will not perform a TapePlex lookup to obtain volume information. NOTAPEPlex and TAPEPlex are mutually exclusive.

EXTVOLesot(esoteric-list)

optionally, specifies the name of a device esoteric group, or list of device groups defining the list of eligible transports to be used to satisfy a tape request when the specific volume is found to be outside of the library. EXTVOLesot can only be specified if VOLTYPE=SPECIFIC is also specified.

esoteric-list indicates the esoteric-list. Each esoteric group name in the list can consist of one to eight alphanumeric or national (#, @, \$) characters. A slash (/) or hyphen (-) is also valid.

SPLITvolref

optionally, specifies whether VOL=REF chains are to be broken. SPLITvolref and VOLType(SPecific) are mutually exclusive.

OFF

VOL=REF chains are not broken. This is the default.

ON

VOL=REF chains are broken and the LABEL data set sequence number is set to 1.

ALLOCFail

optionally, specifies that a job step matching the policy should be failed during SMC allocation. When this parameter is specified, any job step that matches the policy has all its devices marked ineligible by the SMC allocation process, which causes the job to fail. ALLOCFail is mutually exclusive with all other parameters except for NAME, LIST, VALIDATE, and VOLTYPE.

READ

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

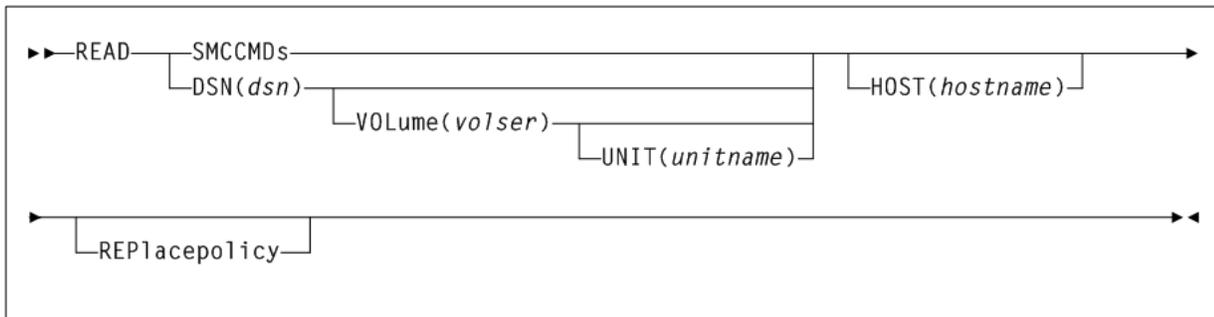
Description

The SMC READ command enables you to enter a series of commands using an input data set instead of console commands.

Syntax

Figure 2-27 shows READ command syntax.

Figure 2-27 READ command syntax



Parameters

As shown in Figure 2-27, the READ command includes the following parameters:

SMCCMDS

optionally, re-processes commands contained in the data set specified in the SMCCMDS DD statement of the SMC START procedure.

DSN(dsn)

optionally, processes commands contained in the specified data set.

dsn indicates the data set name.

Note: If the *DSN* parameter specifies a member name, the full data set must be enclosed in single quotes.

VOLume(volser)

optionally, specifies the volume serial number of the DASD volume on which the data set resides. Specify this parameter if the data set is not catalogued.

volser indicates the volume serial number on which the data set resides.

UNIT(unitname)

optionally, specifies the unit name of the specified *VOLume* for uncataloged data sets. Requires that *VOLume* also be specified.

unitname indicates the unit name. If not specified, then a unit name of *SYSALLDA* is the default.

HOST(hostname)

optionally, specifies a host name for which this *READ* command is valid. If this parameter is specified, the *READ* command is only processed when the specified *hostname* matches the MSP host. If this parameter is not specified, the *READ* command is processed regardless of the MSP host.

hostname indicates the host name.

HOST is not valid when the *READ* command is entered from an MSP console.

Specification of the *HOST* parameter enables you to share a single SMC parameter file set across multiple MSP hosts as shown in the following example:

your.parmlib(COMMCMDS)

```
MSGDEF CASE (MIXED)
...other common SMC parameter settings...
READ DSN('your.parmlib(MSP1CMD5)') HOST(MSP1)
READ DSN('your.parmlib(MSP2CMD5)') HOST(MSP2)
```

your.parmlib(MSP1CMD5)

```
DRIVEMAP CL(AB0-AB7) SE(BB0-BB7)
```

your.parmlib(MSP2CMD5)

```
DRIVEMAP CL(CB0-CB7) SE(BB0-BB7)
```

The file *COMMCMD5* contains SMC parameter settings applicable to all hosts, and the *READ* commands with *HOST* specifications for your MSP hosts. The file *MSP1CMD5* contains SMC specifications applicable only to MSP host *MSP1*, while the file *MSP2CMD5* contains SMC specifications applicable only to MSP host *MSP2*.

REPlacepolicy

optionally, specifies that all SMC *POLICY* objects are to be replaced by any *POLICY* statements found in the specified data set (or in any data set subsequently read by the specified *READ* data set).

If *REPlacepolicy* is not specified, individual *POLICY* statements within a *READ* command update or add only the referenced *POLICY* statements and do not affect unreferenced *POLICY* statements.

Note:

- After the `READ REPlacepolicy` command is executed, any `TAPEREQ POLICY` references are re-validated. If any `TAPEREQ POLICY` references are subsequently found to be in error, the invalid `TAPEREQ` statements are left active, but reference a "null" `POLICY` (that is, the equivalent of specifying `POLICY NAME (name) NONE`).
- It is recommended that any `TAPEREQ` statement(s) be reloaded by inclusion of the `TREQDEF` command whenever a `READ REPlacepolicy` command is executed, in order to re-validate all SMC tape policies at the same time.

RESYNChronize

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

The SMC `RESYNChronize` command re-establishes connections to all defined TapePlexes to acquire drive configuration information from all TapePlexes.

This action is automatically performed when the SMC first activates a new path to a TapePlex, when an HSC subsystem (local or remote) reports a configuration change, or when an active local path to a TapePlex is accessed during an MSP allocation or mount event. However, the operator must issue the `RESYNChronize` command in the following instances:

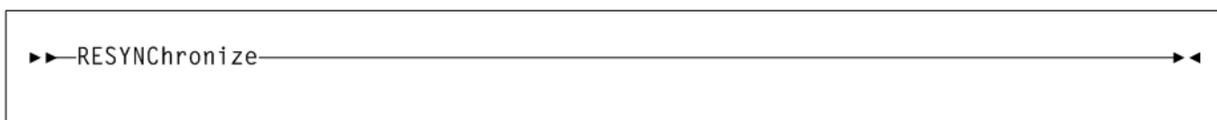
- When the user wants to automate pending mounts for a newly activated TapePlex, and does not want to wait for an MSP allocation or mount event to trigger the reconnection.
- To attempt to redrive outstanding mounts that may have been lost due to hardware or communication errors.

Note: It is recommended that you include a `RESYNChronize` command at the end of your `SMCCMDS` file (after all `TAPEPlex` and `SERVer` commands) to initialize communication with TapePlexes before the first intercepted allocation or mount.

Syntax

Figure 2–28 shows `RESYNChronize` command syntax.

Figure 2–28 *RESYNChronize command syntax*



Parameters

None.

Route

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required

Description

The SMC `Route` command routes command transactions from SMC to a defined TapePlex or VLE. Only the following are supported:

- VTCS commands
- HSC commands with UI support, except for `VOLRPT`.

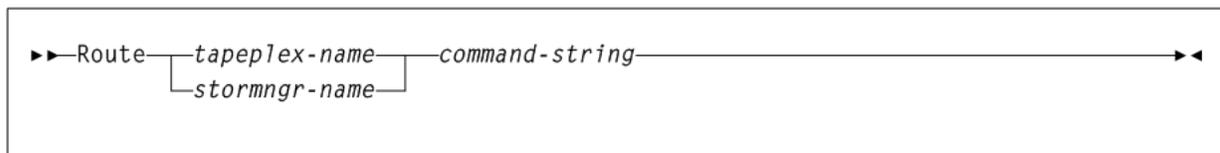
Note:

- The HSC `MOUNT`, `DISMOUNT`, `ENTER` and `MOVE` commands can now be issued from SMC through the `ROUTE` command.
 - Currently, the only command that will be accepted and processed by a VLE is the `QUERY SERVER` command.
 - You can also use the `Route` command to issue various commands from a VM Client to an ACSLS XAPI server. Refer to Oracle's ELS publication *XAPI Client Interface to ACSLS Server Reference* for more information.
-
-

Syntax

Figure 2–29 shows `Route` command syntax.

Figure 2–29 *Route command syntax*



Parameters

As shown in Figure 2–29, the `Route` command includes the following parameters:

tapeplex-name

specifies a TapePlex name as defined on an SMC `TAPEPLEX` command. SMC routes the request to the specified TapePlex using the currently active TapePlex path. Commands may be sent to either a local or remote HSC TapePlex.

stormngr-name

specifies a VLE name as defined on an SMC `STORMNGR` command. SMC routes the request to the specified VLE using the currently active VLE path. Commands may be sent to either a local or remote HSC TapePlex or VLE.

command-string

specifies the command string to be routed to the requested TapePlex.

Do not prefix VTCS commands with `VT`; the HSC UUI interface routes VTCS commands to the correct functional processor without the `VT` prefix. The command string must be a command supported by the HSC UUI or any VTCS command (except `DISPLAY MSG` and `DISPLAY CMD`). This is a required value.

SERVer

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

The SMC `SERVer` command defines a named path to a remote library server; an HSC subsystem executing on another host. The `SERVer` command describes the communication path to the HTTP server.

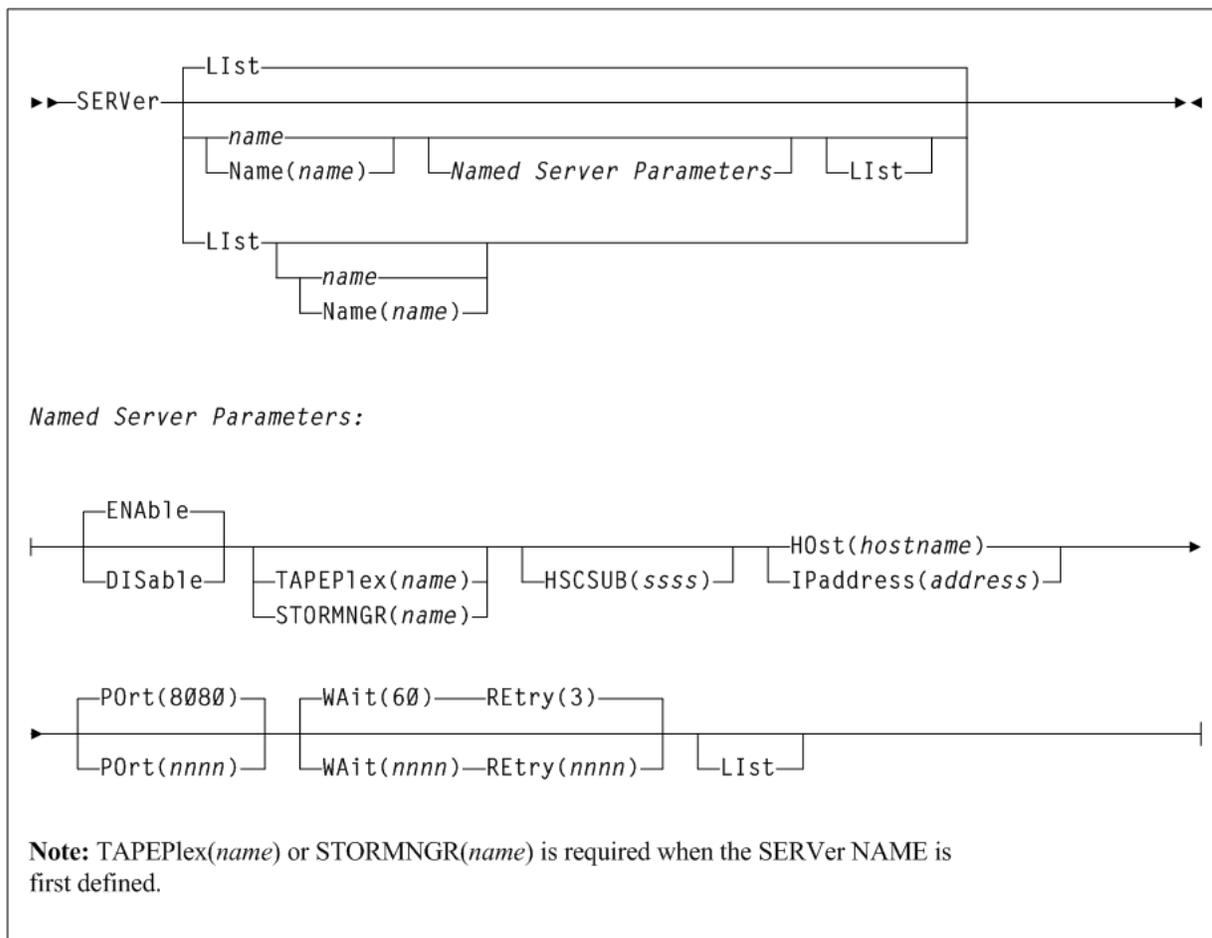
Note:

- Before a `SERVer` is defined, the TapePlex that it references must be defined using a `TAPEPlex` command. The TapePlex name associated with a `SERVer` cannot be changed. See "[TAPEPlex](#)" on page 2-66 for more information.
 - Similarly, before a `SERVer` is defined, the VLE that it references must be defined using a `STORMNGR` command. The VLE name associated with a `SERVer` cannot be changed. See "[STORMNGR](#)" on page 2-64 for more information.
-
-

Syntax

[Figure 2-30](#) shows `SERVer` command syntax.

Figure 2-30 SERVer command syntax



Parameters

As shown in Figure 2-30, the SERVer command includes the following parameters:

name or NAmE(name)

optionally, specifies the server name to be defined, modified, or listed.

name may be specified with or without the keyword NAmE. If the keyword NAmE is not specified, the name, if specified, must be the first parameter.

The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

Note: If you are using the SMC HTTP server component, there can be multiple NAMED server paths for a single TapePlex configuration. Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information.

List

optionally, displays status information for TapePlex server paths.

If *name* is also specified, only the named TapePlex server path is listed. If *name* is not specified, then all TapePlex server paths are listed.

Note:

- `LIst` is the default when no parameters are specified on the `SERVer` command. In this case, all library server paths are listed.
 - `LIst` may be specified with other parameters. When specified with parameters other than `NAme`, the `LIst` is generated after the other parameters are processed.
-
-

Named SERVer Parameters

The following parameters require a name or `NAme` (*name*) parameter:

ENable

optionally, enables the specified server path to be selected for allocation or mount requests.

DISable

optionally, disables the specified server path. If this is the only path to the TapePlex, the TapePlex is unavailable for allocation or mount requests.

TAPEPlex(name)

optionally, specifies the TapePlex name associated with an actual ACS hardware configuration as defined on an `SMC TAPEPlex` command. The `TAPEPlex` parameter must be specified when a new server is first defined.

name indicates the TapePlex name. This name is reported in any TapePlex error message. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

STORMNGR(name)

optionally, specifies a VLE name as defined on an `SMC STORMNGR` command. The `STORMNGR` parameter must be specified when a new server is first defined. `TAPEPlex` and `STORMNGR` are mutually exclusive.

name indicates a VLE name as defined on an `SMC STORMNGR` command. This name is reported in any VLE error message.

HSCSUB(ssss)

optionally, specifies the name of the HSC subsystem that represents the Tapeplex associated with the server. This parameter is required only when there is more than one HSC subsystem executing on the server host (HSC running in `MULT` mode).

ssss indicates the HSC subsystem name.

HOSt(hostname)

optionally, specifies the IP resolver host name on which the remote HSC subsystem resides. `HOSt` and `IPaddress` are mutually exclusive.

hostname indicates the name of the remote host. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

IPaddress(address)

optionally, specifies the subsystem IP address for the remote HSC subsystem. `IPaddress` and `HOSt` are mutually exclusive.

address indicates the IP address. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

PORT(nnnn)

optionally, specifies the server port. *nnnn* indicates the server port. The default is 8080.

WAit(nnnn)

optionally, specifies the maximum wait time for any single request made over the network before the SMC assumes that a communication or server problem exists.

nnnn indicates the wait time in seconds. The default is 60.

Note:

The default for a mount or dismount request is 10 minutes (600 seconds) or more if the specified `WAIT` time is greater than 600 seconds.

If your HSC CDS backup job runs longer than the specified wait time, set your wait time to match the normal execution time of your CDS backup job.

REtry(nnnn)

optionally, specifies the number of retry attempts for any single request before the task is allowed to resume, and a failure recorded.

nnnn indicates the number of retries. The default is 3.

SIMulate

Interfaces:

- Console, utility, `SMCCMDS` data set, or `SMCPARMS` data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

The SMC `SIMulate` command simulates how SMC would process a single DD job step with a given set of jobstep characteristics. The `SIMulate` command simulates the allocation influence (SSI24) portion of SMC processing, but not mount processing.

You provide the keyword jobstep parameters to simulate, and the command invokes SMC allocation, policy lookup, and volume lookup. The `SIMulate` output displays the simulation results.

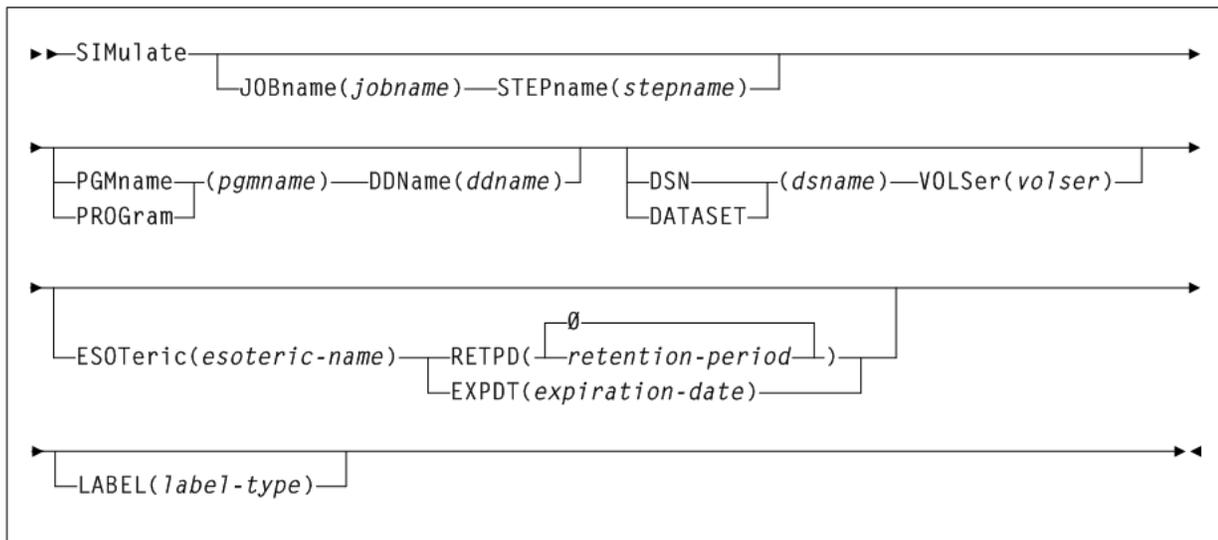
While `SIMulate` does not simulate certain jobstep characteristics (such as multiple units, affinity separation, or volref attributes), it does provide a powerful tool to test how changes in SMC policies, including `TAPEREQ` and `POLICY` commands, user exits, and `TAPEREQ` and `SERVER` changes will affect your production jobs.

You can issue `SIMulate` command to an active SMC subsystem or through the `SMCUSIM` utility. The `SMCUSIM` utility, working with the `SIMulate` command, produces XML output that can be manipulated as CSV to produce before and after reports to compare how jobs would be processed. See "[SMC UUI Simulation Utility \(SMCUSIM\)](#)" on page 4-23 for more information about the `SMCUSIM` utility.

Syntax

Figure 2–31 shows `SIMulate` command syntax.

Figure 2–31 *SIMulate command syntax*



Parameters

As shown in Figure 2–31, the `SIMulate` command includes the following parameters:

JOBname(jobname)

optionally, specifies the job name of the simulated job step to test. The format must conform to MSP standards. If not specified, "(any)" is used, which prevents a match to non-generic job names specified in SMS ACS routines or `TAPEREQ` control statements.

jobname indicates the job name.

STEPname(stepname)

optionally, specifies the step name of the simulated job step to test. The format must conform to MSP standards. If not specified, "(any)" is used, which prevents a match to non-generic step names specified in SMS ACS routines or TAPEREQ control statements.

stepname indicates the step name.

PGMname(pgmname) or PROGRAM (pgmname)

optionally, specifies the program name of the simulated job step to test. The format must conform to MSP standards. If not specified, "(any)" is used, which prevents a match to non-generic program names specified in TAPEREQ control statements.

pgmname indicates the program name.

DDName(ddname)

optionally, specifies the DD name of the simulated data set to test. The format must conform to MSP standards. If not specified, "(any)" is used, which prevents a match to non-generic DD names specified in TAPEREQ control statements.

ddname indicates the DD name.

DSN(dsname) or DATASET(dsname)

optionally, specifies the data set name of the simulated data set to test. The format must conform to non-PDS member MSP standards. If not specified, "(any)" is used, which prevents a match to non-generic program names specified in TAPEREQ control statements.

dsname indicates the data set name.

VOLSer(volser)

optionally, specifies the volume serial number of the simulated data set to test. The format must conform to MSP standards. If not specified, "SCRATCH" is used, which simulates a scratch mount.

volser indicates the volume serial number.

ESOTeric(esoteric-name)

optionally, specifies the name of a device esoteric group defining the list of eligible transports used to satisfy the tape request. The specified esoteric must be a defined MSP esoteric. If not specified, the SIMulate command simulates an original esoteric consisting of all known library, non-library, and virtual devices for all TapePlex(es). If the default esoteric is used, it may not correspond to a defined MSP esoteric.

esoteric-name indicates the esoteric name.

RETPD(retention-period)

optionally, specifies the retention period of the simulated data set to test. The format must conform to MSP standards. If not specified, 0 is used.

retention-period indicates the retention period.

EXPDT(expiration-period)

optionally, specifies the expiration date of the simulated data set to test. The format must conform to MSP standards. If not specified, the current date is used.

expiration-period indicates the expiration date.

LABEL(label-type)

optionally, specifies the label type to be used to select the policy.

label-type indicates the label type. Specify one of the following:

- SL indicates standard-labeled tape. This is the default if the parameter is omitted.
- AL indicates ANSI-labeled tape.
- NL indicates nonlabeled tape.
- NSL indicates nonstandard labeled tape.

Examples

SMC SIMulate command output displays the simulated job characteristics and policy sections displaying the SMS, TAPEREQ and SMC policy applied.

The following example shows the "minimum" output, where no SMC tape policies were applied:

Example 2-1 SIMulate Command Output - No Tape Policies Applied

```
SMC0222 SIMULATE command results:
---- Jobstep characteristics ----
JOBNAME=(any), STEPNAME=(any), PROGRAM=(any), DDNAME=(any)
DSN-SMCINT.BT1.TEST, RETPD=0
VOLSER=SCRATCH, ESOTERIC=(any)
---- Volume lookup results ----
Owning TAPEPLEX=HSCQ
MEDIA=STANDARD, ECART, STK2P
RECTECH=LONGITUD, STK2P
---- List of eligible drives ----
0AA0 TAPEPLEX=HSCQ, ACS=00, LSM=00, 18TRACK, pref=1
0AA1 TAPEPLEX=HSCQ, ACS=00, LSM=00, 18TRACK, pref=1
remainder of drives
```

STORMNGR

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

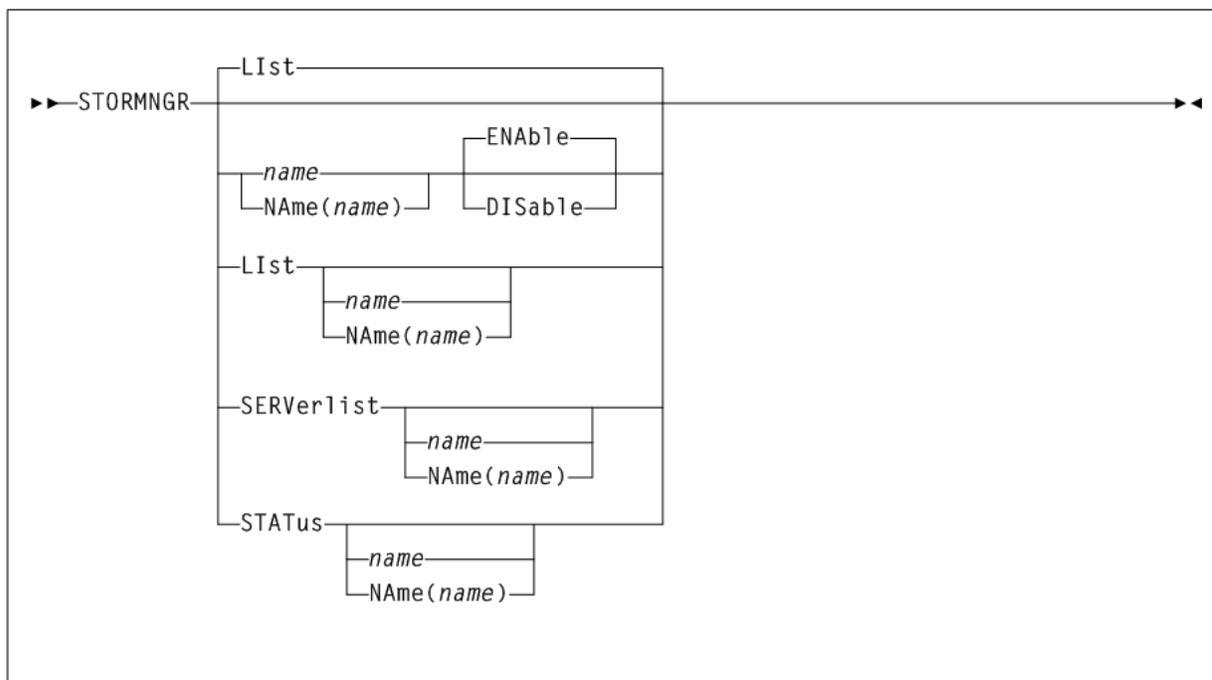
The SMC STORMNGR command defines a VLE to SMC.

Note: STORMNGR and SERVer commands are required to access a VLE. The STORMNGR command can also list VLEs that the SMC tries to communicate with and report their status.

Syntax

Figure 2-32 shows STORMNGR command syntax.

Figure 2-32 STORMNGR command syntax



Parameters

As shown in Figure 2-32, the STORMNGR command includes the following parameters:

name or NAmE(name)

Specifies VLE to be defined, modified or listed. This name is also defined to VTCS, and is initially defined by the VLE GUI. If *name* is not specified, then all VLEs are listed.

name may be specified with or without the keyword NAmE. If the keyword NAmE is not specified, the *name*, if specified, must be the first parameter.

The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

ENAbLe

enables the specified VLE. This is the default when new VLE is added.

DISAbLe

disables the specified VLE.

LIsT

optionally, lists VLE information.

If *name* is also specified, only the named VLE is listed. If *name* is not specified, then all VLEs are listed.

SERVerlist

optionally, lists defined VLEs, their attributes and associated servers.

If *name* is also specified, only the named VLE is listed. If *name* is not specified, then all VLEs are listed.

STATus

optionally, lists current status of all VLEs or a single named VLE.

If *name* is also specified, only the named VLE is listed. If *name* is not specified, then all VLEs are listed.

TAPEPlex

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC `TAPEPlex` command defines a TapePlex; a specific Oracle StorageTek tape hardware configuration normally represented by a single CDS. The `TAPEPlex` command can also list TapePlexes that the SMC tries to communicate with, and report their status.

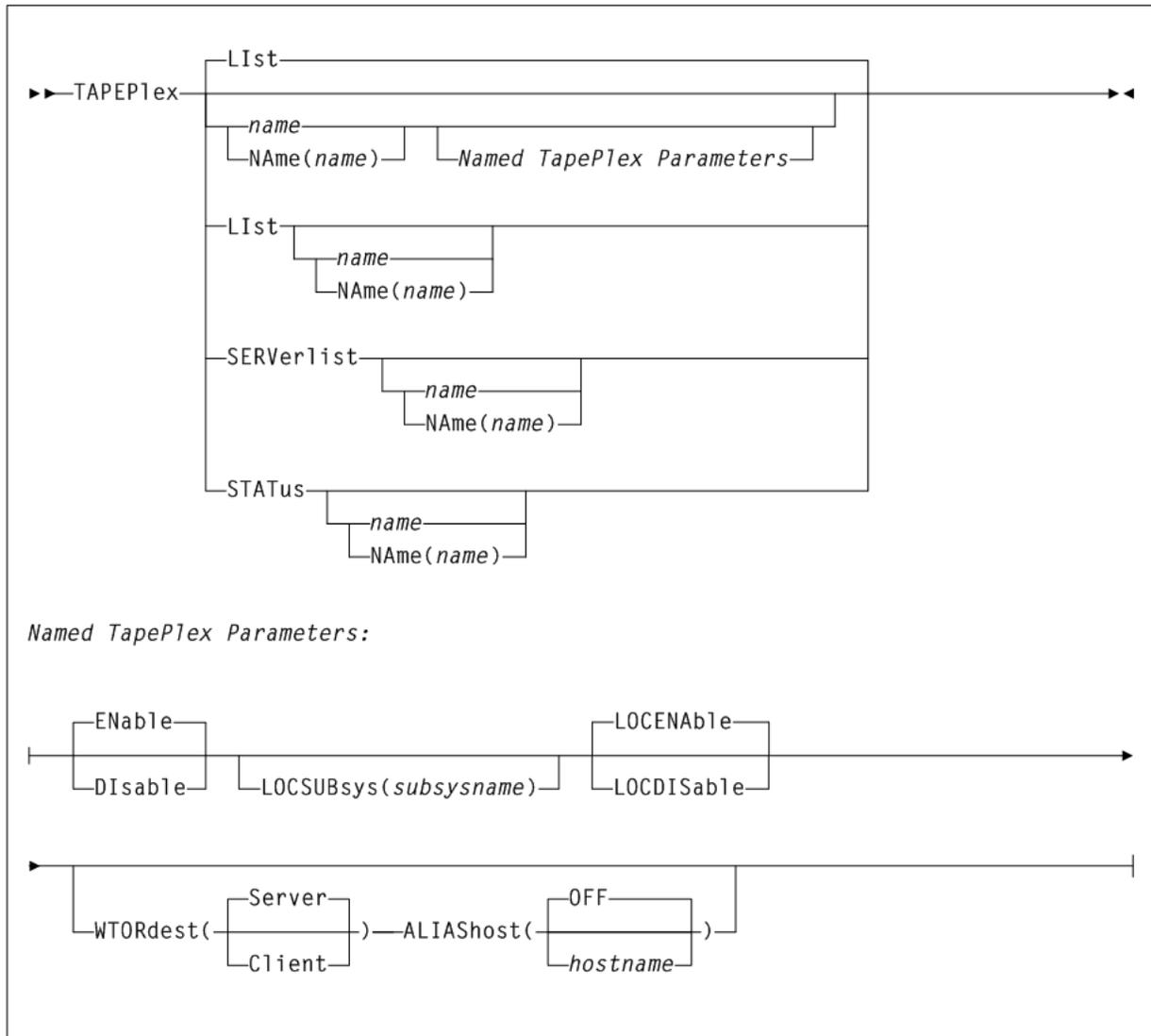
Note:

- `TAPEPlex` and `SERVer` commands are required to access remote HSC TapePlexes.
 - At least one TapePlex must be defined to allow SMC to initialize.
-
-

Syntax

[Figure 2–33](#) shows `TAPEPlex` command syntax.

Figure 2-33 TAPEPlex command syntax



Parameters

As shown in [Figure 2-33](#), the TAPEPlex command includes the following parameters:

name or Name (name)

specifies the TapePlex name to be added, modified, or listed.

name may be specified with or without the keyword NAME. If the keyword NAME is not specified, the name, if specified, must be the first parameter.

The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit or hyphen.

List

optionally, lists TapePlex information.

If *name* is also specified, only the named TapePlex is listed. If *name* is not specified, then all TapePlexes are listed.

`LISt` is the default when no parameters are specified on the `TAPEPlex` command. In this case, all TapePlexes are listed. `LISt` may be specified with other parameters. In this case, the named TapePlex is listed after the other parameters are processed.

SERVerlist

optionally, lists defined TapePlexes, their attributes and associated servers.

If *name* is also specified, then only the named TapePlex servers are listed. If *name* is not specified, then all servers are listed.

STATus

optionally, lists current status of all TapePlexes, or a single named TapePlex. The TapePlex status indicates whether a TapePlex is active, inactive, or disabled. For an active TapePlex, the status lists the name of the current server or local subsystem.

If *name* is also specified, then only the named TapePlex status is listed. If *name* is not specified, then the status of all TapePlexes is listed.

Named TAPEPlex Parameters

The following parameters require a *name* or `NAmE (name)` parameter:

ENAbLe

optionally, enables the specified TapePlex to be selected for allocation or mount requests.

DISAbLe

optionally, disables the specified TapePlex. The TapePlex is not used for any allocation or mount requests.

LOCSUBsys(subsysname)

optionally, specifies a local HSC subsystem.

subsysname indicates the subsystem name.

LOCENAbLe

optionally, enables the specified HSC subsystem to be used as a local path to the TapePlex.

LOCDISAbLe

optionally, disables the specified HSC subsystem. `LOCDISAbLe` can be used to force the SMC to ignore the local subsystem and access the TapePlex through a remote server.

WTORdest

optionally, specifies the console to which HSC WTOR messages are directed. Refer to Oracle's ELS publication *Configuring and Managing SMC* for messages that apply.

Client

The remote HSC returns selected WTORs to the SMC client without issuing the WTOR message. The SMC client then issues the WTOR to the operator of the system that the SMC executes on. The SMC redrives the mount or dismount request to the server supplying the WTOR response.

Server

WTOR messages are issued on the HSC server console. This is the default.

ALIAShost

optionally, specifies a host alias to be used in communications with the HSC TapePlex.

hostname

a 1-8 character host name.

OFF

The native SMF host name is used in communications with the HSC library. This is the default.

TCPip

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

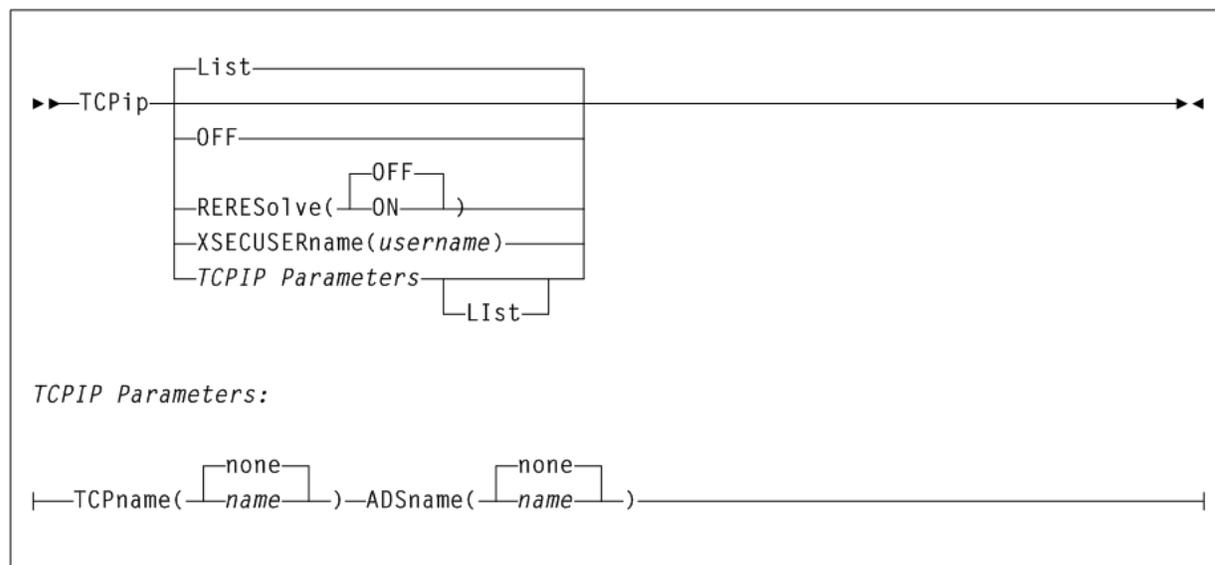
Description

The SMC `TCPip` command enables you to alter and/or lists current `TCPNAME` and `ADSNAME` defaults for your TCP/IP communications environment. You can use this command to direct TCP/IP requests to a specific TCP/IP stack on an MSP host.

Syntax

Figure 2-34 shows `TCPip` command syntax.

Figure 2-34 *TCPip command syntax*



Parameters

As shown in [Figure 2-34](#), the TCPip command includes the following parameters:

List

optionally, lists current TCPNAME and ADSNAME settings.

- LIst is the default when no parameters are specified on the TCPip command.
- LIst may be specified with other parameters. In this case, the LIst is generated after the other parameters are processed.

OFF

optionally, specifies that system defaults are used for client TCP/IP communication.

RERESolve

optionally, specifies whether SMC attempts to re-resolve the SERVER HOST name after a communication failure.

OFF

SMC does not attempt to re-resolve the server host name. This is the default.

ON

SMC attempts to re-resolve the server host name.

SMC first attempts a retry as specified by the SERVER RETRY parameter. If the error indicates that the IP address may be unavailable, and the RERESolve parameter is ON, SMC then attempts to resolve the HOST name again, and if a new IP address is generated, retries the transaction.

XSECusername(username)

optionally, specifies the XAPI user name associated with all transactions originating from this client. This user name will only be used when a login challenge is issued by the targeted server.

username indicates the XAPI user name.

Note: The same USER must be defined on both the client and server using the XUDB command. See "XUDB" on page 2-92 for more information.

TCPIP Parameters

These parameters are mutually exclusive with OFF or RERESolve.

TCPname(name)

optionally, specifies the TCPNAME value for a specific TCP/IP stack on an MSP host. TCPNAME is the name of the MSP TCP/IP stack. Refer to the Fujitsu publication *TCP/IP for MSP Application Programming Interface Reference* for more information about TCPNAME. The default is none.

name indicates the TCPNAME value. The default is none.

- If a subsystem name is specified, it must consist of one to four alphanumeric or national (#,@,\$) characters, the first character being alphabetic or national.
- If an address name is specified, it must consist of one to eight alphanumeric or national characters.

ADSname(name)

optionally, specifies the ADSNAME value for a specific TCP/IP stack on an MSP host. ADSNAME is the jobname of the TCP/IP startup job. Refer to the Fujitsu publication *TCP/IP for MSP Application Programming Interface Reference* for more information about ADSNAME.

name indicates the ADSNAME value.

TRace

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC TRace command enables SMC tracing using the GTF trace facility and optionally provides a snap dump of the address space before and after control block modification.

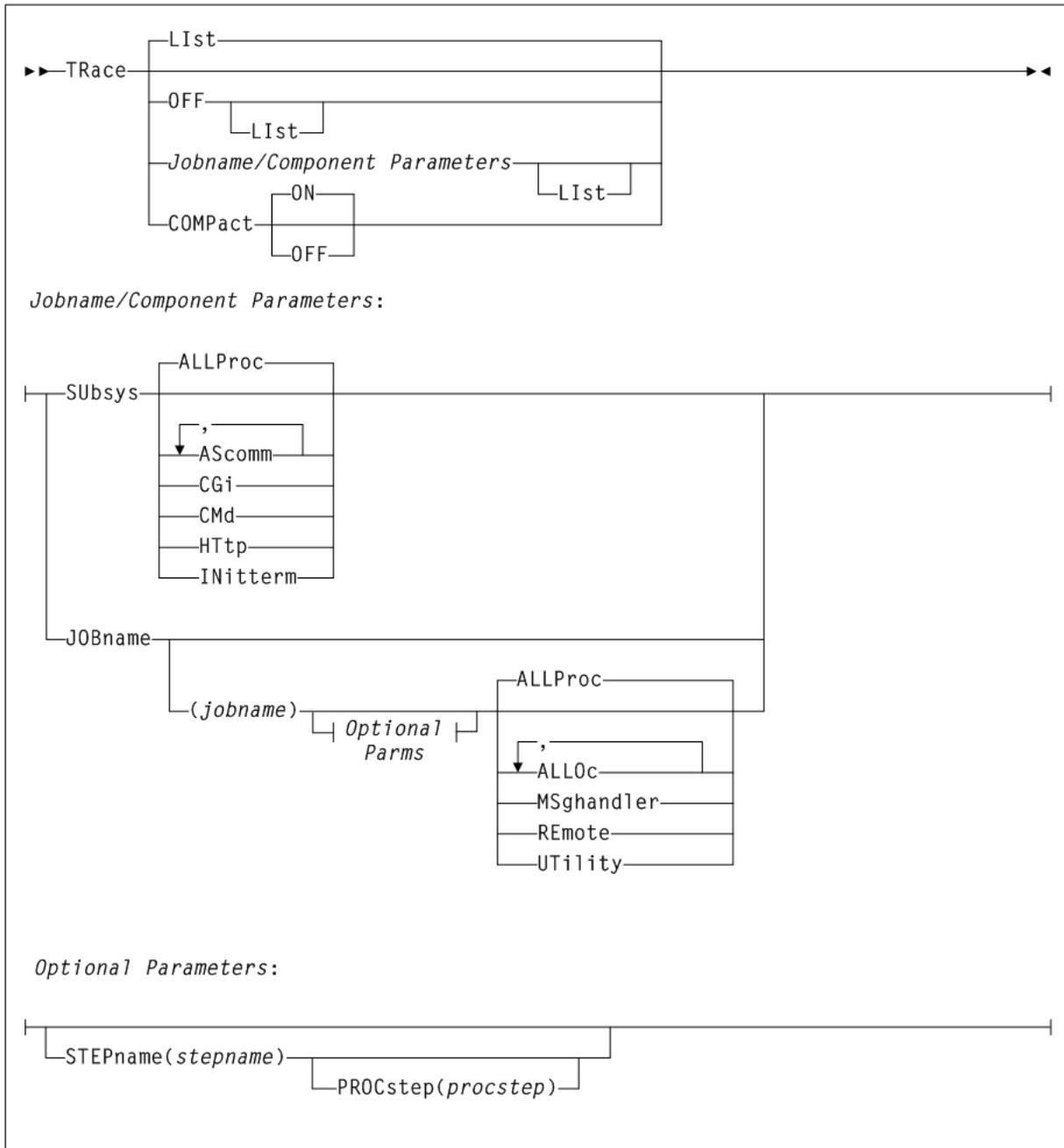
Note:

- SMC TRace processing may impact system performance. Use only as directed by Oracle StorageTek Software Support.
 - TRace JOBname (*jobname*) causes SMC traces to be produced for UUI commands issued by the HSC or VTCS subsystem address space when *jobname* matches the HSC subsystem name. UUI tracing is extremely CPU intensive and should only be used as directed by Oracle StorageTek Software Support.
-
-

Syntax

Figure 2–35 shows TRace command syntax.

Figure 2–35 TRace command syntax



Parameters

As shown in [Figure 2–35](#), the TRace command includes the following parameters:

LIsT

optionally, lists current SMC trace settings for both the SMC subsystems and SMC components by job name, step name, and PROC step.

- LIsT is the default when no parameters are specified on the TRace command.
- LIsT may be specified with other parameters. In this case, the LIsT is generated after the other parameters are processed.

- If no `JOBname` is specified, all jobs with SMC components being traced are listed.
- If `JOBname` is specified, only those jobs with SMC components being traced whose job name matches the specified job `JOBname` are listed.

OFF

optionally, disables SMC tracing.

- If no other parameters are specified, tracing is disabled for all jobs.
- If only `JOBname` is specified, tracing is disabled for all entries for that job name.
- If `JOBname`, `STEPname` and `PROCstep` are specified, tracing is disabled only for the specified entry.

COMPact

Optionally, indicates whether SMC trace output should be produced in "compact" format.

When GTF trace output is produced in this format, you can use the SMC utility program `SMCUGTF` to reformat the trace to the original SMC trace format. See "[Trace Format Utility \(SMCUGTF\)](#)" on page 4-28.

ON

SMC trace output is produced in a format that conserves GTF data set space. This is the default.

OFF

SMC trace output is produced in human readable format.

Jobname/Component Parameters**SUbsys**

optionally, enables or disables SMC tracing for one or more SMC subsystem components or subtasks.

ALLProc

optionally, enables tracing for all SMC subsystem components and tasks. This is the default if no parameters are specified.

AScomm

optionally, enables tracing for all SMC subsystem `ASCOMM` Component tasks.

CGi

optionally, enables tracing for all SMC subsystem CGI module processing for all connected client requests. To trace CGI module execution for individual client requests, issue a `TRace JOBname REMOTE` command on the appropriate SMC client.

CMd

optionally, enables tracing for all SMC subsystem Operator Command Component tasks.

HTtp

Optionally, enables tracing for all SMC subsystem HTTP Server Component tasks.

INit

Optionally, enables tracing for all SMC subsystem Initiation/Termination Component tasks.

JOBname(jobname)

optionally, enables or disables SMC tracing for one or more initiator components in initiators that match the specified *jobname*, *stepname*, and *procstep* name specified. If not specified, tracing information for all jobs is displayed.

jobname is a specific job name. The value entered must be one to eight characters in length. An asterisk (*) can be used as a wildcard when included as the last character. In this case, all jobs whose job names match the characters preceding the asterisk are traced or listed. To trace all jobs, specify `TRACE JOB (*)`.

STEPname(stepname)

optionally, specifies a step name.

stepname indicates the step name. The value entered must be one to eight characters in length. This parameter is only valid if *JOBname* is also specified.

PROCstep(procstep)

optionally, specifies a PROC step.

procstep indicates the PROC step. The value entered must be one to eight characters in length. This parameter is only valid if *JOBname* and *STEPname* are also specified.

ALLProc

optionally, enables tracing for all SMC initiator components executing in initiators that match the specified *jobname*, *stepname*, and *procstep* name specified. This is the default if no parameters are specified.

ALLOc

optionally, enables tracing for all SMC Allocation tasks executing in initiators that match the specified *jobname*, *stepname*, and *procstep* name specified.

MSghandler

optionally, enables tracing for all SMC Message Handler Component tasks executing in initiators that match the specified *jobname*, *stepname*, and *procstep* name specified.

REmote

optionally, enables tracing in the remote SMC HTTP Server for requests originating from the *jobname*, *stepname*, and *procstep* name specified.

Remote tracing does not rely on the GTF trace being active on the SMC client, but GTF tracing must be active on the corresponding SMC HTTP Server.

UTility

optionally, enables tracing for all SMC Utility Component tasks executing in initiators that match the specified *jobname*, *stepname*, and *procstep* name specified.

TREQDef

Interfaces:

- Console, utility, *SMCCMDS* data set, or *SMCPARMS* data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the *SMCUSIM* utility

Description

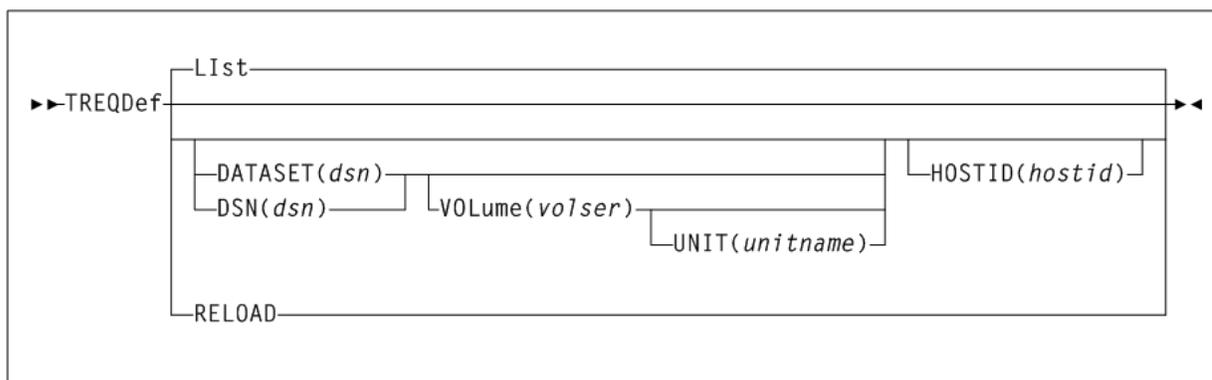
The SMC `TREQDef` command specifies and loads the definition data set containing your tape request (`TAPEREQ`) parameter statements.

Note: Existing HSC `TREQDEF` control statements are not disabled, but are only processed for remote SMC 6.0 client systems.

Syntax

Figure 2–36 shows `TREQDef` command syntax.

Figure 2–36 *TREQDef* command syntax



Parameters

As shown in Figure 2–36, the `TREQDef` command includes the following parameters:

List

lists information about the definition data set containing `TAPEREQ` control statements that are currently loaded. Information includes:

- Data set name
- Member name
- Identifying string (if the data set contains an `OPTION TITLE` statement)
- Date and time parameters were loaded

`List` is the default when no parameters are specified on the `TREQDef` command.

DATASET(dsn) or DSN(dsn)

optionally, specifies the name of the data set containing the `TAPEREQ` control statements to be processed and, optionally, an `OPTION TITLE` control statement.

`dsn` indicates the data set name. This data set can be a fixed length 80-byte sequential data set, or a fixed length 80-byte member of a PDS. If the data set name includes a member name, you must enclose the data set name in quotes. For example:

```
DATASET('YOUR.PDS.DSN(MEMBER)')
```

VOLUME(volser)

optionally, specifies the volume serial number of the DASD volume on which the data set resides. Specify this parameter if the data set is not catalogued.

volser indicates the volume serial number.

UNIT(unitname)

optionally, specifies the unit name of the specified *VOLume* for uncataloged data sets. Requires that *VOLume* also be specified.

unitname indicates the unit name. If not specified, then a unit name of *SYSALLDA* is the default.

HOSTID(hostid)

optionally, specifies the *hostid* from which to execute this control statement. This parameter is valid only for use in *PARMLIB*, to allow multiple systems to share a *parmlib* member containing multiple *TAPEREQ* control statement members.

hostid indicates the host name(s) from which to execute this control statement. Multiple host names must be separated by commas.

RELOAD

optionally, reloads the currently loaded *TAPEREQ* control statements from the same data set. This parameter can be used after a *TREQDEF DSN(dsn)* command is issued, and changes may then be made to the contents of that data set.

TAPEREQ Control Statement

The SMC *TAPEREQ* control statement specifies a named *POLicy* to be applied to a particular job name, step name, program name, data set or group of data sets.

TAPEREQ statements are placed in the definition data set (*DDname*) specified by the SMC *TREQDEF* command. SMC allocation calls on these *TAPEREQ* statements to help ensure that the correct media type is used to satisfy a request, and that the cartridge is mounted on the appropriate device. *TAPEREQ* statements must be placed in the definition data set; they cannot be issued as operator commands.

The SMC *POLicy* command enables you to specify all tape policy specifications in a single named object. It is used with *TAPEREQ* statements or *SMS* to associate a named policy with an allocation or mount event.

The *TAPEREQ POLicy* parameter directs the SMC to reference an associated SMC policy defined by an SMC *POLicy* command. Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information.

If any of the following conditions exist, then the *MEDIA* and *RECTech* or *MODEl* parameters are set to undefined, which matches all requests. Any available device is eligible for allocation.

- There is no *TAPEREQ* control statement specified in the definition data set to match a request.
- There is no matching *Policy* command specifying the *MEDIA*, *RECTech*, or *MODEl* parameters.
- There is no definition data loaded.

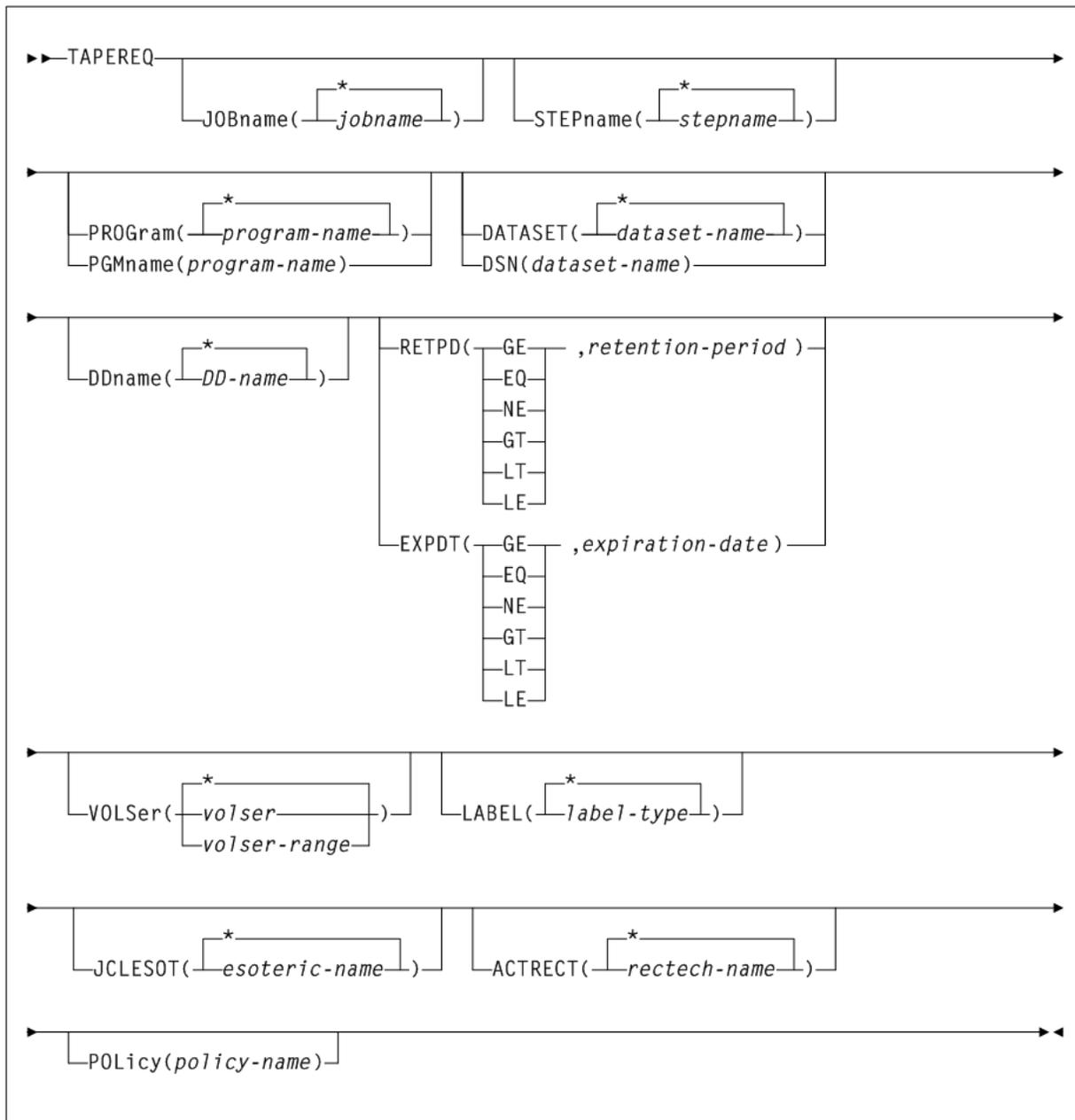
Note:

- In previous software releases, `TAPEREQ` parameters were used to define tape attributes. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information about these legacy parameters.
 - See "[TREQDef](#)" on page 2-74 for information about the `TREQDEF` command.
-

Syntax

[Figure 2-37](#) shows `TAPEREQ` control statement syntax.

Figure 2-37 TAPEREQ control statement syntax



Parameters

As shown in [Figure 2-37](#), the TAPEREQ control statement includes the following parameters:

Note: The `JOBname`, `STEPname`, `PROGname`, and `DATASET` parameter values can include the following wildcard characters:

- % or ? indicates any single nonblank character.
 - * indicates any character string (length zero to 8) not to exceed one qualification level. For example, `A.B.*` matches `A.B` and `A.B.C`, but does not match `A.B.C.D`.
 - ** used only in `DATASET`, indicates any number of qualifiers (zero or more). Cannot be used with any other characters within a qualifier. For example, `A.B.**` matches `A.B`, `A.B.C`, `A.B.C.D`, `A.B.C.D.E`, and so forth.
-
-

JOBname(jobname)

optionally, identifies the job name. If `JOBname` is not specified, the default value is `*`.

jobname indicates the name of the job for which the `TAPEREQ` control statement is processed.

The `TAPEREQ` control statement is used only when the specified *jobname* matches the job name in the request.

Note: If you are coding a `TAPEREQ` statement for `DFHSM`, you must specify `JOBname` as a selection criteria. Using `DATASET (DSN)` can cause unpredictable results.

STEPname(stepname)

optionally, specifies the step name. If the `STEPname` parameter is not specified, the default value is `*`.

stepname indicates the name of the step for which the `TAPEREQ` control statement is processed. The `TAPEREQ` control statement is used only when the specified *stepname* matches the step name in the request.

PROGname(program-name) or PGMname(program-name)

optionally, specifies the program name.

The program name used is the job step program name. The default value is `*`.

program-name indicates the program name for which the `TAPEREQ` control statement is processed.

The `TAPEREQ` control statement is used only when the specified *program-name* matches the program name in the request.

DATASET(dataset-name) or DSN(dataset-name)

optionally, specifies the data set name. The default value is `**`.

dataset-name indicates the data set name for which the `TAPEREQ` control statement is processed.

The `TAPEREQ` control statement is used only when the specified *dataset.name* matches the data set name in the request. Rules for `RACF` and `SMS` enhanced generic naming apply.

If you are coding a `TAPEREQ` statement for `DFHSM`, you must specify `JOBname` as a selection criterion. Using `DATASET (DSN)` can cause unpredictable results.

The name you specify on this parameter might be different from the value coded in the DSN parameter on a DD statement. For example,

```
DSN=&&ABC
```

may be coded on a DD statement if a data set is temporary. However, the actual data set name is not &&ABC. Similarly, if the DSN parameter refers back to a previous DD statement, the data set name is resolved to the referred-to data set. Thus, the data set name referred to must be coded on the DATASET parameter in order for the TAPEREQ control statement to be processed.

DDname

optionally, specifies the DD name of the data set.

DD-name indicates the DD name.

RETPD

optionally, specifies the retention period and the relationship that must exist. If you do not specify either RETPD or EXPDT, the default value is RETPD(GE, 0) (any expiration date will match this criterion).

- EQ - Equal to.
- NE - Not equal to.
- GT - Greater than.
- GE - Greater than or equal to.
- LT - Less than.
- LE - Less than or equal to.

retention-period indicates the retention period in days for the data set. Specify the number of days as a 1- to 4-digit decimal number.

EXPDT

optionally, specifies the expiration date and the relationship that must exist.

- EQ - Equal to.
- NE - Not equal to.
- GT - Greater than.
- GE - Greater than or equal to.
- LT - Less than.
- LE - Less than or equal to.

expiration-date indicates the expiration date of the data set in YYDDD or YYYY/DDD format.

VOLser(volser or volser-range)

optionally, identifies a specific volume id or range of volsers. If VOLSer is omitted, the default value is * (any volume).

Using a combination of TAPEREQ statements and POLICY commands, SMC enables you to specify allocation policy based on specific volume serial numbers. Refer to Oracle's ELS publication *Configuring and Managing SMC* for more information.

volser or *volser-range* indicates the volume id or a range of volumes.

VOLSer requires that the POLICY parameter is also specified.

LABEL(label-type)

optionally, specifies the label type to be used to select the policy.

label-type indicates the label type. Specify one of the following:

- SL indicates standard-labeled tape. This is the default if the parameter is omitted.
- AL indicates ANSI-labeled tape.
- NL indicates nonlabeled tape.
- NSL indicates nonstandard labeled tape.

LABEL is valid only if POLICY is also specified.

JCLESOT(esoteric-name)

optionally, specifies the name of a device esoteric group to be matched with the esoteric supplied in the JCL (or through IDAXESOT).

esoteric-name indicates the esoteric group name.

This can consist of one to eight alphanumeric or national (#, @, \$) characters. A slash (/) or hyphen (-) is also valid.

JCLESOT is valid only if POLICY is also specified. JCLESOT only matches at SSI55 (IDAX) or SSI24 (allocation) time, such that a POLICY containing SUBPOOL and MGMTCLAS will not be selected by this parameter.

The following example illustrates the use of the JCLESOT and ACTRECT parameters:

```
TAPEREQ DSN(V047970.JCLESOT.*) JCLESOT(HVTSS11) POLICY(POL1)
TAPEREQ DSN(V047970.JCLESOT.*) ACTRECT(V) POLICY(POL1)
TAPEREQ DSN(**) POLICY(POL2)

POLICY NAME(POL1) MED(V) REC(V) MGMT(HSCX400) SUBP(SUBP1)
POLICY NAME(POL2) MED(ECART)
```

In this example, jobs that specify UNIT=HVTSS11 (with the matching DSN) will be assigned a VIRTUAL media and rectech at SSI55/SSI24 time. All other data sets will be assigned a media of ECART. At mount message time, if the recording technique of the allocated drive is virtual for the matching DSN, then the management class and subpool from POL1 are assigned. Otherwise, no subpool or management class is assigned.

ACTRECT(rectech-name)

optionally, specifies the recording technique to be used to determine the policy at mount time if the drive where the mount is requested conflicts with the previously selected policy, or if there is no previously selected policy.

For example, if the JCL esoteric prevents selection of a policy recording technique or esoteric substitution, the selected policy might have a scratch subpool inconsistent with the drive where the mount is requested.

Also, if criteria that are not available at mount time, such as JCLESOT, are used for policy selection, SMC mount processing may not have a policy available to assign mount parameters such as SUBPOOL and MGMTCLAS. Specifying ACTRECT allows a default override.

rectech-name indicates the recording technique name.

ACTRECT is valid only if POLICY is also specified.

POLICY(policy-name)

optionally, specifies the name of a policy (defined by an SMC POLICY command) to be associated with the allocation or mount request.

policy-name indicates the policy name.

The SMC uses this policy name to determine all policy information associated with an allocation or mount request.

The named policy must be defined using a POLICY command before the TREQDEF command is processed.

See "POLICY" on page 2-47 for more information about the SMC POLICY command. Refer to Oracle's ELS publication *Configuring and Managing SMC* for information about creating new POLICY definitions based on existing TAPEREQ statements.

Disabling a TAPEREQ Definition

Use the following procedure to disable a TAPEREQ definition:

1. Edit the definition data set containing the current TAPEREQ control statements.
2. Delete the parameters of the TAPEREQ control statement you want to disable, or delete the TAPEREQ control statement.
3. Issue the TREQDEF operator command to reload the definition data set.

To disable all TAPEREQ definitions, load a definition data set that contains only one TAPEREQ control statement with no parameters.

Note: If any individual TAPEREQ control statement is in error, the entire set is discarded.

UExit

Interfaces:

- Console, utility, SMCCMDS data set, or SMCPARMS data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC UExit command defines the load module invoked for a specific user exit, and specifies whether the user exit is enabled or disabled.

User exits 1, 2, 4, 8, 9, 10, 11, 12, and 13 are invoked and managed by the SMC.

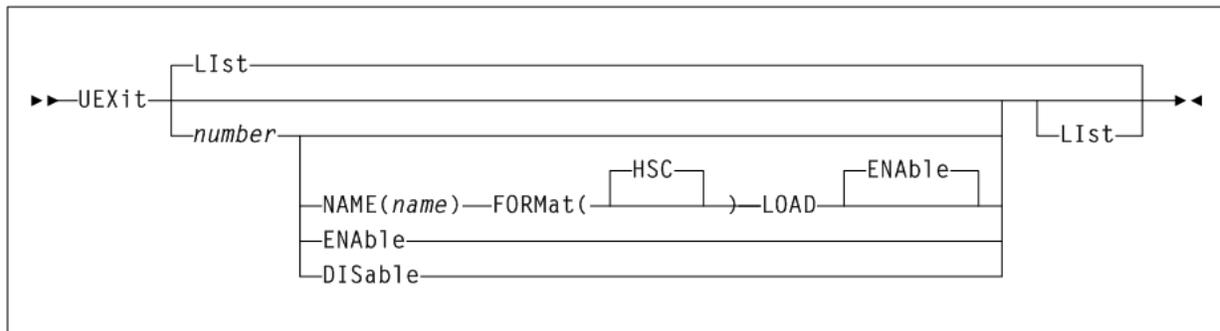
Note:

- Use this command to load each user exit you want to use. If a user exit is not loaded, it will not be called.
- All user exits are executed on the host where the SMC resides, regardless of where the library server resides.
- Only one format of a given user exit can be invoked, regardless of the number of TapePlexes the SMC interacts with. The desired format (HSC) is specified using the `FORMat` parameter.
- HSC User exit 7 (`SLSUx07`) is no longer supported.
- These user exits must reside in a library accessible to the subsystem.
- User exit information is not honored when an SMC `POLiCY` applies to an allocation, or a mount.
- Refer to Oracle’s ELS publication *ELS Legacy Interfaces Reference* for information about each user exit.

Syntax

Figure 2–38 shows UEXit command syntax.

Figure 2–38 UEXit command syntax



Parameters

As shown in Figure 2–38, the UEXit command includes the following parameters:

LIst

optionally, displays status information for all user exits.

- `LIst` is the default when no parameters are specified on the UEXit command.
- `LIst` may be specified with other parameters. In this case, the `LIst` is generated after the other parameters are processed.

number

optionally, specifies the user exit number. Valid values are 1, 2, 4, 8, 9, 10, 11, 12, and 13.

NAME(name)

optionally, specifies the user exit’s load module name.

name indicates the load module name (for example, SLSUX01).

FORMat

optionally, specifies the format of user exit to be enabled or disabled.

HSC

the HSC user exit format.

LOAD

optionally, loads the specified user exit, making it available for use.

If a user exit is not loaded, it will not be called. A subsequent load of a module for the same user exit causes the currently active copy of the load module to be deleted when its use count reaches zero.

ENABle

optionally, enables a user exit that was previously disabled due to a problem.

DISable

optionally, disables a user exit to allow for problem resolution.

UNITAttr

Interfaces:

- Console or SMCCMDS data set
- UI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the SMCUSIM utility

Description

The SMC acquires drive type information from both the MSP/EX operating system and the ELS library control systems (TapePlexes). For the ELS library control systems, HSC data returned from configuration queries is used to augment information returned from the operating system for library-controlled devices.

The SMC `UNITAttr` command enables you to specify device addresses and attributes to augment operating system information for nonlibrary controlled devices, and effectively ignore configuration information from TapePlexes for specified devices when multiple TapePlexes define the same device address. The SMC `UNITAttr` command enables you to do the following:

- Set `MODEL=IGNORE` for device addresses not available for this host.
- Specify model types for nonlibrary devices on this host.
- Specify `NOTAPEPLEX` for a nonlibrary device address or range that is defined to multiple TapePlexes, but for this host the attached devices belong to the specified TapePlex.
- Specify TapePlex ownership and model for devices that may be referenced by a mount after the SMC is started but before the TapePlex is initialized.

Refer to Oracle's ELS publication *Configuring and Managing SMC* for information about configurations that may require or benefit from the use of `UNITAttr` commands.

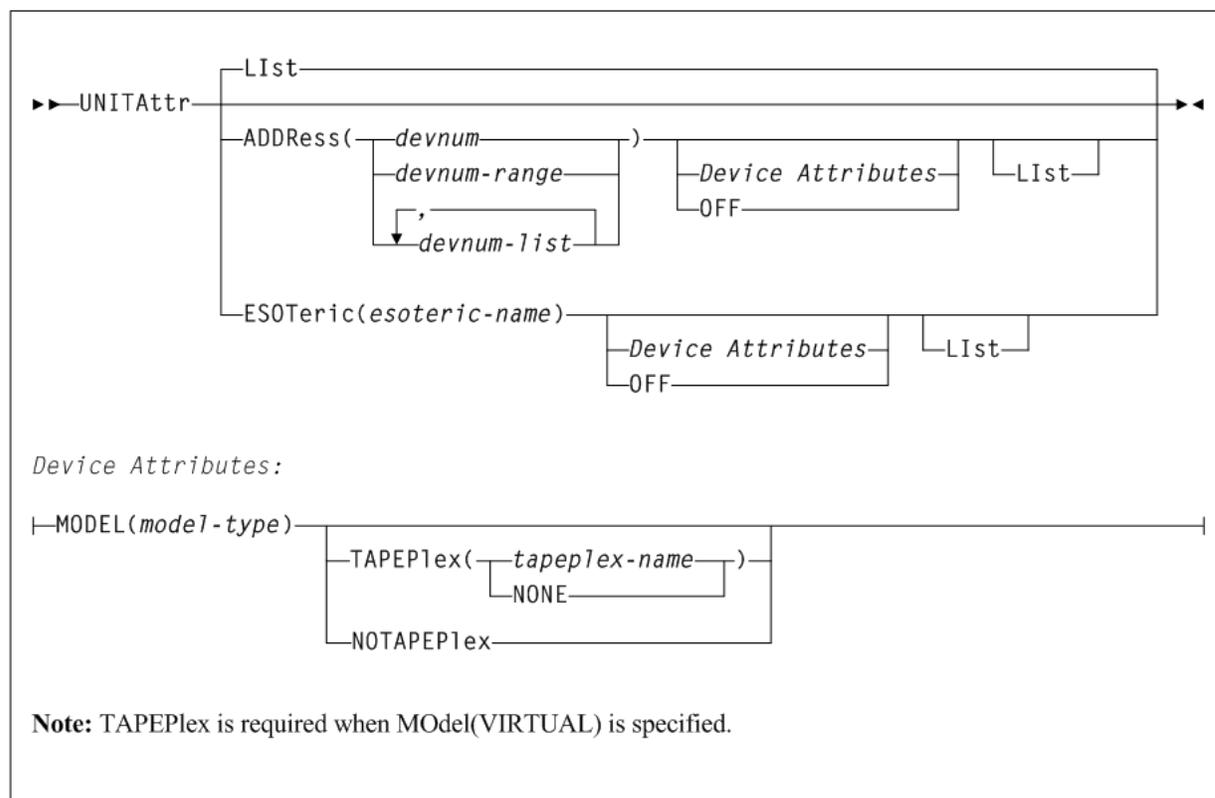
Note:

- Existing HSC UNITATTR control statements are not disabled. However, UNITATTR statements for nonlibrary and MODEL (IGNORE) devices are only processed for remote SMC 6.0 client systems. HSC UNITATTR statements for library and virtual drives are not used in any HSC processing after release 6.0.
- SMC does not support a UNITDEF command. Each UNITATTR command is parsed and processed independently.
- HSC nonlibrary and MODEL=IGNORE UNITATTR statements are no longer returned to SMC on a configuration query. Therefore, if you use UNITAttrs to bypass devices for allocation or to define the device type of nonlibrary drives, you must define these UNITATTR commands to the SMC subsystem.

Syntax

Figure 2–39 shows UNITAttr command syntax.

Figure 2–39 UNITAttr command syntax

**Parameters**

As shown in Figure 2–39, the UNITAttr command includes the following parameters:

ADDRESS(devnum, devnum-range, or devnum-list)

optionally, specifies device numbers for which UNITAttr device attributes are assigned.

devnum, *devnum-range*, or *devnum-list* indicates the device number, device number range, or device number list.

ESOTeric(esoteric-name)

optionally, specifies an esoteric for which UNITAttr device attributes are assigned. When device characteristics are modified, all of the devices in the specified esoteric are modified.

esoteric-name indicates the MSP esoteric name. This name must be defined to MSP, and must contain only tape devices known to SMC.

OFF

optionally, specifies that the model type for the device numbers specified by the ADDRESS parameter or ESOTeric parameter should be determined from the device UCB, or, for a device which was previously set to MODEL=IGNORE, that the MODEL information from the library server should be restored.

List

lists the UNITAttr model information for the device numbers specified by the ADDRESS or ESOTeric parameter.

Device Attributes**MODEL(model-type)**

optionally, specifies the model type of the transport to be assigned the device numbers specified by the ADDRESS parameter.

model-type indicates the model type.

See [Appendix A, "MEDia, RECTech, and MODel Values"](#) for a list of valid *model-type* values.

TAPEPlex

optionally, specifies the name of a TapePlex to be associated with the drive before communication is established.

TAPEPlex is required when Model (VIRTUAL) is specified. Model (VIRTUAL) drives cannot exist as "non-library" devices.

tapeplex-name

the TapePlex name.

If specified, this name must match a TapePlex name defined in a TAPEPlex command.

NONE

optionally, removes the TapePlex association from the specified device addresses.

NOTAPEPlex

optionally, specifies that the specified address or address range are nonlibrary devices, even when configuration queries from ELS library control systems indicate that the device is library controlled. Use this parameter when a local nonlibrary device address overlaps a TapePlex owned device that is not accessible from his host.

Note:

- When a `MOdel` is specified with `TAPEplex`, the configuration query model information returned from the TapePlex is assumed to be the “real” or “correct” model, and it overrides any `MOdel` specified in the `UNITAttr` command.
- If `TAPEplex` is specified for an address, but that address is not returned from the configuration query for that TapePlex, an error message is issued, but the erroneous TapePlex ownership remains with the specified device address. As a result, any mounts destined for the specified device address are not automated and are rejected by the specified TapePlex.

USERMsg

Interfaces:

- Console or `SMCPARMS` data set
- UUI Support: Yes (No XML/CSV output)

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

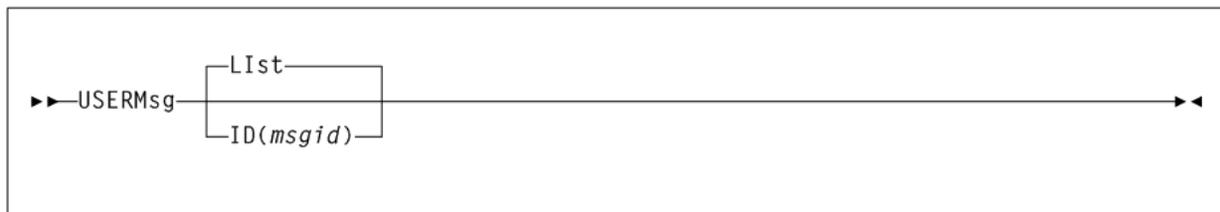
Description

The SMC `USERMsg` command enables you to specify additional message identifiers for messages to be intercepted and passed to the library subsystem’s user exit 01. You can also use this command to list the message identifiers for messages that have been defined using the `USERMsg` command.

Syntax

Figure 2–40 shows `USERMsg` command syntax.

Figure 2–40 *USERMsg* command syntax



Parameters

As shown in Figure 2–40, the `USERMsg` command includes the following parameters:

List

optionally, lists the message identifiers in the customer-defined message table. This is the default if no parameters are specified.

ID(msgid)

optionally, specifies a message to be added to the customer-defined message table. This message is passed to user exit 01.

msgid indicates the message identifier for the message to be added.

Note: This parameter may only be specified in the SMCPARMS data set.

VMSG

Interfaces:

- Console, utility, SMCCMDS or SMCPARMS data set
- UI Support: Yes (no XML/CSV output)

Subsystem Requirements:

Active SMC required

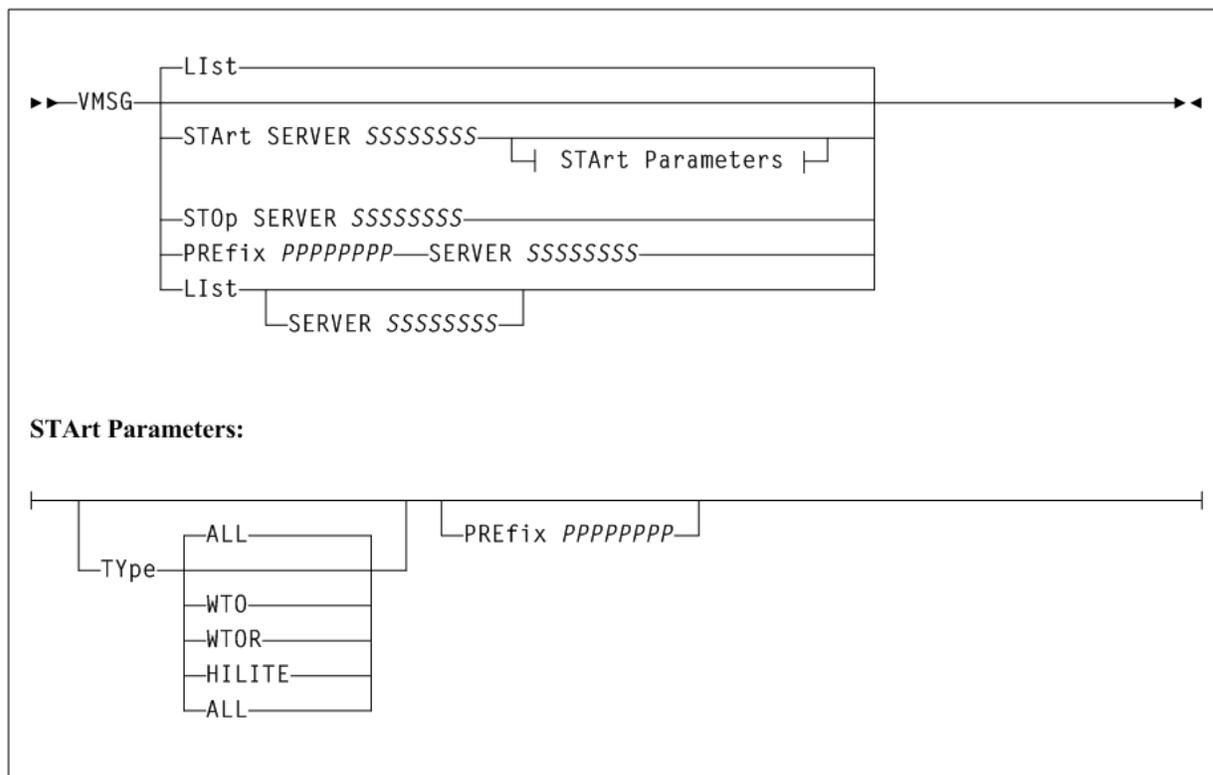
Description

The SMC `VMSG` command enables you to start or stop the Virtual Storage Manager console (VSMc) message processor client. The VMSG message processor client enables the local SMC subsystem to receive and reply to messages issued by the remote VSM console server.

Syntax

[Figure 2–41](#) shows `VMSG` command syntax.

Figure 2-41 VMSG command syntax



Parameters

As shown in Figure 2-41, the SMC VMSG command includes the following parameters:

Lst

optionally, displays VMSG task status information.

SERVER SSSSSSSS

optionally, lists only the VMSG processor for the named server.

SSSSSSSS indicates the server name. If specified, then the named server must have been previously defined by an SMC SERVer command.

Lst is the default when the STArt, STOp, or PRefix keywords are not specified.

STArt

optionally, starts a VMSG message processor client.

SERVER SSSSSSSS

specifies the server name for the VMSG processor.

SSSSSSSS indicates the server name. The server name is required and must have been previously defined by an SMC SERVer command.

TYpe (type-list)

optionally, defines a type-list containing one or more type(s) of messages that are received by the VMSG client.

Specify one or more of the following in the *type-list*, using a comma to separate values:

ALL

Receive all messages. This is the default. If **ALL** is specified, it cannot be specified with any other message types. This is the default.

HILITE

Receive highlighted WTO messages.

WTO

Receive non-highlighted WTO messages.

WTOR

Receive messages that require a reply.

PREfix PPPPPPP

optionally, specifies the message prefix identifier that will identify messages from this VSM console server in the SMC subsystem log. If not specified, then the specified *server* name is used as the message prefix.

PPPPPPP is the message prefix identifier. The prefix can be a maximum of 8 characters in length and can contain any combination of the following:

- A-Z
- 0-9
- @#\$.()+-=<|!;%>?:

STOp

optionally, stops a VMSG message processor client.

SERVER SSSSSSS

specifies the server name for the VMSG processor.

SSSSSSS indicates the server name. The server name is required and must have been previously defined by an SMC *SERVER* command.

PREfix PPPPPPP

optionally, specifies the message prefix identifier that will identify messages from this VSM console server in the SMC subsystem log. If not specified, then the specified server name is used as the message prefix.

PPPPPPP indicates the message prefix identifier. The prefix can be a maximum of 8 characters in length and can contain any combination of the following:

- A-Z
- 0-9
- @#\$.()+-=<|!;%>?:

SERVER SSSSSSS

specifies the server name for the VMSG processor.

SSSSSSS indicates the server name. The server name is required and must have been previously defined by an SMC *SERVER* command.

XCLIENT

Interfaces:

- Console, utility, *SMCCMDS* data set, or *SMCPARMS* data set

- UI Support: Yes, supports XML and CSV

Subsystem Requirements:

Active SMC required, or may be input to the `SMCUSIM` utility

Description

The SMC `XCLIENT` command enables you to define XAPI clients that use a different protocol version than the default server XAPI security protocol.

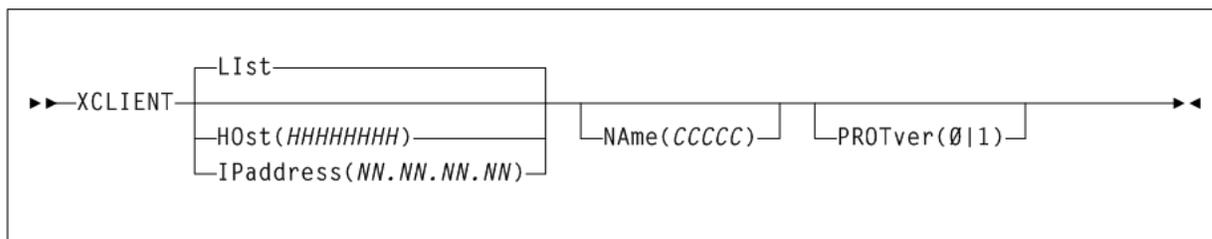
Note:

- The `XCLIENT` command is only necessary to define clients that use the older "unsecure" protocol. If an XAPI request originates from a client that is not defined with a `XCLIENT` command, it will be challenged to produce XAPI login credentials.
 - If you have back-level ELS or non ELS clients communicating with your ELS 7.3 SMC HTTP server, then they must be defined as protocol version 0 clients with the `XCLIENT` command.
 - The entire `XCLIENT` command is not echoed in the `SMC0000` message.
`XCLIENT (suppressed)` is echoed for all `XCLIENT` commands.
 - The entire `XCLIENT` command is not logged when the `SMC LOG` command is active.
`XCLIENT (suppressed)` is logged for all `XCLIENT` commands.
 - `XCLIENT` commands must be specified before any `HTTP` or `SERVER` commands.
-
-

Syntax

Figure 2-42 shows `XCLIENT` command syntax.

Figure 2-42 *XCLIENT* command syntax



Parameters

As shown in Figure 2-42, the `XCLIENT` command includes the following parameters:

List

optionally, displays all `XCLIENT` settings. `List` is the default when no parameters are specified on the `XCLIENT` command.

Host(HHHHHHHH)

optionally, specifies the IP resolver host name on which the client resides.

HHHHHHHH indicates the name of the client. The *HOST* name must be a resolvable name in the *TCP_IP* name table. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be an alpha character or a digit.
- The last character must be an alpha character or a digit.
- Any character between the first and last must be either an alpha character, digit, hyphen, or dot.

IPaddress(NN.NN.NN.NN)

optionally, specifies the IP address for the client.

NN.NN.NN.NN indicates The TCP/IP address.

Note: IPaddress and HOST are mutually exclusive.

Name(CCCCC)

optionally, specifies the name of the client. If the client is *SMC/MSP*, the *NAME* specified should be the name returned as *client_subsystem_name*. Otherwise, the *NAME* specified should be the name returned in the *client_name*. If *NAME* is specified as "*", then any request from the specified *HOST* or *IPaddress* will be defined as using the specified protocol version.

CCCC indicates the name of the client.

PROTver

optionally, specifies the protocol version. The default is 0.

- 0 indicates the older "unsecure" protocol version.
- 1 indicates the XAPI security protocol version.

XUDB

Interfaces:

- Console, utility, *SMCCMDS* data set, or *SMCPARMS* data set
- UUI Support: Yes, supports XML and CSV

Subsystem Requirements:

Active SMC required, or may be input to the *SMCUSIM* utility

Description

The SMC *XUDB* command enables you to add, update, delete, and list XAPI Security users.

The XAPI security user list is maintained by both the client and server. In cases where the client and server reside on the same host (that is, *SMC/MSP*), the *XUDB* user list is shared.

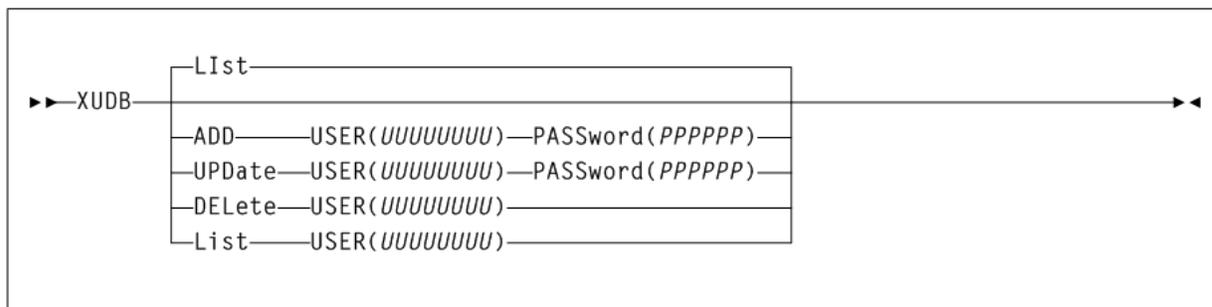
Note:

- The same USER must be defined on both the client and server.
- A USER is unique by SERVER. If the same SMC HTTP server is servicing multiple TapePlexes, any defined users will have access to all TapePlexes.
- The entire XUDB command is not echoed in the SMC0000 message. XUDB (suppressed) is echoed for all XUDB commands.
- The entire XUDB command is not logged when the SMC LOG command is active. XUDB (suppressed) is logged for all XUDB commands.
- The XUDB commands must be specified before any HTTP, SERVER or TCPip commands.

Syntax

Figure 2–43 shows XUDB command syntax.

Figure 2–43 XUDB command syntax



Parameters

As shown in Figure 2–43, the XUDB command includes the following parameters:

List

displays the specified user on the XAPI security list. `List` is the default when no parameters are specified on the XUDB command. In this case, all users are listed.

USER (UUUUUUUU)

specifies the user name to be listed. `UUUUUUUU` indicates the user name.

ADD

specifies that the specified user name or password is to be added to the XAPI Security list.

USER (UUUUUUUU)

specifies the user name to be added. `UUUUUUUU` indicates the user name.

PASSword (PPPPPP)

specifies the user password. `PPPPPP` indicates the password.

UPDate

specifies that the specified user name or password is to be updated in the XAPI Security list.

USER (UUUUUUUU)

specifies the user name to be added. *UUUUUUUU* indicates the user name.

PASSword (PPPPPP)

specifies the user password. *PPPPPP* indicates the password.

DELeTe

specifies that the specified user/password is to be deleted from the XAPI Security list.

USER (UUUUUUUU)

specifies the user name to be added. *UUUUUUUU* indicates the user name.

XUDB Security Data set

Oracle recommends that you maintain the XAPI Security user list in a sequential data set, to include `XUDB ADD` entries for the XAPI Security user list.

In your SMC startup parameters, include an SMC `READ` command for your XAPI security data set.

The `XUDB ADD/UPDATE/DELETE` command can be used to modify the XAPI Security user list on the operational SMC/MSP. Any changes must also be reflected in the XAPI `SECURITY` data set.

The XAPI Security data set will be secured by `SAF (RACF)` permissions.

HSC Commands, Utilities, and Control Statements

This chapter contains reference information about HSC and VTCS commands and control statements.

Note:

- Control statements that are loaded by an operator command are described along with that command. Other control statements, including those specified in the `PARMLIB` data set, are described independently.
 - Certain HSC and VTCS commands are described in the *ELS Legacy Interfaces Reference*. These commands were introduced in a pre-ELS software release and their functionality has been replaced in ELS. These commands are supported by ELS, however, this support will end in a future release.
-

ACTivities

Interfaces:

- `SLUADMIN` utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `ACTivities` command generates a statistical report of library resource loading by volume groups (for example, scratch compared to nonscratch, pass-thru activity, mounts, dismounts, entered, and ejected). This report provides information to help you monitor library resources and usage.

The utility also requires the SMF data for the time period requested (see "`SET SMF`" on page 3-318). It is assumed that you elect to have cartridge movement SMF records recorded in the time period specified. It is also assumed that the SMF records are in sequence by:

- SMF ID
- date

- time, from earliest to latest.

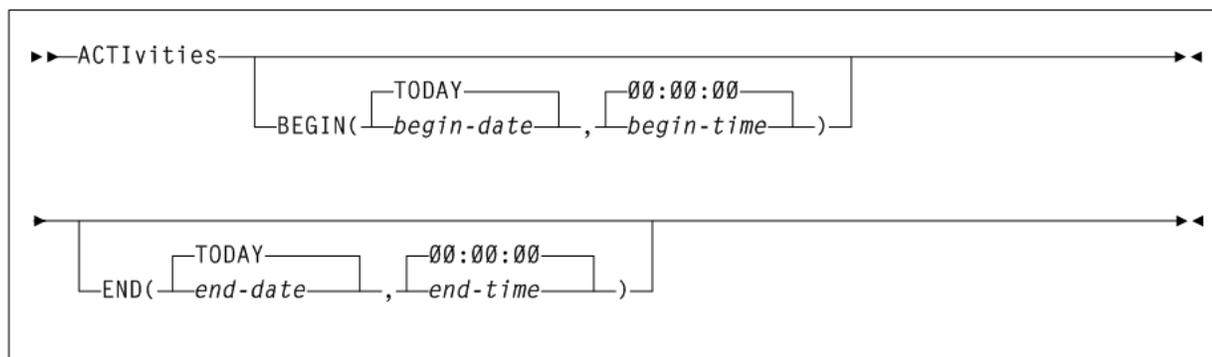
Duplicate or out of sequence records cause the utility to terminate and to display a message indicating that the SMF records are not sorted. See "Additional Sort Control Cards" on page 3-4 for sort statements you can specify to avoid this situation.

Note: Periodic performance statistics are not available for the SL8500 library. Volume movement statistics, including enter, eject, mount, dismount, and move, are produced for all library types.

Syntax

Figure 3-1 shows ACTivities command syntax.

Figure 3-1 ACTivities command syntax



Parameters

As shown in Figure 3-1, the ACTivities command includes the following parameters:

BEGIN(begin-date or TODAY),begin-time)

optionally, specifies the beginning of the period for the activities analysis.

begin-date or TODAY

the starting date of the analysis.

- Specify a date in *mm/dd/yy* or *yyyymmdd* format.
 - When using this format, specify a *yy* value of 71 or greater to indicate a 20th century (19*xx*) date. Specify a *yy* value of 70 or less to indicate a 21st century (20*xx*) date. To avoid confusion, you are encouraged to use the *yyyymmdd* date format.
- Specify TODAY for the default date.

begin-time

the beginning time-of-day (24-hour value), expressed in *hh:mm:ss* format.

The allowable range for *begin-time* and *end-time* parameters is 00:00:00 to 24:00:00. The default value is 00:00:00.

In each of the following examples, activity reporting begins on October 27, 2008 at midnight:

```

BEGIN(10/27/08,00:00:00)
BEGIN(20081027,00:00:00)
BEGIN(TODAY,00:00:00)

```

```
BEGIN(,00:00:00)
```

END(end-date or TODAY),end-time)

optionally, specifies the beginning of the period for the activities analysis.

end-date or TODAY

the ending date of the analysis.

- Specify a date in *mm/dd/yy* or *yyyymmdd* format.

When using this format, specify a *yy* value of 71 or greater to indicate a 20th century (19*xx*) date. Specify a *yy* value of 70 or less to indicate a 21st century (20*xx*) date. To avoid confusion, you are encouraged to use the *yyyymmdd* date format.

If *begin-date* is specified, *end-date* must be in the same format.

- Specify TODAY for the default date.

end-time

the ending time-of-day (24-hour value), expressed in *hh:mm:ss* format.

The allowable range for *begin-time* and *end-time* parameters is 00:00:00 to 24:00:00. The default value is 23:59:59.

For example:

```
END(10/27/08,18:00:00)
END(20081027,11:30:00)
END(TODAY,23:29:00)
END(,23:59:59)
```

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the ACTivities JCL:

SLSSMF

SMF data which the utility reports against. This may be several data sets concatenated from oldest to newest. This is an off-loaded copy of the active SMF data sets, created by the SMF dump utility IFASMFDP.

The SMF record type defined to HSC is the only SMF record used by ACTivities. To reduce the ACTivities run time, use the IFASMFDP utility to create a new SMF data set containing only the SMF record type defined to HSC. The following example can be used to create the HSC only SMF data set:

```
//jobcard
//SMFCOPY EXEC PGM=IFASMFDP
//MAN DD DISP=SHR,DSN=input.smf.data
//DUMPOUT DD DISP=(NEW,CATLG,DELETE),UNIT=your_esoteric,
// SPACE=(CYL,(500,500),RLSE),DSN=hsc.only.data
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
INDD(MAN,OPTIONS(DUMP))
OUTDD(DUMPOUT,TYPE(your_HSC_SMF_record_number))
.
```

Note - A DISPLAY CDS command can be issued to find your_HSC_SMF_record_number.

Additional Sort Control Cards

You must specify several additional control cards in the SYSIN portion of the SYELSORT JCL to make sure SMF records are sorted.

```
//SYSIN DD#
  INCLUDE COND=(6,1,BI,EQ,X'xx')
  SORT FIELDS=(15,4,CH,A,11,4,PD,A,7,4,BI,A)
  SUM FIELDS=NONE
```

Note: In the INCLUDE COND statement, the SMF type setting, shown as X'xx above, is supplied by the user. The default setting is FF (SMF type 255).

ACTMVCgn

Interfaces:

- SLUADMIN utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC required only when specifying the MVCPOOL parameter

Description

The ACTMVCgn command is an optional command used in a VSM environment with the CDRT facility. ACTMVCgn produces two sets of MVCMAINT statements which are output to two files specified by the SLUSMVON and SLUSMVOF DD statements.

After ACTMVCgn executes:

- SLUSMVON contains a set of MVCMAINT statements with the READONLY (ON) keyword.
- SLUSMVOF contains a set of MVCMAINT statements with the READONLY (OFF) keyword.

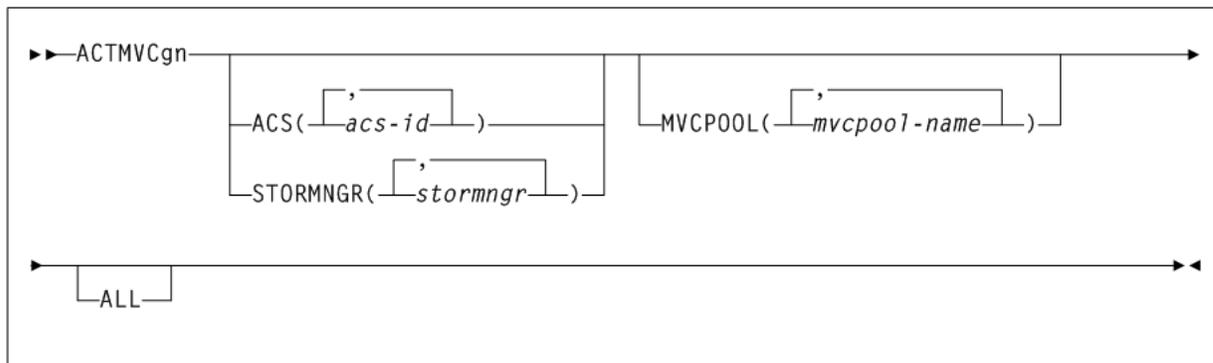
Successful execution of ACTMVCgn results in an equal number of MVCMAINT statements in both SLUSMVON and SLUSMVOF data sets.

Note: Refer to Oracle's ELS publication *ELS Disaster Recovery and Offsite Data Management Guide* for examples of use of this utility function.

Syntax

Figure 3–2 shows ACTMVCgn command syntax.

Figure 3–2 ACTMVCgn command syntax



Parameters

As shown in [Figure 3–2](#), the ACTMVCgn command includes the following parameters:

ACS(acs-id)

optionally, specifies an ACS that the CSV-based output is filtered against.

acs-id indicates the two-character ACS id. Blanks are not valid. To specify multiple ACSs, separate each ACS id with a comma. If ACS is not specified, the default is all ACSs.

STORMNGR(stormngr-name)

optionally, specifies a STORMNGR that the CSV-based output is filtered against.

stormngr-name indicates the STORMNGR name. This name can include a maximum of 8 characters. Blanks are not valid. To specify multiple STORMNGR names, separate each name with a comma.

MVCPOOL(mvcpool-name)

optionally, specifies an MVCPOOL that the CSV-based output is filtered against.

mvcpool-name indicates the MVCPOOL name. This name can include a maximum of 13 characters. Blanks are not valid. To specify more than one MVCPOOL, separate each MVCPOOL name with a comma.

Note: If you specify the MVCPOOL parameter and the HSC subsystem is not active, the utility cannot complete and a return code of 8 is issued.

ALL

optionally, requests that READONLY (ON) and READONLY (OFF) control statements be generated for all non-empty MVCs. If ALL is not specified, READONLY control statements are not generated for full MVCs.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the ACTMVCGN JCL:

SLUSMAUD

Output in the form of `SLUADMIN` utility control statements to audit selected MVCs. This statement is optional; if it is present, then `AUDIT` utility control statements are generated for all non-empty MVCs, except for those in `EXPORT` status.

SLUSMVON

`ACTMVCN` output in the form of `MVCMAINT` utility control statements with the `READONLY(ON)` keyword.

SLUSMVOF

`ACTMVCN` output in the form of `MVCMAINT` utility control statements with the `READONLY(OFF)` keyword.

ARCHive

Interfaces:

- Utility only
- UI Support: Yes

Subsystem Requirements:

Active HSC not required

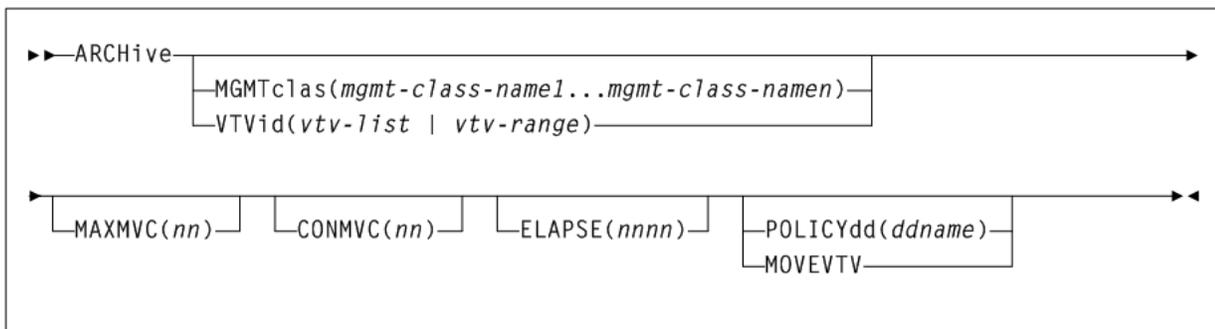
Description

The `ARCHive` command archives VTVs, moving them to MVCs in a different Storage Class.

Syntax

Figure 3–3 shows `ARCHive` command syntax.

Figure 3–3 ARCHive command syntax



Parameters

As shown in Figure 3–3, the `ARCHive` command includes the following parameters:

MGMTclas(mgmtclas-name1...mgmtclas-namen)

optionally, specifies one or more Management Classes that define Archive Management Policies.

mgmtclas-name1...mgmtclas-namen indicates one or more Management Classes.

VTVid(vtv-list or vtv-range)

optionally, specifies a list or range of VTVs. This parameter is mutually exclusive with MGMTclas.

Note: If you do not specify a value for MGMTclas or VTV, VTCS scans (or processes) all VTVs.

MAXMVC(nn)

optionally, specifies the maximum number of MVCs that will be processed by a single archive task.

nn indicates the maximum number of MVCs.

CONMVC(nn)

optionally, specifies the maximum number of MVCs (nn) that VTCS concurrently processes during subsequent recall and migrate operations.

Valid values are 1 to 99. If not specified the CONFIG RECLAIM value (or default) is used. This parameter is ignored if MOVEVTV is not specified.

ELAPSE(nnnn)

optionally, specifies the maximum time for the archive in minutes (nnnn). If the maximum time expires, VTCS issues message SLS6682I. If there are no MVCs currently mounted, archive stops when the ELAPSE value is reached. If any MVCs are currently mounted when the ELAPSE value is reached, archive processes the mounted MVCs and then stops.

Valid values are 1 to 1440. If not specified, there is no time limit on the archive process. This parameter is ignored if MOVEVTV is not specified.

POLICYdd(ddname)

optionally, specifies the ddname of a file containing an alternate MGMTclas statement. This parameter is mutually exclusive with MOVEVTV.

MOVEVTV

optionally, archive VTVs per the currently active Management Policies as specified by the MGMTclas statements that apply to the VTVs specified by MGMTclas or VTV. If you do not specify MOVEVTV, only a report is generated (no VTVs are moved). This parameter is mutually exclusive with POLICYdd.

Examples

The following examples provide examples of the following ARCHive reports:

ARCHive Report (MOVEVTV not specified)

The following example shows an example of an ARCHive report (MOVEVTV not specified).

Example 3-1 ARCHive report (MOVEVTV not specified)

```

SLUADMIN (7.2.0)                STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY                SSSYS=HSCI                PAGE 00002
TIME 15:50:09                                ARCHIVE VTV REPORT                                DATE 2012-06-17

VTV      SIZE  %COMP  <-----CREATION----->  MGMT
VOLSER   (MB)                                     DATE      TIME      CLASS  MVC1  MVC2  MVC3  MVC4

Y00001   1.62   39      2008JAN15      04:11:18  MJ4      02250  02251  02252  02253
    
```

Y00002	1.62	39	2008JAN15	04:03:57	MJ4	02250	02251	02252	02253
Y00003	1.62	39	2008JAN15	03:50:59	MJ3	02254	02255		
Y00004	1.62	39	2008JAN15	03:45:04	MJ2	02256	02257	02268	
Y00005	0.01	0	2008JAN17	23:56:00	MJ1	02259			
Y00006	0.01	0	2008JAN17	23:41:37	MJ1	02259			
Y00007	1.62	39	2008JAN05	06:15:46	MJ4	02250	02251	02252	02253

TOTAL VTVS=23 TOTAL SIZE=29.32MB

TIME 15:50:09 ARCHIVE MVC REPORT DATE 2012-06-17

MVC VOLSER	MEDIA TYPE	MEDIA SIZE (MB)	STORAGE CLASS	LOCATION (ACS ID)	CANDIDATE VTVS	TOTAL VTV SIZE (MB)
022550 Y00001	9840 Y00002	20000 Y00007	SC1	00	3	4.86
022551 Y00001	9840C Y00002	40000 Y00007	SC3		3	4.86
022559 Y00005 Y00059	9940A Y00006 Y00061	60000 Y00015 Y00067	SC4 Y00027 Y00073	Y00042 Y00078	17 Y00048 Y00053 Y00084 Y00088 Y00101	18.50 Y00123

Fields

The following list describes the ARCHive VTV report fields. This section of the report is followed by a total line showing the number of candidate VTVs and the size in MB to be recalled and re-migrated.

VTV Volser

the VTV volser.

Size (MB)

the uncompressed size of the VTV (MB). <MOUNT> indicates that the VTV was mounted when the report ran. <FENCED> indicates that the VTV's state is unknown. If <FENCED> appears, contact Oracle StorageTek Software Support.

Comp %

the VTV compression percentage achieved. This is the difference between the uncompressed and compressed VTV size expressed as a percentage of the uncompressed VTV size. For example if a 100MB VTV compresses to 40MB then the compression% will be given as 60%. A compression of 0% indicates that no compression was possible on the VTV.

Creation Date and Time

the date and time that the VTV was created.

MGMT Class

the name of the Management Class for the VTV specified.

MVC1, MVC2, MVC3, MVC4

the MVC(s) that contain the VTV. If all of these fields are empty, the VTV has not been migrated or consolidated. If 1 or more of these fields list an MVC volser, the VTV was migrated to each of these MVCs.

Fields (MVC Report)

The following list describes the ARCHive MVC report fields. The data for each MVC is followed by one or more VTV volsers with copies on the MVC. This section of the report is followed by a total line showing the number of candidate MVCs and the size in MB to be recalled and re-migrated.

MVC volser
the MVC volser.

MVC Media Type
the MVC type.

Media Size (MB)
the size of the MVC (MB). This will only be determined after VTCS has used an MVC. UNKNOWN appears in this field until VTCS migrates a VTV to the MVC.

Storage Class
the MVC's Storage Class.

Candidate VTVs
the number of candidate VTVs on the MVC.

Total VTV Size (MB)
the size of all candidate VTVs on the MVC in MBs.

Location (ACS ID)
the ACS where the MVC resides. If blank, the MVC is not currently in an ACS.

ARCHive MOVEVTV Report (MOVEVTV specified)

The following example shows an example of an ARCHive MOVEVTV report.

Example 3-2 ARCHive MOVEVTV report

```
SLUADMIN (7.2.0)      StorageTek Enterprise Library Software Utility    PAGE 0001
TIME 10:07:10                ARCHIVE MOVEVTV REPORT                DATE 2015-03-31
```

```
Move VTV - MVC 022705 ignored, MAXMVC reached
Move VTV - VTV X04898 ignored, all MVC copies rejected
Move VTV - 4 MVCs selected for processing
Move VTV - 5 VTVs selected for processing
Move VTV - 5 VTV copies to be processed
Move VTV - 0 VTV copies not matched to request
Move VTV - 1 VTV copies rejected by MAXMVC limit
Move VTVs - MVC 023484 selected and contains 1 VTVs
Move VTVs - MVC 022628 selected and contains 1 VTVs
Move VTVs - MVC 022631 selected and contains 2 VTVs
Move VTVs - MVC 022608 selected and contains 1 VTVs
```

```
Recall from MVC 022628 to VTSS HBVTSS17
SLS6683I Bulk recall of 1 VTVs issued to MVC 022628
SLS6644I VTV X99909 recalled from MVC:022628 Block:25401431
SLS6637I Recall from MVC 022628 completed
```

```
Recall from MVC 023484 to VTSS HBVTSS17
SLS6683I Bulk recall of 1 VTVs issued to MVC 023484
SLS6644I VTV X04897 recalled from MVC:023484 Block:02402581
SLS6637I Recall from MVC 023484 completed
```

```
Recall from MVC 022608 to VTSS HBVTSS16
SLS6683I Bulk recall of 1 VTVs issued to MVC 022608
SLS6637I Recall from MVC 022608 completed
```

```
Migrate to storage class HBVTSS16 from VTSS HBVTSS17
SLS6681I VTV X99909 migrated to MVC:022589 Block:01400025 StorCl:HBVTSS17 MgmtCl:SIMPLEX
SLS6636I Demand migration to MVC 022589 completed
```

Recall from MVC 022631 to VTSS HBVTSS16
SLS6683I Bulk recall of 2 VTVs issued to MVC 022631
SLS6644I VTV X99910 recalled from MVC:022631 Block:03400141
SLS6644I VTV X99908 recalled from MVC:022631 Block:05400281

AUDit

Interfaces:

- Utility only
- Yes, when MVC or VTSS is specified

Subsystem Requirements:

- Active HSC/VTCS (AUDit MVC, VTSS, or INVLDMIR)
- Active HSC at FULL service level (all others)

Description

The AUDit command performs a volume inventory audit for the following:

- ACS or LSM
- One or more specified LSMs within an ACS
- One or more panels within an LSM
- One or more rows within a panel
- One or more columns (cells) within a row
- One or more VTSSs
- One or more MVCs

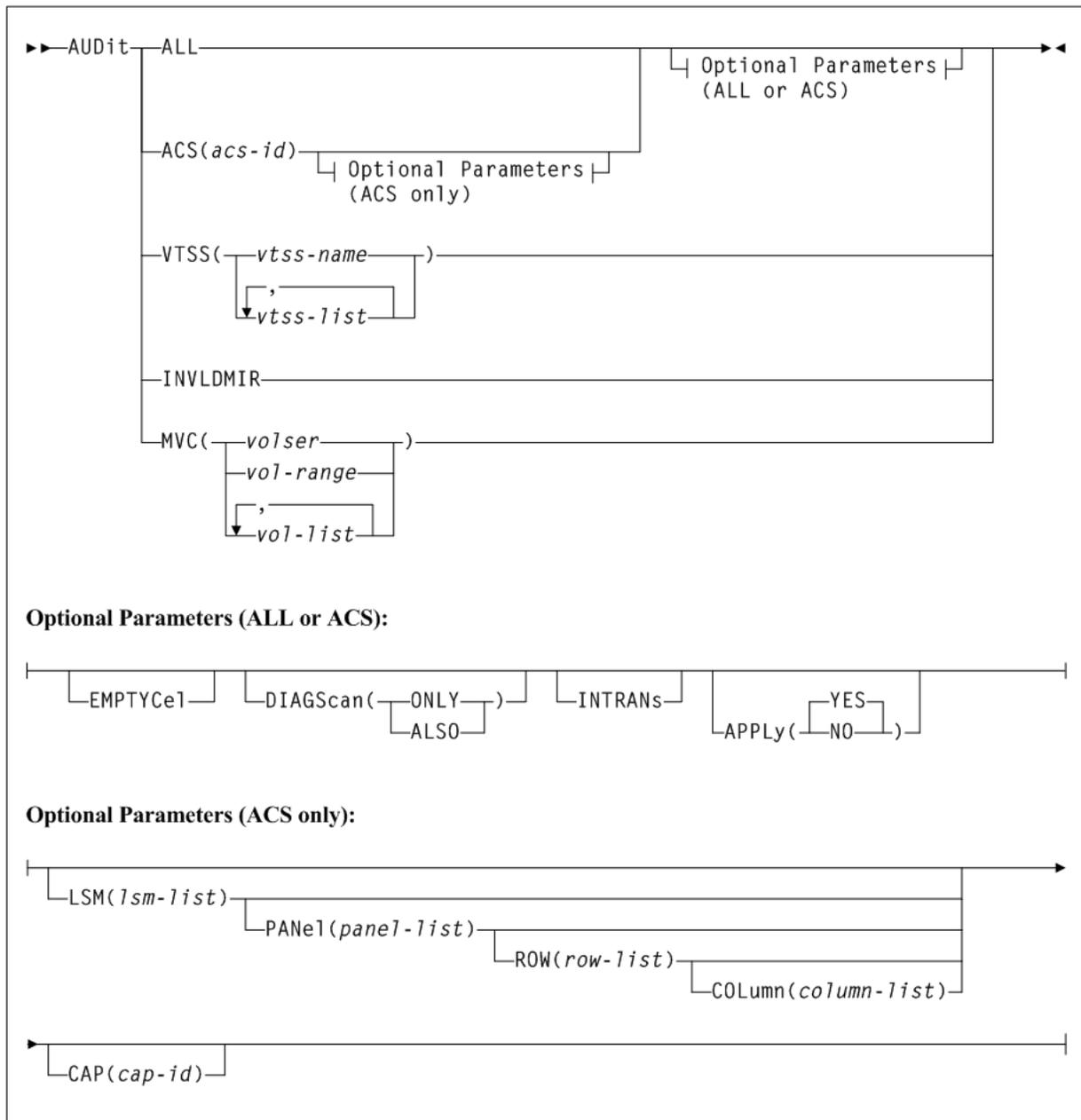
Optional parameters enable you to do the following:

- Update the library control data set to reflect cartridges observed.
- Produce a discrepancy list and do not update the control data set.

Syntax

Figure 3–4 shows AUDit command syntax.

Figure 3-4 AUDit command syntax



Parameters (Real Volume Audit)

As shown in Figure 3-4, the `AUDit` command includes the following parameters:

ALL

optionally, specifies that the total library is to be audited.

ACS(*acs-id*)

optionally, specifies that only a particular ACS in the library is to be audited.

acs-id indicates a one or two digit hexadecimal ACS identifier.

Note: If the ACS parameter is specified with no LSM parameters, the audit is performed on all LSMs in the ACS at the same time (multitasking). To audit only certain LSMs within an ACS, you must code the LSM parameter with the LSM or list of LSMs.

Optional Parameters (ALL or ACS)

The following parameters may be specified with either ALL or ACS:

EMPTYCe1

optionally, specifies that only empty cells are to be audited. This parameter cannot be used in combination with AUDIt parameter DIAGScan (ONLY).

The main benefit provided by auditing only empty cells is reducing the time required to run an audit.

Note: Oracle does not recommend running an empty cell audit on an SL8500 library because the time to run the audit is not substantially reduced.

Typically, users may specify this parameter when:

- they have entered an LSM and placed new cartridges in empty cells, or
- they need to correct cartridge location information for library volumes that have been manually moved to empty cells.

In either case, if APPLY (YES) is specified, the CDS is updated to reflect that these cells are no longer empty.

Caution: In either case, if APPLY (YES) is specified, the CDS is updated to reflect that these cells are no longer empty.

DIAGScan

optionally, specifies that diagnostic cells are to be scanned. The HSC scans these cells one at a time and displays the contents of each cell in the AUDIt utility report.

DIAGScan is mutually exclusive with ROW and COLUMN. It can be used in combination with all other AUDIt parameters.

ONLY

specifies that only diagnostic cells should be scanned. This parameter cannot be specified in combination with the EMPTYCe1 parameter.

ALSO

specifies that diagnostic cells should also be scanned along with the normal AUDIt utility operations.

Note: Cartridge movement between diagnostic cells and regular storage or CAP cells is not supported by the LMU, so diagnostic cell contents can only be reported.

INTRANS

optionally, specifies that in-transit cartridges in an LSM are to be processed. All in-transit cartridges, except those identified in the note below, are read and ejected as part of an AUDIT utility operation. INTRANS is mutually exclusive with APPLY(NO).

- Only the first two cells (columns 0 and 1) in a 9310 playground are accessible to an in-transit audit. Cartridges in other cell positions in a 9310 playground (columns 2 through 5) cannot be ejected by an in-transit operation.
- 9740 diagnostic cells cannot be scanned by an audit.

APPLY

optionally, specifies whether the control data set is updated.

YES

specifies that the Audit operation ejects cartridges with duplicate volume serial numbers, unreadable or illegal external media labels, or new cartridges unreadable external labels, and performs corrective actions to the control data set to reflect the physical contents of storage cells. YES is the default.

NO

specifies that a discrepancy listing is produced, and the control data set is not updated.

Optional Parameters (ACS Only)

The following parameters may only be specified with ACS:

LSM(lsm-list)

optionally, specifies that only certain LSMs within the specified ACS are to be audited.

lsm-list is a single LSM number or a list of LSM numbers. An LSM number is a hexadecimal value (00-17). An LSM range is not allowed. If a list is specified, the elements must be separated by blanks or commas, and the entire list enclosed in parentheses.

PANel(panel-list)

optionally, specifies that only certain panels within an LSM are to be audited. If this parameter is specified, the LSM parameter may contain only one LSM number.

panel-list is a single panel or a list of panels. Panel ranges are not allowed. If a list is specified, the elements must be separated by blanks or commas, and the entire list enclosed in parentheses. A *panel-list* element is a one or two digit decimal number, specific to the LSM type. See "Panels" on page B-2 for a list of valid values.

The SL3000 library has static panels numbers starting with the left-most back panel (panel 0) and ending with the right-most front panel (panel 23) on a fully-configured library. The panel numbering starts with the BDM, the only required module (panels 12 and 13), and works outward to the left and to the right.

Panels 0 (CAP panel) and 1 (drive panel) are allowable entries for an SL8500 audit, however, in this case the HSC displays a condition code 0 because it does not find any storage cells on these panels.

ROW(row-list)

optionally, specifies that only certain rows within the specified LSM panel are to be audited. If this parameter is specified, the LSM and PANel parameters may contain only one element.

row-list is a single row or a list of rows. Ranges are not allowed. If a list is specified, the elements must be separated by blanks or commas, and the entire list enclosed in parentheses. A *row-list* element is a one or two digit decimal number, and is specific to the LSM type. See "Rows" on page B-3 for a list of valid values.

COLumn(column-list)

optionally, specifies that only certain columns (cells) within an LSM panel row are to be audited. If this parameter is specified, the LSM, PANel, and ROW parameters may contain only one element.

column-list is a single column, or a list of columns. Ranges are not allowed. If a list is specified, the elements must be separated by blanks or commas, and the entire list enclosed in parentheses. A *column-list* element is a one or two digit decimal number and is specific to the LSM type. See "Columns" on page B-4 for a list of valid values.

- A list of rows cannot be specified if a list of columns is specified.
- A list of columns cannot be specified if a list of rows is specified.
- All SL3000 columns are numbered 0-5 (left to right).

CAP(cap-id)

optionally, specifies a particular Cartridge Access Port to be used for any required cartridge ejections during the Audit operation.

cap-id identifies one or more CAPs. The format is *AA:LL:CC*, where *AA:LL* indicates the LSM id, and *CC* indicates the CAP. See "CAP Numbers" on page B-1 for a list of valid values.

Note:

If a CAP is not specified, a CAP in the identified ACS is selected based on the CAPPref operator command. See "CAPPref" on page 3-20 for more information.

Multi-ACS audits cannot specify the CAP parameter. A CAP is chosen for each ACS based upon CAP preference values.

Parameters (Virtual Volume Audit)

As shown in Figure 3-4, the AUDit command includes the following parameters for a virtual volume audit:

VTSS(vtss-name or vtss-list)

optionally, specifies an audit of one or more VTSSs.

vtss-name or *vtss-list* indicates the names of one or more VTSSs.

INVLDMIR

optionally, specifies an audit of MVCs with invalid MIRs.

MVC(volser, vol-range, or vol-list)

optionally, specifies an audit of one or more MVCs.

volser, *vol-range* or *vol-list* indicates the volser, volser range, or volser list of MVC(s) to be processed.

Parameters (Virtual Volume Audit)

As shown in Figure 3-4, the AUDit command includes the following parameters for a virtual volume audit:

VTSS(vtss-name or vtss-list)

optionally, specifies an audit of one or more VTSSs.

vtss-name or *vtss-list* indicate the names of one or more VTSSs to be processed.

INVLDMIR

optionally, specifies an audit of MVCs with invalid MIRs.

MVC(volser, vol-range, or vol-list)

optionally, specifies an audit of one or more MVCs.

volser, *vol-range* or *vol-list* indicates the volser, volser range, or volser list of MVC(s) to be processed.

Audit Report

An audit report lists the VTVs and MVCs that are different from those listed in the CDS, as shown in [Example 3-3](#). In this example, the report shows all MVCs or VTVs as new entries in the CDS, which is typical of the output of a VTCS audit run after you lost all copies of the CDS, then ran recovery procedures.

Example 3-3 Audit report

```
AUDIT REPORT FOR MVC EVT500
X28955 VTV ADDED AS PRIMARY COPY (BLOCK:00000000)
X20000 VTV ADDED AS PRIMARY COPY (BLOCK:0940044D)
===== AUDIT OF MVC EVT500 COMPLETED SUCCESSFULLY =====

AUDIT REPORT FOR MVC EVT501
X28956 VTV ADDED AS PRIMARY COPY (BLOCK:00000000)
X20007 VTV ADDED AS PRIMARY COPY (BLOCK:0940044D)
X20010 VTV ADDED AS SECONDARY COPY (BLOCK:11400899)
X20069 VTV NOT CURRENT (BLOCK:1A400CE5)
X20067 VTV NOT CURRENT (BLOCK:334016AB)
===== AUDIT OF MVC EVT501 COMPLETED SUCCESSFULLY =====

AUDIT REPORT FOR VTSS HBVTSS17
X20000 VTV VALID
X20002 VTV VALID
X20005 VTV VALID
X20006 VTV VALID
X20007 VTV VALID
X30052 VTV VALID
X30053 VTV VALID
X30054 VTV VALID
===== AUDIT OF VTSS HBVTSS17 COMPLETED SUCCESSFULLY =====

AUDIT REPORT FOR VTSS HBVTSS16
X20183 VTV VALID
X20185 VTV VALID
X20188 VTV VALID
X20190 VTV VALID
X20191 VTV VALID
X20194 VTV VALID
X41091 VTV VALID
X41093 VTV VALID
===== AUDIT OF VTSS HBVTSS16 COMPLETED WITH 1 WARNING =====
AUDIT EXCEPTION REPORT
VTSS HBVTSS16: 1 WARNINGS REPORTED
SL51315I SWS500.V5.CDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET
```

Note: An audit also generates the following:

- MVC summary and detail reports
 - Display VTSS summary and detail output
 - For every VTV resident on the VTSS, the VTV volser, size in MB, and Management Class
-
-

AUDit Report Messages

For every VTV found on an MVC or VTSS, the audit report lists one of following:

VVVVVV VTV possibly corrupt (Block:BBBBBB)

Explanation: During the audit, an I/O error occurred for VTV VVVVVV at block BBBBBB on the MVC being audited.

VVVVVV VTV not found [, no MVC copies left]

Explanation: The audit did not find VTV VVVVVV on the MVC or VTSS being audited. If no MVC copies left appears, no MVCs contain copies of the VTV.

VVVVVV VTV not found on CDS (Block:BBBBBB)

Explanation: The audit did not find VTV VVVVVV on the MVC or VTSS being audited. If no MVC copies left appears, no MVCs contain copies of the VTV.

VVVVVV VTV not current (Block:BBBBBB)

Explanation: The audit did not find VTV VVVVVV on the MVC or VTSS being audited. If no MVC copies left appears, no MVCs contain copies of the VTV.

VVVVVV VTV not current (Block:BBBBBB)

Explanation: The audit did not find VTV VVVVVV on the MVC or VTSS being audited. If no MVC copies left appears, no MVCs contain copies of the VTV.

VVVVVV VTV not current (Block:BBBBBB)

Explanation: The audit did not find VTV VVVVVV on the MVC or VTSS being audited. If no MVC copies left appears, no MVCs contain copies of the VTV.

VVVVVV VTV Added as secondary copy (Block:BBBBBB)

Explanation: The audit found the second most current copy of VTV VVVVVV at block BBBBBB of the MVC being audited; the audit added this location to the CDS as the secondary MVC copy of the VTV.

VVVVVV Duplicate copy ignored (Block:BBBBBB)

Explanation: The audit found a duplicate copy of VTV VVVVVV at block BBBBBB and ignored this copy.

VVVVVV Link to old version on MVC MMMMMM removed

Explanation: The audit found a newer version of the VTV and removed the link to the old version from the CDS.

VVVVVV Old VTV version deleted from VTSS SSSSSSSS

Explanation: The audit found an old version of the VTV and deleted it from the VTSS.

VVVVVV Old version of VTV retained [VTSS SSSSSSSS]

Explanation: The audit found an old version of the VTV, which is the only copy, and retained this version. If VTSS SSSSSSSS appears, the audit found the VTV on a different VTSS than the one that was audited.

VVVVVV Version older than MVC copies [VTSS SSSSSSSS]

Explanation: The audit found a version of the VTV that is older than copies on the MVC. If VTSS SSSSSSSS appears, the audit found the VTV on a different VTSS than the one that was audited.

VVVVVV Newer version of VTV found [on VTSS SSSSSSSS]

Explanation: The audit found a newer version of the VTV and updated the CDS with this location. If on VTSS SSSSSSSS appears, the audit found the VTV on a different VTSS than the one that was audited.

VVVVVV VTV discovered [VTSS SSSSSSSS]

Explanation: The audit found a current version of the VTV on a VTSS whose location was unexpected and updated the CDS with this location. If on VTSS SSSSSSSS appears, the audit found the VTV on a different VTSS than the one that was audited.

VVVVVV VTV valid [VTSS SSSSSSSS]

Explanation: The audit found a valid version of the VTV and updated the CDS with this location. If VTSS SSSSSSSS appears, the audit found the VTV on a different VTSS than the one that was audited.

*** VVVVVV no access to VTSS SSSSSSSS ***

Explanation: The audit found a valid version of the VTV which is on a VTSS that the host cannot access.

MVC MMMMMM STATUS CHANGED FROM EXPORT TO CONSOLIDATE VOLUME

Explanation: The audit discovered current VTVs on an export MVC that was created by export by VTV or Management Class. The audit changed the MVC status from export to consolidate and updated the CDS to add the MVC and its VTVs.

EXPORT MVC *MMMMMM* IS NOW MADE EMPTY IN THE CDS

Explanation: The audit discovered no current VTVs on an export MVC that was created by export by VTV or Management Class. The audit marked the MVC as empty.

WARNING MVC *MMMMMM* IS AN OUTPUT MVC FROM AN EXPORT OPERATION - FORCING READONLY

Explanation: The audit forced read-only status on export MVC *MMMMMM*.

Audit terminated. Unable to determine the position of the end of VTV *VVVVVV* on MVC *MMMMMM*

Explanation: VTCS issued an Inventory MVC ECAM request to determine the position and volser of a VTV on the MVC being audited. VTSS indicated, in the ECAM response, that it was unable to determine the position of the end of the VTV. Because VTCS needs that information to determine the position of the next VTV on the MVC (assuming end of tape has not been reached), VTCS had to terminate the audit with RC=8. The MVC is left in Audit status. To resolve the condition, drain the MVC. If you cannot drain the MVC, contact Oracle StorageTek Software Support.

BACKup

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Note: Backup to tape is not supported.

Description

The BACKup command produces a backup of the library control data set (CDS).

The utility automatically selects the primary CDS copy based on the specified CDS DD statements or the CDS order used by the active HSC on the system.

If you want to back up a single, specific copy of the CDS, you can specify a single DD statement, SLSCNTL, to point to the file you want to back up. In general, however, you should only back up the primary CDS; the HSC RESTORE utility automatically creates the correct number of CDS copies when it executes.

Note: Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information about using BACKup when copies of the CDS are in different locations.

Syntax

Figure 3–5 shows BACKup command syntax.

Figure 3–5 BACKup command syntax



Parameters

None. Refer to Oracle’s ELS publication *ELS Legacy Interfaces Reference* for information about using BACKup when copies of the CDS are in different locations.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking SLUADMIN" on page 5-1, the following definition statements apply to the BACKup JCL:

SLSBKUP

specifies the created backup data set. The LRECL and BLKSIZE of this data set default to 4096.

CANcel

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

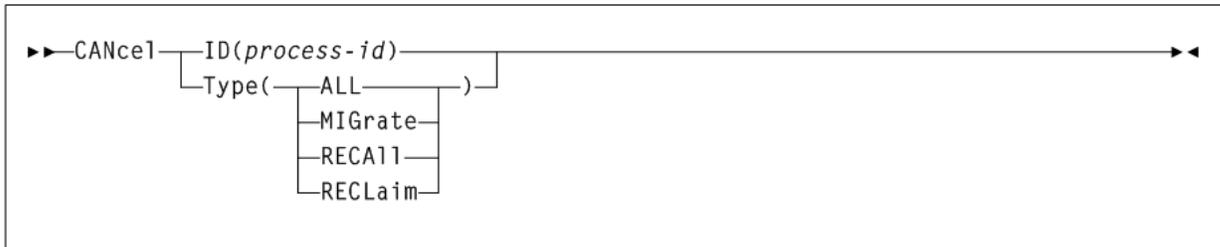
Description

The CANcel command stops active and queued processes that use an RTD.

Syntax

Figure 3–6 shows CANcel command syntax.

Figure 3–6 CANcel command syntax



Parameters

As shown in Figure 3–6, the `CANcel` command includes the following parameters:

ID(process-id)

specifies a process to cancel.

process-id indicates the process ID.

Type

optionally, specifies the type of process to cancel.

ALL

Cancel all processes.

MIGrate

Cancel all migration processes.

RECAII

Cancel all recall processes.

RECLaim

Cancel all reclaim processes.

CAPPref

Interfaces:

- Console or `PARMLIB`
- UUI Support: No

Subsystem Requirements:

Active HSC at `FULL` service level

Description

The `CAPPref` command assigns a preference value to one or more designated CAPs, and places a CAP into automatic or manual mode.

Several HSC commands and utilities require the use of a CAP and give you the option to either specify the CAP to use, or allow the HSC to automatically select a CAP. When you allow the HSC to make the selection, the CAP is chosen based on availability and the CAP preference value.

Assigning CAP preference values establishes an ordered list of CAPs from which the HSC selects an available CAP with the highest nonzero preference value. A CAP's preference value is zero until it is changed by a `CAPPref` command. Zero preference CAPs are never automatically selected by the HSC; however, they can be explicitly requested by the user.

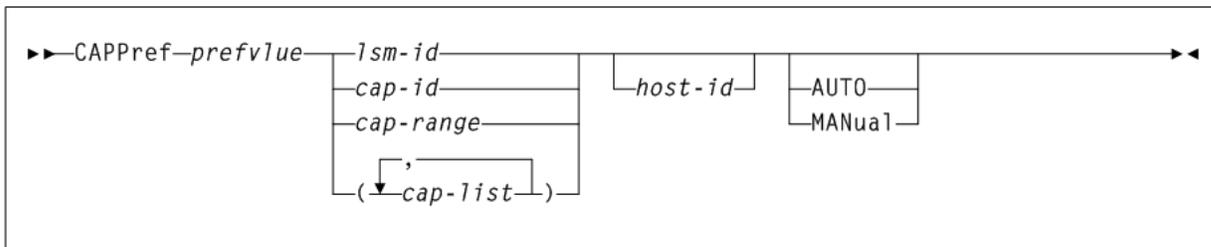
Note:

- A CAP preference value is only in effect on the host that executes the command.
 - CAP mode (automatic or manual) is in effect on all hosts systemwide for each CAP; it cannot be set discretely for each host.
-
-

Syntax

Figure 3-7 shows CAPPref command syntax.

Figure 3-7 CAPPref command syntax



Parameters

As shown in Figure 3-7, the CAPPref command includes the following parameters:

prefvlu

specifies a preference value which is assigned to all listed CAPs. Preference values are decimal in the range from 0-9.

A CAP with a preference value of 9 has the highest priority and is always selected first when it is available. If two or more available CAPs in an ACS have the highest preference value, the one with the lowest CAPid is selected.

The preference value for a PCAP must be zero. A PCAP is only used when explicitly requested by the user; the HSC does not automatically select a PCAP.

To use the CAPPref command to place a PCAP into `AUTO` or `MANua1` mode, specify a `prefvlu` of 0.

lsm-id

identifies an LSM. The format of an `lsm-id` is `AA:LL`, where `AA` indicates the ACSid (decimal 00-99) and `LL` indicates the LSM number (decimal 00-99).

Note: If you enter this parameter when there is more than one CAP in the specified LSM, an error message is generated.

cap-id, cap-range, or cap-list

identifies one or more CAPs. The format of a `cap-id` is `AA:LL:CC`, where `AA:LL` indicates the LSMid, and `CC` indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

Note:

If SL3000 library CAPs are not present, the HSC reports them as "not installed." This keeps CAP addresses from changing as new CAPs are added.
SL3000 and SL8500 libraries do not contain a PCAP

A `cap-range` identifies an inclusive range of multi-cell CAPs; PCAPs are excluded from the range. The beginning and ending values in a range must be valid CAPids and neither CAPid can specify a PCAP. The rules for specifying ranges apply.

PCAPs must be explicitly specified in the CAPPref command.

Example 1:

```
00:00:00-00:03:00
```

In this example, all CAPs in LSMs 00:00, 00:01, 00:02, and 00:03, except PCAPs, are included in this range.

Example 2:

```
00:00:00-00:03:01
```

In this example, CAPid 00:00:00 is either a standard CAP or a magazine-style CAP. CAPid 00:03:01 is a magazine-style CAP. All CAPs in LSMs 00:01 and 00:02, except PCAPs, are included in this range.

Each *cap-list* element can be either a single CAPid or a CAPid range. The elements in a list must be separated by a comma or a blank, and the entire list must be enclosed in parentheses.

host-id

optionally, specifies that the CAPPref command is to be performed only if the *host-id* parameter matches the identifier of the issuing host (the SMF system identifier for JES).

- If CAPPref is issued from PARMLIB and a *host-id* is specified, the command is executed only by the host with the matching ID.
- If CAPPref is issued from PARMLIB and a *host-id* is not specified, the command is executed by each host that accesses PARMLIB.

Refer to Oracle's ELS publication *Managing HSC and VTCS* for more information about PARMLIB.

AUTO

optionally, indicates that the specified CAPs are to be placed in automatic mode (referred to as auto-mode). Auto-mode CAPs remain unlocked when not in use. AUTO is the initial setting for a PCAP.

When a CAP is in auto-mode, you can initiate an enter operation without issuing an ENTER command. You do this by opening the CAP door, placing one or more cartridges inside, and closing the CAP. The CAP is locked while the enter is being processed; then it is unlocked again.

Auto-mode CAPs can be used for eject processing by either:

- specifying the CAPid on an EJECT command or EJECT utility, or
- assigning a preference value and allowing the HSC to automatically select the CAP

A CAP in auto-mode is locked whenever it is selected for an eject operation, to prevent an enter operation on this CAP until the eject completes.

Note: HSC termination will be slower with CAPs in auto-mode; especially in a multiple-host environment.

MANual

optionally, indicates that the specified CAP is to be locked when not in use. MANual is the initial setting for all multi-cartridge CAPs.

AUTO or MANual settings are sent host-to-host using LMU broadcast and the status is preserved in the control data set. For this reason, it is recommended that you not make frequent changes to the CAP mode.

A *prefvlue* of 0 must be specified when using the CAPPref command to set a PCAP to AUTO or MANual mode.

CDs

Interfaces:

- Console or PARMLIB
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

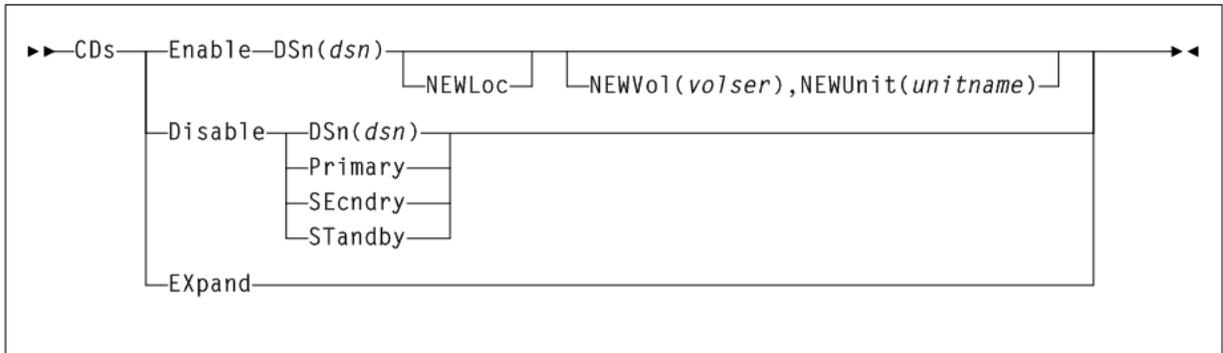
Description

The CDs command enables, disables, relocates, or expands a control data set on an active HSC (or, in a multiple-host environment, on all active hosts) without requiring you to stop or substantially disrupt normal tape processes.

Syntax

Figure 3–8 shows CDs command syntax.

Figure 3–8 CDs command syntax



Parameters

As shown in Figure 3–8, the CDs command includes the following parameters:

Enable

allocates and activates any preexisting, renamed, or new CDS specified by the DSN parameter. The CDs Enable command can allocate and activate a CDS residing in a new location, either with a preexisting or a new data set name, when the NEWLoc parameter is specified. MSP catalog services are used to resolve the volume and unit definitions, if the NEWVol or NEWUnit parameters are not specified.

The specified control data set must be named in the CDSDEF control statement in PARMLIB.

DSn(dsn)

specifies the control data set name to allocate for all hosts. *dsn* indicates the data set name. This parameter is required.

NEWLoc

optionally, indicates that a relocation activity has occurred for the CDS named by the *DSn* parameter. MSP uses the catalog facility to determine the volume location of the relocated CDS.

NEWVol(volser)

optionally, specifies the volume for a relocated CDS copy. In MSP, if the new CDS copy is not cataloged, this parameter is required. If *NEWVol* is specified, but *NEWUnit* is not, *NEWUnit* defaults to *SYSALLDA*.

volser indicates the volume.

NEWVol is required if the user is executing the command in the HSC VM environment.

NEWUnit(unit-name)

optionally, specifies the unit name for a relocated CDS copy. This parameter defaults to *SYSALLDA* if it is omitted and *NEWVol* is specified.

unitname indicates the unit name.

NEWUnit is required if the user is executing the command in the HSC VM environment.

Disable

unallocates (makes inactive) the specified CDS. The *CDS Disable* command does not disable the last active copy of the control data set.

DSN(dsn)

optionally, specifies the control data set name to unallocate for all hosts. *dsn* indicates the data set name.

Primary

optionally, indicates that the current primary control data set is to be disabled.

SEcndry

optionally, indicates that the current secondary control data set is to be disabled.

STandby

optionally, indicates that the current standby control data set is to be disabled.

EXpand

expands all enabled CDSs to the maximum number of 4096 blocks that can fit in the physical space allocated for the CDS. The maximum number of 4096 blocks is determined by the smallest CDS copy.

CDSCREat

Interfaces:

- SLUADMIN utility only
- UUI Support: Yes

Subsystem Requirements:

None.

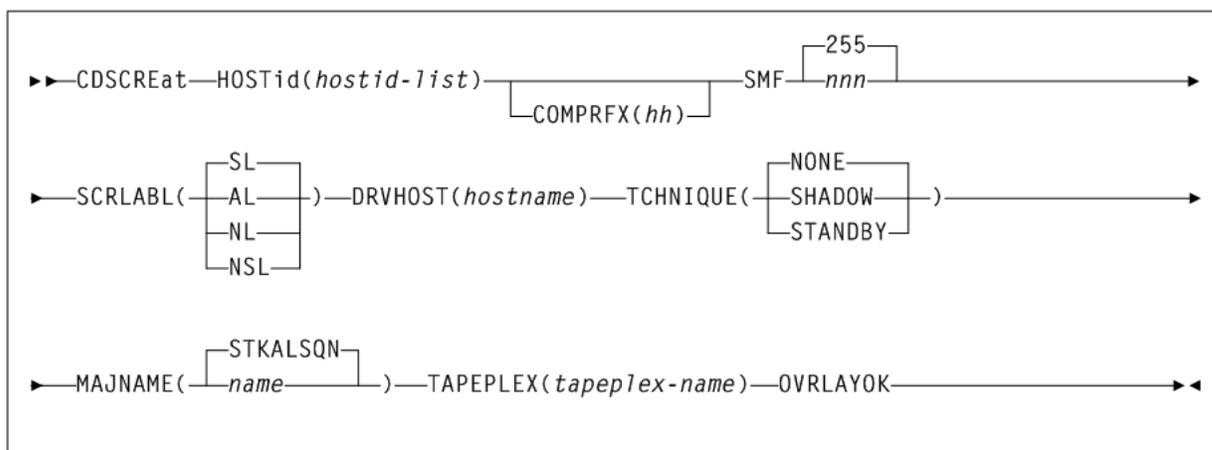
Description

The CDSCREAt utility uses a small set of parameters to define the CDS for a tapeless configuration. A tapeless configuration may include VLE hardware but may not include any defined ACSs or real tape drives.

Syntax

Figure 3–9 shows CDSCREAt command syntax.

Figure 3–9 CDSCREAt command syntax



Parameters

As shown in Figure 3–9, the CDSCREAt command includes the following parameters:

HOSTid(hostid-list)

specifies the list of SMF host IDs on which this system can be executed. This parameter is required.

hostid-list indicates one or more host ids. You can specify a maximum of 16 host IDs.

COMPRFX(hh)

optionally, specifies the two-character hexadecimal representation of the command prefix to be used to enter commands to the subsystem. If this parameter is omitted or is set to a null value (40), then you must use the MSP MODIFY command to direct requests to the subsystem, for example, `F HSC0,D CDS`. See Table 3–14 under the SET COMPRFX command for valid values.

hh indicates the two-character hexadecimal value.

SMF(nnn)

optionally, specifies the SMF ID of statistics data that will be written to the SMF data set.

nnn indicates the SMF ID. The value must be between 128 and 255.

If this parameter is omitted, the value is set to 255.

SCRLABL

optionally, specifies the label type used as the scratch default. Specify one of the following:

- SL indicates standard-labeled tape. This is the default if the parameter is omitted.
- AL indicates ANSI-labeled tape.
- NL indicates nonlabeled tape.
- NSL indicates nonstandard labeled tape.

DRVHOST(hostname)

optionally, specifies the host ID that will be used as the "master" value for drive addresses. If drive addresses are different for different hosts, a DRVHOST should be set to allow SMC to map client drive addresses to fixed server drive addresses.

host-name indicates the "master" host id.

TCHNIQUE

optionally, specifies the recovery technique (number of CDS copies) that will be created and used by the system.

- NONE specifies one CDS copy. This is the default if the parameter is omitted.
- SHADOW specifies two CDS copies.
- STANDBY specifies three CDS copies.

If this parameter is omitted, the default value is NONE. The CDSCREAT utility validates that the specified (or implied) technique matches the number of CDS DD statements specified.

MAJNAME(name)

optionally, specifies an ENQ/DEQ/RESERVE QNAME. *name* indicates the 1-8 character QNAME.

If this parameter is omitted, the default value is STKALSQN.

TAPEPLEX(tapeplex-name)

optionally, specifies a TapePlex name for the HSC/VTCS system. *tapeplex-name* is a 1-8 character TapePlex name. This must match the SMC TAPEPLEX name.

If this parameter is omitted, it is set automatically when SMC initially communicates with HSC/VTCS.

OVRLAYOK

optionally, specifies that the input CDS file(s) may be existing CDS data sets, and that they may be overlaid by the create process. If this parameter is omitted, and any CDS file is an existing CDS file, the CDSCREAT process fails.

Additional JCL Requirements

Execution of this utility requires specification of a DD statement for each CDS copy indicated by the TCHNIQUE parameter (or exactly one DD statement if the TCHNIQUE parameter is omitted).

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the CDSCREAt JCL:

TYPE

specifies the type of CDS data for which output is produced. The **TYPE** Keyword is positional and therefore optional. One of the listed types must be specified.

VOLPOOL

produces XML data for **VOLPARM VOLUME** pool definitions.

MVCPOOL

produces XML data for **VOLPARM MVC** pool definitions.

SCRPOOL

produces XML data for **VOLPARM SCRATCH** pool definitions.

CDS

produces XML CDS data.

CAP

produces XML CAP data.

LSM

produces XML LSM data.

DRV

produces XML drive data.

TYPE

specifies the type of CDS data for which output is produced. The **TYPE** Keyword is positional and therefore optional. One of the listed types must be specified.

- **VOLPOOL** produces XML data for **VOLPARM VOLUME** pool definitions.
- **MVCPOOL** produces XML data for **VOLPARM MVC** pool definitions.
- **SCRPOOL** produces XML data for **VOLPARM SCRATCH** pool definitions.
- **CDS** produces XML CDS data.
- **CAP** produces XML CAP data.
- **LSM** produces XML LSM data.
- **DRV** produces XML drive data.

CDSDEF

Interfaces:

- **PARMLIB** only
- **UUI Support:** No

Subsystem Requirements:

None.

Description

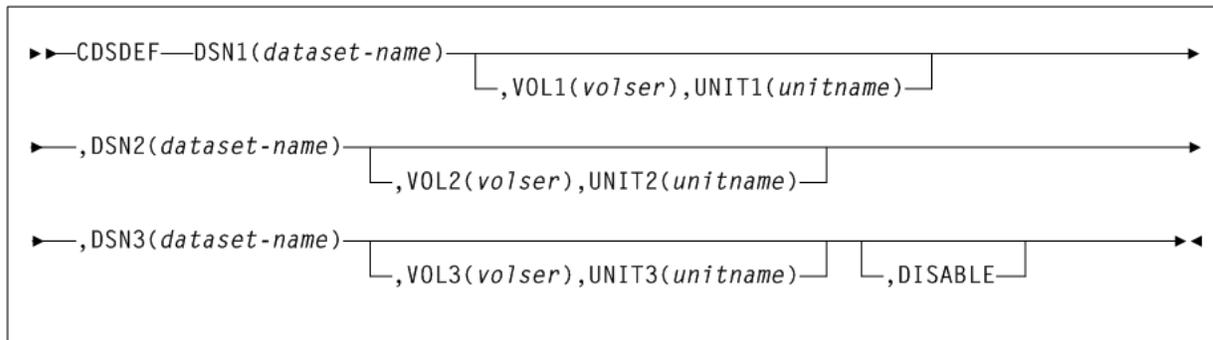
The **CDSDEF** command specifies control data set names, locations, and number of control data sets that you want running. This information is used by HSC during initialization.

CDSDEF is a required command.

Syntax

Figure 3–11 shows CDSDEF command syntax.

Figure 3–11 CDSDEF command syntax



Parameters

As shown in Figure 3–11, the CDSDEF command includes the following parameters:

DSN1(*dataset-name*)

specifies the primary CDS. *dataset-name* indicates the name of an HSC control data set.

At least one DSN parameter must be specified, as many as three can be specified. If two data sets are specified, then the volume inventory information on both copies is kept current, and these two data sets are referred to as the primary and the secondary CDS.

If all three are specified, then two copies are kept current and the third data set is a standby CDS which is enabled as the default condition. This standby CDS can be disabled with the `DISABLE` parameter. In the case where a standby copy of the CDS is being used, you do not need to specify which two of the three CDSs are the primary and secondary copies. The HSC determines, based on last use, which two are the correct copies to use during the initialization of the Control Data Set Services.

,VOL1(*volser*)

optionally, specifies a volume serial number of the DASD volume where the specified CDS resides. If the data set is not cataloged, this must be specified.

If omitted, volume and unit information is determined from the MSP catalog, and the `VOL1` parameter is ignored.

,UNIT1(*unit-name*)

optionally, specifies the unit parameter in the `SVC99` dynamic allocation parameter list. If omitted, `SYSALLDA` is used.

unit-name can be an IBM-defined generic (for example, 3390), a system-built esoteric (for example, `SYSALLDA`), a user-defined esoteric, or a specific device number. It is recommended that a general value of `SYSALLDA` be specified (or defaulted) to allow maximum flexibility and to reduce the need for CDSDEF updates to keep them consistent with the active CDS.

DSN2(*dataset-name*)

optionally, specifies a secondary CDS. *dataset-name* indicates the name of an HSC control data set.

,VOL2(volser)

optionally, specifies a volume serial number of the DASD volume where the secondary CDS resides. If the data set is not cataloged, this must be specified.

,UNIT2(unit-name)

optionally, specifies the unit parameter in the SVC99 dynamic allocation parameter list. If omitted, *SYSALLDA* is used.

unit-name can be an IBM-defined generic (for example, 3390), a system-built esoteric (for example, *SYSALLDA*), a user-defined esoteric, or a specific device number. It is recommended that a general value of *SYSALLDA* be specified (or defaulted) to allow maximum flexibility and to reduce the need for CDSDEF updates to keep them consistent with the active CDS.

DSN3(dataset-name)

optionally, specifies a standby CDS. *dataset-name* indicates the name of an HSC control data set.

,VOL3(volser)

optionally, specifies a volume serial number of the DASD volume where the standby CDS resides. If the data set is not cataloged, this must be specified.

,UNIT3(unit-name)

optionally, specifies the unit parameter in the SVC99 dynamic allocation parameter list. If omitted, *SYSALLDA* is used.

unit-name can be an IBM-defined generic (for example, 3390), a system-built esoteric (for example, *SYSALLDA*), a user-defined esoteric, or a specific device number. It is recommended that a general value of *SYSALLDA* be specified (or defaulted) to allow maximum flexibility and to reduce the need for CDSDEF updates to keep them consistent with the active CDS.

,DISABLE

optionally, disables the standby CDS. If this parameter is not specified, the default is to enable the standby CDS at HSC initialization.

If **DISABLE** is specified, initialization verifies the standby CDS by allocating, opening, and reading the data set. The standby CDS is then closed and deallocated. This process enables manual control over the use of the standby CDS during a control data set switch situation.

If the standby CDS is enabled, the HSC automatically uses it for switching. If it is disabled, it is not used. There is no enable parameter for CDSDEF, as the enable condition is the default.

CLean

Interfaces:

- Console or PARMLIB
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

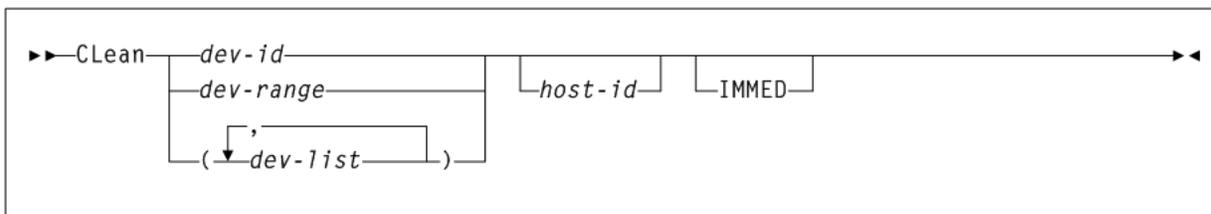
Description

The CLean command schedules a cleaning cartridge to be mounted on a library-controlled transport. The specified transport is flagged by the control data set and a cleaning cartridge is mounted before to the next volume mount.

Syntax

Figure 3–12 shows CLean command syntax.

Figure 3–12 CLean command syntax



Parameters

As shown in Figure 3–12, the CLean command includes the following parameters:

dev-id, dev-range, or dev-list

specifies a device address, range of device addresses, or list of addresses for which cleaning is to be scheduled. Each dev-list element can be either a single device address or a range. The elements in a list must be separated by a comma or a blank, and the entire list must be enclosed in parentheses.

host-id

optionally, indicates that cleaning is to be performed for the device address of the specified host (the SMF system identifier for JES).

IMMED

optionally, specifies that an immediate clean of the device is to be performed if the drive is idle. This occurs regardless of the MNTD `Autocln` setting. If the device is not idle then the device is scheduled to be cleaned after the dismount of the volume that is currently mounted.

COMMPath

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

The COMMPath command is used in a multiple-host environment to do the following:

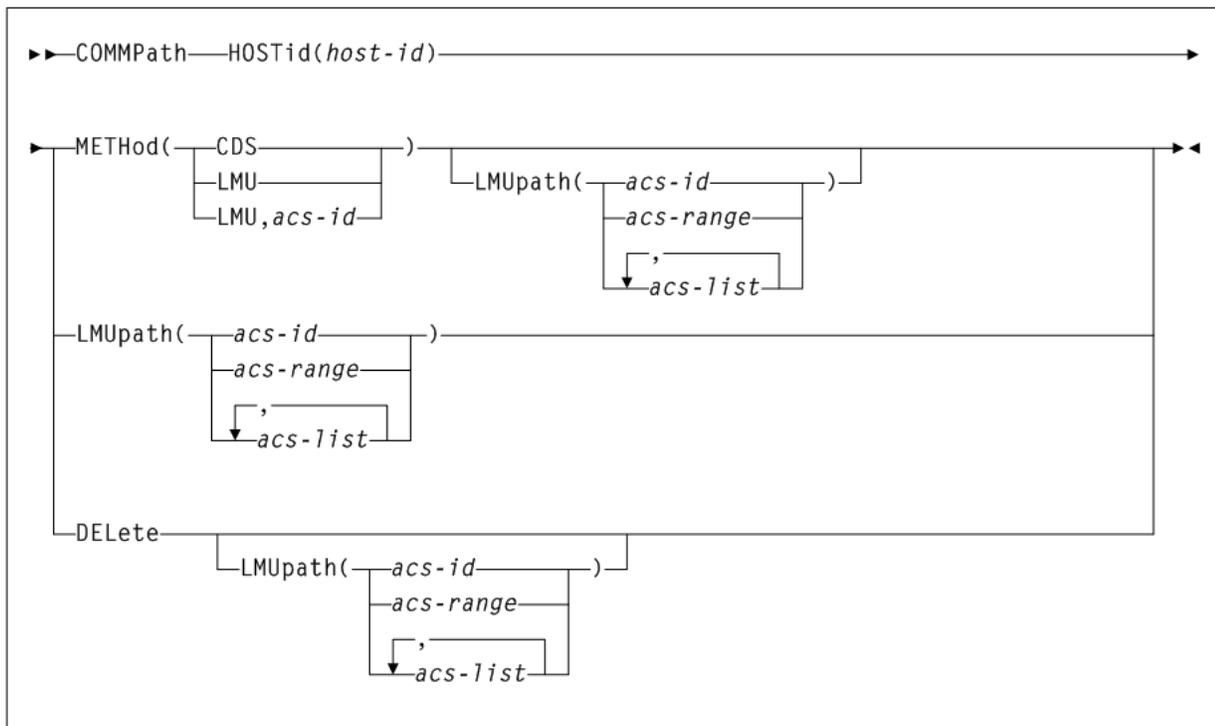
- Set up a tiered communication service between HSC hosts which can be modified at any time without bringing down the HSC.
- Define the hierarchy of methods available to each host for communication with other hosts.
- Establish the current method of communication for a host (or switch from one method to another).

It is recommended that host-to-host communication be defined in PARMLIB at startup. Issue the COMMPath command from the console to switch or delete communication paths.

Syntax

Figure 3–13 shows COMMPath command syntax.

Figure 3–13 COMMPath command syntax



Parameters

As shown in Figure 3–13, the COMMPath command includes the following parameters:

HOSTid(host-id)

specifies the host for which the command sets or modifies the parameters.

host-id indicates the host identifier (the SMF system identifier for JES). This parameter is required.

METHOD

optionally, specifies the current method of communications to be used for the specified host. This parameter enables you to switch to a higher, lower, or equivalent (for LMUpath only) level method of communications.

CDS

indicates that communication is to be through the control data set. CDS is the initial setting for HSC host-to-host communications.

LMU

indicates that communication is to be through an LMU.

acs-id indicates the `LMU`path definition that is to be the active (or current) `LMU`path. If you do not supply an *acs-id*, the first `LMU`path specified in the list of `LMU`path definitions is made active.

LMUpath(*acs-id*, *acs-range*, or *acs-list*)

specifies one or more LMU paths that can be used for host-to-host communications. An LMU is eligible to be used for host-to-host communications if it is connected to other HSCs sharing a library.

acs-id or *acs-range* or *acs-list* specifies one or more specific LMUs. Each *acs-list* element can be either a single ACSid or an ACSid range. The elements in a list must be separated by a comma or a blank, and the entire list must be enclosed in parentheses.

If more than one eligible LMU is specified, the HSC begins searching for an available communications path beginning with the first *acs-id* in the list. The search continues until a path can be established or the end of the list is reached.

The `LMU`path definitions are cumulative; that is, the definitions specified in a command are appended to the current list of definitions. You can insert an LMU path into the current list by specifying the LMU path that you want to insert, followed by the LMU paths that are to come after it. If a `COMMP`ath command specifies an LMU path that is already defined in the list, the path is removed from its current position and appended to the end of the list as specified in the command.

For example, the current definition is (02,03,04). You can insert `LMU`path 01 after 02 by specifying `LMU(01,03,04)`. Now the current list appears as (02,01,03,04). Also, if the current definition is (02,01,03,04) and the command specifies `LMU(01,02)`, the list becomes (03,04,01,02).

Note: For a temporary outage of an LMU, it is not necessary but may be desirable to delete the `LMU`path definition for that LMU. When the LMU is available again, define it to the communications service again by adding it to the current definitions.

DELete

optionally, specifies to delete the definitions specified by the `LMU`path parameter or `VTAM`path parameter.

If LMU is not the current method, all `LMU`path definitions can be deleted by specifying `DELe`te `LMU`path (without supplying an *acs-id*). If the current method is LMU, the active `LMU`path cannot be deleted.

If the current method is VTAM, the `VTAM`path definition cannot be deleted.

CONFlg**Interfaces:**

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required, and must be down on all hosts when running `CONFIG RESET`.

Description

The `CONFIg` command defines or modifies the VSM configuration stored in the HSC CDS. You create a single file that contains the `CONFIg` command and its input statements.

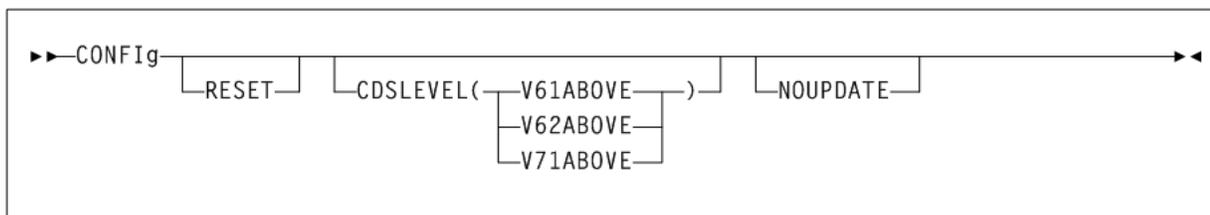
Note:

- The `CONFIg GLOBAL` statement specifies VTCS global values. This statement is required. See "[CONFIg GLOBAL Statement](#)" on page 3-38.
- Dynamic reclaim requires an H level CDS.

Syntax

Figure 3-14 shows `CONFIg` command syntax.

Figure 3-14 *CONFIg command syntax*

**Parameters**

As shown in Figure 3-14, the `CONFIg` command includes the following parameters:

RESET

optionally, resets the VSM configuration in the CDS.

Specify `RESET` when:

- Changing the CDS to a lower level.
- Adding `LOCKSTR=structure-name` (through `CONFIg GLOBAL`) to a CDS that did not previously use `LOCKSTR=structure-name`.
- Removing `LOCKSTR=structure-name` (through `CONFIg GLOBAL`) from a CDS.
- Removing 32 RTD support (that is, move from a CDS that supported 32 RTDs to one that does not).

Do not specify `RESET` when:

- Changing the CDS from F to G or G to H.
- Changing lock structure names (for example, going from `LOCKSTR=VTCSL1` to `LOCKSTR=VTCSL2`).
- Changing VSM volumes (such as adding VTVs and MVCs).

VTV and MVC volumes cannot be removed by `RESET` or any other VTCS utility. Removal of VTV and MVC volumes requires the definition of a new CDS and the use of `MERGEcds`.

- Changing VSM policies (such as changing `AMT` values).

Note:

HSC must be down on all hosts when you run `CONFIG RESET`. The changes you made to RTD definitions take effect when you restart HSC.

Although some changes can be done dynamically by running `CONFIG` and not restarting HSC/VTCS, there may be additional parameter changes required to use any additional resources.

If you run a `CONFIG` with `RESET`, then the status flags are reset and message `SLS6746E` disappears. If a VTSS was offline when you ran the `CONFIG` (with `RESET`), you must remember to audit the VTSS.

CDSLEVEL

optionally, specifies one of the following CDS levels:

V61ABOVE

creates an "F" level CDS, which provides the following enhancements:

- Full VSM4 Support
- 4 MVC copies
- 800Mb VTVs
- Near Continuous Operations (NCO)
- Bi-directional clustering
- Improved CDS I/O performance - reduces I/O required to manage virtual scratch subpools

V62ABOVE

creates a "G" level CDS, which provides the following enhancements:

- 400Mb/800Mb/2Gb/4gb VTVs
- Standard/Large VTV Pages
- 65000 VTVs per MVC

V71ABOVE

creates an "H" level CDS, which provides the following enhancements:

- Dynamic reclaim
- Autonomous device support

NOUPDATE

optionally, specifies that the configuration is checked and any appropriate messages output, but no updates are made to the CDS.

CONFlg CLINK Statement

The `CONFlg CLINK` statement defines the channel interface between two VTSSs in a Cluster and enables you to define CLINKs on IP interfaces to support replication of VTVs over IP CLINKs.

The VTSSs can be in one of three modes:

- Primary-Secondary, in which there are two VTSSs and you write CLINK statements for only the Primary.
- Peer-to-Peer, in which case there are two VTSSs and you write CLINK statements for both VTSSs to enable bi-directional VTV replication.
- Any-to-Any, in which there are more than two VTSSs in the cluster and the individual relationships are defined through CLINK statements.

In addition, CLINKs can be defined from the VTSS to perform electronic export to another TapePlex. These links need not be to the same VTSS within the remote TapePlex.

Each VTSS can either be connected to a maximum of two different TapePlexes, or one TapePlex and a partner VTSS in a cluster.

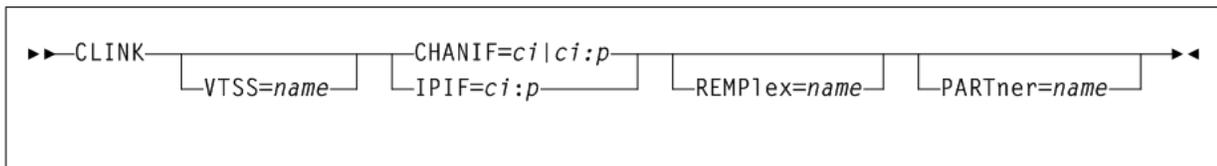
An electronic export connection can always be to multiple VTSSs. A cluster connection can be to multiple VTSSs only if the CONFIG CLUSTER statement specifies more than two VTSS members.

Refer to Oracle's ELS publication *ELS Disaster Recovery and Offsite Data Management Guide* for examples.

Syntax

Figure 3–15 shows CONFIG CLINK statement syntax.

Figure 3–15 CONFIG CLINK statement syntax



Parameters

As shown in Figure 3–15, the CANcel statement includes the following parameters:

VTSS=name

optionally, specifies the name of the VTCS that owns the CLINK. This is the VTSS from which the VTVs are replicated or exported.

If this parameter is omitted, by default, the CLINK is attached to the current VTSS being defined.

The VTSS name that you specify on a CLINK statement must be known to VTCS. That is, the VTSS name must be already defined in the CDS or it must be specified in a VTSS statement that already exists in the current set of CONFIG statements. For example, the following is valid:

```
VTSSNAME=VTSS1 LOW=70 HIGH=80 MAXMIG=3 RETAIN=5 CLINK VTSS=VTSS1 CHANIF=0A
```

The following is not valid unless VTSS1 is already defined in the CDS:

```
CLINK VTSS=VTSS1 CHANIF=0A VTSSNAME=VTSS1 LOW=70 HIGH=80 MAXMIG=3 RETAIN=5
```

CHANIF=ci or ci:p

specifies the channel interface on the VTSS that communicates with the RTD where:

- *c* indicates the VTSS Storage Cluster number (0 or 1).

- *i* indicates the interface number (A, C, E, G, I, K, M, or O)
- *p* indicates the device number on the interface (0, 1, 2, or 3).

For a VSM 5, this value must match the actual FICON interface values. For a VSM 6, this must be unique for each VTSS, and does not correspond to an actual value on the VSM 6 FICON ports.

Regardless of whether the Maximum 32 RTDs feature is enabled, if you do not have greater than 16 RTDs attached to a VTSS, you can use the “old” addressing scheme (`CHANIF=ci`).

If, however, the Maximum 32 RTDs feature is enabled and you have greater than 16 RTDs attached to a VTSS, you must use the “new” addressing scheme (`CHANIF=ci:p`).

Refer to Oracle’s ELS publication *Configuring HSC and VTCS* for more information.

IPIF=*ci:p*

optionally, enables Ethernet connection of two Native IP (IFF3 card) ports, where the *ci:p* values are shown in parentheses before each Target IP Address on the IFF IP Configuration Status screen for each IFF Ethernet port. Valid values for *c:ip* are:

- *c* indicates the VTSS Storage Cluster number (0 or 1).
- *i* indicates the interface number (A or I)
- *p* indicates the device number on the interface (0, 1, 2, or 3).

For VSM5s, this value must match the value specified on the **VSM5 IFF Configuration Status Screen**. For VSM 6s, this must be unique for each VTSS; and does not correspond to an actual value on the VSM 6 TCP/IP ports.

Refer to Oracle’s ELS publication *Configuring HSC and VTCS* for more information.

Note: The `CLINK` statement must contain either the `CHANIF` or `IPIF` parameter, but not both.

REMPlex=*name*

optionally, specifies the name of the TapePlex at the receiving end of the `CLINK` that receives the copies of the VTVs. During validation of the link, this name is compared with the `THISPLEX` definition in the remote system configuration.

The `REMPlex` parameter indicates that the `CLINK` is to be used for electronic export. Absence of this parameter indicates that the `CLINK` is to be used for a cluster connection.

PARTner=*name*

optionally, specifies the name of the VTSS at the receiving end of the `CLINK` that receives copies of the VTVs.

This parameter is required for `CLINK`s used for electronic export, or where the cluster consists of more than two VTSSs.

During validation of the link, this name is compared with the VTSS name at the other end of the `CLINK`.

CONFlg CLUSTER Statement

The `CONFlg CLUSTER` statement defines the VTSSs in a Cluster.

Syntax

Figure 3–16 shows CONFIg CLUSTER statement syntax.

Figure 3–16 CONFIg CLUSTER statement syntax

```
▶▶—CLUSTER—NAME=nnnnnnnn—VTSSs(vtss-list)————▶▶
```

Parameters

As shown in Figure 3–16, the CONFIg CLUSTER statement includes the following parameters:

NAME=nnnnnnnn

specifies the 1 to 8 character identifier of the Cluster.

This parameter is required. There is no default value.

VTSSs(*vtss-list*)

Specifies the names of the VTSSs in a cluster. At least two VTSSs must be specified. If more than two VTSSs are specified, then down level hosts will not function.

The relationship between each of the VTSSs is defined by the CONFIg CLINK statement. See "CONFIg CLINK Statement" on page 3-35 for more information.

This parameter is required. There is no default value.

VTSS names that you specify on a CLUSTER statement must be known to VTCS. That is, the VTSS names must be already defined in the CDS or must be specified in VTSS statements that already exist in the current set of CONFIg statements. For example, the following is valid:

```
VTSSNAME=VTSS1  LOW=70  HIGH=80  MAXMIG=3  RETAIN=5
VTSSNAME=VTSS2  LOW=70  HIGH=80  MAXMIG=3  RETAIN=5
CLUSTER NAME=CLUSTER1  VTSSs=(VTSS1,VTSS2)
```

The following is not valid unless VTSS1 and VTSS2 are already defined in the CDS:

```
CLUSTER NAME=CLUSTER1  VTSSs=(VTSS1,VTSS2)
VTSSNAME=VTSS1  LOW=70  HIGH=80  MAXMIG=3  RETAIN=5
VTSSNAME=VTSS2  LOW=70  HIGH=80  MAXMIG=3  RETAIN=5
```

The DEComp utility outputs CLUSTER statements with blanks instead of commas as separators, which is also valid input to CONFIg. For example, DEComp outputs the following, which is valid input to CONFIg:

```
CLUSTER NAME=CLUSTER1  VTSSs=(VTSS1 VTSS2)
```

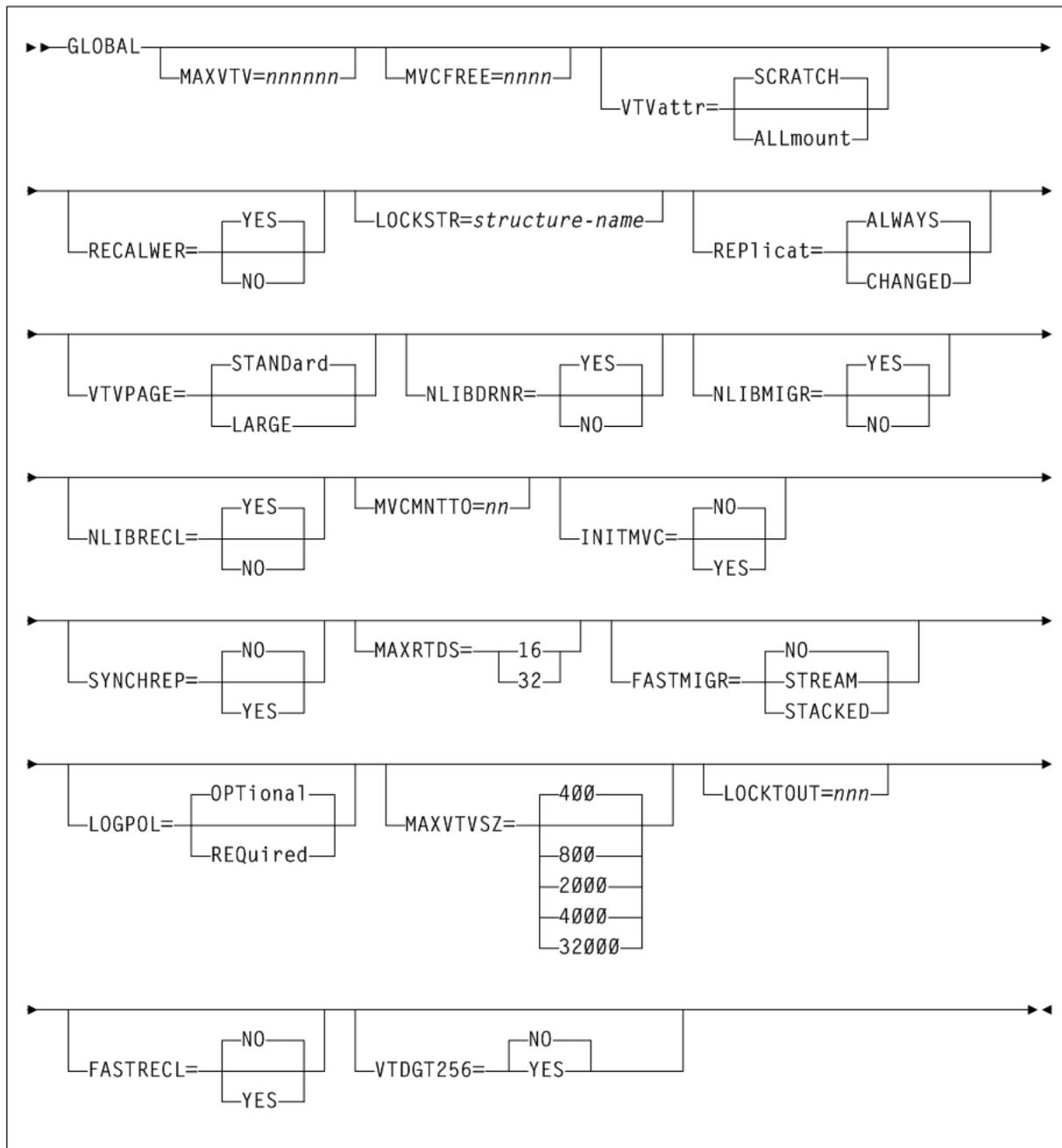
CONFIg GLOBAL Statement

The CONFIg GLOBAL statement specifies VTCS global values. This statement is required.

Syntax

Figure 3–17 shows CONFIg GLOBAL statement syntax.

Figure 3–17 CONFlg GLOBAL statement syntax



Parameters

As shown in Figure 3–17, the CONFlg GLOBAL statement includes the following parameters:

MAXVTV=nnn

optionally, specifies the maximum number of VTVs that can be migrated to a single MVC. The default is 32000 for a D, E, or F level CDS and 65000 for a G level CDS. Valid values are:

- 4 to 32000 for a D, E or F level CDS
- 4 to 65000 for a G level CDS

For more information about CDS levels, see "CONFig" on page 3-33.

MVCFREE=nnn

optionally, specifies the minimum number of free MVCs in the MVC pool. A free MVC has 100% usable space and does not contain any migrated VTVs. Valid values are 0 to 255. The default is 40.

If free MVCs is equal or less than this value, VTCS issues message SLS6616I and starts an automatic space reclamation.

Note: If you set `MVCFREE=0`, VTCS actually uses the default value (40).

VTVattr

optionally, specifies when VTCS assigns a Management Class to a VTV.

SCRATCH

Assign a Management Class only when VTCS does a scratch mount of the VTV (the default).

ALLmount

Assign a Management Class whenever VTCS mounts the VTV.

Caution: If you specify that VTCS assigns a Management Class whenever VTCS mounts a VTV, these attributes can change, which can cause undesirable or unpredictable results.

For example, if an application writes data set `PROD.DATA` to `VTV100` with a Management Class of `PROD`, then writes data set `TEST.DATA` to `VTV100` with a Management Class of `TEST`, then the VTV (and both data sets) has a Management Class of `TEST`. Similarly, it is possible to write `TAPEREQ` statements or SMS routines that assign different Management Classes to the same data set (for example, based on job name), which can also cause a VTV's Management Class to change.

RECALWER

optionally, specifies whether VTCS recalls VTVs with read data checks (applies to recall and drain operations).

YES

Recall VTVs with read data checks (the default).

NO

Do not recall VTVs with read data checks.

LOCKSTR=structure-name

optionally, specifies the Coupling Facility Structure that holds VTCS Lock Data. *structure-name* must be 16 characters or less and conform to IBM's standard for naming Coupling Facility Structures. Refer to Oracle's ELS publication *Installing ELS* for more information.

Caution: CONFIG RESET is required to add LOCKSTR=*structure-name* to a CDS that did not previously use LOCKSTR=*structure-name* and to remove LOCKSTR=*structure-name* from a CDS. CONFIG RESET is not required to change lock structure names (for example, going from LOCKSTR=VTCSL1 to LOCKSTR=VTCSL2).

REPLIcat

optionally, specifies when VSM replicates the VTV.

ALWAYS

The replicate request is added to the VTCS replication queue every time the VTV is dismounted, regardless of whether the VTV was changed while it was mounted (the default).

CHANGED

The replicate request is added to the VTCS replication queue if either of the following have occurred:

- The VTV was changed while it was mounted.
- The VTV was only read while mounted but less than the expected number of MVC copies of the VTV exist.

Once the expected number of MVC copies exist, replication does not occur.

Regardless of the CONFIG GLOBAL REPLIcat setting, replication also requires that:

- The VTV must be dismounted in a VTSS that supports replication and there cannot be an identical copy of the VTV in the other VTSS in the Cluster.
- In addition to the CONFIG GLOBAL REPLIcat value, you must specify REPLIcat (YES) on a VTV's Management Class for replication to occur.

VTVPAGE

optionally, specifies the page size used to store VTV data in the VTSS and on the MVCs. This setting only applies to 400 and 800 MB VTVs. If VTVPAGE is not specified on either the MGMTclas statement or the CONFIG GLOBAL statement, the default is STANDARD.

STANDARD

standard page size, which is compatible with all VSM3 or VSM4 models and microcode levels.

LARGE

large page size, which can provide improved performance within the VTSS and for migrates and recalls. Large page size requires a G level CDS. For more information on CDS levels, see "CONFIg" on page 3-33. For 2 and 4 GB VTVs (MAXVtvsz 2000 or 4000), a VTVPAGE setting of LARGE is always used.

VTVPAGE does not apply to VSM2s. VTVPAGE (LARGE) requires VSM4 or VSM5 microcode D02.02.00.00 or VSM3 microcode N01.00.77.00. No installed option is required.

MGMTCLAS VTVPAGE, if specified, overrides the CONFIG GLOBAL VTVPAGE value. If VTVPAGE is not specified on either the MGMTclas statement or the CONFIG GLOBAL statement, the default is STANDARD.

Consider the following:

- The page size of a VTV can only be changed by a VTV scratch mount. Additional restrictions may also apply for scratch VTVs that were previously resident in a VTSS.
- If you specify `LARGE` and the CDS level or VTSS microcode do not support `LARGE`, VTCS issues warning messages and `VTVPAGE` defaults to `STANDARD`.
- If you specify `STANDARD` for 2 or 4 GB VTVs VTCS issues warning messages and defaults to `LARGE`.
- Creating VTVs with large pages makes these VTVs unreadable in configurations that do not support large VTV pages.

NLIBDRNR

optionally, specifies how VTCS handles non-library resident MVCs for drain or reclaim processing.

YES

VTCS requests the mount of the non-library MVC. This is the default.

NO

VTCS suppresses the mount and purges the request.

Note the following:

- For reclaim, only library resident MVCs can be selected for processing, never non-library ones. However, between the time a library resident MVC is selected and the time it is actually processed, it may have become non-resident by being ejected.
- For drain, non-library resident MVCs can be selected.

NLIBMIGR

optionally, specifies whether non-library resident MVCs will be selected for Migration processing.

YES

Allow non-library resident MVCs to be selected (default).

NO

Do not allow non-library resident MVCs to be selected.

NLIBRECL

optionally, specifies whether non-library resident MVCs will be selected for Recall processing.

YES

Allow non-library resident MVCs to be selected (default).

NO

Do not allow non-library resident MVCs to be selected.

MVCMNTTO=nn

optionally, specifies the value in minutes when a mount of an MVC will timeout. Valid values are 5 to 30 minutes. The default is 15.

INITMVC

optionally, specifies whether un-initialized MVCs are to be initialized when they are first mounted.

NO

Un-initialized MVCs should not be initialized. This is the default.

YES

Un-initialized MVCs should be initialized.

SYNCHREP

optionally, specifies whether VTV synchronous replication feature is enabled.

NO

Synchronous replication is not enabled (the default).

YES

Synchronous replication is enabled.

Note: SYNCHREP=YES only enables synchronous replication. To actually implement synchronous replication, you must create a Management Class that specifies REPLICat=YES_SYNC For more information, see "[MGMTclas Control Statement](#)" on page 3-212.

MAXRTDS

optionally, specifies the maximum number of RTDs supported.

16

up to 16 RTDs supported.

32

up to 32 RTDs supported.

FASTMIGR

optionally, specifies whether the stacked or streamed migrates feature is enabled for all VTSSs that support this feature.

STREAM

Specifies to use the streaming method for migrations. VTCS monitors responses from the RTD and uses them to decide as to when a VTV has become migrated. Full advantage is made of the buffer within the RTD to improve the throughput when performing migration.

This option also implies the use of the `STACKED` feature.

STACKED

Specifies to use the stacked method for migrations. VTCS maintains a small queue of requests to the VTSS. Advantage is made of the various buffers in the VTSS and RTD to improve the throughput when performing a migration. For backward compatibility, the value `YES` is the equivalent of `STACKED`.

NO

Disable stacked migrates (the default).

FASTMIGR=STREAM or STACKED has the following prerequisites:

- FASTMIGR=STACKED: VSM4/VSM5 microcode D02.05.00.00 or higher. If this level of microcode is not installed on all VTSSs in the configuration, Stacked Migration will be limited to the VTSSs that have it installed.

- FASTMIGR=STREAM: VSM4/VSM5 microcode D02.15.xx.00 or higher. If this level of microcode is not installed on all VTSSs in the configuration, Streamed Migration will be limited to the VTSSs that have it installed.
- ELS 7.0 or higher with PTFs.
- CDS level G or higher.
- FICON ports for FICON RTDs and CLINKs.

For the Stacked Migration feature to be enabled, all hosts must be running the prerequisites, otherwise:

- If a host is active and does not support or tolerate stacked migrates, then the CONFIg utility returns an error.
- If a host is started and does not support or tolerate this feature, then the host shuts down.

LOGPOL

optionally, specifies whether VTCS CDS logging is optional or required.

OPTIONal

Logging is optional. This is the default. This mode is required for configurations that include 7.1, 7.2, and lower level hosts.

REQuired

Logging is enabled for all events on all hosts that share the CDS. This requires all hosts to be at level 7.0 or higher. The following events are logged:

- new version of VTV
- imported VTV
- first use or reuse of an MVC
- imported MVC
- add VTV to MVC
- VTV on an imported MVC
- unlink VTV from MVC
- reclaim VTV from MVC
- reset MVC EOT backward
- electronic export of VTV

MAXVTVSZ

optionally, specifies a default maximum compressed VTV size (MB) that may be used during the creation of VTVs. Valid values for this parameter depend on both the CDS level and the microcode levels of the applicable VTSSs.

400

400MB. This is the default.

800

800MB. The CDS must be at E level or above.

2000

2GB. The CDS must be at G level or above.

4000

4GB. The CDS must be at G level or above.

Note the following:

- The size of a VTV changes only after it goes through a scratch cycle. Therefore, if you change the Management Class and `DISP=MOD`, then it will still retain the original size.
- If you specify a VTV size that is not supported by the configuration, VTCS issues warning messages and `MAXVTVSZ` defaults to the largest VTV size supported by the configuration.
- `MAXVTVSZ` does not apply to VSM2s.
- `MAXVTVSZ(2000)` or `MAXVTVSZ(4000)` requires VSM4 or VSM5 microcode `D02.02.00.00` or VSM3 microcode `N01.00.77.00`. No installed option is required.

The `CONFIg GLOBAL` and `MGMTCLAS MAXVTVSZ` parameters interact as follows:

- If `MAXVTVSZ` is specified on `MGMTCLAS`, this value overrides the `CONFIg GLOBAL MAXVTVSZ` value.
- If `MAXVTVSZ` is not specified on `MGMTCLAS`, the `CONFIg GLOBAL MAXVTVSZ` value, if specified, is used. Otherwise, `MAXVTVSZ` defaults to 400MB.
- If `MAXVTVSZ` is not specified on `MGMTCLAS` or on `CONFIg GLOBAL`, `MAXVTVSZ` defaults to 400MB.

LOCKTOUT=nnn

optionally, specifies the minimum number of minutes that a resource is locked before message `SLS6946E` is issued.

Valid values are 0, or any value between 5 and 240. If 0 is specified, message `SLS6946E` will not be issued when a required resource is locked. If this parameter is not specified, the current default of 10 minutes is retained.

Note: `LOCKTOUT` is only supported at 'F' level CDS (`V61ABOVE`) and above.

FASTRECL

Optionally specifies whether VTCS should perform Early Time to First Byte (ETTFB), also known as concurrent tape recall/mount, for all VTSSs that support the feature. This parameter applies to recalls from RTDs and recalls from VLE.

NO

Disable the ETTFB feature. This is the default.

YES

Enable the ETTFB feature. If you globally enable this feature, you can disable it for individual VTSSs through the `CONFIg VTSS NOERLYMT` parameter. See "[CONFIg VTSS Statement](#)" on page 3-55 for more information.

VDGT256

Optionally, specifies whether greater than 256 VTDs are to be used.

NO

Specifies that only the first 256 VTDs will be used. The first 256 VTDs are on control unit `00 - 0F` of the VTSS with `VDID` address of `x0000 - x0F0F`. `NO` is the default.

YES

Specifies that all configured VTDs in the VTSS can be used. This is only valid if the VTSS supports greater than 256 devices. The feature is globally enabled and applies to all VSMs that support greater than 256 devices. The feature can be disabled for an individual VTSS through the `CONFIG VTSS NOGT256` parameter. See `CONFIG VTSS NOGT256` for more information.

Note: `VTDGT256 (YES)` is only valid with VSM model 6 and above.

CONFIg HOST Statement

The `CONFIg HOST` statement is an optional statement that defines an MSP host and, optionally, the `NOMIGRAT` or `NORECLAM` parameters.

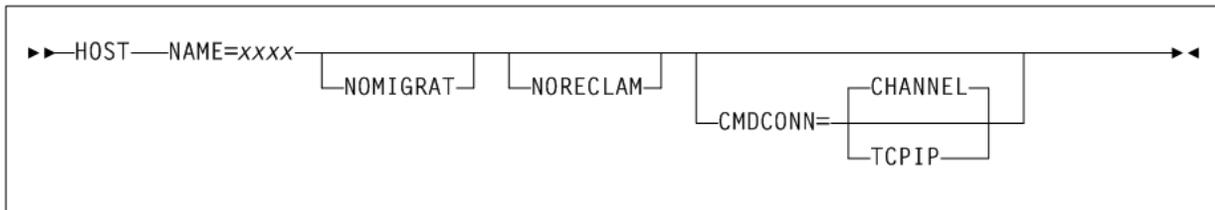
If specified, the `HOST` statement must follow the `VTSS` statement for the VTSS attached to that host.

You must either specify all host definitions or none; if you specify only some hosts attached to a VTSS, VTCS issues an error.

Syntax

Figure 3–18 shows `CONFIg HOST` statement syntax.

Figure 3–18 *CONFIg HOST statement syntax*

**Parameters**

As shown in Figure 3–18, the `CONFIg HOST` statement includes the following parameters:

NAME=xxxx

specifies the LIBGENEd hostname. `xxxx` indicates the host name.

NOMIGRAT

optionally, specifies that this host cannot do migrations, consolidations, or export by VTV or Management Class from the VTSS(s) that the host accesses. `NOMIGRAT` controls both automatic and demand migrations and consolidations. This parameter is optional.

Note the following:

- Specifying `NOMIGRAT` also causes `NORECLAM` to be set.
- `IMMEDmig KEEP` and `IMMEDmig DELETE` are mutually exclusive with `CONFIG HOST NOMIGRAT`. If you specify both, the `IMMEDmig` value overrides `NOMIGRAT`, and VTCS does not issue a message about this override.

NORECLAM

optionally, specifies that this host cannot initiate automatic or demand reclaim processing using the VTSS(s) that the host accesses. The host can still perform MVC drains using `MVCDRAIN`. This parameter is optional.

CMDCONN

optionally, specifies one of the following VTSS access methods:

CHANNEL

indicates ESCON or FICON channel access. This is the default.

TCPIP

indicates TCP/IP access. TCPIP requires a valid CONFIg VTSS `IPCONN=(name-list)` value.

CONFIg MVCVOL Statement

The CONFIg `MVCVOL` statement defines a range of MVCs available to VTCS.

Oracle recommends that you use `SET VOLPARM` to define VTV and MVC ranges in the VTCS CONFIg.

- See "[SET VOLPARM](#)" on page 3-323 for more information about the `SET VOLPARM` statement.
- Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information about the use of the `VTVOL` and `MVCVOL` statements in CONFIg to define volumes.

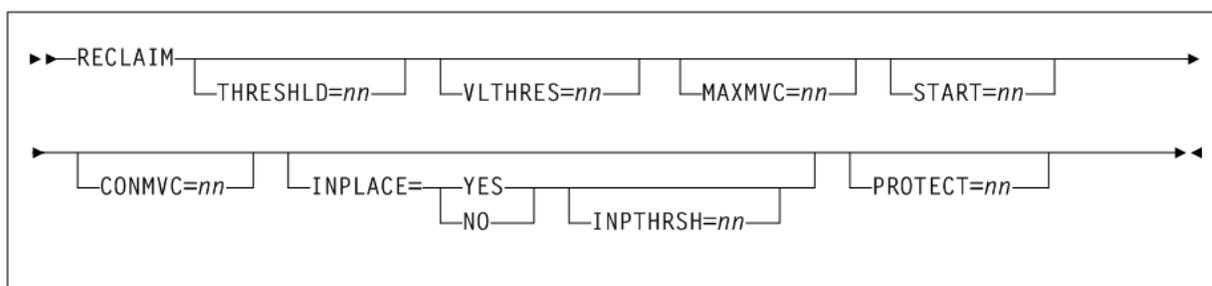
CONFIg RECLAIM Statement

The CONFIg `RECLAIM` statement controls demand and automatic MVC and VMVC space reclamation.

Syntax

Figure 3–19 shows CONFIg `RECLAIM` statement syntax.

Figure 3–19 CONFIg RECLAIM statement syntax

**Parameters**

As shown in Figure 3–19, the CONFIg `RECLAIM` statement includes the following parameters:

THRESHLD=nn

optionally, specifies the percentage of fragmented space (*nn*) that makes an MVC eligible for demand or automatic reclamation. Valid values are 4 to 98. The default is 75.

VLTHRES=nn

optionally, specifies the percentage of fragmented space (*nn*) that makes a Virtual MVC (VMVC) eligible for demand or automatic reclamation. Valid values are 4 to 98. The default is 35.

Note: Reclaim on a VMVC consists of simply deleting the expired VTV images from the VMVC. That is, no recall and re-migrate of the VTV is required. VMVC reclaim is therefore much faster than MVC reclaim, and you can set VLTHRES lower (more aggressive) than THRESHLD.

MAXMVC=nn

optionally, specifies the maximum number of MVCs that will be processed by a single space reclamation task.

nn indicates the maximum number of MVCs. Valid values are 1 to 98. The default is 40.

For automatic space reclamation to start, the number of eligible MVCs (determined by the THRESHLD parameter) must also exceed the MAXMVC value.

START=nn

optionally, specifies the level at which automatic space reclamation starts for each ACS (not globally for all ACSs). Specify a percentage value, which is equal to:

$$\text{Reclaim Candidates} / (\text{Reclaim Candidates} + \text{Free MVCs}) * 100$$

where:

- *Reclaim Candidates* indicates the number of Reclaim Candidates determined by the CONFIG RECLAIM THRESHLD parameter.
- *Reclaim Candidates + Free MVCs* equals the number of Reclaim Candidates plus the number of free MVCs. Valid values are 1 to 98. The default is 35.

CONMVC=nn

optionally, specifies the maximum number of MVCs that VTCS concurrently processes for both drain and reclaim.

Valid values are 1 to 99. The default is 1.

INPLACE

optionally, enables or disables dynamic reclaim support within VTCS. There is no default, though the absence of INPLACE indicates that dynamic reclaim support is not enabled.

YES

Enable dynamic reclaim by formatting and processing all eligible MVCs as partitioned on a global (all storage class) basis.

NO

Disable dynamic reclaim. This option will likely be accompanied by STORCLAS level overrides.

Note the following:

- The CDS must be at H level before INPLACE is accepted, enabling dynamic reclaim support. If INPLACE is specified and the CDS is not at H level, the configuration fails and error messages are displayed.

- Only T10000B media is supported for dynamic reclaim. Sport volumes are not supported in partitioned format.

INPTHRSH=nn

optionally, specifies the percentage of fragmented space that makes an MVC in partitioned format eligible for dynamic reclaim processing.

nn is a percentage between 3 and 97. This value must be less than the `THRESHLD` value. The default is half the `THRESHLD` value (rounded up).

Note the following:

- `INPTHRSH` cannot be specified without `INPLACE`.
- If `INPTHRSH` is specified, `THRESHLD` must also be specified. Both `INPTHRSH` and `THRESHLD` play roles when dynamic reclaim processes MVCs in partitioned format. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.

PROTECT=nn

optionally, specifies the time, in hours, to prevent (or protect) an MVC from being reused after it is drained or reclaimed. Valid values are 1 to 99.

CONFIg RTDpath Statement

The `VTCS CONFIg RTDpath` statement defines the path to one of the following:

- RTDs operating under a local TapePlex. Local RTD connections are defined using the `DEVNO` and `CHANIF` parameters and no `STORMGNR` parameter. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.
- A remote library. Remote library connections are defined through the `DEVNO`, `CHANIF` and `STORMGNR` parameters. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.
- A VLE connected to a VTSS, defined using only the `STORMNGR` and `IPIF` parameters. Refer to Oracle's ELS publication *Configuring the Host Software for VLE* for more information.

Except in tapeless environments, `CONFIg RTDpath` is required and must follow the `VTSS` statement that defines the `VTSS` to which the devices are connected.

The maximum number of each device type you can connect are as follows:

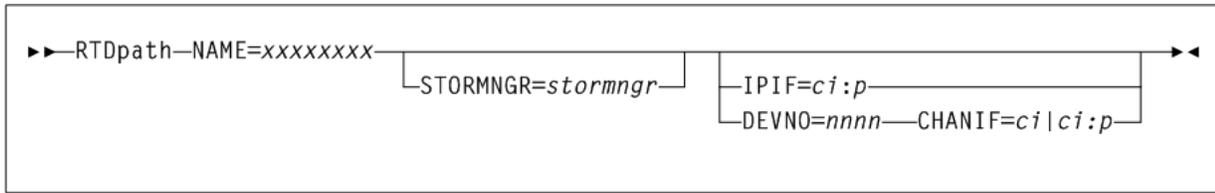
- For a `VSM2` or `VSM3`, 8 RTDs.
- For a `VSM4`, 16 RTDs.
- For a `VSM5` or `VSM6`, 32 RTDs.
- For a `VSM5` or `VSM6`, 4 VLE appliances.

Note: You must specify the `RESET` parameter to change RTD definitions if `VTCS` is running with a `CDS` level lower than `V61ABOVE`. See "CONFIg" on page 3-33 for more information. For an initial RTD definition, if the RTD name displayed at the `VTSS` LOP is anything other than all blanks, you must also specify `RESET`.

Syntax

Figure 3–20 shows `CONFIg RTDpath` statement syntax.

Figure 3–20 CONFig RTDpath statement syntax



Parameters

As shown in Figure 3–20, the CONFig RTDpath statement includes the following parameters:

NAME=xxxxxxx

specifies the 1 to 8 character identifier of the RTD or VLE appliance.

- For RTDs, you set or change the RTD identifier only using the RTD NAME parameter. To do so, the RTD identifier must be all blanks as displayed at the VTSS LOP or DOP.
- For VLEs or remote libraries, use any meaningful 1 to 8 character identifier.

This parameter is required; there is no default value.

STORMNGR=stormngr

specifies one of the following:

- VLE subsystem name
- remote library

stormngr indicates the Storage Manager name:

- For VLEs, this value must match the VLE Subsystem Name.
- For remote libraries, this value must match a TapePlex name defined on the SMC TAPEPLEX NAME parameter.

For more information, refer to Oracle's ELS publication *Configuring the Host Software for VLE*.

IPIF=ci:p

The IPIF value for each VTSS to VLE port connection in *ci:p* format where:

- *c* indicates the VTSS Storage Cluster number (0 or 1).
- *i* indicates the interface number (A or I)
- *p* indicates the device number on the interface (0, 1, 2, or 3).

For a VSM5, this value must match the values specified on the VSM5 IFF Configuration Status Screen. For a VSM 6, this must be unique for each VTSS and does not correspond to an actual value on the VSM 6 TCP/IP ports.

DEVNO=nnnn

specifies the unit address of the RTD or remote library. This parameter is required with CHANIF. There is no default value.

CHANIF=ci or ci:p

specifies the channel interface on the VTSS that communicates with the RTD where:

- *c* indicates the VTSS Storage Cluster number (0 or 1).

- *i* indicates the interface number (A, C, E, G, I, K, M, or O)
- *p* indicates the device number on the interface (0, 1, 2, or 3).

For a VSM5, this CHANIF value must match the actual FICON interface values. For a VSM 6, this must be unique for each VTSS and does not correspond to an actual value on the VSM 6 FICON ports. For remote library connections, this value must be unique for each library and must follow the *ci:p* rules for RTDs.

Regardless of whether the Maximum 32 RTDs feature is enabled, if you do not have greater than 16 RTDs attached to a VTSS, you can use the “old” addressing scheme (CHANIF=*ci*).

If, however, the Maximum 32 RTDs feature is enabled and you have greater than 16 RTDs attached to a VTSS, you must use the “new” addressing scheme (CHANIF=*ci:p*).

Refer to Oracle’s ELS publication *Configuring HSC and VTCS* for more information.

Caution: For RTDs, driving mount and dismount commands to the device is version dependent. If the remote HSC server is running V6.2, then it depends on the local SMC trapping the MSP message and forwarding the mount/dismount across to the HSC server as if it was a job. If the remote HSC server is running V7 or above, then this is automatically detected and VTCS directs a mount/dismount request directly to the remote HSC server. It is important that the SMC parameters only direct commands to servers of one of these types.

CONFIg STORMNGR Statement

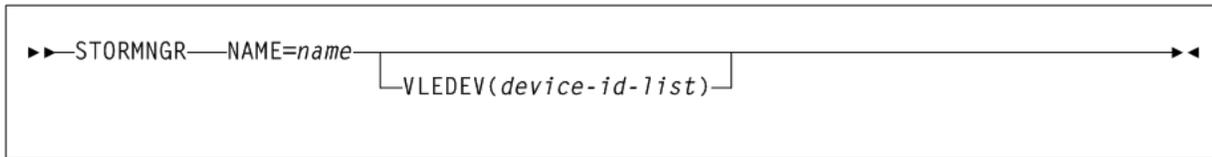
The CONFIg STORMNGR statement defines a VLE to VTCS.

Note:

- Do not specify this statement when down-level hosts are active. Once CONFIg STORMNGR is specified, down-level hosts no longer function.
 - This statement requires CDS level V62ABOVE or higher.
 - This statement is an alternative to the CONFIg TAPEPLEX statement. That is, you can either specify a list of VLEs on CONFIg TAPEPLEX or each VLE individually through CONFIg STORMNGR. If you code CONFIg STORMNGR statements, they must immediately follow the CONFIg TAPEPLEX statement to which the CONFIg STORMNGR statements apply.
 - For VTCS 7.2, you can define additional emulated VLE RTDs with the VLEDEV parameter. For more information, refer to Oracle’s VLE publication *Configuring the Host Software for VLE*.
-
-

Syntax

Figure 3–21 shows CONFIg STORMNGR statement syntax.

Figure 3–21 CONFig STORMNGR statement syntax**Parameters**

As shown in [Figure 3–21](#), the CONFig STORMNGR statement includes the following parameters:

STORMNGR

specifies Subsystem Name of the VLE attached to the preceding TAPEPLEX statement.

NAME=name

the Subsystem name of the VLE, which is set by the VLE installation scripts.

VLEDEV(device-id-list)

optionally, specifies the logical device IDs of a VLE. This parameter requires CONFig CDSLEVEL=V71ABOVE (CDS Level H) and applies to VLE 1.2.

device-id-list is a list or range of device IDs whose format is an 'S' prefix followed by three hexadecimal characters. These IDs are similar to MSP device addresses but do not overlap with the MSP name space. You can specify up to 96 device IDs per VLE, which defines each VLE with 96 emulated devices, which enables VTCS to schedule up to 96 processes on each VLE.

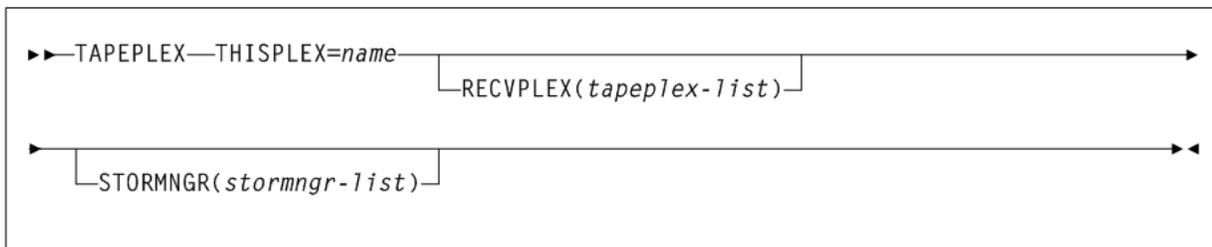
CONFig TAPEPLEX Statement

The CONFig TAPEPLEX statement defines values to VTCS for Cross-TapePlex Replication (CTR) or for replication to a VLE.

- Do not specify this statement when down-level hosts are active. Once CONFig TAPEPLEX is specified, down-level hosts no longer function.
- This statement requires CDS level V61ABOVE or higher.
- Refer to Oracle's ELS publications *Managing HSC and VTCS* and *ELS Disaster Recovery and Offsite Data Management Guide* for more information about Cross-Tape Replication.

Syntax

[Figure 3–22](#) shows CONFig TAPEPLEX statement syntax.

Figure 3–22 CONFig TAPEPLEX statement syntax

Parameters

As shown in [Figure 3–22](#), the `CONFlg TAPEPLEX` statement includes the following parameters:

THISPLEX=name

specifies the TapePlex name for this configuration. This name is associated with any VTV copies that are exported to other TapePlexes through Cross-TapePlex Replication.

name indicates the TapePlex name. This name must match the name specified on an `SMC LIBRARY` or `TAPEPLEX` command defined in the local SMC. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

RECVPLEX(tapeplex-list)

optionally, specifies the list of TapePlexes from which VTV copies can be received (from Cross-TapePlex Replication). Attempts by hosts to send or scratch VTV copies from TapePlexes that are not included on the list are rejected.

tapeplex-list indicates the list of TapePlex names. The following rules apply:

- The value must be between 1 and 8 characters in length.
- The first character must be either an alpha character or digit.
- The last character must be either an alpha character or digit.
- Any character between the first and last must be either an alpha character, digit, or hyphen.

Note: Specify `RECVPLEX` on the receiving TapePlex. You can also specify `RECVPLEX` on the sending TapePlex to allow this TapePlex to recall a VTV from the receiving TapePlex.

STORMNGR(stormngr-list)

optionally, specifies Subsystem Names of the VLEs attached to this TapePlex.

stormngr-list indicates the list of VLE subsystem names. For more information, refer to Oracle's ELS publication *Configuring the Host Software for VLE*.

CONFlg VTD Statement

The `CONFlg VTD` statement defines the MSP unit address range of the VTDs in a VTSS. This statement is required and must follow the `VTSS` statement where the VTDs reside.

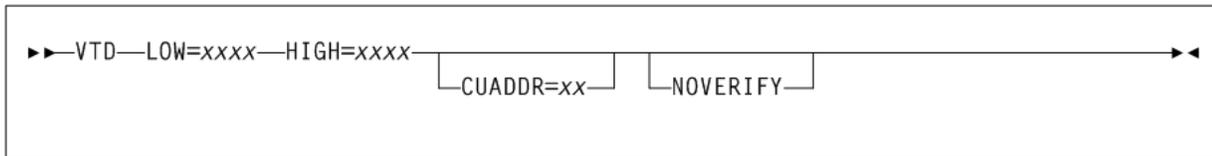
Note: VSM2s and VSM3s provide 64 VTDs per VTSS. VSM4s and later models provide 256 VTDs per VTSS.

You can specify the VTD unit addresses to either apply to all hosts or to define which VTDs are available to specific hosts. See "[Specifying VTD Unit Addresses](#)" on page 3-54 for more information.

Syntax

Figure 3–23 shows CONFIg VTD statement syntax.

Figure 3–23 CONFIg VTD statement syntax



Parameters

As shown in Figure 3–23, the CONFIg VTD statement includes the following parameters:

LOW=xxxx

specifies a four character valid MSP unit address (xxxx) as the start of a range of VTDs.

HIGH=xxxx

specifies a four character valid MSP unit address (xxxx) as the end of a range of VTDs.

CUADDR=xx

optionally, specifies a control unit identifier (xx) that matches its value in the IOCP. Valid values are 0 through 15 for VSM4 and 0 through 3 for VSM2 or VSM3. This statement is required only if a partial VTD range is specified for a host and the host does not have a path to the VTDs.

NOVERIFY

optionally, suppresses VTD verification.

Normally, VTCS attempts verification of all predicted VTD identifiers associated with Virtual Tape Drives. To do this, each MSP I/O address must be available to allow the associated Host to issue the ECAM-T request `Virtual_Device_Identify`. ECAM is the method VTCS uses to communicate with a VTSS when bringing a VTSS online and scheduling replication and migrations.

In specific cases where, for example, VTCS is providing support for a remote client host, the local host, acting as a server for the remote client, may not have paths to the MSP I/O address. In these cases, any attempt at verification of the predicted VTD identifier fails and results in error messages posted to the operator. `NOVERIFY` suppresses verification and prevents these failures.

When `NOVERIFY` is specified for a device or range of devices, the following occurs:

- The device is reported to SMC so that VTVs can be mounted from MSP.
- VTCS does not use that device for ECAM I/O. At least one device must be left without `NOVERIFY` so that it can be used for ECAM I/O.

Specifying VTD Unit Addresses

To specify VTD addresses, do one of the following:

- Specify the VTD unit addresses on a VTD statement following a VTSS statement and do not specify any `HOST` statements following the VTSS statement. All hosts physically connected to the VTSS have access to its VTDs by the default addresses specified on the VTD statement.
- Do not specify the VTD unit addresses on the VTD statement following a VTSS statement. Instead, place a VTD statement after a `HOST` statement for only those

hosts for which you want to define connections to the previously defined VTSS. You must specify a placeholder (`HOST NAME` with no `VTD` parameter) for any hosts that you do not want connected to this VTSS.

The VTVs created and MVCs initially written to from a VTSS are considered to be resources of that VTSS. Therefore, only hosts with access to a VTSS have access to its VTVs and MVCs. In this type of “restricted” access configuration, each host should have a separate VTV scratch pool to ensure that each host has accurate scratch counts. Similarly, free MVCs and MVC reclaim counts are reported on each host for the MVCs associated with the VTSS to which the host is connected.

You can specify different address ranges for each host, although Oracle recommends that you specify the same address ranges for all hosts for consistency of operations. If you specify different address ranges for different hosts, use the `HSC SET DRVHOST` and `SMC DRIVEMAP` statements if you have a client/server configuration. You must include `UNITATTR MODEL (IGNORE)` commands for all overgenned devices (including VTDs) on all MSP hosts.

Caution: In a multi-host, multi-VTSS configuration, you can use this VTD addressing method to deny access to VTSSs to which hosts are physically connected. You must, however, use this method to deny access from hosts that are not physically connected to a VTSS. If you do not deny access, VTCS on a host that does not have physical connections to a VTSS may wait, trying to communicate with the VTSS while VSM operations may be stalled on all other hosts.

CONFlg VTSS Statement

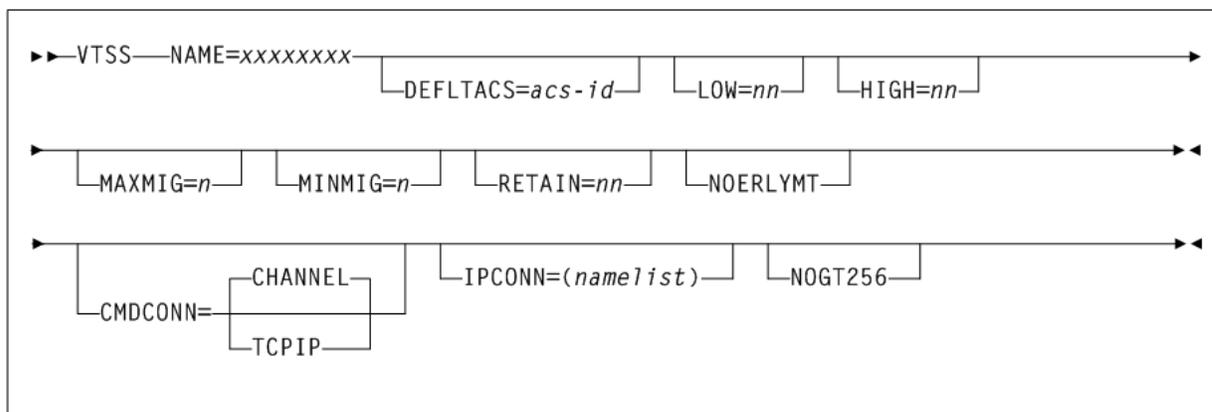
The `CONFlg VTSS` statement defines a VTSS and sets its operating values. This statement is required.

When you define a new VTSS, place its definition after any existing VTSS definitions, which must remain in their original order.

Syntax

Figure 3–128 shows `CONFlg VTSS` statement syntax.

Figure 3–24 *CONFlg VTSS statement syntax*



Parameters

As shown in [Figure 3–24](#), the CONFIg VTSS statement includes the following parameters:

NAME=xxxxxxx

specifies the VTSS name (xxxxxxx). This parameter is required; there is no default value. The VTSS name can consist of the characters "A-Z", "0-9", "@", "\$", and "#".

You specify the VTSS name only through the NAME parameter, which sets the VTSS name in both the VTSS microcode (as displayed in the Subsystem Name field in the LOP or VOP) and in the configuration area of the HSC CDS. After VSM is put into operation, the VTSS name is also stored in each VTV record in the CDS. Each VTV record contains the VTSS name on which that VTV is resident. If the VTV is migrated, the VTV record contains the VTSS name from which the VTV was migrated.

Once you set the VTSS name through the NAME parameter, you cannot change this identifier in the HSC CDS. That is, the CONFIg utility does not allow you to change the NAME parameter after an initial setting and changing the VTSS name using the Subsystem Name field of the LOP or VOP cannot change the VTSS name in the HSC CDS.

Caution: Do not attempt to rename a VTSS that contains data on VTVs, which includes VTSS-resident VTVs and migrated VTVs.

For an initial setting only (not a change), you can set the VTSS name in the NAME parameter only if the VTSS name value in the VTSS microcode is one of the following:

- The factory setting (all blanks).
- A value of 99999999 (eight 9s).

Therefore, for an initial setting only, if the name in the VTSS microcode is not all blanks or 99999999, your Oracle StorageTek hardware representative must use the VTSS LOP or VOP to set the VTSS name to 99999999. This enables you to set the VTSS name to the value you want through the NAME parameter.

DEFLTACS=acs-id

optionally, VTCS supports multi-VTSS confirmations, and supports connecting multiple ACSs to each VTSS. In configurations where a VTSS is connected to multiple ACSs, use the DEFLTACS parameter to specify the default ACS (*acs-id*) from which MVCs will be selected for migration, consolidation, and reclaim processing. You can migrate up to 4 VTV copies to separate ACSs (per MGMTclas statement) from the MGMTclas MIGpol parameter (and ignores the DEFLTACS parameter, as described below).

If you do not specify DEFLTACS, the default value is `x'FF'`, which enables VTCS to select MVCs from any ACS.

VTCS ignores the DEFLTACS value if you specify the DEFLTACS parameter and do either of the following:

- Specify the ACSlist parameter of the MGMTclas statement.
- Use a Storage Class.

LOW=nn

optionally, specifies the low automatic migration threshold (LAMT) for this VTSS. *nn* indicates the threshold value.

Valid values are 5 to 95 and must be less than the HIGH default threshold. The default is 70.

HIGH=nn

optionally, specifies the high automatic migration threshold (HAMT) for this VTSS. *nn* indicates the threshold value.

Valid values are 6 to 95 and must be greater than the LOW default threshold. The default is 80.

MAXMIG=n

optionally, specifies the maximum number of concurrent automatic migration, immediate migration, and migrate-to-threshold tasks for this VTSS.

n indicates the number of tasks. Valid values are 1 to the number of RTDs attached to the VTSS. The default is half the number of RTDs attached to the VTSS.

MINMIG=n

optionally, specifies the minimum number of concurrent automatic migration, immediate migration, and migrate-to-threshold tasks for this VTSS.

n indicates the number of tasks. Valid values are 1 to the MAXMIG setting. The default is 1 task.

RETAIN=nn

optionally, specifies the number of minutes that VTCS retains an MVC on an RTD in idle mode after a migration or recall. Retaining the MVC can reduce MVC mounts.

nn indicates the number of minutes. Valid values are 1 to 60. The default is 15.

An MVC on an idle RTD is not dismounted until the RETAIN time has elapsed, unless the RTD in question is required, and no other 'like RTDs' (same ACS, LSM, and device type) are free.

An exception to this behavior occurs when the last operation on the RTD was a job-initiated recall or an 'MVC is full' condition has occurred. In this case, the MVC is dismounted from the idle MVC when VTCS has determined that, although the RTD is not currently needed, there are no other 'like' RTDs free.

NOERLYMT

optionally, disables Early Time to First Byte (ETTFB), also known as the concurrent tape recall/mount feature, for this VTSS. This parameter only applies if CONFig GLOBAL FASTRECL=YES. This parameter applies to recalls from RTDs and recalls from VLE.

CMDCONN

optionally, specifies the VTSS access method:

CHANNEL

indicates ESCON or FICON channel access. This is the default.

TCPIP

indicates TCP/IP access. This requires a valid CONFig VTSS IPCONN=(*name-list*) value.

IPCONN=(name-list)

optionally, specifies a comma-separated list of one to four IP addresses, either explicitly as IP addresses or implicitly by names that resolve to IP addresses, used to define TCP/IP connections.

name-list indicates the list of IP addresses or names. Values entered in the list cannot be verified until a VTCS system is initialized to use them. They must meet the following requirements:

- Any IPv4 values must be specified in format *nnn.nnn.nnn.nnn*, where each byte is one to four hexadecimal characters. There must be four bytes, numeric only except for the decimal points.
- Any IPv6 values must be specified in format *x.x.x.x.x.x.x.x*, where each byte is 0-255. There must be four bytes: 0-9, A-F (or a-f). IPv6 abbreviations are not allowed. The full eight part address must be specified.
- If names are specified, they can be a maximum of 60 characters. A name can be any valid DNSname containing only the characters A-Z, a-z, 0-9, '-', or ' '.

NOGT256

optionally, disables greater than 256 VTD support for this VTSS. This parameter only applies if `CONFIG GLOBAL VTDGT256=YES` is specified.

CONFIg VTVVOL Statement

The `CONFIg VTVVOL` statement defines a range of VTVs.

Oracle recommends using `SET VOLPARM` to define VTV and MVC ranges in the VTCS `CONFIg`.

- See "[SET VOLPARM](#)" on page 3-323 for more information about the `SET VOLPARM` statement.
- Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information about the use of the `VTVVOL` and `MVCVOL` statements in `CONFIg` to define volumes.

CONSolid

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

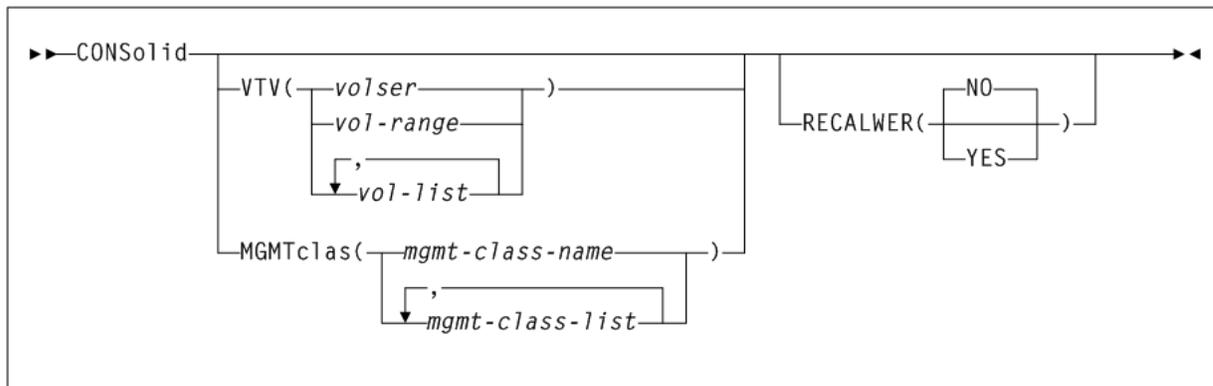
Description

The `CONSolid` command consolidates VTVs on MVCs.

Syntax

[Figure 3–25](#) shows `CONSolid` command syntax.

Figure 3–25 CONSolid command syntax



Parameters

As shown in Figure 3–25, the CONSolid command includes the following parameters:

VTV(volser, vol-range, or vol-list)

optionally, specifies one or more VTVs to consolidate.

volser, *vol-range*, or *vol-list* indicates the volser, volser range, or volser list of VTVs. You can specify a maximum of 2,000 VTVs.

MGMTclas(mgmtclas-name or mgmtclas-list)

optionally, specifies the names of one or more Management Classes that determine the VTVs to consolidate.

mgmt-class-name or *mgmt-class-list* indicates the names of one or more Management Classes that you defined on the MGMTclas control statement; for more information, see "MGMTclas Control Statement" on page 3-212. You can consolidate a maximum of 2,000 VTVs by specifying a Management Class.

RECALWER

optionally, specifies whether VTCS recalls VTVs with read data checks.

NO

Do not recall VTVs with read data checks. This is the default.

YES

Recall VTVs with read data checks.

CONSolid Report Messages

The consolidation report displays the following messages:

```
MIGRATE ONLY FROM VTSS vtssname
```

Explanation: The VTV is resident on VTSS *vtssname*.

```
REMIGRATE FROM MVC mvcname VIA VTSS vtssname
```

Explanation: VTCS is recalling a VTV from MVC *mvcname* to consolidate the VTV

```
VTV vtvname NOT SELECTED; VTV IS SCRATCH
```

Explanation: VTCS will not consolidate the specified VTV, which is either scratch or not initialized.

VTV *vtvname* NOT SELECTED; VTV ALREADY CONSOLIDATED

Explanation: The specified VTV is already consolidated.

VTV *vtvname* NOT SELECTED; VTV RECORD NOT FOUND

Explanation: VTCS will not consolidate the specified VTV, which has no record in the CDS.

VTV *vtvname* NOT SELECTED; VTV STILL MOUNTED ON DRIVE

Explanation: VTCS cannot consolidate the specified VTV, which is mounted or in recovery.

REDRIVING REQUEST BECAUSE OF ERROR

Explanation: VTCS is retrying an unsuccessful consolidation request.

CONSOLID CMD PROBLEM DECODING VCI REQUEST FROM HSC

Explanation: The consolidation failed.

VTV *vtvnumber* NOT SELECTED: LIMITED ACCESS TO VTSS

Explanation: The consolidation request failed because a host not enabled for consolidation (through the NOMIGRAT parameter) issued the request.

MIGRATE NO MVCS AVAILABLE

Explanation: Sufficient free MVCs are not available to complete the request.

DBSERVer

Interfaces:

- Console or Utility only
- UUI Support: No

Subsystem Requirements:

Active HSC required. VTCS must not be active.

Description

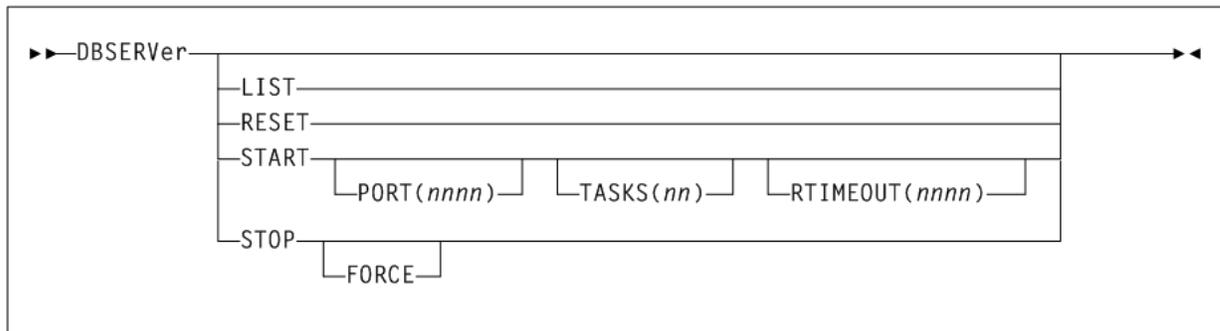
The DBSERVer command starts or stops the oVTCS CDS database server. The oVTCS CDS database server services CDS database I/O requests from an oVTCS client.

Note: You can only start an oVTCS CDS database server in an HSC subsystem with no executing VTCS component.

Syntax

Figure 3–26 shows DBSERVER command syntax.

Figure 3–26 DBSERVER command syntax



Parameters

As shown in Figure 3–26, the DBSERVER command includes the following parameters:

LIST

optionally, list the settings and status of the oVTCS CDS database server.

RESET

optionally, force a reset of the oVTCS CDS database server which closes the accepted socket, clear any pending work, and listen again for the oVTCS client to re-connect.

START

optionally, start the oVTCS CDS database server.

PORT(nnnn)

optionally, specifies the socket listener port.

nnnn indicates the port. If you do not specify PORT(nnnn), the default is 8081.

TASKS(nn)

optionally, specifies the maximum number of tasks for asynchronous CDS reads.

nn indicates the maximum number of tasks. Allowable values are 1-10. If you do not specify TASKS(*nn*), the default is 4.

RTIMEOUT(nnnn)

optionally, specifies the reserve timeout.

nnnn indicates the timeout in seconds. Allowable values are 1-3600. If you do not specify RTIMEOUT(*nnnn*), the default is 180.

STOP

optionally, stop the oVTCS CDS database server.

FORCE

optionally, force termination even when the oVTCS CDS database server has not terminated successfully.

DEComp

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

Description

The DEComp command lists the VSM configuration information in the HSC CDS.

Syntax

Figure 3–130 shows DEComp command syntax.

Figure 3–27 DEComp command syntax



Parameters

As shown in Figure 3–27, the DEComp command includes the following parameters:

FLATdd(ddname)

optionally, specifies the output destination dd name if a flat file is required. *ddname* indicates the dd name of the flat file included in the JCL.

LISTDELR

optionally, list volser ranges of “logically deleted” MVCs and VTVs.

Note: LISTDELR is only valid for a CDS at level G or above.

Output

The following examples show sample output for the DEComp command.

FLATDD Parameter Output

Example 3–4 shows an example of DEComp output with the FLATDD parameter.

Example 3–4 DEComp FLATDD output

```

CONFIG CDSLEVEL(V62ABOVE)
GLOBALMAXVTV=32000 MVCFREE=40 VTVattr=ALLmount RECALWER=YES
REPLICat=ALWAYS LOCKSTR=STK_VTCS_LOCKS
RECLAIMTHRESHLD=70 MAXMVC=40 START=35 COMMVC=1 VLTHRES=1 +
INPLACE=Yes INPTHRSH=15
VTVVOL LOW=905000 HIGH=999999 SCRATCH
  
```

```

VTVVOL LOW=C00000 HIGH=C25000 SCRATCH
VTVVOL LOW=RMM000 HIGH=RMM020 SCRATCH
MVCVOL LOW=N25980 HIGH=N25989
MVCVOL LOW=N35000 HIGH=N35999
VTSSNAME=VTSS1  LOW=70 HIGH=80  MAXMIG=3  RETAIN=5
    RTDNAME=VTS18800 DEVNO=8800 CHANIF=0A
    RTDNAME=VTS18801 DEVNO=8801 CHANIF=0I
    RTDNAME=VTS18802 DEVNO=8802 CHANIF=1A
    RTDNAME=VTS18803 DEVNO=8803 CHANIF=1I
    VTDLOW=8900 HIGH=893F
VTSSNAME=VTSS2  LOW=70 HIGH=80  MAXMIG=3  RETAIN=5
    RTDNAME=VTS28804 DEVNO=8804 CHANIF=0A
    RTDNAME=VTS28805 DEVNO=8805 CHANIF=0I
    RTDNAME=VTS28806 DEVNO=8806 CHANIF=1A
    RTDNAME=VTS28807 DEVNO=8807 CHANIF=1I
    VTDLOW=9900 HIGH=993F

```

SLSPRINT Output

Example 3–5 shows an example of DEComp output to SLSPRINT.

Example 3–5 DEComp SLSPRINT output

```

DECOM
SLS1315I SSRDMP.P775644.TESTCDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET
TIME 09:07:06 VTCS DECOMPILE
CONFIG CDSLEVEL(V62ABOVE)
GLOBALMAXVTV=32000 MVCFREE=40 VTVattr=ALLmount RECALWER=YES
REPLicat=ALWAYS LOCKSTR=STK_VTCS_LOCKS
RECLAIMTHRESHLD=70 MAXMVC=40 START=35 CONMVC=1 VLTHRES=1 +
INPLACE=Yes INPTHRSH=15
VTVVOL LOW=905000 HIGH=999999 SCRATCH
VTVVOL LOW=C00000 HIGH=C25000 SCRATCH
VTVVOL LOW=RMM000 HIGH=RMM020 SCRATCH
MVCVOL LOW=N25980 HIGH=N25989
MVCVOL LOW=N35000 HIGH=N35999
VTSSNAME=VTSS1  LOW=70 HIGH=80  MAXMIG=3  RETAIN=5
    RTDNAME=VTS18800 DEVNO=8800 CHANIF=0A
    RTDNAME=VTS18801 DEVNO=8801 CHANIF=0I
    RTDNAME=VTS18802 DEVNO=8802 CHANIF=1A
    RTDNAME=VTS18803 DEVNO=8803 CHANIF=1I
    VTDLOW=8900 HIGH=893F
VTSSNAME=VTSS2  LOW=70 HIGH=80  MAXMIG=3  RETAIN=5
    RTDNAME=VTS28804 DEVNO=8804 CHANIF=0A
    RTDNAME=VTS28805 DEVNO=8805 CHANIF=0I
    RTDNAME=VTS28806 DEVNO=8806 CHANIF=1A
    RTDNAME=VTS28807 DEVNO=8807 CHANIF=1I
    VTDLOW=9900 HIGH=993F

```

DELETSCR

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

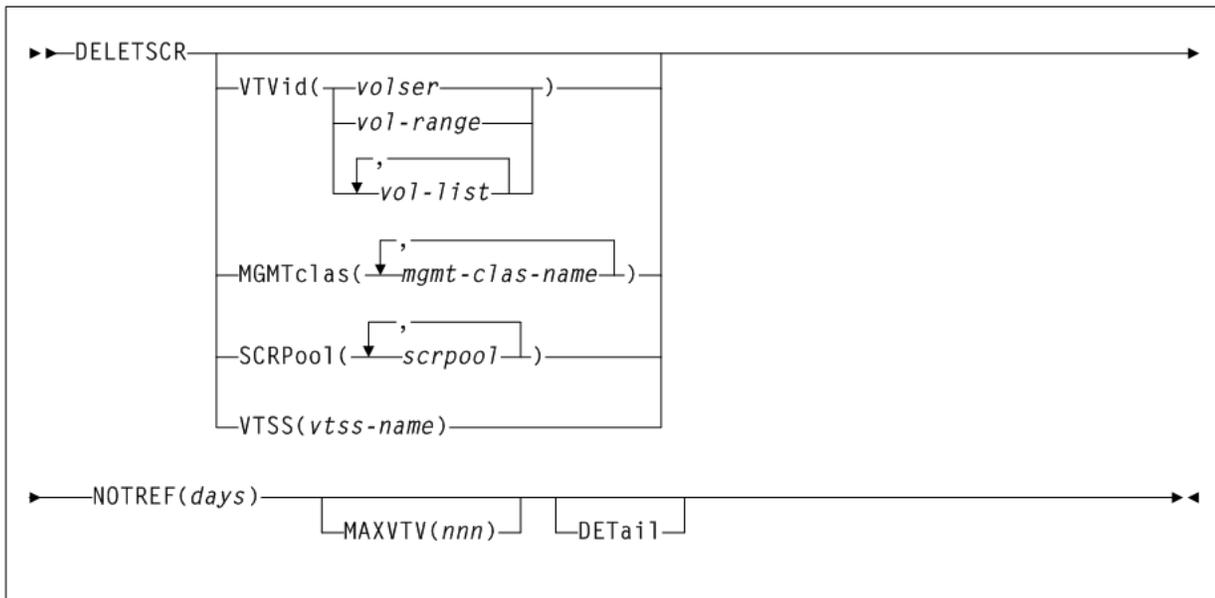
Description

The DELETSCR command deletes scratch VTVs from VTSSs and unlinks any migrated VTVs from MVCs.

Syntax

Figure 3–28 shows DELETSCR command syntax.

Figure 3–28 DELETSCR command syntax



Parameters

As shown in Figure 3–28, the DELETSCR command includes the following parameters:

VTVID(volser, vol-range, or vol-list)

optionally, specifies one or more VTVs to be deleted.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs.

MGMTclas(mgmtclas-name)

optionally, specifies the Management Class(es) of the VTVs.

mgmt-class-name indicates the Management Class name that you specified on the MGMTclas control statement.

SCRPOOL(scrpool)

optionally, specifies the scratch pool(s) to be deleted. If the pool contains VTVs and real volumes, DELETSCR deletes only VTVs.

scrpool is an existing HSC scratch pool.

VTSS(vtss-name)

optionally, causes scratch VTVs within the specified VTSS to be deleted.

vtss-name indicates the VTSS name.

Note: VTVID, MGMTCLAS, SCRPOOL, and VTSS are mutually exclusive. If you do not specify one of these parameters, VTCS processes all scratch VTVs.

NOTREF(days)

specifies the number of days since a VTV was last referenced for it to be deleted by DELETSCR.

days indicates the number of days (1-999).

MAXVTV(nnn)

optionally, specifies the maximum number of VTVs that DELETSCR deletes. This is a maximum, not a target.

nnn indicates the maximum number of VTVs (0-999). If not specified, DELETSCR deletes all scratch VTVs. If you specify 0, DELETSCR does not delete any VTVs, but the summary report shows how many VTVs would have been deleted...at the point at which you ran DELETSCR (that is, the report is just a snapshot).

DEtail

optionally, produce a detailed report that also shows detail and summary of VTVs that fall within the NOTREF period.

DELETSCR Report

[Example 3-6](#) is an example of a DELETSCR report for the following batch invocation:

```
DELETSCR MGMTCLAS(MC1) NOTREF(60) MAXVTV(10) DET
```

Example 3-6 DELETSCR report

```
SLUADMIN (7.2.0)      StorageTek Enterprise Library Software Utility      PAGE 0001
TIME 06:32:03        SCRATCH VTV DELETE                                  DATE 2015-03-31
```

```
SLS6833I VTV VTV100 deleted from MVC M00001
SLS6835I VTV VTV101 excluded - referenced within 60 days
SLS6833I VTV VTV102 deleted from MVC M00003
SLS6835I VTV VTV103 excluded - referenced within 60 days
SLS6835I VTV VTV104 excluded - referenced within 60 days
SLS6833I VTV VTV105 deleted from MVC M00007
SLS6833I  VTV VTV106 deleted from MVC M00157
SLS6834I VTV VTV107 deleted
SLS6833I VTV VTV108 deleted from MVC M00072
SLS6833I VTV VTV110 deleted from MVC M00757
SLS6833I VTV VTV111 deleted from MVC M00767
SLS6833I VTV VTV112 deleted from MVC M01057
SLS6834I VTV VTV113 deleted
```

SUMMARY:

```
10 scratch VTVs deleted
1 VTV EXCLUDED - NOT SCRATCH VOLUME
0 VTVS EXCLUDED - NOT INITIALIZED
3 SCRATCH VTVS EXCLUDED - REFERENCED WITHIN 60 DAYS
6 scratch VTV delete candidates bypassed after MAXVTV limit 10 reached
```

A DELETSCR report shows the following:

- A line for each deleted VTV

- If DETail is specified, a line for each VTV excluded (did not fall within the NOTREF period).
- A summary showing:
 - Total VTVs deleted.
 - Total VTVs excluded - not scratch.
 - Total VTVs excluded - not initialized.
 - Total VTVs excluded - not resident or migrated.
 - Total VTVs excluded - referenced within the NOTREF period.
 - Total VTVs excluded - MAXVTV limit has been reached.
 - Total VTVs excluded - not in the specified Management Class.

DIRBLD

Interfaces:

- Utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The DIRBLD command rebuilds the database directory for all defined CDS copies.

The control data set contains a directory of pointers to various important locations and if damaged, can cause operational problems. Normally, HSC corrects such errors automatically. The DIRBLD utility repairs a corrupted CDS database directory. This utility can be run while the HSC is stopped or running to repair damage to the directory and maintain continuous operation. It must be run using all CDS copies as input.

Caution: Contact Oracle StorageTek Support before running the DIRBLD utility to insure that the CDS is not further damaged by inappropriate use or inappropriate operational conditions.

Syntax

Figure 3–29 shows DIRBLD command syntax.

Figure 3–29 DIRBLD command syntax



Parameters

None.

DISMount

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The DISMount command dismounts a cartridge or VTV.

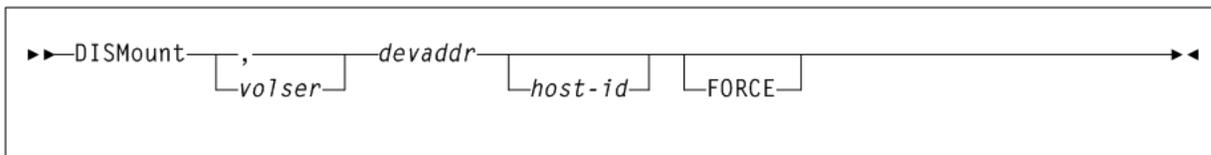
Although the volume may be rewound and unloaded by the operating system, it may not be dismounted from the real drive or VTD. This command is provided for instances where hosts are not communicating with a specific ACS (disconnected mode).

Hosts that are still communicating (connected mode) may be able to semi-automate tape handling for hosts that cannot communicate with a specific ACS. When HSC or VTCS does not dismount a volume, you must ensure that the volume is unloaded before you issue the DISMount command.

Syntax

Figure 3–30 shows DISMount command syntax.

Figure 3–30 DISMount command syntax



Parameters

As shown in Figure 3–30, the DISMount command includes the following parameters:

volser

optionally, specifies which volume to dismount. The *volser* operand is optional. If it is not specified, the robot dismounts whatever volume is mounted on the device.

If *volser* is not specified, a comma must be entered immediately before the device address to indicate the missing operand. For example:

```
DISMOUNT ,B00
```

devaddr

specifies the device address of the transport from which the volume is to be dismounted.

host-id

optionally, indicates that the DISMount command is to be performed for the device address of the specified host (the SMF system identifier for JES).

FORCE

optionally, specifies that the drive will be unloaded before the volume is dismounted. This parameter is not valid for virtual drives.

Display

The Display command displays status and current settings for various ELS components.

Issue this command with any of the options listed in the following table. Each option is described individually, and in more detail, on the pages to follow.

Table 3–1 Display Options

Option	Description
Acs	status for one or more ACSs.
ACTive	active VTCS processes
ALl	CDS and ACS status
ALLOC	HSC allocation settings
Cap	CAP settings and status
CDS	status of all copies of the CDS, some operational settings (for example, the cleaning cartridge prefix, SMF record type, and so on.), and the status of all HSC-defined hosts
CLink	cluster link status
CLUster	cluster status
CMD	detailed information for an ELS command
COMPath	current settings for HSC host-to-host communications
CONFIG	CONFIG parameter settings
DRives	current and queued mount activity for each transport address
DRIVE_INFO	status information for real or virtual drives
EXceptns	hardware status
LINKSto	replication link and CLINK status information
LMUPDEF	information about the definition data set, containing LMUPATH statements, that is currently loaded
LOCKS	VTCS lock status
Lsm	LSM status
Message	detailed information for an ELS message
MGMTDEF	information about active MGMTclas statements
MIGrate	migration status
MNTD	current settings for HSC mount options set by the MNTD command
MONitor	list of monitoring consoles. Refer to Oracle's ELS publication <i>ELS Legacy Interfaces Reference</i> for more information about this option.
MVC	information about a specific MVC

Table 3–1 (Cont.) Display Options

Option	Description
MVCDEF	information about active MVCPool statements. Refer to Oracle's ELS publication <i>ELS Legacy Interfaces Reference</i> for more information about this option.
MVCPool	information about a specific MVC pool
OPTion	current settings for general HSC options set by the OPTion command
PATH	status of paths from VTSSs to either RTDs or Virtual Libraries.
Queue	status of queued VTCS processes
REPLicat	VTV replication status
Requests	all pending LMU requests
RTD	usage information for the one or more RTDs
SCRatch	scratch counts by subpool name, ACS id, LSM id, media type, recording technique, or owning host name
SCRPDEF	information about the definition data set, containing SCRPOol statements, that is currently loaded. Refer to Oracle's ELS publication <i>ELS Legacy Interfaces Reference</i> for more information about this option.
SEN	SEN LISTEN requests and their status.
SERVER	Server (HSC) status, including service level and features
SRVlev	current service level of the HSC on the system from which you issue the command
Status	status of pending requests currently active on the host issuing the command
STORCLas	information about a Storage Class
STORMNgr	status of an external storage manager and the paths defined to it from the VTSSs.
TASKs	task status
THReshld	scratch count and scratch threshold information by subpool name, ACS id, LSM id, media name, and recording technique name
VOLDEF	information about the definition data set, containing VOLATTR statements, that is currently loaded. Refer to Oracle's ELS publication <i>ELS Legacy Interfaces Reference</i> for more information about this option.
Volser	volume information
VOLume_Info	status information for real or virtual volumes
VSCRatch	diagnostic information for virtual scratch counts
VTD	VTD status
VTSS	VTSS status
VTV	VTV status

Display ACS

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

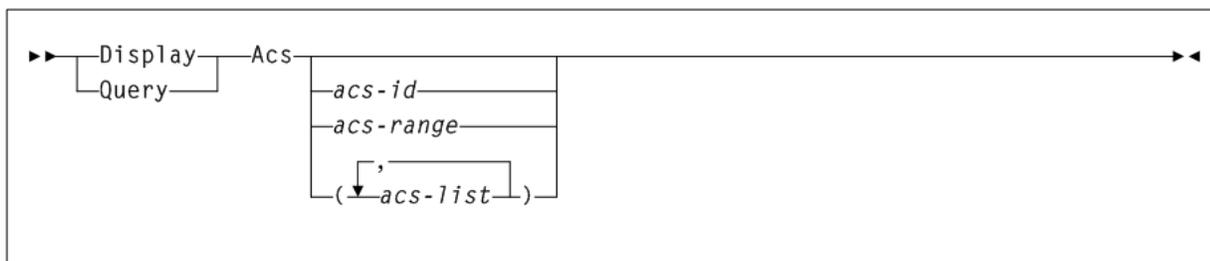
The `Display Acs` command displays the status of one or more ACSs. Information may include the following:

- partition ID
- LMU and HSC compatibility levels
- redundant electronics connections (summary of all Library Controllers)
- available scratch volumes and free cells

Syntax

Figure 3–31 shows `Display ACS` command syntax.

Figure 3–31 *Display Acs command syntax*



Parameters

As shown in Figure 3–31, the `Display Acs` command includes the following parameters:

acs-id, acs-range, or acs-list

one or more ACSs for which the system is to display status. Each *acs-list* element can be either a single ACSid or an ACSid range. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

If you do not supply an *acs-id*, the status of all defined ACSs in the library is displayed.

Output

The following is an example of the output produced by the `Display Acs` command:

Example 3–7 *Display ACS output*

```

SLS0000I D ACS
SLS1969I User exit 15 module SLSUX15 INACTIVE
SLS1000I ACS 00 status: Connected
Active Queue elements          1
Partition ID=005
Compatibility levels: HSC=23, LMU=23
Redundant Electronics is Configured
  
```

```

Scratch Volumes available.....      0
Free Cells available.....           20
SLS1000I ACS 01 status: Disconnect

ACS slots available for COMPLEX      7

```

Display ACTIVE

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

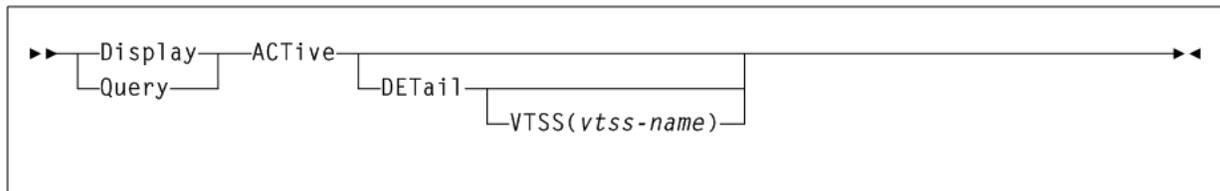
Description

The `Display ACTIVE` command displays active VTCS processes.

Syntax

Figure 3-32 shows `Display ACTIVE` command syntax.

Figure 3-32 *Display ACTIVE command syntax*



Parameters

As shown in Figure 3-32, the `Display ACTIVE` command includes the following parameters:

DETAil

optionally, display detailed status.

VTSS

optionally, display processes for the specified VTSS.

vtss-name indicates the VTSS name.

Output

The following is an example of the output produced by the `Display Active` command (with no detail):

Example 3-8 *Display ACTIVE output (no detail)*

```
MIGRATES=3 RECALLS=2 RECLAIMS=0
```

The following is an example of the output produced by the `Display Active DETail` command:

Example 3–9 Display Active DETail output

Function	ID	VTV	MVC	RTD	VTSS	Task	Reason
Reclaim@	62180	-	-	-	-	RCM	Child Finish
.ReclmMVC	62251	-	V10191	-	-	RCM	Child Finish
. VtvMover	62254	-	V10191	-	-	RCM	Child Finish
. Migrate	02003	-	-	-	TVSM22N1	Drv	MVC for command
. Migrate	02090	-	-	-	TVSM22N1	Drv	MVC for command
. Migrate	02148	-	-	-	TVSM22N1	Drv	MVC for command
. Migrate	02163	-	-	-	TVSM22N1	Drv	MVC for command
. Migrate	02184	-	-	-	TVSM22N1	Drv	MVC for command
. Migrate	02229	-	-	-	TVSM20N1	Drv	MVC for command
. Migrate	02242	-	-	-	TVSM20N1	Drv	MVC for command
Display@	02277	-	-	-	-	DSP	

Note: *ABORT appears in the display of reclaim requests if the request has cancelled or abended.

Fields

The **Function** column shows the hierarchy of requests by indenting. The **VTSS** column shows either a VTSS name or a VTSS list. The **Task** column shows which task is currently servicing the request (same information as reported in `Display Tasks`).

Depending upon the parameters supplied, the output may contain only requests for a specific VTSS, be just the requests in a queued state, be just requests in an active state or be all requests. As shown in the example, the **VTV** and **MVC** columns are also used to expose additional information about the nature and status of the request.

Function

The type of request. The hierarchy of the requests and their relationship is implied by the indentation of the values in this column. A period (.) before the **Function** indicates that the **Function** is a child.

Function can take on one of the following values:

AllocSCR

Job allocation request for a scratch VTV.

AllocVTV

Job allocation request for a specific VTV.

Audit#

Audit utility request.

Cancel@

Cancel command.

Consold#

Consolidate or export utility task.

Consolid

Recall VTVs for remigration to a consolidation MVC. This will appear as a child request to an `Int_cons` or `Consold#` request.

DELETSCR

Delete scratch utility.

Dismount

Dismount a VTV from a VTD.

Display@

Display or Query command.

Drain

Recall VTVs from MVC for remigration during drain or reclaim processing. This is a child of a `VtvMover` request.

Drain@

Drain command or utility.

DrainMVC

There is one `DrainMVC` request per MVC being drained. `DrainMVC`, which is a child request of a `Drain@` request, is responsible for managing the entire drain process for a single MVC. The `VTV` column is used to indicate the status of the processing against the MVC.

Getconfig

Get configuration information.

Getmgpol

Obtain current management and storage class definitions.

HSCChnge

Notification of parameter files being changed.

Import#

Importing of VTV or MVC by a utility.

Int_cons

PGMI initiated consolidate request.

Inventry

INVENTORY utility.

MEDVERfy

Media Verify parent task

Mig_set@

Set migration threshold command

Mig_thr@

Migrate to threshold command.

Migrate

General request to perform the migrations of VTVs to a MVC. This may appear as a child to several other request types.

Migrate@

`Migrate` command or utility. This includes migrates to threshold and auto migrates. The latter two are signified in further detail in the `VTV` and `MVC` columns, with regard to the source of the command and the target threshold.

Mount

Mount a VTV upon a VTD. Depending upon `Move MVC`, which is a child request of a `MoveVTV#` request, is responsible for managing the entire VTV movement process

for a single MVC. Depending upon circumstances, this may be subsequently seen as a VTV transfer or recall request. The **VTV** column is used to indicate the status of the processing against the MVC.

Move MVC

There is one Move MVC request per MVC being processed by reconcile or archive. `Move MVC`, which is a child request of a `MoveVTV#` request, is responsible for managing the entire VTV movement process for a single MVC. The **VTV** column is used to indicate the status of the processing against the MVC.

MoveVTV#

This is a request from the `ARCHIVE` or `RECONCILE` utility commands to move copies of VTVs between MVCs. The **value -TIME- in the VTV** column indicates that the `ELAPSED` parameter was specified.

MVC_chek

Query MVC. Check status of MVC.

MVC_eot

Reset the end of tape position of an MVC after completing a drain or reclaim. This is a child of either a `DrainMVC`, `ReclmMVC` or `Move MVC` request.

MVC_inv

Audit of an MVC. This will appear as a child request to an `Audit#` request.

MVC_upd

Reset or update MVC status.

MvcMaint

`MVCMAINT` utility request.

MVCpool#

Obtain details and status of MVC pools for a utility.

PGMI_req

A request received through the PGMI interface that has yet to be decoded.

QRY/SET@

Query or Set command.

Query@

Query or Display command.

Recall

General request to perform the recall of VTVs from an MVC. This may include a Cross TapePlex Autorecall (CTA) request from the mounting system.

Recall may appear as a child to several other request types.

Recall@

Recall command or utility.

Reclaim@

Auto reclaim request or a Reclaim command or utility. The **value -TIME- in the VTV** column indicates that the `ELAPSED` parameter was specified.

ReclmMVC

There is one ReclmMVC request per MVC being reclaimed. ReclmMVC, which is a child request of a Reclaim@ request, is responsible for managing the entire reclaim process for a single MVC. The VTV column is used to indicate the status of the processing against the MVC.

Reconcil

Perform a crosscheck between the contents of the two VTSSs in a cluster.

Replicat

Perform the replication of VTVs between VTSSs in a cluster.

Scratch

A Scratch a VTV request from HSC.

Sel_scr

PGMI select scratch.

Set@

Set command.

Trace@

Trace command

Transfer

Mount a VTV upon a VTD by transferring the VTV between two VTSSs.

Unload

Unload MVC from RTD.

Unscratch

An Unscratch a VTV request from HSC.

Vary@

A Vary command. This command applies to resources such as CLINKs, VTSSs and ACSs.

Vary_dev

Perform Vary processing against an individual RTD or CLINK. This will appear as a child request to a VARY@ request.

VTSS_inv

Audit of a VTSS. This will appear as a child request to an Audit# request.

VTSS_list

Obtain a list of VTV resident within a VTSS. This will appear as a child request to a Reconcil or auto migration request.

VTV_chek

Query VTV.

VTV_list

Obtain a list of VTV resident within a VTSS. This will appear as a child request to a Reconcil or auto migration request. This Function can show an invalid VTV ID of VTS0B, VTS0C or VTS0D and maybe other similar ones. It also shows a VTSS ID and a task of SS. Invalid VTV IDs may occur because VTCS sometimes uses the fields that hold VTV/MVC volsers for other internal purposes, and the display routines don't filter out those cases.

VTV_upd

Resynchronize VTV status in the VTSS with the CDS.

VtvMaint

VTVMaint utility request.

VTVMover

There is one `VTVMover` request per MVC being drained or reclaimed. This is a child of either a `DrainMVC`, `ReclmMVC` or `Move MVC` request. This request is responsible for the movement of VTVs from one MVC to another

ID

The process ID, which is a unique number in the range 0-65536. When the process ID reaches 65536 it wraps back to zero.

VTV

the volser of the VTV currently being used in the process. For some request types, this contains additional information regarding the nature and status of the request.

MVC

the volser of the MVC currently used in the process. For some request types, this contains additional information regarding the nature and status of the request.

VTSS

The VTSS or the VTSS list name associated with the request. The special value `!ALLVTSS` indicates that any VTSS with suitable requirements will be used.

RTD

the unit address of the RTD currently being used in the process.

TASK

The task that is processing the queue or the task to which the requests is queued (same information as reported in `Display Tasks`). **Task** displays one of the following values:

Clk

CLINK processor task.

CMD

Command processor task.

Csh

Clink scheduler task.

DRV

RTD scheduler task.

DSP

Main dispatcher task.

INV

Inventory manager or audit task.

MSc

Migration scheduler task.

MVC

MVC lock task.

RCM

Drain/space reclaim manager task.

RTD

RTD task.

Scr

Scratch manager task.

SS

VTSS task.

TSK

Waiting for processing lock on other host.

unk

Unknown task.

VTD

Waiting for VTD.

VTV

Waiting for VTV lock.

REASON

Indicates why the request is queued (queued processes only):

ACTIVE

The request is currently being processed.

CANCELLED

The request is terminating after being cancelled.

Child Finish

The request has child requests and is waiting for them to finish.

Created

The request is being created.

DBU DROP

The request is currently held because the DBU is high.

DEVICE LOCK

The RTD or CLINK device that the request requires is currently locked. This generally indicates contention with another host.

MVC dismount

The request is waiting for an MVC to dismount.

MVC for Class

The SCHLIMIT storage class limit has been reached in MVC selection.

MVC for Command

The SCHLIMIT command concurrency limit has been reached in MVC selection.

MVC for Funct

The SCHLIMIT function limit has been reached in MVC selection.

MVC LOCK

The request is waiting for a lock on an MVC to free.

MVC MOUNT

The request is waiting for a MVC to be mounted.

MVC SELECTION

The request is queued awaiting a MVC or migration slot becoming available.

MVC/SCHLIMIT=0

MVC selection determined that SCHLIMIT=0 has been specified.

QUEUED

The request is sitting in the input queue of the task and is waiting for another request to complete or be rescheduled.

RTD ALLOCATION

The request is queued awaiting an RTD to become idle or free.

RTD LOCK

The request is waiting for a lock on an RTD to free.

RTD ONLINE

The request requires an RTD to be brought online to continue.

STEAL A RTD

The request is waiting to steal an RTD allocation from another request.

TASK LOCK

The request is waiting for a general task lock to free. This generally indicates contention with another host.

VTD LOCK

The request is waiting for a lock on a VTD to free.

VTVLOCK

The request is waiting for a lock on a VTV to free.

Wait child

The request has been purged, but is waiting for child requests to finish.

WAIT RESOURCE

The request is held awaiting a (non-specific) resource becoming available.

Wait lock

The request is waiting for a lock to free.

Display ALI

Interfaces:

- Console or PARMLIB only
- UI Support: No

Subsystem Requirements:

Active HSC at FULL service level

Description

The `Display ALl` command displays CDS and ACS status.

Syntax

Figure 3–33 shows `Display ALl` command syntax.

Figure 3–33 *Display ALl command syntax*

**Parameters**

None.

Display Cap**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

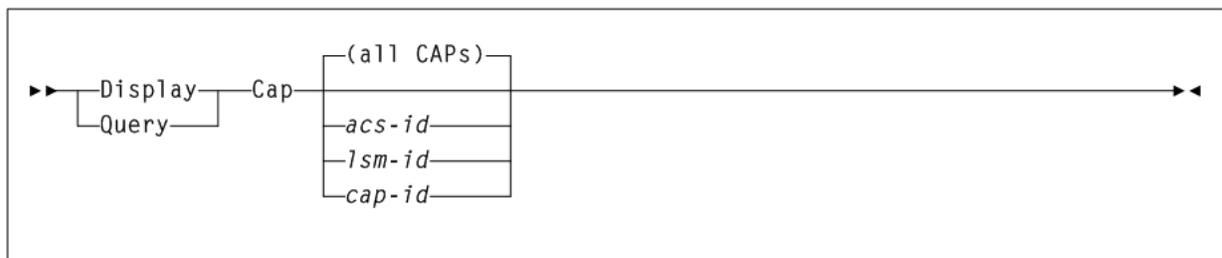
Description

The `Display Cap` command displays CAP settings and status.

Syntax

Figure 3–34 shows `Display Cap` command syntax.

Figure 3–34 *Display Cap command syntax*

**Parameters**

As shown in Figure 3–34, the `Display Cap` command includes the following parameters:

Note: If the CAP status indicates `RECOVERY`, refer to Oracle's ELS publication *Managing HSC and VTCS* for information about how to clear this condition.

all CAPs

displays all CAP activity for all ACSs online to this host.

acs-id

optionally, displays all CAP activity for a specified ACS.

lsm-id

optionally, displays all CAP activity for a specified LSM.

cap-id

optionally, displays all CAP activity for a specified CAP.

Note:

- The *acs-id*, *lsm-id*, and *cap-id* parameters are positional operands. If no positional operand is specified, the default operation is to display the status of all CAP activity for all ACSs.
- The *acs-id*, *lsm-id*, and *cap-id* may be expressed as a list.

Output

The following is an example of the output produced by the `Display Cap` command for Bulk CAPs with 36 slot capacity:

Example 3–10 Display Cap output

```
SLS0000I D CAP
SLS2008I CAP Status: 874
CAP ID      Size      Partid  Hostid  Priority  Mode      Status
-----
00:00:00   36-CELL   None    None    00        Idle      Manual
                                           Online
00:00:01   36-CELL   None    None    00        Idle      Manual
                                           Online
00:01:00   36-CELL   None    None    00        Idle      Manual
                                           Online
00:01:01   36-CELL   None    None    00        Idle      Manual
                                           Online
00:02:00   36-CELL   None    None    00        Idle      Manual
                                           Online
00:02:01   36-CELL   None    None    00        Idle      Manual
                                           Online
00:03:00   36-CELL   None    None    00        Idle      Manual
                                           Online
00:03:01   36-CELL   None    None    00        Idle      Manual
                                           Online
```

The `Display Cap` command displays the following information:

- CAPid
- CAP size:
 - PCAP (priority CAP)
 - 21-cell or 14-cell 9740 (standard CAP)
 - 40-cell (enhanced CAP)
 - 20-cell (9360 CAP)

- 30-cell (9360 optional CAP)
- 26-cell (SL3000 CAP)
- 234-cell (SL3000 AEM CAP)
- 39-cell (SL8500 CAP)
- 36-cell (SL8500 Bulk CAP)
- Partition ID
- Host ID of the host owning the CAP
- Priority: CAP preference value
- CAP mode:
 - cleaning
 - draining
 - ejecting
 - entering
 - idle
- CAP status:
 - active
 - automatic mode
 - manual mode
 - offline
 - online
 - recovery needed

Display CDS

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

`Display CDS` displays the status of all copies of the CDS, primary and secondary log files, operational settings (for example, the cleaning cartridge prefix, SMF record type, and so on), and the status of all HSC-defined hosts.

Syntax

Figure 3–35 shows `Display CDS` command syntax.

Figure 3–35 Display CDS command syntax**Parameters**

None.

Output

The following is an example of the output produced by the Display CDS command:

Example 3–11 Display CDS output

```
SLS0000I D CDS
SLS1969I User exit 15 module SLSUX15 INACTIVE
SLS2716I Database Information 951
```

```
PRIMARY   = SEA710.SPRG1.DBASEPRM.LGEN8501
VOLSER    = HSC20J  ACTIVE
SECONDARY = SEA710.SPRG1.DBASESEC.LGEN8501
VOLSER    = HSC20G  ACTIVE
```

```
CDS LEVEL = 060100          VER = 16012446
```

```
CDS CREATE      = 20141203 13:49:56
LAST CDS BACKUP = NONE
LAST CDS RESTORE = NONE
```

```
CDS BLOCK COUNT = 7,200
CDS FREE BLOCKS = 4,135
ENQNAME         = STKSBADD      SMFTYPE = 245
CLEAN PREFIX    = CLN          LABTYPE = (00) SL
```

```
NO LOG FILE DSN(S) DEFINED
```

```
VAULT RECORDS NOT FOUND IN THIS CDS
```

```
CDKLOCK RECORDS NOT FOUND IN THIS CDS
```

```
LAST NCO ON ECCY
START = 12/03/14 13:50:55
END   = 12/03/14 13:53:19
```

```
HOSTID---LEVEL---DESCRIPTION-----
ECCL     -.-.- -INACTIVE-
ECCY     7.1.0   ACTIVE PRIMARY SECONDARY
EC20     -.-.- -INACTIVE-
EC21     -.-.- -INACTIVE-
```

Display CLInk**Interfaces:**

- Console or utility

Example 3–13 Display CLink output (FROMvtss specified)

VTSS	Clink	Name	Status	Usage	Host	Partner	VTD
DVTSS18	08 C0I	SECNDARY	On-Sync	Free		DVTSS17	#008
	09 C1I	SECNDARY	On-Sync	Free		DVTSS17	#009

Fields

Display CLink command output includes the following fields:

VTSS

the Primary or Sending VTSS name.

CLINK

a composite of the device Id that has been assigned to the CLINK within the VTSS and the back end channel interface to which it is connected.

NAME

one of the following values:

name

the name of the TapePlex to which the CLINK is connected. This also indicates that the CLINK will be used for electronic exporting of VTVs. The VTSS name in the **Partner** column indicates the VTSS that will receive VTV copies over this CLINK.

-Cluster

indicates that the CLINK is used for replication of VTVs within the TapePlex and is part of a cluster. The VTSS name in the **Partner** column indicates the other VTSS that operates in the cluster.

STATUS

one of the following link statuses:

Maint

The link has failed or it has been varied into maintenance mode.

Offline

The link is offline and unavailable to all hosts and VTSSs.

Online

The link is available for replication.

P_offline

The link is pending offline.

P_online

The link is pending online.

On-Sync

Available for synchronous replication.

On-Async

Available for asynchronous replication.

Recovery

The link is being reset following an error or a vary online operation.

Unusable

Not available for replication due to hardware errors or assigned-elsewhere conditions.

UUI err

This is a CLINK defined for electronic export and it has been unable to contact the remote VTCS. There should be messages in the HSC `JOBLOG` that indicate the reason for the problem. This could include problems with the definitions, the local SMC, or the remote HTTP server on the remote VTCS.

USAGE

one of the following link usages:

Assigned

Link is assigned to the host in the **HOST** field but is not currently replicating. This usage occurs when VTCS is starting or terminating link use or is attempting error recovery on the link after a replication failure.

Free

Link is idle (not doing replications).

Replicating

Link is actively doing replications.

HOST

the host that the link is assigned to.

PARTNER

the secondary or receiving VTSS.

VTD

the address of the VTD on the partner VTSS that forms the other end point to the connection. For a cluster link, the MSP address of the VTD is reported. For an electronic export link, this is not possible as there is no access to the other TapePlex configuration. In this case, only the ordinal number of the VTV is reported.

Display CLUster

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

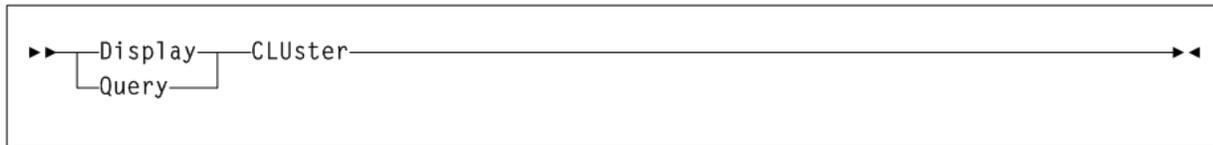
Active HSC/VTCS

Description

The `Display CLUster` command displays Cluster status.

Syntax

Figure 3–37 shows `Display CLUster` command syntax.

Figure 3–37 Display CLUster command syntax**Parameters**

None.

Output

The following is an example of the output produced by the Display CLUster command:

Example 3–14 Display CLUster output

NAME	VTSS	STATE	DIRECTION	VTSS	STATE	MODE
CLUSTER1	HBVTSS16	ONLINE	----->	HBVTSS17	ONLINE	Sync-replicate
CLUSTER2	HBVTSS18	ONLINE	<-----	HBVTSS19	QUIESCED	DEGRADED
CLUSTER3	HBVTSS20	ONLINE	<-----	HBVTSS21	ONLINE	Async-replicate
CLUSTER4	HBVTSS22	QUIESCED	<----->	HBVTSS23	ONLINE	DEGRADED

Fields

Display CLUster command output includes the following fields:

NAME

the Cluster name.

VTSS

one of the VTSS in a Cluster.

DIRECTION

One of the following:

----> or <----

Indicates the direction of VTV replication in Uni-Directional Cluster. VTVs can only be replicated from the Sending to the Receiving VTSS.

<---->

Indicates that the VTSSs are configured as a Bi-Directional (Peer-to-Peer) Cluster. VTVs can be replicated from either VTSS to the other.

STATE

one of the following VTSS states:

QUIESCING

Quiescing state.

QUIESCED

Quiesced state.

OFFLINE

Offline state.

OFFLINE-P

Offline pending state.

ONLINE

Online state.

ONLINE-P

Online pending state.

STARTED

The VTSS is initialized and in process of going to the requested state (online, offline, or quiesced).

MODE

one of the following Cluster operating modes:

Async-replicate

Both VTSSs in the Cluster are online to VTCS. Production workload can go to either VTSS, but in a Uni-Directional (Primary/Secondary) Cluster, VTVs can only be replicated from the Sending VTSS. Synchronous replication is not enabled across the cluster.

Sync-replicate

Both VTSSs in the Cluster are online to VTCS. Production workload can go to either VTSS, but in a Uni-Directional (Primary/Secondary) Cluster, VTVs can only be replicated from the Sending VTSS. Synchronous replication is enabled across the cluster.

Degraded

One of the two VTSSs in a Bi-Directional (Peer-to-Peer) Cluster is either offline or quiesced. Production workload can go to the remaining online VTSS. VTVs requiring replication, however, are allocated to the remaining VTSS only if no other Full-Function clusters are available and suitable. In this case, replicate VTVs are migrated immediately with keep and queued for replication when the other VTSS comes online.

When the other VTSS comes online, VTCS reconciles the contents of both VTSSs.

Degraded-2ndary

The Primary is online to VTCS and the Secondary is either offline or quiesced. Workload can run on the Primary. VTVs requiring replication, however, are allocated to the Primary only if no other Full Function Clusters are available. In this case, Replicate VTVs are migrated immediately with keep and are queued for replication, which occurs when the Secondary comes online.

Degraded primary

The Secondary is online to VTCS and the Primary is either offline or quiesced. Workload can run on the Secondary. VTVs requiring replication, however, are allocated to the Secondary only if no other Full Function Clusters are available. When the Primary comes back Online, VTCS reconciles the contents of the Primary and Secondary.

Non-operational

No workload is possible on this Cluster.

CLINKs offline

All defined CLINKs are offline. No workload is possible on this Cluster.

Only 2ndary

The Secondary is online to VTCS and the Primary has no CLINKs online. Workload can run on the Secondary. VTVs requiring replication, however, are allocated to the Secondary only if no other Full Function Clusters are available.

Only primary

The Primary is online to VTCS and the Secondary has no CLINKs online. Workload can run on the Primary. VTVs requiring replication, however, are allocated to the Primary only if no other Full Function Clusters are available. In this case, Replicate VTVs are migrated immediately with keep and are queued for replication.

Display CMD**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

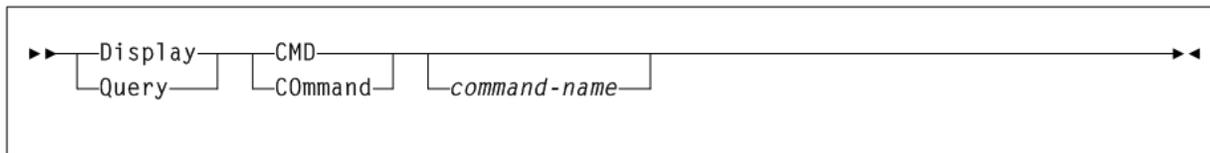
Description

The `Display CMD` command displays syntax and usage information for a VTCS or HSC command.

Syntax

Figure 3–38 shows `Display CMD` command syntax.

Figure 3–38 *Display CMD command syntax*

**Parameters**

As shown in Figure 3–38, the `Display CMD` command includes the following parameters:

CMD or COmmand

the command name. If a command-name is not specified, a list of all HSC/VTCS commands is produced.

command-name

the command name. If a command-name is not specified, a list of all HSC/VTCS commands is produced.

For certain commands that accept multiple options, including `Display`, a two-part command may be entered. For example:

```
D CMD D VTV
```

This command displays help information only for the `Display VTV` command.

Display COMMPATH

Interfaces:

- Console or PARMLIB only
- UII Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

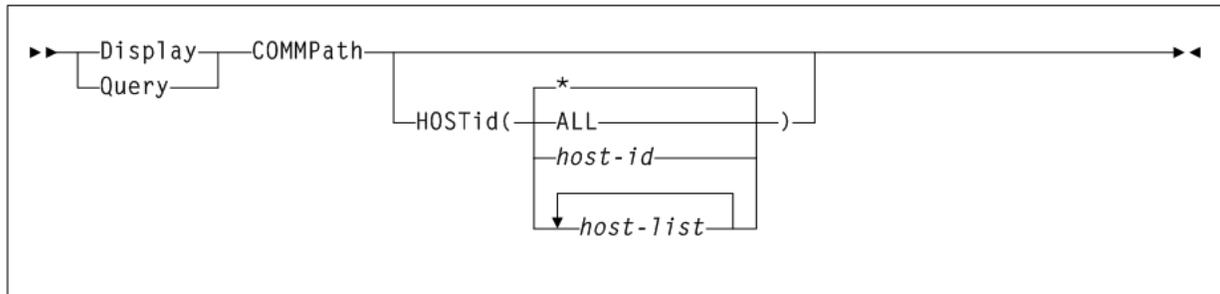
Description

The `Display COMMPATH` command displays current settings for HSC host-to-host communications.

Syntax

Figure 3–39 shows `Display COMMPATH` command syntax.

Figure 3–39 *Display COMMPATH command syntax*



Parameters

As shown in Figure 3–39, the `Display COMMPATH` command includes the following parameters:

HOSTID

optionally, indicates that you want to obtain information about specific hosts.

ALL

displays the settings for all defined hosts. Depending on the number of hosts in your environment, the display can be extremely long.

host-id or host-list

the host or hosts about which you want information. The HSC issues console messages that display the current settings for each specified host.

The elements in a *host-list* must be separated by commas or blanks, and the entire list must be enclosed in parentheses. Ranges are not valid.

*

displays the settings for the host on which you enter the command. This is the default if `HOSTid` is specified without a value.

Display CONFIG

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The Display CONFIG command displays CONFIG parameter settings.

Syntax

Figure 3–40 shows Display CONFIG command syntax.

Figure 3–40 Display CONFIG command syntax



Parameters

None.

Output

The following is an example of the output produced by the Display CONFIG command:

Example 3–15 Display CONFIG output

```
SLS6603I Configuration information
MaxVTV  MVCFree  VTVAttr  RECALWER  REPLICAT  VTVPAGE  SYNCHREP
4000    2          Scratch  Yes        Always    Standard  No

MAXRTDs  FASTMIGR  INITMVC  MAXVTVSZ  FASTRECL  LOCKTOUT
32       Yes     Yes     4000     Yes       10

NLIBDRNR NLIBMIGR  NLIBRECL  MVCMTTO  LOGPOL
No        No       No        15       Optional

This tapeplex: LOCALPLX

CDS level support:  V5/5.1  V6  V6.1  V6.2  V7  V7.1
                   *      *      *

Reclaim : Max MVC  Start  Commvc  Threshold: Tape VL
           4        10     1        30     70

Reclaim: MaxMVC  Start  Commvc  Inplace  Threshold: Tape  VL  Inpthrsh
           4        10     1        No      45     30    15

           Auto Migr Thr  Migr Tasks  Default  VSM  2GB/  Page  RTDs
VTSSNAME  Low High   Min  Max    ACS  Model 4GB  Size Yes
DVTSS16   65  70    2   3     FF   5    Yes Large

Devno  RTD Type  Inplace  ACS    Retain  VTSSNAME  RTD NAME  CHANIF
2A00   36CTrack No     00     10     DVTSS16  SS162A00  00 0A:1
```

2A01	36CTRACK	No	TMSPB	10	DVTSS16	SS162A01	01	0A:0
2A02	36CTRACK	No	00	10	DVTSS16	SS162A02	02	0E:0

Fields

Display CONFIG command output includes the following fields:

Note: See "CONFIG GLOBAL Statement" on page 3-38 for more information about CONFIG GLOBAL statement parameters.

MaxVTV

the CONFIG GLOBAL MAXVTV setting.

MVCFree

the CONFIG GLOBAL MVCFREE setting.

VTVAttr

the CONFIG GLOBAL VTVAttr setting (SCRATCH or ALLmount).

RECALWER

the CONFIG GLOBAL RECALWER setting (YES or NO).

REPLICat

the CONFIG GLOBAL REPLICat setting (ALWAYS or CHANGED).

VTVPAGE

the CONFIG GLOBAL VTVPAGE setting The VTV page size (STANDARD or LARGE).

SYNCHREP

the CONFIG GLOBAL SYNCHREP setting (YES or NO).

MAXRTDS

the CONFIG GLOBAL MAXRTDS setting (16 or 32).

FASTMIGR

the CONFIG GLOBAL FASTMIGR setting (YES or NO).

INITMVC

the CONFIG GLOBAL INITMVC setting (YES or NO).

MAXVTVSZ

the CONFIG GLOBAL MAXVTVSZ setting (400, 800, 2000 or 4000).

FASTRECL

the CONFIG GLOBAL FASTRECL setting (YES or NO).

LOCKTOUT

the CONFIG GLOBAL LOCKTOUT setting (0 or 5-240).

NLIBDRNR

the CONFIG GLOBAL NLIBDRNR setting (YES or NO).

NLIBMIGR

the CONFIG GLOBAL NLIBMIGR setting (YES or NO).

NLIBRECL

the CONFIG GLOBAL NLIBRECL setting (YES or NO).

MVCMNTTO

the CONFIG GLOBAL MVCMNTTO setting (5-30 minutes).

LOGPOL

the CONFIG GLOBAL LOGPOL setting (OPTIONAL or REQUIRED).

CDSLEVEL SUPPORT

the VTCS level(s) that can access the active CDS.

THRESHLD

the RECLAIM THRESHLD setting.

MAX MVC

the RECLAIM MAXMVC setting.

START

the RECLAIM START setting.

CONMVC

the RECLAIM CONMVC setting.

VTSSNAME

the VTSS identifiers (VTSS NAME settings).

AUTO MIGR THR, LOW

The low automatic migration threshold setting (LAMT) for the VTSS.

AUTO MIGR THR, HIGH

The high automatic migration threshold setting (HAMT) for the VTSS.

MIGR TASKS, MIN

The minimum number of concurrent automatic migration tasks setting (MINMIG) for the VTSS.

MIGR TASKS, MAX

The maximum number of concurrent automatic migration tasks setting (MAXMIG) for the VTSS.

DEFAULT ACS

The default ACS setting (DEFLTACS) for the VTSS.

VSM MODEL

2, 3, or 4.

2GB / 4GB

VTSS configured for 2 GB / 4GB VTV sizes (Y or N).

PAGE SIZE

VTV page size (STANDARD or LARGE).

RTDs

indicates whether the VTSS has RTDs.

DEVNO

RTD MSP device numbers for the VTSS (RTD DEVNO settings), or device numbers for a VLE, as generated by VTCS.

- Single-node VLE device numbers start with a "V".
- Multi-node VLE device numbers are prefixed with an "S".

RTD TYPE

the RTD type. This can include the VLE device type.

Inplace

the Storclas INPLACE setting.

ACS

- For local tape drives, this column displays the ACS or LSM to which the drive is attached.
- For remote RTDs, this column displays '*name: number*' where *name* indicates the name of the TapePlex and *number* indicates the number of the ACS in decimal.
- For VLEs, this column displays the VLE name.

RETAIN

the VTSS RETAIN setting.

VTSSNAME

the VTSS identifiers (VTSS NAME settings) of the VTSSs connected to the RTD.

RTD NAME

the RTD names for the VTSS (RTD NAME settings).

CHANIF

the RTD channel interface (RTD CHANIF settings).

Display DRives

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

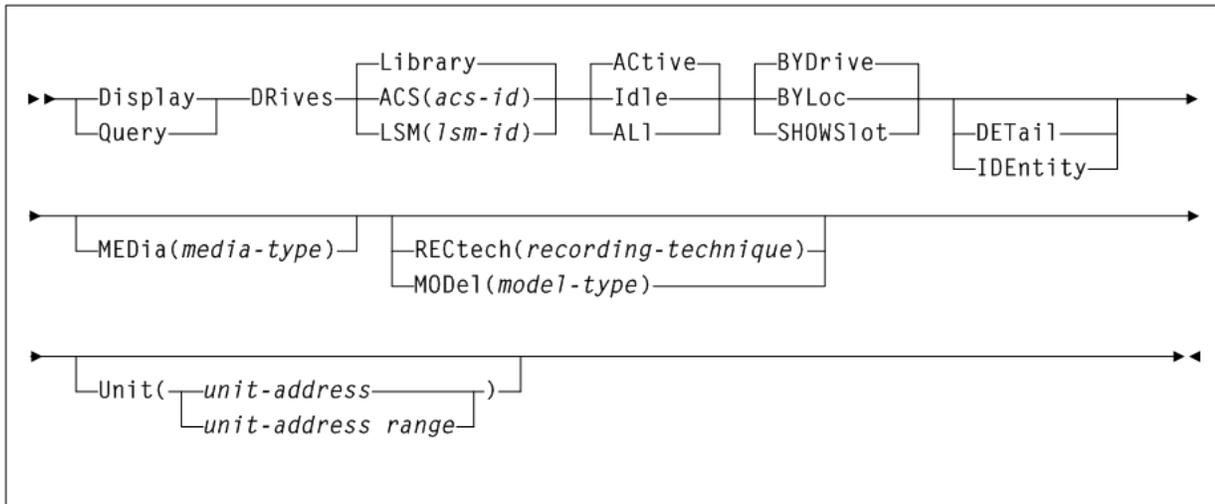
Active HSC at FULL service level

Description

The `Display DRives` command displays current and queued mount activity for each transport address.

Syntax

Figure 3–41 shows `Display DRives` command syntax.

Figure 3–41 Display DRives command syntax**Parameters**

As shown in [Figure 3–41](#), the `Display DRives` command includes the following parameters:

Library

only library-controlled drives are processed. This is the default.

ACS(acs-id)

only drives in a specified ACS are processed.

acs-id indicates the ACS for which the system is to display drive information.

LSM(lsm-id)

only drives in a specified LSM are processed.

lsm-id indicates the LSM for which the system is to display drive information.

Active

only active drives are processed. This is the default.

Idle

only idle drives are processed (includes drives that may be offline).

All

all drives are processed regardless of status.

BYDrive

displays the drives by host device address. This is the default.

BYLoc

displays the drives by library location.

SHOWSlot

optionally, displays the drives by host device address, and displays the drive bay location (slot) for drives in SL3000 and SL8500 libraries.

DETail

optionally, displays the drive media types and recording techniques.

IDEntity

optionally, displays the serial number and world wide name of a transport associated with a drive.

The tape library must be at a sufficient compatibility level to provide this information.

- The serial number requires LMU level 13.
- The WWN requires LMU level 21.
- `DISPLAY ACS` shows the LMU compatibility level. In addition, the transport must supply the LMU with the serial number.

Note: `IDEntity` and `DETail` are mutually exclusive.

MEDia(media-type)

optionally, limits the display of drives only to those that support the specified type of media. The default is for all types of media.

media-type indicates the media type.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *media-type* values.

Note: If `MEDia` is not specified, the drive is selected without regard to media type.

RECtech(recording-technique)

optionally, limits the display of drives only to those that support the specified recording technique. The default is for all recording techniques. `RECtech` refers to the method used to record data tracks on the tape surface.

If `RECtech` is not specified, the drive is selected without regard to recording technique.

recording-technique indicates the recording technique.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid *recording-technique* values.

Note: `RECtech` and `MODel` are mutually exclusive.

MODel(model-type)

optionally, limits the display of drives by the model type of a transport. You can enter a list of models, separated by commas. A list specifies a generic pool.

model-type indicates the model type.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *model-type* values.

Note: `MODel` and `RECtech` are mutually exclusive.

UNIT(unit-address)

optionally, limits the display of drives to a unit address or a range of unit addresses.

unit-address or *unit-address-range* indicates a single unit address or a range of addresses.

Display DRIVE_INFO

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

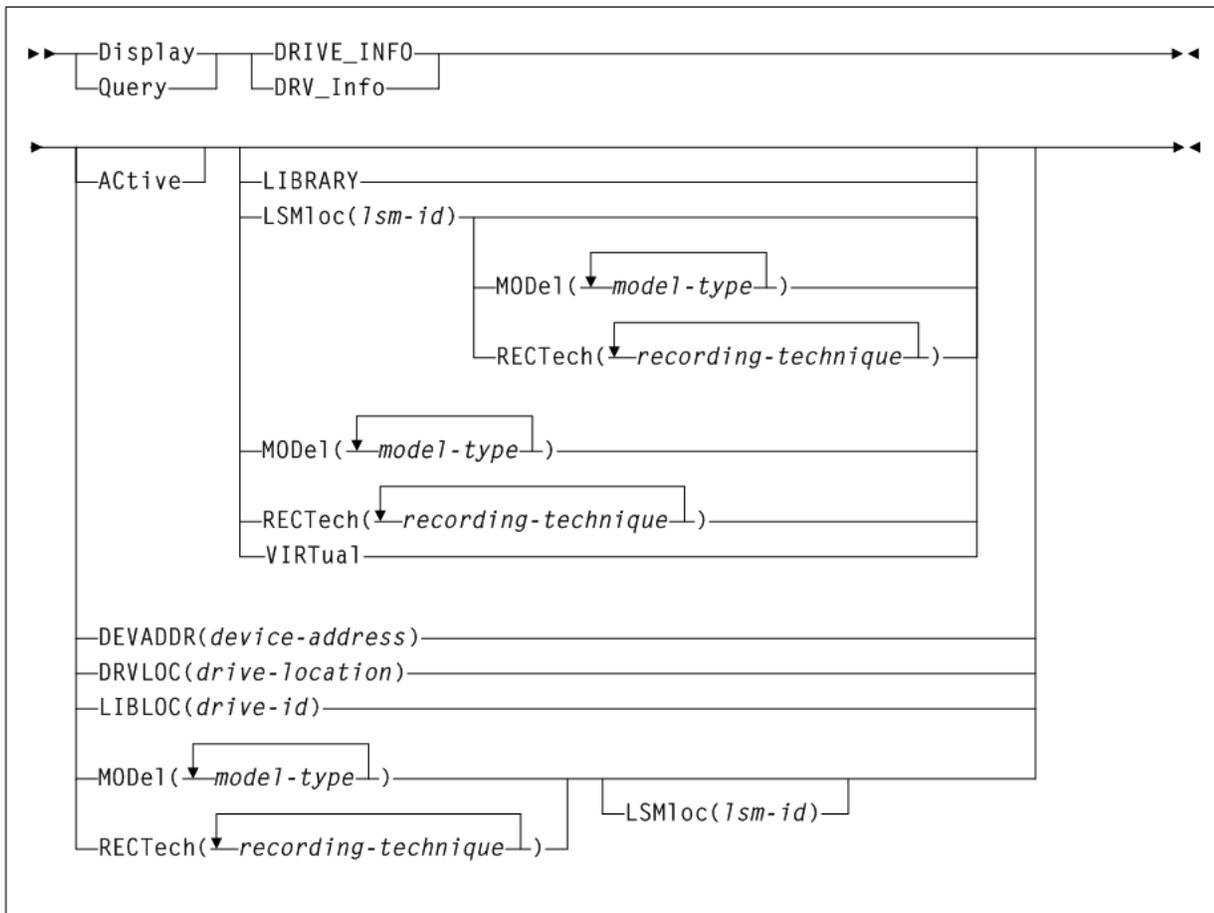
Description

The `Display DRIVE_INFO` displays information for real or virtual drives.

Syntax

Figure 3-42 shows `Display DRIVE_INFO` command syntax.

Figure 3-42 *Display DRIVE_INFO* command syntax



Parameters

As shown in Figure 3-42, the `Display DRIVE_INFO` command includes the following parameters:

Active

optionally, specifies that only drives with a volume mounted, or in the process of mounting or dismounting, are displayed.

DEVADDR(device-address)

optionally, specifies that only the device with the specified drive ID is displayed.

device-address indicates a three or four digit device address.

DRVLOC(drive-location)

optionally, specifies that only the single drive with a matching drive location ID is displayed.

drive-location indicates the drive location id:

For a real drive, use format *R:AA:LL:PP:DD* where:

- *AA* indicates the acs ID.
- *LL* indicates the LSM number.
- *PP* indicates the panel.
- *DD* indicates the drive number.

For a virtual drive, use format *V:vtssname:nnnn* where *nnnn* indicates the VTSS drive identifier.

LIBLOC(drive-id)

optionally, specifies that only the real drive with the specified drive ID is displayed.

drive-id indicates the drive ID, in the format *AA:LL:PP:DD* where:

- *AA* indicates the acs ID.
- *LL* indicates the LSM number.
- *PP* indicates the panel.
- *DD* indicates the drive number.

LIBRARY

optionally, specifies that only library (non-virtual) drives are displayed.

LSMloc(lsm-id)

optionally, specifies that only drives in the specified LSM is displayed.

lsm-id indicates the LSM ID, in the format *AA:LL* where:

- *AA* indicates the acs ID.
- *LL* indicates the LSM number.

MODEl(model-type)

optionally, specifies that only drives with the specified model type are displayed.

model-type indicates the model type.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *model-type* values.

RECtech(recording-technique)

optionally, specifies that only drives with the specified recording technique are displayed.

recording-technique indicates the recording technique.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *recording-technique* values.

VIRTual

optionally, specifies that only virtual drives (not library drives) are displayed.

Display EXceptns

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

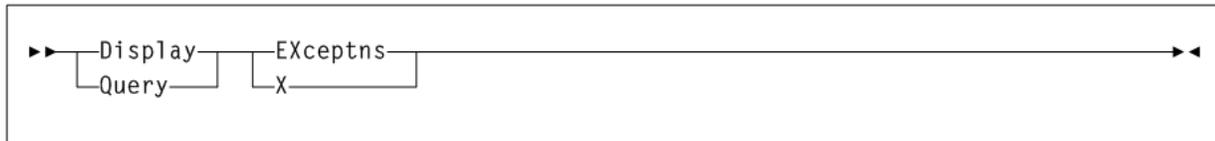
Description

The `Display EXceptns` command displays hardware status.

Syntax

[Figure 3–43](#) shows `Display EXceptns` command syntax.

Figure 3–43 *Display EXceptns command syntax*



Parameters

As shown in [Figure 3–43](#), the `Display EXceptns` command includes the following parameters:

EXceptns or X

displays hardware status.

Errors are reported in either LSM *AA:LL* or *AA:LL:CC* format where *AA* indicates the hexadecimal value for the ACS (00-FF), *LL* is hexadecimal value for the LSM (00-17), and *CC* indicates the hexadecimal value for the CAP identifier (00 through 0B).

Output

`Display EXceptns` displays status for the following:

- all LMUs
- all LSMs
- all CAPs
- all robotic hands
- all pass-thru ports (PTPs)
- all stations

Errors are reported in *AA:LL:CC* format, where *AA* indicates the decimal value for the ACS (00-99), *LL* is decimal value for the LSM (00-99), and *CC* decimal value for the CAP identifier (00 through 11). The following error messages are possible:

Table 3–2 Display EXceptns Error Messages

Message	Description
CAP Not Operational	The CAP is not operational.
CAP Door is Open	The CAP door is open.
CAP Door is Unlocked	The CAP door is unlocked.
CAP is Reserved	The CAP is reserved.
Pass Thru Port is Inoperative	The pass thru port is inoperative.
Robot Hand is Inoperative	The robot hand is inoperative.
Robot Hand needs maintenance	The robot hand is in need of maintenance.
LSM is Not Ready	The LSM is in a not ready state.
LSM is Offline	The LSM is in an offline state.
LSM is Offline Pending	The LSM is in an online pending state.
LSM is in Maint Mode	The LSM is in maintenance mode.
LSM Door is Open	The LSM door is open.
LMU Compat 10 or less; not all functions supported	The LMU will not be able to respond correctly to some status queries until its microcode is updated. This condition will also cause SLS0662I LMU Response Error to be issued just before SLS4610I.
Station <i>nn</i> has Inactive Connection:	A hardware connection to the LMU is not usable. This may be normal for your configuration if the connection has never been made and is not necessary. The station number is in hexadecimal, so Station 0A is the tenth station, and Station 10 is really the sixteenth.
Station <i>nn</i> Inoperative; Host not responding:	The station number is in hexadecimal, so Station 0A is the tenth station, and Station 10 is really the sixteenth.

The following messages are summaries:

- No CAP problems were detected
- No Pass Thru Port problems were detected
- No Robot Hand problems were detected
- No LSM problems were detected
- No Station problems were detected

Message summaries only reflect that the LMU did not detect hardware errors. Something could be wrong with the software configuration, or with something that the LMU could not detect.

HSC processing continues and no user response is required.

Display LINKSto

Interfaces:

- Console or PARMLIB

- UI Support: No

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

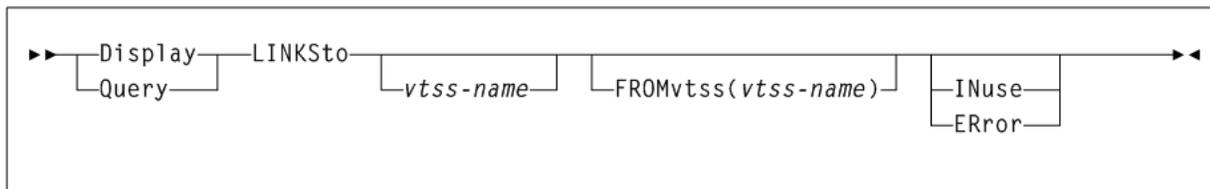
Description

The `Display LINKSto` command displays replication link and CLINK status information.

Syntax

Figure 3–44 shows `Display LINKSto` command syntax.

Figure 3–44 *Display LINKSto command syntax*



Parameters

As shown in Figure 3–44, the `Display LINKSto` command includes the following parameters:

vtss-name

optionally, the name of the replication link for which status is displayed. This name represents a link to a target VTSS subsystem (*vtss-name*). If this parameter is not specified, then all targets are displayed.

FROMvtss(vtss-name)

optionally, specifies the *vtss-name* that owns, or is the source VTSS, for any specified replication link name. If this parameter is not specified, then all source VTSSs for the LINK name are displayed.

INuse

optionally, displays only LINKs that are in use.

ERror

optionally, displays only LINKs in an error state.

Output

The following is an example of the output produced by the `Display LINKSto` command.

This example displays status information for all links to target `DVTSS18`. This includes `RLINK DVTSS18` status and `CLINK` status information of the owning (or source) VTSS, any active or pending enhanced replications for the link, and a list of all configured connections for the link. There is no channel interface information output for the source VTSS.

Example 3–16 *Display LINKSto output*

```
D LINKSTO DVTSS18
```

```

/SLS6603I Linksto information: 702
To VTSS Location VTD From Connect Status Usage Host
DVTSS18 -Cluster ---- DVTSS16 Links On: 1 Free
          AA0A          0A C0K On-Sync Free
          AA0B          0B C1K On-Sync Free

```

Display LMUPDEF

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

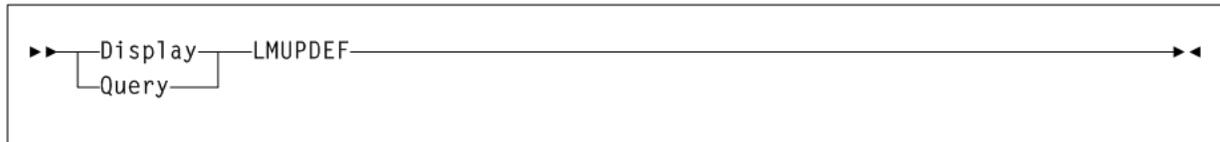
Description

The Display LMUPDEF command displays information about the definition data set containing LMUPATH statements, that is currently loaded.

Syntax

Figure 3-45 shows Display LMUPDEF command syntax.

Figure 3-45 Display LMUPDEF command syntax



Parameters

None.

Display LOCKs

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

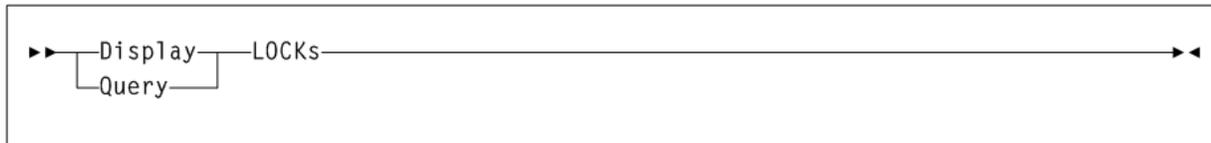
Description

The Display LOCKs command displays VTCS lock status.

Syntax

Figure 3-46 shows Display LOCKs command syntax.

Figure 3–46 Display LOCKS command syntax



Parameters

None.

Output

The following is an example of the output produced by the Display LOCKS command:

Example 3–17 Display LOCKS output

SLOT ID	OWNING HOST	TASK NBR	TASK TYPE	VTD	MVC	VTV	WAITING HOST	WAITING TASK
002	EC21	006	RTD		EVS101		EC10	007
003	EC20	010	RTD		EVS145	X15328		
004	EC20	010		A91E		X153234		
CFLOCK NUMBER		CFLOCK TYPE				OWNING HOST		
3		HOST TO HOST (TO ECCL)				EC21		

Fields

Display LOCKS command output includes the following fields:

SLOT ID

Slot ID of the lock within the lock buffer.

OWNING HOST

the host that owns the lock.

TASK NBR

the task number associated with the lock.

TASK TYPE

the task type.

VTD

the associated VTD address on the issuing host.

MVC

the locked MVC.

VTV

the locked VTV.

WAITING HOST

the host waiting for the lock or ALL if multiple hosts are waiting.

WAITING TASK

the task waiting for the lock or ALL if multiple tasks are waiting.

CF LOCK NUMBER

the Coupling Facility lock number.

CF LOCK TYPE

one of the following VTCS Coupling Facility lock types:

Host Footprint

used to serialize access to the host footprint list.

Host to Host

used to serialize access to a given host to host list.

Lock Data

used to serialize access to the VTCS lock data.

Formatting

used to serialize the initial formatting of the structure; also used when rebuilding data.

System

lock is held, but is not a lock used by VTCS; assume it is used by MSP.

OWNING HOST

the host that owns the lock.

Display Lsm

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

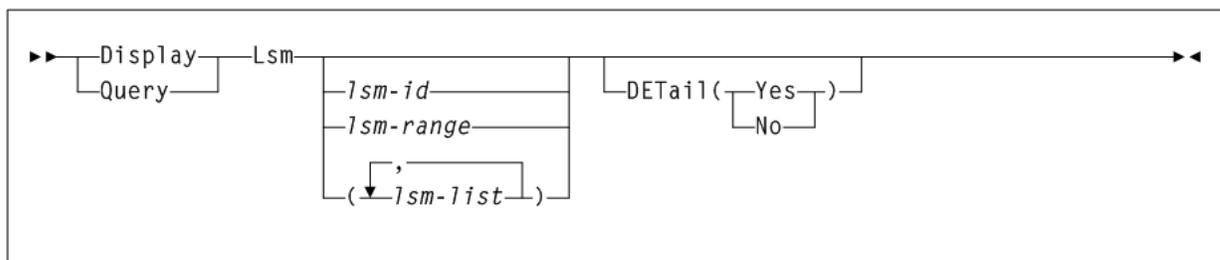
Description

The `Display Lsm` command displays LSM status.

Syntax

Figure 3-47 shows `Display Lsm` command syntax.

Figure 3-47 *Display Lsm command syntax*

**Parameters**

As shown in Figure 3-47, the `Display Lsm` command includes the following parameters:

lsm-id, lsm-range, or lsm-list

optionally, one or more LSMs for which the system is to display information. If you do not supply an *lsm-id*, a status summary is displayed for every LSM in the library.

Each *lsm-list* element can be either a single LSM ID or a range of LSM IDs. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

An *lsm-id* format is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

DETail

optionally, specifies whether detail information is displayed for each LSM.

Yes

All detailed information is displayed for each LSM.

No

Only summary information is displayed for each LSM.

When DETail (No) is specified, the current Ready or Not ready status is not determined; the LSM shows as Ready unless it is offline.

Note: If the DETail parameter is not specified, then detailed information is displayed only if specific LSM IDs are entered.

Output

The `Display Lsm` command displays status for the following:

- LSMid
- LSM type
- Online/offline status
- Ready/not ready status
- Automatic/manual status
- May include detail information:
 - Audits in progress (if any)
 - CAP status, priority and owning host if CAP is not drained.
 - Number of free cells and scratch volumes. (Note: The number of free cells in the LSM does not include free cells on frozen panels.)
 - Each frozen panel, showing the total number of cells and number of free cells on the panel.

Display Message**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

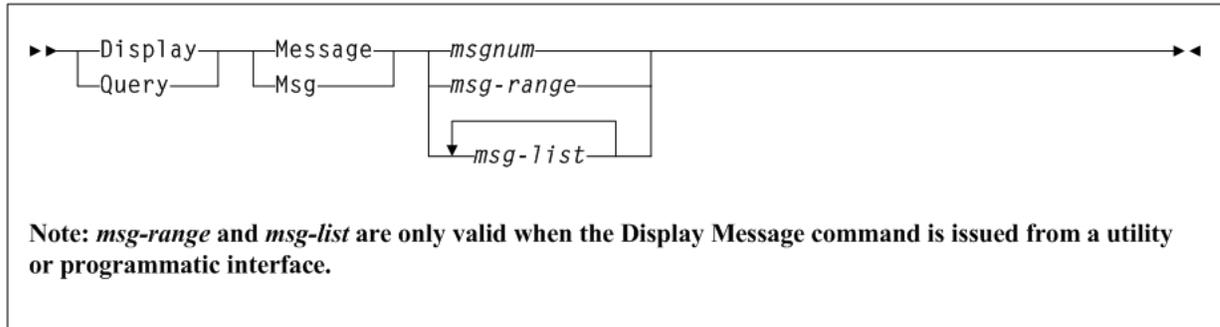
Description

The `Display Message` command displays detailed HSC or VTCS message information.

Syntax

Figure 3–48 shows `Display Message` command syntax.

Figure 3–48 *Display Message command syntax*



Parameters

As shown in Figure 3–30, the `Display Message` command includes the following parameters:

Msg or Message

display detailed HSC or VTCS message information.

msgnum

the four-digit numeric portion of the message identifier. Leading zeros are not required.

msg-range or msg-list

a range or list of messages for which the system is to display status. Each *msg-list* element can be either a single *msgnum* or a *msg-range*. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

Note: *msg-range* and *msg-list* are only valid when the `Display Message` command is issued from a utility or programmatic interface.

Display MGMTDEF

Interfaces:

- Console or PARMLIB only
- UI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

The `Display MGMTDEF` command displays information about active `MGMTclas` control statements.

AUTO(stor-clas-name)

Optionally, display the number of VTVs for the specified storage class, and their time remaining on the `AUTO` queue. The time remaining is referred to as the age.

stor-clas-name indicates the Storage Class name.

DELAY(stor-clas-name)

Optionally, display the number of VTVs for the specified storage class, and their time remaining on the `DELAY` queue. The time remaining is referred to as the age.

stor-clas-name indicates the Storage Class name.

VTSS(vtss-name)

Display migration status for a specified VTSS (*vtss-name*).

LISTVTVS

List the specific VTVs on the `AUTO` queue. `VTSS` must also be specified.

Output (Display Migrate)

The following is an example of the output produced by the `Display MIGrate` command:

Example 3–18 Display MIGrate output

```
/SLS0000I D MIG VTSS(HBVTSS16)
VTSSNAME: HBVTSS16
Active migration tasks: 4
Immediate migrate: Max wait: 5 MINUTES
Immediate delay queue: Active
Auto migrate: Host: EC20 MIGRATION TARGET: 70%
```

Fields

`Display MIGrate` command output includes the following fields:

VTSSNAME

the VTSS migrating the VTVs.

ACTIVE MIGRATION TASKS

the total number of migration tasks (automatic, immediate, and migrate-to-threshold).

IMMEDIATE MIGRATE

either Not active if there are no current or pending immediate migrations or the maximum time that any VTV has been waiting for immediate migration. This field only shows status for the LPAR on which the query was issued.

IMMEDIATE DELAY QUEUE

indicates whether there are VTVs on the Immediate Migrate Queue.

AUTO MIGRATE

either Not active or the name of the host and migration target (`LAMT` or specified threshold for a migration-to-threshold) if auto migration is active on any host.

Output (Display Migrate DETail)

The following is an example of the output produced by the `Display MIGrate DETail` command:

Example 3–19 Display MIGrate DETail output

```

/SLS0000I D MIG DET
VTSSNAME: DVTSS16
Active migration tasks: 2
Immediate migrate: Max wait: 1 minutes
Immediate delay queue: Not active
Auto migrate: Not active

```

Storage Class	ACS	Max/Onl RTDs	---SCH-- Lim Pref	Req Act	--Auto-- GB	---Immed--- Delay	GB	Weight /Skip
S1	00	16 16	1 0	1	-	1	9	50/ 0
S2	00	16 16	1 0	1	-	1	9	50/ 0

Fields

Display MIGrate command output includes the following fields:

STORAGE CLASS

the Storage Class associated with the migration.

If you do not explicitly assign a Storage Class, an MVC's default Storage Class is the name of the last VTSS that wrote to the MVC for reclamation or migration and this class has the VTCS default media selections. To change these defaults, create a Storage Class with the VTSS name and specify the desired media selection order.

ACS

the ACS defined for the Storage Class. For migrations to VLEs, this is the VLE name. If this column indicates ****ANY****, then migrations to any location are allowed, subject to any other restrictions.

MAX/ONL RTDs

- the maximum number of RTD tasks based on the Storage Class and RTD configuration definitions.
- the maximum number of tasks for those RTDs that are actually online (**MAX TASKS** minus the number of offline RTDS).

SCH

SCHLIMIT and SCHPREF values from MIGRSEL statements that apply to the active migration for the storage class.

Req Act

the number of active migration tasks.

ACTIVE TASKS

the number of migration tasks currently active for the Storage Class.

AUTO

indicates whether the Storage Class contains automatic migration VTVs.

IMMED

indicates whether the Storage Class contains immediate migration VTVs.

WEIGHT (percent)

the priority of the Storage Class compared to other Storage Classes for the VTSS. Storage Classes with higher priorities are assigned a greater proportion of migration tasks.

Output (Display MIGrate AUTO)

The following is an example of the output produced by the `Display MIGrate AUTO` command:

Example 3–20 Display MIGrate AUTO output

```
/SLS0000I D MIG AUTO(S1) VTSS(DVTSS16) LISTVTVS

/SLS6603I VTVs awaiting migration:

DX0601 DX0920

2 volumes with an age range of 3-5 in the queue
```

Output (Display MIGrate DELAY)

The following is an example of the output produced by the `Display MIGrate DELAY` command:

Example 3–21 Display MIGrate DELAY output

```
/SLS0000I D MIG DELAY(S2) VTSS(DVTSS16) LISTVTVS

/SLS6603I VTVs awaiting migration:

DX0800 DX0900

2 volumes with an age range of 3-5 in the queue
```

Display MNTD

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

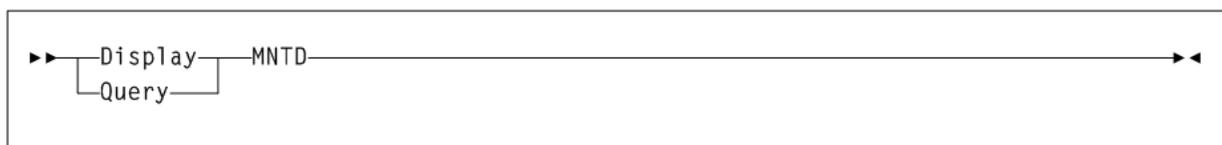
Description

The `Display MNTD` command displays current settings for all HSC mount options set by the `MNTD` command.

Syntax

Figure 3–51 shows `Display MNTD` command syntax.

Figure 3–51 Display MNTD command syntax



Parameters

None.

Display MONitor**Interfaces:**

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

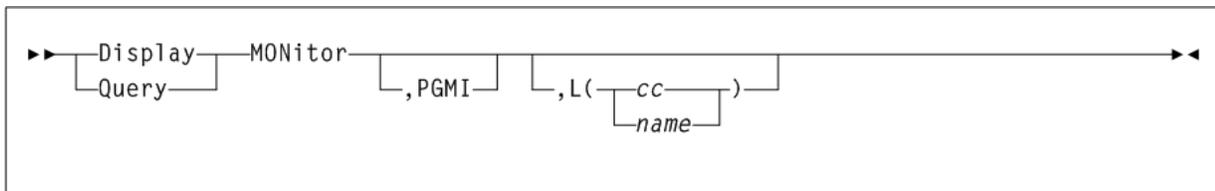
Active HSC at BASE or FULL service level

Description

The Display MONitor command displays a list of the monitoring consoles.

Syntax

Figure 3–52 shows Display MONitor command syntax.

Figure 3–52 Display MONitor command syntax**Parameters**

As shown in Figure 3–52, the Display MONitor command includes the following parameters:

,PGMI

optionally, displays the status of the monitoring of move requests received by the programmatic interface.

,L

optionally, displays the type of requests being monitored by the specified console. Console IDs and console names must be two to eight characters long.

cc

the console ID.

name

the console name.

If both PGMI and L are omitted, the status of all monitoring is displayed.

Display MVC**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

DescriptionThe `Display MVC` command displays information about a specific MVC.**Syntax**Figure 3–53 shows `Display MVC` command syntax.**Figure 3–53** *Display MVC command syntax***Parameters**As shown in Figure 3–53, the `Display MVC` command includes the following parameters:**volser**

the volser of the MVC.

OutputThe following is an example of the output produced by the `Display MVC` command:**Example 3–22** *Display MVC output*

```

Volser:                702532
Media:                 T1B000T1
ACSid:                 00
Size(Mb):              1000000
Migrated Count:       19
Vtv Count:             19
%Used:                 7.41
%Fragmented:           0.00
%Available:            92.59
%Usable:                0.00
Times Mounted:        77
Last Mounted:          2010Mar15 10:40:54
Last Migration:        2010Jan14 14:41:04
Last Drain/Reclaim:   2010Feb23 13:55:26
Owner:                 ALP
VTSS:                  HBVTSSY
MVCPOOL:               ALPMVC
Security access:       No profile
Status:                Initialized
Format:                Partitioned

```

FieldsThe `Display MVC` command output includes the following fields:

VOLSER

the volser of the MVC.

MEDIA

the volume media type or recording technique. Should the value 'Need PTF' appear, then this host lacks support for this media type. Another host does have support for this media type.

ACSID

the ACS containing the MVC, or the VLE containing remote MVC volumes or VMVCs in VLEs. This will not appear if the MVC has been ejected from the library. ****MANY**** indicates that an MVC with a specific volser has been discovered in more than one location. MVCs in this state are marked unusable.

SIZE (MB)

the size of the MVC in megabytes.

MIGRATED COUNT

the number of VTVs migrated.

VTV COUNT

the number of active VTVs on the MVC.

%USED

the percentage of the MVC used by valid VTVs.

%FRAGMENTED

the percentage of the MVC that has invalid VTV space that is not available for use until it is reclaimed or the MVC is drained.

%AVAILABLE

the percentage of the MVC that is physically available for use.

%USABLE

the percentage of space on the MVC that can be used by VTCS. This may be zero even if there is still space physically available. For instance, if the VTV per MVC limit is reached then the %Usable will be reported as 0%. Similarly, if an error has been reported against an MVC then VTCS will not use this MVC for output and the %Usable will be reported as %0.

TIMES MOUNTED

the number of times the MVC has been mounted for writing or reading since it was added to the MVC inventory

LAST MOUNTED

the date and time at which the MVC was mounted or attempted to be mounted upon a RTD.

LAST MIGRATED

the date and time at which the last VTV migration was performed to the MVC.

LAST VERIFIED

the date and time at which the last VTV media verify was performed to the MVC.

This date reflects the last time that VTCS knew the MVC contents were valid where the date is the most recent of the following:

- The date/time the MVC was verified with MEDVER.fy.

- The date/time the MVC was migrated to from an empty state.

LAST DRAIN/RECLAIM

the date and time at which the MVC was last processed by Drain or reclaim processing and had its end-of-tape pointer reset.

OWNER

the Storage Class that owns the MVC. An MVC only becomes a member of a storage class when it contains migrated VTVs.

VTSS

the last VTSS that performed a migration to the MVC. CONSOLIDATE appears in this field for consolidated VTVs.

MVCPPOOL

either an MVC Pool Name (including DEFAULTPOOL) or NO if the MVC is not defined on an MVCPool statement.

SECURITY ACCESS

VTCS permissions for the MVCs defined in an MVCPPOOL statement (UPDATE, NO UPDATE, or NO PROFILE).

STATUS

one of the following statuses:

INITIALIZED

The MVC has been initialized.

BEING AUDITED

The MVC is either currently being audited or has been the subject of a failed audit. While in this state the MVC will not be used for migration and can be used for recalls. Due to the inherent state, recalls may fail because the CDS not yet up-to-date with the MVC contents. To clear this condition, rerun the AUDIT utility against this MVC.

LOGICALLY EJECTED

The MVC has either been the subject of an MVCDRAIN Eject or the MVC was rejected for update by a RACROUTE call. The MVC will not be used again for migration. To clear this condition, use MVCDRAIN against the MVC without the Eject option.

NOT-INITIALIZED

The MVC has been defined through the CONFIG utility, but has not ever been the subject of a successful VTV migration.

MOUNTED

The MVC is mounted on an RTD.

IN ERROR

This is a generic error that indicates the MVC, drive, or combination of the two has specifically reported a problem whilst accessing the MVC. VTCS attempts to de-preference the usage of MVCs with this state. VTCS considers this to be the most serious affliction on a MVC when considering copies to be used for recalls.

In general, to clear this state:

- If the MVC caused the problem, use a DRAIN (EJECT) command to remove the MVC from service.

- If the RTD caused the problem, use the `MVCMaint` utility to reset the MVC state.

Note: One or more of the following messages is issued for `IN ERROR` status: `SLS6686`, `SLS6687`, `SLS6688`, `SLS6690`. Refer to Oracle's ELS publication *ELS Messages and Codes* for recovery procedures for these messages.

MARKED FULL

The MVC is considered as being full and is not a candidate for further migrations. Due to the general behavior of tape media this can occur before the MVC has reached its nominal capacity.

DRAINING

The MVC is either currently the subject of drain or reclaim processing. Should the processing fail, the MVC maybe left in this state as a safeguard. To clear this condition, perform an `MVCDrain` against the MVC.

LOST - FAILED TO MOUNT

VTCS attempted to mount an MVC and the mount did not complete within a 15-minute time-out period. VTCS has had no specific error report although there could be combination of hardware problems, HSC problems, or by the MVC being removed from the ACS. VTCS attempts to de-preference the usage of MVCs with this state.

Determine the cause of the error and fix it. You can also use the VTCS `MVCMaint` utility to set `LOST(OFF)` for the following events:

- `LOST(ON)` was set due to LSM failures or drive errors that have been resolved
- `LOST(ON)` was set because the MVC was outside the ACS and has been reentered.

This condition is automatically cleared by VTCS if it subsequently requests a mount of the MVC and this is successful.

DATA CHECK

A data check condition has been reported against this MVC. VTCS attempts to de-preference the usage of MVCs with this state. To get into this state, a data transfer must have failed upon two different RTDs.

To clear this state:

- If all VTVs on the MVC are duplexed, use `MVCDrain` on the MVC without the `Eject` option. This recovers all VTVs and removes the MVC from service.
- If all VTVs on the MVC are not duplexed, VTCS `AUDIT` the MVC. The audit will probably fail. After the audit, do an `MVCDRAIN` (no `eject`). This recalls the VTVs before the data-check area in ascending block-id order and the VTVs after the data-check area in a descending block-id order. Processing the VTVs in this sequence ensures that VTCS recovers as many VTVs as possible from the media. You then need to recreate the data for any VTVs still on the MVC.

Although this indicates that a specific failure has occurred when performing data transfers, this may not be a fault in the media. It could be that a RTD is writing data to the media out of specification. Patterns of failures are therefore important. As an example, lots of `DATA CHECK` conditions suddenly occurring lots of drives and volumes.

READ ONLY

The MVC has been marked read-only because of one of the following conditions:

- The MVC being the target of an export or consolidation process. The read-only state protects the MVC from further updates.
- The MVC media is set to file protect. Correct the error and use the `MVCMMAINT` utility to set `READONLY (OFF)`.
- The MVC does not have the appropriate SAF rules set to enable VTCS to update the MVC. Correct the error and use the `MVCMMAINT` utility to set `READONLY (OFF)`. Refer to Oracle's ELS publication *Installing ELS* for information about defining a security subsystem user ID for HSC, SMC, and VTCS.

RETIRED

The MVC is retired and is considered by VTCS as having reached the end of its useful life. VTCS will recall from, but not migrate to, the MVC. Replace the MVC as soon as possible. Once this has been done, use the `MVCMMAINT` utility to set `RETIRED (OFF)`.

WARRANTY HAS EXPIRED

The MVC's warranty has expired. VTCS continues to use the MVC. You should start making plans to replace the MVC when it reaches Retired state.

INVALID MIR

VTCS has received status from an RTD to indicate the MIR (media information record) for a 9x40 media is invalid. An invalid MIR does not prevent access to data but may cause significant performance problems while accessing records on the tape. The MVC is not capable of high-speed searches on areas of the tape that do not have a valid MIR entry.

VTCS attempts to de-preference MVCs with this condition. For recalls, if the VTV resides on multiple MVCs, VTCS selects MVCs with valid MIRs ahead of MVCs with invalid MIRs. VTCS avoids using MVCs with invalid MIRs for migration, unless the migration is at the beginning of the tape. Migrating from the beginning of tape will correct the MIR. VTCS detects the invalid MIR condition at either mount time or dismount time. If detected at mount time and the operation can be completed with another MVC, VTCS dismounts the first MVC and selects the alternate MVC.

VTCS has only a limited ability to switch to an alternate MVC. That is, it is mainly used for migrate and virtual mount. For MVCs with invalid MIRs, determine the cause of the error, which may be caused by media or drive problems, and fix the error. To recover an MVC with an invalid MIR, read the MVC to the end of the tape, through a VTCS audit. If the media is the problem, run an `MVCDRAIN EJECT` to recall the VTVs and cause the MVC to be removed from the MVC pool.

MIGRATES NOT SUPPORTED

This host lacks support for performing migrations to this MVC. This is set by another host that does support migration.

RECALLS NOT SUPPORTED

This host lacks support for performing recalls from this MVC. This is set by another host that does support recalls.

RECLAIM NOT SUPPORTED

This host lacks support for considering this MVC for reclaim processing. This is set by another host that does support reclaim processing. This does not inhibit the MVC being processed through the `MVCDRAIN` command.

DEDUP requested on last mount

DEDUP (YES) was requested on the last mount.

FORMAT

the VTV format, standard or partitioned.

Display MVCPool**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

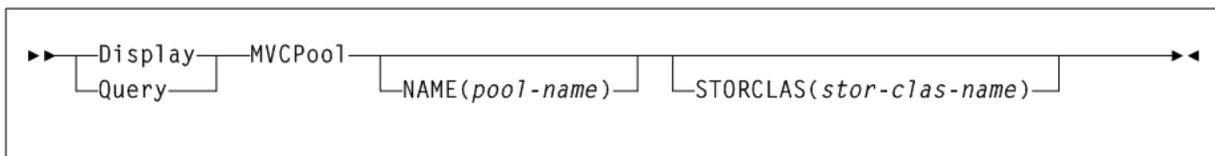
Display MVCPool displays information about a specific MVC pool.

Note: When this command is issued, MVC location information is refreshed to ensure an accurate, up to date result.

Syntax

Figure 3–54 shows Display MVCPool command syntax.

Figure 3–54 Display MVCPool command syntax

**Parameters**

As shown in Figure 3–54, the Display MVCPool command includes the following parameters:

NAME(pool-name)

display information for the specified named MVC pool.

pool-name indicates the MVC pool name as defined using the MVCPOOL control statement. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for more information.

Alternatively, you can specify ALL to display information for all named MVC pools (including the default pool DEFAULTPOOL).

STORCLAS(stor-clas-name)

display information about MVCs by Storage Class.

stor-clas-name indicates the name of a specific Storage Class for which you want MVC usage displayed.

This may be for current valid Storage Classes that you defined on the `STORCLAS` control statement, or for Storage Classes which used to exist to which media is still assigned. See "[STORCLAS Control Statement](#)" on page 3-226 for more information.

To display all Storage Classes, specify `ALL` or omit the `STORCLAS` parameter.

Output

The following is an example of the output produced by the `Display MVCPOOL` command with pool name `POOL1` specified:

Example 3-23 Display MVCPOOL output (NAME POOL1)

MVCPOOL (POOL1) INFORMATION

INITMVC	MVCFREE	THRESHOLD	INPTHRSH	MAXMVC	START	RECLAIM	
NO	2	30	43	4	10	DEMAND	
ACS	Media	FREE-MVCS		RECLAIM-MVCS		USED-MVCS	
		VOLS	GB	VOLS	GB	VOLS	GB
00	ECART	120	96	2	0.5	90	45
TMSPB	STK1R	30	600	1	3.5	25	350
00	TOTAL	150	696	3	4.0	115	395

The following is an example of the output produced by the `Display MVCPOOL` command with no pool name specified:

Example 3-24 Display MVCPOOL output (no NAME specified)

MVCPOOL INFORMATION

INITMVC	MVCFREE	THRESHOLD	INPTHRSH	MAXMVC	START	RECLAIM	
NO	2	30	43	4	10	DEMAND	
ACS	MEDIA	FREE-MVCS		RECLAIM-MVCS		USED-MVCS	
		VOLS	GB	VOLS	GB	VOLS	GB
00	ECART	310	248	4	1.2	100	65
00	ZCART	120	192	1	0.5	250	400
00	TOTAL	430	440	5	1.7	350	465
01	ECART	90	144	15	6.2	322	485
01	ZCART	35	700	3	11.3	43	675
01	TOTAL	125	844	18	17.5	365	1160
NLIB	STK2P	22	1100	0	0	12	1565
NLIB	TOTAL	22	1100	0	0	12	1565

Fields

`Display MVCPOOL` command output includes the following fields:

INITMVC

specifies whether un-initialized MVCs are to be initialized when they are first mounted.

MVCFREE

the minimum number of free MVCs.

THRESHOLD

the fragmented space threshold (as a percentage) that determines when an MVC is eligible for demand or automatic reclamation.

INPTHRSH

the fragmented space threshold (as a percentage) that determines when an MVC in partitioned format is eligible for dynamic reclaim processing.

MAXMVC

MVC limit for a single reclaim.

START

specifies a percentage value that represents the ratio of reclaim candidates to total MVCs, which triggers automatic space reclamation.

RECLAIM

specifies the space reclamation setting for the MVC pool.

ACS

- For local tape drives, this column displays the ACS or LSM to which the drive is attached.
- For remote RTDs, this column displays *name: number* where *name* indicates the name of the TapePlex and *number* indicates the number of the ACS in decimal.
- For VLEs, this column displays the VLE name.
- NLIB indicates MVCs that are now outside the library.
- ****MANY**** indicates that an MVC with a specific volser has been discovered in more than one location. MVCs in this state are marked unusable.
- ACSs with no attached RTDs are flagged.

MEDIA

the MVC media type.

FREE-MVCS

MVCs that have 100% usable space and do not contain any migrated VTVs.

The storage shown is the total free space based on media type capacity.

RECLAIM-MVCS

MVCs eligible for space reclamation by this host. The storage shown is the total wasted space, including those MVCs not yet eligible for space reclaim.

USED-MVCS

initialized MVCs that are partially or completely full.

Display OPTion

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

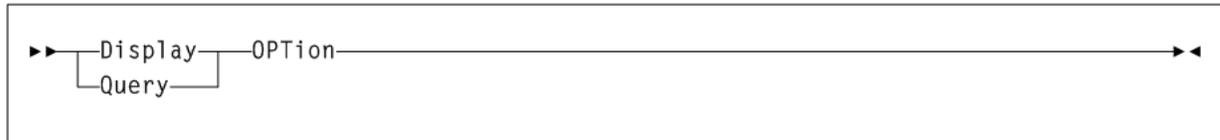
Description

The Display OPTion command displays current settings for general HSC options set by the OPTion command.

Syntax

Figure 3–55 shows Display OPTion command syntax.

Figure 3–55 Display OPTion command syntax



Parameters

None.

Display PATH

Interfaces:

- Console or PARMLIB only
- UII Support: No

Subsystem Requirements:

Active HSC/VTCS

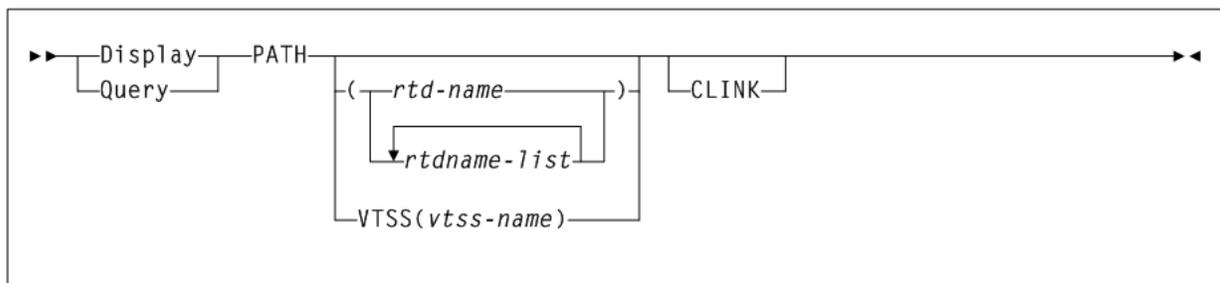
Description

The Display PATH command displays the status of paths from VTSSs to either RTDs or virtual libraries.

Syntax

Figure 3–56 shows Display PATH command syntax.

Figure 3–56 Display PATH command syntax



Parameters

As shown in Figure 3–56, the Display PATH command includes the following parameters:

PATH

optionally, restricts the display to the specified paths.

rtlname or *rtlname-list* indicates the names assigned to the paths for accessing RTDs for Virtual Libraries from a VTSS.

VTSS

optionally, restricts the display to the paths from an individual VTSS.

vtss-name indicates the name of the VTSS to which the paths are configured.

CLINK

optionally, include paths allocated for CLINKs in the display output. Paths for both cluster replication and electronic export are displayed.

Output

The following is an example of the output produced by the `Display PATH` command:

Example 3–25 Display PATH output

VTSSNAME	Type	RTD NAME	CHANIF	Device	Target	State
HBVTSS18	RTD	SS182A01	01 C0E	2A01		Online
	RTD	SS182A06	00 C0I	2A06		Online
	CLINK	HBVTSS19	06 C1A		CLUSTER1	On-Async
	VLIB	SS18IP0	04 I0A:0	V000	WILDCAT1	Online
	VLIB	SS18IP2	04 I1A:0		WILDCAT2	Online
	EEXP	HBVTSS16	05 I0I:0		PRIMARY	On-Sync
HBVTSS19	RTD	SS192A02	01 C0E	2A02		Online
	RTD	SS192A07	00 C0I	2A07		Online
	VLIB	SS19IP0	04 I0A:0	V010	WILDCAT1	Online
	VLIB	SS19IP2	04 I1A:0		WILDCAT2	Online
	EEXP	HBVTSS16	05 I0I:0		PRIMARY	On-Sync

Fields

`Display PATH` command output includes the following fields:

VTSSNAME

the name of the VTSS to which the path is attached.

Type

The type of the path. This can be one of the following:

- RTD – A direct connection to a RTD
- VLIB – A data path connection to a Virtual Library
- CLINK – A CLINK used for cluster replications within the tapeplex
- EEXP – A CLINK used for electronic export to another tapeplex

RTDNAME

The name allocated to the path. For paths defined through the `RTDPATH` statement in the configuration, this is the name assigned through the `RTDNAME` parameter. For a CLINK or EEXP type path, this column will contain the target VTSS name.

CHANIF

the logical device ID assigned to the path and the CHANIF or IPIF value that was specified for the path.

Target

the destination subsystem for the path. For a `VLIB` type path, this contains the `STORMNGR` name assigned to the Virtual Library. For a `CLINK` type path, this contains the name of the cluster. For the `EEXP` type paths, this contains the tapeplex name to which the path is connected.

Device

the destination device for the path. For an `RTD` type path, this contains the MSP address of the tape device. If this is a `VLIB` path that is working in compatibility mode, this will contain the logical device address assigned to the path.

State

The current state of this path. This can be one of the following:

Online

the path is online and available for use.

On-Async

the path is online and available for use for asynchronous replication of VTVs.

On-Sync

the path is online and available for use for synchronous replication of VTVs.

Offline

the path or the device to which it connects has been varied offline.

Maint

the path or the device to which it connects has been varied into an offline maintenance mode. This could be as a result of repeated failures.

Display Queue

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

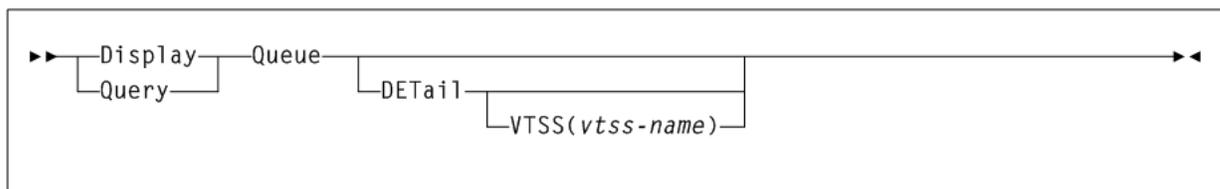
Description

The `Display Queue` command displays status of queued VTCS processes.

Syntax

Figure 3-57 shows `Display Queue` command syntax.

Figure 3-57 *Display Queue command syntax*



Parameters

As shown in [Figure 3–57](#), the `Display Queue` command includes the following parameters:

DETail

optionally, display detailed status.

VTSS(vtss-name)

optionally, display processes for the specified VTSS.

vtss-name indicates the VTSS name.

Output

The following is an example of the output produced by the `Display Queue` command:

Example 3–26 Display Active output (no detail)

```
MIGRATES=3 RECALLS=2 RECLAIMS=0
```

Display REPlicat**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

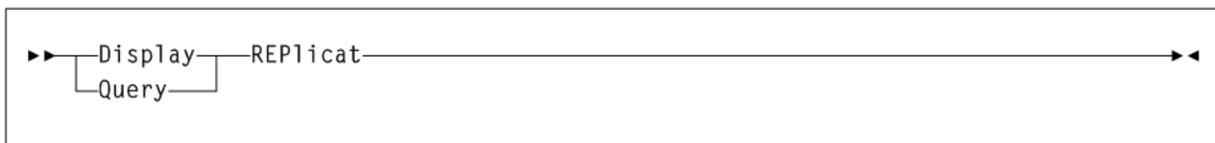
Description

The `Display REPlicat` command displays VTV replication status.

Syntax

[Figure 3–58](#) shows `Display REPlicat` command syntax.

Figure 3–58 Display REPlicat command syntax

**Parameters**

None.

Output

The following is an example of the output produced by the `Display REPlicat` command:

Example 3–27 Display REPlicat output

```
VTSS      Name      Host      Qdepth
HBVTSSY  PLEX1819  EC20      0
```

```

                EC21      0
                ECCL      0
                ECCY      0
HBVTSS18 -Cluster EC20      0
                EC21      0
                ECCL      0
                ECCY      0
*SLS5013I Command completed (0)

```

Fields

Display REPLICAT command output includes the following fields:

VTSS

the Primary or sending VTSS name.

NAME

one of the following values:

name

the name of the TapePlex to which CLINKs are connected from the VTSS.

-Cluster

indicates that the VTSS is a member of a cluster and has CLINKs defined for replication to other VTSSs in the cluster.

HOST

the host attached to the Primary VTSS.

Qdepth

the total number of VTVs waiting to be replicated.

Display Requests

Interfaces:

- Console or PARMLIB only
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

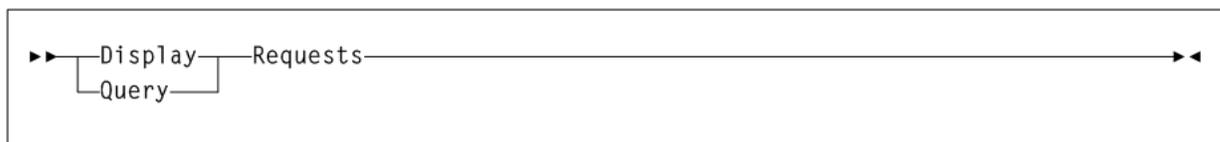
Description

The Display Requests command displays all pending LMU requests.

Syntax

Figure 3–59 shows Display Requests command syntax.

Figure 3–59 Display Requests command syntax



Parameters

None.

Display RTD

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

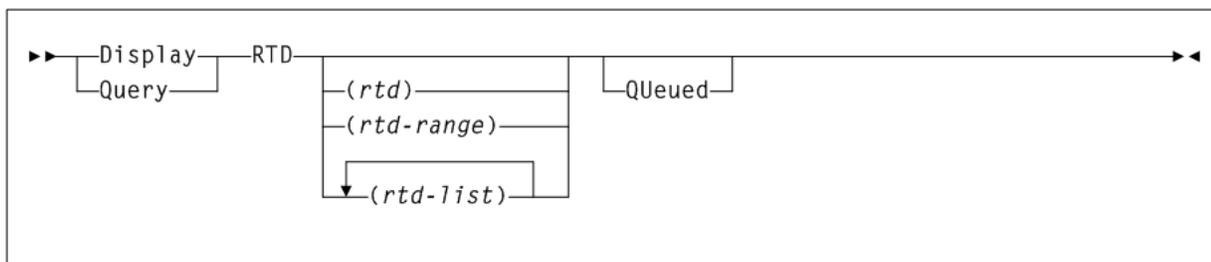
Description

The `Display RTD` command displays usage information for the specified RTDs.

Syntax

Figure 3–60 shows `Display RTD` command syntax.

Figure 3–60 Display RTD command syntax



Parameters

As shown in Figure 3–60, the `Display RTD` command includes the following parameters:

rtd-id, rtd-range, or rtd-list

optionally, the unit addresses of one or more RTDs.

Qeued

optionally, display information about requests queued for the RTD.

Output

The following is an example of the output produced by the `Display RTD` command:

Example 3–28 Display RTD output

RTD	MOUNT	ALLOC	HOST	VTSS	Status	Top ID	Top Host
B200	-	-	-	DHSS16	Offline	01265	ECC20
B201	-	-	-	DHSS16	Offline	02368	ECC20
B202	-	-	-	DHSS16	Online/free		
B201	-	-	-	DHSS16	Online/free		
0B79	-	-	-	DHSS16	Online/free		
0B7A	DMV051*	DMV051	EC20	DHSS18	Recall VTV		
1600					MSP1 :Migrate		
1601					MSP1 :Migrate		

Fields

Display RTD command output includes the following fields:

RTD

the unit address of the RTD.

MOUNT

the volser of the MVC currently mounted (an * indicates an in-process mount.)

ALLOC

the volser of the MVC allocated for mounting on the RTD.

HOST

the host that currently owns the RTD.

VTSS

one of the following:

- The VTSS that is currently connected to the RTD.
- The VTSS that has paths to the Storage Manager containing the vRTD.
- - indicates that there are multiple VTSSs with paths to the Storage Manager containing the vRTD.

Status

One of the following RTD statuses:

AUDIT MVC

An MVC is being audited.

BUSY

The RTD is busy (non-specific task).

FAIL/OFFLINE

The RTD has been placed offline due to a failure.

IDLE

An MVC is allocated to the RTD but the MVC is not being used.

INITIALIZE

The host is verifying RTD status and availability.

MAINTENANCE

The RTD is in maintenance mode.

MIGRATE VTV

The RTD is migrating a VTV.

OFFLINE

The RTD is offline and unavailable to all hosts and VTSSs.

ONLINE/FREE

The RTD is online and available.

PATH MAINT

One or more paths to the RTD have been varied into maintenance mode.

PATH OFFLINE

The RTD status is unknown because the VTSS cannot contact the RTD or if the paths were not correctly configured.

PATH SUSPEND

An RTD is globally online but the path from the VTSS is suspended due to the RTD being paired with a CLINK.

PATHS OFFLINE

There are no online paths to the Storage Manager containing the vRTD and all paths to the Storage Manager containing the vRTD from at least one online VTSS are offline.

RECALL VTV

The RTD is recalling a VTV.

RECOVER RTD

The RTD is being reset after a problem, a vary, or an initialization.

RECOVERY

The RTD is being reset following an error or a vary online mode.

SUSPEND

The RTD operations are suspended. This occurs under the following conditions:

- when two RTDs are connected to two separate ports on the same VSM4 ICE3 card CIP or VSM5, FICON and FIP.
- when one or more RTDs and a CLINK are configured on the same port. The RTDs remain in *SUSPEND* mode while the CLINK is online.

Note: An RTD can only be online if the CLINK is offline.

UNKNOWN

There are no online paths to the Storage Manager containing the vRTD and none of the following statuses apply:

- Paths Offline
- VTSS Offline
- VTSSs Offline

UNLOAD MVC

A forced unload of the RTD is occurring.

VTSS Offline

One of the following:

- The VTSS to which the RTD is connected is offline.
- There are no online paths to the Storage Manager containing the vRTD, *Paths offline* does not apply, and there is one offline VTSS with paths to the Storage Manager containing the vRTD.

VTSSs Offline

One of the following:

- The RTD is connected to multiple VTSSs, all of which are offline.

- There are no online paths to the Storage Manager containing the vRTD, Paths offline does not apply and there are multiple offline VTSSs with paths to the Storage Manager containing the vRTD.

VTV TRANSFER

The RTD is migrating a VTV before recalling it on another VTSS.

TOP ID

the process ID of the request that is top of the queue for next using this RTD from this host. The **TOP ID** column only applies for requests from the host upon which the command has been executed. This host may not have the top claim upon the RTD.

TOP Host

the host which has the request that is at the top of the queue to use this RTD. The **TOP HOST** columns indicates which host has the top claim upon the RTD.

Output

The following is an example of the output produced by the `Display RTD` command with the `QUed` parameter:

Example 3–29 Display RTD output (Display RTD Queued)

ID	Function	Weight	VTSS	MVC list / Storage Class
01360	<X00029>	432*	HBVTSS18	021748 022524
01425	Recall	2	!ALLVTSS	021754
01423	Recall	2	!ALLVTSS	021675
01368	Recall	2	!ALLVTSS	022551
01381	Migrate	2	HBVTSS19 -	*HBVTSS19

Fields

`Display RTD` command output includes the following fields:

ID

the process ID, which is a unique number in the range 0 - 65536. When the process ID reaches 65536, it wraps back to zero.

FUNCTION

the type of request that is queuing for an RTD. If it is a VTV volser inside angle brackets (<>), then this is an auto recall request for a virtual mount.

WEIGHT

the weighting factor that VTCS has currently assigned to the request. The requests will be considered and queued (reported) according to this factor. An asterisks (*) next to the value indicates that the request has been waiting sufficiently long to warrant the stealing of another MVC's allocation.

VTSS

the VTSS or the VTSS list name to be used for selecting RTDs. The special value !ALLVTSS indicates that any VTSS with access to a suitable drive is eligible.

MVC LIST

the list of MVC for which we are attempting to select a RTD. For an auto recall request, this list may run to four MVCs. Conversely, for a migration request that is yet to select an MVC, this will be empty.

STORAGE CLASS

the storage class for which the migration is destined. An asterisks (*) next to the value indicates that this storage class is in an error state.

Display SCRatch**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

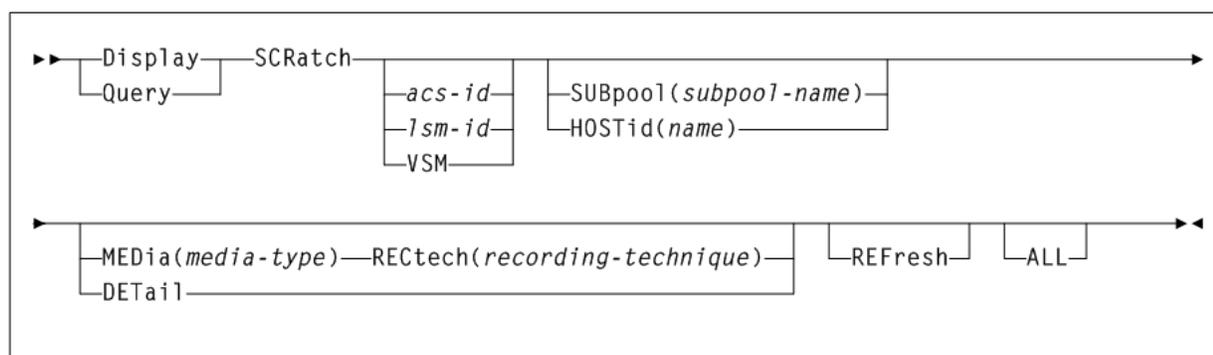
Description

The `Display SCRatch` command displays scratch counts by subpool name, ACS id, LSM id, media type, recording technique, or owning host name.

Syntax

Figure 3–61 shows `Display SCRatch` command syntax.

Figure 3–61 *Display SCRatch command syntax*

**Parameters**

As shown in Figure 3–61, the `Display SCRatch` command includes the following parameters:

acs-id

optionally, the ACS for which the system is to display scratch count information. If you specify *acs-id* without an LSM number, selected scratch counts for the entire ACS are displayed.

lsm-id

optionally, the LSM for which the system is to display scratch count information.

VSM

optionally, restricts the `Display SCRatch` display to subpools with virtual volumes. VSM is not allowed if *acs-id* or *lsm-id* are also specified.

Note: If *acs-id* or *lsm-id* is specified, it must be the first parameter after the `SCRatch` keyword. The `VSM` keyword is not positional.

SUBpool(subpool-name)

optionally, restricts the scratch count display to the named subpool only. If SUBpool is specified, then LSM and ACS totals will reflect only the named subpool. SUBpool is not allowed if HOSTid is also specified.

subpool-name indicates the name of the subpool. Specify up to 13 characters.

HOSTid(name)

optionally, restricts the scratch count display to subpools that are accessible from the named HOSTid. If HOSTid is specified, then LSM and ACS totals will reflect only subpools that can be accessed from the named HOSTid. HOSTid is not allowed if SUBpool is also specified.

name indicates the SMFID or the SMC SERVER ALIASHOST ID of the host. Specify up to 8 characters.

MEDia(media-type)

optionally, restricts the scratch count display to the volumes compatible with the specified media name. If MEDia is specified, then LSM and ACS totals will reflect only the compatible media types.

media-type indicates the media type.

See [Appendix A, "MEDia, RECtech, and MODEL Values"](#) for a list of valid *media-type* values.

RECtech(recording-technique)

optionally, restricts the scratch count display to volumes compatible with the specified recording technique. If RECtech is specified, then LSM and ACS totals will reflect only the compatible recording techniques.

recording-technique indicates the recording technique.

See [Appendix A, "MEDia, RECtech, and MODEL Values"](#) for valid recording-technique values.

DETail

optionally, lists scratch counts by all media and recording techniques. If specified, then an additional level of media and recording technique detail is displayed for every subpool. DETail is not allowed if either MEDia or RECtech are also specified.

REFresh

optionally, updates VSM scratch counts before the display occurs.

Note: The REFresh parameter causes additional I/Os to the CDS and must be used sparingly.

ALL

optionally, lists scratch counts for subpools that have both a 0 scratch count and 0 threshold value. Normally, the Display SCRatch command will only list subpools that have either a nonzero scratch count or nonzero threshold value. Specification of ALL overrides this filter and results in the display of all defined scratch pools.

Output

The following are examples of the output produced by the Display SCRatch command.

The following example shows counts for all LSMs in all ACSs:

Example 3-30 Display SCRatch output (all)

DISPLAY SCRATCH

SLS2638I Scratch Summary

ACS/LSM	Subpool Name	Label	Media	Rectech	Count
VSM	SPV001	SL	VIRTUAL	VIRTUAL	930
VSM	SPV002	SL	VIRTUAL	VIRTUAL	1036
VSM	SPM001	SL	VIRTUAL	VIRTUAL	25
VSM	Total		VIRTUAL	VIRTUAL	1991

LSM 00:00	SP001	SL	All		13
LSM 00:00	SP002	SL	All		31
LSM 00:00	SPM001	SL	All		235
LSM 00:00	Non-Subpool		All		11
LSM 00:00	Total		All		290
LSM 00:01	SP001	SL	All		9
LSM 00:01	Non-Subpool		All		6
LSM 00:01	Total		All		15
ACS 00	SP001	SL	All		22
ACS 00	SP002	SL	All		31
ACS 00	SPM001	SL	All		235
ACS 00	Non-Subpool		All		17
ACS 00	Total		All		305

The following example shows Display SCRatch counts for a single subpool:

Example 3-31 Display SCRatch output (subpool)

DISPLAY SCRATCH SUBPOOL(SPM001)

SLS2638I Scratch Summary

ACS/LSM	Subpool Name	Label	Media	Rectech	Count
VSM	SPM001	SL	VIRTUAL	VIRTUAL	25

LSM 00:00	SPM001	SL	All		235
ACS 00	SPM001	SL	All		235

The following example shows Display SCRatch counts for a single ACS:

Example 3-32 Display SCRatch output (ACS)

DISPLAY SCRATCH ACS 00

SLS2638I Scratch Summary

ACS/LSM	Subpool Name	Label	Media	Rectech	Count
LSM 00:00	SP001	SL	All		13
LSM 00:00	SP002	SL	All		31
LSM 00:00	SPM001	SL	All		235
LSM 00:00	Non-Subpool		All		11
LSM 00:00	Total		All		290
LSM 00:01	SP001	SL	All		9

```

LSM 00:01 Non-Subpool      All           6
LSM 00:01 Total           All           15
ACS 00     SP001          SL           All           22
ACS 00     SP002          SL           All           31
ACS 00     SPM001         SL           All           235
ACS 00     Non-Subpool    All           17
ACS 00 Total              All           305
=====

```

The following example shows Display SCRATCH count detail for a single LSM:

Example 3-33 Display SCRATCH output (LSM)

```
DISPLAY SCRATCH LSM 01:00 DETAIL
```

```
SLS2638I Scratch Summary
```

```

ACS/LSM      Subpool Name Label Media      Rectech      Count
=====
LSM 01:00 SP002          SL      ECART    36TRACK      1
LSM 01:00 SP002          SL      STANDARD 18TRACK      5
LSM 01:00 SP002          SL      STANDARD 36TRACK      5
LSM 01:00 Non-Subpool    All                                     8
LSM 01:00 Total          All                                     19
=====

```

Display SEN

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

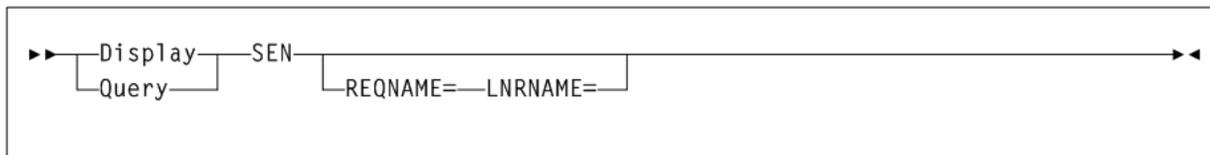
The Display SEN command displays SEN LISTEN requests and their status. This display can display a specific request, using the requestor and listener names, a list of related requests using only the requestor name, or all SEN requests.

Displayed information includes the following:

- Requestor name and listener name if any.
- EOT/EOM settings
- Disable/enable status.
- The token associated with the request.
- The event list of the request.

Syntax

Figure 3-62 shows Display SEN command syntax.

Figure 3–62 Display SEN command syntax**Parameters**

As shown in [Figure 3–62](#), the `Display SEN` command includes the following parameters:

REQNAME=

optionally, specifies the name of the requestor identified on the SEN request.

LNRNAME=

specifies the name of the listener routine identified on the SEN request.

Supported HSC SEN Events

The following table lists supported HSC SEN events.

Table 3–3 HSC SEN Events

Event Name	Numeric Equate
libvol_insert_event	18
libvol_delete_event	19
hsc_termination_event	20
lsmrail_added_event	25
lsmrail_removed_event	26
libdrive_added_event	27
libdrive_removed_event	28

Supported VTCS SEN Events

The following table lists supported VTCS SEN events.

Table 3–4 VTCS SEN Events

Event Name	Numeric Equate
vtss_performance_event	01
vtss_chanif_performance_event	02
vtv_mount_event	03
vtv_dismount_event	04
vtv_delete_event	05
mvc_mount_event	06
mvc_dismount_event	07
vtv_migrate_event	08
vtv_recall_event	09
rtd_performance_event	10

Table 3–4 (Cont.) VTCS SEN Events

Event Name	Numeric Equate
rtd_vary_event	11
mvc_usage_event	12
vtv_movement_event	13
vtv_scratch_event	14
vtv_replicate_event	15
tv_unlink_from_mvc_event	16
clink_vary_event	17

Display SERVER

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

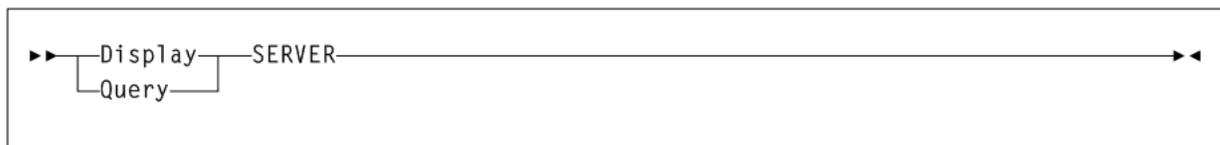
Description

Display SERVER displays service level and database status.

Syntax

Figure 3–63 shows Display SERVER command syntax.

Figure 3–63 Display SERVER command syntax



Parameters

None.

Output

The following is an example of the output produced by the Display SERVER command:

Example 3–34 Display SERVER output

```
SLS1030I HSC service level FULL active
SLS0007I Data Base Status: 125
CDS          DSN                      Active
Primary     ELS.DBASEPRM             Yes
Secondary   ELS.DBASESEC             Yes
Standby     (not configured)          No
```

Display SRVlev

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

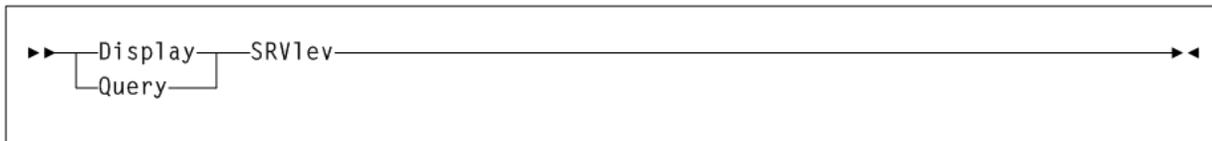
Description

The `Display SRVlev` command displays the current HSC service level for the host issuing the command.

Syntax

Figure 3–64 shows `Display SRVlev` command syntax.

Figure 3–64 *Display SRVlev command syntax*



Parameters

None.

Display Status

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

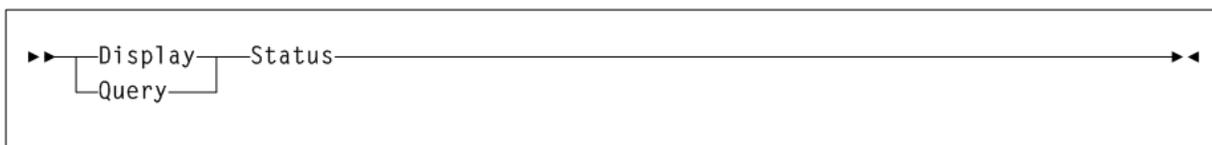
Description

The `Display Status` command displays the status of pending requests currently active on the host issuing the command.

Syntax

Figure 3–65 shows the syntax for the `Display Status` command.

Figure 3–65 *Display Status command syntax*



Parameters

As shown in [Figure 3–66](#), the `Display STORCLas` command includes the following parameters:

stor-clas-name

the Storage Class name, which can be any Storage Class, not just those defined through the `MGMTDEF` command. Thus, *stor-clas-name* can take the value of a *vtss-name* or `!ERROR`, to allow details of migrations to these Storage Classes to be displayed.

DETail

optionally, the output lists VTVs currently queued for automatic migration or immediate migration with this Storage Class.

MAXvtv(nnnn)

optionally, indicates the maximum number of VTVs to be listed in a single automatic migration or immediate migration list (for a VTSS).

nnnn indicates a maximum number of VTVs, from 0-9999. If not specified, a default value of 100 is used.

`MAXvtv(nnnn)` implies `DETail`.

Caution: When you specify `MAXvtv(nnnn)`, high values can cause temporary system degradation due to the number of WTO (write to operator) messages issued.

Output

The following is an example of the output produced by the `Display STORCLas` command:

Example 3–35 Display STORCLas output

Summary of storage class XCA8:

MVCs must be in ACS 00 and MVCPool DEFAULTPOOL

RTDs can be any device type

MVCPool DEFAULTPOOL contains no free MVCs

There is 1 VTV awaiting auto-migration from VTSS CLIVSS16
V00002 with MGMTCLAS XCA8

VTSS CLIVSS16 has no suitable RTDs online in ACS 00

VTSS CLIVSS17 has no suitable RTDs online in ACS 00

As shown in [Example 3–35](#), `Display STORCLas` output displays the following:

- The characteristics of the Storage Class (ACS, MVC Pool, and Media).
- VTVs waiting migration to the Storage Class from any VTSS.
- Requirements of the MVCs to be used for migration.
- The device type(s) of the RTDs needed to write to the migration MVCs.
- Any errors with regard to satisfying the migration requirements.

Display `STORMNgr` command output includes the following fields:

Name

the name of the external storage manager

Type

the type of Storage Manager:

- HSC – An HSC in another TapePlex
- VLE – A VLE

Version

the software version currently executing on the Storage Manager

Status

the current status of the Storage Manager

Features

a list of significant features installed or supported by the Storage Manager

Device

the destination device for the path. This column is blank in the connection to the Storage Manager is for autonomous device data transfers.

Name

the name allocated to the path within the Storage Manager. This column is blank if the Storage Manager is just for servicing mounts and dismounts to the device. If this is for a CLINK, then this column displays the target VTSS name.

VTSS

the name of a VTSS which has this connection to this Storage Manager. This column is blank if the device is driven directly by the Storage Manager.

CHANIF

the logical device Id assigned to the path and the CHANIF or IPIF value that was specified for the path. This column is blank if the path to the Storage Manager is not directly from a VTSS.

Display TASKs

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

Description

The `Display TASKs` command displays task status.

Syntax

[Figure 3–68](#) shows `Display TASKs` command syntax.

Figure 3–68 Display TASKs command syntax**Parameters**

None.

Output

The following is an example of the output produced by the Display TASKs command:

Example 3–37 Display TASKs output

TASK NBR	TASK TYPE	SLOT ID	VTSS	RTD	CURRENT PROCESS	LOCKS HELD	WAITQ COUN	PENDQ COUNT
000	DSP	019			518	T		
001	SS	034	HBVTSS16	SS16B200		T		
002	RTD	035	HBVTSS16	SS16B201		R		
003	RTD	036	HBVTSS16	SS160B79		R		
004	RTD	044	HBVTSS16	SS160B7A		R	1	
005	RTD	045	HBVTSS16	SS160B7C		R		

Fields

Display TASKs command output includes the following fields:

TASK NBR

the task number for each task on the current host.

SLOT ID

the LOCK identifier within the lock buffer.

TASK TYPE

the task type:

- INV - Inventory Manager
- CMD - Command Task
- Ctc - Cross TapePlex Communication Manager
- DSP - Dispatcher Task
- SS - VTSS Task
- RTD - RTD Task
- DRV - RTD Scheduler
- SCR - Scratch Manager
- RCM - Reclaim Manager
- MSC - Migration Scheduler
- CSH - Clink Scheduler
- CLK - CLINK Task
- UNK - Unknown

VTSS

the VTSS name.

RTD

the RTD name for RTD tasks.

CURRENT PROCESS

the current process ID.

LOCKS HELD

type of lock held:

- T - Task lock
- M - MVC Lock
- V - VTV Lock
- D - VTD Lock
- R - RTD Lock

WAITQ COUNT

the count of requests waiting for locks.

PENDQ COUNT

the count of pending requests.

Display THReshld

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

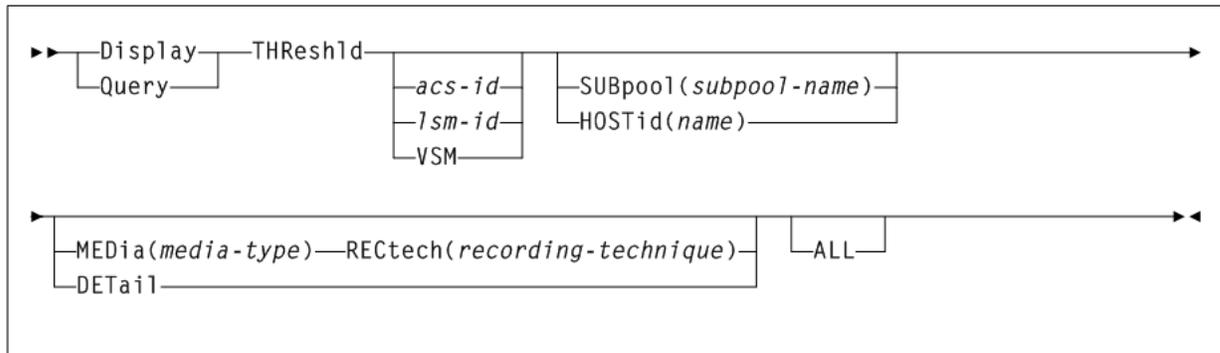
Description

`Display THReshld` displays scratch count and scratch threshold information by subpool name, ACS id, LSM id, media, and recording technique.

Syntax

[Figure 3–69](#) shows `Display THReshld` command syntax.

Figure 3–69 Display THReshld command syntax



Parameters

As shown in Figure 3–69, the Display THReshld command includes the following parameters:

THReshld

display scratch count and threshold information which can include scratch counts and scratch thresholds by subpool name, ACS id, LSM id, media, and recording technique.

acs-id

optionally, the ACS for which the system is to display scratch count and scratch threshold information. If you specify *acs-id* without an LSM number, selected scratch counts for the entire ACS are displayed.

lsm-id

optionally, the LSM for which the system is to display scratch count and scratch threshold information.

VSM

optionally, restricts the Display THReshld display to subpools with virtual volumes. VSM is not allowed if *acs-id* or *lsm-id* are also specified.

Note: optionally, restricts the Display THReshld display to subpools with virtual volumes. VSM is not allowed if *acs-id* or *lsm-id* are also specified.

SUBpool(subpool-name)

optionally, restricts the scratch count and scratch threshold display to the named subpool only. If SUBpool is specified, then LSM and ACS totals will reflect only the named subpool. SUBpool is not allowed if HOSTid is also specified.

subpool-name indicates the subpool name. Specify up to 13 characters.

HOSTid(name)

optionally, restricts the scratch count and scratch threshold display to subpools that are accessible from the named HOSTid. If HOSTid is specified, then LSM and ACS totals will reflect only subpools that can be accessed from the named HOSTid. HOSTid is not allowed if SUBpool is also specified.

name indicates the **SMFID** or the **SMC SERVER ALIASHOST ID** of the host. Specify up to 8 characters.

MEDia(media-type)

optionally, restricts the scratch count and scratch threshold display to the volumes compatible with the specified media name. If MEDia is specified, then LSM and ACS totals will reflect only the compatible media types.

media-type indicates the name of the desired media to display. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid media name values.

MEDia is not valid with the VSM parameter.

RECtech(recording-technique)

optionally, restricts the scratch count and scratch threshold display to volumes compatible with the specified recording technique. If RECtech is specified, then LSM and ACS totals reflect only the compatible recording techniques.

recording-technique indicates the name of the desired recording technique to display. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid media name values.

RECtech is not valid with the VSM parameter.

DETail

optionally, lists scratch counts and scratch threshold information by all media and recording techniques. If specified, then an additional level of media and recording technique detail is displayed for every subpool. DETail is not allowed if VSM, MEDia or RECtech are also specified.

ALL

optionally, lists scratch counts for subpools that have both a 0 scratch count and 0 threshold value. Normally, the Display THRESHold command will only list subpools that have either a nonzero scratch count or nonzero threshold value. Specification of ALL overrides this filter and results in the display of all defined scratch pools.

Output

The following is an example of the output produced by the Display THRESHold command:

Example 3–38 Display THRESHold command output

```
DISPLAY THRESHOLD
```

```
SLS2649I Threshold Value Summary
```

ACS/LSM	Subpool Name	Label	Media	Rectech	Count	Thresh
VSM	SPV001	SL	VIRTUAL	VIRTUAL	930	0
VSM	SPV002	SL	VIRTUAL	VIRTUAL	1036	0
VSM	SPM001	SL	VIRTUAL	VIRTUAL	25	0
VSM	Total		VIRTUAL	VIRTUAL	1991	0
LSM 00:00	SP001	SL	All		13	0
LSM 00:00	SP002	SL	All		31	0
LSM 00:00	SPM001	SL	All		235	0
LSM 00:00	Total		All		290	0
LSM 00:01	SP001	SL	All		9	0
LSM 00:01	Total		All		15	0
ACS 00	SP001	SL	All		22	0
ACS 00	SP002	SL	All		31	0
ACS 00	SPM001	SL	All		235	0

```

ACS 00 Total                All                305        0
=====

```

Display Volser

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at BASE or FULL service level

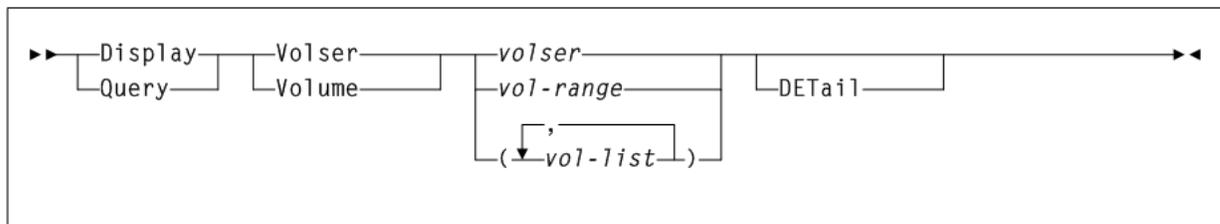
Description

The `Display Volser` command displays volume information.

Syntax

[Appendix 3-70](#) shows `Display Volser` command syntax.

Figure 3-70 *Display Volser output example*



Parameters

As shown in [Figure 3-70](#), the `Display Volser` command includes the following parameters:

Volser or Volume

displays volume locations for the specified volumes. The information displayed includes:

- status of volume (selected or unselected) and its location
- the source, destination, and home location (for an errant volume)

`volser`, `vol-range`, or `vol-list` indicates one or more VOLSERs for which the system is to display status. Each `vol-list` element can be either a single VOLSER or a VOLSER range. You can display a range of up to 100 volumes.

List elements must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

DETail

optionally, displays all available information about the specified volume(s).

Output

The `Display Volser` command displays the following information:

- home cell location

- whether the volume is a scratch cartridge
- whether the volume is selected
- owning host (displayed if the volume is selected)
- drive address or drive ID (displayed if the volume is mounted)
- whether an external label is present
- whether the media label is readable by the robotic vision system (displayed if the external label exists)
- when the volume was last inserted into the library
- when the volume was last selected
- select count
- media type for the volume
- recording technique for the volume
- whether the media label was readable (N/A appears if the value was not read from the LMU)
- how the media type has been determined for the volume. The values that appear in this field include:

YES

The media label and the VOLPARM defined for the volume agree.

NO

The media label and the VOLPARM defined for the volume do not agree.

VOLATTR Only

A VOLPARM has been defined, but the LMU has not determined the media type.

Label Only

The LMU has determined the media type, but a VOLPARM has not been defined.

Undefined

A VOLPARM has not been defined, and the LMU has not determined the media type.

- whether the volumes are unusable (that is, spent cleaning cartridges)
- volume density for STK1 and STK2 media volumes.
- Media Warranty Life (MWL) percentage, stored on the cartridge MIR and collected during dismount processing. MWL percentage indicates how much of the media life has been used.

volser, *vol-range*, or *vol-list* indicates one or more VOLSERs for which the system is to display status. Each *vol-list* element can be either a single VOLSER or a VOLSER range. You can display a range of up to 100 volumes.

List elements must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

ALL

Only real (non-virtual) volumes are listed. Volumes are listed in random order.

Display VSCRatch

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

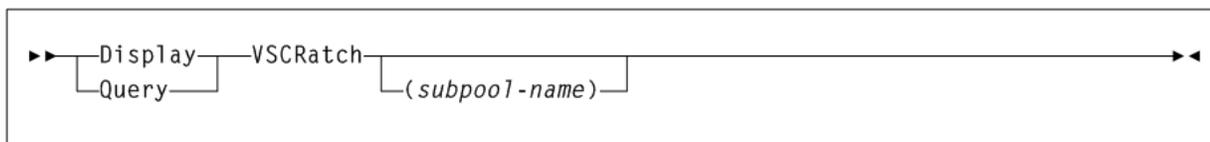
Description

The `Display VSCRatch` command displays diagnostic information for virtual scratch counts.

Syntax

Figure 3–72 shows `Display VSCRatch` command syntax.

Figure 3–72 Display VSCRatch command syntax



Parameters

As shown in Figure 3–72, the `Display VSCRatch` command includes the following parameters:

subpool-name

optionally, a subpool name. Specify up to 13 characters.

If a subpool name is specified, the virtual scratch count display is restricted to the named subpool only.

Output

The following is an example of the output produced by the `Display VSCRatch` command:

Example 3–39 Display VSCRatch output

Subpool-Name	Scratch Count	Label Type	<--- Sizes available ---->			
			0.4GB	0.8GB	2GB	4GB
M0	972	SL	Yes	Yes	Yes	Yes
M1	994	SL	Yes	Yes	Yes	Yes
M2	1,000	SL	Yes	Yes	Yes	Yes

Fields

Display VSCRatch command output includes the following fields:

Subpool-Name

the name of the scratch subpool. VTCS does not display scratch counts for non-subpool VTVs. If there are no VTV subpools defined, VTCS defines the Virtual Tapes pool for all VTVs.

Scratch Count

the number of scratch counts.

Label Type

one of the following scratch label types:

- SL indicates standard-labeled tape.
- AL indicates ANSI-labeled tape.
- NL indicates nonlabeled tape.
- NSL indicates nonstandard labeled tape.

Sizes available

valid VTV sizes (0.4GB, 0.8GB, 2GB, 4GB).

Display VTD**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

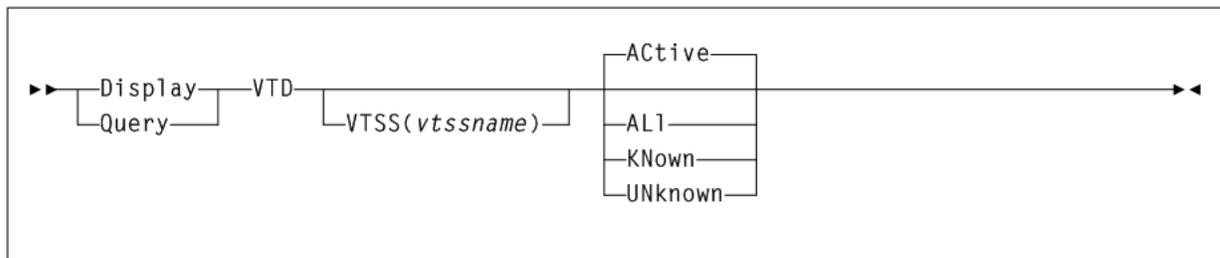
Description

The Display VTD command displays VTD status.

Syntax

Figure 3-73 shows Display VTD command syntax.

Figure 3-73 Display VTD command syntax



Parameters

As shown in [Figure 3–69](#), the `Display THReshld` command includes the following parameters:

VTSS(*vtss-name*)

Optionally, display status for the VTDs connected to the specified VTSS.

vtss-name indicates the VTSS name.

Active

Display status for VTDs that have a VTV mounted. This can include both known and unknown VTDs.

ALI

Display status for all VTDs.

KKnown

Display status for all VTDs that have a known MSP address on this system.

UNknown

Display status for all VTDs that do not have a known MSP address on this system.

Output

The following is an example of the output produced by the `Display VTD` command:

Example 3–40 Display VTD output

Drive	Location	VTV	Status	Usage	Client address
A800	HBVTSS16	X00778	Available	ECAM only	
A801	HBVTSS16		Available	ECAM only	
A802	HBVTSS16		Available	ECAM only	
A803	HBVTSS16		Available		EC21:B412

Fields

`Display VTD` command output includes the following fields:

Drive

The MSP device address of the VTD. If the device address is prefixed by a # sign then this is the address within the VTSS, the MSP address is unknown to this VTCS.

Location

the VTSS that contains the VTD.

VTV

the VTV volser if applicable.

Status

one of the following VTD statuses:

Available

The VTD is available for work.

Dismounting

The VTV volser shown in the VTV column is was mounted on the VTD and the VTD has been unloaded. VTCS either has not received the dismount request or is currently in the progress of synchronizing the VTV and CDS information.

Imported

The VTV volser shown in the VTV column has been electronically imported through the VTD. It is awaiting the confirmation request from the host that performed the export.

Importing

The VTV volser shown in the VTV column is being electronically imported through the VTD.

Mounted

The VTV volser shown in the VTV column is mounted on the VTD.

Mounting

The VTV volser shown in the VTV column is in the process of being mounted on the VTD. Typically, this indicates that an auto recall is in progress.

Mount (other)

The VTV volser shown in the VTV column is mounted on the VTD. The mount was not performed by the host on which the command was executed.

Not Available

The VTD is not available for work.

Redrive Later

A previous attempt to mount the VTV volser shown in the VTV column upon the VTD failed. It will be interpreted again within the next few minutes.

Replicating

The VTV volser shown in the VTV column is in the process of being replicated.

Undefined

The VTV volser shown in the VTV column is undefined.

Unknown

The VTV volser shown in the VTV column is unknown.

Usage

one of the following:

Configuring

Configuration of the VTD is in progress.

ECAM init error

Unable to initialise VTD through ECAM-t with VTSS.

ECAM I/O error

ECAM-t I/O has failed on this VTD.

ECAM only

The VTD is one of the VTDs connected to another VTSS for the process of replicating VTVs. In [Example 3–40](#), X00778 is the VTV being replicated.

Not accessed

The VTD is not found in the VTSS configuration.

Not verified

The VTD is defined with NOVERIFY in the configuration.

Client address

the address of the drive as reported by the client that last performed a mount on the VTD.

Display VTSS

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

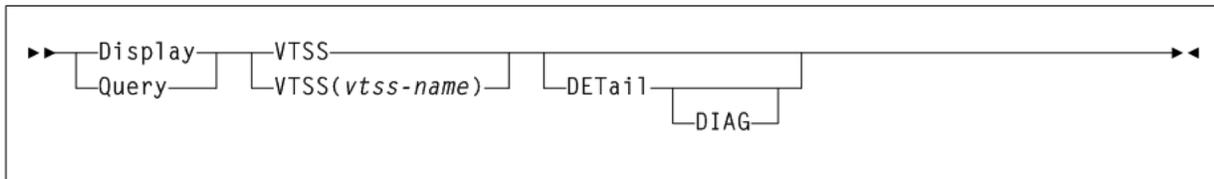
Description

The `Display VTSS` command displays VTSS status.

Syntax

Figure 3-74 shows `Display VTSS` command syntax.

Figure 3-74 *Display VTSS command syntax*



Parameters

As shown in Figure 3-74, the `Display VTSS` command includes the following parameters:

vtss-name

optionally, indicates the VTSS for which to display status.

DETail

optionally, display detailed VTSS status information including supported features.

DIAG

optionally, display more detailed diagnostic information about the TCP/IP connections and control parameters in effect.

Output

The following is an example of the output produced by the `Display VTSS` command:

Example 3-41 *Display VTSS output*

VTSSNAME	CAPACITY (GB)	DBU	HI AMT	LOW AMT	VTV COUNT	MX MT	MN MT	Def ACS	AUTOMIG	STATE	RTDs
HBVTSS16	56.209	9	35	30	204	6	1	--		On-P	Yes
HBVTSS17	56.209	7	35	30	218	4	3	02		On-P	Yes
HBVTSS18	N/A	N/A	35	30	N/A	3	1	01		Off	Yes
HBVTSS19	93.184	5	35	30	110	3	1	01		On	Yes

Fields

Display VTSS command output includes the following fields:

VTSSNAME

the name of the VTSS.

CPCTY(GB)

the total physical capacity in gigabytes of the specified VTSS.

DBU

the percentage of disk buffer used of the total buffer capacity.

HI AMT

the high AMT.

LOW AMT

the low AMT.

VTV COUNT

the number of VTVs resident on the VTSS.

MX MT

the current MAXMIG value.

MN MT

the current MINMIG value.

DEF ACS

the default ACS.

AUTOMIG

indicates which host is performing the auto migration and the threshold to which the VTSS is migrating.

STATE

one of the following global VTSS states for all hosts:

QUIESCING

Quiescing state.

QUIESCED

Quiesced state.

OFFLINE

Offline state.

OFFLINE-P

Offline pending state.

ONLINE

Online state.

ONLINE-P

Online pending state.

STARTED

The VTSS is initialized and in process of going to the requested state (online, offline, or quiesced).

RTDs

indicates whether the VTSS has RTDs.

Display VTSS DETail Output

The following is an example of the output produced by the `Display VTSS DETail` command:

Example 3–42 Display VTSS Detail output

Vtss	Host	Nomigrat	Noreclam	State
HBVTSS16	EC104	Y	Y	Online
HBVTSS16	EC21	N	Y	Online
HBVTSS17	EC21	N	Y	Quiesced
HBVTSS17	EC10	Y	Y	Offline

VTSS	TYPE	SUPPORTED FEATURES
HBVTSS16	VSM5	2/4GB VTVS LARGE PAGE VTVS NOWAIT ON RTD MOUNT BUDDY QUEUING SYNC REPLICATE LAST USE HINT MGMT CLASS ON MVCS CONNECT to 32 RTDS STACKED MIGRATES

Fields

`Display VTSS DETail` command output includes the following fields:

VTSSNAME

the VTSSs that the hosts in the **HOST** field can access.

HOST

the hosts that have access to the VTSSs in the **VTSSNAME** field.

NOMIGRAT

whether **NOMIGRAT** is set on for this host.

NORECLAM

whether **NORECLAM** is set on for this host.

STATE

one of the following VTSS states for this host:

QUIESCING

Quiescing state.

QUIESCED

Quiesced state.

OFFLINE

Offline state.

OFFLINE-P

Offline pending state.

ONLINE

Online state.

ONLINE-P

Online pending state.

STARTED

The VTSS is initialized and in process of going to the requested state (online, offline, or quiesced).

ACCESS

The connection method employed for the host, either TCPIP or CHANNEL ECAM-T protocol.

TYPE

VTSS model (VSM2, VSM3, VSM4, VSM5, or unknown).

SUPPORTED FEATURES

One or more of the following:

400MB | 800MB | 2/4GB VTVS

Default VTV size.

LARGE PAGE | STANDARD PAGE VTVS

Default VTV page size.

NOWAIT ON RTD MOUNT

VTSS supports polling for RTD mount completion. It does not lock the Nearlink interface while waiting for the mount.

BUDDY QUEUING

VTSS supports queueing of requests to more than one RTD on a Nearlink interface.

REPLICATION

Asynchronous replication enabled.

SYNC REPLICATE

Synchronous replication enabled.

LAST USE HINT

VTSS supports cache management hints indicating when a VTV will be accessed in the near future.

MGMT CLASS ON MVC

Audit MVC is able to return management class for VTVs.

CONNECT TO 16 | 32 RTDS

Maximum number of RTDs per VTSS enabled.

STACKED MIGRATES

Stacked migrates enabled.

PARTITIONED RTDs

Partitioned RTDS enabled.

T10KC Partition RTDs

T10KC partitioned RTDs enabled.

Write New VOL1 Label

VTSS supports MVC labeling.

CONCURRENT PORT I/O

VTSS supports multiple I/Os on a single physical nearlink interface.

MANY-TO-MANY CONNECT

VTSS supports target VTD selection for a CLINK.

IP REPLICATION

VTSS supports IP CLINKs and therefore a VLE connection.

CONCURRENT TAPE RECALL/MOUNT

VTV mounts on VTDs can occur before the recall has completed.

CONCURRENT TAPE RECALL/MOUNT *DISABLED

The Concurrent Tape Recall/mount feature is installed on the VTSS but has been disabled by either `CONFIG GLOBAL FASTRECL=NO` or `CONFIG VTSS NOERLYMT`.

UNKNOWN VTSS FEATURE

VTSS feature found not supported by VTCS software level.

VSM6 Enhanced replication Release 1

VTSS supports enhanced synchronous replication.

NONE

No VTSS features defined.

Note:

- If ETTB (Early Time to First Byte) is enabled, the following is displayed:

VTV mounts on VTDs can occur before the recall has completed.

- If ETTFB is disabled, the following is displayed:

The concurrent tape recall/mount feature is installed on the VTSS but has been disabled by either `CONFIG GLOBAL FASTRECL=NO` or `CONFIG VTSS NOERLYMT`.

Display VTV

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

Display VTV displays information about a specific VTV.

Syntax

Figure 3–75 shows Display VTV command syntax.

Figure 3–75 Display VTV command syntax**Parameters**

As shown in [Figure 3–75](#), the Display VTV command includes the following parameters:

vtv-id

the ID of the VTV.

Output

The following is an example of the output produced by the Display VTV command:

Example 3–43 Display VTV output

```

Volser:                X00000
VTSS                   HBVTSS19
Mounted                A800
Uncompressed Size (Mb) 99.01
Compressed Size (Mb)   97.88
Maximum VTV size (Mb) 800
Page Size              Standard
Creation Date          2008Feb21 09:32:22
Last Mounted           2008Feb21 09:32:23
Last Recalled          2008Apr05 08:15:47
First Migrated         2008Apr25 08:58:28
Last Used Date         2008Apr25 08:58:28
MVC(s)                 021681                021645
Block-id(s)            1A400D24                25401185
Management Class       M13                SB
Migrate Pending        SA
Status                 Initialized

```

Fields

Display VTV command output includes the following fields:

VOLSER

the volser of the VTV specified in the query.

VTSS

the VTSS where the VTV last or currently resides.

MOUNTED

The MSP device address of the VTD. If the device address is prefixed by a # sign then this is the address within the VTSS, the MSP address is unknown to this VTCS.

UNCOMPRESSED SIZE(MB)

the uncompressed size of the VTV (MB). This is the size of the VTV as perceived by the application programs.

COMPRESSED SIZE (MB)

the compressed size of the VTV (MB). This is the raw space that will be occupied upon the MVCs or within the VTSSs.

MAXIMUM VTV SIZE (MB)

the maximum (compressed) size of the VTV (400, 800, 2000 or 4000).

CREATION DATE

the date and time when the VTV contents was last changed by an application.

LAST MOUNTED

the date and time when the VTV contents was last mount for access by an application.

LAST RECALLED

the date and time when the VTV was last recalled back from a MVC into a VTSS.

FIRST MIGRATED

the date and time when the first MVC copy of this version of VTV was created.

LAST USED DATE

the date and time when the VTV was last touched by VTCS. This includes most functions that update the status of the VTV.

MVC(S)

the MVC(s) where the VTV resides. This entry only appears when the VTV is migrated.

BLOCK-ID

the logical block ID of the beginning of the VTV upon corresponding MVC. This entry only appears when the VTV is migrated.

Partition-Id(s)

the starting partition id on the corresponding MVC. This entry only appears when the VTV is migrated.

MANAGEMENT CLASS

the VTV's Management Class.

MIGRATE PENDING

the Storage classes to which migrations are outstanding.

ARCHIVE PENDING

the Storage classes to which migrations are outstanding, to satisfy archiving requirements.

REPLICATION STARTED

If the VTV is being replicated between VTSSs in a cluster, the name of the target VTSS is displayed.

REPLICATED

If the VTV has been replicated to another VTSS in the TapePlex, the VTSS name displayed indicates where the replica can be found.

IMPORTING

If the VTV is being mounted through a VTD, the VTD unit address is displayed.

ELECTRONIC IMPORTED

If the VTV has been imported from another TapePlex. This will report the TapePlex name that owns the VTV

EXPORTED

If the VTV has been exported to another TapePlex. The line will also list the TapePlexes to which the VTV copies has been successfully exported. An asterisks (*) next to the name indicates an export that has been rejected by the target TapePlex.

STATUS

one or more of the following statuses:

CONSOLIDATED

VSM has consolidated the VTV.

DUPLEXED

The DUPLEX attribute has been assigned to this VTV. When VSM migrates the VTV, a copy will be written to two MVCs.

EXPORT-NOT POSSIBLE

Export of this VTV to a remote TapePlex was attempted and the request was rejected. Typically, this is due to a different copy of the VTV residing in the remote TapePlex.

EXPORT-REJECTED

Electronic export to one or more TapePlexes was actively rejected. This could be due to the target TapePlex not allowing import of the VTV, or a clash with copy status.

EXPORT-REQUIRED

This VTV should be electronically exported and is currently queued for processing.

EXPORT-STARTED

Electronic export is active for this VTV, but not yet complete.

INITIALIZED

VTCS has used the VTV at least once.

MIGRATED

VSM has migrated the VTV.

MIGRATE PENDING

VTV migration is pending. This status is displayed when a VTV is initially created, or when the VTV requires reconciling or archiving. In these latter cases, individual MVC copies may indicate `Reconcil` or `Deletion`.

REPLICATION COMPLETE

A fully replicated copy of this VTV is now resident in the Secondary VTSS.

REPLICATION REQUIRED

This VTV should be replicated and is currently queued for processing.

REPLICATION STARTED

Replication is active for this VTV but not yet complete.

RESIDENT

The VTV is resident on the VTSS.

SCRATCH

The VTV is in scratch status.

UNINITIALIZED

The VTV has been defined through the `CONFIG` utility, but has not ever been used.

AVOID EARLY MOUNT

Concurrent recall/mount encountered an error with this VTV. No further concurrent recall/mount activity will be attempted for this VTV.

Note: VTVs that have incurred an ETTFB recall error have an error flag set in their VTV record in the CDS. This error indicates to VTCS that no further ETTFB recalls will occur for this VTV. When the error flag is on, the following is displayed:

```
concurrent recall/mount encountered an error with this VTV.
No further concurrent recall/mount activity will be
attempted for this VTV.
```

DRAin

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

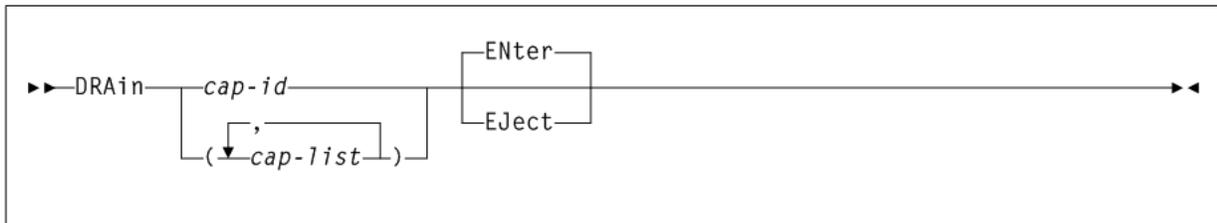
Description

The `DRAin` command terminates an eject or enter operation on one or more CAPs, which frees the CAP resources for use by other processes.

Syntax

Figure 3–76 shows `DRAin` command syntax.

Figure 3–76 *DRAin* command syntax



Parameters

As shown in Figure 3–76, the `DRAin` command includes the following parameters:

cap-id or cap-list

one or more CAPs to be drained. The CAPids specified on a `DRAin` command must match the CAPids specified on the associated `EJECT` or `ENTER` command.

The format of a *cap-id* is *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

Each *cap-list* element can be either an *lsm-id* or a *cap-id* that describes a specific CAP. The elements in a list must be separated by a comma or a blank, and the entire list must be enclosed in parentheses.

ENter

specifies that an enter operation is to be terminated on the specified CAPs. **ENter** is the default.

EJect

specifies that an eject operation is to be terminated on the specified CAPs.

DRCHKPT

Interfaces:

- SLUADMIN utility only
- UI Support: No

Subsystem Requirements:

Active HSC/VTCS at FULL service level

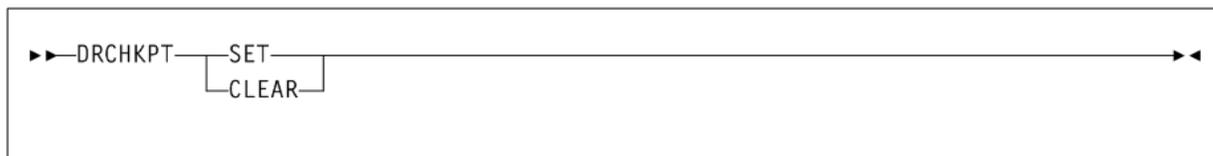
Description

The **DRCHKPT** command establishes the system recovery point (checkpoint) from which MVC content can be recovered from for a period of time.

Syntax

Figure 3-77 shows **DRCHKPT** command syntax.

Figure 3-77 DRCHKPT command syntax



Parameters

As shown in Figure 3-77, the **DRCHKPT** command includes the following parameters:

SET

Sets a date/time stamp in the active CDS which establishes the recovery point. Beginning at this recovery point, MVC content is guaranteed for a period of time in the future (for example, until another **DRCHKPT** utility is run).

CLEAR

Removes any recovery point set in the active CDS. Once removed, MVC content cannot be guaranteed.

DRMONitr

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC/VTCS at FULL service level

Description

The DRMONitr utility stalls job stream processing to ensure that critical data reaches its target destination. Once all identified data is accounted for, the utility ends.

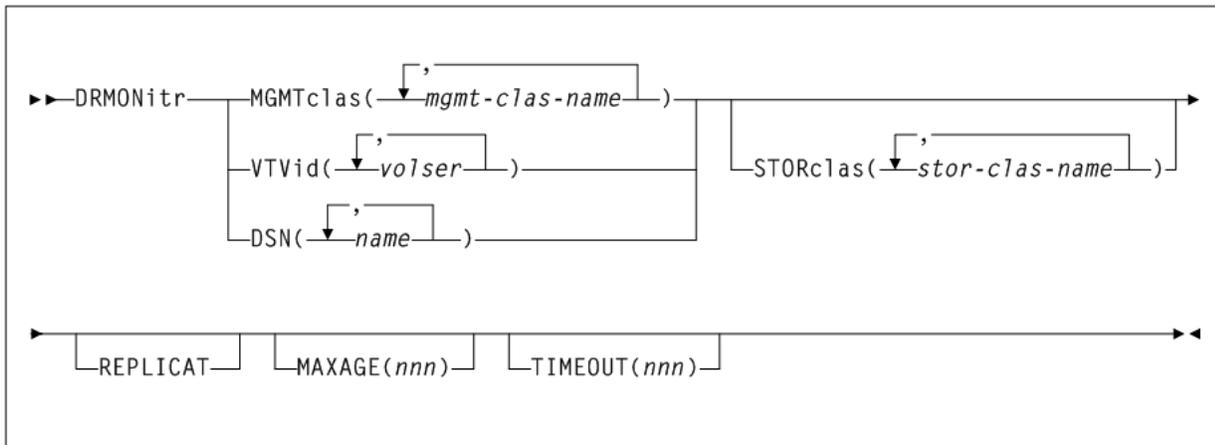
DRMONitr can monitor for MVC and remote TapePlex copies being complete. It can also monitor for cluster replication being complete, in support of tapeless environments.

DRMONitr reports any VTV exception conditions found during execution.

Syntax

Figure 3–78 shows DRMONitr command syntax.

Figure 3–78 DRMONitr command syntax



Parameters

As shown in Figure 3–78, the DRMONitr command includes the following parameters:

MGMTclas(mgmt-clas-name)

optionally, specifies a list of Management Classes to be monitored for VTV migrate/copy completion.

mgmt-clas-name indicates one or more Management Classes.

Specified Management Classes must be defined to the active VTCS system and must specify immediate migrate. For tapeless environments, specified Management Classes must specify REPLICAT.

VTVID(volser)

optionally, specifies a list or range of VTV volsers to be monitored for migrate/copy completion.

volser indicates one or more volume serial numbers.

The VTV's Management Class must be defined to the active VTCS system and must specify immediate migrate, that is, the Management Class must specify IMMEdmig (KEEP), IMMEdmig (DELETE) or IMMDELAY (*n*).

For tapeless environments, the VTV's Management Class must specify REPLICAT.

DSN(name)

optionally, specifies a list of data sets to be monitored for migrate/copy completion.

The VTVs containing these data sets must have Management Classes defined to the active VTCS system and must specify immediate migrate. For tapeless environments, the VTV's Management Class must specify REPLICAT.

STORclas(stor-clas-name)

optionally, specifies the Storage Class locations that the identified VTV data is to be delivered to.

stor-clas-name indicates one or more Storage Class locations.

Specified Storage Classes must be defined to the active VTCS system. Although this parameter is optional, the STORclas parameter should only be omitted in tapeless environments.

REPLICAT

optionally, specifies that VTV cluster replication is to be monitored for completion. Replication must be specified on the VTV's Management Class policy for the VTV to be selected for monitoring. If replications are monitored in a tape environment, their completion overrides any Storage Class requirement.

MAXAGE(nnn)

optionally, specifies the maximum VTV age (time since last update), in hours, when monitoring migrations by Management Class (a MGMTclas value is required).

nnn indicates the age in hours. Valid values are 1 to 999. There is no default.

If the VTV's age (time since last update) is greater than MAXAGE, the VTV is not monitored. DRMONitr reports the number of skipped VTVs due to MAXAGE, if specified.

If you do not specify MAXAGE, any active VTV belonging to the specified Management Classes, regardless of age, is monitored for migrate or copy completion.

TIMEOUT(nnn)

optionally, specifies the maximum time, in minutes, for DRMONitr to run.

nnn indicates the maximum time. Valid values are zero to 999. If you do not specify a TIMEOUT value, there is no limit on the time the utility can run (stall).

A TIMEOUT value of zero does not stall the DRMONitr utility. This special case reports on incomplete copies of specified VTV data.

If a nonzero TIMEOUT value is exceeded, DRMONitr ends with RC 8 and generates an error message. If the TIMEOUT value specified was zero, a return code of 4 is set if a VTV's copy is detected as incomplete, otherwise a return code 0 is set.

Note: You must specify either `STORclas` or `REPLICAT` or both to specify the destination criteria. Otherwise `DRMONitr` ends with RC 8 and generates an error message. Additionally, Oracle recommends that you do not specify (or monitor) Storage Classes in tapeless environments because migrations are not possible.

DRTEST

The `DRTEST` command sets up the environment for DR testing and optionally, starts and stops the test.

Issue this command from the `SLUADMIN` utility to set up the DR testing environment. Once the environment is set, you can issue `DRTEST` from a utility or the console to start or stop testing.

Issue this command with any of the options listed in the following table. Each option is described individually, and in more detail, on the pages to follow.

Table 3-5 DRTEST Options

Option	Description
<code>CREATE</code>	creates a DR test CDS, normally run at the DR test site
<code>PRIMEprd</code>	updates the production CDS without creating a <code>DRTEST</code> CDS
<code>RESET</code>	removes all DR test settings in the production CDS
<code>START</code>	starts the DR test on the production site. <code>DRTEST START</code> cannot run successfully until the production CDS is primed using <code>DRTEST PRIMEprd</code> or <code>DRTEST CREATE</code> .
<code>STOP</code>	stops the DR test on the production site

Note:

- You can use a combination of these options provided you have correct environment and JCL requirements. For example, `DRTEST STOP` and `DRTEST RESET` can be run in the same job, however, `DRTEST STOP` must be run before `DRTEST RESET`.
 - Refer to Oracle's ELS publication *ELS Disaster Recovery and Offsite Data Management Guide* for information about how to use the `DRTEST` utility.
-
-

DRTEST CREATE

Interfaces:

- `SLUADMIN` utility only
- UI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `DRTEST CREATE` command creates a DR test CDS, normally run at the DR test site.

Note: The NOUPDprd parameter is only valid if the DRTEST PRIMEprd command is executed before the DRTEST CREATE command. See "DRTEST PRIMEprd" on page 3-166 for more information.

Consider the following:

- DR test cannot be active. This refers to the production CDS status.
- Active HSC/VTCS is not required.
 - If HSC/VTCS is active, SLSCNTL DD statement(s) identifying the production CDS are optional, and if included, must match the active HSC/VTCS.
 - If HSC/VTCS is not active, SLSCNTL DD statement(s) identifying the production CDS are required.
- SLSNEW DD statement(s) identifying the DRTEST CDS(s) are required.

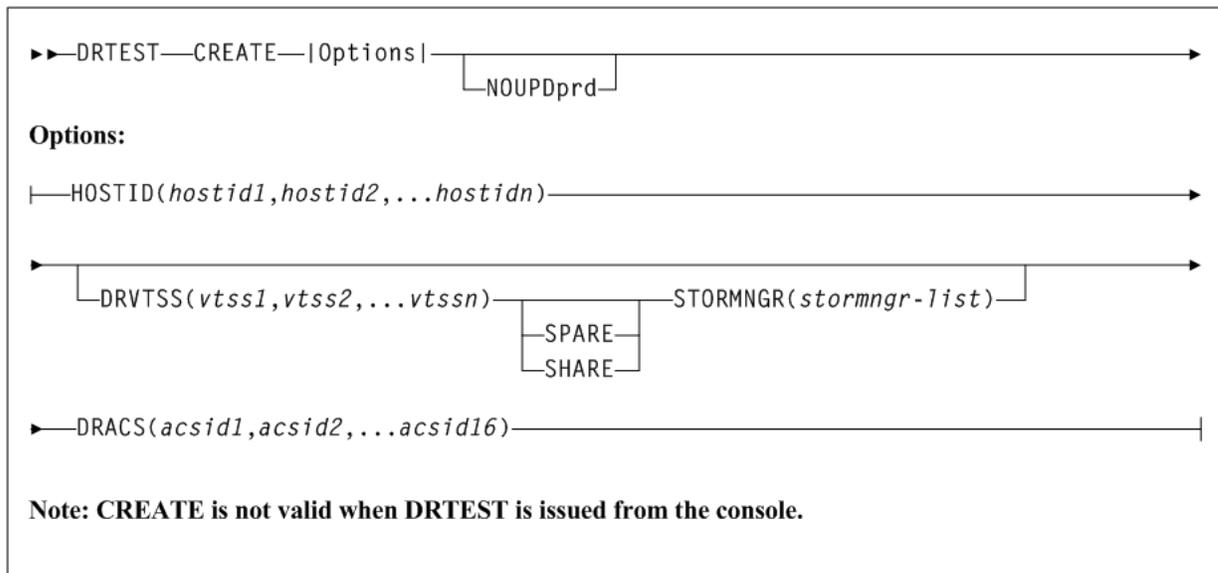
Sample Control Cards:

```
DRTEST CREATE HOSTID(ZIPF,ZIPG) -
  DRVTSS(VTSSW) -
  DRACS(00)
```

Syntax

Figure 3-79 shows DRTEST CREATE command syntax.

Figure 3-79 DRTEST CREATE command syntax



Parameters

As shown in Figure 3-79, the DRTEST CREATE command includes the following parameters:

HOSTID(hostid1,hostid2,...hostidn)

Specifies the host IDs replicated in the test CDS in available host-id positions. The combination of existing production HOSTIDS and those identified in this parameter for

replication cannot exceed the 16 host limit. If an additional *host-id* (not used in production) must be added for DR test purposes alone, this additional *host-id* will use 2 of the 16 *host-ids* in the limit.

DRVTSS(vtss1,vtss2,...vtssn)

Optionally, specifies the VTSS names available to the DR test site. Unless you also specify the `SHARE` or `SPARE` parameter, these VTSSs are offline to the production site and online to the DR test site when the DR test starts.

SPARE

Optionally, specifies that the DR test VTSS(s) are spares and that identically named VTSS(s) exist and are online at the production site when the `DRTEST` utility is run and during the DR test.

SHARE

Optionally, specifies that the DR test VTSS(s) are shared with the production site. During the DR test, both the test and production site may create VTVs in the DR test VTSS (based on the `VOLPARM` definitions). The DR test cannot modify VTVs that are not in a DR test subpool. The parameters `DRACS` and `STORMNGR` cannot be specified if `SHARE` is specified.

STORMNGR(stormngr-list)

Optionally, specifies the subsystem names of the VLEs attached to the DR test site TapePlex.

stormngr-list indicates the list of subsystem names. For more information, refer to Oracle's ELS publication *Configuring the Host Software for VLE*.

DRACS(acsid1, acsid2,...acsid16)

Optionally, specifies one or more ACSs available to the DR test site. Multiple ACS IDs must be specified as a list, and not as a range of ACS IDs. The ACSs are online to the DR test site but can remain connected (and usually are) to the production site when the DR test starts.

- If the `DRVTSS SHARE` parameter is specified, the `DRACS` parameter is not allowed.
- If the `STORMNGR` parameter is specified, the `DRACS` parameter is allowed but not required.

NOUPDprd

Optionally, does not update the input production CDS(s).

If this parameter is specified, you can use a single CDS production copy as input and that copy can be either the actual primary production CDS, a backup copy, or a mirrored copy.

This parameter is only valid if the `PRIMEprd` function has already been run on the production CDS. See "[DRTEST PRIMEprd](#)" on page 3-166 for more information.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the `DRTEST CREATE JCL`:

SLSNEW1

specifies the new primary copy of the test HSC CDS.

SLSNEW2

specifies the new secondary copy of the test HSC CDS.

SLSNEW3

specifies the new standby copy of the test HSC CDS.

SLSJRN00 – SLSJRNnn

DDNAMES for the DR test journal files, which are only valid if the current CDS defines journaling. There are two files per HOSTID: SLSJRN00 and SLSJRN01 for `hostid1`, SLSJRN02 and SLSJRN03 for `hostid2`, and so on.

SLSSTATN

DDNAME for LMU station address changes for HOSTIDS. This file is optional, and if not supplied the same station addresses are used in the DR test CDS for the HOSTIDS as in the existing CDS.

Each entry follows the HSC SET SLISTATN utility format. See "SET SLISTATN" on page 3-317 for more information. The following figure shows an example of the SLSSTATN file:

Example 3-44 SLSSTATN File

```
SET SLISTATN(00E7,00E8),FORACS(01),FORHOST(PRI0)
SET SLISTATN(00E7,00E8),FORACS(01),FORHOST(PRI1)
SET SLISTATN(00E7,00E8),FORACS(01),FORHOST(PRI2)
SET SLISTATN(00E7,00E8),FORACS(01),FORHOST(PRIY)
```

SLSVTSS

DDNAME for VSM changes on the DR test CDS. This file is optional and is only used if the DR test configuration includes VSM elements. Typically, this file is used to change RTD hardware connection definitions in the DR test CDS but may be used to modify any VSM definitions on the DR test CDS because the file invokes the VTCS CONFIG RESET utility.

Caution: Improper use of CONFIG RESET against the DR test CDS may render the DR test environment inoperable!

Each entry follows the format of the VTSS, VTD, RTD, and HOST statements of the VTCS CONFIG utility. See "CONFIG" on page 3-33 for more information. The following figure shows an example of the SLSVTSS file:

Example 3-45 SLSVTSS File

```
CONFIG RESET
VTSSNAME=VTSS01 LOW=70 HIGH=80 MAXMIG=1 MINMIG=1 RETAIN=10
  RTDNAME=VTS18800 DEVNO=8800 CHANIF=0A
  RTDNAME=VTS18801 DEVNO=8801 CHANIF=0I
  RTDNAME=VTS18802 DEVNO=8802 CHANIF=1A
  RTDNAME=VTS18803 DEVNO=8803 CHANIF=1I
  HOST NAME=MSP1
VTDLOW=8900 HIGH=893F
  VTSSNAME=VTSS02 LOW=70 HIGH=80 MAXMIG=8 MINMIG=8 RETAIN=10
  RTDNAME=VTS28805 DEVNO=8805 CHANIF=0A
  RTDNAME=VTS28806 DEVNO=8806 CHANIF=0E
  RTDNAME=VTS28807 DEVNO=8807 CHANIF=0I
  RTDNAME=VTS28808 DEVNO=8808 CHANIF=0M
  RTDNAME=VTS28809 DEVNO=8809 CHANIF=1A
```

```
RTDNAME=VTS2880A DEVNO=880A CHANIF=1E
RTDNAME=VTS2880B DEVNO=880B CHANIF=1I
RTDNAME=VTS2880C DEVNO=880C CHANIF=1M
HOST NAME=MSP2
VTD     LOW=9900 HIGH=993F
```

DRTEST PRIMEprd

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

DRTEST PRIMEprd updates the production CDS without creating a DRTEST CDS.

Considerations:

- DR test cannot be active. This refers to the production CDS status.
- Active HSC/VTCS is not required.
 - If HSC/VTCS is active, SLSCNTL DD statement(s) identifying the production CDS are optional, and if included, must match the active HSC/VTCS.
 - If HSC/VTCS is not active, SLSCNTL DD statement(s) identifying the production CDS are required.
- SLSNEW DD statement(s) identifying the DRTEST CDS(s) are required.

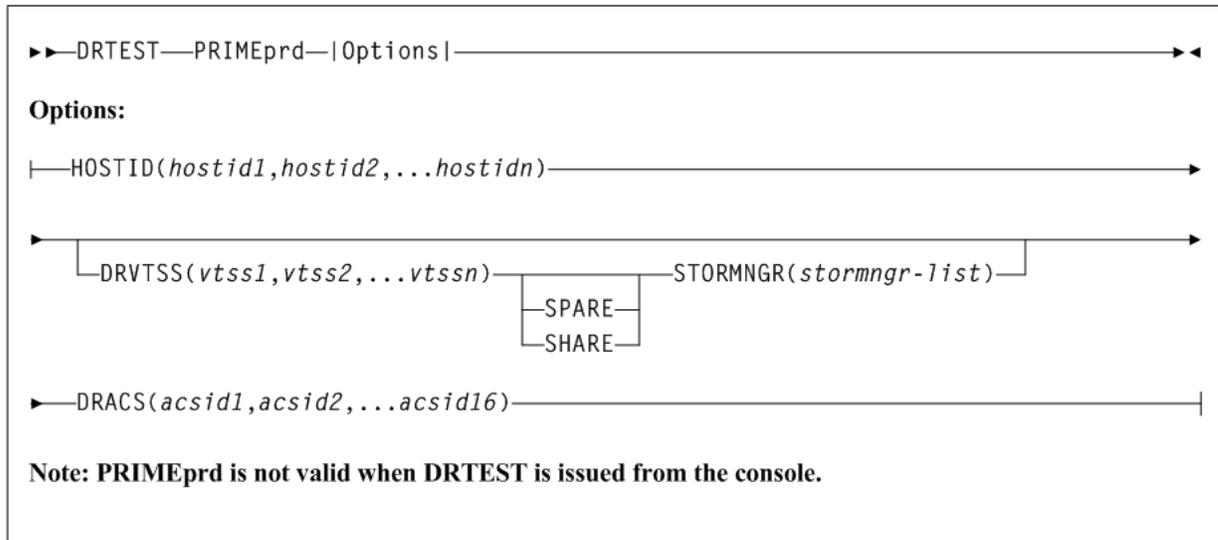
Sample Control Cards:

```
DRTEST PRIME HOSTID(ZIPF,ZIPG) -
DRVTSS(VTSSW) -
DRACS(00)
```

Syntax

[Figure 3–80](#) shows DRTEST PRIMEprd command syntax.

Figure 3–80 DRTEST PRIMEprd syntax



Parameters

As shown in Figure 3–80, the DRTEST PRIMEprd command includes the following parameters:

HOSTID(*hostid1, hostid2, ... hostidn*)

Specifies the HOSTIDS replicated in the test CDS in available *host-id* positions. The combination of existing production HOSTIDS and those identified in this parameter for replication cannot exceed the 16 host limit. If an additional *host-id* (not used in production) must be added for DR test purposes alone, this additional *host-id* will use 2 of the 16 host-ids in the limit.

DRVTSS(*vtss1, vtss2, ... vtssn*)

Optionally, specifies the VTSS names available to the DR test site. Unless you also specify the SHARE or SPARE parameter, these VTSSs are offline to the production site and online to the DR test site when the DR test starts.

SPARE

Optionally, specifies that the DR test VTSS(s) are spares and that identically named VTSS(s) exist and are online at the production site when the DRTEST utility is run and during the DR test.

SHARE

Optionally, specifies that the DR test VTSS(s) are shared with the production site. During the DR test, both the test and production site may create VTVs in the DR test VTSS (based on the VOLPARM definitions). The DR test cannot modify VTVs that are not in a DR test subpool. The parameters DRACS and STORMNGR cannot be specified if SHARE is specified.

STORMNGR(*stormngr-list*)

Optionally, specifies the Subsystem Names of the VLEs attached to the DR test site TapePlex.

stormngr-list indicates the list of Subsystem names. For more information, refer to Oracle's ELS publication *Configuring the Host Software for VLE*.

DRACS(acsid1, acsid2,...acsid16)

Optionally, specifies one or more ACSs available to the DR test site. Multiple ACS IDs must be specified as a list, and not as a range of ACS IDs. The ACSs are online to the DR test site but can remain connected (and usually are) to the production site when the DR test starts.

- If the `DRVTSS SHARE` parameter is specified, the `DRACS` parameter is not allowed.
- If the `STORMNGR` parameter is specified, the `DRACS` parameter is allowed but not required.

DRTEST RESET**Interfaces:**

- `SLUADMIN` utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `DRTEST RESET` command removes all DR test settings in the production CDS.

Considerations:

- DR test cannot be active. This refers to the production CDS status.
- Active HSC/VTCS is not required.
 - If HSC/VTCS is active, `SLSCNTL DD` statement(s) identifying the production CDS are optional, and if included, must match the active HSC/VTCS.
 - If HSC/VTCS is not active, `SLSCNTL DD` statement(s) identifying the production CDS are required.
- `SLSNEW DD` statement(s) identifying the `DRTEST` CDS(s) are required.

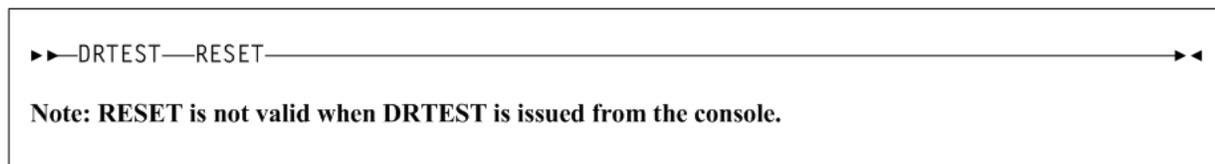
Sample Control Cards:

```
DRTEST PRIME HOSTID(ZIPF,ZIPG) -
DRVTSS(VTSSW) -
DRACS(00)
```

Syntax

Figure 3–81 shows `DRTEST RESET` command syntax.

Figure 3–81 DRTEST RESET command syntax

**Parameters**

None.

DRTEST START

Interfaces:

- console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The DRTEST START command starts the DR test on the production site.

Note: DRTEST START cannot run successfully until the production CDS is primed using DRTEST PRIMEprd or DRTEST CREATE.

Considerations:

- DR test cannot be active. This refers to the production CDS status.
- Active HSC/VTCS is required.
- SLSCNTL DD statement(s) identifying the production CDS are optional, and if included, must match the active HSC/VTCS.
- SLSNEW DD statement(s) identifying the DRTEST CDS(s) are not required, and if included, are ignored.

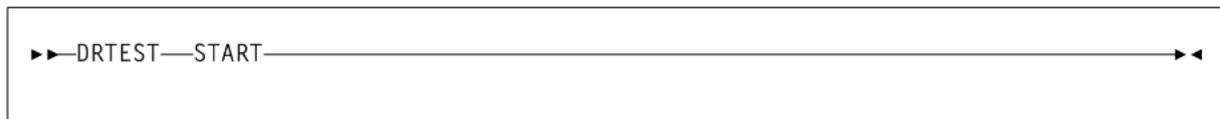
Sample control cards:

```
DRTEST START
```

Syntax

Figure 3–82 shows DRTEST START command syntax.

Figure 3–82 DRTEST START command syntax



Parameters

None.

DRTEST STOP

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The `DRTEST STOP` command stops the DR test on the production site.

Considerations:

- DR test cannot be active. This refers to the production CDS status.
- Active HSC/VTCS is required.
- `SLSCNTL DD` statement(s) identifying the production CDS are optional, and if included, must match the active HSC/VTCS.
- `SLSNEW DD` statement(s) identifying the `DRTEST` CDS(s) are not required, and if included, are ignored.

Sample control cards:

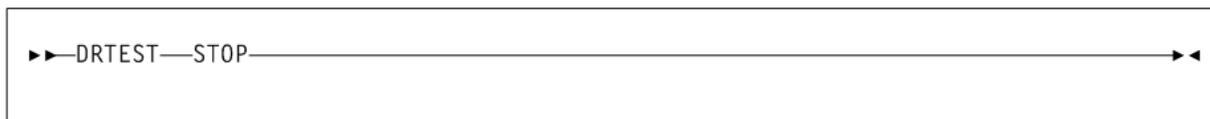
```
DRTEST START
```

Note: `DRTEST STOP` and `DRTEST RESET` can be run in the same job, however, `DRTEST STOP` must be run before `DRTEST RESET`.

Syntax

Figure 3–83 shows `DRTEST STOP` command syntax.

Figure 3–83 *DRTEST STOP command syntax*



Parameters

None.

EEXPORT

Interfaces:

- Console or utility
- UI Support: Yes

Subsystem Requirements:

Active HSC not required

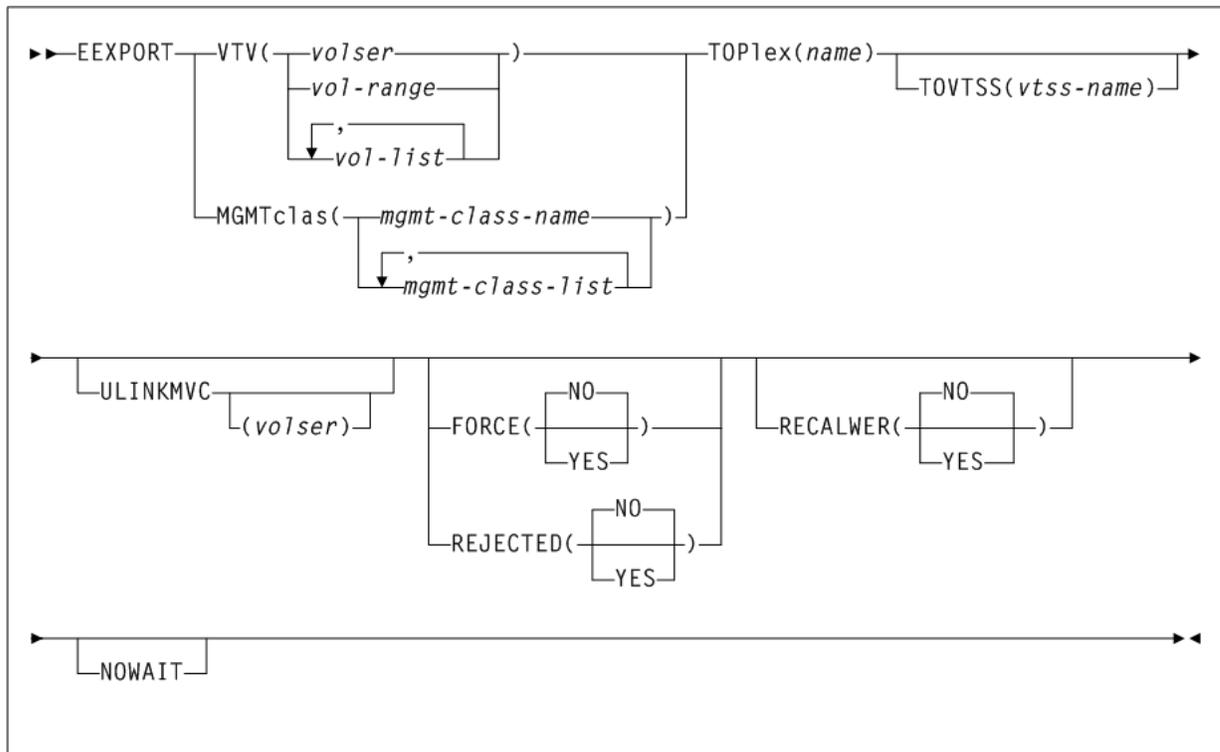
Description

The `EEXPORT` command is used to perform electronic export functions. Use this command to manually export VTVs or re-drive rejected exports.

Syntax

Figure 3–84 shows `EEXPORT` command syntax.

Figure 3–84 EEXPORT command syntax



Parameters

As shown in [Figure 3–186](#), the EEXPORT command includes the following parameters:

VTV(volser, vol-range, or vol-list)

specifies one or more VTVs to electronically export.

volser, *vol-range*, or *vol-list* indicate the volsers of one or more VTVs. You can specify a maximum of 2,000 volsers.

MGMTclas(mgmtclas-name or mgmtclas-list)

specifies one or more names of Management Classes that determine the VTVs to electronically export.

mgmt-class-name or *mgmt-class-list* indicates the Management Class name. This name must be 1 to 8 alphanumeric characters beginning with an alpha character and must follow SMS naming conventions.

TOPlex(tapeplex-name)

specifies the name of the TapePlex to which copies of the VTV are sent through electronic export. There must be at least one CLINK within the configuration that provides a route to the TapePlex.

tapeplex-name indicates the target TapePlex name.

TOVTSS(vtss-name)

optionally, specifies the VTSS name to be preferred as the receiving VTSS within the target TapePlex specified by the TOPlex parameter.

vtss-name indicates the VTSS name.

Note: This is a preference only. Validation of the value is not performed.

ULINKMVC(volser)

specifies whether MVC copies on the target TapePlex are to be deleted as part of the export process.

volser indicates a volser from the MVC copy to be deleted from the target VTVs. If not specified, then all MVC copies of the VTV are deleted.

This parameter only applies when the VTV version sent matches the version in the target TapePlex. If the versions sent is more recent, then the behavior is implicit.

This parameter can be used if the only MVC copies of a VTV in the target TapePlex become damaged. A replacement copy of the VTV can be supplied to the TapePlex through the EEXPORT command. The damaged MVC copies are replaced by additional migrations from the VTV copy sent.

FORCE

specifies whether VTCS exports the VTV to locations with disregard for other criteria.

YES

Export VTVs to the TapePlex specified in the `TOPlex` parameter, regardless of whether the VTVs have been previously exported to the TapePlex, or the management class points to a storage class that specifies the target TapePlex.

NO

Export VTVs to the TapePlex specified in the `TOPlex` parameter, but ignore any VTVs already marked as exported, and exclude any VTVs for which the management class does not point to a storage class that specifies the TapePlex in the `TOPlex` parameter. This is the default.

REJECTED

specifies whether VTCS only selects VTVs recorded in the CDS as being rejected by the target TapePlex. `REJECTED` and `FORCE` are mutually exclusive.

NO

Ignore any VTVs already marked as exported, and exclude any VTVs for which the management class does not point to a storage class that specifies the TapePlex in the `TOPlex` parameter. This is the default.

YES

Only select VTVs previously rejected by the target TapePlex.

RECALWER

specifies whether VTCS recalls VTVs with read data checks.

NO

Do not recall VTVs with read data checks. This is the default.

YES

Recall VTVs with read data checks.

NOWAIT

specifies that the utility does not wait for the operation to complete and returns after the request is submitted.

Eject

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The `EJECT` command moves volumes to a Cartridge Access Port (CAP) for removal.

You can designate a single CAP or a list of specific CAPs. Specifying one or more CAPs limits cartridge ejection to those CAPs.

Ejections in a multiple ACS configuration may specify CAPs in each ACS if volumes reside in each ACS. If a list of CAPs is not provided, HSC selects the highest priority CAP available for each ACS (see "`CAPPref`" on page 3-20).

You may elect to submit multiple `EJECT` requests, each of which may specify a particular CAP. If you elect to specify a CAP in a multi-ACS configuration, then the list of volumes must reside within the CAP ACS.

Multiple CAPs within one ACS can be allocated to the `EJECT` utility. Specifying multiple CAPs in a single `EJECT` utility typically improves performance by reducing pass-thrus.

If two CAPs are specified in the same LSM, cartridges in that LSM are ejected in sequential order. This is helpful for vaulting.

Syntax

Figure 3–85 shows `EJECT` command syntax.

Figure 3–85 Eject command syntax



Parameters

As shown in [Figure 3–85](#), the `Eject` command includes the following parameters:

TEXT(text)

optionally, specifies the address of a 44-byte string issued whenever the operator is requested to open the CAP for an `Eject` request. This text is displayed in message `SLS1251E`.

text indicates the text string.

PMSG(nn)

optionally, specifies a user defined message to be displayed in the SLConsole CAP status screen for a CAP when the door is unlocked for cartridge removal.

nn is a two character numeric value from 00 to 99. Specify one of the following values:

- 00 - No message is displayed.

- 01 - Display Remove cartridges message.
- 02 - Display Lib not available message.
- 03 - Display Load cartridges message.
- 04-99 - Display customized user messages.

Option 1 Parameters

As shown in Figure 3–85, the Eject command includes the following parameters:

volser, vol-range, or vol-list

one or more VOLSERS to be ejected. This can be a single VOLSER, a range of VOLSERS or a list of VOLSERS or VOLSER ranges in any combination.

If a list is specified, the elements must be delimited by commas or blanks, and the entire list enclosed in parentheses. A range of VOLSERS consists of a starting VOLSER and an ending VOLSER separated by a dash.

acs-id, lsm-id, cap-id, or cap-list

the ACS, LSM, or CAP for the cartridges to be ejected.

acs-id identifies the ACS containing the cartridges to eject. The HSC selects a nonzero preference CAP to use in the specified ACS.

lsm-id identifies the LSM containing the cartridges to eject. If the LSM has more than one CAP, an available CAP with the highest nonzero preference is selected.

cap-id identifies a specific CAP to use regardless of the assigned preference value. *cap-id* is of the form *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP number. The CAP numbers are dependent on the LSM type.

cap-list requires explicitly specified CAPids separated by commas. A CAPid range is not allowed. CAPids must be separated by blanks or commas, and the entire list must be enclosed in parentheses. If no CAP is specified, one is chosen in each ACS.

Note: If neither *acs-id*, *lsm-id*, *cap-id*, or *cap-list* is specified, HSC selects a nonzero preference CAP in each ACS that contains volumes to be ejected.

SEQ

optionally, specifies whether CAP eject processing fills the CAP cells in the same order specified by the *volser*, *volser-range*, or *vol-list*.

If SEQ is not specified, but two CAPs are requested in the same LSM, and the LSM is not an SL8500, cartridges in the ACS are ejected in sequential order.

For best performance, SEQ(NO) is recommended.

NO

specifies to eject the requested volumes in the order of home cell location. Eject processing fills the CAP or magazine (for the SL8500) according to the distance of the home cell to the CAP or magazine; that is, volumes closest to the CAP or magazine are ejected first.

YES

specifies to eject cartridges to the CAP in the order the volumes are listed in the associated *vol-list*. The first cartridge requested appears in the topmost CAP

cell, the second cartridge requested appears in the next CAP cell, and so on until the CAP is full or all cartridges have been moved to the CAP.

WAITcap

optionally, specifies whether a list of ejecting volumes waits for an available CAP if one is not available.

YES

specifies that the eject process waits indefinitely for a CAP to become available. YES is the default.

NO

specifies that the eject process does not wait for a CAP if it is not available.

Option 2 Parameters

As shown in [Figure 3-85](#), the Display EJECT command includes the following parameters:

SCRATCH

indicates that scratch volumes are to be ejected.

Note: If neither *acs-id*, *lsm-id*, *cap-id*, or *cap-list* is specified, HSC selects a nonzero preference CAP in each ACS that contains volumes to be ejected. HSC selects a nonzero preference CAP in ACS 00.

acs-id, lsm-id, cap-id, or cap-list

the ACS, LSM, or CAP for the cartridges to be eject.

acs-id identifies the ACS containing the cartridges to eject. The HSC selects a nonzero preference CAP to use in the specified ACS.

lsm-id identifies the LSM containing the cartridges to eject. If the LSM has more than one CAP, an available CAP with the highest nonzero preference is selected.

cap-id identifies a specific CAP to use regardless of the assigned preference value.

cap-id is of the form *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP number. The CAP numbers are dependent on the LSM type.

cap-list requires explicitly specified CAPids separated by commas. A CAPid range is not allowed. CAPids must be separated by blanks or commas, and the entire list must be enclosed in parentheses. If no CAP is specified, one is chosen in each ACS.

SUBpool(subpool-name)

optionally, specifies the subpool from which scratch volumes are to be ejected. If *MEDIA* or *RECTech* are specified, cartridges are ejected for that media type or recording technique within the same subpool.

subpool-name indicates the name for the subpool.

VOLCNT(count)

optionally, specifies that a designated number of scratch volumes are to be ejected.

count indicates the number of scratch volumes to be ejected.

MEDIA(media-type)

optionally, specifies that scratch cartridges of the desired media are to be ejected.

media-type indicates the media type. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid media-type values.

Note the following:

If **MEDia** is not specified, the next scratch cartridge is selected without regard to media type if **RECtech** does not exist. If both **MEDia** and **RECtech** are supplied, they must be compatible.

If **SUBpool** is not specified, then the next scratch cartridge is selected without regard to whether it belongs to a subpool, is defined to the default subpool using **VOLPARMS**, or belongs to no scratch subpool whatsoever.

RECtech(recording-technique)

optionally, specifies scratch cartridges of the desired recording technique are to be ejected. **RECtech** indicates the method used to record data tracks on the tape surface.

recording-technique indicates the recording technique. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid recording-technique values.

Note: If **RECtech** is not specified, the next scratch cartridge is selected depending on the media type (if supplied). If neither is supplied, the next scratch cartridge is selected without taking media type and recording technique into consideration. If both **RECtech** and **MEDia** are supplied, they must be compatible.

WAITcap

optionally, specifies whether a list of ejecting volumes waits for an available **CAP** if one is not available.

YES

specifies that the eject process waits indefinitely for a **CAP** to become available. **YES** is the default.

NO

specifies that the eject process does not wait for a **CAP** if it is not available.

ENter

Interfaces:

- Console or utility
- UI Support: Yes

Subsystem Requirements:

Active HSC at **FULL** service level

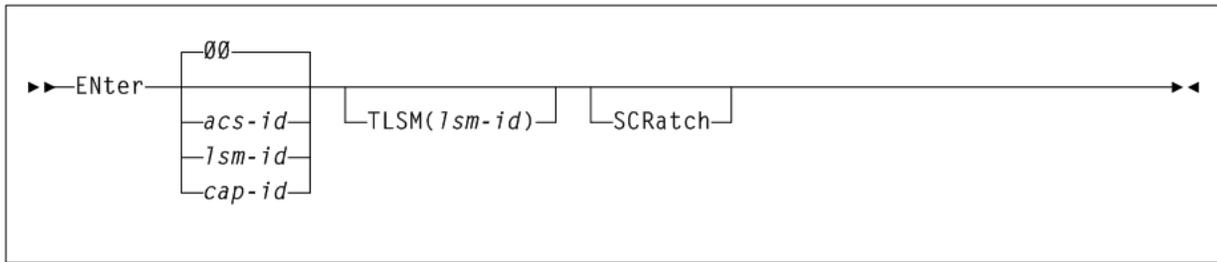
Description

The **ENter** command makes a **CAP** in Automatic mode available for entering cartridges into an LSM.

Syntax

[Figure 3–86](#) shows **ENter** command syntax.

Figure 3–86 ENter command syntax



Parameters

As shown in [Figure 3–86](#), the ENter command includes the following parameters:

acs-id

specifies the ACS where cartridges are to be entered. The HSC selects a nonzero preference manual mode CAP within the ACS to use.

lsm-id

identifies one of the following:

- an LSM with a single CAP
- an LSM that contains multiple CAPs. The HSC selects an available manual mode CAP with the highest nonzero preference. CAPid 00 is selected if it is available, in manual mode, and has a preference value equal to or higher than other available manual mode CAPs in the LSM.

cap-id

specifies a specific manual mode CAP to use regardless of availability or CAP preference. The format of a *cap-id* is *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

TLSM(lsm-id)

specifies the LSM to receive the entered cartridges.

lsm-id indicates the following:

- an LSM with a single CAP
- an LSM that contains multiple CAPs. The HSC selects an available manual mode CAP with the highest nonzero preference. CAPid 00 is selected if it is available, in manual mode, and has a preference value equal to or higher than other available manual mode CAPs in the LSM.

The format of an LSMid is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

SCRatch

optionally enables you to put the volumes you enter into scratch status. If you do not specify that the volumes are to be given scratch status, the system enters them as nonscratch volumes.

EXECParm

Interfaces:

- PARMLIB only

- UUI Support: No

Subsystem Requirements:

None.

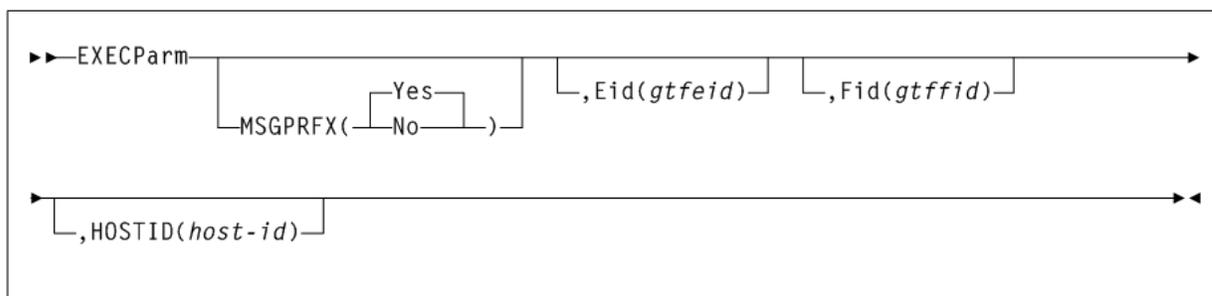
Description

The EXECParm command provides an alternative method for specifying GTF event and format IDs normally specified in the subsystem startup procedure. It also provides you with the option of displaying the command prefix preceding WTO or WTOR messages.

Syntax

Figure 3–87 shows EXECParm command syntax.

Figure 3–87 EXECParm command syntax



Parameters

As shown in Figure 3–87, the EXECParm command includes the following parameters:

MSGPRFX

optionally, specifies control of whether the command prefix is to precede WTO or WTOR messages to the operator.

Yes

indicates that the command prefix is to display preceding WTO or WTOR messages to the operator.

No

indicates that the command prefix is not to display preceding WTO or WTOR messages to the operator.

Eid(gtfeid)

optionally, *gtfeid* specifies a GTF event ID.

PARAM='Eid(user-specified-event-id)' parameter is valid for use in the HSC initialization procedure as an alternative method of specifying the GTF event ID.

Fid(gtffid)

optionally, *gtffid* specifies a GTF format ID.

PARAM='Fid(user-specified-format-id)' parameter is valid for use in the HSC initialization procedure as an alternative method of specifying the GTF format ID.

HOSTID(host-id)

optionally, *host-id* specifies the system ID associated with the request to process the EXEC Parm control statement.

Note: If the *host-id* specified does not match the host executing the command, the command is ignored and no message is issued.

EXPORT

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

- Active HSC/VTCS at FULL service level required when specifying the VTV or MGMTCLAS parameter.
- Active HSC/VTCS not required when specifying the MVC or STORCLAS parameter.

Note: The CDS used by the utility must not be accessed by any other currently active HSC/VTCS host(s). Otherwise, error message SLS6716E is issued and the utility fails.

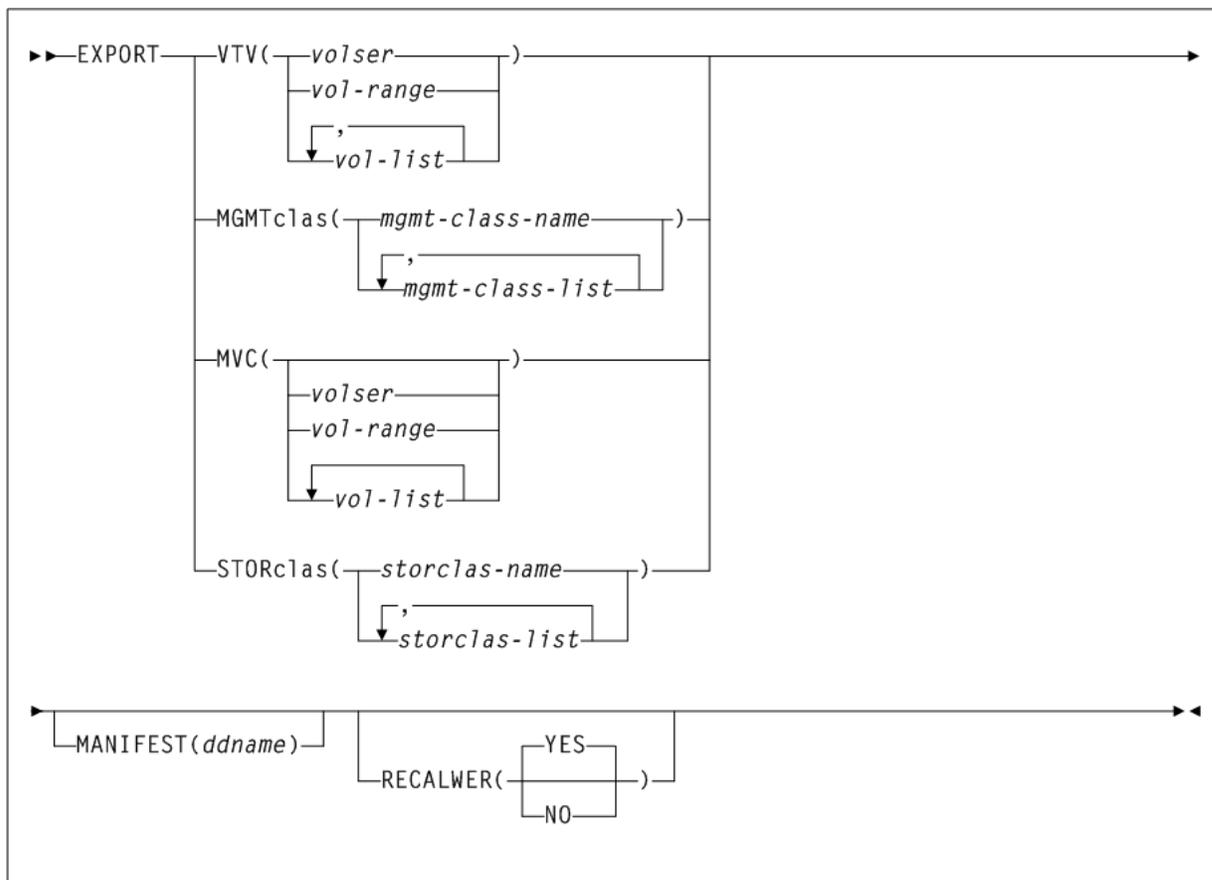
Description

The EXPORT command consolidates VTVs (if required) and creates a manifest file that lists VTVs and MVCs available for export from a VSM system.

Syntax

Figure 3–88 shows EXPORT command syntax.

Figure 3–88 EXPORT command syntax



Parameters

As shown in [Figure 3–69](#), the EXPORT command includes the following parameters:

VTV(volser, vol-range, or vol-list)

specifies one or more VTVs to consolidate for export.

When an export by VTV is performed, the CDS does not maintain the MVC information in the VTV record. The MVC is marked as (E)xpport.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs. You can specify an unlimited number of VTVs.

MGMTclas(mgmtclas-name or mgmtclas-list)

specifies one or more Management Classes that determine one or more VTVs to consolidate for export.

When an export by MGMTclas is performed, the CDS does not maintain the MVC information in the VTV record. The MVC is marked as (E)xpport.

mgmt-class-name or *mgmt-class-list* indicate the names of one or more Management Classes you defined on the MGMTclas control statement. See "[MGMTclas Control Statement](#)" on page 3-212 for more information.

MVC(volser, vol-range, or vol-list)

specifies one or more MVCs for export.

When an Export by MVC is performed, the CDS maintains the MVC information in the VTV record of the CDS. The MVC will be marked as (R) ead-Only.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more MVCs.

STORclas(stor-clas-name or stor-clas-list)

specifies one or more Storage Classes that determine one or more MVCs for export.

When an Export by STORclas is performed, the CDS maintains the MVC information in the VTV record of the CDS. The MVC will be marked as (R) ead-Only.

stor-clas-name or *stor-clas-list* indicate the names of one or more Storage Classes that you defined on the STORclas control statement. See "[STORclas Control Statement](#)" on page 3-226 for more information.

MANIFEST(ddname)

optionally, specifies the output destination *dd-name* of the manifest file. The default is MANIFEST.

RECALWER

optionally, specifies whether VTCS recalls VTVs with read data checks.

Yes

Recall VTVs with read data checks (the default).

No

Do not recall VTVs with read data checks.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the EXPORT JCL:

manifest file DD

DD statement for the manifest file (optional).

FMTLOG

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The FMTLOG command is part of the HSC/VTCS transaction logging service.

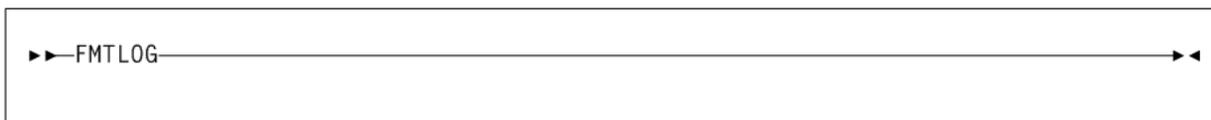
This command pre-formats a log file to be used by the logging service. It pre-formats data blocks and writes certain control information in the first record of the file. You can format a maximum of two log files with a single FMTLOG utility command.

Note: You must pre-format a log file before activating it with the `SET LOGFILE` utility command. See "SET LOGFILE" on page 3-307 for more information. You must execute the `OFFload LOGfile` before executing `SET LOGFILE` to specify a different log file data set name. See "OFFload" on page 3-272 for more information.

Syntax

Figure 3–89 shows `FMTLOG` command syntax.

Figure 3–89 *FMTLOG* command syntax



Parameters

None.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking `SLUADMIN`" on page 5-1, the following definition statements apply to the `FORMAT LOGFILE` JCL:

SLSLOG1

specifies the log file to be formatted.

SLSLOG2

specifies the second log file to be formatted.

IMPORT

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS not required

Description

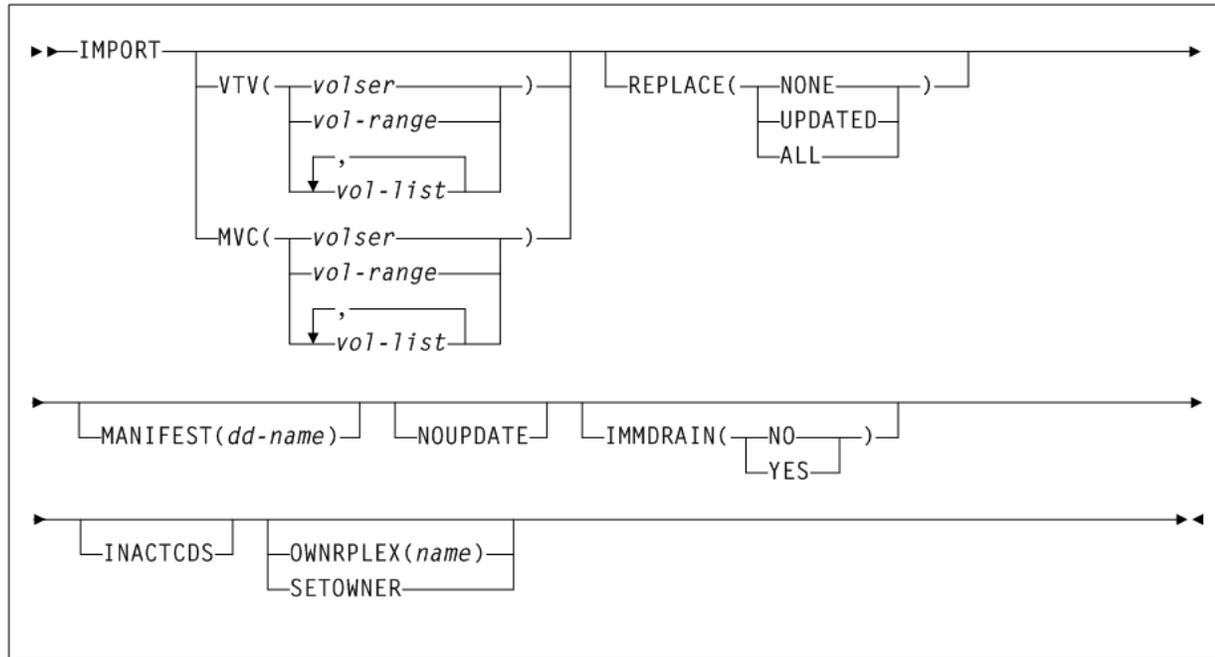
The `IMPORT` command imports VTVs and MVCs listed on a manifest file into a VSM system.

Note: Ensure that the "to" CDS has the same features (enabled by CDS level) as the "from" CDS. For example, if the "from" CDS has large VTV page sizes enabled and 2/4 Gb VTVs have been created, then the "to CDS" must have the same capabilities, otherwise the import fails.

Syntax

Figure 3–90 shows `IMPORT` command syntax.

Figure 3–90 *IMPORT* command syntax



Parameters

As shown in Figure 3–90, the `IMPORT` command includes the following parameters:

VTV(volser, vol-range, or vol-list)

specifies one or more VTVs to import.

volser, *vol-range*, or *vol-list* indicate the volsers of one or more VTVs.

MVC(volser, vol-range, or vol-list)

specifies one or more MVCs to import.

volser, *vol-range*, or *vol-list* indicate the volsers of one or more MVCs.

REPLACE

specifies whether VTCS replaces the VTV record in the target CDS. There is no default. You must specify a value.

NONE

Do not replace the VTV record. VTCS only creates new records for VTVs that are not duplicates and replaces records for VTVs not initialized in the target CDS.

UPDATED

Replace the VTV record if it is a more recent version of the VTV, or if the CDS has no migrated or resident versions of the VTV. If it is an older or the same version, do not replace the VTV record.

ALL

Replace any duplicate VTV records in the target CDS.

Note the following:

- Ensure that you actually want to replace duplicate VTV records in the target CDS before you specify the `ALL` parameter. You may want to do a “validate” run with `NOUPDATE` to see which VTV records will be replaced.
- If a VTV record is replaced, all existing VTSS and MVC copies of the VTV are invalidated.
- You cannot import an MVC if the target CDS records show that the MVC contains VTVs, even if you specify `REPLACE (ALL)`. In this situation, you must first drain (with `EJECT`) the MVC on the target system and eject it from the ACS. You can then import the MVC that you exported from the source system.

MANIFEST(dd-name)

optionally, specifies the input dd name of the manifest file.

dd-name indicates the dd name of the manifest file. The default is `MANIFEST`.

NOUPDATE

optionally, specifies that VSM does not update the CDS, validates the import operation, and writes information messages to the job log.

IMMDRAIN

optionally, specifies whether VSM will immediately drain imported MVCs.

NO

Do not drain MVCs (the default).

YES

Drain MVCs.

INACTCDS

optionally, specifies that the import uses a different CDS from the CDS currently active on the HSC system where you are running the import job. Use the `SLSCNTL` definition statement in the `SLUADMIN JCL` to specify the alternate CDS.

Note the following:

- If HSC is down on the system where you are running the import job, the CDS on that system is assumed to be inactive, so you do not need to specify `INACTCDS`.
- If you specify the `INACTCDS` parameter, the CDS specified in the `SLSCNTL` definition statement in the `SLUADMIN JCL` must be different from the CDS being used by HSC/VTCS (if active).

OWNRPLEX(name)

specifies ownership of a VTV being imported.

name indicates the name of the TapePlex that owns the original copy of the VTV. This name must match one of the known TapePlex names in the configuration.

If this name matches that indicated for the `THISPLEX` parameter on the `CONFIG TAPEPLEX` statement, the electronic imported status is removed.

SETOWNER

specifies that ownership information is to be imported.

By default, any ownership information within the manifest is ignored. The `SERTOWNER` parameter specifies that the TapePlex ownership and export fields are imported. VTVs appear as if electronically imported on `Display` commands and reports.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking [SLUADMIN](#)" on page 5-1, the following definition statements apply to the `IMPORT JCL`:

manifest file DD

DD statement for the manifest file.

INITialize

Interfaces:

- `SLUADMIN` utility only
- UUI Support: No

Subsystem Requirements:

HSC at `FULL` service level

Description

The `INITialize` command enables you to batch enter cartridges into the library through the `CAP`, and invokes a user-specified program to write a magnetic label on each tape.

The robot accepts cartridges placed into the `CAP` and reads the Tri-Optic labels, and the HSC passes the `VOLSERs` to the user-specified program. The magnetically labeled cartridges can be ejected from the library or placed into cell locations. If the cartridges are stored in the library, the control data set is updated with the `VOLSER` and location information. The control data set can mark each cartridge as either scratch or nonscratch.

`INITialize` reads the external Tri-Optic labels and records them in a data set defined through the `CNTLDD` parameter. `CNTLDD` is a control statement parameter that describes the `DDname` to be used for `TMSTPNIT` control statements.

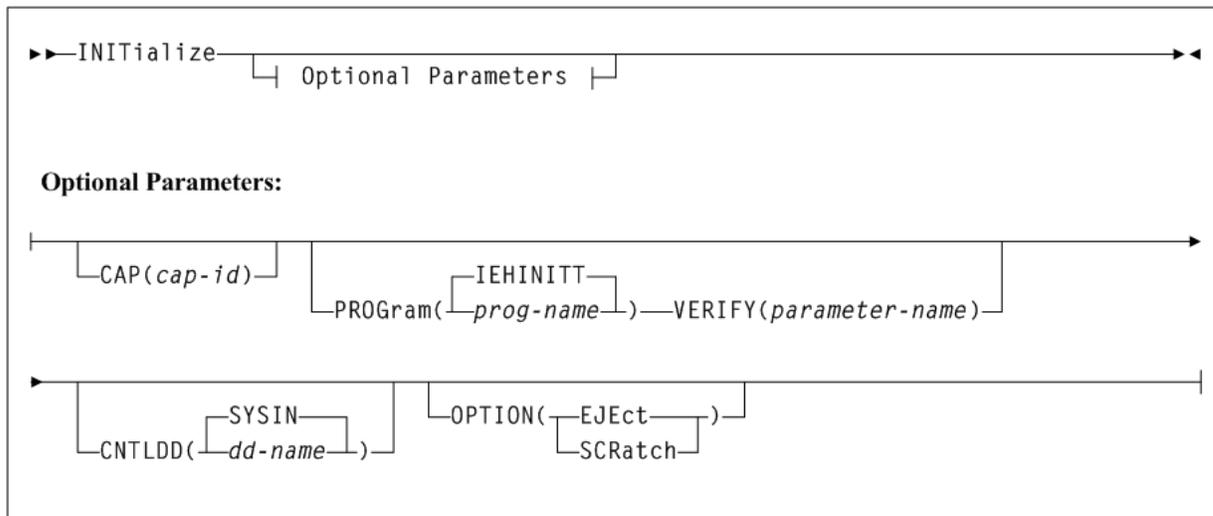
The `INITialize` utility does not initialize cartridges on its own; it invokes `TMS`, `TLMS`, or any other initialization utility, which performs the initialization. `CNTLDD` specifies, through the HSC to the `TMS` utility, the `DD` to be used for the input parameters the `TMS` utility requires.

Caution: This utility must be executed on an `MSP` system running `SMC` and using a local HSC server.

Syntax

[Figure 3-91](#) shows `INITialize` command syntax.

Figure 3–91 INITIALize command syntax



Parameters

As shown in Figure 3–69, the INITIALize command includes the following parameters:

CAP(cap-id)

optionally, specifies a particular CAP to be used for the operation.

If CAP is not specified, the utility chooses a CAP in the ACS implied by the device allocated to satisfy the SLSTAPE DD statement.

cap-id indicates the CAP. The format of a *cap-id* is *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

PROGram(prog-name or IEHINITT)

optionally, specifies a program to be invoked to actually write the label (if not specified, IEHINITT is assumed).

prog-name indicates the program that is to perform the initialization.

VERIFy(parameter-name)

optionally, specifies a parameter to be passed to the tape initialization program identified by the PROGram parameter. VERIFY is valid only when the PROGram parameter specifies TMSTPNIT.

parameter-name indicates the parameter passed to the TMSTPNIT program. For example, if the following parameter is entered:

```
VERIFY (ROBOT)
```

TMSTPNIT suppresses the TMS CAL0TN01 message for NL (nonlabeled) tapes. Refer to the appropriate CA-1 publication for valid parameter values.

CNTLDD(dd-name or SYSIN)

optionally, specifies the DD statement to which initialization control statements are written, and from which the label program reads its control statements.

Note: This is not your control data set.

dd-name indicates the name of the DD statement. The *dd-name* option may only be specified when using CA-1 (TMS) earlier than version 5.1. The default value (SYSIN) MUST be used with CA-1 (TMS) version 5.1 or later.

OPTION

optionally, specifies optional handling to be performed following the completion of label processing. If not specified, the default is retention of the new cartridges in the library with a non-scratch status.

EJEct

specifies that the labeled volumes are to be ejected from the library after the labeling process is complete.

SCRatch

specifies that the labeled volumes entering the library are to be added to the scratch list. If the volume is to be treated as scratch, the installation must inform the tape management system of the volume's scratch status.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the INITiaLize JCL:

SLSINIT

substitution control card format for the invoked initialization program.

SLSTAPE

library transport on which the cartridge is mounted for labeling. To prevent a nonlibrary transport from being allocated, specify one of the following:

- an esoteric containing only library transports
- a specific library transport address
- a TAPEREQ statement to direct the allocation to a library transport
- a user exit (refer to Oracle's ELS publication *ELS Legacy Interfaces Reference*)

CNTLDD or SYSIN

contains volume serial labeling information and is passed as input to the initialization program (IEHINITT or the program specified by the PROG keyword parameter).

If CNTLDD is specified in the utility control statement, then the DD name identifies the data set containing the labeling information.

SYSPRINT

output messages from IEHINITT.

contains volume serial labeling information and is passed as input to the initialization program (IEHINITT or the program specified by the PROG keyword parameter).

If CNTLDD is specified in the utility control statement, then the DD name identifies the data set containing the labeling information.

INVENTORY

Interfaces:

- Utility only

- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

The `INVENTORY` command lists all VTVs on specified MVCs.

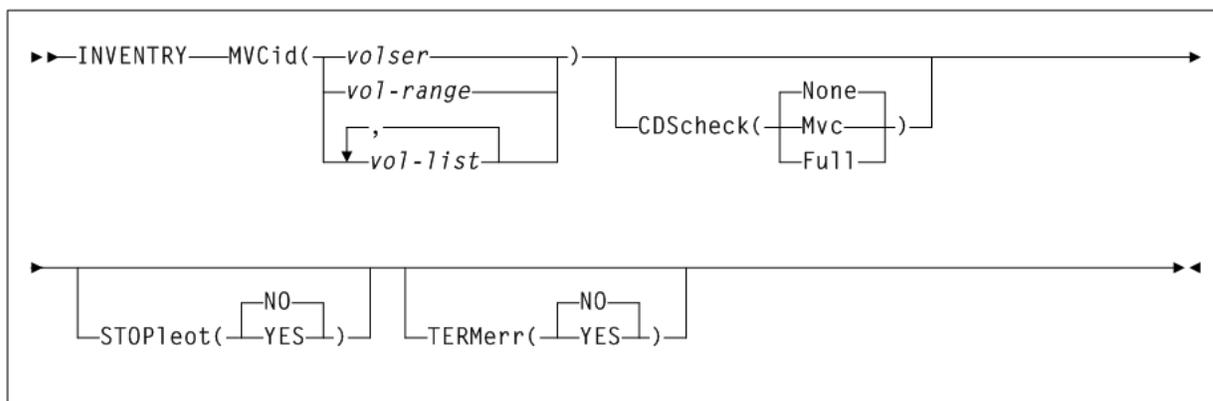
Additionally, you can use this command to do the following:

- Request that the contents of the specified MVCs are cross-checked with the information recorded in the CDS.
- Terminate processing based on the end-of-tape position recorded in the CDS for the MVC, rather than at the MVC's physical end-of-tape.
- Terminate processing for an MVC the first time a VTV is discovered that is incompatible with the information in the CDS.

Syntax

Figure 3-92 shows `INVENTORY` command syntax.

Figure 3-92 `INVENTORY` command syntax



Parameters

As shown in Figure 3-92, the `INVENTORY` command includes the following parameters:

MVCid(volser, vol-range, or vol-list)

specifies the MVC(s) to be inventoried.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more MVCs. You can also specify one or more ranges.

CDScheck

optionally, specifies whether the contents of each inventoried MVC is checked against the information recorded in the CDS.

None

Each VTV found on an inventoried MVC is listed in message `SLS6933I`. The CDS is not checked. `None` indicates the default.

Mvc

Each VTV found on an inventoried MVC is listed in message SLS6933I. The details of the VTV are obtained from the CDS. The MVC and CDS copies of the VTV are compared and listed as a comment on SLS6933I. If the CDS shows a resident or MVC copy of the VTV that differs from the copy listed in SLS6933I, its details are listed in message SLS6934I.

Full

Each VTV found on an inventoried MVC is listed in message SLS6933I.

The details of the VTV are obtained from the CDS. The MVC and CDS copies of the VTV are compared and listed as a comment on SLS6933I. If the CDS shows a resident or MVC copy of the VTV that differs from the copy listed in SLS6933I, its details are listed in message SLS6934I. For each inventoried MVC, the CDS is checked to determine which CTCs are shown to have a copy on the MVC. Any MVCs that were not found on the MVC are listed in message SLS6935E.

STOPIeot

optionally, specifies whether processing is to terminate when the logical end-of-tape position is reached. The logical end-of-tape position is the end-of-tape position recorded in the CDS for this MVC.

NO

All VTVs are to be processed on each inventoried MVC. This is the default.

YES

VTVs are processed on each inventoried MVC until one of the following occurs:

- The MVC's physical end-of-tape is reached.
- The first VTV is found on the MVC that is beyond the logical end-of-tape position, if this is earlier than the physical end-of-tape position. This setting is invalid with CDScheck(None).

TERMerr

optionally, specifies whether the inventory of an MVC is to terminate when it encounters the first inconsistency between the contents of the MVC and the VTVs that the CDS indicates are on the MVC. Such inconsistencies are listed in message SLS6935E, SLS6936E, or SLS6938E.

NO

The inventory of an MVC is not to terminate when it encounters the first inconsistency between the contents of the MVC and the VTVs that the CDS indicates are on the MVC. This is the default.

YES

The inventory of an MVC is to terminate when it encounters the first inconsistency between the contents of the MVC and the VTVs that the CDS indicates are on the MVC. This setting is invalid with CDScheck(None).

Return Codes

The INVENTORY command includes the following return codes:

- 0 indicates that all requested updates completed successfully.
- 4 indicates that one or more errors were found. Errors are listed in message SLS6935E, SLS6936E, SLS6938E, SLS6939E, SLS6940E or SLS6941E.

- 8 indicates that one or more errors were found that are not specific to INVENTORY processing. For example, ECAM errors.

Inventory Report

The following figure shows an example of an INVENTORY report produced by the following command:

```
INVENTORY MVC(021549)
```

In this example, the customer wants to list all VTVs on MVC 021549 without cross-checking the VTVs found with the information recorded in the CDS.

In the sample output, each VTV found on the inventoried MVC is listed in message SLS6933I.

Example 3–46 INVENTORY report

Inventory report for MVC 021549

```
SLS6933I MVC 021549 block 00000000: VTV Y00486 Created 2007Jul17 06:33:22 Migrated 2007Jul17
SLS6933I MVC 021549 block 05402F10: VTV Y00487 Created 2007Jul17 06:34:09 Migrated 2007Jul17
SLS6933I MVC 021549 block 0A405E1F: VTV Y00489 Created 2007Jul17 06:34:56 Migrated 2007Jul17
SLS6933I MVC 021549 block 0F408D2E: VTV Y00493 Created 2007Jul17 06:36:34 Migrated 2007Jul17
SLS6933I MVC 021549 block 10409E3C: VTV Y00492 Created 2007Jul17 06:35:46 Migrated 2007Jul17
```

LIBGen

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The LIBGen command decompiles the hardware configuration, VOLPARM, VAULT and LOGFILE information from the Control Data Set and creates a set of LIBGEN macros that reflects that information. The LIBGen decompile utility can be used to generate an initial set of LIBGEN macros that can be modified when you are adding new hardware to your installation that requires the creation of a new CDS.

Refer to Oracle's ELS publication *Configuring HSC and VTCS* for detailed information about when to use this utility and how it functions.

Syntax

Figure 3–93 shows LIBGen command syntax.

Figure 3-93 LIBGen command syntax



Parameters

As shown in [Figure 3-93](#), the LIBGen command includes the following parameters:

TAPELESS

Optionally, provides a method to generate CDScreat syntax from a CDS that currently contains library definitions, or to create LIBGEN macro syntax from a CDS currently defined as tapeless.

NO

Create CDScreat syntax from a CDS that currently contains library definitions.

YES

Create LIBGEN macro syntax from a CDS currently defined as tapeless.

If the TAPELESS parameter is omitted, the default is based on the input CDS; that is, a tapeless CDS generates CDScreat syntax and a CDS with library definitions generates LIBGEN macro syntax. When TAPELESS(NO) is specified for a tapeless CDS, ACSs and LSMs must be defined before using the LIBGEN macros to define a new CDS.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the LIBGen JCL:

SLSLIBGN

output data set to accommodate the LIBGEN created by the utility.

The data set has these characteristics: LRECL=80, fixed-blocked format (multiple of 80). The data set can be assigned to print or to output to a DASD. It may be assigned to DUMMY if only the SLSPRINT output is desired.

SLSPARM

Output VOLPARM card images from CDS.

SLSPARM is required when VOLPARM records exist in the CDS. If the SLSPARM DD is not coded in the JCL, message SLS0212I is issued and the utility ends with a return code 4.

SLSSET

Output CDScreat, SET VOLPARM, SET VAULT or SET VAULTVOL, and SET LOGFILE control statements from the CDS. If the LIBGEN utility attempts to output one of the above types of control statements and the SLSSET DD statement is missing, a message SLS0212I is issued. If the statement to be produced is CDScreat, the utility terminates with a return code of 8; otherwise, processing continues and a return code of 4 is generated.

Output

LIBGen command output includes the following:

- a valid LIBGEN file matching the existing control data set. The output file has the following characteristics:
 - All station and drive addresses are 4-character addresses.
 - In cases where multiple parameters point to the same label statement, the utility duplicates the statement with a unique label and points each parameter to a different, although identical statement.
 - Labels generated in the output LIBGEN are listed in Table 3–6, below.
 - If an EJECT password exists, it is not displayed. Instead, the following line is displayed:


```
EJCTPAS=???????
```
- messages associated with error conditions resulting from an unsuccessful execution of the utility.

Table 3–6 LIBGen Output Labels

Device	Label	Description
ACS	ACSaa	aa indicates the sequential decimal ACSid value (00 through 99), beginning with zero.
LSM	LSMaall	aa indicates the ACSid, and ll indicates the sequential decimal LSMid value (00 through 99), beginning with zero.
STATION	STaah	aa indicates the ACSid, and h indicates the sequential hexadecimal host index value (0 through F), beginning with zero.
PANEL	Paallpp	aa indicates the ACSid, ll indicates the LSMid, and pp indicates the sequential decimal panel number (0 through 10).
DRIVE	Daallpph	aa indicates the ACSid, ll indicates the LSMid, pp indicates the decimal panel number, and h indicates the hexadecimal host index value, beginning with zero.

LMUPDEF

Interfaces:

- Console or PARMLIB
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

The LMUPDEF command specifies the definition data set that contains network LMU attachment (LMUPATH) statements.

If a definition file is changed by a LMUPDEF operator command, and if the change is to be permanent, you must update PARMLIB before restarting the HSC.

If the definition file is to be modified for a given shift or application, remember that the new definition remains in effect until another definition is loaded or the HSC is

recycled. The definition file then reverts to the PARMLIB specification. Thus, LMUPDEF can be used to temporarily change a definition file.

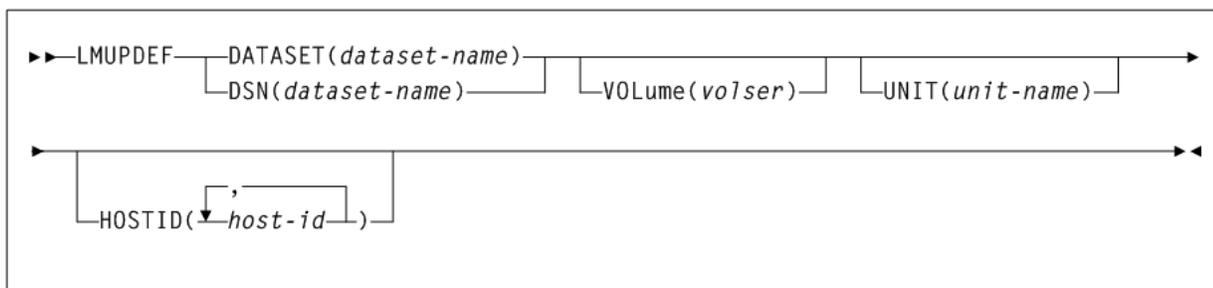
Note:

- Definition commands issued on one host are in effect only on that host. If different hosts use the same definition data set, the LMUPATH parameter statements are shared by those hosts.
 - If you issue multiple LMUPDEF commands or statements, the last one processed is currently active. You can determine which LMUPDEF statement is active by entering the `Display LMUPDEF` command.
-
-

Syntax

Figure 3–94 shows LMUPDEF command syntax.

Figure 3–94 LMUPDEF command syntax



Parameters

As shown in Figure 3–94, the LMUPDEF command includes the following parameters:

DATASET(dataset-name) or DSN(dataset-name)

specifies the name of the data set containing the LMUPATH statements to be processed and, optionally, an `OPTION TITLE` statement.

dataset-name indicates the name of the data set containing the LMUPATH address parameters. If the data set name includes a member name, *dataset.name* must be enclosed in quotes. For example:

```
DATASET('YOUR.DSN(MEMBER)')
```

Note:

- The definition data set may contain `VOLATTR`, `UNITATTR`, `TAPEREQ`, `LMUPATH`, and `OPTION TITLE` statements, but only `LMUPATH` and `OPTION TITLE` statements are processed.
 - If any other statement is encountered, an error message is issued and the statement is ignored.
 - See "[OPTION TITLE Control Statement](#)" on page 3-274 for more information about the `OPTION TITLE` control statement.
-
-

VOLume(volser)

optionally, specifies the serial number of the DASD volume on which the data set resides. This parameter is optional. Specify the VOLume parameter if the data set is not cataloged, or if a data set on a volume other than the volume indicated by the catalog is to be used.

volser indicates the volume serial number for the definition data set.

UNIT(unit-name)

optionally, specifies the unit where the definition data set is located.

unit-name indicates the unit name. If the definition data set is not cataloged and this parameter is omitted, a unit name of SYSALLDA is the default.

HOSTID(host-id)

optionally, limits the execution of this control statement to the specified hosts. If one of the specified *host-ids* matches the host executing this control statement, the control statement is executed for that host. Otherwise, it is ignored. If this parameter is omitted, the control statement is executed on all hosts.

This parameter is valid only for use in PARMLIB, so that multiple systems can share a PARMLIB member containing TAPEREQ, VOLATTR, UNITATTR, or LMUPATH statements for different releases of HSC. If entered from the console, message SLS0018I is issued.)

host-id indicates the name of one or more hosts from which to execute this control statement. Multiple hosts must be separated by commas.

LMUPATH Control Statement

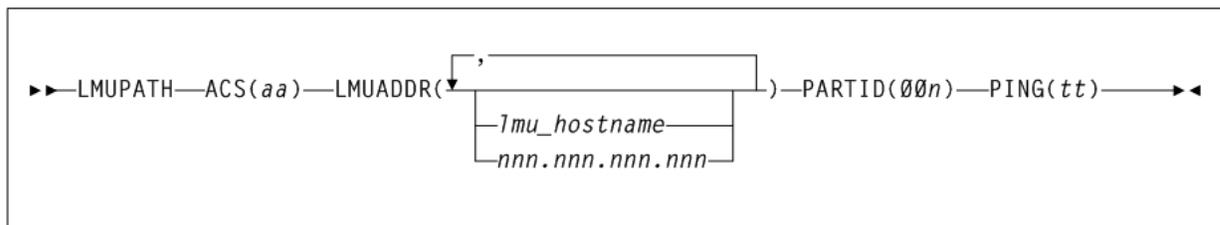
The LMUPATH control statement defines network LMU/Library Controller (LC) attachments. It is loaded by the LMUPDEF command.

Note: If you are using the SL3000 or SL8500 partitioning feature, the PARTID parameter connects to a specific partition defined by the SL3000 or SL8500 library for the HSC host group. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for information about how to use the partitioning feature.

Syntax

Figure 3–95 shows LMUPATH control statement syntax.

Figure 3–95 LMUPATH control statement syntax



Parameters

As shown in Figure 3–95, the LMUPATH control statement includes the following parameters:

ACS(aa)

specifies the ACS name.

aa indicates the decimal ACSid value (00 through 99) to identify the LMU(s) used to communicate with a HSC.

LMUADDR

identifies an LMU/Library Controller (LC) by host name or IP address, for each ACS. To designate a single LMU/LC environment, specify one IP address or host name. To specify a dual LMU/LC environment or a dual IP connection to an SL8500, enter an additional IP address or host name.

The HSC automatically detects the type of connection, dual LMU for a 9330 or dual IP for an SL8500 library.

Users can intermix host name and IP addresses in one `LMUPATH` control statement. Each parameter entered must represent a different IP address.

Imu-hostname

a host name for the TCP/IP connection. The host name can be up to 24 characters long. The first character must be alphabetic.

nnn.nnn.nnn.nnn

an IP address for the LMU/LC. A maximum of 40 IP addresses can be specified.

PARTID(00n)

defines a partition ID for each ACS.

00n indicates a partition ID from 001 to 999.

- All three characters must be entered for the partition ID.
- For this release, only IDs 001 through 008 are supported.

Note: A partitioned SL3000 or SL8500 cannot use the multiple TCP/IP connection feature since partitioning applies only to a single SL3000 or SL8500 box.

PING(tt)

specifies the number of minutes in between requests sent from the HSC to the LMU. These requests are to keep the connection active, which prevents a firewall from closing the connection due to inactivity.

tt indicates the time in minutes from 00-99. The default is 5 minutes if this parameter is not defined, and entering 00 turns off this feature.

LOGUTIL

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The LOGUTIL command initiates the CDS recovery process for VTCS. It is used in the following scenarios:

- The CDS has become unusable or corrupt and MVCs used since the date of the CDS backup need to be identified for MVCAUDIT purposes.
- A VTSS has suffered a catastrophic data loss.

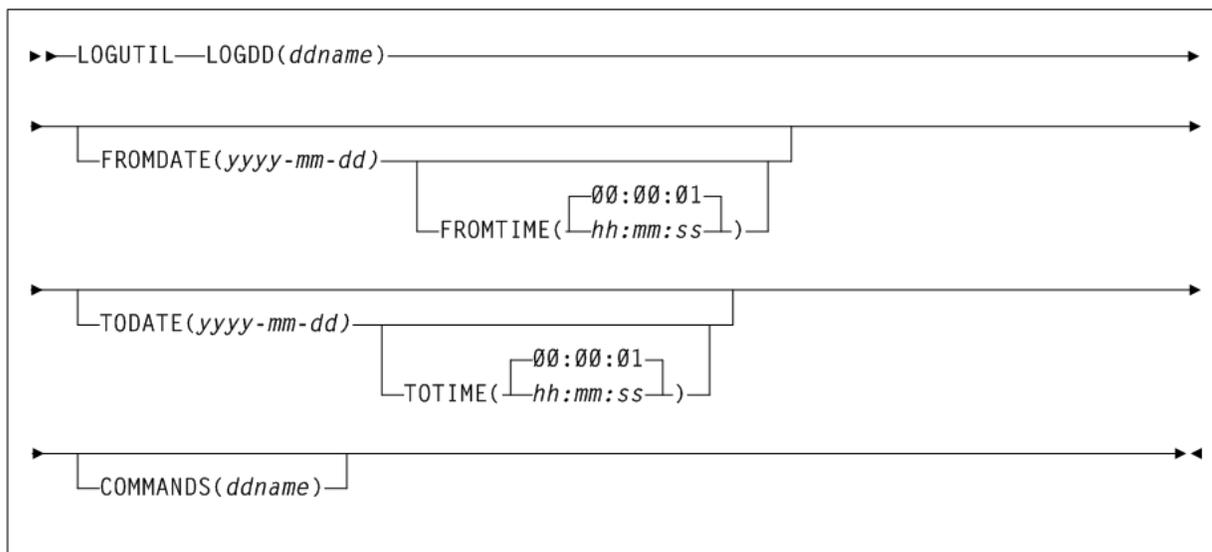
LOGUTIL calls the module that analyzes the input log files, and calls a recovery module to perform the appropriate recovery actions. Additionally:

- The LOGUTIL FOR_LOSTMVC statement recovers VTVs that resided on a lost or damaged MVC.
- The LOGUTIL GENAUDIT statement initiates a re-synchronization of the CDS to VSM through MVCAUDIT statements.
- The LOGUTIL LOCATE_VTV statement recovers older versions of VTVs.
- The LOGUTIL UNDELETE statement recovers deleted VTVs.

Syntax

Figure 3–96 shows LOGUTIL command syntax.

Figure 3–96 LOGUTIL command syntax



Parameters

As shown in Figure 3–96, the LOGUTIL command includes the following parameters:

LOGDD(ddname)

specifies the DD name of the input log data sets.

ddname indicates the DD name.

FROMDATE(yyyy-mm-dd)

optionally, specifies a starting date for logged events.

yyyy-mm-dd indicates the starting date.

Note: For FROMDATE and FROMTIME, specify local dates/times as seen from the MSP system on which LOGUTIL runs.

FROMTIME(hh:mm:ss)

optionally, specifies a starting time for logged events.

hh:mm:ss indicates the starting time. The default is 00:00:00.

TODATE(yyyy-mm-dd)

optionally, specifies an ending date and time for logged events.

yyyy-mm-dd indicates the ending date.

Note: For TODATE and TOTIME, specify local dates or times as seen from the MSP system on which LOGUTIL runs.

TOTIME(hh:mm:ss)

optionally, specifies an ending time for logged events.

hh:mm:ss indicates the ending time. The default is 00:00:01.

COMMANDS(ddname)

optionally, specifies the DD name of a data set that contains recovery commands.

ddname indicates the DD name.

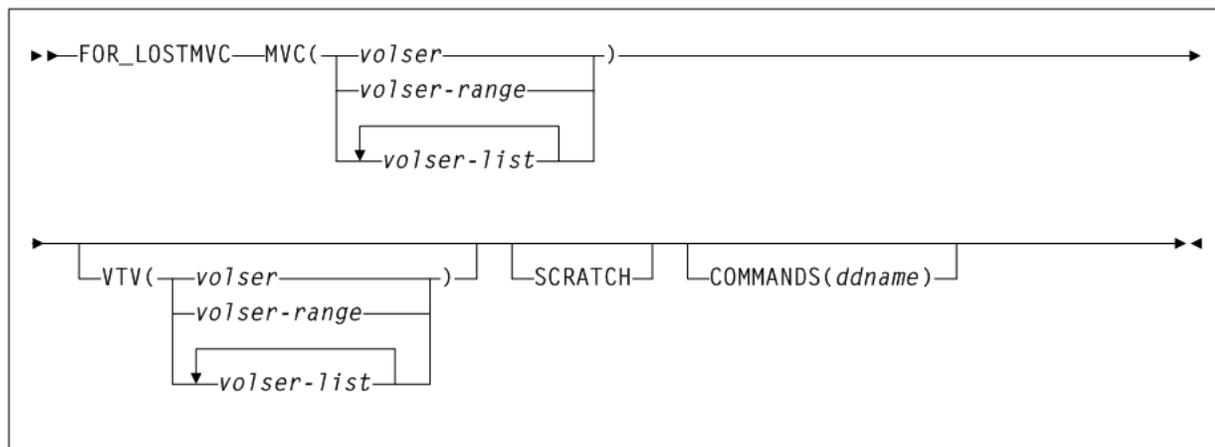
LOGUTIL FOR_LOSTMVC Statement

The LOGUTIL FOR_LOSTMVC statement recovers VTVs that resided on lost or damaged MVCs.

Syntax

Figure 3-97 shows LOGUTIL FOR_LOSTMVC statement syntax.

Figure 3-97 LOGUTIL FOR_LOSTMVC statement syntax

**Parameters**

As shown in Figure 3-97, the LOGUTIL FOR_LOSTMVC statement includes the following parameters:

MVC(volser, volser-range, or volser-list)

specifies the MVC(s) to be recovered. You can specify a maximum of 1000 MVCs.

volser, *volser-range*, or *volser-list* indicates the volser, volser range, or volser list to be processed.

VTV(volser, volser-range, or volser-list)

optionally, specifies specific VTV(s) to be recovered. You can specify a maximum of 300,000 MVCs.

Specified VTVs must reside on one or more of the recovery MVCs to be processed. When this parameter is coded, only VTVs specified are recovered (if they exist on the recovery MVCs).

volser, *volser-range*, or *volser-list* indicates the volser, volser range, or volser list to be processed.

This parameter behaves as a filter. If VTVs are specified that are not on the specified MVCs, they will not be recovered and will not be listed in the report output.

SCRATCH

optionally, specifies to specify scratch VTVs. By default, scratch VTVs are not processed as part of the recovery.

COMMANDS(ddname)

optionally, specifies the DD name of a data set that includes the recovery commands created when the COMMANDS parameter is specified on the LOGUTIL command.

ddname indicates the DD name.

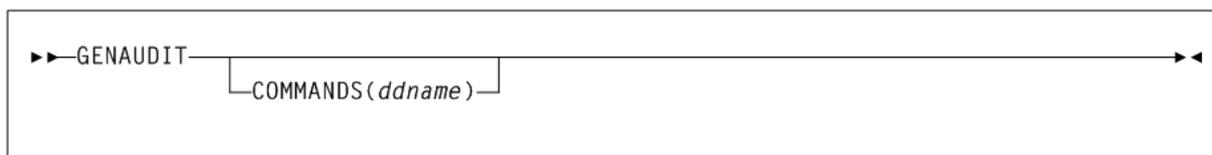
LOGUTIL GENAUDIT Statement

The LOGUTIL GENAUDIT statement initiates a re-synchronization of the CDS to VSM through MVCAUDIT statements that are generated when the COMMANDS parameter is specified with the LOGUTIL command. The LOGUTIL GENAUDIT statement identifies MVCs for input to MVCAUDIT.

Syntax

Figure 3–98 shows LOGUTIL GENAUDIT control statement syntax.

Figure 3–98 LOGUTIL GENAUDIT statement syntax

**Parameters**

As shown in Figure 3–98, the LOGUTIL GENAUDIT statement includes the following parameters:

COMMANDS(ddname)

optionally, specifies the DD name of a data set that includes the recovery commands created when the COMMANDS parameter is specified on the LOGUTIL command.

ddname indicates the DD name.

The GENAUDIT COMMANDS parameter works with the LOGUTIL COMMANDS parameter as follows:

- If you specify LOGUTIL COMMANDS, the GENAUDIT statement outputs recovery commands to the specified data set even if you did not specify GENAUDIT COMMANDS.
- If you specify COMMANDS on both LOGUTIL and GENAUDIT, recovery commands are only output to the GENAUDIT COMMANDS data set.

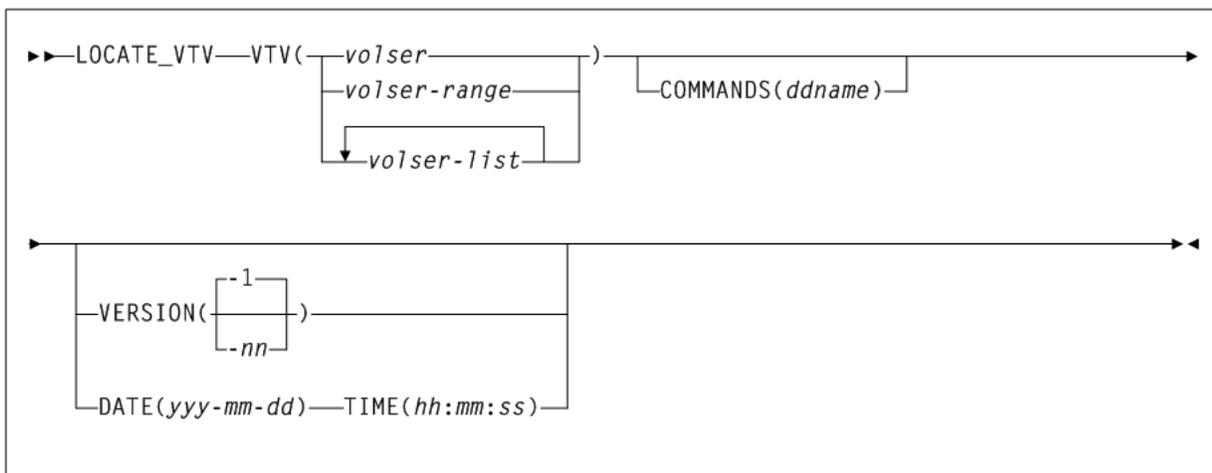
LOGUTIL LOCATE_VTV Statement

The LOGUTIL LOCATE_VTV statement recovers a noncurrent version of a VTV.

Syntax

Figure 3–99 shows LOGUTIL LOCATE_VTV control statement syntax.

Figure 3–99 LOGUTIL LOCATE_VTV statement syntax



Parameters

As shown in Figure 3–99, the LOGUTIL LOCATE_VTV control statement includes the following parameters:

VTV(volser, volser-range, or volser-list)

specifies specific VTV(s) to be recovered. You can specify a maximum of 1000 VTVs.

volser, *volser-range*, or *volser-list* indicates the volser, volser range, or volser list to be processed.

COMMANDS(ddname)

optionally, specifies the DD name of a data set that includes the recovery commands created when the COMMANDS parameter is specified on the LOGUTIL command.

ddname indicates the DD name.

The LOCATE_VTV COMMANDS parameter works with the LOGUTIL COMMANDS parameter as follows:

- If you specify LOGUTIL COMMANDS, the LOCATE_VTV statement outputs recovery commands to the specified data set even if you did not specify LOCATE_VTV COMMANDS.

- If you specify `COMMANDS` on both `LOGUTIL` and `LOCATE_VTV`, recovery commands are only output to the `LOCATE_VTV COMMANDS` data set.

VERSION(-nn)

optionally, specifies the version of the VTV to recover.

`-nn` indicates the version. Valid values are -1 to -99. The default is `VERSION(-1)`, which is one version older than the current version.

Note: `VERSION` is mutually exclusive the `DATE` and `TIME` parameters.

DATE(yyyy-mm-dd)

optionally, specifies the date of the VTV version to recover. If you specify `DATE`, you must also specify `TIME`.

`yyyy-mm-dd` indicates the date, by year, month and day.

TIME(hh:mm:ss)

optionally, specifies the time of the VTV version to recover. If you specify `TIME` you must also specify `DATE`.

`hh:mm:ss` indicates the time, in hours minutes and seconds.

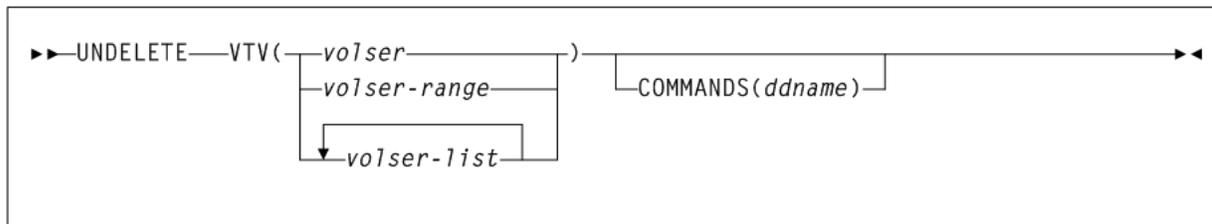
LOGUTIL UNDELETE Statement

The `LOGUTIL UNDELETE` statement recovers deleted VTVs.

Syntax

Figure 3–100 shows `LOGUTIL UNDELETE` control statement syntax.

Figure 3–100 LOGUTIL UNDELETE statement syntax

**Parameters**

As shown in Figure 3–100, the `LOGUTIL UNDELETE` control statement includes the following parameters:

VTV(volser, volser-range, or volser-list)

specifies the VTV(s) to be recovered. You can specify a maximum of 1000 VTVs.

`volser`, `volser-range`, or `volser-list` indicates the volser, volser range, or volser list to be processed.

COMMANDS(ddname)

optionally, specifies the DD name of a data set that includes the recovery commands created when the `COMMANDS` parameter is specified on the `LOGUTIL` command.

`ddname` indicates the DD name.

The UNDELETE COMMANDS parameter works with the LOGUTIL COMMANDS parameter as follows:

- If you specify LOGUTIL COMMANDS, the UNDELETE statement outputs recovery commands to the specified data set even if you did not specify UNDELETE COMMANDS.
- If you specify COMMANDS on both LOGUTIL and UNDELETE, recovery commands are only output to the UNDELETE COMMANDS data set.

MEDVERfy

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC/VTCS

Description

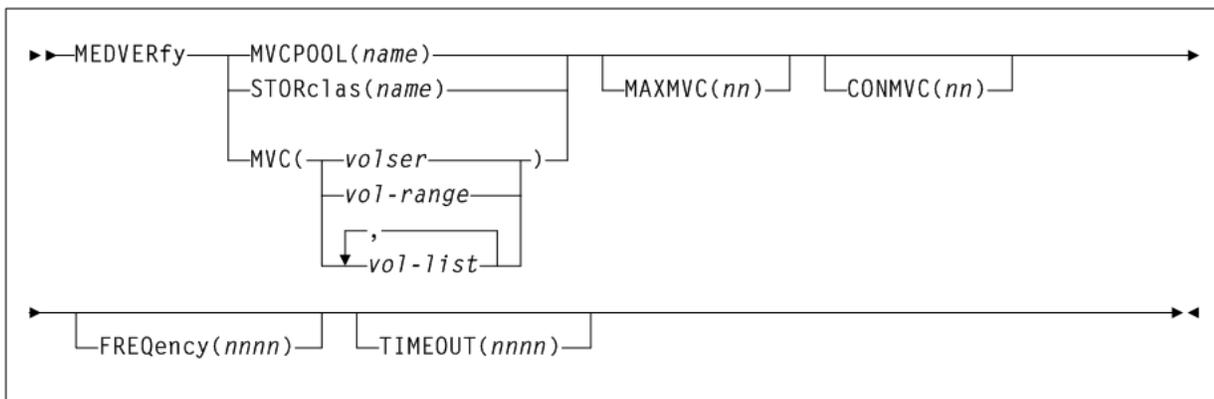
The MEDVERfy utility performs a Media Verification (MV) by verifying that VTV data can be read on MVCs or VMVCs (ELS 7.1 and VLE 1.2 and above only). For VLE, MEDVERfy ensures that deduplicated VMVCs can be “rehydrated” (reconstituted).

The utility reports on MVCs that pass or fail verification and also produces XML output.

Syntax

Figure 3–101 shows MEDVERfy command syntax.

Figure 3–101 MEDVERfy command syntax



Parameters

The following three, mutually exclusive, keyword parameters identify the MVCs to be verified:

MVCPOOL(name)

optionally, specifies an MVCPOOL containing MVCs requiring data verification. An undefined MVCPOOL value terminates the utility with RC 8.

name indicates the MVC pool name.

STORclas(name)

optionally, specifies a storage class for MVCs requiring data verification. Based on time of last verify and any frequency specified on the command, the utility selects the best MVC candidates for verification processing.

An undefined *STORclas* value terminates the utility with RC 8.

name indicates the storage class name.

MVC(volser, vol-range, or vol-list)

optionally, specifies a list or range of MVCs to be verified. For individual MVCs whose *volser* falls outside those defined in the CDS, the utility terminates with RC 8.

volser, *vol-range*, or *vol-list* indicates a *volser*, *volser range*, or *volser list*.

Note: Based on time of last verify and any frequency specified on the command, the utility selects the best MVC candidates, within the specified selection criteria, for verification processing.

MAXMVC(nn)

optionally, specifies the maximum number of MVCs that will be processed by a single media verification task.

nn indicates the number of MVCs. Valid values are 1–99. If not specified, the default is 99.

CONMVC(nn)

optionally, specifies the maximum number of MVCs that VTCS concurrently processes for media verification.

nn indicates the number of MVCs. Valid values are 1–99. If not specified, the default is 1.

FREQency(nnnn)

optionally, establishes the verification scheduling interval, in days, that MVCs are to be verified. To be selected for verification, the number of days since the MVC's last verify date must be greater than the number of days specified.

nnnn indicates the interval, in days. Valid values are 1-9999. There is no default. If not specified, the MVC's last verify date, alone, is used for selecting MVCs to verify.

TIMEOUT(nnnn)

optionally, specifies the allowable time, in minutes, for the media verification utility to run.

nnnn indicates the allowable time, in minutes. Valid values are 1-9999. There is no default. If *TIMEOUT* is not specified, then there is no limit on utility run time.

Note: Similar to RECLAIM processing, if any MVCs are being processed when the *TIMEOUT* value is reached, *MEDVERfy* completes processing on those MVCs, and then stops.

MEDVERfy Reports

The following figure shows an example of a Media Verify report that indicates successful verification for MVC DMV100:

Example 3–47 MEDVERfy report (1 of 2)

```
Media Verify - -----Media Verify request 6-----  
Media Verify - 1 MVC(s) selected for processing  
MVC DMV100 - verifying media  
MVC DMV100 - verify complete  
No exceptions to report
```

SLS0155I Condition code for utility function is 0

The report also lists MVCs not selected for MV processing under certain conditions. For example, in the following report, MVC DMV800 is skipped because it was mounted during verification selection:

Example 3–48 MEDVERfy report (2 of 2)

```
MEDVER MVC(DMV100,DMV800) CONMVC(1) TIMEOUT(180)
```

```
MVC DMV800 skipped, is mounted
```

```
Media Verify - -----Media Verify request 21-----  
Media Verify - 1 MVC(s) selected for processing  
MVC DMV100 - verifying media  
MVC DMV100 - verify complete  
No exceptions to report
```

No exceptions to report

SLS0155I Condition code for utility function is 0

MERGEcds

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE service level only

Description

Use the MERGEcds command to do the following:

- Add or Change a configuration to reflect new ACSs or LSMs.
- Consolidate multiple CDSs into one CDS.
- Divide one CDS into multiple CDSs. MERGEcds copies volume information from each old CDS into the new CDS.
- Merge multiple ACSs into one ACS.
- Divide one ACS into multiple ACSs.
- Modify an ACSid or LSMid to renumber ACSs and LSMs.

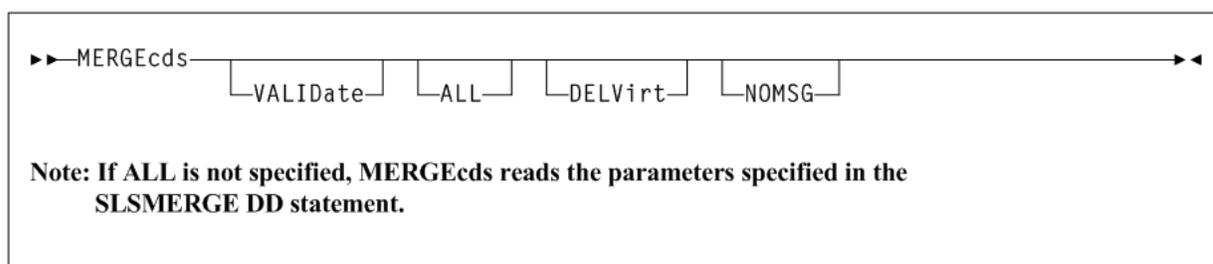
- Modify VTSS names.
- Remove virtual or vault data from the CDS.
- Change the number of slots reserved for vaulted volumes.

Note: Before using MERGEcds, refer to Oracle's ELS publication *Configuring HSC and VTCS* for detailed procedures used to run the utility.

Syntax

Figure 3–102 shows MERGEcds command syntax.

Figure 3–102 MERGEcds command syntax



Parameters

As shown in Figure 3–102, the MERGEcds command includes the following parameters:

VALIDate

optionally, specifies to only validate that the configurations to be reconfigured or merged are compatible, but not perform the operation. MERGEcds VALIDate reports any duplicate, in-transit, and errant volumes.

ALL

optionally, specifies to copy volume information for all ACSs and VTSSs from the "from" CDS to the "to" CDS. You can also specify the ALL parameter to convert a CDS to extended format.

- For a CDS merge, the ACS ID and LSM IDs, and VTSS names must match.
- If you are using VTCS, MVCs that are in the source (input) CDS but are not configured in the target (output) CDS, must be empty. An MVC is considered empty if it contains no current VTVs and, if previously used, has been drained.

Note: ALL and SLSMERGE DD are mutually exclusive. If you do not specify ALL, MERGEcds reads the parameters specified on the SLSMERGE control statement. These parameters specify the ACSs, LSMs, VTSSs, and Vaults whose volume information you want to merge or reconfigure. See "SLSMERGE Control Statement" on page 3-206 for more information.

DELVirt

optionally, specifies that VTV and MVC volume information is not copied to the "to" CDS if both of the following are true:

- The VTVs and MVCs defined in the "from" CDS are either uninitialized or empty.
An empty VTV is not VTSS resident and has no current MVC copies. An empty MVC contains no current VTVs and does not have an assigned `STORCLAS`. An MVC is empty when `%USED` is 0% and `%AVAIL` is 100% on an MVC Report or Q MVC display.
Refer to Oracle's ELS publication *Managing HSC and VTCS* for instructions for removing MVCs from the pool.
- The uninitialized or empty VTVs and MVCs in the "from" CDS are not defined in the "to" CDS. That is, no duplicate volser exist.

`DELvirt` has no effect unless `ALLVIRT` is specified on the `SLSMERGE` control statement.

NOMSG

optionally, suppresses message `SLS4245I`, which displays the volser of an MVC or VTV that was not copied to the "to" CDS.

`NOMSG` has no effect unless `DELvirt` is specified on the `MERGECDs` control statement and `ALLVIRT` is specified on the `SLSMERGE` control statement.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the `MERGEcds` JCL:

SLSFCNTL

specifies the current primary copy of the "from" HSC CDS.

SLSFCTL2

specifies the secondary copy of the CDS, if one is defined.

SLSFSTBY

optionally, specifies the standby copy of the CDS, if one is defined.

Note: If more than one of these statements are present, HSC determines the primary CDS from the Database Heartbeat (DHB) record of the "from" CDS. The "from" CDS is not modified. If a single CDS (`SLSFCNTL`) is specified, ensure that it is the primary CDS. No DHB validation occurs.

SLSMERGE Control Statement

The `SLSMERGE` control statement specifies the "from" and "to" ACSs, LSMs, or Vaults to use for a merge, and enables you to rename a VTSS in the **Resident VTSS** field.

Note:

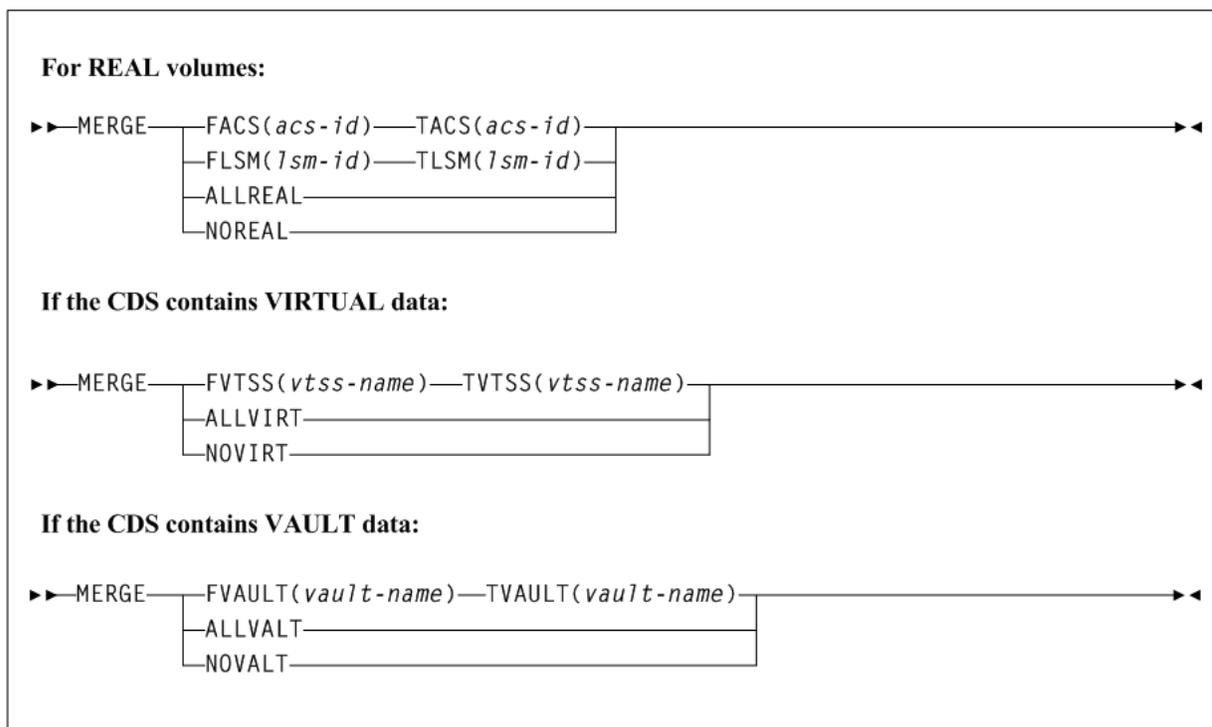
- The SLSMERGE control statement is optional and is mutually exclusive with the MERGEcds ALL parameter.
- If you use SLSMERGE control statements, you must include MERGE statements that account for all data in the “from” CDS.

For example, if your “from” CDS contains real, virtual, and vault data, you must supply a control card for each of these types to specify whether they are to be copied to the “to” CDS. If you do not want a particular type of data to be copied to the “to” CDS, issue the appropriate NO parameter (NOREAL, NOVIRT, or NOVALT) to exclude it.

Syntax

Figure 3–103 shows SLSMERGE control statement syntax.

Figure 3–103 SLSMERGE control statement syntax

**Parameters**

As shown in Figure 3–103, the SLSMERGE control statement includes the following parameters:

Caution: The “real” parameters (FACS, TACS, FLSM, TLSM) and “vault” parameters (FVAULT, TVault) act as selection criteria, while the “virtual” parameters (FVTSS, TVTSS) act only as rename criteria.

Parameters (Real Volumes)

For REAL volumes, the following parameters apply:

FACS(acs-id)

specifies the “from” ACS.

TACS(acs-id)

specifies the “to” ACS.

FLSM(lsm-id)

specifies the “from” LSM.

TLSM(lsm-id)

specifies the “to” LSM.

ALLREAL

Merge all real data only.

NOREAL

Do not merge real data.

Parameters (CDS Containing Virtual Data)

If the CDS contains VIRTUAL data, the following parameters apply:

FVTSS(vtss-name)

specifies the “from” VTSS name.

TVTSS(vtss-name)

specifies the “to” VTSS name.

You cannot use MERGEcds to remove data for certain VTSSs from the CDS.

FVTSS and TVTSS act only as rename criteria. When these parameters are specified, ALLVIRT is implied.

For example:

```
MERGE FVTSS (VTSS18) TVTSS (VTSS17)
```

In this example, all VTV records are copied to the new CDS, but the Resident VTSS field is changed from VTSS18 to VTSS17. All VTSSs not specified in these statements are automatically merged to the same-named VTSS in the new CDS.

ALLVIRT

Merge all virtual data only.

NOVIRT

Do not merge virtual data.

Parameters (CDS Containing VAULT Data)

If the CDS contains VAULT data, the following parameters apply:

FVAULT(vault-name)

specifies the “from” vault.

TVAULT(vault-name)

specifies the “to” vault.

ALLVALT

Merge all vault data only.

NOVALT

Do not merge vault data.

MERGMFST

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

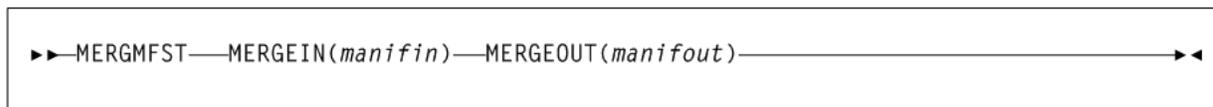
Description

The MERGMFST command merges multiple manifest files produced by EXPORT into a single file.

Syntax

Figure 3–104 shows MERGMFST command syntax.

Figure 3–104 MERGMFST command syntax



Parameters

As shown in Figure 3–104, the MERGMFST command includes the following parameters:

MERGEIN(*manifin*)

specifies the DD statement for one or more input manifest files.

manifin indicates the DD name.

MERGEOUT(*manifout*)

specifies the DD statement for the merged manifest file.

manifout indicates the DD name.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking SLUADMIN" on page 5-1, the following definition statements apply to the MERGMFST JCL:

manifin DD

DD statement for the input manifest file(s).

manifout DD

DD statement for the merged manifest file.

<command_tags>

Header tag for all XML tags.

The following tags are produced by the METAdata command:

<tag_data>

Header tag for each XML tag.

<tag_name>

The XML tag name, for example, volser.

<tag_type>

Values are header (header XML tag), data (XML data tag, normally associated with a value), and trailer (indicates the position of the trailer tag associated with a header tag).

<occurrences>

The maximum number of expected occurrences, for tags that may occur multiple times. This may be either a numeric value or "unlimited."

The following tags are produced by the METAdata command:

<data_type>

Indicates the type of data expected in the tag value. Produced only for data tags.

Values include: char, numeric, flag, hex, date, time.

<maximum_size>

Indicates the maximum output data size.

MGMTDEF

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

The MGMTDEF command loads the following control statements from a specified definition data set:

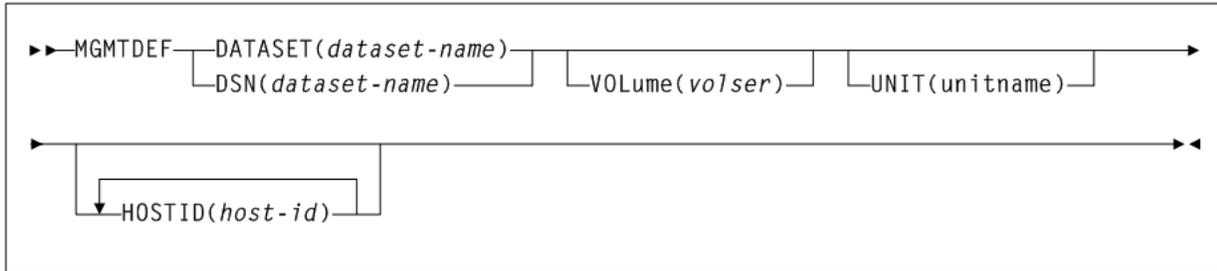
- MGMTclas
- MIGRSEL
- MIGRVTV
- MVCATTR
- STORclas
- STORLST
- STORSEL
- VTSSLST
- VTSSSEL

Note: When HSC/VTCS is active and the MGMTDEF command is issued to re-load MGMTclas control statements, the 'changed' control statements only affect newly created VTVs. Additional action is required to apply the changes to existing VTVs.

Syntax

Figure 3–106 shows MGMTDEF command syntax.

Figure 3–106 MGMTDEF command syntax



Parameters

As shown in Figure 3–106, the MGMTDEF command includes the following parameters:

DATASET(dataset-name) or DSN(dataset-name)

specifies the definition data set that contains the MGMTclas and STORclas statements to load.

dataset-name indicates the data set name.

VOLume(volser)

optionally, specifies the DASD volume where the definition data set resides. This parameter is optional, unless the data set is not cataloged, or the data set resides on a volume other than the volume indicated by the catalog.

volser indicates the DASD volser.

UNIT(unitname)

optionally, specifies the DASD device where the definition data set resides.

unitname indicates the DASD unit name. If the definition data set is not cataloged and this parameter is omitted, the unit name defaults to SYSALLDA.

HOSTID(host-id)

optionally, specifies the host for execution of the MGMTDEF command. This parameter is only valid when MGMTDEF is specified as a PARMLIB control statement.

host-id indicates the name of one or more hosts from which to execute the MGMTDEF command. Multiple hosts must be separated by commas.

MGMTclas Control Statement

The MGMTclas control statement defines a VSM Management Class. It is loaded by the MGMTDEF command.

Note:

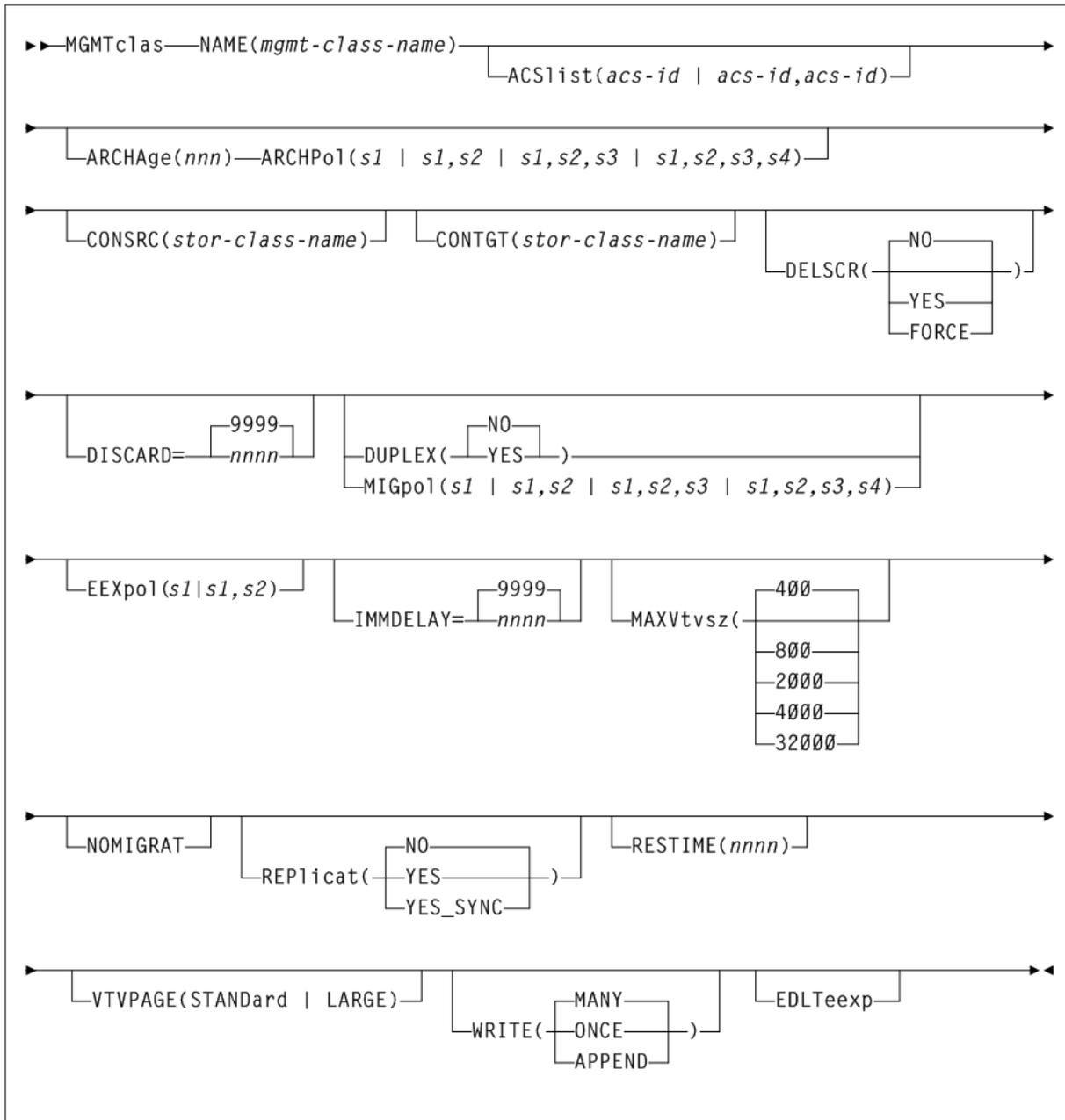
- By default, advanced VSM management features are automatically enabled. The `FEATures` command, included in previous ELS releases to enable these features, is no longer valid.
- ELS includes parameters designed to improve migration control. If you choose not to use these features, refer to Oracle's ELS publication *Legacy Interfaces Reference* for information about existing legacy `MGMTclas` parameters.
- When HSC/VTCS is active and the `MGMTDEF` command is issued to re-load `MGMTclas` control statements, the 'changed' control statements only affect newly created VTVs. Additional action is required to apply the changes to existing VTVs.

For example, If you change the `IMMDELAY` value, you must recycle the HSC to apply the change to existing VTVs. If you change the `MIGpol` value from one storage class to two, you must recall the VTV to allow for creation of the second migrated copy.

Syntax

Figure 3–107 shows `MGMTclas` control statement syntax.

Figure 3–107 MGMTclas control statement syntax



Parameters

As shown in Figure 3–107, the MGMTclas command includes the following parameters:

NAME(mgmt-class-name)

specifies the name of the Management Class.

mgmt-class-name indicates the Management Class name. This name must be one to eight alphanumeric characters beginning with an alpha character and must follow SMS naming conventions.

ACSlist(acs-id or acs-id,acs-id)

optionally, specifies the ACSs from which RTDs and MVCs are selected. If not specified, the default is the ACS specified on the CONFIG DEFLTACS parameter.

See DUPlex, below, for information about using the DUPlex and ACSlist parameters.

acs-id or *acs-id, acs-id* indicates either one or two ACS IDs. An ACSid is a two digit decimal ACS identifier from 00-99.

ARCHAge(nnn)

optionally, specifies the age (in days) of a VTV before it is archived as specified by ARCHPol. If you specify ARCHAge, you must specify ARCHPol.

This parameter is optional; there is no default value. Valid values are 1 to 999.

nnn indicates the VTV age in days.

ARCHPol(stor-class-name or stor-class-list)

optionally, specifies up to four Storage Classes that specify the ACS and media type of the archive MVCs. If you specify:

- If you specify one Storage Class, VTCS archives one copy of a VTV.
- If you specify multiple Storage Classes (with different ACS values, different MEDIA values, or both), VTCS archives multiple copies of the VTV to different MVCs in different ACSs.
- If you specify multiple Storage Classes with identical ACS and MEDIA values, VTCS archives multiple copies of the VTV to the same ACS and media type but to different MVCs.

Note: Multiple Storage Classes on ARCHPol also affects how VTV recall, MVC space reclamation, and VTV consolidation function.

This parameter is optional; there is no default value. If you specify ARCHPol, you must specify ARCHAge.

stor-class-name1...stor-class-namen indicates the names of one or more Storage Classes that you defined on the STORclas control statement. Greater than two copies requires you to specify CDSLEVEL(V6ABOVE) or CDSLEVEL(V6ABOVE) on the CONFIG statement.

CONSRC(stor-class-name)

optionally, specifies the Storage Class that species a preference for the source MVC ACS and media for consolidation of VTVs that are migrated and copied to multiple MVC locations or media types. If the MVC in the specified Storage Class is unavailable, and the specified Storage Class is not the last (in order specified in the migration policy), VTCS uses the MVC associated with the last Storage Class. If the MVC in the specified Storage Class is unavailable and the specified Storage Class is the last (in order specified in the MIGpol parameter), VTCS uses the MVC associated with the previous Storage Class (in order specified in the MIGpol parameter).

stor-class-name indicates the name of a Storage Class that you defined on the STORclas control statement.

CONTGT(stor-class-name)

optionally, specifies the Storage Class that determines the output MVC ACS and media for VTV consolidation (executing CONSolid, EXPORT VTV or EXPORT MGMTclas). Note Media preferencing is in the opposite order of the list of media types specified on the Storage Class.

This parameter is optional; there is no default value. If you do not specify a value for CONTGT, VTCS selects the output MVC as follows:

- For single-ACS and dual-ACS configurations, the media selection order for VTV consolidation.
- For multiple ACS systems, VTCS selects MVCs from the default ACS specified by the `CONFIG DEFLTACS` parameter.

stor-class-name indicates the name of a Storage Class that you defined on the `STORclass` control statement.

DELSCR

optionally, specifies whether VSM deletes scratched VTVs.

NO

Do not delete scratched VTVs (the default).

YES

Delete scratched VTVs unless this would cause a processing delay due to unavailable resources.

FORCE

Delete scratched VTVs and wait for access to any resources that are required. This may cause a processing delay.

Caution: When you scratch a VTV with `DELSCR YES` attribute, VSM erases the VTV data at scratch synchronization time, which eliminates the ability “unscratch” a VTV to recover data!

When using HSC to perform scratch synchronization, it is possible that a volume that is scratch in the TMC at the beginning of scratch synchronization run and also scratch in the CDS from the previous scratch update run (and thus is in the list for HSC to scratch in the CDS) is accessed by a job during the scratch update run and written to and made non-scratch by the TMS in the TMC. In this case, it is still possible for HSC to scratch the volume because it was in the originally extracted list of volumes to be scratched. Therefore, Oracle strongly recommends that you do not run any jobs that use scratches during HSC scratch synchronization.

See "[Scratch Conversion Utility \(SLUCONDB\)](#)" on page 5-13 for more information about HSC scratch synchronization with the Scratch Conversion Utility (SLUCONDB).

Refer to the *LCM User's Guide* for more information about LCM scratch synchronization with the `SYNCVTV` function.

DISCARD(nnnn)

optionally, specifies the discard time in hours. This value represents the time after a VTV is dismounted that the VTV is kept in the buffer. After this time value expires, the VTV is preferred for deletion from the VTSS buffer if all required copies of the VTV exist on MVCs.

nnnn indicates the time in hours. Valid values are 0 to 9999. The default is 9999.

When `IMMEDmig` is specified, `DISCARD` is not used for immediate migration processing. It is only applicable for `AUTO` migration requests. If `RESTIME` is also specified for a VTV, it overrides the `DISCARD` value.

DUPlEx

optionally, specifies whether VSM will migrate two copies of the VTV to two MVCs. `DUPlEx` and `MIGpol` are mutually exclusive.

NO

Do not duplex the VTV (the default).

YES

Duplex the VTV.

The following table describes possible scenarios using the `DUPlex` and `ACSlist` parameters:

Table 3–7 MGMTclas ACSlist/DUPlex Scenarios

DUPlex Setting	ACSlist Setting	Action
YES	two ACSs	VSM migrates the VTVs to two MVCs, one in each ACS. (This scenario is the normal one for duplexing to two ACSs.)
YES	one ACS	VSM migrates the VTVs to two MVCs in the ACS specified.
NO	two ACSs	VSM ignores the <code>DUPlex</code> policy and migrates the VTVs to two MVCs, one in each ACS.
NO	one ACS	VSM migrates the VTVs to one MVC in the ACS specified.

MIGpol(s1 or s1,s2 or s1,s2,s3 or s1,s2,s3,s4)

optionally, specifies up to four Storage Classes that specify the ACS and media type of migration MVCs. `DUPlex` and `MIGpol` are mutually exclusive.

- If you specify one Storage Class, VTCS migrates one copy of a VTV.
- If you specify multiple Storage Classes (with different ACS values, different MEDIA values, or both), VTCS makes multiple copies the VTV to different MVCs in different ACSs.
- If you specify multiple Storage Classes with identical ACS and MEDIA values, VTCS makes multiple copies of the VTV to the same ACS and media type but to different MVCs.

Note: Multiple Storage Classes on `MIGpol` also affects how VTV recall, MVC space reclamation, and VTV consolidation function.

This parameter is optional; there is no default value.

`s1` or `s1, s2` or `s1, s2, s3` or `s1, s2, s3, s4` indicates the names of up to 4 Storage Classes that you defined on the `STORclas` control statement. Greater than two copies requires you to specify `CDSLEVEL (V61ABOVE)` or greater on the `CONFIG` statement.

Note: The `CONFIG GLOBAL REPLICat` parameter specifies when to replicate a VTV (always, or only when changed while mounted).

EEXpol(s1 or s1,s2)

optionally, specifies the storage classes for electronic export.

`s1` or `s1, s2` indicates a maximum of two Storage Classes that specify the `TAPEPLEX` parameter. If these storage classes do not specify the `TAPEPLEX` parameter, an error condition results.

- If there are two TAPELEX storage classes, then they must specify different destination TapePlex names.
- A warning will be generated if the two TapePlex storage classes are specified with the SYNC=YES parameter. It is only possible to synchronously export to one other TapePlex.
- If there is a conflict, electronic export functionality takes precedence over replication with a cluster.
- If either one of the storage classes referenced contains the THISPLEX name, then the storage class is silently ignored. This enables common storage class definitions to be applied across TapePlexes.

IMMDELAY(nnnn)

optionally, specifies the immediate migration delay time; the amount of time after VTV dismount that the migration should be queued for action.

This enables VTVs used in multi-step jobs to remain resident for a specified time before being processed for migration.

nnnn indicates the immediate migration delay time in minutes. Valid values are 0 to 9999 (the default).

If IMMDELAY=9999 then immediate migration does not occur. Migration and deletion is handled through auto or command migration.

When this value is specified, MIGRSEL and MIGRVTV have no influence on migration control.

RESTIME and DISCARD parameter values represent buffer management priorities:

- If the IMMDELAY value is less than the RESTIME value, keep the VTD in the VTSS as a priority.
- If the IMMDELAY value is greater than the RESTIME value but less than the DISCARD value, manage the buffer according to LRU (default state).
- If the IMMDELAY value is greater than the DISCARD value, remove the VTD from the VTSS as a priority.

The IMMDELAY parameter is designed to replace the IMMEDmig parameter, described in Oracle's ELS publication *ELS Legacy Interfaces Reference*. These parameters are mutually exclusive. The following table describes equivalent values:

Table 3–8 IMMDELAY and IMMEDmig Equivalent Values

IMMDELAY or DISCARD Values	Equivalent IMMEDmig Value	Action
IMMDELAY (1-9998)	None	Delay migration for the specified number of minutes.
IMMDELAY (9999)	IMMED (NONE)	VSM does not immediately migrate the VTV, but migrates it according to standard VSM migration criteria. MIGRSEL and MIGRVTV have no influence on migration control.
IMMDELAY (0) DISCARD (99 99)	IMMED (KEEP)	VSM immediately migrates a VTV and keeps a copy resident on the VTSS until the VTV becomes eligible for deletion.
IMMDELAY (0) DISCARD (0)	IMMED (DELETE)	VSM immediately migrates the VTV and then deletes it from the VTSS.

MAXVtvsz

optionally, specifies the maximum size for VTVs in this Management Class. Valid values for this parameter depend on both the CDS level and the microcode levels of the applicable VTSSs.

400

400MB. This is the default.

800

800MB. The CDS must be at a E level or above.

2000

2GB. The CDS must be at a G level or above.

4000

4GB. The CDS must be at a G level or above.

Considerations:

- The size of a VTV changes only after it goes through a scratch cycle. Therefore, if you change the Management Class and `DISP=MOD`, then it will still retain the original size.
- If you specify a VTV size that is not supported by the configuration, VTCS issues warning messages and `MAXVtvsz` defaults to the largest VTV size supported by the configuration.
- `MAXVtvsz` does not apply to VSM2s.
- `MAXVTVSZ (2000 | 4000)` requires VSM4 or VSM5 microcode D02.02.00.00 or VSM3 microcode N01.00.77.00. No installed option is required.

NOMIGRAT

optionally, specifies that VTVs in the Management Class are not candidates for migration, consolidation or export, but are candidates to reside on a tapeless VTSS.

VTSS selection is changed to prefer tapeless VTSSs for VTVs in Management Classes with `NOMIGRAT`, and to disallow VTVs without `NOMIGRAT` from VTSSs with no RTDs.

`NOMIGRAT` is mutually exclusive with `ACSLIST`, `IMMDELAY`, `DUPLEX`, `MIGPOL`, `ARCHAGE`, `ARCHPOL`, `RESTIME`, `CONSRC` and `CONTGT`.

REPLICAT

optionally, specifies whether VSM replicates the VTV.

NO

Do not replicate the VTV (the default).

YES

Asynchronously replicate the VTV.

YES_SYNC

Synchronously replicate the VTV.

Note: Synchronous replication must be enabled through the `CONFIG GLOBAL SYNCHREP` parameter. For more information, see "[CONFIG GLOBAL Statement](#)" on page 3-38.

RESTIME(nnnn)

optionally, specifies how long VTCS attempts to keep a VTV as VTSS-resident before becoming a preferred automatic migration candidate.

This parameter is optional; there is no default value. Valid values are 1 to 9999. Value 9999 specifies that the VTVs in this Management Class are resident permanently unless VTSS space management requires VTCS to automigrate the VTV and then delete it from the VTSS.

nnnn indicates the residency time in hours.

RESTIME and IMMEdmig (DELETE) are mutually exclusive. RESTIME takes effect when a VTV is created, and does not apply to a recalled VTV.

VTVPAGE

optionally, specifies that the page size used to store VTV data in the VTSS and on the MVCs. This setting only applies to 400 and 800 MB VTVs. If VTVPAGE is not specified on either the MGMTclas statement or the CONFIG GLOBAL statement, the default is STANDard.

STANDARD

standard page size, which is compatible with all VSM3 or VSM4 models and microcode levels.

LARGE

large page size, which can provide improved performance within the VTSS and for migrates and recalls. Large page size requires a G level CDS. For more information on CDS levels, see "CONFIG" on page 3-33. For 2 or 4 GB VTVs (MAXVtvsz 2000 or 4000), a VTVPAGE setting of LARGE is always used.

Considerations:

- VTVPAGE does not apply to VSM2s. VTVPAGE (LARGE) requires VSM4 or VSM5 microcode D02.02.00.00 or VSM3 microcode N01.00.77.00. No installed option is required.
- MGMTCLAS VTVPAGE, if specified, overrides the CONFIG GLOBAL VTVPAGE value. If VTVPAGE is not specified on either the MGMTclas statement or the CONFIG GLOBAL statement, the default is STANDard.
- The page size of a VTV can only be changed by a VTV scratch mount. Additional restrictions may also apply for scratch VTVs that were previously resident in a VTSS.
- If you specify LARGE and the CDS level or VTSS microcode do not support LARGE, VTCS issues warning messages and VTVPAGE defaults to STANDard.
- If you specify STANDard for 2 or 4 GB VTVs VTCS issues warning messages and defaults to LARGE.
- Creating VTVs with large pages makes these VTVs unreadable in configurations that do not support large VTV pages.
- The VTVPAGE valued specified for this Management Class overrides the global value specified on the CONFIG utility.

WRITE

optionally, specifies the VTSS-resident VTV VOLSAFE policy as follows:

MANY

specifies no VOLSAFE write protection. This is the default.

ONCE

specifies partial (write once) VOLS SAFE protection. After the VTV is non-scratch, it cannot be overwritten or appended while it is VTSS-resident.

APPEND

specifies full VOLS SAFE protection. This is only supported for VSM6 systems.

- VTV data can be appended once non-scratch.
- Data cannot be overwritten.

The `Display VTV` command and `VTVRPT` report will indicate that the VTV is write-append protected.

VTVs with full VOLS SAFE protection can only be scratched with `RACF ALTER` authority. Use the following `RACF` commands to set `RACF` authority:

```
RDEFINE TAPEVOL volser UACC(NONE)
PERMIT volser CLASS(TAPEVOL) ID(userid) ACCESS(ALTER)
```

EDLTeexp

optionally, specifies whether pending Electronic Export VTVs are candidates for early deletion. The VTVs will only be deleted if all CLINKs to the remote Tapeplex are not operational. The `EDLTeexp` option requires that the `EEXPOL` and `MIGPOL` policies be set for the management class.

Note: For the early delete VTVs to be electronically exported, you must run the `VTCS RECONCIL` utility after the remote Tapeplex CLINKs are varied `ONLINE`.

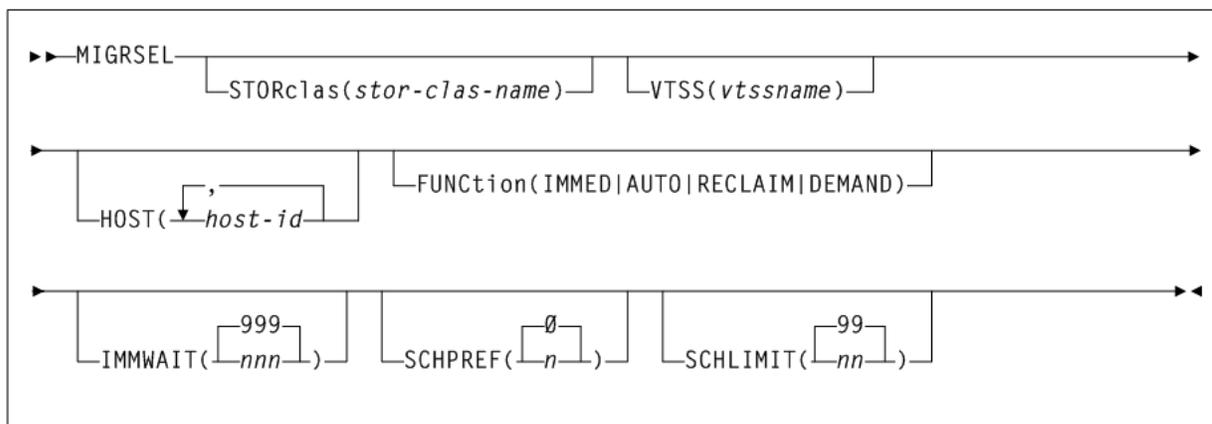
MIGRSEL Control Statement

The `MIGRSEL` control statement controls migration request settings for a Storage Class, VTSS, or host. It is loaded by the `MGMTDEF` command.

Syntax

Figure 3–108 shows `MIGRSEL` control statement syntax.

Figure 3–108 *MIGRSEL control statement syntax*



Parameters

As shown in [Figure 3–108](#), the `MIGRSEL` control statement includes the following parameters:

STORclas(stor-clas-name)

optionally, specifies a Storage Class to which the migration settings apply. If you do not specify a Storage Class, the statement applies to all Storage Classes.

stor-clas-name indicates the Storage Class name you defined on a `STORclas` control statement.

VTSS(vtssname)

optionally, specifies a VTSS to which the migration settings apply. If you do not specify a VTSS, the statement applies to all VTSSs.

vtssname indicates the VTSS name.

HOST(host-id)

optionally, specifies one or more hosts to which the migration settings apply. Any hosts not specified on this parameter ignore the settings. If you do not specify one or more hosts, the settings apply to all hosts.

host-id indicates a host identifier (maximum 8 characters).

FUNCTION

optionally, specifies the type of migration to which the settings apply:

IMMED

migrations resulting from either of the following:

- `MGMTclas IMMEdmig(KEEP)`
- `MGMTclas IMMEdmig(DELETE)`

AUTO

automatic migrate to threshold migration processing.

RECLAIM

migrations resulting from `MVC DRAIN` or `RECLAIM` requests.

DEMAND

migrations resulting from a `MIGRATE` command or utility (demand migrations).

IMMWAIT(nnn)

optionally, makes the `MIGRSEL` rule sensitive to the state of the current immediate migration work load. The specified value provides an immediate migration wait time or age, in minutes, that this `MIGRSEL` migration rule will apply to. This value is compared against the amount of time VTVs have been waiting for immediate migration to a particular storage class. If the amount of time (minutes) that VTVs have been waiting is less than or equal to the `IMMWAIT` value the `MIGRSEL` rule will apply.

nnn indicates the immediate migration wait time or age, in minutes. Valid values are 0 to 999. The default is 999.

- The default value of 999 makes the rule apply to all VTV wait times.
- A value of zero is used for applying `MIGRSEL` rules if immediate migration is not active.

SCHPREF(n)

optionally, preferences automatic and immediate migration per storage class. `MIGRSEL` `VTSS` and `HOST` allow you to specify the `VTSS` and host to which the preferencing applies.

n indicates the preferencing value. Valid values are 0 to 9. The default is 0.

- Higher values can produce quicker migration times, but may not optimize MVC usage.
- Lower values may produce slower migration times, but may optimize MVC usage.

The `MIGRSEL SCHPREF` setting may be affected by the number of `RTDs` available, the `SCHLIMIT` setting, and the `GLOBAL MAXMIG` parameter for the `VTSS`.

SCHLIMIT(nn)

optionally, de-preferences migration per Storage Class.

nn indicates the preferencing value. Valid values are 0 to 99. The default is 99, which indicates no limit, up to the `VTSS MAXMIG` value.

Lower values de-preference migration, and you can specify automatic, immediate, demand, and reclaim migrates. Lower values can do the following:

- Optimize MVC usage.
- Preference migration to other Storage Classes.
- Limit migration to keep `RTDs` available for auto recalls.
- Reduce MVC swapping when workloads change.

For auto and immediate migration processing, `MIGRSEL SCHLIMIT` de-preferences migration for the `VTSS` to storage class relationship. This comparison is not global and only effects requests driven by the individual `VTCS` host.

For demand migration requests, `MIGRSEL SCHLIMIT` will cause the request to be held if the scheduling of it would cause the number of globally active migration requests on the `VTSS` that satisfy the same `FUNCTION` and `STORCLAS` selection criteria to be exceeded. The migration requests will be released and an MVC picked once the constraint subsides.

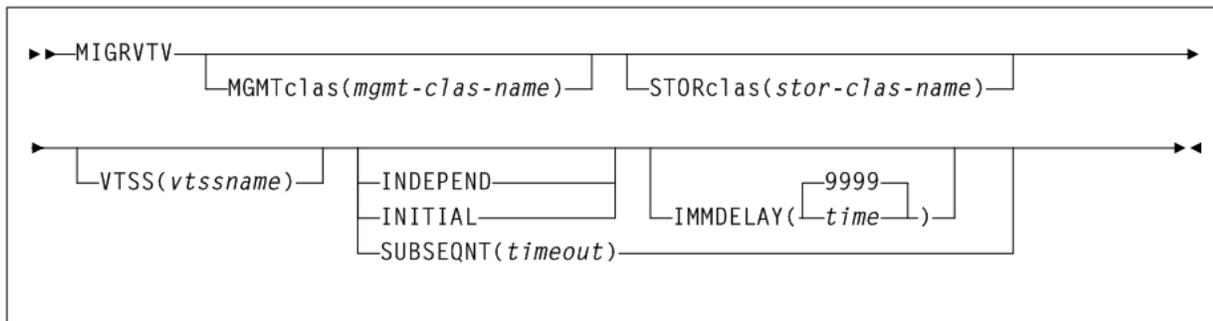
MIGRVTV Control Statement

The `MIGRVTV` control statement controls individual `VTV` copies processed by immediate migration. It is loaded by the `MGMTDEF` command.

This statement defines how the behavior of an individual immediate migrate should be modified depending upon various environmental considerations. The `MIGRVTV` rules are searched for each immediate migrate instance of a `VTV`. The first match found for each instance is used to modify the immediate migrate.

Syntax

Figure 3–109 shows `MIGRVTV` control statement syntax.

Figure 3–109 *MIGRVTV control statement syntax***Parameters**

As shown in [Figure 3–109](#), the MIGRVTV control statement includes the following parameters:

MGMTclas(mgmt-clas-name)

optionally, specifies a Management Class to which the migration settings apply. If you do not specify a Management Class, the statement applies to all Management Classes.

mgmt-clas-name indicates the name of a Management Class you defined on the MGMTclas control statement.

VTSS(vtssname)

optionally, specifies a VTSS to which the migration settings apply. If you do not specify a VTSS, the statement applies to all VTSSs.

vtssname indicates the VTSS name.

STORclas(stor-clas-name)

optionally, specifies a Storage Class to which the migration settings apply. If you do not specify a Storage Class, the statement applies to all Storage Classes.

stor-clas-name indicates the name of a Storage Class you defined on the STORclas control statement.

INDEPEND

Affected VTVs are independent of any other VTV migrate instance. This is the default and applies to any migrates that do not match a MIGRVTV rule or any rule without an INITIAL or SUBSEQNT parameter.

INITIAL

Affected VTV migrates are scheduled and performed before any migrate instances that match to a rule with the SUBSEQNT parameter.

SUBSEQNT

Affected VTV migrates are scheduled and performed after any migrate instances that match to a rule with the INITIAL parameter.

timeout indicates the time in minutes after which the rule expires. This is in addition to any IMMDELAY value applied to the INITIAL migrate instances.

IMMDELAY(time)

optionally, specifies the immediate migration delay time; the amount of time after VTV dismount that the migration should be queued for action. This enables VTVs used in multi-step jobs to remain resident for a specified time before being processed for migration.

This IMMDELAY parameter may be used to override the IMMDELAY value in the management class definition for the VTV as a whole. If the delay exceeds the DISCARD value in the management class, then the migrate will cause an implicit deletion of the VTV copy from the source VTSS.

If a delay time of 9999 is specified by this parameter or the IMMDELAY parameter in the management class, then the specific migrate instance is deleted and must later be serviced using auto/command migration.

nnnn indicates the immediate migration delay time in minutes. Valid values are 0 to 9999 (the default).

Considerations:

- If IMMDELAY=9999 then immediate migration does not occur. Migration and deletion is handled through auto or command migration.

When this value is specified, MIGRSEL and MIGRVTV have no influence on migration control.

- If IMMDELAY=0 then immediate migration is scheduled immediately.
- If IMMDELAY is less than 9999 and DISCARD is greater than IMMDELAY then immediate migration occurs and deletion is deferred to auto/command migration.
- If IMMDELAY is less than 9999 and DISCARD is less than or equal to IMMDELAY then immediate migration and immediate deletion occur together.
- If auto migration encounters a VTV that has passed its DISCARD time, the VTV is moved to the front of the migration queue, and it will be processed first.

Note: See "MGMTclas Control Statement" on page 3-212 for information about the DISCARD parameter.

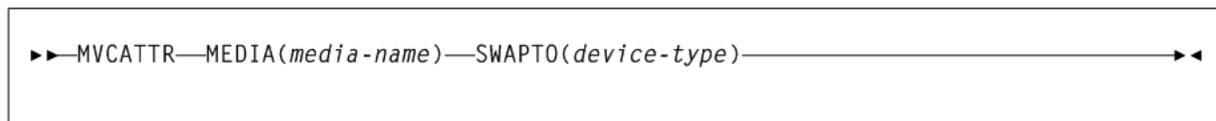
MVCATTR Control Statement

The MVCATTR control statement assigns a swap-to RTD device type to an MVC media name. When an error occurs while reading an MVC on an RTD, VTCS may swap the MVC to another RTD to retry the operation.

Syntax

Figure 3-110 shows MVCATTR control statement syntax.

Figure 3-110 MVCATTR control statement syntax



Parameters

As shown in Figure 3-110, the MVCATTR control statement includes the following parameters:

MEDIA(media-name)

specifies the MVC media name to which the attribute is assigned. Only one MVCATTR should be coded for each media-name.

media-name indicates the MVC media name. See Table 3-9.

SWAPTO(device-type)

defines the RTD device type the MVC is swapped to (if possible).

device-type indicates the RTD device type. See [Table 3–9](#).

Table 3–9 Valid MVC Media Names and Compatible SWAPTO RTD Device Types

Valid MEDIA Names	Compatible SWAPTO Device Types
STK1R	STK1RA34, STK1RB34, STK1RD34, STK1RDE4
STK1RC	STK1RC34, STK1RD34, STK1RDE4
STK1RD	STK1RD34, STK1RDE4
STK1RDE	STK1RDE4
STK2P	STK2PA34, STK2PB34
STK2PB	STK2PB34
T1000T1	T1A34, T1AE34, T1B34, T1BE34
T1000TS	T1A34, T1AE34, T1B34, T1BE34
T1000E1	T1AE34, T1BE34
T1000ES	T1AE34, T1BE34
T1B00T1	T1B34, T1BE34
T1B00TS	T1B34, T1BE34
T1B00E1	T1BE34
T1B00ES	T1BE34

STORclas Control Statement

The `STORclas` control statement defines a VSM Storage Class. It is loaded by the `MGMTDEF` command.

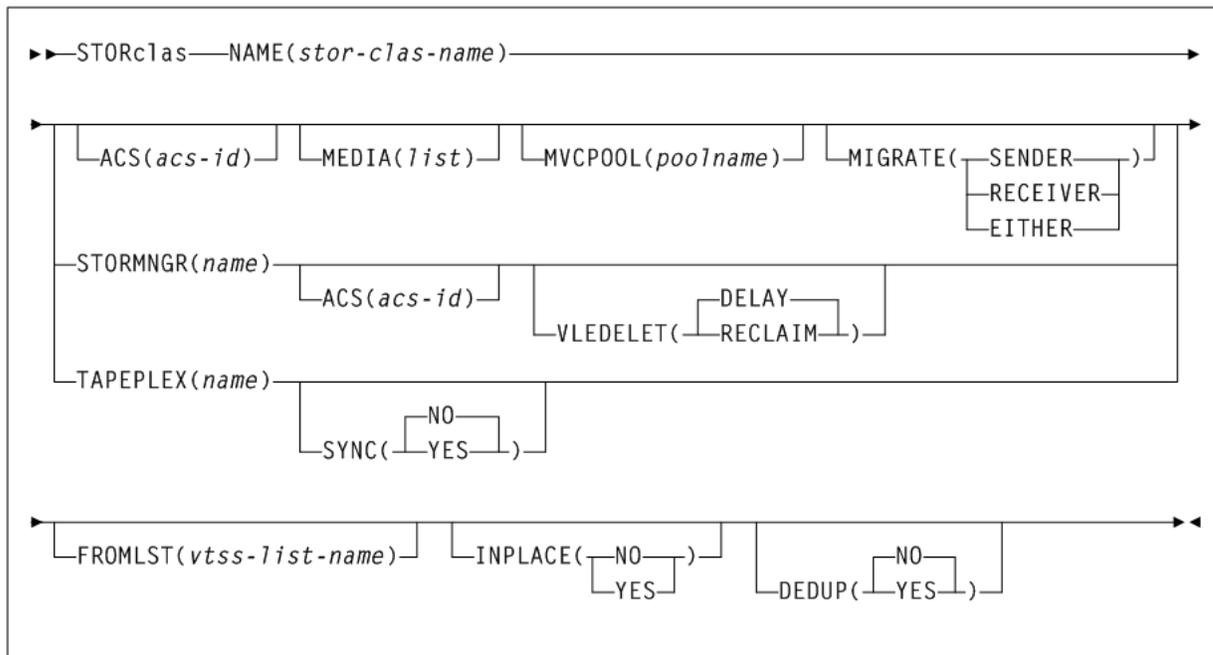
This statement can specify whether a VTV copy is to be written to:

- An MVC (with required attributes)
- The name of a remote TapePlex to which a copy of the VTV is to be exported. It also specifies whether a storage class uses partitioned media.
- The subsystem name of a VLE.

Syntax

[Figure 3–111](#) shows `STORclas` control statement syntax.

Figure 3–111 STORclas control statement syntax



Parameters

As shown in Figure 3–111, the `STORclas` control statement includes the following parameters:

NAME(stor-clas-name)

specifies the name of the Storage Class.

stor-clas-name indicates the Storage Class name. This name must be 1 to 8 alphanumeric characters beginning with an alpha character and must follow SMS naming conventions.

ACS(acs-id)

optionally, specifies the ACSs from which RTDs and MVCs are selected.

acs-id indicates a two digit decimal ACS identifier from 00-99.

STORMNGR(name)

optionally, specifies one of the following:

- VLE subsystem name
- remote library

name indicates the Storage Manager name:

- For VLEs, this value must match the VLE Subsystem Name.
- For remote libraries, this value must match a TapePlex name defined on the SMC `TAPEPLEX NAME` parameter.

For more information, refer to Oracle's ELS publication *Configuring the Host Software for VLE*.

You can specify both `STORMNGR` and `ACS` parameters to restrict selection of MVCs to the library in the remote TapePlex with the designated ACS number.

VLEDELET

optionally, control when deletion of the VTV from the VLE occurs.

DELAY

The deletion of the VTV from the VLE will be delayed until the vMVC is mounted for migration. `DELAY` is the default.

RECLAIM

The deletion of the VTV from the VLE will be done when the `RECLAIM` utility is run against the vMVC.

Caution: The current CDS backup can no longer be used as a DR baseline for vMVC content if you use the `DRCHKPT` utility or the `CONFIG RECLAIM PROTECT` parameter to protect CDS backup content for vMVCs, and then `RECLAIM` a vMVC for a `STORCLAS` that specifies `VLEDELET (RECLAIM)`.

MEDIA(list)

optionally, specifies a preference list of MVC media types. This list supersedes the default media selection list. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.

list indicates the preference list of media types.

MVCPOOL(poolname)

optionally, specifies the Named MVC Pool from which volumes are selected. If you do not specify an MVC Pool name, the volumes are selected from the default pool (`DEFAULTPOOL`).

poolname indicates the name of an MVC Pool that you defined on the `MVCPOOL` control statement.

MIGRATE

optionally, for Management Classes with `REPLICAT (YES)` that reference this Storage Class, specifies the source VTSS (in a Cluster) for VTV migration. This parameter cannot be specified if `FROMLST` is specified.

RECEIVER

VTSS that receives the replicated VTV (the default), which is the Secondary VTSS in a Primary-Secondary Cluster.

SENDER

VTSS that sends the replicated VTV, which is the Primary VTSS in a Primary-Secondary Cluster.

EITHER

Either VTSS in a Peer-to-Peer Cluster. The source VTSS is randomly selected.

TAPEPLEX(name)

optionally, specifies the name of the TapePlex to which a copy of the VTV is exported. At least one VTSS in the configuration must also specify this name in a `CLINK` definition.

name indicates the TapePlex name.

SYNC

optionally, specifies whether the exporting of a VTV to TapePlex is performed synchronously.

NO

export of VTV to TapePlex is performed asynchronously. This is the default.

YES

export of VTV to TapePlex is performed synchronously.

If a VTV is specified with two storage classes that specify synchronous exporting, only the first one is honored while the second is exported asynchronously. Likewise, if synchronous replication is specified in the management class, then synchronous exporting is ignored.

FROMLST(vtss-list-name)

optionally, when migrating or exporting to a Storage Class, provides VTCS with a list of VTSSs to source the VTV. FROMLST applies to both Clustered VTSSs and to VLE to VLE connections. For more information, see "[FROMLST Parameter Usage](#)" on page 3-231.

vtss-list-name indicates the name of a VTSS list (as specified in a MGMTDEF VTSSLST control statement). See "[VTSSLST Control Statement](#)" on page 3-234 for more information.

INPLACE

optionally, specifies whether Dynamic Reclaim is enabled for this Storage Class. See "[Dynamic Reclaim Usage](#)" on page 3-229 for more information.

NO

Dynamic Reclaim is not enabled for this Storage Class.

YES

Dynamic Reclaim is enabled for this Storage Class.

DEDUP

optionally, specifies whether VTV data migrated to VMVCs in a VLE is deduplicated.

NO

Do not deduplicate VTVs. This is the default.

YES

Deduplicate VTVs when migrated to VMVCs.

The DEDUP value is a Storage Class attribute that applies to all VMVC mount requests sent to a VLE. DEDUP applies to all migrations that occur for the life of the mount. To change the DEDUP value, the VMVC is dismounted, the DEDUP value is changed, and the VMVC is remounted.

Dynamic Reclaim Usage

Dynamic Reclaim only applies to T10000B and above media (full and full encrypted only) that have been formatted by T10000 drives capable of creating partitions. It requires an H level CDS, VSM5 microcode D02.11.16.00 or later, and T1010000B firmware 1.41a.209 or later.

You can specify Dynamic Reclaim policies at the global, system wide level or on a Storage Class and MVC pool level. Use the VTCS CONFIG RECLAIM statement to set the global policies:

- The `INPLACE` parameter controls the usage of Dynamic Reclaim. Its setting can either be explicitly specified on the `STORCLAS` statement or inherited from the `RECLAIM` statement in the VTCS configuration. The default is `INPLACE=NO`. The setting that is derived for a Storage Class does not force usage of media formatted in either mode. It is acceptable to use this parameter with drives or media that do not support partitioning. Also, any media written in a different mode continues to be a migration target. This helps avoid the need to actively manage the transition when Dynamic Reclaim is enabled. Its effect is to cause new media allocated to the Storage Class to be formatted and written in either standard (`INPLACE=NO`) or partitioned (`INPLACE=YES`) mode. The switch can only occur when media is empty.
- If a hard switch-over between standard and dynamic reclaim is required, then a lengthy process involving parameter settings (for example, `MEDIA` on the `STORCLAS` statement) is required. MVCs must be removed from the MVC pool or set into a read-only state, using `MVCMMAINT`. Also, MVCs formatted in the wrong mode must be drained.
- The `INPTHRSH` parameter specifies the fragmentation level that makes partitioned MVCs eligible for Dynamic Reclaim. When a partitioned MVC's fragmentation falls between the `INPTHRSH` and `THRESH` values, it first becomes eligible for Dynamic Reclaim. If no space is freed on the initial reclaim attempt, the reclaim is retried when the fragmentation level has risen significantly. Should the fragmentation level reach the standard `THRESHOLD`, then a fall-back method of moving VTVs is performed.

VTCS `CONFIG RECLAIM` statements provide the global defaults for the system. You can override these defaults at the Storage Class and `MVCPool` level:

- The `STORCLAS INPLACE` parameter specifies whether Dynamic Reclaim is enabled for a Storage Class. Initially, you may want to specify `INPLACE(NO)` in the VTCS `CONFIG RECLAIM` statement and `INPLACE(YES)` for selected Storage Classes, to evaluate the effects of Dynamic Reclaim. Subsequently, to apply Dynamic Reclaim to all eligible media, you can specify `INPLACE(YES)` on the VTCS `CONFIG RECLAIM` statement.
- The `INPTHRSH` parameter on the `POOLPARM` statement can be used to set a Dynamic Reclaim threshold specifically for this set of MVC media. This is useful when you want to treat certain MVCs differently from the VTCS `CONFIG RECLAIM` defaults.

Dynamic Reclaim can be disabled either globally at a system wide level or at the Storage Class level:

- To disable Dynamic Reclaim globally, specify `INPLACE(NO)` in the VTCS `CONFIG RECLAIM` statement and ensure that any Storage Class definition does not override this setting.
- To disable Dynamic Reclaim for one or more Storage Classes, change `INPLACE` to `NO` in the Storage Class policy statements.

Note: Any MVCs that are currently in use for migration will continue in partitioned format. If you want to stop active MVCs from further migrating, then use the `MVCMMAINT` utility to mark them as read-only. Once the partitioned volumes are empty, they are automatically re-used in nonpartitioned mode. An MVC becomes empty either when all VTVs have expired or the MVC has been `DRAINED`.

STORMNGR and ACS Parameter Interactions

The `STORCLAS` statement now enables you to specify both the `ACS` and `STORMNGR` parameters. The statement is generally neutral to whether the target is to a local HSC tape library, a VLE or a remote tape library. The interaction of these parameters is as follows:

- If neither the `ACS` or `STORMNGR` parameters is specified, MVCs are selected from all available.
- If only the `ACS` parameter is specified, the selection of MVCs is restricted to the library serviced by the local HSC with the designated ACS number.
- If only the `STORMNGR` parameter is specified, then selection of MVCs is restricted to the specified VLE or remote library complex. For a remote library complex, this applies only to ACS 0.
- If both the `ACS` and `STORMNGR` parameters are specified, selection of MVCs is restricted to the library in the remote tapeplex with the designated ACS number.

The `ACS` and `STORMNGR` parameters allow the explicit specification of the location of the Storage Class. Whenever possible, use `ACS` and `STORMNGR` instead of implicit location selection by using the `MVCPool` and `MEDIA` parameters.

FROMLST Parameter Usage

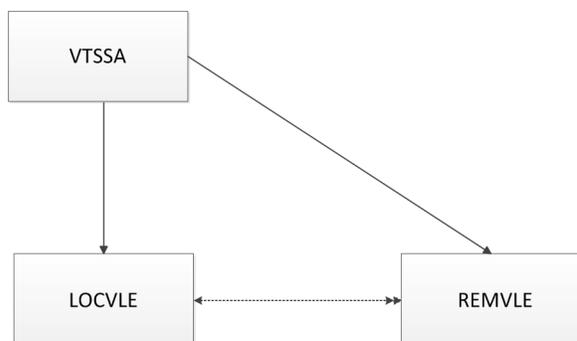
If you do not specify `FROMLST`, the default behavior is as follows:

- For Clustered VTSSs, if a copy resides on multiple VTSSs in the cluster, the VTV can be sourced from any available VTSS, which may not be optimal if the VTSS and the connected ACS are geographically distant from each other.
- For VLE to VLE connections, if a VTV copy resides on both a VTSS and one VLE and you want to migrate it to a connected VLE, the default is to use the VLE to VLE connection. Similarly, this may not be optimal if the connected VLEs are geographically distant from each other.

Figure 3–112 shows a DR scenario with a local VLE (`LOCVLE`) and remote VLE (`REMVLE`) connected to `VTSSA`. You want to migrate two VTV copies:

- First, a local copy from `VTSSA` to `LOCVLE`.
- Second, a copy through VLE-to-VLE copy from `LOCVLE` to `REMVLE`.

Figure 3–112 VLE to VLE Replication (Versus VTSS to VLE)



To make the VTV copies as desired, do the following:

1. Create a `VTSSLST` statement to create a VTSS list that contains only `VTSSA`.

```
VTSSLST NAME(VSM2VLE) VTSS(VTSSA)
```

2. Create a `STORCLAS` statement that sends a VTV copy to `REMVLE`.

```
STORCLAS NAME (FORREMOT) STORMNGR (REMVLE)
```

3. Create a `MIGRVTV` statement that delays the migration copy to `REMVLE`.

```
MIGRVTV STOR (FORREMOT) IMMDELAY (360)
```

The migration delay is 360 minutes to allow the migration to the local site occur first; then the migration to the remote site is by VLE-to-VLE copy. 360 minutes is only an example value. You can specify values of up to 9998 (do not specify 9999, because then the VTV is only migrated through automigration).

4. Create a `STORCLAS` statement that sends a VTV copy to `LOCVLE`.

```
STORCLAS NAME (FORLOCAL) STORMNGR (LOCVLE) FROMLST (VSM2VLE)
```

The `FROMLST` parameter specifies that the local VTV copy is sourced from `VTSSA`.

5. Finally, create a `MGMTCLAS` statement that specifies two VTV copies, one to the local site and one to the remote site:

```
MGMTCLAS NAME (DRVLE) MIGPOL (FORLOCAL, FORREMOT)
```

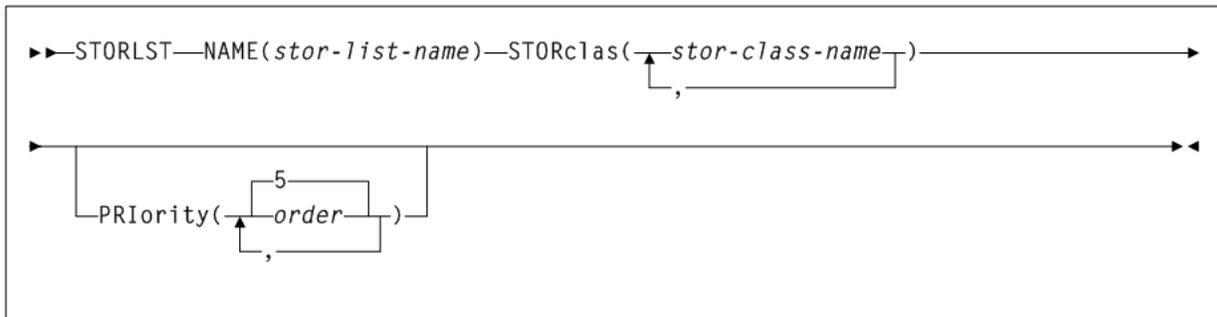
STORLST Control Statement

The `STORLST` control statement specifies a list of Storage Classes and their corresponding preferencing. It is loaded by the `MGMTDEF` command.

Syntax

Figure 3–113 shows `STORLST` control statement syntax.

Figure 3–113 *STORLST control statement syntax*



Parameters

As shown in Figure 3–113, the `STORLST` control statement includes the following parameters:

NAME(stor-list-name)

specifies the name of the Storage Class list.

stor-list-name indicates the list name (a maximum of 8 alphanumeric characters).

STORclas(stor-clas-name)

specifies one to ten Storage Classes on the Storage Class list.

stor-clas-name indicates the name of a Storage Class that you defined on the `STORclas` control statement.

PRiority(order)

a list of priorities corresponding to the Storage Classes specified on the `STORclas` parameter.

order indicates the specified priority. Valid values are 0 to 9 (highest priority), and the default is 5. You can assign the same priority to multiple Storage Classes. For example, if two Storage Classes both have a priority of 9, VTCS selects randomly from the two. A 0 (zero) priority specifies that VTCS selects the Storage Class only if all other Storage Classes are unavailable (for example, no free MVCs available for write).

The Storage Class list is further qualified by the criteria specified by the `MGMTclas` and `VTSS` parameters of the `STORSEL` statement.

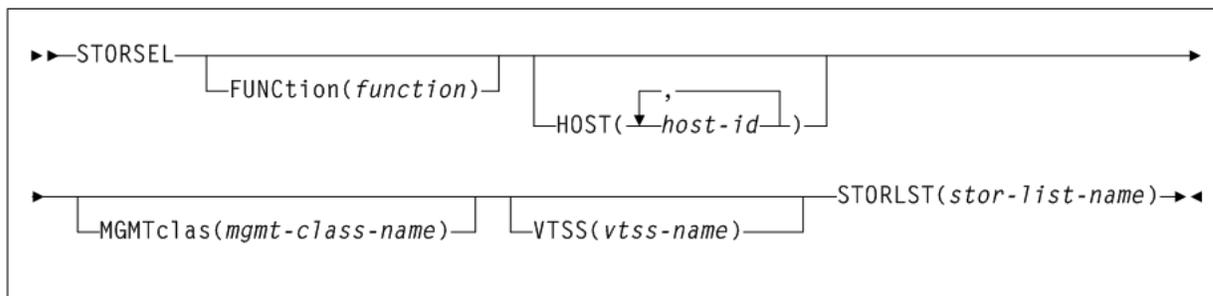
STORSEL Control Statement

The `STORSEL` control statement defines a Storage Class usage rule that applies to the Storage Class list and its preferencing specified on a referenced `STORLST` control statement. It is loaded by the `MGMTDEF` command.

Syntax

Figure 3–114 shows `STORSEL` control statement syntax.

Figure 3–114 *STORSEL control statement syntax*

**Parameters**

As shown in Figure 3–114, the `STORSEL` control statement includes the following parameters:

FUNCTION(function)

optionally, specifies the VSM function to which the rule applies. Only one function can be specified per statement. If this parameter is omitted, it applies to all functions. If all functions do apply, then it makes economical sense to omit the `FUNCTION` parameter, thus reducing the number of statements to 25% of what would otherwise need to be coded.

function indicates the function name.

Table 3–10 STORSEL Functions

Function	Explanation
SPECIFIC	Applies to automatic recall of a specific VTV for mounting. The list of Storage Classes is determined by the specified statement. This list influences the list of RTDs eligible to mount the MVC in the Storage Class to recall the VTV.
RECALL	Applies to demand recall of a specific VTV for mounting. The list of Storage Classes is determined by the specified STORLST statement. This list influences the list of MVC copies of a VTV to select the optimal MVC for recall of the VTV.
EXPORT	Applies to export. The list of Storage Classes is determined by the specified STORLST statement. This list influences the list of MVC copies of a VTV to select the optimal MVC for export of the VTV.
CONSOLID	Applies to consolidate. The list of Storage Classes is determined by the specified STORLST statement. This list influences the list of MVC copies of a VTV to select the optimal MVC for consolidation of the VTV.

HOST(host-id)

optionally, specifies one or more hosts to which the rule applies. If this parameter is used, any hosts not specified on this parameter ignore the rule. If the parameter is not used, the statement applies to all hosts.

host-id indicates a host identifier (maximum 8 characters).

MGMTclas(mgmt-class-name)

optionally, specifies a Management Class.

mgmt-class-name indicates the name of a Management Class that you defined on the MGMTclas control statement.

VTSS(vtss-name)

optionally, specifies a VTSS.

vtss-name indicates the VTSS name, as follows:

- For automatic recalls, the VTSS where the recall is performed.
- For all other functions, the VTSS where the VTV previously resided. This may be determined from the VTSS value shown in the Display VTV output.

STORLST(stor-list-name)

specifies a list of Storage Classes and their corresponding preferencing.

stor-list-name indicates the name of a Storage Class list that you defined on the STORLST control statement.

Note: The Storage Class list specified on the STORLST parameter is further qualified by the criteria specified by the MGMTclas and VTSS parameters.

VTSSLST Control Statement

The VTSSLST control statement specifies a list of VTSSs and their corresponding preferencing. It is loaded by the MGMTDEF command.

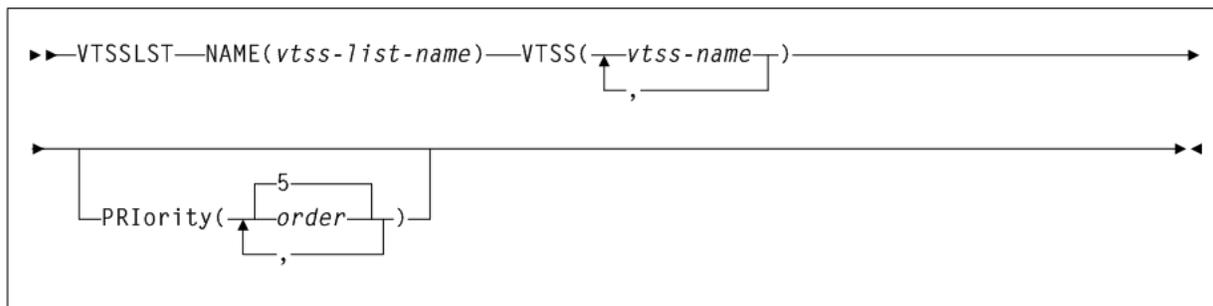
VTCS first determines a system priority for each VTSS, based on various factors. For example, whether the VTSS can service the request, whether the required resources are online/available or whether the VTSS is in a compromised state (high DBU).

When more than one VTSS has the highest system priority, `VTSSLST` priorities can be used to influence which VTSS is used. However, `VTSSLST` is only considered when there is an obvious choice of VTSSs with equal abilities to service a request.

Syntax

Figure 3–115 shows `VTSSLST` control statement syntax.

Figure 3–115 *VTSSLST control statement syntax*



Parameters

As shown in Figure 3–115, the `VTSSLST` control statement includes the following parameters:

NAME(vtss-list-name)

specifies the name of the VTSS list.

vtss-list-name indicates the list name (a maximum of 8 alphanumeric characters).

VTSS(vtss-name)

specifies one to twenty VTSSs on the VTSS list.

vtss-name indicates a VTSS name.

PRIority(order)

optionally, lists priorities corresponding to the VTSS names specified on the `VTSS` parameter.

order indicates the specified priority. Valid values are 0 to 9 (highest priority), and the default is 5. You can assign the same priority to multiple VTSSs.

Within a set of VTSSs with the highest system priority:

- If two or more VTSSs have the same highest `VTSSLST` priority, VTCS selects randomly from the two (according to factors such as DBU and VSM model).
- A 0 (zero) priority specifies that VTCS selects the VTSS only if all other VTSSs are unavailable (for example, unavailable due to DBU > 95%, VTSS offline, all RTDs offline, or all VTDs are busy).

Specifying priority zero does not ensure that the VTSS will never be selected. To ensure that the VTSS is never selected, do not specify the VTSS in the `VTSS(. .)` list.

Note: The VTSS list specified on the `VTSSLST` parameter is further qualified by:

- The function specified on `VTSSSEL` statement.
- The criteria specified by the `MGMTclas`, `VTSS`, `STORclas`, and `MVCpool` parameters of the `VTSSSEL` statement.
- Other factors such as RTD connectivity.

For example, in scratch allocation, the list of VTSSs is reduced to the VTSSs that can meet Management Class policies (such as `REPLICAT(YES)`). If the list of VTSSs is reduced to zero, the request fails.

VTSSSEL Control Statement

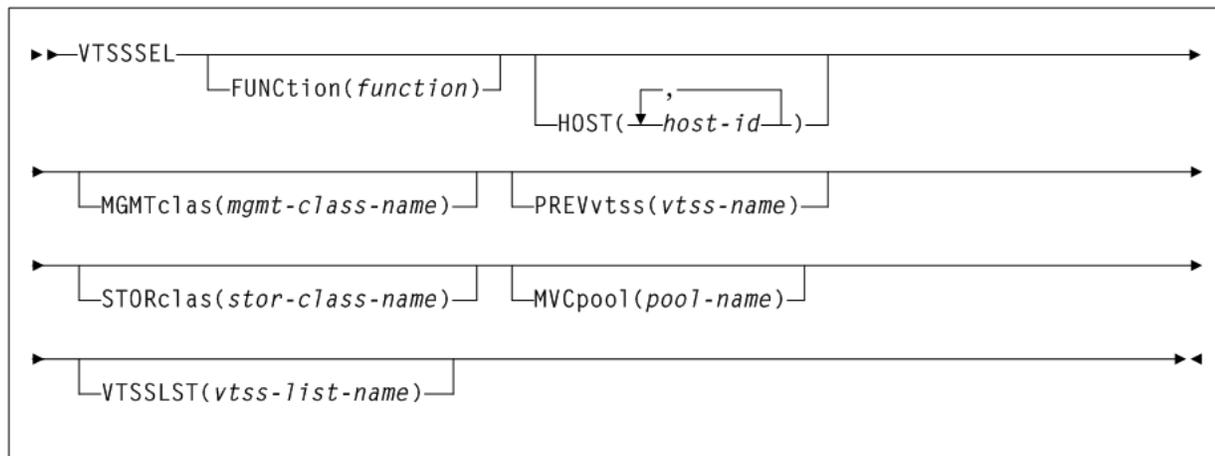
The `VTSSSEL` control statement defines a VTSS usage rule that applies to the VTSS list and its preferencing specified on a referenced `VTSSLST` control statement. It is loaded by the `MGMTDEF` command.

Note: `VTSSSEL` statements are honored only if the VTVs on the MVCs being processed are not resident in a VTSS. If the VTVs are resident, then VTCS ignores the `VTSSSEL` statement and migrates the VTV from the VTSS where it is resident.

Syntax

Figure 3–116 shows `VTSSSEL` control statement syntax.

Figure 3–116 *VTSSSEL control statement syntax*



Parameters

As shown in Figure 3–116, the `VTSSSEL` control statement includes the following parameters:

FUNCTION(function)

optionally, specifies the VSM function to which the rule applies. Only one function can be specified per statement. If this parameter is omitted, it applies to all functions. If all functions do apply, then it makes economical sense to omit the `FUNCTION` parameter,

thus reducing the number of statements to 25% of what would otherwise need to be coded.

function indicates the function name, as described in the following table:

Table 3–11 VTSSSEL Functions

Function	Description
SCRATCH	Applies to non-specific (scratch) VTV allocation. The list of eligible VTDs is determined by the specified VTSSLST statement. The PREVVTS, STORclas and MVCpool parameters do not apply.
SPECIFIC	Applies to specific VTV allocation. The list of eligible VTDs is determined by the specified VTSSLST statement. The STORclas and MVCpool parameters do not apply.
RECALL	Applies to demand recall. The list of eligible VTSSs for recall is determined by the specified VTSSLST statement. The VTSS list also determines the search order for an RTD to service the MVCs selected for recall (derived from the VTVs selected). The MGMTclas parameter does not apply.
RECLAIM	Applies to reclaim. The list of eligible VTSSs for reclaim is determined by the specified VTSSLST statement. The VTSS list also determines the search order for an RTD to service the MVCs selected for reclaim. The MGMTclas parameter does not apply.
DRAIN	Applies to drain. The list of eligible VTSSs for drain is determined by the specified VTSSLST statement. The VTSS list also determines the search order for an RTD to service the MVCs selected for drain. The MGMTclas parameter does not apply.
MOVEVTVS	Applies when an ARCHIVE or RECONCIL command has the MOVEVTV parameter specified. The list of eligible VTSSs for moving the VTVs is determined by the specified VTSSLST statement. The VTSS list also determines the search order for an RTD to service the MVCs selected for processing. The MGMTclas parameter does not apply.
AUDIT	Applies to MVC audit. The list of eligible VTSSs for audit is determined by the specified VTSSLST statement. The VTSS list also determines the search order for an RTD to service the MVCs selected for audit. The MGMTclas parameter does not apply.
EXPORT	Applies to export. The list of eligible VTSSs for export is determined by the specified VTSSLST statement. VTSS list also determines the search order for an RTD to service the MVCs selected for export. The MGMTclas parameter does not apply.
CONSOLID	Applies to consolidate. The list of eligible VTSSs for consolidation is determined by the specified VTSSLST statement. VTSS list also determines the search order for an RTD to service the MVCs selected for consolidation. The MGMTclas parameter does not apply.

HOST(host-id)

optionally, specifies one or more hosts to which the rule applies. If this parameter is used, any hosts not specified on this parameter ignore the rule. If the parameter is not used, the statement applies to all hosts.

host-id indicates a host identifier (maximum 8 characters).

Note: The VTSS list specified on the VTSSLST parameter is further qualified by the criteria specified by the MGMTclas, VTSS, STORclas, and MVCpool parameters.

MGMTclas(mgmt-class-name)

optionally, specifies a Management Class.

mgmt-class-name indicates the name of a Management Class that you defined on the MGMTclas control statement.

PREVtss(vtss-name)

optionally, specifies a VTSS where a VTV:

- Is resident
- Was migrated from

vtss-name indicates the VTSS name.

STORclas(stor-clas-name)

optionally, specifies a Storage Class and applies only when MVCs are used to select VTSSs.

stor-clas-name indicates the name of a Storage Class that you defined on the STORclas control statement.

MVCpool(poolname)

optionally, specifies a Named MVC Pool and applies only when MVCs are used to select VTSSs.

poolname indicates the name of an MVC Pool that you defined on the MVCpool control statement.

VTSSLST(vtss-list-name)

optionally, specifies a list of VTSSs and their corresponding preferencing.

vtss-list-name indicates the name of a VTSS list that you defined on the VTSSLST control statement.

MIGrate

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

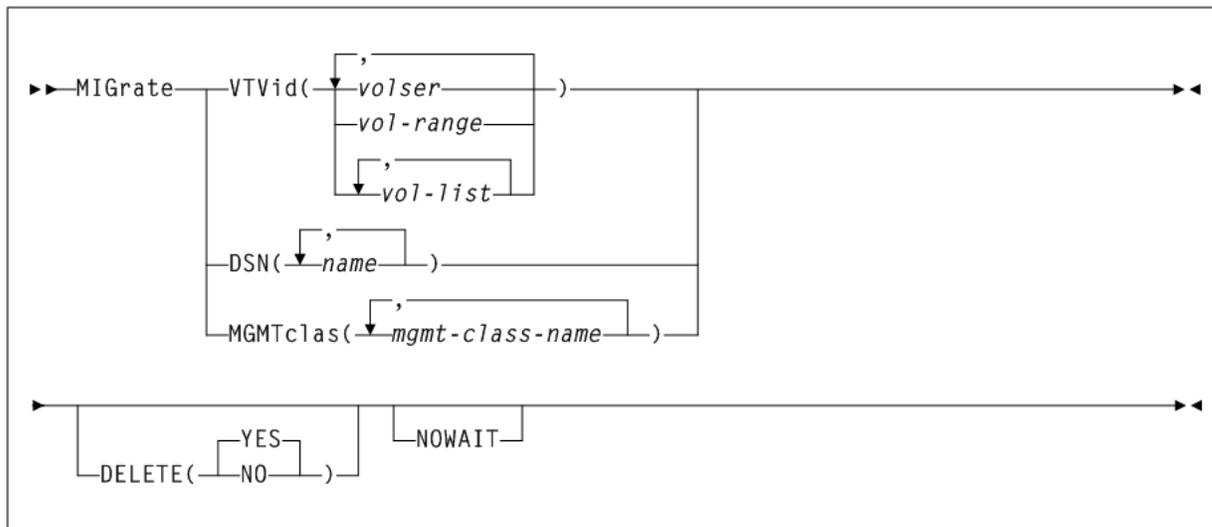
Description

The MIGrate command migrates VTVs to MVCs.

Syntax (Format 1)

[Figure 3–13](#) shows MIGrate command syntax.

Figure 3–117 MIGrate command syntax (Format 1)



Parameters (Format 1)

As shown in [Figure 3–117](#), the MIGrate command (format 1) includes the following parameters:

VTVID(volser, vol-range, or vol-list)

specifies the VTVs to migrate.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs. You can also specify one or more ranges.

DSN(name)

specifies data sets used to select VTVs to migrate.

name indicates the data set name. [Table 3–12](#) describes the valid wild cards for data set names. You cannot address a member of a GDG using a wildcard.

Table 3–12 Valid Wildcards

Wildcard	Description
*	A qualifier or one or more characters within a qualifier. An asterisk can precede or follow a set of characters.
**	zero or more qualifiers. A double asterisk cannot precede or follow any characters; it must be preceded or followed by either a period or a blank.
% or ?	Exactly one alphanumeric or national character.
%% or ??	One to eight percent signs or question marks can be specified in each qualifier.

Note: Wildcard are only supported on MSP systems running DFSMS/MSP 1.4 or greater. At systems below this level the catalog search does not support wildcard.

MGMTclas(mgmt-class-name)

specifies one or more Management Classes that determine one or more VTVs to migrate. MGMTclas, VTVID, and DSN are mutually exclusive.

mgmt-class-name indicates the names of one or more Management Classes that you defined on the `MGMTCLAS` control statement. For more information, see "MGMTCLAS Control Statement" on page 3-212.

DELETE

optionally, specifies whether VSM deletes VTVs from the VTSS after migrating the VTVs.

NO

Do not delete VTVs from the VTSS after migrating the VTVs.

YES

Delete VTVs from the VTSS after migrating the VTVs (the default).

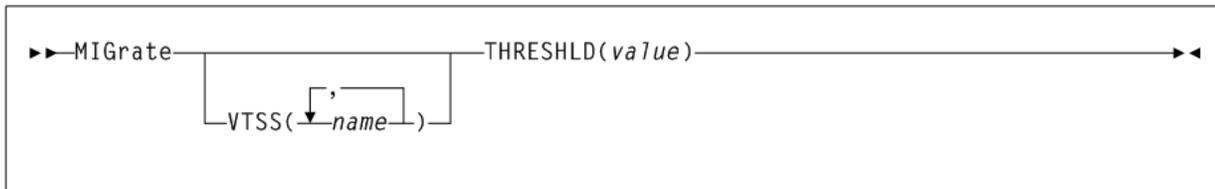
NOWAIT

specifies that the utility does not wait for the operation to complete and returns after the request is submitted.

Syntax (Format 2)

Figure 3–118 shows `MIGrate` command syntax.

Figure 3–118 `MIGrate` command syntax (Format 2)



Parameters (Format 2)

As shown in Figure 3–118, the `MIGrate` command (format 2) includes the following parameters:

VTSS(name)

specifies one or more VTSSs to migrate to the specified threshold.

name indicates the names of one or more VTSSs.

THRESHLD(value)

specifies that VTCS runs the VTSS space management/VTV migration cycle until VTSS space reaches the specified threshold. Valid values are 0 to 95%.

value indicates the threshold to migrate to (percent of VTSS space).

MNTD

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

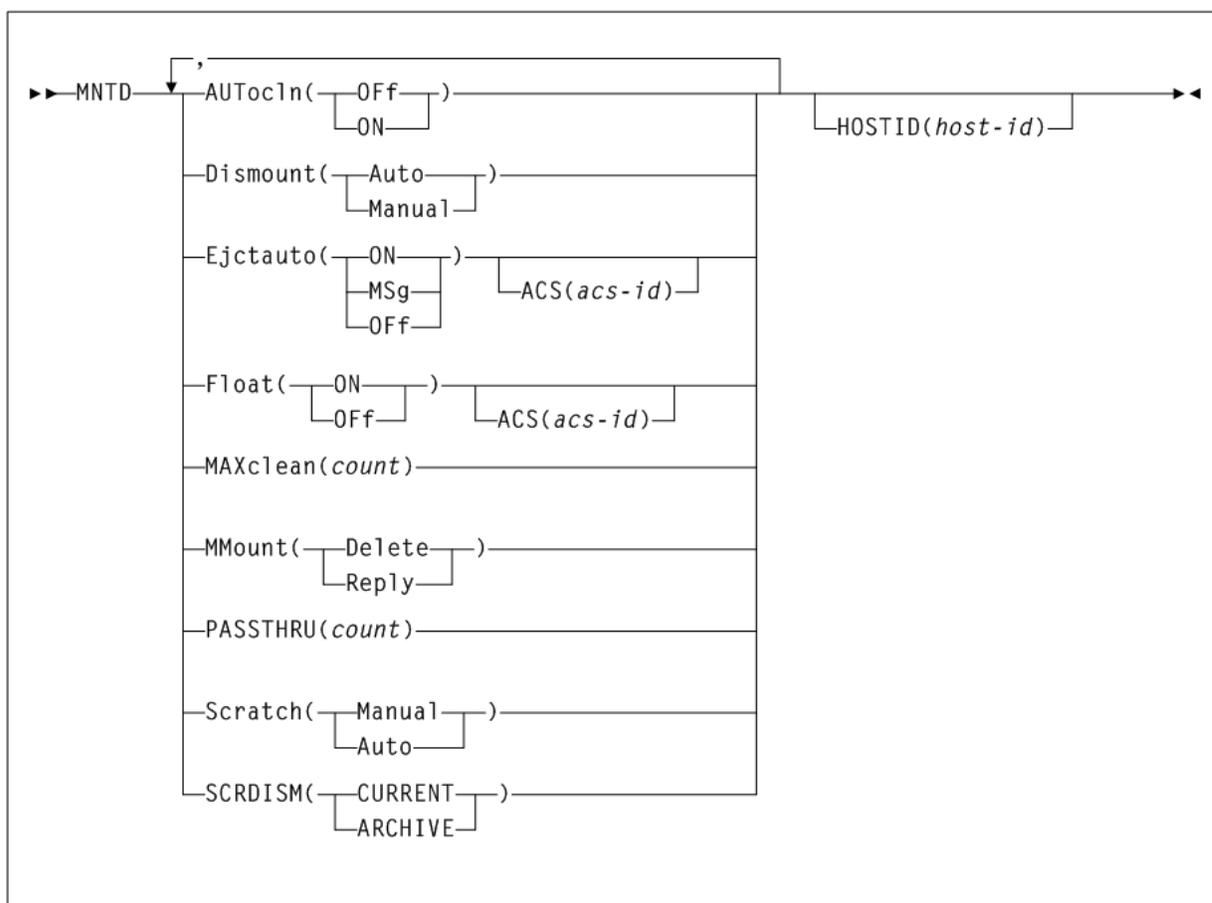
Description

The `MNTD` command specifies how HSC processes mounts and dismounts of library volumes.

Syntax

Figure 3–119 shows `MNTD` command syntax.

Figure 3–119 *MNTD command syntax*



Parameters

As shown in Figure 3–119, the `MNTD` command includes the following parameters:

AUToclN

controls automated transport cleaning.

OFF

disables the automated cleaning function. `OFF` is the initial value for the HSC.

ON

enables the following HSC cleaning functions:

- the automated cleaning function, which detects when a transport requires cleaning and schedules the mount of a cleaning cartridge. For an LMU at level

22 or above, the cleaning occurs after the next dismount. For all other levels, the cleaning occurs before the next volume mount.

- the `CLea` command which is used to schedule the mount of a cleaning cartridge for a specified transport. See "`CLea`" on page 3-30 for more information.

Dismount

specifies whether volumes are to be deleted automatically from the control data set when a dismount is requested in a manual mode LSM for a volume that was mounted by the robot before the LSM was modified offline.

Auto

indicates that volumes are to be automatically deleted from the control data set when a manual dismount is requested for a volume that was mounted by the robot. `Auto` is the initial value for the HSC.

Manual

directs the HSC to issue a message prompting the operator to decide whether the volume is to be deleted from the control data set when a manual dismount is requested for a volume that was mounted by the robot.

Setting `Dismount` to `Manual` is useful when an LSM is modified offline for only a short time. In this case, the operator can choose to not respond to the dismount message and leave the volume mounted on the transport. When the LSM is modified online the HSC re-drives the outstanding dismount request, causing the robot to dismount the volume and place it in a storage cell.

Ejectauto

controls automatic ejection of cleaning cartridges that have exceeded their maximum use.

In a multi-host environment, the `EJctauto` setting for a given ACS should be the same on all hosts. `EJctauto` status is not shared among the HSCs on different hosts.

ON

directs the HSC to automatically eject cleaning cartridges that have exceeded the number of times they can be used (as specified by the `MNTD MAXclean` or `VOLATTR MAXclean` parameters). `ON` is the initial value for the HSC.

MSg

directs the HSC to prompt the operator to either eject an over use-limit cartridge from the ACS or to keep a cleaning cartridge in the ACS.

Off

directs the HSC to keep an over use-limit cleaning cartridge in the ACS. A message is issued displaying the cleaning cartridge's volser and describing this action.

ACS(acs-id)

optionally, specifies that the `EJctauto` settings apply only to the specified ACS. If this parameter is omitted, `EJctauto` settings affect all ACSs.

`acs-id` indicates a decimal value from 00 to 99 that identifies the ACS. A single digit `acs-id` can be entered.

Float

specifies whether the HSC is to select a new home cell location when it dismounts a volume that required a pass-thru when it was mounted.

In multi-host environments, the `Float` setting for a specific ACS should be the same on all hosts. `Float` status is not shared among the HSCs on different hosts.

ON

directs the HSC to select a new home cell location for the volume in the LSM where the dismount occurs (provided a cell is available). If no cells are available in the new LSM, a location is chosen in the nearest LSM with free cells or the volume can be forced to its original home cell. Setting `Float` to `ON` reduces the number of pass-thru operations. `ON` is the initial value for the HSC.

Off

directs the HSC to return the volume to its original home cell location when it is dismounted.

Note: The `MNTD Float Off` command is useful for remote ACS/CDS link down situations to avoid control data set integrity issues by making sure cartridges are returned to their original home cell locations. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information about remote libraries.

ACS(acs-id)

optionally, specifies that the `Float` setting applies only to this ACS. If the ACS parameter is omitted, the `Float` setting affects all ACSs.

`acs-id` indicates a decimal value from 00 to 99 that identifies the ACS. A single digit `acs-id` can be entered.

MAXclean(count)

specifies the maximum number of times a cleaning cartridge is to be used.

- The `EJctauto` setting in effect for the ACS controls how cleaning cartridges are handled when they exceed their maximum use.
- In a multi-host environment, the `MAXclean` setting should be the same on all hosts. The `MAXclean` value is not shared among the HSCs on different hosts.
- Follow the cartridge vendor's recommendations for the number of times a cleaning cartridge can be used.

`count` indicates a decimal value, in the range from 1 through 32767. The initial value for the HSC is 100.

The `count` value applies to each cleaning cartridge in the library. When a cleaning cartridge is used count number of times, it is not selected if there are cleaning cartridges compatible with the transports in the ACS that have been used less than count number of times. Over use-limit cleaning cartridges may be automatically ejected, depending on the `MNTD EJctauto` setting.

MMount

specifies whether a mount message is issued during manual mode. This enables the operator to retain a manually mounted volume in the control data set.

Delete

generates a manual mode mount message which prompts the operator to respond `D` to delete the volume from the control data set, or `I` to ignore the mount request. `Delete` is the initial value of the HSC.

Reply

generates a manual mode mount message which prompts the operator to reply `M` to `DOM` the message and retain the volume in the control data set, or `I` to ignore the mount request.

Note: When `MNTD MMount(Reply)` is specified, the HSC action for a manual mode dismount is determined by the `MNTD Dismount` setting.

PASSTHRU(count)

specifies the maximum number of pass-thrus that can occur to allow cartridge archival if `SCRDISM(ARCHIVE)` is specified.

count indicates the maximum number of pass-thrus allowed for archival of cartridges. Allowable values are decimal in the range from 1 through 99. The initial value of the HSC is 1.

Scratch

determines how a scratch volume is selected to satisfy a scratch mount request for a manual mode LSM.

Manual

specifies that the operator must select a scratch volume when a scratch mount is requested for a manual mode LSM. `Manual` is the initial value for the HSC.

Auto

directs the HSC to select a scratch volume when a scratch mount is requested for a manual mode LSM. If `Scratch` is set to `Auto`, the HSC manual mount message indicates the cartridge `VOLSER` and cell location as if it were a request for a specific volume.

SCRDISM

specifies whether scratch volumes mounted in a 9310 or 9360 LSM are to be automatically archived to a larger or slower LSM upon dismount.

Note: 9740 LSMs cannot attach to any other type of LSM. Thus, `SCRDISM` does not affect mounts in ACSs containing 9740s.

CURRENT

indicates that scratch volumes mounted in a 9310 or 9360 LSM are to be dismounted according to the `MNTD Float` parameter setting. `CURRENT` is the initial value for the HSC.

ARCHIVE

indicates that scratch volumes mounted in a 9310 or 9360 LSM are to be archived into a larger or slower storage device. Archival occurs only if the number of pass-thrus does not exceed `PASSTHRU`. Archival of a cartridge can occur:

- from a 9360 to either a 9310 or a 4410
- from a 9310 to a 4410.

`SCRDISM(ARCHIVE)` overrides the `MNTD Float` parameter setting.

The `ARCHIVE` parameter does not affect dismounts in ACSs containing 9740 LSMs.

HOSTID(host-id)

optionally, identifies the host associated with the MNTD command. This enables you to restrict certain startup options to a specific host.

If this parameter is not specified, the command is executed by each host that accesses PARMLIB.

host-id indicates the host ID (the SMF system identifier for JES).

Note: If the *host-id* does not match the host executing the command, a message is issued and the command is not processed.

MODify

Interfaces:

- Console or PARMLIB only
- UI Support: No

Subsystem Requirements:

Active HSC at FULL service level

Description

The MODify command performs the following functions:

- modifies a CAP or an LSM online or offline to all hosts, independent of the issuing host
- starts dynamic hardware reconfiguration for a SL3000 or a SL8500 library
- adds, deletes, or updates an SL3000 or SL8500 ACS definition in the CDS that was preallocated using the SLLIBRY FUTRACS parameter

Dynamic hardware reconfiguration for the SL3000 and SL8500 libraries represents the portion of Near Continuous Operation (NCO) that enables you to dynamically add or delete drives and expansion panels.

Enter the MODify CONFIG command to activate dynamic hardware reconfiguration.

Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information about Near Continuous Operation and dynamic hardware reconfiguration.

Caution: Before you enter MODify CONFIG, perform a backup of the CDS.

It is possible to remove LSMs from the SL8500 configuration without performing a LIBGEN, MERGEcds, and recycle of the HSC. However, this operation requires assistance from Oracle StorageTek Support.

The MODify command differs from the Vary command in the following ways:

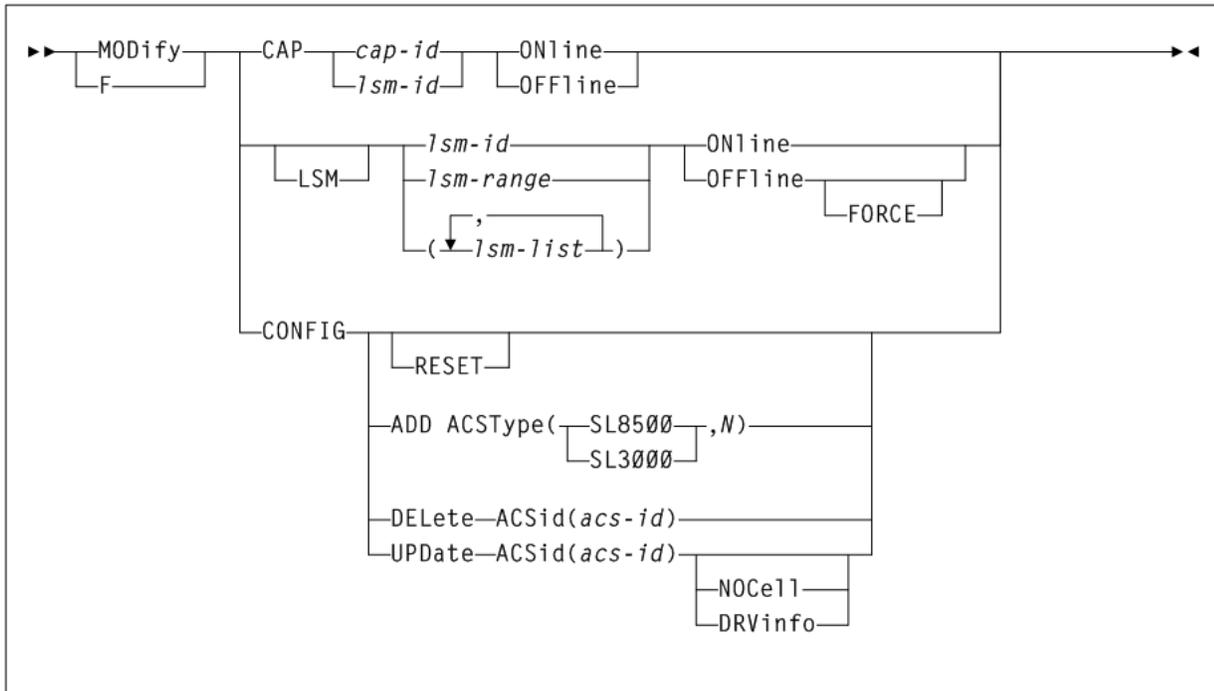
- The MODify command places a specified CAP or LSM online/offline globally to all hosts.
 - A CAP that is modified offline cannot be used for eject/enter processing.
 - An LSM that is modified offline must be operated in manual mode.

- A manual mode LSM is still available for diagnostic requests from a host.
- The Vary command places a host station online/offline to an LMU.
 - A host that has all of its LMU stations varied offline is disconnected from all LSMs attached to the LMU.
 - An LSM can still be used to semi-automate cartridge handling for a disconnected host by issuing HSC commands from a connected host.

Syntax

Figure 3–16 shows MODify command syntax.

Figure 3–120 MODify command syntax



Parameters

As shown in Figure 3–120, the MODify command includes the following parameters:

CAP

specifies that a CAP is to be modified online/offline to all hosts.

cap-id

a specific CAP to be modified online/offline. The format of a *cap-id* is *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

lsm-id

a standard CAP to be modified online/offline. The format of an *lsm-id* is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

ONline

specifies that the CAP is to be modified online to all hosts. When a CAP is modified online, the HSC attempts to restore the CAP mode (automatic or manual) that was in effect when the CAP was modified offline.

OFFline

specifies that the CAP is to be modified offline to all hosts. Modifying a CAP offline places it in an unavailable state, preventing it from being allocated. The CAP mode (automatic or manual) is retained in the control data set.

- Be sure to specify the *CAP* parameter to modify a CAP offline. If the LSM is online, and you specify an *lsm-id* to modify the CAP offline but do not specify the *CAP* parameter, the LSM will be modified offline.
- Use this command only in an emergency. Ensure the CAP is not being used by another active process. Issuing the `MODi fy` command on an active CAP may cause the process using the CAP to receive errors.

LSM

optionally, indicates that one or more LSMs are to be modified online/offline to all hosts.

lsm-id, lsm-range, or lsm-list

one or more LSMs to be modified online/offline to all hosts. Each *lsm-list* element may be either a single *lsm-id* or an *lsm-range*. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

The format of an *lsm-id* is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

ONline

specifies that the LSMs are to be modified online to all hosts. Modifying an LSM online places it in automatic mode. When an LSM is modified online, CAPs that were in auto mode before the LSM was modified offline are again placed in auto mode (unlocked state).

OFFline

specifies that the LSMs are to be modified offline to all hosts. Modifying an LSM offline places it in manual mode. CAPs in a manual mode LSM cannot be used, but the auto/manual state of each CAP is retained.

FORCE

specifies that the LSM(s) is to be modified offline immediately. `FORCE` is only used with the `OFFline` parameter to modify an LSM offline.

CONFIG

optionally, initiates the Near Continuous Operation (NCO) for hardware reconfiguration process for SL3000 and SL8500 libraries. This is a system wide change which propagates to all hosts connected to the CDS.

Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information about Near Continuous Operation and dynamic hardware reconfiguration. Before you enter `MODi fy CONFIG`, perform a backup of the CDS.

no parms

optionally, initiates the Near Continuous Operation (NCO) for hardware reconfiguration process for SL3000 and SL8500 libraries. This is a system wide change which propagates to all hosts connected to the CDS.

- Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information about Near Continuous Operation and dynamic hardware reconfiguration.
- Before you enter `MODify CONFIG`, perform a backup of the CDS.

RESET

resets internal flags for any host that may be failing as a hardware configuration is being performed. The `RESET` also terminates any active dynamic hardware reconfiguration in the HSC complex during the hardware and software comparison phase. When the failing host comes back up, the new hardware configuration is automatically recognized and implemented.

A reset is intended only to reset a failing host and does not initiate the actual dynamic hardware reconfiguration operation. The `MODify CONFIG` command, without the `RESET` parameter, must be run separately to invoke dynamic hardware reconfiguration.

ADD

initiates an NCO configuration change to add one or more ACSs to the HSC configuration. The ACS added takes on the library characteristics of the library type specified by the `ACSType` parameter. The number of ACSs that can be added is limited by the number specified on the `SLILIBRY FUTRACS` parameter.

ACSType

specifies the library type to use for the configuration change. Options are `SL3000` or `SL8500`.

Additionally, you can specify `N` (separated by a comma) to indicate the number of ACSs to add, from 1 to 9. If this keyword is not specified, 1 is the default.

DELeTe ACSid(acs-id)

initiates an NCO configuration change to delete the disconnected ACS specified in the `ACSid(acs-id)` parameter.

After the `ACSid` is deleted, the ACS cannot be re-added if the ACS was defined by a `SLIACS` statement. If the ACS was added by a prior `MODify CONFIG ADD` command, the ACS can be re-added.

- If the `ACSid` is the not highest numbered ACS, the ACS is placed in "unallocated" status.
- If the `ACSid` is the highest numbered ACS, the ACS is entirely deleted and can be re-added as a different `ACSType`.
- If the `ACSid` is not the highest numbered ACS, the ACS becomes a place holder with a status of unallocated and can be re-added only as the same `ACSType`.

UPDate ACSid(acs-id)

initiates an NCO configuration change to update the ACS configuration specified in the `ACSid(acs-id)` parameter. This is a system wide change, and other hosts connected to the CDS are notified of the change.

The `ADD` and `DELeTe` parameters are only valid if the `FUTRACS` parameter was specified in the `SLILIBRY` macro during the `LIBGEN` process.

NOCell

Used with ACS *acs-id* to bypass cell discovery within the ACS. This option is used only for drive or CAP changes and will reduce the reconfiguration time.

DRVinfo

Used with ACS *acs-id* to update drive information (for example, serial number, worldwide name) for all drives of an ACS. This option is used only when replacing defective drives with drives of the same type.

Note: When this command option is invoked, it executes immediately and does not disrupt library activity.

MOUNT

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The MOUNT command mounts a scratch or specific volume on a transport, or mounts a VTV on a VTD and optionally assigns a Management Class to that VTV.

Note: Do not use this command to manage a mount that appears to have been missed by a batch job. Instead, use the SMC RESYNChronize command to automate pending mounts. See "RESYNChronize" on page 2-56 for more information.

Syntax

Figure 3–121 shows MOUNT command syntax.

If you do not supply a *host-id* and do specify `Readonly`, a comma must be entered immediately before `Readonly` to indicate the missing operand. For example:

```
MOUNT 123456 0B0,,READONLY
```

ForceRT

optionally, enables a volume to be mounted on a device with a different recording technique. The media type for the volume must be compatible with the device. Caution is necessary because it is possible to mount a volume written at a high density on a drive that is not capable of reading the high density.

To Mount a Scratch Volume on a Transport

SCRATCH

specifies a scratch volume is to be mounted.

PRIVAT

specifies a scratch volume is to be mounted.

devaddr

specifies the device address of the transport on which to mount the volume.

host-id

optionally, indicates that the volume is to be mounted on the device address defined to the specified host (the SMF system identifier for JES).

Note: The *host-id* specified is only used for device address resolution, The *host-id* for subpool validation is obtained from the command origin.

SUBpool(subpool-name)

optionally, indicates the scratch volume is to be taken from a scratch subpool. If this parameter is not specified, then the behavior depends on how scratch pools were defined:

- If `VOLPARM` specified, then the volume will be selected from the `DEFAULTPOOL` which contains all scratch tapes in the ACS that were specified in `VOLPARM` but were not assigned to a named subpool.
- If `VOLPARM` not specified (that is, `VOLATTR`, or `UX03` scratch pool definitions), then the volume will be selected from `subpool-0` which contains all scratch tapes in the ACS including both non-subpool and subpool volumes.

MEDIA(media-type)

optionally, specifies the type of media for the scratch volume. The specified media must be compatible with the requested *devaddr*.

media-type indicates the media type.

See [Appendix A, "MEDIA, RECTech, and MODEL Values"](#) for a list of valid *media-type* values.

Note: If `MEDIA` is not specified, the next scratch cartridge is selected without regard to media type.

To Mount a VTV on a VTD and Optionally, Assign a Management Class to the VTV

volser

specifies a specific VTV volser. volser indicates the volser of a specific VTV.

SCRATCH

specifies the scratch VTV attribute (SCRATCH).

devaddr

specifies the MSP device address of the VTD to use to mount the VTV.

MGMTclas(mgmt-class-name)

optionally, specifies a Management Class you defined on the MGMTclas control statement.

mgmt-class-name indicates the Management Class name.

MOVE

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The MOVE command moves volumes to specified locations within the same LSM or to any other LSM within an ACS.

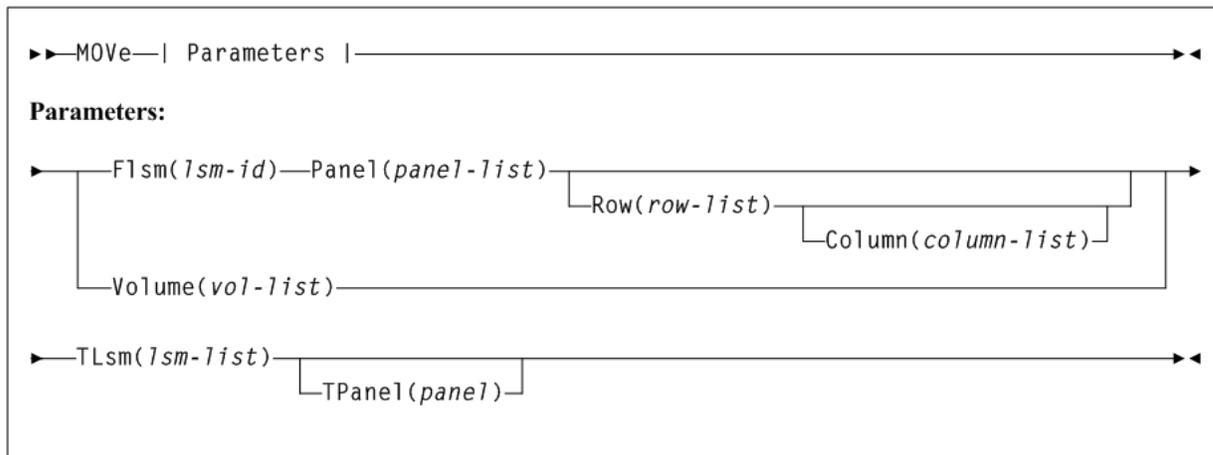
Note:

- Movement of volumes to all LSMs occurs on a first-come first-served basis. As volumes are moved, should an LSM become fully populated before the move request is satisfied for that LSM, the move request continues with the movement of volumes designated for the next LSM specified in the request. An LSM is fully populated when all available cells contain tape cartridges. This process continues until the entire move request is completed or all destination LSMs are full.
 - Moves are performed one at a time to allow for other LSM activity.
-
-

Syntax

Figure 3–18 shows MOVE command syntax.

Figure 3–122 MOVE command syntax



Parameters

As shown in [Figure 3–122](#), the MOVE command includes the following parameters:

F1sm(lsm-id)

specifies the “From” LSMid in the format *AA:LL* that the cartridges are to be moved from. If you specify the F1sm parameter, you may not specify the Volume parameter.

lsm-id indicates the LSM identifier name. An LSMid (*lsm-id*) is made up of the ACSid (decimal 00-99) and the LSM number (decimal 00-99) separated by a colon (:).

Panel(panel-list)

specifies a panel number to be moved from. This parameter has a corequisite of the F1sm parameter and is required.

An entire panel can be emptied if the Row and Column parameters are not specified.

panel-list indicates a one or two digit panel number. Ranges are not valid. This parameter cannot contain a list if a list is specified for the Row or Column parameter.

Panels specified by *panel-list* are excluded as destination panels if cartridges are being moved within the same LSM.

A *panel-list* element is a one or two digit decimal number, specific to the LSM type. See "[Panels](#)" on page B-2 for a list of valid values.

Row(row-list)

specifies a list of rows to be moved from. This parameter has a corequisite of the Panel parameter.

row-list indicates a one or two digit row number or list of row numbers. The maximum list allowed is four rows. However, this parameter cannot contain a list if a list was specified for the Column parameter. Ranges are not valid.

A *row-list* element is a one or two digit decimal number, specific to the LSM type. See "[Rows](#)" on page B-3 for a list of valid values.

Column(column-list)

specifies a list of columns to be moved from. This parameter has a corequisite of the Row parameter and is optional. If this parameter is not specified, all columns will be moved for the rows specified.

column-list indicates a one or two digit column number or list of column numbers. This parameter cannot contain a list if a list was specified for the *Row* parameter. Ranges are not valid.

A *column-list* element is a one or two digit decimal number, specific to the LSM type. See "Columns" on page B-4 for a list of valid values.

Volume(vol-list)

optionally, specifies volumes to be moved.

vol-list indicates a list of volumes (a maximum of 300 can be specified) or a range of volumes. If you specify the *Volume* parameter, you may not specify the *F1sm* parameter.

TLsm(lsm-list)

specifies the target LSM(s). This is a required parameter. The LSMs are specified as *AA:LL*, where *AA* indicates the ACSid and *LL* indicates the LSMid. The ACSid:

- must be identical to the *F1sm* parameter "aa" (ACSid), or
- must be the same ACS in which the volume resides if the *Volume* parameter is specified.

lsm-list indicates a list of LSMs (a maximum of 24 can be specified). Ranges are invalid. An LSMid (*lsm-id*) is made up of the ACSid (decimal 00-99) and the LSM number (decimal 00-99) separated by a colon (:).

TPanel(panel)

optionally, specifies the panel in the *TLsm* to move the cartridge(s) to.

panel indicates a one or two digit panel number. This parameter cannot contain a list or range. See "Panels" on page B-2 for a list of valid values.

MVCDRain

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

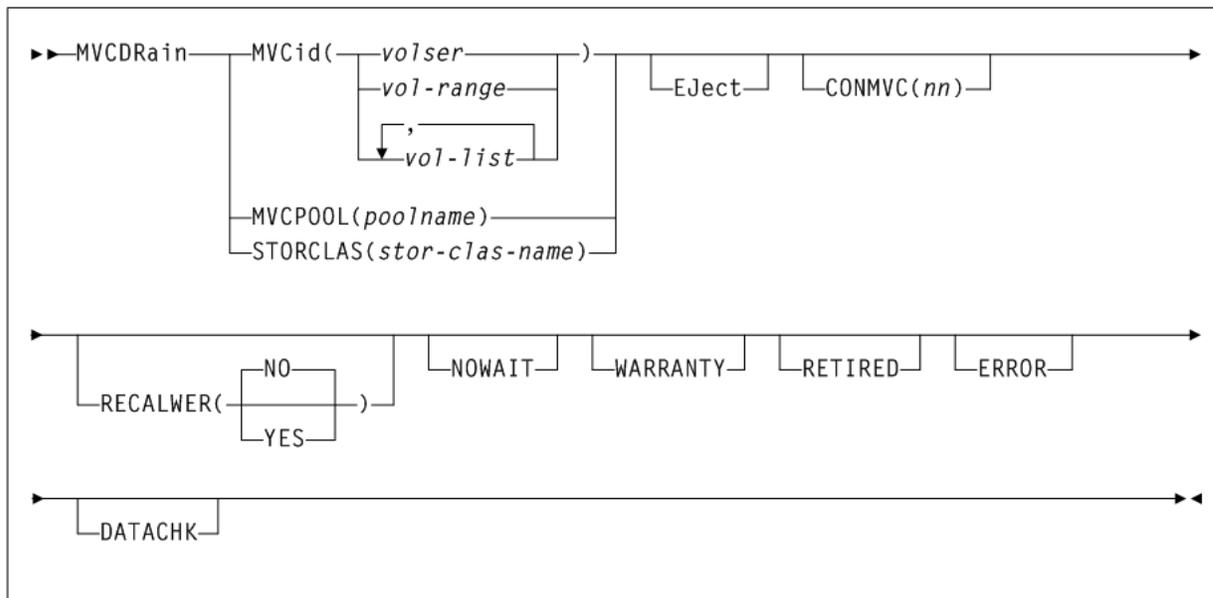
Description

The *MVCDRain* command recalls all current and scratched VTVs from an MVC and, optionally, "virtually" ejects the MVC, making it unavailable for VSM use without physically ejecting it from the library. You can use this command to override the `CONFIG RECLAIM CONMVC` setting.

Syntax

Figure 3–123 shows *MVCDRain* command syntax.

Figure 3–123 MVCDRAIN command syntax



Parameters

As shown in [Figure 3–123](#), the MVCDRAIN command includes the following parameters:

MVCID(volser, vol-range, or vol-list)

drain one or more MVCs by volser.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more MVCs up to a maximum of 50.

Eject

optionally, specifies that VTCS “virtually” ejects the MVC (the MVC will not be used for output).

For VMCs:

- MVCDRAIN with the EJECT parameter physically deletes the VTVs.
The current CDS backup can no longer be used as a DR baseline for vMVC content if you use the DRCHKPT utility or the CONFIG RECLAIM PROTECT parameter to protect CDS backup content for vMVCs, and then issue the MVCDRAIN EJECT command.
- MVCDRAIN without the EJECT parameter does not delete the VTVs, but updates the CDS record to show no VTVs on the VMVC.

CONMVC(nn)

optionally, specifies the maximum number of MVCs that VTCS concurrently processes for both drain and reclaim.

nn indicates the number of MVCs. Valid values are 1 to 99. If not specified, the default is the CONMVC value specified on the CONFIG RECLAIM statement.

MVCPOOL(poolname)

drain the MVCs in the specified Named MVC Pool.

pool-name indicates the name of an MVC Pool that you defined on the `MVCPool` control statement. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for more information.

STORCLAS(storclas-name)

drain the MVCs in the specified Storage Class.

stor-class-name indicates the name of a Storage Class that you defined on the `STORCLAS` control statement; for more information, see "[STORCLAS Control Statement](#)" on page 3-226.

RECALWER

optionally, specifies whether VTCS recalls VTVs with read data checks.

NO

Do not recall VTVs with read data checks. This is the default.

YES

Recall VTVs with read data checks.

NOWAIT

optionally, specifies that the utility does not wait for the operation to complete and returns after the request is submitted.

WARRANTY

optionally, selects MVCs with expired warranties (denoted by a `W` in the **Status T** column on an MVC Report).

RETIRED

optionally, selects MVCs that are retired (denoted by a `T` in the **Status T** column on an MVC Report).

ERROR

optionally, selects MVCs that are in error (denoted by a `B` in the **Status B** column on an MVC Report).

DATACHK

optionally, selects MVCs that have a data check (denoted by a `D` in the **Status D** column on an MVC Report).

MVCMAINT

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

- Active HSC/VTCS required if `RENVTSS` is specified
- Can run in batch-only mode when there are no hosts active (on any LPAR) using the CDS that is to be updated

Description

The `MVCMAINT` command specifies MVC attributes.

OFF

MVCs is writable.

LOST

optionally, sets the “lost” status of the MVC.

ON

MVC is lost.

OFF

MVCs is not lost.

ERROR

optionally, sets the error status of the MVC.

ON

MVC is in error.

OFF

MVCs is not in error.

EJECT

optionally, sets the “logical eject” status of the MVC.

ON

MVC is “logically ejected”.

OFF

MVC is not “logically ejected”.

RETIRED

optionally, sets the “retired” status of the MVC.

ON

MVC is retired.

OFF

MVC is not retired but is still in “expired warranty” state (still selectable for output).

WARRANTY

optionally, sets the “expired warranty” status of the MVC.

ON

MVC’s warranty has expired.

OFF

MVC’s warranty has not expired.

Note: WARRANTY and RETIRED are mutually exclusive.

INVLDMIR

optionally, sets the invalid MIR status of the MVC.

ON

MIR is invalid.

OFF

MIR is not invalid.

REPLACED

optionally, updates various MVC fields in the MVC record after an MVC is physically replaced.

NONE

The MVC record is not updated.

MEDIA

The following MVC fields are updated:

- **MVC media type** is cleared
- **Count of times mounted** is set to zero
- **Warranty Expired Flag** is turned off
- **Invalid MIR Flag** is turned off
- **Retired Flag** is turned off
- **Broke/Error Flag** is turned off
- **Lost Flag** is turned off
- **Data Check Flag** is turned off
- **VTSS Last Written By** is cleared
- **Date/Time MVC was last written to** is cleared
- **Storage Class** is cleared
- **Date/Time of Last Drain/Reclaim** is cleared
- **Date/Time of Migrate from Empty State** is cleared
- **Date/Time the MVC was last mounted** is cleared

Note: This parameter requires the MVC to be empty (contain zero) and unmounted. REPLACED is mutually exclusive with the LOST, ERROR, EJECT, RETIRED, WARRANTY, and INVLDMIR parameters.

RENTSS(*vtss-name*)

optionally, sets the name of the owning VTSS to *vtss-name*.

vtss-name indicates the new VTSS name. This must be the name of an existing VTSS in your configuration.

Note: To use RENTSS, the host on which MVCMAINT is run must have access to the owning VTSS.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking [SLUADMIN](#)" on page 5-1, the following definition statements apply to the MVCMAINT JCL:

manifest file DD

DD statement for the manifest file.

Note:

- MVCMAINT JCL may specify the CDS to be updated if the CDS is in use by HSC/VTCS on the LPAR where MVCMAINT is run. If specified, the CDS data sets specified in MVCMAINT JCL must match the CDS data sets used by HSC/VTCS.
- MVCMAINT JCL must specify the CDS to be updated if MVCMAINT is being executed in batch-only mode, that is, when there are no hosts active (on any LPAR) using the CDS.

Return Codes

The MVCMAINT command includes the following return codes:

- 0 indicates that all requested updates for the MVC completed successfully.
- 4 indicates that one requested update for the MVC failed and at least one other requested update completed successfully.
- 8 indicates that all requested updates for the MVC failed.

Note: The final return code for the MVCMAINT job is the largest return code generated by any single MVC updated. For example, if 5 MVCs generate a return code 0 and one MVC generates a return code 8, the final return code is 8.

MVCMAINT Report

The following is an example of an MVCMAINT report produced by the following command:

```
MVCMAINT MVC(022577-022579) READONLY=OFF
```

Example 3-49 MVCMAINT Report

```
MVC          RC
022577       04
022578       04
022579       04

MVCMAINT EXCEPTION REPORT
*SLS6737I MVC 022578 ALREADY HAS READONLY(OFF); REQUEST IGNORED
*SLS6737I MVC 022579 ALREADY HAS READONLY(OFF); REQUEST IGNORED
SLS1315I SWS500.V5.CDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET

MVC      Number      Size      Mount <----Status----> <-----Last Mounted----->
Volser  VTVs  %Used %Avail  %Frag  (GB)  Count  I B L D R U T M  Date      Time      VTSS  ACSID  Owner/
                                                Consolidate Time
022577  0      0.00 99.96  0.04  .4    1      I - - - - C - -  2012Feb04 09:14:23      00    S1
022578  0      0.00 99.96  0.04  .4    4      I - - - - U - -  2012Mar08 10:11:04  VTSS16  00    S1
022579  0      0.00 99.96  0.04  .4    4      I - - - - U - -  2012Mar08 10:11:04      00    S1

3      INITIALIZED MVCS PROCESSED
0      NON_INITIALIZED MVCS PROCESSED
0      NON-LIBRARY MVCS PROCESSED
```

As shown in [Example 3-49](#), the MVCMAINT report shows:

- Status of MVCs processed - volser and return code (0 - all updates completed, 4 - some updates completed, 8 - no updates completed).
- An exception report of the reason for all uncompleted updates.

- An MVC summary report.

MVCPLRPT

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

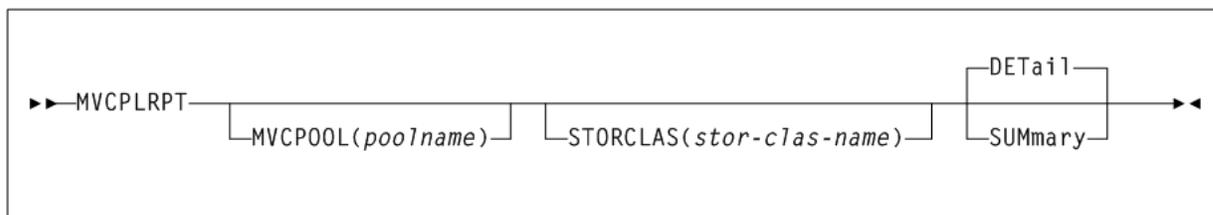
Description

The MVCPLRPT command reports the status of a named MVC Pool or MVC Storage Class.

Syntax

Figure 3–125 shows MVCPLRPT command syntax.

Figure 3–125 MVCPLRPT command syntax



Parameters

As shown in Figure 3–125, the MVCPLRPT command includes the following parameters:

MVCPOOL(poolname)

optionally, report on MVCs in the specified Named MVC Pool.

poolname indicates the name of an MVC Pool that you defined on the MVCPOOL control statement. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for more information.

To report on all Named MVC Pools (including DEFAULTPOOL), specify ALL or omit the MVCPOOL parameter.

STORCLAS(storclas-name)

optionally, report on MVCs in the specified Storage Class.

stor-clas-name indicates the name of a Storage Class that you defined on the STORCLAS control statement. See Appendix A, "MEDia, RECtech, and MODel Values" for more information. You can also specify Storage Classes which used to exist to which media is still assigned.

To report on all Storage Classes, specify ALL or omit the STORCLAS parameter value.

The STORCLAS parameter enables you to filter the MVCs reported from the MVCPOOL, that is, only those MVCs with a matching Storage Class are reported. If the STORCLAS parameter is specified then the summary counts section will contain Storage Class

subtotals, either for every Storage Class encountered if the parameter value ALL or no value is specified, or for those media types where there are MVCs matching the specified value.

DETail

Report MVC detail lines (the default).

SUMmary

Report summary counts only.

Named MVC Pool Report

The following is an example of a report for Named MVC Pool CUST1POOL.

Example 3-50 Named MVC Pool report

MVC Volser	Number VTVs	%Used	%Avail	%Frag	Size (GB)	Mount Count	<---Status---> I B L D R U T M	<-----Last Mounted-----> Date	Time	VTSS	ACSID	Owner/ Consolidate Time
EVS99	200	10.80	84.57	4.63	2	1	I - - - - U W -	2012Feb04	09:14:23	VTSS8	00	S1
EVS100	0	0.00	100.00	0.00	UNKNOWN	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS101	1009	99.00	0.00	1.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS102	5	8.25	91.75	0.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS103	EXPVTV	0.12	99.88	0.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS104	0	0.00	100.00	0.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS105	200	10.80	84.57	4.63	10.2	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS106	200	0.00	100.00	0.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1
EVS107	200	0.00	100.00	0.00	.4	4	I - - - R U T -	2012Mar08	10:11:04	VTSS8	00	S1

SUMMARY FOR MVCPOOL=CUST1POOL

ACS	MEDIA	FREE-MVCs		RECLAIM-MVCs		USED MVCs	
		VOLS	GB	VOLS	GB	VOLS	GB
00	ECART	120	96	2	0.5	90	45
00	STKIR	30	600	1	3.5	25	350
00	TOTAL	150	696	3	4.0	115	395

SUMMARY OF MVCS BY USAGE:

- 137 TOTAL MVCS PROCESSED
- 135 INITIALIZED MVCS PROCESSED
- 2 UN-INITIALIZED MVCS PROCESSE
- 41 FREE MVCS AVAILABLE
- 0 MVCS WITH STATUS AUDIT
- 6 MVCS WITH STATUS DRAIN
- 4 MVCS WITH STATUS EXPORT
- 0 MVCS MARKED EJECTED
- 60 MVCS MARKED FULL
- 0 MVCS WITH MAXIMUM VTVS
- 82 MVCS MARKED READ-ONLY
- 3 MVCS WITH STATUS BROKEN
- 7 MVCS WITH STATUS LOST
- 0 MVCS MARKED RETIRED
- 0 MVCS WITH EXPIRED WARRANTY
- 0 MVCS HAVE INVALID MIRS
- 1 MVCS HAVE DATACHECKS
- 5 MVCS WITH STATUS CONSOLIDATE

Fields

The following list describes the Named MVC Pool report fields. The Summary fields are either for a Storage Class or a Named MVC Pool, depending on which was specified on the report JCL. If a Storage Class specifies a Named MVC Pool, the report gives information for that subpool.

MVC Volser

the MVC volser.

Number of VTVS

the number of current VTVs on the MVC. If the MVC has been used for VTV export, this field reports `EXPVTV`.

%Used

the percentage of the MVC used by current VTVs.

%Avail

the percentage of the MVC that is physically available for use.

%Frag

the percentage of the MVC that contains noncurrent VTVs. This space is not usable until it is reclaimed or the MVC is drained.

Media Size (GB)

the size of the MVC (GB). This will only be determined after VTCS has used an MVC. `UNKNOWN` appears in this field until VTCS migrates a VTV to the MVC.

MVCs in a VLE have a nominal capacity of 250GB. When VTVs are migrated with deduplication to a VMVC, the VTVs are divided into VTV unique data and data shared with other VTVs, which can reside on different VMVCs. As a result:

The sum of the VTVs can exceed the 250GB VMVC media size, because the VTVs reference shared data that exists on other VMVCs.

Conversely, the sum of the VTV sizes on a full VMVC can be less than the 250GB media size because the VMVC contains shared data for VTVs that reside on other MVCs. For example, in an extreme case, a VMVC can have zero VTV copies but have zero available or fragmented space (the MVC is full of shared VTV data).

Times Mounted

the number of times that the MVC has been mounted for writing or reading since it was added to the MVC inventory.

STATUS

one or more of the following statuses:

I

The MVC has been initialized.

B

The MVC has an error that should be investigated. The error may not make the MVC unusable, but VTCS will not select the MVC for migration for 12 hours after it is marked B. After the 12 hour period, the MVC will be least preferred for subsequent migrations, and recalls from the MVC may cause VTCS to drain it. This error condition may be accompanied by messages `SLS6686`, `SLS6687`, `SLS6688`, `SLS6690`, or `SLS6693`.

Any of the following conditions can cause this MVC error:

- MVC corrupted by another job (other than VTCS/VTSS)
- attempt to use a read-only MVC for migration
- DDR swap failure
- RTD failure

L

The MVC was not mounted in response to the last mount request. The MVC can still be used for migration, but will not select the MVC for migration for 12 hours

after it is marked **L**. After the 12 hour period, the MVC will be least preferred. This condition will clear itself the next time that the MVC is mounted.

D

A data check was reported for this MVC. VSM will not use this MVC again for migration.

R

the MVC has been marked read-only.

U

one of the following usage statuses:

U

the MVC is available for output (migration, reclamation, export, or consolidation).

-

the MVC is not available for output (migration, reclamation, export, or consolidation).

A

The MVC is either being audited or the audit failed. If the audit failed, VTCS will not use the MVC for migration. To clear this condition, rerun the `AUDIT` against this MVC.

C

The MVC is a consolidation MVC.

E

The MVC is an export MVC.

F

There is no space available on the MVC.

J

Either you issued an `MVCDRAIN EJECT` for the MVC or the MVC was ejected for update by a `RACROUTE` call. The MVC will not be used again for migration or recall. To clear this condition, use `MVCDRAIN` against MVC without the `EJECT` option.

N

Either the MVC is being drained because of an automatic drain or demand reclaim or an explicit `MVCDRAIN` command, or the previous `DRAIN` request failed, in which case VTCS will not use the MVC for migration. To clear this condition, enter `MVCDRAIN` against MVC without the `EJECT` option.

X

The MVC has reached the maximum VTVs per MVC.

T

One of the following statuses:

T

The MVC is retired.

W

The MVC's warranty has expired.

M

The MVC has an invalid MIR.

Last Mounted

the date and time that the MVC was last mounted and the VTSS where the MVC was last used.

ACS ID

the ACS containing the MVC, or the VLE containing remote MVC volumes or VMVCs in VLEs.

****MANY**** indicates that an MVC with a specific volser has been discovered in more than one location. MVCs in this state are marked unusable.

Owner/Consolidate Time

If the MVC is empty, this field is null. If the MVC is a consolidation MVC, this field displays the time of the consolidation. If the MVC is a migration MVC and contains current VTVs, this field displays the MVC's Storage Class. If no Storage Class was explicitly assigned through the `MGMTCLAS` statement, the default Storage Class is the name of the last VTSS that wrote to the MVC for reclamation or migration.

If VTCS receives a request to migrate a VTV that is assigned to an invalid Management Class, VTCS will dynamically create the `!ERROR` Storage Class and migrate the VTVs defined by the invalid Management Class to the `!ERROR` Storage Class. Use this Storage Class to identify and correct invalid Management Classes, drain the affected MVCs, and resubmit the request.

Summary for Storage Class or Named MVC Pool

This section shows number of MVCs (Vols) and total storage (Gb) by ACS and media type for the following categories:

Free-MVCs

MVCs that have 100% usable space and do not contain any migrated VTVs. The storage shown is the total free space based on media type capacity.

Reclaim-MVCs

MVCs eligible for space reclamation. The storage shown is the total wasted space including those MVCs not yet eligible for space reclaim.

Used-MVCS

Initialized MVCs that are partially or completely full.

Total MVCs

Total MVCs for the Storage Class or Named MVC Pool with subtotals for initialized, uninitialized, and free MVCs.

Summary of MVCs by Usage

This section shows number of MVCs by the task that last used the MVC.

MVCRPt**Interfaces:**

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

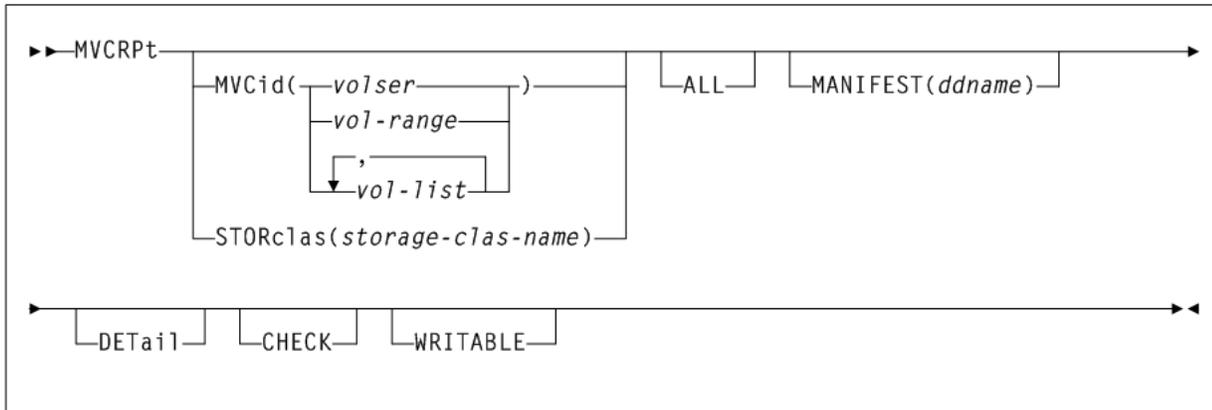
Description

The MVCRPt command reports the status of your VSM system's MVCs.

Syntax

Figure 3–126 shows MVCRPt command syntax.

Figure 3–126 MVCRPt command syntax



Parameters

As shown in Figure 3–119, the MVCRPt command includes the following parameters:

MVCid(volser, vol-range, or vol-list)

optionally, specifies the MVCs for the report. If you do not specify the MVCs, the report includes all MVCs in your VSM system.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more MVCs.

STORclas(storclas-name)

optionally, specifies a storage class with the MVCs to be reported.

stor-clas-name indicates a 1-8 character storage class name.

Note: STORclas is mutually exclusive with MVCid, ALL, and MANIFEST.

ALL

optionally, generate a report for all MVCs according to the selection criteria, even those that would otherwise be omitted.

MANIFEST(ddname)

optionally, specifies the input DD name of the manifest file used to generate the report.

ddname indicates the DD name of the manifest file. You can specify a merged manifest file or multiple manifest files.

DETail

optionally, produce a detailed MVC report. See [Example 3–52](#) for an example. If you do not specify this option, the default is to produce a summary MVC report. See [Example 3–51](#) for an example.

CHECK

optionally, MVCRPt does limited MVC integrity checking, during which the CDS is reserved. Use only if directed by Oracle StorageTek Software Support.

WRITABLE

optionally, MVCRPt ignores read only MVCs on MVC detailed reports and when you specify the CHECK parameter.

MVC Reports

The following sections describe the MVC summary and detailed reports produced by the MVCRPt command.

MVC Summary Report

The following figure shows an example of an MVC summary report:

Example 3–51 MVCRPt MVC summary report

```

MVC      Number      Size Mount <----Status----> <-----Last Mounted-----> Location Owner/Comment/
Volser  VTVs  %Used %Avail %Frag (GB) Count I B L D R U T M Date Time VTSS / ACS ID Consolidate Time
DMV600  40  11.11  70.60  18.29  930.0  257 P - - - - U - - 2009Sep30 13:42:27 DVTSS16 00 DMV600
DMV601  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV602  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV603  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV604  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV605  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV606  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV607  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV608  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV609  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV610  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV611  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV612  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV613  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV614  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV615  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV616  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV617  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV618  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
DMV619  0  0.00  100.00  0.00  500.0  256 I - - - - U - - 2009Sep29 16:59:59 00
20 Initialized MVCs processed
19 Initialized MVCs are standard format
1 Initialized MVCs are partitioned
0 Non-Initialized MVCs processed
0 Non-Library MVCs processed
SLS0155I Condition code for utility function is 0

```

Fields

The MVCRPt MVC summary report includes the following fields:

MVC Volser

the MVC volser.

Number of VTVS

the number of current VTVs on the MVC. If the MVC has been used for VTV export, this field reports EXPVTV.

%Used

the percentage of the MVC used by current VTVs.

%Avail

the percentage of the MVC that is physically available for use.

%Frag

the percentage of the MVC that contains noncurrent VTVs. This space is not usable until it is reclaimed or the MVC is drained.

Size (GB)

the size of the MVC (GB). This will only be determined after VTCS has used an MVC. N/A appears in this field until VTCS migrates a VTV to the MVC.

MVCs in a VLE have a nominal capacity of 250GB. When VTVs are migrated with deduplication to a VMVC, the VTVs are divided into VTV unique data and data shared with other VTVs, which can reside on different VMVCs. As a result:

The sum of the VTVs can exceed the 250GB VMVC media size, because the VTVs reference shared data that exists on other VMVCs.

Conversely, the sum of the VTV sizes on a full VMVC can be less than the 250GB media size because the VMVC contains shared data for VTVs that reside on other MVCs. For example, in an extreme case, a VMVC can have zero VTV copies but have zero available or fragmented space (the MVC is full of shared VTV data).

Times Mounted

the number of times that the MVC has been mounted for writing or reading since it was added to the MVC inventory.

STATUS

one or more of the following statuses:

I

The MVC has been initialized. MVCs written in partitioned format are indicated by the letter 'P' under this column.

B

This is a generic error that indicates the MVC, drive, or combination of the two has a problem. VTCS attempts to de-preference MVCs with this state. To clear this state:

If the MVC caused the problem, use a `DRAIN (EJECT)` command to remove the MVC from service.

If the RTD caused the problem, use the `MVCMAINT` utility to reset the MVC state.

Note also that one or more of the following messages is issued for `BROKEN` status: `SLS6686`, `SLS6687`, `SLS6688`, `SLS6690`. For detailed recovery procedures for these messages, refer to Oracle's ELS publication *ELS Messages and Codes*.

L

VTCS attempted to mount an MVC and the mount did not complete within a 15-minute time-out period. VTCS is attempting to recover from a situation that may be caused by hardware problems, HSC problems, or by the MVC being removed from the ACS. VTCS attempts to de-preference MVCs with this state.

If VTCS does perform a subsequent successful mount of an MVC with `LOST (ON)` state, VTCS sets the state to `LOST (OFF)`.

Determine the cause of the error and fix it. You can also use the VTCS `MVCMAINT` utility to set `LOST (OFF)` for the following events:

`LOST (ON)` was set due to LSM failures or drive errors that have been resolved

LOST (ON) was set because the MVC was outside the ACS and has been reentered.

D

A data check condition has been reported against this MVC. VTCS attempts to de-preference MVCs with this state. To clear this state:

If all VTVs on the MVC are duplexed, use `MVCDRain` on the MVC without the `Eject` option. This recovers all VTVs and removes the MVC from service.

If all VTVs on the MVC are not duplexed, VTCS `AUDIT` the MVC. The audit will probably fail. After the audit, do an `MVCDRAIN` (no `eject`). This recalls the VTVs before the data-check area in ascending block-id order and the VTVs after the data-check area in a descending block-id order. Processing the VTVs in this sequence ensures that VTCS recovers as many VTVs as possible from the media. You then need to recreate the data for any VTVs still on the MVC.

R

The MVC has been marked read-only because of one of the following conditions:

The MVC being the target of an export or consolidation process. The read-only state protects the MVC from further updates.

The MVC media is set to file protect. Correct the error and use the `MVCMaint` utility to set `READONLY (OFF)`.

The MVC does not have the appropriate SAF rules set to enable VTCS to update the MVC. Correct the error and use the `MVCMaint` utility to set `READONLY (OFF)`. Refer to Oracle's ELS publication *Installing ELS* for information about defining a security subsystem user ID for HSC, SMC, and VTCS.

U

One of the following usage statuses:

U

The MVC is available for output (migration, reclamation, export, or consolidation).

-

The MVC is not available for output (migration, reclamation, export, or consolidation).

A

The MVC is either being audited or the audit failed. If the audit failed, VTCS will not use the MVC for migration. To clear this condition, rerun the `AUDIT` against this MVC.

C

The MVC is a consolidation MVC.

E

The MVC is an export MVC.

F

There is no space available on the MVC.

J

Either you issued `MVCDRain Eject` for the MVC or the MVC was ejected for update by a `RACROUTE` call. The MVC will not be used again for migration or

recall. To clear this condition, use `MVCDRAIN` against MVC without the `EJECT` option.

N

Either the MVC is being drained because of an automatic drain or demand reclaim, or an explicit `MVCDRAIN` command, or the previous `DRAIN` request failed, in which case VTCS will not use the MVC for migration. To clear this condition, enter `MVCDRAIN` against MVC without the `EJECT` option.

X

The MVC has reached the maximum VTVs per MVC.

T

One of the following statuses:

T

The MVC is retired. VTCS will recall from, but not migrate to, the MVC. Replace the MVC as soon as possible.

W

The MVC's warranty has expired. VTCS continues to use the MVC. You should start making plans to replace the MVC when it reaches Retired state.

M

VTCS has received status from an RTD to indicate the MIR (media information record) for a 9x40 media is invalid. An invalid MIR does not prevent access to data but may cause significant performance problems while accessing records on the tape. The MVC is not capable of high-speed searches on areas of the tape that do not have a valid MIR entry.

VTCS attempts to de-preference MVCs with this condition. For recalls, if the VTV resides on multiple MVCs, VTCS selects MVCs with valid MIRs ahead of MVCs with invalid MIRs. VTCS avoids using MVCs with invalid MIRs for migration, unless the migration is at the beginning of the tape. Migrating from the beginning of tape will correct the MIR.

VTCS detects the invalid MIR condition at either mount time or dismount time. If detected at mount time and the operation can be completed with another MVC, VTCS dismounts the first MVC and selects the alternate MVC. VTCS has only a limited ability to switch to an alternate MVC. That is, it is mainly used for migrate and virtual mount.

For MVCs with invalid MIRs, determine the cause of the error, which may be caused by media or drive problems, and fix the error.

To recover an MVC with an invalid MIR, you simply need to read the MVC to the end of the tape, which can be done through a VTCS audit. If the media is the problem, run an `MVCDRAIN EJECT` to recall the VTVs and cause the MVC to be removed from the MVC pool.

Last Mounted

the date and time that the MVC was last mounted and the VTSS where the MVC was last used.

Location/ACS ID

the ACS containing the MVC, or the VLE containing remote MVC volumes or VMVCs in VLEs.

****MANY**** indicates that an MVC with a specific volser has been discovered in more than one location. MVCs in this state are marked unusable.

Owner/Consolidate Time

If the MVC is empty, this field is null. If the MVC is a consolidation MVC, this field displays the time of the consolidation. If the MVC is a migration MVC and contains current VTVs, this field displays the MVC's Storage Class. If no Storage Class was explicitly assigned through the `MGMTCLAS` statement, the default Storage Class is the name of the last VTSS that wrote to the MVC for reclamation or migration.

If VTCS receives a request to migrate a VTV that is assigned to an invalid Management Class, VTCS will dynamically create the `!ERROR` Storage Class and migrate the VTVs defined by the invalid Management Class to the `!ERROR` Storage Class. Use this Storage Class to identify and correct invalid Management Classes, drain the affected MVCs, and resubmit the request.

Initialized MVCs processed

the total number of initialized MVCs. Also includes a breakdown of the number of MVCs that are standard format or partitioned.

Non-Initialized MVCs processed

the number of non-initialized MVCs.

Non-library MVCs processed

the number of non-library MVCs processed.

MVC Detailed Report

The MVC detailed report provides all the fields from the MVC summary report and a separate section that lists additional fields. The following figure shows an example of these additional fields from an MVC detailed report.

Example 3-52 MVCRPt MVC detailed report (additional fields)

Vtv Volser	Size (MB)	Block Id	Management Class	Migration Date	Block Count	Message
DX0000	1802.24	0000/00000000	MF	2010Aug16	29078	
DX0001	282.62	0000/00007196	MF	2010Aug16	4567	
DX0002	3850.24	0000/0000836D-0001	MF	2010Aug16	62109	
DX0003	1802.24	0001/0001760A	MF	2010Aug16	29077	
DX0004	2764.80	0001/0001E79F-0002	MF	2010Aug16	44602	
DX0005	778.24	0002/000295D9	MF	2010Aug16	12561	
DX0006	1802.24	0002/0002C6EA	MF	2010Aug16	29077	
DX0007	180.22	0002/0003387F	MF	2010Aug16	2915	
DX0008	2826.24	0002/000343E2-0003	MF	2010Aug16	45593	
DX0009	3850.24	0003/0003F5FB-0004	MF	2010Aug16	62109	
DX0010	266.24	0004/0004E898	MF	2010Aug16	4303	
DX0011	3440.64	0004/0004F967-0005	MF	2010Aug16	55503	
DX0012	1290.24	0005/0005D236	MF	2010Aug16	20819	
DX0013	282.62	0005/00062389	MF	2010Aug16	4567	
DX0014	3850.24	0005/00063560-0006	MF	2010Aug16	62109	
DX0015	1802.24	0006/000727FD	MF	2010Aug16	29077	
DX0016	282.62	0006/00079992	MF	2010Aug16	4567	
DX0017	1802.24	0006/0007AB69	MF	2010Aug16	29077	
DX0018	2826.24	0006/00081CFE-0007	MF	2010Aug16	45593	
DX0019	778.24	0007/0008CF17	MF	2010Aug16	12561	
DX0020	1802.24	0007/00090028-0008	MF	2010Aug16	29077	
DX0021	2826.24	0008/000971BD	MF	2010Aug16	45593	
DX0022	3850.24	0008/000A23D6-0009	MF	2010Aug16	62109	
DX0023	282.62	0009/000B1673	MF	2010Aug16	4567	
DX0024	3850.24	0009/000B284A-000A	MF	2010Aug16	62109	

25 VTVs found for MVC:DMV600 Last migrate:2010Aug16 13:00:04
181 unused / 11 used partitions found for MVC:DMV600
Unused partitions :

```

-----
01E 01F 020 021 022 023 024 025 026 027 028 029 02A 02B 02C 02D 02E 02F 030 031 032 033 034 035 036 037 038 039 03A 03B
03C 03D 03E 03F 040 041 042 043 044 045 046 047 048 049 04A 04B 04C 04D 04E 04F 050 051 052 053 054 055 056 057 058 059
05A 05B 05C 05D 05E 05F 060 061 062 063 064 065 066 067 068 069 06A 06B 06C 06D 06E 06F 070 071 072 073 074 075 076 077
078 079 07A 07B 07C 07D 07E 07F 080 081 082 083 084 085 086 087 088 089 08A 08B 08C 08D 08E 08F 090 091 092 093 094 095

```

096 097 098 099 09A 09B 09C 09D 09E 09F 0A0 0A1 0A2 0A3 0A4 0A5 0A6 0A7 0A8 0A9 0AA 0AB 0AC 0AD 0AE 0AF 0B0 0B1 0B2 0B3
0B4 0B5 0B6 0B7 0B8 0B9 0BA 0BB 0BC 0BD 0BE 0BF

Fields

The `MVCRPT MVC` detailed report includes the following additional fields:

VTV Volser

the volsers of the VTVs on the MVC.

Size (MB)

the uncompressed size of the VTV (MB).

Block ID

the partition id and logical block ID of the beginning of the VTV on the MVC. If there are VTVs spanning partitions, the `spanned` to partition is shown to the right of the `blockid` location.

Management Class

the VTV's Management Class.

Migration Date

for migrates done by a 6.0 system or above only, the approximate date that the VTV copy was migrated. This date is approximate because it is recorded in the CDS as the number of days since VTV creation, and time zone adjustments can cause the value to slip a day.

Block Count

the decimal number of blocks of data that the VTV occupies on the MVC.

Message

reports the results of MVC integrity checking. Any message not listed below should be reported to Oracle, as it may indicate a serious problem with the CDS except messages that can appear if the MVC is being audited or has failed an audit while the MVC report is being run. An MVC report returns a minimum return code of 4 if any MVCs in audit state are encountered; the audit state also prevents some other errors from being reported.

`nnnn` empty space to previous

Explanation: Informational message, indicating that there are `nnnn` (decimal) blocks of free space before this VTV on the MVC.

Migrated size was not as expected

Explanation: If output for VTV `v` on MVC `m`, it indicates that the (compressed) size of VTV `v` migrated to MVC `m` was different to the (compressed) size of VTV `v` recorded in the CDS.

This is normal if VTV `v` had previously been recalled with error. Otherwise this indicates a possible error which should be reported to Oracle StorageTek software support.

Used/Unused Partitions

Summary of used and unused partitions for the MVC.

OFFload

Interfaces:

- SLUADMIN utility only
- UI Support: No

Subsystem Requirements:

Active HSC not required

Description

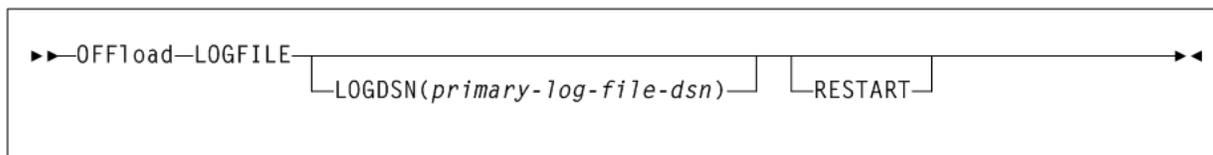
The OFFload command offloads transaction records from active log file(s) used by the HSC Transaction Logging Service and saves them in a sequential data set so that space in the log files can be reused.

If logging is currently active, you must run the OFFload LOGFILE utility to change log file names.

Syntax

Figure 3–127 shows OFFload command syntax.

Figure 3–127 OFFload command syntax



Parameters

As shown in Figure 3–127, the OFFload command includes the following parameters:

LOGFILE

This keyword is required. Generally, OFFload LOGFILE is issued without parameters. The utility selects the input log data set from the active log data sets as recorded in the CDS.

LOGDSN(primary-log-file-dsn)

optionally, offloads the log file without using or updating the CDS. Use this parameter in any case where the CDS is restored, or is otherwise considered to be unreliable.

primary-log-file-dsn indicates the data set name for the primary log file.

For example:

```
OFFLOAD LOGFILE LOGDSN(hsc.log1)
```

RESTART

optionally, restarts the offload, selecting the input log file from among the group of log data sets that were active when the failed offload started. It also uses the block number range used by the failed offload.

Use this parameter to recover the records from the log data set(s) that become inactive when a failed offload causes a log data set switch.

spaces, or any characters other than alphabetic, numeric, or national (for example, \$, @, #), it must be enclosed in quotes.

TRACE or TRACEF

optionally, used to control internal tracing of HSC table lookups. During problem resolution, Software Support may request that you specify one of these parameters.

OPTion

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

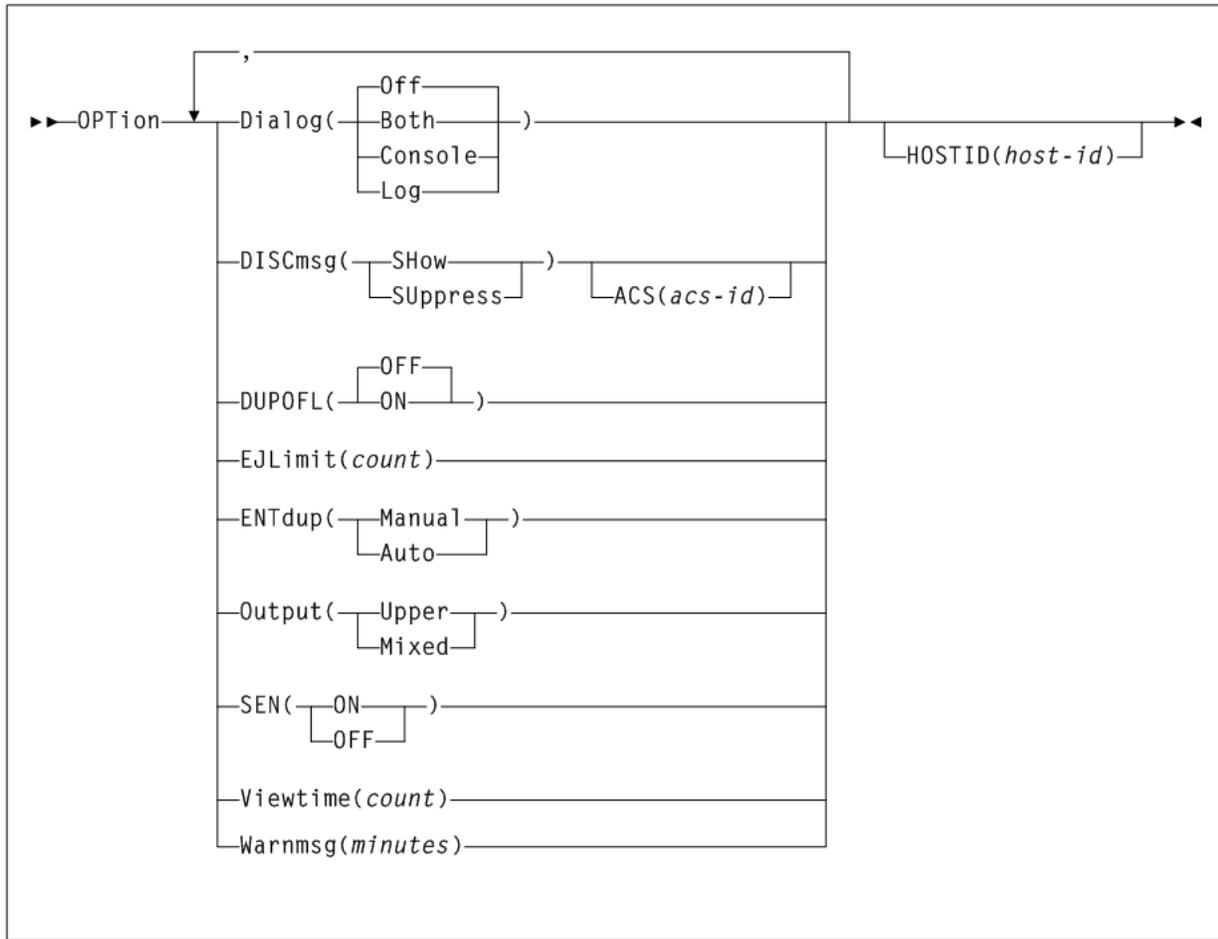
Description

The OPTion command sets or changes general HSC options.

Syntax

[Figure 3–129](#) shows OPTion command syntax.

Figure 3–129 OPTion command syntax



Parameters

As shown in [Figure 3–129](#), the `OPTion` command includes the following parameters:

Dialog

enables HSC messages to be written to the operator console and the system log, or to the operator console or system log individually. These messages indicate that the HSC is waiting for an active task to complete before the HSC terminates. The initial `Dialog` value is set by the `EXEC` statement during HSC startup.

Off

specifies that messages are not to be written. `Off` is the default value for the HSC if the `Dialog` parameter is not specified on the `EXEC` statement.

Both

specifies that messages are written to the system log and the operator console.

Console

specifies that messages are written to the operator console only.

Log

specifies that messages are written to the system log only.

DISCmsg

specifies whether the ACS *acs-id* is disconnected message (SLS1664A) is displayed for the specified ACS.

This option is useful when an ACS has been added to the LIBGEN in advance to provide for future expansion. Entering DISCmsg enables the user to turn off the display for those ACSs that will not be connected until later.

SHow

Displays the ACS *acs-id* is disconnected message (SLS1664A) for an ACS. This is the initial value.

SUppress

Suppresses the ACS *acs-id* is disconnected message (SLS1664A) for an ACS.

ACS(acs-id)

optionally, specifies the ACS for which the command applies. If ACS is not specified, the DISCmsg setting entered (Show or Suppress) applies to all ACSs.

acs-id indicates the decimal ACSid value (00-99). If ACS is not specified, all ACSs are affected.

DUPOFL

optionally, enables the duplicate VOLSER process to continue when the VOLSER being entered into the CAP shows in the CDS that it exists in an ACS that is disconnected, or in an LSM that is offline.

OFF

disables the duplicate VOLSER process. This is the default.

ON

enables the duplicate VOLSER process.

EJLimit(count)

indicates the maximum number of cartridges that can be specified on one EJECT command.

count indicates the limit. Allowable values are 1 through 9999. The initial value for the HSC is 100.

ENTdup

specifies whether the HSC prompts the operator when an enter operation finds a duplicate VOLSER in the control data set, but cannot locate the cartridge in the ACS.

When someone attempts to enter a cartridge with a VOLSER that duplicates an entry in the control data set, the HSC attempts to locate the original cartridge. The ENTdup option determines how the HSC responds when the cartridge is not in its home cell, is not selected, and is not errant.

Auto

instructs the HSC to delete the cartridge in the control data set and allow the enter to continue.

Manual

instructs the HSC to issue a console message when a duplicate VOLSER is entered. The message prompts the operator to decide whether the HSC should delete the cartridge in the control data set and allow the enter to continue, or eject the duplicate cartridge. Manual is the initial value for the HSC.

Output

specifies whether the output messages are displayed on the console in uppercase or mixed case.

Upper

specifies uppercase. *Upper* is the initial value for the HSC.

Mixed

specifies mixed case.

SEN

enables or disables the Significant Event Notification (SEN) facility. Refer to Oracle's ELS publication *ELS Programming Reference* for more information about the SEN.

ON

enables the SEN.

OFF

disables the SEN.

Viewtime(count)

specifies the length of time in seconds the system is to hold an LSM camera in one location when the *VIew* command is issued. See "[VIew](#)" on page 3-352 for more information.

count indicates the number of seconds. Allowable values for count are decimal in the range from 5 through 120. The initial value for the HSC is 10 seconds.

The *VIew* command enables the user to override the *OPTion Viewtime* setting for a single viewing operation.

An SMF record (subtype 8) is written when the *VIew* command is issued to document robot activity.

Warnmsg(minutes)

sets the number of minutes between scratch depletion messages.

minutes indicates the number of minutes. Allowable values for minutes are 1 through 65535. The initial value is 5 minutes.

HOSTID(host-id)

optionally, identifies the host associated with the *OPTion* command. This enables you to restrict certain startup options to a specific host.

If this parameter is not specified, the command options are applied to each host that accesses *PARMLIB*.

host-id indicates the host identifier (the SMF system identifier for JES).

Note: If the *host-id* does not match the host executing the command, a message is issued and the command is not processed.

RECall

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

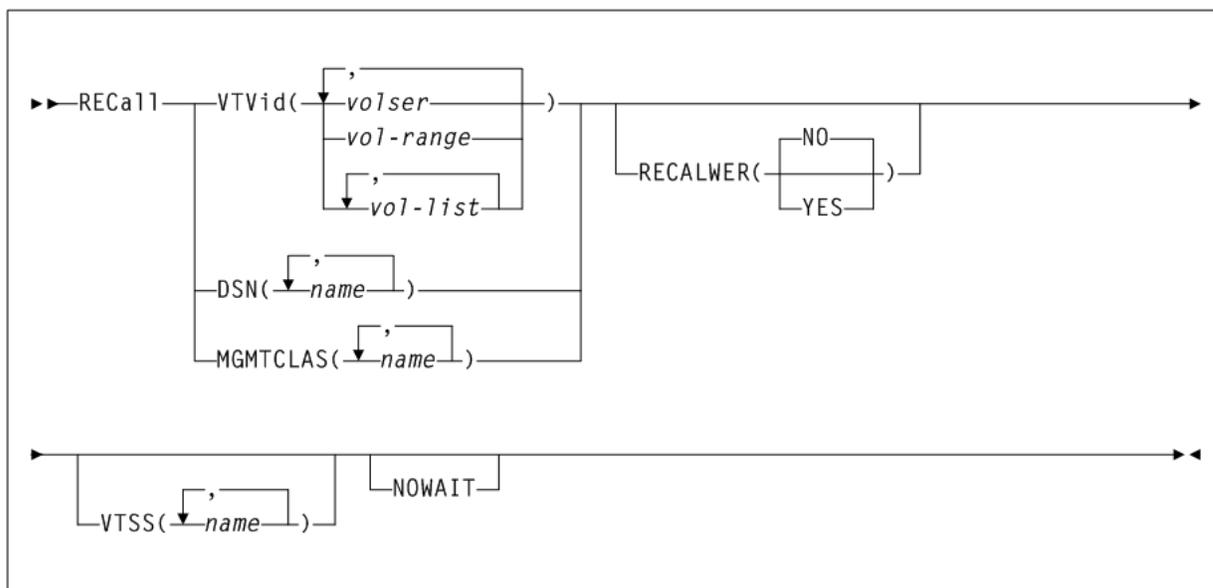
Active HSC/VTCS

Description

The RECall command performs demand recalls of VTVs to a VTSS.

Syntax

Figure 3–130 shows RECall command syntax.

Figure 3–130 RECall command syntax**Parameters**

As shown in Figure 3–130, the RECall command includes the following parameters:

VTVID(volser, vol-range, or vol-list)

specifies the VTVs to recall.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs. You can also specify one or more ranges.**DSN(name)**

specifies data sets used to select VTVs to recall.

name indicates the data set name. Table 3–12 describes the valid wildcards for data set names.**MGMTCLAS(mgmt-class-name or mgmt-class-list)**

specifies one or more Management Classes that determine one or more VTVs to recall.

mgmt-class-name or *mgmt-class-list* indicates the names of one or more Management Classes that you defined on the MGMTclas control statement. For more information, see "MGMTclas Control Statement" on page 3-212.

MGMTCLAS, VTVID, and DSN are mutually exclusive.

RECALWER

optionally, specifies whether VTCS recalls VTVs with read data checks.

NO

Do not recall VTVs with read data checks. This is the default.

YES

Recall VTVs with read data checks.

VTSS(*vtss-name*)

specifies where the VTVs are recalled as follows:

- If you do not specify a VTSS (the default), VTCS attempts to recall the VTVs to the VTSS of creation if it is accessible. Otherwise VTCS recalls the VTVs to the VTSS with the lowest DBU.
- If you specify a single VTSS, VTCS attempts to recall the VTVs to the specified VTSS if it is accessible. Otherwise, VTCS recalls the VTVs to the VTSS with the lowest DBU.
- If you specify a list of VTVs, VTCS attempts to recall the VTVs to the VTSS of creation if it is on the list and accessible, otherwise VTCS recalls the VTVs to the VTSS with the lowest DBU on the list.

vtss-name indicates the names of one or more VTSSs.

NOWAIT

optionally, specifies that the utility does not wait for the operation to complete and returns after the request is submitted.

RECLaim

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

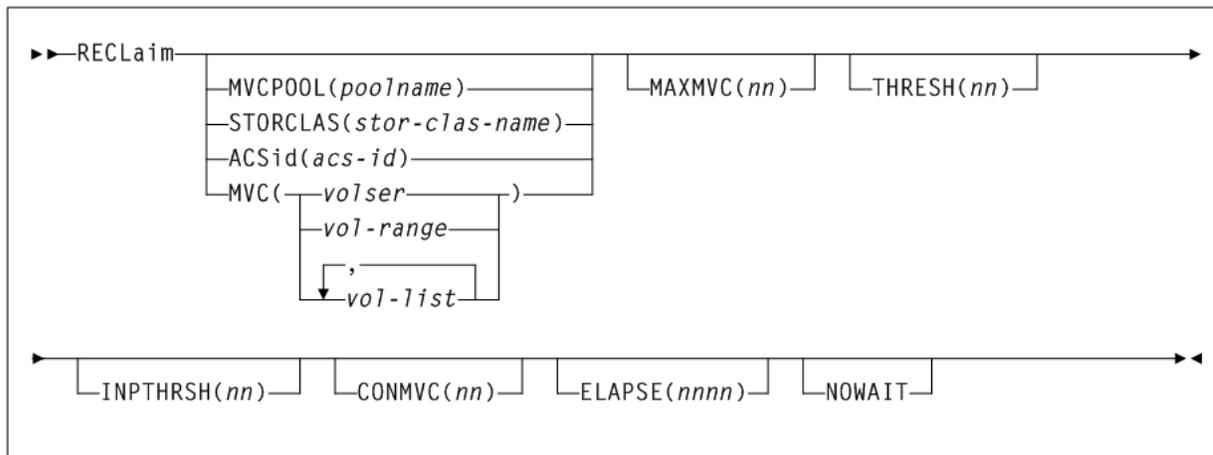
Description

The RECLaim command performs demand MVC space reclamation. This command can also override the CONFIG RECLaim settings for the THRESHLD, INPTHRSH, MAXMVC, and CONMVC parameters.

Syntax

[Figure 3–131](#) shows RECLaim command syntax.

Figure 3–131 RECLaim command syntax



Parameters

As shown in Figure 3–131, the RECLaim command includes the following parameters:

MVCPOOL(poolname)

reclaim the MVCs in the specified Named MVC Pool.

poolname indicates the name of a Named MVC Pool that you defined on the MVCPool control statement. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for more information.

STORCLAS(stor-clas-name)

reclaim the MVCs in the specified Storage Class.

stor-clas-name indicates the name of a Storage Class that you defined on the STORclas control statement; for more information, see "[STORclas Control Statement](#)" on page 3-226.

ACSid(acs-id)

reclaim the eligible MVCs in the specified ACS.

acs-id indicates a two digit decimal ACS identifier from 00-99.

MVC(volser, vol-range, or vol-list)

reclaim the specified MVC(s).

volser, *vol-range*, or *vol-list* indicates the volsers of one or more MVCs. You can also specify individual MVCs and ranges in a list. For example:

```
(MVC000-MVC005, MVC010, MVC015)
```

MAXMVC(nn)

optionally, specifies the maximum number of MVCs that will be processed by a single space reclamation task.

nn indicates the maximum number of MVCs. Valid values are 1 to 98. There is no default; if not specified, the CONFIG RECLAIM value (or default) is used.

For automatic space reclamation to start, the number of eligible MVCs (determined by the THRESH parameter) must also exceed the MAXMVC value.

THRESH(nn)

optionally, specifies the percentage of fragmented space that makes an MVC eligible for demand or automatic reclamation.

nn indicates the percentage of fragmented space. Valid values are 4 to 98. If not specified, the `CONFIG RECLAIM` value (or default) is used.

INPTHRSH(nn)

optionally, specifies the percentage of fragmented space that makes an MVC in partitioned format eligible for dynamic reclaim processing. This value overrides the global `INPTHRSH` value specified in the `CONFIG RECLAIM` statement. If this parameter is not specified, the current active global `INPTHRSH` value is used.

nn indicates a percentage between 3 and 97. This value must be less than the `THRESHLD` value.

Note: If `INPTHRSH` is specified, `THRESHLD` must also be specified. Both `INPTHRSH` and `THRESHLD` play roles when space reclamation processes MVCs in partitioned format. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.

CONMVC(nn)

optionally, specifies the maximum number of MVCs that VTCS concurrently processes for both drain and reclaim.

nn indicates the number of MVCs. Valid values are 1 to 99. If not specified, the default is the `CONMVC` value specified on the `CONFIG RECLAIM` statement.

ELAPSE(nnnn)

optionally, specifies the maximum time for the reclaim in minutes. If the maximum time expires, VTCS issues message `SLS6682I`. If there are no MVCs currently mounted, reclaim stops when the `ELAPSE` value is reached. If any MVCs are currently mounted when the `ELAPSE` value is reached, reclaim processes the mounted MVCs and then stops.

nnnn indicates the reclaim time in minutes. Valid values are 1 to 1440. If not specified, there is no time limit on the reclaim process.

NOWAIT

optionally, specifies that the utility does not wait for the operation to complete and returns after the request is submitted.

RECONcil

Interfaces:

- Utility only
- UI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

The `RECONcil` command reconciles VTV media and location (moves VTVs from one Storage Class to another).

RECONcil performs a series of cross-checks between the MVCs, VTVs, STORCLAS and MGMTCLAS definitions.

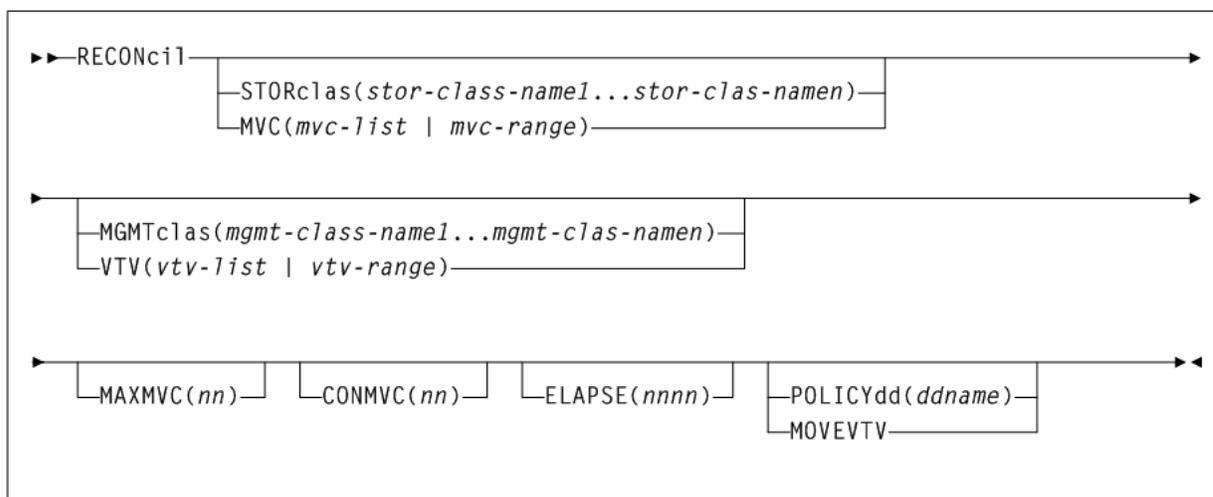
RECONCIL has two phases:

- In the first phase, VTCS selects MVC and Storage Classes to be checked. MVCs are checked to ensure they meet the Storage Class definitions and ACS definitions. If inconsistencies are found, then the VTVs on those MVCs are added to the list of VTVs to be recalled and re-migrated to give correct MVC, ACS and Storage Class copies for that VTV. The RECONcil parameters STORCLAS and MVC limit the checking in this phase.
- In the second phase, VTCS selects the VTVs and Management Classes to establish the correct number and location of VTV copies. Any VTVs with inconsistencies are added to the list of VTVs to be recalled and re-migrated. The RECONcil parameters MGMTCLAS and VTV limit the checking in this phase.

Syntax

Figure 3–132 shows RECONcil command syntax.

Figure 3–132 RECONcil command syntax



Parameters

The STORclas and MVC parameters limit the first phase of checking to the specified Storage Classes or MVCs. If STORclas or MVC are not specified, VTCS checks all MVCs by default.

As shown in Figure 3–132, the RECONcil command includes the following parameters:

STORclas(stor-class-name1...stor-class-namen)

optionally, specifies one or more Storage Classes.

stor-class-name1...stor-class-namen indicates one or more Storage Classes.

MVC(mvc-list or mvc-range)

a list or range of MVCs. This parameter is mutually exclusive with STORclas.

mvc-list or *mvc-range* indicate a list or range of MVCs.

MGMTclas(mgmt-class-name1...mgmt-class-namen)

optionally, specifies one or more Management Classes. This parameter is mutually exclusive with `VTVID`.

mgmt-class-name1...mgmt-class-namen indicates one or more Management Classes.

VTV(vtv-list or vtv-range)

optionally, specifies a list or range of VTVs. This parameter is mutually exclusive with `MGMTCLAS`.

vtv-list or *vtv-range* indicates a list or range of VTVs.

MAXMVC(nn)

optionally, specifies the maximum number of MVCs that will be processed by a single reconciliation task.

nn indicates the number of MVCs. Valid values are 1 to 98. If not specified the `CONFIG RECLAIM` value (or default) is used. This parameter is ignored if `MOVEVTV` is not specified.

CONMVC(nn)

optionally, specifies the maximum number of MVCs that VTCS concurrently processes during subsequent recall and migrate operations.

nn indicates the number of MVCs. Valid values are 1 to 99. If not specified the `CONFIG RECLAIM` value (or default) is used. This parameter is ignored if `MOVEVTV` is not specified.

ELAPSE(nnnn)

optionally, specifies the maximum time for the reconciliation in minutes. If the maximum time expires, VTCS issues message `SLS6682I`. If there are no MVCs currently mounted, reconciliation stops when the `ELAPSE` value is reached. If any MVCs are currently mounted when the `ELAPSE` value is reached, reconciliation processes the mounted MVCs and then stops.

nnnn indicates the time in minutes. Valid values are 1 to 1440. If not specified, there is no time limit on the reconciliation process. This parameter is ignored if `MOVEVTV` is not specified.

PLICYdd(ddname)

optionally, specifies the DD name of a file containing an alternate `MGMTCLAS` statement. This parameter is mutually exclusive with `MOVEVTV`.

ddname indicates the DD name.

MOVEVTV

optionally, move VTVs per the currently active Management Policies as specified by the `MGMTCLAS` statements that apply to the VTVs. If you do not specify `MOVEVTV`, only a report is generated. (no VTVs are moved). This parameter is mutually exclusive with `POLICYDD`.

RECONcil Reports

The following shows examples of `RECONCIL` reports.

RECONcil Report (MOVEVTV Not Specified)

The following is an example of a `RECONCIL` report:

Example 3-53 RECONcil report (MOVEVTV not specified)

VTV	Size	Comp	<---Creation---	MGMT	MVC1	MVC2	MVC3	MVC4	Tapeplex	REASON			
Volser	(MB)	%	Date	Time	CLASS								
DX1000	358.4	0	2009Jan18	16:00:00	M5				SECONDARY	EEXPORT			
DX1001	358.4	0	2009Jan18	15:59:58	M5				SECONDARY	EEXPORT			
DX1008	358.4	0	2009Jan18	15:59:43	M5				SECONDARY	EEXPORT			
DX1009	358.4	0	2009Jan18	15:59:41	M5				SECONDARY	EEXPORT			
DX1010	358.4	0	2009Jan18	15:59:40	M5				SECONDARY	EEXPORT			
DX1011	25.6	0	2009Jan18	15:59:38	M5				SECONDARY	EEXPORT			
DX1020	358.4	0	2009Jan18	15:59:19	M5				SECONDARY	EEXPORT			
DX1021	358.4	0	2009Jan18	15:59:18	M5				SECONDARY	EEXPORT			
DX1024	358.4	0	2009Jan18	15:59:12	M5				SECONDARY	EEXPORT			
DX1025	358.4	0	2009Jan18	15:59:10	M5				SECONDARY	EEXPORT			
DX1028	358.4	0	2009Jan18	15:59:04	M6				SECONDARY	EEXPORT			
DX1029	358.4	0	2009Jan18	15:59:01	M6				SECONDARY	EEXPORT			
DX1032	358.4	0	2009Jan18	15:58:56	M6				SECONDARY	EEXPORT			
DX1033	358.4	0	2009Jan18	15:58:54	M6				SECONDARY	EEXPORT			
DX1036	358.4	0	2009Jan18	15:58:48	M5				SECONDARY	EEXPORT			
DX1037	358.4	0	2009Jan18	15:58:46	M6				SECONDARY	EEXPORT			
DX1050	51.2	0	2009Jan18	15:58:20	M5				SECONDARY	EEXPORT			
DX1051	51.2	0	2009Jan18	15:58:17	M5				SECONDARY	EEXPORT			
DX1052	51.2	0	2009Jan18	15:58:15	M5				SECONDARY	EEXPORT			
DX1053	51.2	0	2009Jan18	15:58:14	M5				SECONDARY	EEXPORT			
DX1054	51.2	0	2009Jan18	15:58:12	M5				SECONDARY	EEXPORT			
DX1055	51.2	0	2009Jan18	15:58:10	M6				SECONDARY	EEXPORT			
DX1056	51.2	0	2009Jan18	15:58:08	M6				SECONDARY	EEXPORT			
DX1057	51.2	0	2009Jan18	15:58:06	M6				SECONDARY	EEXPORT			
DX1058	51.2	0	2009Jan18	15:58:04	M6				SECONDARY	EEXPORT			
DX1059	51.2	0	2009Jan18	15:58:02	M6				SECONDARY	EEXPORT			
Total VTVs =			26	Total Size =	5913MB								
SLUADMIN (7.2.0) StorageTek Enterprise Library Software Utility PAGE 00003													
TIME 08:06:35 Reconcile Tapeplex Report DATE 2015-01-19													
Tapeplex Candidate VTVs Total VTV size (MB)													
SECONDARY	26	5913.60											
DX1000	DX1001	DX1008	DX1009	DX1010	DX1011	DX1020	DX1021	DX1024	DX1025	DX1028	DX1029	DX1032	DX1033
DX1036	DX1037	DX1050	DX1051	DX1052	DX1053	DX1054	DX1055	DX1056	DX1057	DX1058	DX1059		
Total tapeplexes =			1	Total Size =	5913MB								
SLS0155I Condition code for utility function is 0													

Fields

The RECONcil report includes the following fields:

VTV volser

the VTV volser.

Size (MB)

The uncompressed size of the VTV (MB). <MOUNT> indicates that the VTV was mounted when the report ran. <FENCED> indicates that the VTV's state is unknown. If <FENCED> appears, contact Oracle StorageTek Software Support.

Comp %

The VTV compression percentage achieved. This is the difference between the uncompressed and compressed VTV size expressed as a percentage of the uncompressed VTV size. For example if a 100MB VTV compresses to 40MB then the compression% will be given as 60%. A compression of 0% indicates that no compression was possible on the VTV.

Creation Date and Time

The date and time that the VTV was created.

MGMT Class

The name of the Management Class for the VTV specified.

MVC1, MVC2, MVC3, MVC4

The MVC(s) affected as a result of the Reconcil.

Tapeplex

The TapePlex name.

Reason

The reason for the VTV selection: media type, media location, migration (space release), immediate migration, or Storage Class.

The RECONcil Tapeplex Report section displays the number of candidate VTVs and Total VTV size (MB) for each TapePlex.

MVC Report Fields

The following list describes the RECONcil MVC report fields. The data for each MVC is followed by one or more VTV volser with copies on the MVC. This section of the report is followed by a total line showing the number of candidate MVCs and the size in MB to be recalled and remigrated:

MVC Volser

The MVC volser.

MVC Media Type

The MVC type.

Media Size (MB)

The size of the MVC (MB). This will only be determined after VTCS has used an MVC. UNKNOWN appears in this field until VTCS migrates a VTV to the MVC.

Storage Class/Consolidate time

The MVC's Storage Class or time the VTVs on it were consolidated.

Candidate VTVs

The number of candidate VTVs on the MVC.

Total VTV Size (MB)

The size of all candidate VTVs on the MVC in MBs.

Location (ACS ID)

The ACS where the MVC resides. If blank, the MVC is not currently in an ACS.

RECONcil MOVEVTV Report

The following is an example of a RECONcil report produced by the RECONcil command issued with the MOVEVTV parameter:

Example 3-54 RECONcil MOVEVTV report

```
Move VTV - MVC 022705 ignored, MAXMVC reached
Move VTV - VTV X04898 ignored, all MVC copies rejected
Move VTV - 4 MVCs selected for processing
Move VTV - 5 VTVs selected for processing
Move VTV - 5 VTV copies to be processed
Move VTV - 0 VTV copies not matched to request
Move VTV - 1 VTV copies rejected by MAXMVC limit
Move VTVs - MVC 023484 selected and contains 1 VTVs
Move VTVs - MVC 022628 selected and contains 1 VTVs
Move VTVs - MVC 022631 selected and contains 2 VTVs
Move VTVs - MVC 022608 selected and contains 1 VTVs
```

```
Recall from MVC 022628 to VTSS HBVTSS17
SLS6683I Bulk recall of 1 VTVs issued to MVC 022628
```

```
SLS6644I VTV X99909 recalled from MVC:022628 Block:25401431
SLS6637I Recall from MVC 022628 completed
```

```
Recall from MVC 023484 to VTSS HBVTSS17
SLS6683I Bulk recall of 1 VTVs issued to MVC 023484
SLS6644I VTV X04897 recalled from MVC:023484 Block:02402581
SLS6637I Recall from MVC 023484 completed
```

```
Recall from MVC 022608 to VTSS HBVTSS16
SLS6683I Bulk recall of 1 VTVs issued to MVC 022608
SLS6637I Recall from MVC 022608 completed
```

```
Migrate to storage class HBVTSS16 from VTSS HBVTSS17
SLS6681I VTV X99909 migrated to MVC:022589 Block:01400025 StorCl:HBVTSS17 MgmtCl:SIMPLEX
SLS6636I Demand migration to MVC 022589 completed
```

```
Recall from MVC 022631 to VTSS HBVTSS16
SLS6683I Bulk recall of 2 VTVs issued to MVC 022631
SLS6644I VTV X99910 recalled from MVC:022631 Block:03400141
SLS6644I VTV X99908 recalled from MVC:022631 Block:05400281
SLS6637I Recall from MVC 022631 completed
```

RECOVer

Interfaces:

- Console or PARMLIB
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

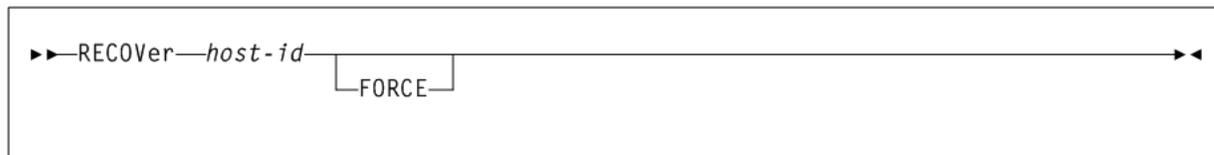
Description

The RECOVer command recovers the resources owned by a host that becomes inoperable. Cross-host recovery frees library resources that are owned by the failing host, and transfers that ownership to the recovering host. These resources include CAPs, which can be activated by only one host at a time, and volumes, which are assigned to a particular host while moving or mounting.

Syntax

Figure 3–133 shows RECOVer command syntax.

Figure 3–133 RECOVer command syntax



Parameters

As shown in Figure 3–133, the RECOVer command includes the following parameters:

host-id

identifies the host for which to perform recovery (the SMF system identifier for JES).

FORCE

optionally, indicates that recovery is to be performed for the specified host even if the HSC has not detected that the host is inactive. This enables the recovery of a host when the active flag for that host is still on.

Caution: Use the `FORCE` operand with great caution. Make sure the specified host is inactive before specifying this operand. Forced recovery of an active host requires that the HSC on that host be recycled. All database activity is prohibited on the recovered host, which can cause unexpected abends when tape activity occurs, or when the HSC is recycled on that host.

RELease

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at `FULL` service level

Description

The `RELease` command frees an allocated CAP, making it available for other processes, without requiring a recycle of all HSCs sharing the control data set.

A CAP can be left allocated to a host if the HSC on that host terminated without performing recovery while the CAP was active.

This command can be issued from any connected host. The operator is required to confirm the release operation by responding to a console message.

Caution: Use this command as a last resort. Ensure the CAP is not being used by another active process. Issuing the `RELease` command on an active CAP may cause the process using the CAP to receive errors.

Syntax

Figure 3–134 shows `RELease` command syntax.

Figure 3–134 *RELease command syntax*

The diagram shows the command syntax for the `RELease` command. It consists of the command name `RELease` followed by a hyphen and the parameter `cap-id`. The entire command is enclosed in a rectangular box with a double arrow pointing right at the end, indicating that the parameter `cap-id` can be a long string of characters.

Parameters

As shown in Figure 3–134, the `RELease` command includes the following parameters:

- UUI Support: No

Subsystem Requirements:

HSC must be down (inactive)

Description

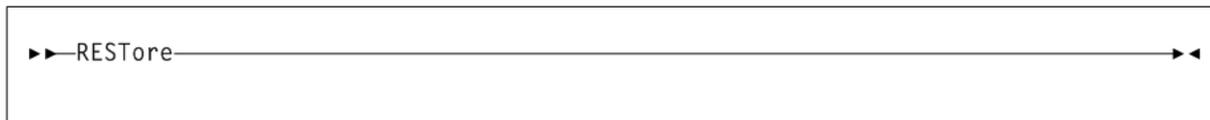
The `RESTore` command restores, or re-creates the library Control Data Set (CDS) from a previous CDS backup copy. If multiple CDS DD statements are specified, then multiple CDS copies are created in the `RESTore` process.

Caution: It is critical that you restore all data sets referenced by the HSC (primary, secondary, standby). Failing to restore all data sets can cause CDS mismatches. Refer to Oracle's ELS publication *Managing HSC and VTCS* for detailed information about when to use this utility and how it functions.

Syntax

Figure 3–136 shows `RESTore` command syntax.

Figure 3–136 *RESTore command syntax*



Parameters

None.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the `RESTore` JCL:

SLSCNTL

specifies the primary CDS.

SLSCNTL2

optionally, specifies the secondary CDS.

If a secondary CDS exists, include this statement so that if a switch occurs and the secondary CDS becomes active, the CDSs can be reordered to maintain database integrity.

SLSSTBY

optionally, specifies the standby CDS.

If a standby CDS exists, include this statement so that if a switch occurs and the standby CDS becomes active, the CDSs can be reordered to maintain database integrity.

SLSBKUP

the backup data set.

SCRAtch**Interfaces:**

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

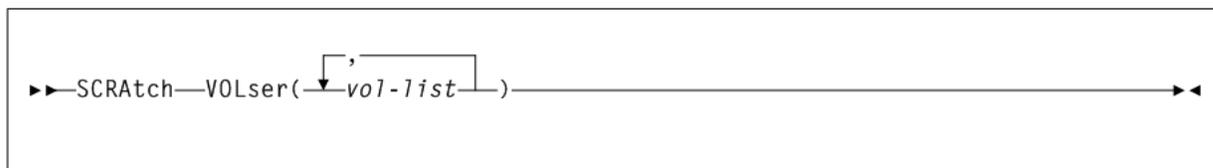
Description

The SCRAtch command scratches one or more volumes.

Syntax

Figure 3–137 shows SCRAtch command syntax.

Figure 3–137 SCRAtch command syntax

**Parameters**

As shown in Figure 3–137, the SCRAtch command includes the following parameters:

VOLser(vol-list)

specifies the list of volume serial numbers to be added, deleted, or replaced in the scratch list(s).

vol-list indicates the volume serial numbers; this can be a single volume, a list of volume serial numbers, ranges of volume serial numbers, or combinations of lists with ranges delimited by commas. You can specify a maximum of 100 volume serial numbers. The entire list must be enclosed in parentheses.

SCREdist**Interfaces:**

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

Description

The SCREdist command redistributes, or balances, the number of scratch volumes across the library.

SCREdist permits the redistribution of scratch volumes either:

- among LSMs implied by the specification of an ACS, or
- among the LSMs explicitly identified through an optional parameter.

SCREdist enables you to select one media type and recording technique. If specified, scratch volume redistribution will be based on the MEDia and RECTech settings.

If neither MEDia nor RECTech is specified, volumes are redistributed without regard to media type or recording technique.

When only the ACS parameter is specified, the redistribution method transfers cartridges from LSMs with a greater number of scratch volumes to LSMs with a lesser number of scratch volumes. The process is repeated until the number of scratch volumes in each LSM is within the defined scratch tolerance level.

Distribution in an ACS containing a mix of LSMs (4410s, 9310s, 9360s, 9740s) is performed based on a percentage of scratch cartridges in the ACS. That is, the utility causes each LSM to have the same percentage of scratch tapes within the ACS as the LSM has cells within the ACS. For example, in an ACS where a 9310 LSM contains 80 percent of the cells within the ACS, 80 percent of the scratch tapes will reside in the 9310.

Note: The SL3000 and SL8500 are standalone libraries and cannot be combined with any other LSM type.

After Scratch Redistribution is completed, only the specified LSMs contain scratch cartridges, if the LSM parameter was specified.

Concurrent redistributions among different ACSs are accomplished by multiple executions of this utility program.

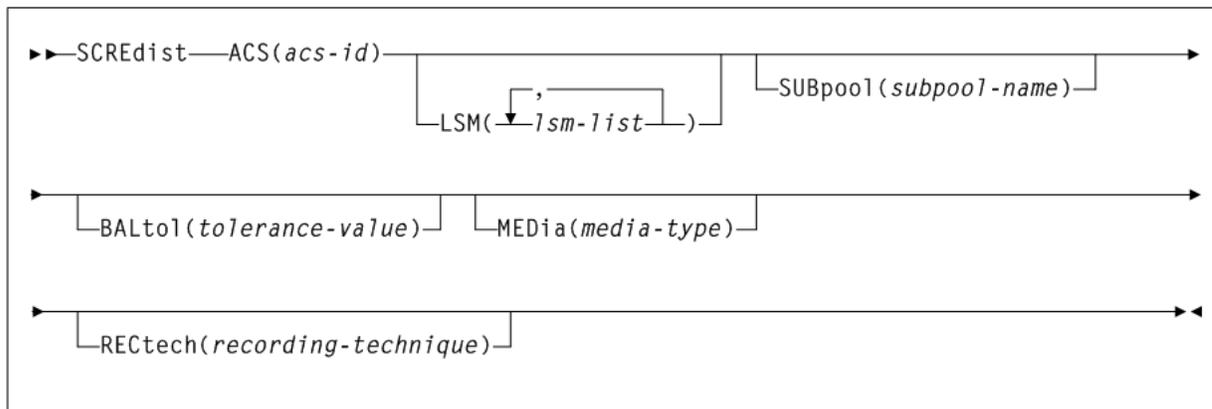
Redistribution moves non-scratch cartridges to make space for scratch cartridges. The actual number of scratch cartridges moved may vary depending on the number of free cells and the number of scratch cartridges available.

Note: Cartridges cannot be transferred to a frozen panel.

Syntax

Figure 3–138 shows SCREdist command syntax.

Figure 3–138 SCREdist command syntax



Parameters

As shown in Figure 3–138, the SCREdist command includes the following parameters:

ACS(acs-id)

specifies one ACS in the library in which the scratch volumes are to be redistributed.

acs-id indicates the ACS. The one or two digit decimal ACS identifier.

LSM(lsm-list)

optionally, specifies that only certain LSMs within an ACS are to contain scratch cartridges (if not specified, scratch volumes are redistributed across all LSMs in the ACS).

lsm-list indicates a single LSM or a list of LSMids. An LSMid (*lsm-id*) is made up of the ACSid (decimal 00-99) and the LSM number (decimal 00-99) separated by a colon (:). An LSM range is not allowed.

The element(s) contained in an *lsm-list* must be enclosed in parentheses; multiple elements must be separated by blanks or commas.

SUBpool(subpool-name)

optionally, specifies the subpool name from which scratch volumes are to be redistributed.

subpool-name indicates the subpool.

BALtol(tolerance-value)

optionally, specifies a balance tolerance value. Scratch volumes are distributed based on this specified value.

tolerance-value indicates a percent value that identifies when cartridge redistribution ends. Valid values are 1 through 999, where the values indicate a percentage from .1 to 99.9 (that is, 1 signifies .1 percent; 999 equals 99.9 percent). The initial value for the HSC is 1. If *tolerance-value* is not specified in this utility, HSC uses the initial value for scratch redistribution.

The utility finishes redistributing scratch cartridges when the percentage of scratch tapes in all specified LSMs is within *tolerance-value* / 2 percentage points of each LSM's percentage of cells in the ACS.

For example, assume an ACS has one 4410 LSM with 5,000 cells, one 9360 (WolfCreek) LSM with 1,000 cells, and 600 total scratch tapes in the ACS. Scratch Redistribution attempts to put 500 scratches in the 4410 and 100 scratches in the 9360.

Entering `BALtol(100)` specifies a setting of 10 percent, which means that the utility ends when all LSMs are within ± 5 percent of the expected number of scratches for each LSM (500 for the 4410, 100 for the 9360).

The expected number can be determined as follows:

$$\text{expnumlsm} = \text{totscracs} \times (\text{totcellslsm} / \text{totcellsacs})$$

where:

- `expnumlsm` indicates the expected number of scratches for each LSM.
- `totscracs` indicates the total number of scratches in the ACS.
- `totcellslsm` indicates the total number of cells in the LSM.
- `totcellsacs` indicates the total number of cells in the ACS.

In the previous example, the 4410 should have a range 470-530 scratches and the 9360 a range of 70-130. To determine the `BALtol` range:

$$\text{BALtol range} = \text{expnumlsm} + (\text{baltol}/1000 \times \text{totscracs}) \setminus 2$$

where:

- `BALtol range` indicates the range of balance tolerance value.
- `expnumlsm` indicates the expected number of scratches for each LSM (see above).
- `baltol` indicates the user-supplied percent value (*tolerance-value*) that specifies when scratch cartridge redistribution ends.
- `totscracs` indicates the total number of scratches in the ACS.

MEDia(media-type)

optionally, specifies the type of cartridge to redistribute across the ACS.

`media-type` indicates the media type

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid `media-type` values.

RECtech(recording-technique)

optionally, specifies the method used to record data tracks on the tape surface.

Note: If `RECtech` is not specified, the next scratch cartridge is selected depending on the `MEDia` type that has been specified.

`recording-technique` indicates the recording technique. See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid `recording-technique` values.

SCRIPT

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

- Active HSC not required

Description

The `SEnTer` command schedules an enter on a CAP that is currently allocated to an eject operation. The `SEnTer` command must be issued from the host that has the CAP allocated for ejecting cartridges.

Syntax

Figure 3–140 shows `SEnTer` command syntax.

Figure 3–140 `SEnTer` command syntax



Parameters

As shown in Figure 3–140, the `SEnTer` command includes the following parameters:

cap-id
cap-id indicates the CAP to use to enter the cartridge. One CAP must be specified and it must be allocated to the host issuing the `SEnTer` command.

The format of a *cap-id* is *AA:LL:CC*, where *AA:LL* indicates the LSMid, and *CC* indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

Note: The format of an LSMid is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

SET

The `SET` command enables you to change selected library configuration settings without performing a library reconfiguration. It performs operations directly on the control data set and does not require the HSC to be active.

Issue this command with any of the options listed in the following table. Each option is described individually, and in more detail, on the pages to follow.

Table 3–13 `SET` Options

Option	Description
CLNPRFX	cleaning cartridge prefix
COMPRFX	HSC/VTCS command prefix
DRVHOST	whether to allow all SMC client systems to use device addresses defined in the SMC <code>DRIVEMAP</code> command to influence allocation and request mounts and dismounts.
EJCTPAS	eject password
EJCTSKP	SL8500 Bulk CAP skip global setting
FREEZE	whether to disallow (freeze) or allow (unfreeze) additional cartridges to be stored on a panel or LSM
HOSTID	changes an old host id to a new host id

Table 3–13 (Cont.) SET Options

Option	Description
HSCLEVEL	specifies that the HSC active and release level indicators are to be cleared for the designated host
LOGFILE	defines primary and secondary log files to include logical transactions necessary to recover the CDS.
MAJNAME	specifies that the ENQ/DEQ/RESERVE QNAME is to be set
MIGOPT	changes the following VTCS migration parameters: <ul style="list-style-type: none"> ■ maximum and minimum concurrent automatic migration, immediate migration, and migrate-to-threshold tasks ■ high and low AMTs
NEWHOST	specifies that a new host is to be added
RMM	enables or disables the VTCS to DFSMSrmm interface
SCRLABL	specifies that the LMU station addresses are to be set
SLIDRIVS	specifies that the device numbers for the drives in a particular panel are being changed or added
SMF	specifies that the SMF record type used by the HSC is to be set
TAPEPLEX	specifies that the TapePlex is to be used
TCHNIQE	specifies that the control data set recovery technique is to be set
VAULT	The SET Vault utility is used to define the VAULT information of a server complex.
VAULTVOL	The SET VAULTVOL utility is used to define the VAULT Volume area
VOLPARM	The SET VOLPARM utility defines the volume and pool information of a server complex.
VOLPARM UPDATE	The SET VOLPARM UPDATE utility defines the changes to the volume and pool information for a server complex.
VOLPARM JOIN	The SET VOLPARM JOIN utility merges contiguous volume ranges defined on multiple VOLPARM statements into one new VOLPARM statement.

SET CLNPRFX

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET CLNPRFX command sets a cleaning prefix.

Note: HSC must be shut down on all systems before changing the cleaning prefix.

Syntax

Figure 3–141 shows SET CLNPRFX command syntax.

Figure 3–141 SET CLNPRFX command syntax

```
▶▶—SET—CLNPRFX(prefix)—————▶▶
```

Parameters

As shown in Figure 3–141, the SET CLNPRFX command includes the following parameters:

prefix

indicates a 3-character prefix for the cleaning cartridges. Valid characters are A-Z, 0-9, \$, #, and @.

Note: HSC must be shut down on all systems before changing the cleaning prefix.

SET CLNPRFX Procedure

To change a cleaning cartridge prefix:

1. Eject all cleaning cartridges from all ACSs. The HSC records information about cleaning cartridges in the CDS.
2. Terminate the HSC on all hosts.
3. Change the cleaning prefix using SET CLNPRFX.
4. Initialize the HSC on any desired hosts.
5. Enter new cleaning cartridges identified with the new prefix into all ACSs.

Note: It is preferable to enter new cleaning cartridges because a cartridge's select count is set to zero when it is ejected and reentered. The select count tracks the number of times a cleaning cartridge has been used.

SET COMPRFX

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET COMPRFX command sets a HSC/VTCS command prefix.

Syntax

Figure 3–142 shows SET COMPRFX command syntax.

Figure 3–142 SET COMPRFX command syntax

```
▶▶—SET—COMPRFX(cmdhex)————▶▶
```

Parameters

As shown in Figure 3–142, the SET COMPRFX command includes the following parameters:

cmdhex

indicates the 2-character hexadecimal code of the command prefix. Do not choose a value that conflicts with values assigned to other subsystems. The characters associated with each code are shown in Table 3–14.

The command prefix is not valid until the HSC or VTCS system is recycled.

Ensure that the prefix character used does not conflict with any of the following:

- another subsystem’s command prefix character (such as \$ or * for JES, or ; the delimiter for TSO).
- the command delimiter for MSP, specified as the value for the CMDELIM keyword in SYS1.PARMLIB (CONSOLxx) and described in the *Fujitsu MSP/EX Installation and Tuning Guide*.
- a JES line editing character as specified in the JES installation statements or default. For JES the initialization statement is CCOMCHR.

If you are running the HSC on a VM host that shares the CDS with a HSC running on MSP, ensure that your command prefix character does not conflict with any of the VM facilities, such as the CP line editing symbol. The following table maps command prefix codes to characters:

Table 3–14 Mapping of Command Prefix Codes to Characters

Hex	Character	Description
40	null	blank
4A		cent
4B	.	period
4C	<	less than
4D	(left parenthesis
4E	+	plus
4F		vertical bar
50	&	ampersand
5A	!	exclamation point
5B	\$	dollar sign
5C	*	asterisk
5D)	right parenthesis

Table 3–14 (Cont.) Mapping of Command Prefix Codes to Characters

Hex	Character	Description
5E	;	semicolon
5F		not symbol
60	-	minus
61	/	slash
6B	,	comma
6C	%	percent
6D	_	underscore
6E	>	greater than
6F	?	question mark
7A	:	colon
7B	#	crosshatch
7C	@	at sign
7E	=	equals sign
7F	"	double quote

If you specify a null command prefix (hexadecimal 40), you must use the MSP MODIFY command to perform any HSC operator command.

For example: F SLS0 MOUNT EDU050,B30

where:

- F is an abbreviation for the MSP MODIFY command.
- SLS0 is an HSC subsystem.
- MOUNT is an HSC operator command.
- EDU050 is a VOLSER ID.
- B30 is a designated tape drive.

SET DRVHOST

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET DRVHOST command directs SMC client systems to use drive addresses defined in the SMC DRIVemap command to influence allocation and request mounts and dismounts.

Note: See "DRIVemap" on page 2-21 for more information about the SMC DRIVemap command.

Syntax

Figure 3–143 shows SET DRVHOST command syntax.

Figure 3–143 SET DRVHOST command syntax



Parameters

As shown in Figure 3–143, the SET DRVHOST command includes the following parameters:

OFF

indicates that each HSC reports device addresses to SMC clients based on drives defined for that host in the HSC SLILIBRY LIBGEN macro.

host-id

a host name defined in the CDS.

SET EJCTPAS

Interfaces:

- SLUADMIN utility only
- UI Support: No

Subsystem Requirements:

Active HSC not required

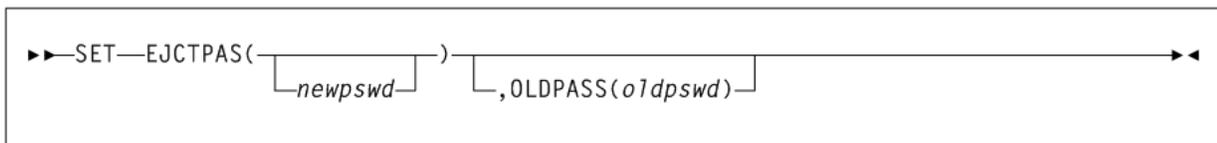
Description

The SET EJCTPAS command sets a HSC eject password. This password is not valid until the HSC system is recycled.

Syntax

Figure 3–144 shows SET EJCTPAS command syntax.

Figure 3–144 SET EJCTPAS command syntax



Parameters

As shown in [Figure 3–144](#), the SET EJCTPAS command includes the following parameters:

newpswd

a 1- to 8-character eject password.

The new password must be alphanumeric: A-Z (capital letters only) and 0-9. If *newpswd* is omitted, eject password checking is disabled.

Note: *newpswd* is not displayed on SLSPRINT.

,OLDPASS(oldpswd)

specifies that the old eject password is being specified. The old password must be specified to change or delete a password. To delete an old password, omit it from the syntax, that is, `OLDPASS()`. If there is not currently an eject password, this parameter can be omitted.

oldpswd indicates the 1-to 8-character old eject password.

Note: *oldpswd* is not displayed on SLSPRINT.

SET EJCTSKP

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

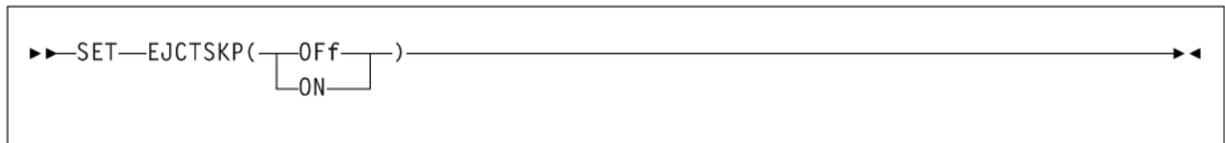
Description

The SET EJCTSKP command enables or disables the SL8500 Bulk CAP global setting that requests the EJECT process skip the last slot of the magazines on rails 1-3 and the first slot of rail 4. These empty cells provide the ability to more easily remove the magazine from the CAP.

Syntax

[Figure 3–145](#) shows SET EJCTSKP command syntax.

Figure 3–145 SET EJCTSKP command syntax



Parameters

As shown in [Figure 3–145](#), the SET EJCTSKP command includes the following parameters:

OFF

Disables this setting for all Bulk CAPs.

ON

Enables this setting for all Bulk CAPs.

Note: Refer to Oracle's ELS publication *Configuring HSC and VTCS* for information about how to change CAP types from SL8500 standard rotational CAPs to Bulk CAPs, or vice versa.

SET FREEZE**Interfaces:**

- SLUADMIN utility only
- UI Support: No

Subsystem Requirements:

Active HSC not required

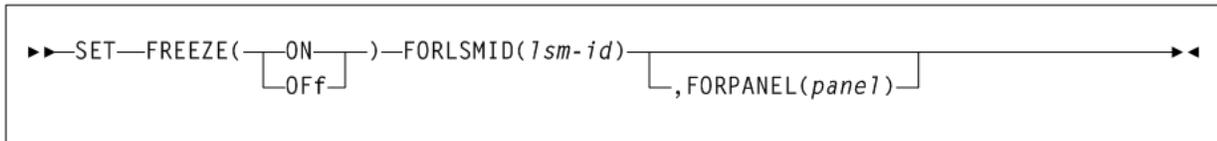
Description

The `SET FREEZE` command specifies whether to disallow (freeze) or allow (unfreeze) additional cartridges to be stored on a panel or LSM.

Syntax

Figure 3–146 shows `SET FREEZE` command syntax.

Figure 3–146 *SET FREEZE command syntax*

**Parameters**

As shown in Figure 3–146, the `SET FREEZE` command includes the following parameters:

ON

specifies to freeze a panel or LSM, which prevents additional cartridges from being moved to it. This restriction includes allocating new cartridge locations on a panel or LSM as a result of the following:

- a `MOVE` command, utility, or `PGMI` request
- cartridge entry into the ACS
- float, scratch dismount, or scratch redistribution processing.

If a cartridge on a frozen panel is selected (for example, through a mount request), it may be returned to its home cell on the frozen panel after fulfilling the request.

Cartridges already located on a frozen panel or LSM must be deliberately moved off using the `MOVE` command, utility, or `PGMI` request, or cartridges can be ejected by running the `EJECT` command or `EJECT` utility.

OFF

specifies to unfreeze a panel or LSM, which enables additional cartridges to be moved to it.

FORLSMID(*lsm-id*)

specifies that the operation is being restricted to a specific panel or LSM.

lsm-id indicates the LSMid (*AA:LL*) of the LSM being frozen or unfrozen. An LSMid (*lsm-id*) is made up of the ACSid (decimal 00-99) and the LSM number (decimal 00-99) separated by a colon (:).

FORPANEL(*panel*)

optionally, specifies that the operation is being restricted to a specific panel.

panel indicates the 2-digit ID of the panel to be frozen or unfrozen. The specified panel must be an existing drive panel in the LSM. See "Panels" on page B-2 for a list of valid values.

Note:

- If frozen panels already exist in an LSM, and then you freeze the entire LSM, all panels will be unfrozen when you unfreeze the LSM.

If you want some panels to remain frozen after unfreezing the entire LSM, you can add `SET FREEZE ON FORLSMID FORPANEL` statements to the same `SLUADMIN JOBSTEP`.

- When an LSM is frozen, no new cell allocations occur. However, any cartridge from the frozen LSM that is currently mounted on a drive will return to its home cell.
- Frozen or unfrozen panels and LSMs are recognized immediately by all active HSCs. It is not necessary to stop and reinitialize active HSCs to detect changes made by `SET FREEZE`.

On a frozen panel, if a panel type is changed by running the `MERGEcds` or `Reconfiguration` utility, the new panel is not frozen. If the panel type did not change, the panel remains frozen after a merge or reconfiguration.

SET HOSTID**Interfaces:**

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

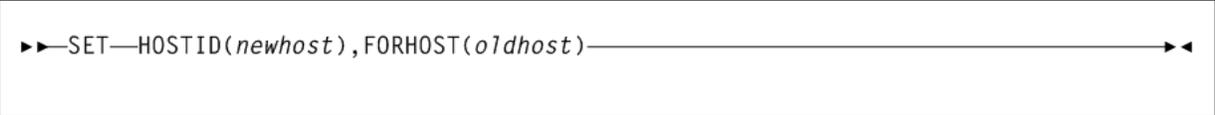
The `SET HOSTID` command renames a host ID.

Note: If other hosts are active at the time of the host name change, some messages on those active hosts may display the old host name. After the HSC is restarted on those hosts, the new host name appears in the messages.

Syntax

Figure 3–147 shows SET HOSTID command syntax.

Figure 3–147 SET HOSTID command syntax



```
▶▶ SET HOSTID(newhost), FORHOST(oldhost) ◀◀
```

Parameters

As shown in Figure 3–147, the SET HOSTID command includes the following parameters:

HOSTID(newhost)

specifies that the old host ID is being changed to a new name.

newhost indicates a 1-8 character host ID, which represents the SMF system ID for JES. *newhost* cannot already be defined in the CDS.

FORHOST(oldhost)

specifies the old host ID.

oldhost indicates a 1-to 8-character host ID. This host must not be marked active in the CDS. A HSC can be down but still marked active. SET HOSTID would fail to run. To be marked inactive, the HSC, in the host that is down, must be brought up and then shut down. Also, another host could perform cross-host recovery on the HSC that is down, but marked active. Either of these change the status in the CDS of the down HSC from active to inactive. See "SET HSCLEVEL" on page 3-306 for information about resetting operating flags.

Note: You must delimit the HOSTID (*newhost* or *oldhost*) with quotes when this ID is in lowercase.

SET HSCLEVEL

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET HSCLEVEL command clears HSC active and release level indicators for a designated host.

Note: If used, HSCLEVEL should be performed only when the host designated in *host-id* is inactive.

These indicators remain set after an abrupt termination of the HSC has occurred. For example, a cancellation of the HSC or a failure of the operating system.

Syntax

Figure 3–148 shows SET HSCLEVEL command syntax.

Figure 3–148 SET HSCLEVEL command syntax

```
▶▶—SET—HSCLEVEL(OFF),FORHOST(host-id)—————▶▶
```

Parameters

As shown in Figure 3–148, the SET HSCLEVEL command includes the following parameters:

OFF

specifies that the HSC active and HSC release level indicators for the designated host are to be cleared.

FORHOST(*host-id*)

specifies that the active indicators are to be cleared for the designated host.

host-id indicates the 1- to 8-character host ID of the host to which the operation is restricted.

Note: Oracle recommends the following alternatives to executing SET HSCLEVEL because they reset the HSC indicators and recover resources owned by the failing host:

- Restart the HSC on the host.
 - Enter the RECOVER *host-id* FORCE operator command.
-
-

SET LOGFILE

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET LOGFILE command is part of the HSC Transaction Logging Service, introduced in HSC 7.0.

This command defines primary and secondary log files used by the HSC transaction logging service to record VTCS logical transactions necessary to recover the CDS.

If it becomes necessary to restore a CDS, the information in these log files can be used to reduce the amount of time required to restore the VTCS data in the CDS back to the proper state.

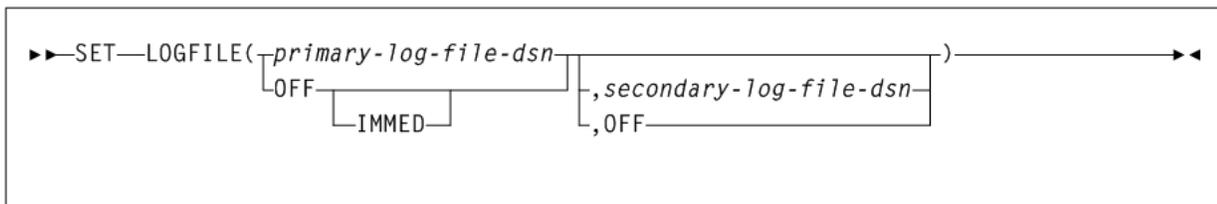
Note:

- Log files must be pre-formatted using the `FMTLOG` utility. See "FMTLOG" on page 3-182 for more information.
 - If logging is not currently active, log file names specified in the `SET LOGFILE` command are activated immediately.
 - If logging is currently active, you must run the `OFFload LOGFILE` utility using the `OFFload LOGFILE` command to change the log files. See "OFFload" on page 3-272 for more information.
-
-

Syntax

Figure 3-149 shows `SET LOGFILE` command syntax.

Figure 3-149 *SET LOGFILE* command syntax



Parameters

As shown in Figure 3-149, the `SET LOGFILE` command includes the following parameters:

primary-log-file-dsn

the data set name for the primary log file. This parameter is required.

OFF

Specify `OFF` for the `primary-log-file-dsn` to indicate that logging should be terminated. Logging will continue on the HSC subsystem until you run `OFFload LOG`, unless you also specify the `IMMED` parameter.

IMMED

specifies that logging should be immediately stopped on all active HSC subsystems. When `IMMED` is specified, any previous log data cannot be offloaded.

secondary-log-file-dsn

optionally, the data set name for the secondary log file. This parameter is required if a secondary log file was previously defined.

When changing only the secondary log file data set name, you must re-specify the existing primary log file data set name in the primary log file data set name position.

OFF

Specify `OFF` for the `secondary-log-file-dsn` to change from duplex to simplex logging.

SET MAJNAME

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required. HSC must be shut down on all systems before changing the QNAME.

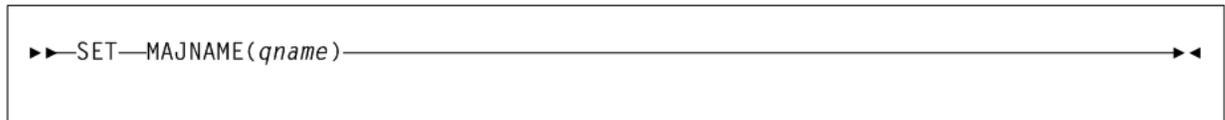
Description

The SET MAJNAME command sets the ENQ/DEQ/RESERVE QNAME.

Syntax

Figure 3–150 shows SET MAJNAME command syntax.

Figure 3–150 SET MAJNAME command syntax



Parameters

As shown in Figure 3–150, the SET MAJNAME command includes the following parameters:

qname

a 1- to 8-character QNAME. The QNAME is blank padded on the right. The name should conform to the requirements for a QNAME. If any hosts are MSP hosts, to prevent conflicts with the operating system, the QNAME should not start with SYSA through SYSZ. Since the HSC is authorized, the SYSA through SYSZ names would be allowed, but deadlock may result.

Note: HSC must be shut down on all systems before changing the QNAME.

SET MIGOPT

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

The SET MIGOPT command changes the following migration parameters:

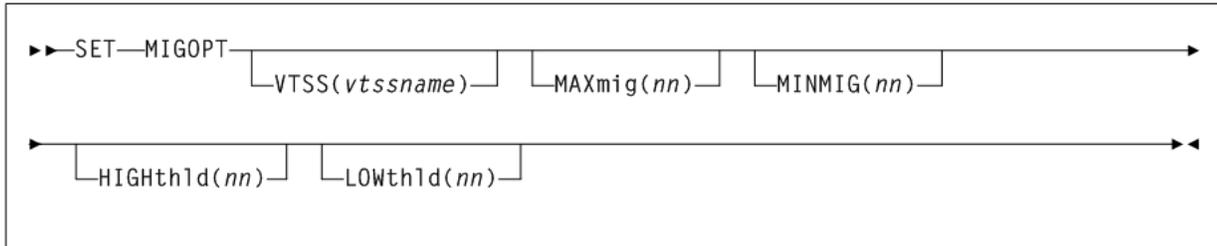
- Maximum and minimum concurrent automatic migration, immediate migration, and migrate-to-threshold tasks.

- High and low AMTs.

Syntax

Figure 3–151 shows SET MIGOPT command syntax.

Figure 3–151 SET MIGOPT command syntax



Parameters

As shown in Figure 3–151, the SET MIGOPT command includes the following parameters:

VTSS(vtssname)

optionally, specifies the VTSS whose migration parameters you want to change. If you do not specify a VTSS, the changes affect all VTSSs.

vtssname indicates the VTSS identifier.

MAXmig(nn)

optionally, specifies the maximum number of concurrent automatic migration, immediate migration, and migrate-to-threshold tasks.

nn indicates the number of tasks. Valid values are 1 to the number of RTDs attached to the VTSS. There is no default; if you do not specify a value, the current value is unchanged.

MINMIG(nn)

optionally, specifies the minimum number of concurrent automatic migration, immediate migration, and migrate-to-threshold tasks.

nn indicates the number of tasks. Valid values are 1 to the MAXMIG setting. There is no default; if you do not specify a value, the current value is unchanged.

HIGHthld(nn)

optionally, specifies the new high AMT.

nn indicates the new high AMT as a percent of VTSS space. Valid values are 5 to 95 and must be greater than the LOWthld value.

LOWthld(nn)

optionally, specifies the new low AMT.

nn indicates the new low AMT as a percent of VTSS space. Valid values are 5 to 95 and must be less than the HIGHthld value.

SET NEWHOST

Interfaces:

- SLUADMIN utility only

- UUI Support: No

Subsystem Requirements:

Active HSC not required

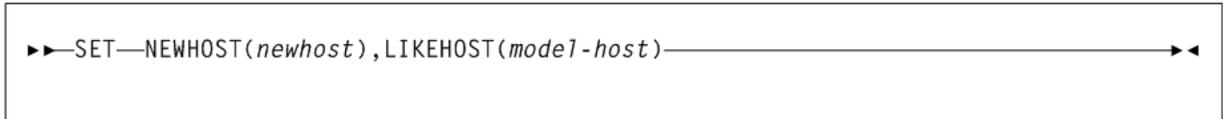
Description

The SET NEWHOST command defines a new host.

Syntax

Figure 3–152 shows SET NEWHOST command syntax.

Figure 3–152 SET NEWHOST command syntax



Parameters

As shown in Figure 3–152, the SET NEWHOST command includes the following parameters:

newhost

a 1-8 character host ID, which represents the SMF system ID for JES.

- The new host to be added cannot exceed the maximum limitation of 16 hosts.
- *newhost* cannot already be defined in the CDS.
- You must delimit the HOSTID with quotes when *newhost* is in lowercase.

LIKEHOST(model-host)

specifies that an existing configuration, as currently defined in the LIBGEN, is to be used for the new host. Settings used include the following:

- SLILIBRY>NNLBDRV (nonlibrary drive esoteric)
- SLIACS ACSDRV (ACS drive esoteric)
- SLISTATN ADDRESS (ACS 3270 station addresses)
- SLIDRIVS ADDRESS (drive addresses)

model-host indicates a 1- to 8-character host ID.

SET RMM

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

The SET RMM command enables or disables the VTCS to DFSMSrmm interface.

Syntax

Figure 3–153 shows SET command syntax.

Figure 3–153 SET RMM command syntax



Parameters

As shown in Figure 3–153, the SET RMM command includes the following parameters:

ENable

enables the VTCS to DFSMSrmm interface. With the interface enabled, VTCS communicates with DFSMSrmm on all scratch mounts and scratch requests of VTVs whose Management Class specifies DELSCR (YES) .

DISable

disables the VTCS to DFSMSrmm interface. With PTF L1H139T installed, the interface is automatically disabled at VTCS initialization.

If you do not specify a parameter, VTCS displays the current setting of the interface.

Note:

- Enabling the DFSMSrmm interface is required only for sites that do not have IBM APAR OA03368 applied and the following (minimum) VTSS microcode levels installed:
 - VSM3: N01.00.65
 - VSM4: D01.00.03
 - VSM5: all microcode levels have the required change
 - If required, Oracle recommends adding the VTCS SET RMM ENA command to the SLSSYSxx PARMLIB member read at HSC initialization.
 - Enabling this interface can cause delays in scratch mount processing.
-
-

SET SCRLABL

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET SCRLABL command specifies the scratch label type.

To add to the scratch pool, the `REPLaceall` function is run before the `Scratch Update` utility. Otherwise, the `Scratch Update` utility should be run to update the scratch pools after using this function.

Syntax

Figure 3–154 shows `SET SCRLABL` command syntax.

Figure 3–154 *SET SCRLABL command syntax*



Parameters

As shown in Figure 3–154, the `SET SCRLABL` command includes the following parameters:

SL

specifies that nonspecific requests for standard-labeled tapes are to be automated.

AL

specifies that nonspecific requests for ANSI-labeled tapes are to be automated.

NL

specifies that nonspecific requests for nonlabeled tapes are to be automated.

NSL

specifies that nonspecific requests for nonstandard labeled tapes are to be automated.

SET SLIDRIVS

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `SET SLIDRIVS` command adds or changes device numbers for drives in a particular panel.

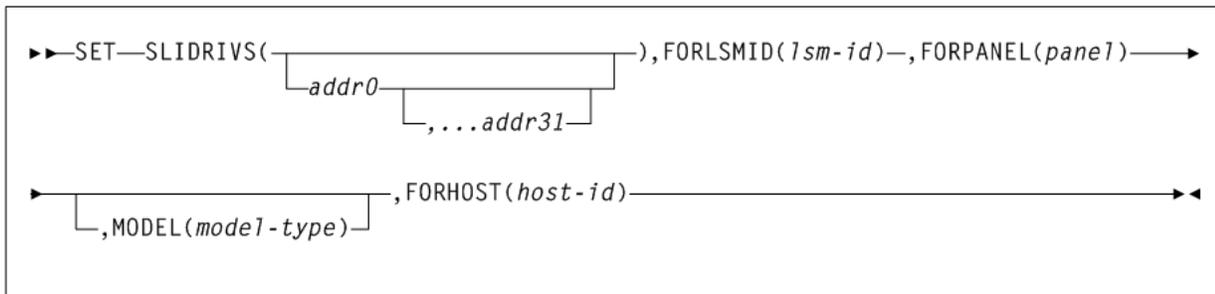
- For 9310 and 9740 libraries, these changes take effect when you recycle the affected HSC system(s). See "[Running SET SLIDRIVS With the HSC Active](#)" on page 3-316 for more information.
- For SL3000 and SL8500 libraries, these changes take effect when you issue a `MODIFY CONFIG UPD ACS(XX)` for the ACS that the drives were added to. NCO adds the drives to the configuration. There is no need to recycle the HSC.

Caution: For 9310 and 9740 libraries, Oracle recommends you bring the HSC down on all hosts before specifying this parameter, and recycle the HSC after every SET SLIDRIVS operation. Table 3–15 describes some instances where the HSC can remain active, however, unpredictable results can occur.

Syntax

Figure 3–155 shows SET SLIDRIVS command syntax.

Figure 3–155 SET SLIDRIVS command syntax



Parameters

As shown in Figure 3–155, the SET SLIDRIVS command includes the following parameters:

addr0,...addr31

the device numbers for the panel. The numbers are from the top of the panel down. If a device number is omitted, this means that the host cannot access a drive in that particular position in the panel, or the drive does not exist. Blanks and commas may be used to separate the drive specifications.

The total number of drives specified (including comma placeholders) must be:

- 4, 10, or 20 for a 9310
- 16 for an SL8500
- 8, 16, 24 or 32 for an SL3000
- You cannot specify 20-drive panels on 9740 (TimberWolf) LSMs or SL8500 libraries.
- 10-drive and 20-drive panels cannot be specified on 4410 LSMs.

Before this utility can be executed, all cells in the panel must be empty if the user is moving to or from a 20-drive panel configuration.

The user can change a drive panel between a 4- or 10-drive panel (normal) and a 20-drive panel (wide) without running a reconfiguration. Affected panels must be empty and no cells in the panels can be allocated to cartridges.

To ensure that drive panels being changed from normal to wide configurations (or vice versa) remain empty, freeze them with the SET FREEZE utility. Then, move all cartridges to other panels or LSMs.

If a panel type is changed by SET SLIDRIVS, the new panel will not be frozen. Frozen panels whose panel type did not change remain frozen after SET SLIDRIVS.

HSC does not allow duplicate addresses for drives. If it becomes necessary to exchange the drive addresses on one panel with the drive addresses on another panel, the addresses on one of the panels must first be changed to temporary addresses that are not currently defined. For example:

```
LSM00, PANEL10, ADDRESSES-400,401,402,403
LSM01, PANEL11, ADDRESSES-404,405,406,407
```

If the 400-403 addresses are to be moved to LSM01 and 404-407 are to be moved to LSM0, the SET utility must first be run to change the LSM0 addresses (400-403) to 900-903 (or some other addresses that are not currently defined). The SET utility is then run to change the LSM01 addresses to 400-403. The utility is run a third time to change the temporary LSM0 addresses (900-903) to 404-407.

On all 9310 LSMs, drives are defined to the HSC from top to bottom, with *addr0* representing the topmost drive and *addrn* the bottommost drive.

However, on a 9740 10-drive panel LSM, the drives are populated and configured to the 9740 LSM from bottom to top. (9740 4-drive panels are configured to the 9740 LSM from top to bottom, as are all other LSM drive panels.)

An example showing how to define a 9740 10-drive panel containing five 9840 drives is:

```
SET SLIDRIVS(,,,,BD4,BD3,BD2,BD1,BD0),FORLSMID(lsm-id),
FORPANEL(panel)
```

For the SL3000, drives are defined from top to bottom, right to left, as looking from the front to the back of the library.

For the SL8500, drives are defined from top to bottom, right to left, as viewed from the outside of the library.

FORLSMID(lsm-id)

specifies that the operation is being restricted to a specific LSM.

lsm-id indicates the LSMid (*AA:LL*) containing the drive panel whose addresses are being changed. An LSMid (*lsm-id*) is made up of the ACSid (decimal 00-99) and the LSM number (decimal 00-99) separated by a colon (:).

FORPANEL(panel)

specifies that the operation is being restricted to a specific panel.

panel indicates the 2-digit ID of the panel containing the drives whose addresses are being changed. See "Panels" on page B-2 for a list of valid values.

Note: The specified *panel* must be an existing drive panel in the LSM.

MODEL(model-type)

optionally, specifies the transport model number.

model-type indicates the model type.

See Appendix A, "MEDia, RECtech, and MODEL Values" for a list of valid *model-type* values.

Note: The `MODEL` parameter is only used to specify the drive type for manual RTDs., which are defined in a nonexistent ACS. When an LSM is brought online, the (non-manual) drive type is automatically set.

FORHOST(host-id)

specifies that the operation is being restricted to a specific host. Only the specified hosts' drive device numbers are set. If omitted, the device numbers for all hosts are changed.

host-id indicates the 1- to 8-character host ID of the host, to which the operation is restricted.

Note: The number of drive positions for a specific host must equal the number of drive positions defined globally (issuing `SET SLIDRIVS` without the `FORHOST` parameter).

Running SET SLIDRIVS With the HSC Active

The following applies to 9310 and 9740 LSMs only. It does not apply to the SL8500 or SL3000.

Ideally, the HSC should be shut down on all hosts when you specify the `SET SLIDRIVS` parameter. In some cases, however, the HSC can be left active without causing adverse results. [Table 3–15](#) defines options for running `SET SLIDRIVS`.

Table 3–15 HSC State/SET SLIDRIVS Operation

HSC State	Effect on SET SLIDRIVS
Down	If the HSC is down on all hosts, the HSC recognizes all new drive locations when it is initialized.
Active	The HSC can be up on all hosts only if new drives are being added at new drive locations. The HSC recognizes the new drive locations when it is recycled on a host.
Active	If unit addresses are changed or deleted for an existing drive location, either the affected LSM must be offline until the HSC has been recycled on all hosts, or the affected ACS must be offline to all affected hosts that access an HSC that has not been recycled.

SET SLIDRIVS Procedure

The following procedures show one method for changing unit addresses with the HSC active.

For the 9310 and 9740:

For one host:

1. Modify the affected LSM offline (`MODify lsm-id OFFline`). The LSM will be offline to all hosts.
2. Use `SET SLIDRIVS` to update the CDS drive records while the Oracle StorageTek CSE(s) is making the hardware changes.
3. Recycle the HSC on one host.

4. Vary the affected ACS offline (`Vary ACS(acs-id) OFFline`) on all hosts running an HSC that has not been recycled.
5. Modify the affected LSM online (`MODify lsm-id ONline`). The LSM will be online to all hosts where the ACS is online. Only hosts that are online to the ACS and running a recycled HSC will mount to drives connected to this LSM.

For the remaining hosts, recycle the HSC, and the affected ACS will come up.

For the SL3000 and SL8500:

1. Make necessary hardware changes (add/delete/move drives).
2. Modify the `SET SLIDRIVS JCL` deck to reflect the changes.
3. Run `SET SLIDRIVS`.
4. Issue `MODIFY CONFIG` (or `MODIFY CONFIG ACS(xx)`)

The changes will cascade to all other hosts.

SET SLISTATN

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

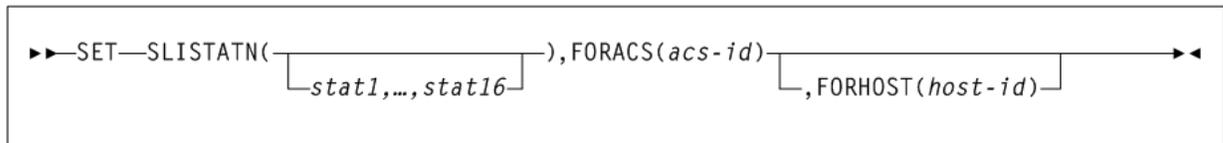
The `SET SLISTATN` command adds or changes LMU station addresses in an ACS. The change does not take effect until the affected HSC(s) is recycled.

An affected HSC is one that resides in the host specified in `FORHOST`. If `FORHOST` is omitted, all HSCs are relevant because the operation is not restricted to a specific host.

Syntax

Figure 3–156 shows `SET SLISTATN` command syntax.

Figure 3–156 SET SLISTATN command syntax



Parameters

As shown in Figure 3–156, the `SET SLISTATN` command includes the following parameters:

stat1,...,stat16

the LMU station addresses associated with a particular ACS. No station addresses are required. Up to 16 can be specified, separated by commas.

When adding one or more station addresses to an existing list of stations, you must specify all old and new stations. Any stations (for this ACS and Host ID) not specified here will be deleted and no longer available for use.

To remove station addresses for an ACS or host, do not specify station addresses following the `SLISTATN` parameter. For example:

```
SET SLISTATN( ) , FORACS ( 01 ) , FORHOST ( HSCA )
```

FORACS(acs-id)

specifies the ACS for which station addresses are being changed.

acs-id indicates the ACSid whose stations are being changed (00 - FF).

FORHOST(host-id)

specifies that the operation is being restricted to a specific host. Only the specified hosts' stations are set. If omitted, the stations for all hosts are changed.

host-id indicates the 1- to 8-character host ID for the host to which the operation is restricted.

SET SMF

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

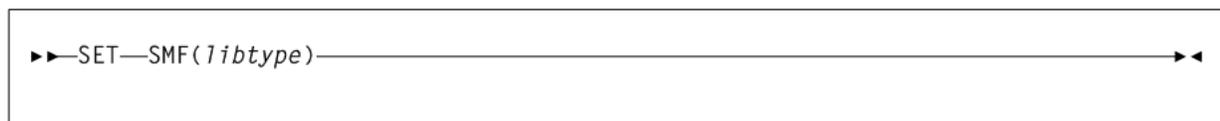
The `SET SMF` command adds a new SMF record type for HSC.

Until the HSC is recycled on all CPUs, the `ACTIVITIES` command produces incorrect results because some HSC systems are writing records with the old SMF type, and some with the new record type.

Syntax

Figure 3–157 shows `SET SMF` command syntax.

Figure 3–157 SET SMF command syntax



Parameters

As shown in Figure 3–157, the `SET SMF` command includes the following parameters:

libtype

the SMF record type. The range is from 0 to 255, inclusive.

Since 128 through 255 are for user-defined records, it is recommended that a number from 128 through 255 be chosen, and that the number does not conflict with other user-defined record types.

SET TAPEPLEX

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET TAPEPLEX command sets a TapePlex name.

Syntax

Figure 3–158 shows SET TAPEPLEX command syntax.

Figure 3–158 SET TAPEPLEX command syntax

```
▶▶—SET—TAPEPLEX(tapeplex-name)————▶▶
```

Parameters

As shown in Figure 3–158, the SET TAPEPLEX command includes the following parameters:

tapeplex-name

the 1-8 character TapePlex name.

The TapePlex name must start with an alphabetic or numeric character. Remaining characters may be letters, numbers, or hyphens, however, a hyphen may not be the last character. You can specify a NULL value (TAPEPLEX()) to allow the TapePlex name to be set automatically by the next SMC transaction.

Note: This name must match the TapePlex name specified on the SMC TAPEPLEX command on ALL SMC systems that communicate with this HSC system. See "TAPEPLEX" on page 2-66 for more information about the SMC TapePlex command.

SET TECHNIQUE

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `SET TCHNIQE` command sets the control data set recovery technique. This replaces the recovery technique currently defined in the CDS.

Refer to Oracle's ELS publication *Configuring HSC and VTCS* for information about the `LIBGEN SLIRCVRY` macro. A recovery technique value must be specified. There is no default value.

Syntax

Figure 3–57 shows `SET TCHNIQE` command syntax.

Figure 3–159 *SET TCHNIQE* command syntax



Parameters

As shown in Figure 3–159, the `SET TCHNIQE` command includes the following parameters:

NONE

specifies no form of recovery is used for the control data set. Thus, the primary control data set must be rebuilt, if inaccessible.

SHADOW

specifies that there is to be two distinct copies of the control data set (primary and secondary) for recovery purposes. It is recommended that these data sets reside on separate HDAs and separate strings. A journal is not recorded.

STANDBY

specifies that primary, secondary, and standby control data sets are to be recorded for recovery purposes. No journals are recorded during HSC operation.

SET TCHNIQE Procedure

Use the following procedure to invoke the `TCHNIQE` utility and to set the appropriate recovery technique value:

1. `ALLOCATE`, based on existing CDS definitions, any new CDS copies that will be needed for the subsequent `SET` recovery technique.
2. Stop the HSCs on all hosts configured to use the CDS you are intending to update with `SET` recovery technique.
3. Run the `BACKUP` utility.
4. Run the `RESTORE` utility to restore all CDS copies required to support the current recovery technique. If the recovery technique update in the following step requires new CDS copies, then include them in this restore.
5. Run the `SET` utility with the appropriate recovery technique value. The `SET` utility for this recovery technique update must include `DD` statements for all CDS copies defined in either the old or the new recovery technique.

- Run the BACKUP utility again. This backup provides you with the ability to restore the updated CDS.

SET VAULT

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

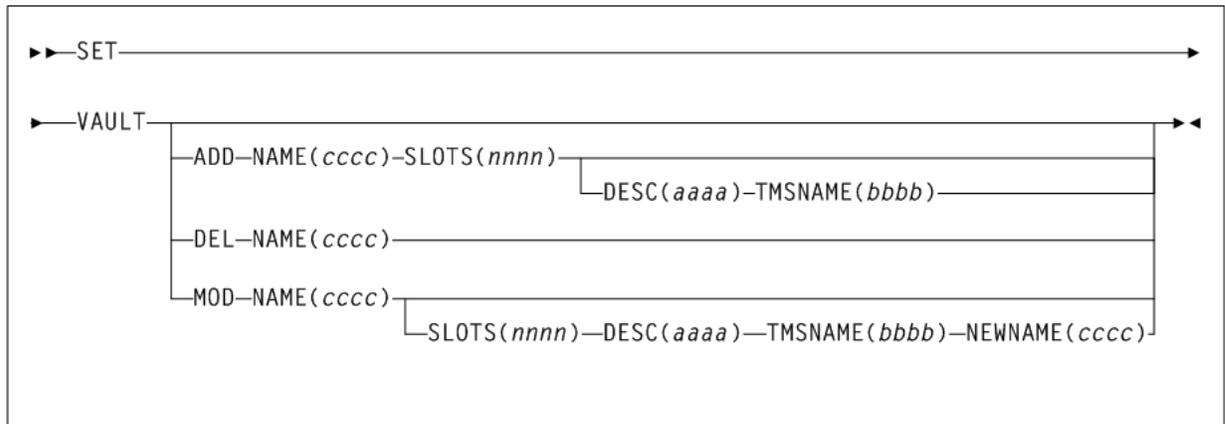
The SET VAULT command defines VAULT information for a server complex. This information is stored in the CDS and serves as the VAULT information source for all server systems that access the CDS.

Note: Before running this utility for the first time, you must run the SET VAULTVOL utility to create the Vault Volume records in the CDS.

Syntax

Figure 3–160 shows SET VAULT command syntax.

Figure 3–160 SET VAULT command syntax



Parameters

As shown in Figure 3–160, the SET VAULT command includes the following parameters:

ADD NAME(cccc)

Add a specified Vault from the CDS.

cccc indicates the Vault name. You can specify a maximum of 8 characters. NAME (*cccc*) is required.

DESC(aaaa)

optionally, specifies the description of the Vault.

aaaa indicates the description. You can specify a maximum of 120 characters. If blank characters are included, the entire value must be enclosed in single quotes. This parameter is only valid with the `ADD` and `MOD` parameters.

TMSNAME(bbbb)

optionally, specifies the TMS Vault name.

bbbb indicates the Vault name. You can specify a maximum of 8 characters. This parameter is only valid with the `ADD` and `MOD` parameters.

DEL NAME(cccc)

Delete a specified Vault from the CDS.

cccc indicates the Vault name. You can specify a maximum of 8 characters. `NAME (cccc)` is required.

MOD NAME(cccc)

Modify a specified Vault from the CDS.

cccc indicates the Vault name. You can specify a maximum of 8 characters. `NAME (cccc)` is required.

SLOTS(nnnn)

optionally, specifies the number of slots in the Vault.

nnnn indicates the number of slots. The slot number can be 1-999,999,999. When specified with the `MOD` option, the `SLOTS` number must be greater than the current number of `SLOTS` defined to the Vault.

The total number of slots for all Vaults cannot exceed the number of Vault Volumes set by the `SET VAULTVOL` utility.

DESC(aaaa)

optionally, specifies the description of the Vault.

aaaa indicates the description. You can specify a maximum of 120 characters. If blank characters are included, the entire value must be enclosed in single quotes. This parameter is only valid with the `ADD` and `MOD` parameters.

TMSNAME(bbbb)

optionally, specifies the TMS Vault name.

bbbb indicates the Vault name. You can specify a maximum of 8 characters. This parameter is only valid with the `ADD` and `MOD` parameters.

NEWNAME(cccc)

optionally, specifies the new name of the Vault.

cccc indicates the Vault name. You can specify a maximum of 8 characters. This parameter is only valid with the `MOD` parameter.

SET VAULTVOL

Interfaces:

- `SLUADMIN` utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The `SET VAULTVOL` command defines the `VAULT` volume area. This information is stored in the CDS and serves the `VAULT` volume area information source for all server systems that access the CDS.

Note:

- You must run this utility before running the `SET VAULT` utility.
 - There is no `SET` utility command to increase, decrease, or remove all vault volume records once the `SET VAULTVOL` utility is run. To increase the number of vault volume records, use the `Merge CDS` utility to migrate vaults and vaulted volumes to a CDS that has been configured with a greater number of vault volumes.
-
-

Syntax

Figure 3–161 shows `SET VAULTVOL` command syntax.

Figure 3–161 *SET VAULTVOL command syntax*

▶▶ `SET—VAULTVOL—NBRVOLS—(nnnnnn)` ◀◀

Parameters

As shown in Figure 3–161, the `SET VAULTVOL` command includes the following parameters:

NBRVOLS(nnnnnn)

specifies the number of `VAULT` volumes to be added to the CDS.

nnnnnn indicates the number of volumes. This number can be 1-9,999,999,999.

Note:

- Refer to Oracle’s ELS publication *Configuring HSC and VTCS* for details on calculating CDS space requirements for Vaulting.
 - The number of Vault volumes must be greater than the total number of slots for all Vaults created with the `SET VAULT` utility.
-
-

SET VOLPARM

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The SET VOLPARM command defines the volume and pool information for a server complex. This information is stored in the CDS and is the volume and pool information source for all server systems (ELS 7.0 or higher) that access the CDS.

SET VOLPARM reads POOLPARM and VOLPARM control statements that define VOLUME/POOL information in the form of named pools of specific types, and their associated volsers ranges.

Once SET VOLPARM is run, older volume and pool definitions are disabled for all server systems (ELS 7.0 or higher) that access the common CDS.

Note:

- HSC 6.2 or lower systems are unaware of the presence of the SET VOLPARM data and continue to operate as though the SET VOLPARM utility had not been run.
- Specify REGION=0M on the EXEC PGM=SLUADMIN statement when the number of input statements exceeds 10,000 card images.
- If you delete MVCs or VTVs from the configuration as a result of either SET VOLPARM or CONFIG MVCVOL or CONFIG VTVVOL processing:

If MVCs were deleted, you cannot re-enter the volsers into the configuration as VTVs.

If VTVs were deleted, you cannot re-enter the volsers into the configuration as MVCs.

Do not use the volsers for native HSC tapes.

Message SLS6944I indicates the number of MVCs or VTVs that have been deleted.

The following commands are disabled for systems (ELS 7.0 or higher) after SET VOLPARM:

HSC:

- VOLDEF
- SCRDEF

VTCS:

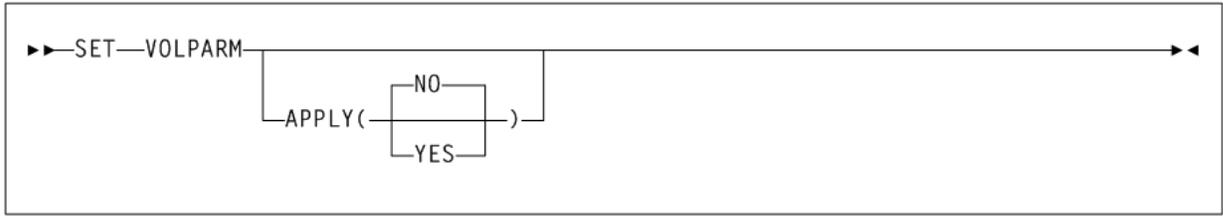
- MVCDEF
- CONFIG VTVVOL or CONFIG MVCVOL

The HSC/VTCS systems do not need to be recycled for the new volume and pool definitions to take effect. The attached HSC/VTCS in the CDS complex are notified of the definition changes and the volume and pool definitions are automatically active.

Syntax

Figure 3–162 shows SET VOLPARM command syntax.

Figure 3–162 SET VOLPARM command syntax



Parameters

As shown in [Figure 3–162](#), the `SET VOLPARM` command includes the following parameters:

APPLY

specifies whether the `POOLPARM` or `VOLPARM` definitions are to be applied to the CDS:

NO

Validate the definitions but do not apply them to the CDS (the default).

YES

Apply the definitions. If you specify `YES`, the `SLSPARM` data set containing `POOLPARM` and `VOLPARM` control statements is read and applied to the CDS. Additionally, the date and time of this action is stored in the CDS, and is output by the `Display CDS` command.

`POOLPARM` and `VOLPARM` control statements are defined in the `SLSPARM` data set, and define `VOLUME` or `POOL` information in the form of named pools of specific types, and their associated volses ranges.

- When a `POOLPARM` statement is read, all subsequent `VOLPARMs` encountered until the next `POOLPARM` statement are applied to the prior `POOLPARM`.
- When `VOLPARM` statements are read without a prior `POOLPARM`, those `VOLSER` volumes will be considered non sub-pool (subpool 0) volumes.

See "[POOLPARM Control Statement](#)" on page 3-326 and "[VOLPARM Control Statement](#)" on page 3-331 for more information.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statement applies to the `SET VOLPARM JCL`:

SLSPARM

specifies the data set that contains the `POOLPARM` and `VOLPARM` control statements that define volumes and pools.

Using SET VOLPARM to Disable POOLPARM/VOLPARM

To disable `POOLPARM` or `VOLPARM`, run the `SET VOLPARM` utility with an empty `SLSPARM` input file.

Once `POOLPARM` or `VOLPARM` is disabled:

- The previous version of `POOLPARM` or `VOLPARM` remains in effect for `MVC` and `VTV` definitions until you run `VTCS CONFIG`.

- The previous POOLPARAM or VOLPARAM POOL definitions remain in effect until you run the VOLDEF, SCRPEDEF and MVCDEF commands on the HSC host(s).

POOLPARAM Control Statement

POOLPARAM control statements define pool information for a server complex in the form of named pools of specific types.

VOLPARAM statements define a volser, volser list, or volser range to be associated with the specified POOLPARAM statement.

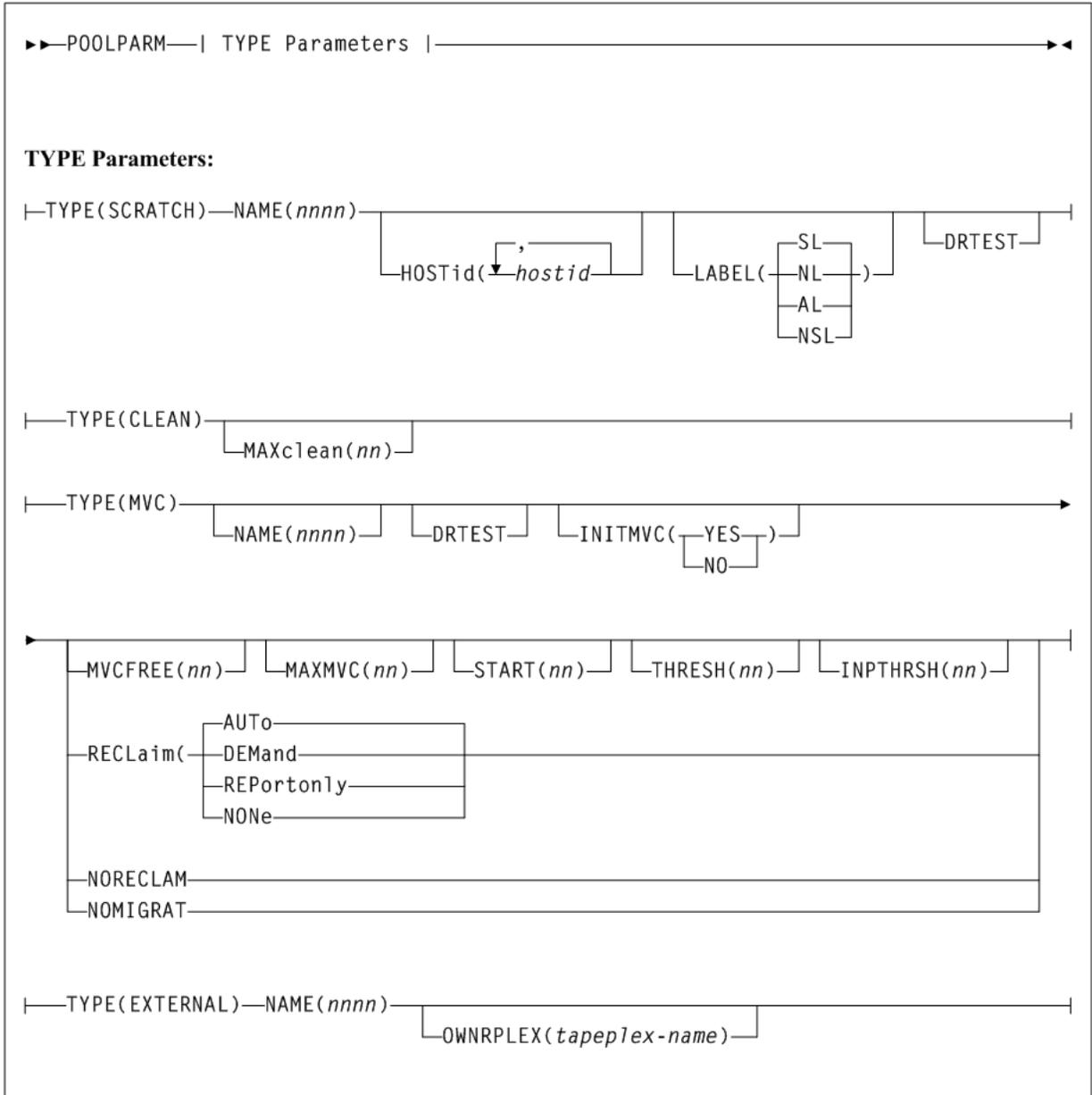
POOLPARAM and VOLPARAM statements are defined in the SLSPARM data set, and are loaded using the SET VOLPARAM utility. See "[SET VOLPARAM](#)" on page 3-323 for more information.

- When a POOLPARAM statement is read, all subsequent VOLPARAM statements encountered before the next POOLPARAM statement are applied.
- When VOLPARAM statements are read without a prior POOLPARAM, those VOLSER volumes are considered non-subpool (subpool 0) volumes.

Syntax

[Figure 3-163](#) shows POOLPARAM control statement syntax.

Figure 3-163 POOLPARM control Statement syntax



Parameters

As shown in Figure 3-163, the POOLPARM control statement includes the following parameters:

TYPE

specifies the type of pool definition. Valid types include SCRATCH, CLEAN, MVC, and EXTERNAL.

TYPE(SCRATCH) Subparameters

If you specify TYPE(SCRATCH), the following subparameters apply:

NAME(nnnn)

specifies the name of the volume pool.

NAME is required for TYPE (SCRATCH) pools. Additionally, NAME (DEFAULTPOOL) is not valid for TYPE (SCRATCH) pools.

nnnn indicates the volume pool name. A maximum of 13 characters is allowed. Blank spaces are not allowed.

HOSTid(host-id)

optionally, defines the hosts that can access the named sub-pool.

host-id indicates the host id. Multiple *host-ids* may be specified, separating each *host-id* value with a comma. If a *host-id* is not specified, the default is all hosts.

HOSTid determines which client hosts can mount volumes from the named subpool. If a mount request is received from a client not specified in the HOSTid list, the HSC rejects the mount request and the mount is not satisfied. If you did not specify an ALIASHOST on the SMC SERVER command, then specify the 4 character SMFID of the MSP hosts that will access the subpool. Otherwise, you can specify up to 8 characters for the host name matching the SMC ALIASHOST specification.

LABEL

optionally, specifies the label type associated with the named subpool. Specify one of the following:

- SL indicates standard-labeled tape. This is the default if the parameter is omitted.
- AL indicates ANSI-labeled tape.
- NL indicates nonlabeled tape.
- NSL indicates nonstandard labeled tape.

Note: Scratch volume requests without a sub-pool (sub-pool 0) will come from volumes not defined in named subpools.

DRTEST

optionally, specifies that the scratch pool is to be used in DRTEST environments.

TYPE(CLEAN) Subparameters

If you specify TYPE (CLEAN), the following subparameters apply:

MAXclean

optionally, specifies the maximum cleaning cartridge usage for the named sub-pool. Do not specify values that exceed the manufacturer's recommendation for usage.

The volumes defined in the CLEAN sub-pools must begin with the cleaning cartridge prefix defined in the LIBGEN.

Note: If MAXclean is not specified in the VOLPARM statement, the value or default of the MAXclean parameter in the MNTD operator command is used for all cleaning cartridge counts.

TYPE(MVC) Subparameters

If you specify TYPE (MVC), the following subparameters apply:

NAME(nnnn)

specifies the name of the volume pool. This parameter is optional for `TYPE(MVC)` pools. Additionally, `NAME(DEFAULTPOOL)` is not valid for `TYPE(MVC)`. `NAME(ALL)` is not valid for `TYPE(MVC)` pools.

nnnn indicates the volume pool name. A maximum of 13 characters is allowed. Blank spaces are not allowed.

DRTEST

optionally, specifies that the MVC pool is to be used only in `DRTEST` environments.

INITMVC

optionally, enables or disables the MVC initialization feature.

YES

enables the MVC initialization feature.

NO

disables the MVC initialization feature.

MVCFREE(nn)

optionally, specifies the minimum number of free MVCs in the MVC pool. A free MVC has 100% usable space and does not contain any migrated VTVs.

nn indicates the number of MVCs. Valid values are 0 to 255. There is no default; if not specified, the `CONFIG RECLAIM` value (or default) is used.

If free MVCs is equal or less than this value, VTCS issues message `SLS6616I` and initiates an automatic space reclamation.

MAXMVC(nn)

optionally, specifies the maximum number of MVCs to be processed in a single space reclamation run.

nn indicates the number of MVCs. Valid values are 1 to 98. There is no default; if not specified, the `CONFIG RECLAIM` value (or default) is used.

For automatic space reclamation to start, the number of eligible MVCs (determined by the `THRESH` parameter) must also exceed the `MAXMVC` value.

START=nn

optionally, specifies the level at which automatic space reclamation starts for each ACS (not globally for all ACSs), or, if specified, for a Named MVC Pool.

nn is a percentage value, which is equal to:

$$\text{Reclaim Candidates} / (\text{Reclaim Candidates} + \text{Free MVCs}) * 100$$

Where:

- *Reclaim Candidates* indicates the number of Reclaim Candidates determined by the `CONFIG RECLAIM THRESHLD` parameter.
- *Reclaim Candidates + Free MVCs* equals the number of Reclaim Candidates plus the number of free MVCs.

Valid values are 1 to 98. There is no default. If not specified, the `CONFIG RECLAIM` value (or default) is used.

THRESH(nn)

optionally, specifies the percentage of fragmented space that makes an MVC eligible for demand or automatic reclamation.

nn indicates the percentage. Valid values are 4 to 98. There is no default; if not specified, the `CONFIG RECLAIM` value (or default) is used.

INPTHRSH(nn)

optionally, specifies the percentage of fragmented space that makes an MVC in partitioned format (within the pool) eligible for dynamic reclaim processing.

This value overrides the global `INPTHRSH` value specified in the `CONFIG RECLAIM` statement. If this parameter is not specified, the current active global `INPTHRSH` value is used.

nn indicates a percentage between 3 and 97. This value must be less than the `THRESHLD` value.

Note: If `INPTHRSH` is specified, `THRESHLD` must also be specified. Both `INPTHRSH` and `THRESHLD` play roles when space reclamation processes MVCs in partitioned format. Refer to Oracle's ELS publication *Configuring HSC and VTCS* for more information.

RECLaim

optionally, specifies space reclaim behavior of the `MVCPool`.

AUTO

VTCS will output message `SLS6699E` and schedule automatic space reclaims. Reclaims may also be invoked using the `RECLAIM` command. This is the default.

DEMAND

VTCS will not output message `SLS6699E` and will not schedule automatic space reclaims. Reclaims may be invoked using the `RECLAIM` command.

`RECLaim(DEMAND)` is mutually exclusive with `MVCFREE` and `START`.

REPORTonly

VTCS will output message `SLS6699E` but will not schedule automatic space reclaims. Reclaims may not be invoked using the `RECLAIM` command.

`RECLaim(REPORTonly)` is mutually exclusive with `MAXMVC`, `START`, and `THRESH`.

Note: `REPORTonly` is equivalent to, and replaces, the `NORECLAM` parameter though `NORECLAM` is still tolerated if the `RECLaim` parameter is not specified.

NONE

VTCS will not output message `SLS6699E` and will not schedule automatic space reclaims. Reclaims may not be invoked using the `RECLAIM` command.

`RECLaim(NONE)` is mutually exclusive with `MVCFREE`, `MAXMVC`, `START`, and `THRESH`.

NORECLAM

optionally, specifies that the named `MVCPool` will not be eligible for space reclamation.

Note: The use of the `MVCFREE`, `MAXMVC`, `THRESH`, `INPTHR` and `START` parameters override the values specified on `CONFIG` for the named *sub-pool*.

NOMIGRAT

optionally, specifies that the `MVCPool` will not be eligible for selection for migration MVCs. This enables MVC information to be retained in the CDS virtual area. The MVCs will not be used for new migrations.

TYPE(EXTERNAL) Subparameters

If you specify `TYPE(EXTERNAL)`, the following subparameters apply:

NAME(nnnn)

specifies the name of the volume pool. This parameter is required for `TYPE(EXTERNAL)` pools.

nnnn indicates the volume pool name. A maximum of 13 characters is allowed. Blank spaces are not allowed.

OWNRPLEX

optionally, specifies the name of the TapePlex that owns the volumes in the external pool.

For VTVs, this controls volumes imported through Cross-TapePlex Replication. A VTV can only be imported if the sending system's TapePlex name matches the `OWNRPLEX` value.

Volumes in an `EXTERNAL` pool can be scratched only if the scratch request originates from the TapePlex matching the `OWNRPLEX` name. The TapePlex name is defined through the `SMC TAPEPLEX NAME` parameter and the `CONFIG TAPEPLEX THISPLEX` parameter.

Alternatively, volumes in an external pool with an `OWNRPLEX` name of `LOCALHSC` can be scratched on the local system (but not used as scratch volumes on the local system).

Note: Refer to Oracle's ELS publications *Managing HSC and VTCS* and *ELS Disaster Recovery and Offsite Data Management Guide* for more information about Cross-Tape Replication.

VOLPARM Control Statement

`VOLPARM` control statements define volume attributes for a server complex. These statements define a `volser`, `volser` list, or `volser` range to be associated with a specified `POOLPARM` statement.

`POOLPARM` and `VOLPARM` statements are defined in the `SLSPARM` data set, and are loaded using the `SET VOLPARM` utility. See "[SET VOLPARM](#)" on page 3-323 for more information.

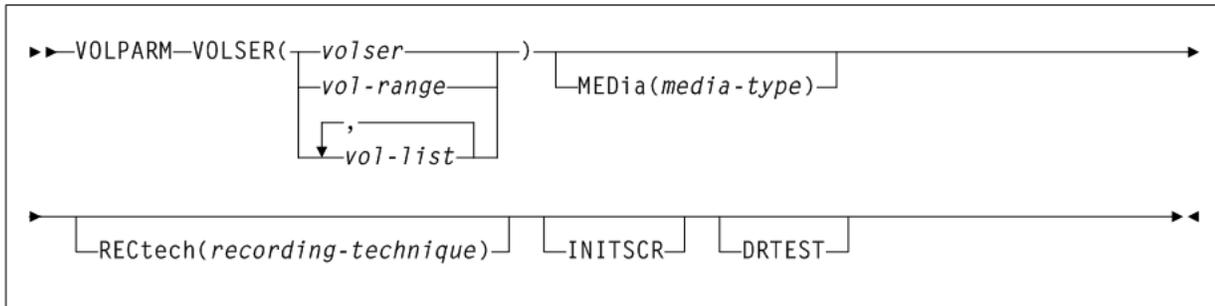
`VOLPARM` statements follow a `POOLPARM` statement and apply only to that `POOLPARM`.

- When a `POOLPARM` statement is read, all subsequent `VOLPARM` statements encountered before the next `POOLPARM` statement are applied.
- When `VOLPARM` statements are read without a prior `POOLPARM`, those `VOLSER` volumes are considered non-subpool volumes.

Syntax

Figure 3–164 shows VOLPARM control statement syntax.

Figure 3–164 VOLPARM Control Statement syntax



Parameters

As shown in Figure 3–164, the VOLPARM control statement includes the following parameters:

VOLSER(volser, vol-range, or vol-list)

specifies one or more volumes to which this definition applies.

volser, *vol-range*, or *vol-list* indicates a single VOLSER, a VOLSER range, or a list of VOLSERs.

Do not overlap the ranges. Doing so causes an error which invalidates the entire POOLPARM definition.

MEDia(media-type)

optionally, specifies the media type for the volume(s) specified on the VOLSER parameter.

media-type indicates the media type.

See Appendix A, "MEDia, RECtech, and MODel Values" for a list of valid *media-type* values.

Note the following:

- Only specific media types can be entered. Generic media types, that is, LONGItud and HELical cannot be specified.
- If this parameter is not specified, a default is chosen based on the value of the RECtech parameter. Table A–2 shows default values used if MEDia is omitted.
- If both media type and recording technique are omitted, all media types and recording techniques are assumed to be eligible. It is recommended that MEDia always be specified on all VOLPARM statements.

RECtech(recording-technique)

optionally, specifies the method used to record data on the media for the volume(s) specified on the VOLSER parameter.

recording-technique indicates the recording technique.

See Appendix A, "MEDia, RECtech, and MODel Values" for valid *recording-technique* values.

If this parameter is not specified on any matching `VOLPARM` statement, a default is chosen based on the value of the `MEDIA` parameter. [Table A-4](#) shows default values used if `RECTECH` is omitted.

INITSCR

optionally, specifies that the `VIRTUAL` volume has an initial status of `SCRATCH`.

The `INITSCR` parameter is only valid with `MEDIA (VIRTUAL)` or `RECTECH (VIRTUAL)` volumes. `INITSCR` only has meaning when the `VTV` is first defined.

DRTEST

optionally, specifies that the volumes in the defined range are to be used only in `DRTEST` environments. The `DRTEST` parameter is only valid for `VOLPARM` statements defined before the first `POOLPARM` statement.

SET VOLPARM UPDATE

Interfaces:

- `SLUADMIN` utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

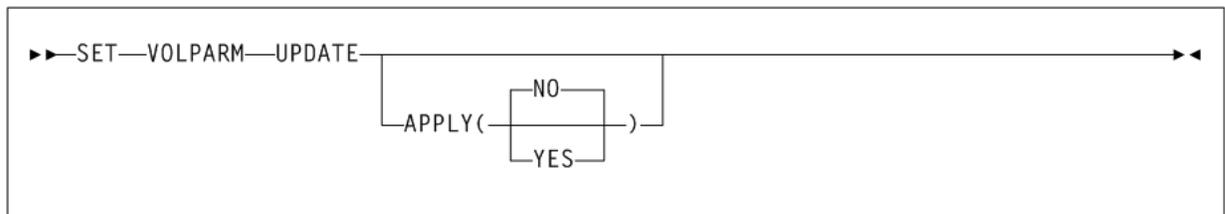
The `SET VOLPARM UPDATE` command defines the changes to the volume and pool information for a server complex. The information stored in the CDS by the `SET VOLPARM` utility is changed to reflect the new `VOLUME` or `POOL` information.

The HSC/VTCS systems do not need to be recycled for the updated volume pool definitions to take effect. The attached HSC/VTCS in the CDS complex are notified of the definition changes and the volume and pool definitions are automatically active.

Syntax

[Figure 3-165](#) shows `SET VOLPARM UPDATE` command syntax.

Figure 3-165 *SET VOLPARM UPDATE* command syntax



Parameters

As shown in [Figure 3-165](#), the `SET VOLPARM UPDATE` command includes the following parameters:

APPLY

specifies whether the `POOLPARM` or `VOLPARM` changes are to be applied to the CDS:

NO

Validate the changes but do not apply them to the CDS (the default).

YES

Apply the changes. If you specify YES, the SLSPARM data set containing the POOLPARM and VOLPARM change control statements is read and applied to the CDS.

POOLPARM and VOLPARM change control statements are defined in the SLSPARM data set and define VOLUME or POOL information in the form of named pools of specific types, and their associated volser ranges.

- When a POOLPARM statement is read, all subsequent VOLPARM statements encountered until the next POOLPARM statement are applied to the prior POOLPARM.
- When VOLPARM statements are read without a prior POOLPARM, those VOLSER volumes will be considered non-subpool (subpool 0) volumes.

Additional JCL Requirements

In addition to the required JCL definition statements described in "Invoking SLUADMIN" on page 5-1, the following definition statement applies to the SET VOLPARM UPDATE JCL:

SLSPARM

specifies the data set that contains the POOLPARM and VOLPARM change control statements that define the pool and volume changes to the CDS volume and pool information.

POOLPARM Change Control Statement

POOLPARM Change control statements define new pool information for a server complex in the form of named pools of specific types.

VOLPARM Change control statements define or remove a volser, volser list, or volser range associated with the specified POOLPARM Change statement.

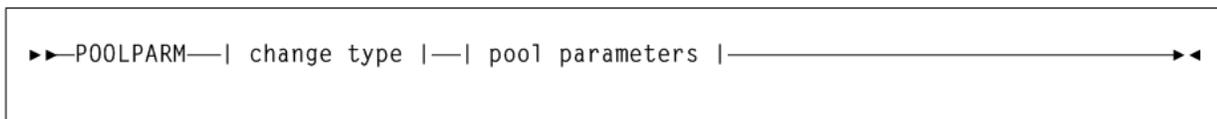
POOLPARM and VOLPARM Change statements are defined in the SLSPARM data set, and are loaded using the SET VOLPARM UPDATE utility. See "SET VOLPARM" on page 3-323 for more information.

- When a POOLPARM Change statement is read, all subsequent VOLPARM Change statements encountered before the next POOLPARM Change statement are applied.
- When VOLPARM Change statements are read without a prior POOLPARM, those VOLSER volumes are considered non-subpool (subpool 0) volumes.

Syntax

Figure 3–64 shows POOLPARM Change control statement syntax.

Figure 3–166 POOLPARM Change control statement syntax

**Parameters**

As shown in Figure 3–166, the POOLPARM Change control statement includes the following parameters:

change-type

specify one of the following to add, delete, or update a pool:

ADD

A new pool is to be added to the server complex. VOLPARM change statements that follow this POOLPARM change statement will define the volumes associated with this pool.

DELETE

An existing pool is to be deleted. When the pool is deleted, the associated volumes will also be deleted.

UPDATE

An existing pool definition is to be changed. UPDATE can be used to change POOLPARM parameters. For example, the value of the MVCFREE parameter may be changed. UPDATE is also used to associate the VOLPARM change statements that follow with the correct pool.

Note: UPDATE cannot be used to change the name of a pool.

pool-parameters

The POOLPARM statement parameters. See "POOLPARM Control Statement" on page 3-326 for valid parameters.

Note: When deleting or updating a POOLPARM statement, specify all of the parameters of the original POOLPARM statement.

VOLPARM Change Control Statement

VOLPARM change control statements define or remove a specific volser, volser list, or volser range associated with the previous POOLPARM UPDATE change statement.

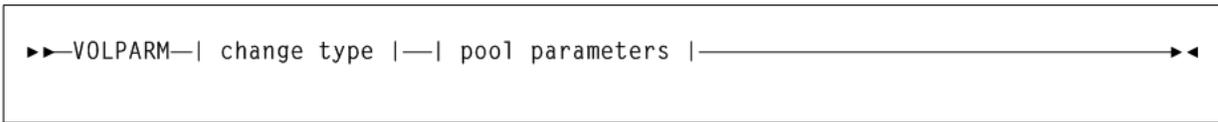
POOLPARM and VOLPARM change statements are defined in the SLSPARM data set, and are loaded using the SET VOLPARM UPDATE utility.

- When a POOLPARM change statement is read, all subsequent VOLPARM change statements encountered before the next POOLPARM change statement are applied.
- When VOLPARM change statements are read without a prior POOLPARM, those VOLSER volumes are considered non-subpool (subpool 0) volumes.

Syntax

Figure 3-167 shows VOLPARM Change control statement syntax.

Figure 3-167 VOLPARM Change control statement syntax



Parameters

As shown in Figure 3-167, the VOLPARM Change control statement includes the following parameters:

change-type

specify one of the following to add or delete a volume:

ADD

A new volume, volume list or range is added to the pool defined by the previous POOLPARM UPDATE statement. When no prior POOLPARM UPDATE statement exists, the VOLPARM information will be added as non-subpool (subpool 0) volumes.

DELETE

An existing volume, volume list or range is to be deleted.

volume-parameters

The VOLPARM statement parameters. See "[VOLPARM Control Statement](#)" on page 3-331 for valid parameters.

Note: When deleting a VOLPARM statement, specify all of the parameters of the original VOLPARM statement.

SET VOLPARM JOIN**Interfaces:**

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

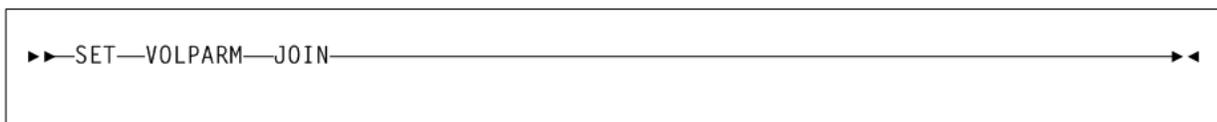
The SET VOLPARM JOIN command merges contiguous volume ranges defined on multiple VOLPARM statements into one new VOLPARM statement.

The output of this utility can be used as input to the SET VOLPARM utility to replace the original server complex volume and pool information in the CDS.

Syntax

[Figure 3-168](#) shows SET VOLPARM JOIN command syntax.

Figure 3-168 SET VOLPARM JOIN command syntax

**Parameters**

None.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statement applies to the SET VOLPARM JOIN JCL:

SLSPARM

specifies the input data set that contains the POOLPARM and VOLPARM control statements that define the pool and volume contained in the CDS.

SLSPARM2

specifies the output data set that contains the POOLPARM and the VOLPARM statements after the volume range merge operations have been accomplished.

SRVlev**Interfaces:**

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

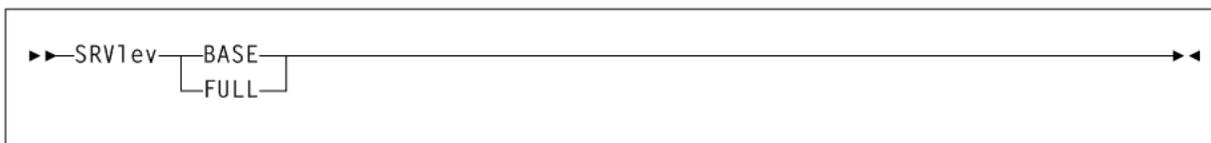
Description

The SRVlev command sets the HSC service level. See "HSC Service Levels" on page 1-8 for information about BASE and FULL service levels.

Syntax

Figure 3-169 shows SRVlev command syntax.

Figure 3-169 SRVlev command syntax

**Parameters**

As shown in Figure 3-169, the SRVlev command includes the following parameters:

BASE

specifies that the HSC is to operate at the BASE service level.

Note: When the HSC service level drops to BASE, host-to-host communications using the LMU method are switched to the CDS method. When the HSC FULL service level is restored, you must issue the COMMPATH command to return to LMU communications.

FULL

specifies that the HSC is to operate at the FULL service level.

Note: When the HSC service level is brought from BASE up to FULL, outstanding mount requests are resolved.

STOPMN**Interfaces:**

- Console or PARMLIB only

- UUI Support: No

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

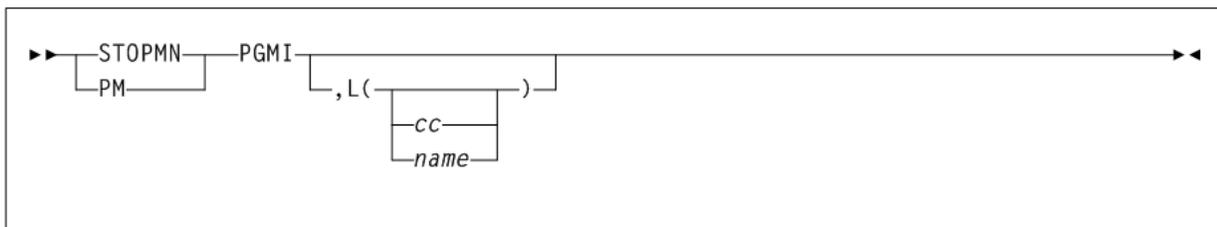
Description

The `STOPMN` command stops monitoring of cartridge move requests from the programmatic interface.

Syntax

Figure 3–170 shows `STOPMN` command syntax.

Figure 3–170 *STOPMN command syntax*



Parameters

As shown in Figure 3–170, the `STOPMN` command includes the following parameters:

PGMI

specifies that monitoring of cartridge move requests from the programmatic interface is to be terminated.

,L(*cc* or *name*)

optionally, identifies the console where the monitoring information is being displayed. If this parameter is omitted or if `L=` is specified without a console ID or console name, the monitoring being displayed on the console that issued the command is terminated.

cc optionally indicates the console ID. Allowable values are decimal in the range from 00 through 99. Specifying 00 stops information from being sent explicitly to the hardcopy log.

name optionally indicates the console name.

SWitch

Interfaces:

- Console or `PARMLIB` only
- UUI Support: No

Subsystem Requirements:

Active HSC at `FULL` service level

Description

The `SWitch` command can be used to manually reverse the roles of the master and standby LMUs or Library Controllers (LCs). The following configurations support switching:

- dual LMU
- SL8500 dual Library Controller (LC)

In a dual LMU environment, this command initiates an IPL in the master LMU, causing the current standby LMU to become the master LMU. If the former master LMU completes the IPL successfully, it then assumes the role of the standby LMU.

In a dual LC configuration for a multiple SL8500 library ACS, the `SWitch` command issues a request to the LMU to switch the library LCs by library ID.

Caution:

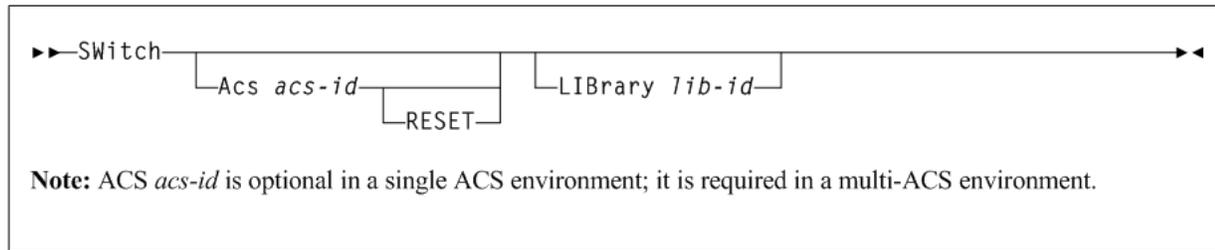
- Issue the `Display Acs` command before you enter the `SWitch` command to ensure the library to switch includes an assigned TCP/IP address or host name for the standby. If it does not, do not switch the library because doing so causes the HSC to lose communication with the library.
 - Before you issue the `SWitch` command, stop all HSC activity.
 - After you issue the `SWitch` command, do not start HSC on any other hosts and do not start any HSC activity (mounts, dismounts, `Display ACS`, or any other commands) until the switch process is complete.
-
-

Note:

- For this release, only the SL8500 library is supported for dual LC switching.
 - For an automatic switch to occur (for example, from LCA to LCB or visa versa), the LC must fail. In this case, if there is a network/communication problem with LCA, the HSC goes into network recovery for the LCA connection(s). If you cannot recover or fix the connection, issue the `SWitch` command to switch LCA to LCB manually.
 - Before you issue the `SWitch` command, if the library is partitioned, be aware of other host software groups (ACSLs, HSC, ELS) using other partitions in the same library.
-
-

Syntax

Figure 3–171 shows `SWitch` command syntax.

Figure 3–171 SWitch command syntax

Parameters

As shown in Figure 3–171, the `SWitch` command includes the following parameters:

Acs acs-id

optionally, indicates that an ACSid is being specified. This parameter is required for a multiple-ACS environment configuration or if an *acs-id* is specified.

acs-id identifies the ACS that must switch the current active connection as standby and bring the standby connection online as active.

In a single ACS configuration, *Acs acs-id* is optional and defaults to `ACS 00`. If the *acs-id* defaults to `00` or is specified with no other parameters, then all of the ACS's active connections are switched to standby, and the standby connections are switched to active.

RESET

Optionally, used with `ACS acs-id` to reset the internal switch setting and internal conflict counts for an ACS. This is helpful when a `SWitch` is invoked for an SL8500 library and one or more LSMs fail to reach ready state after the `SWitch` process completes.

Before issuing a `SWitch RESET` command, it is recommended that you enter the `Display Status` command to determine which ACS(s) are in the switch process and which ACSs are conflict active.

Verify that the library has completed the `SWitch` process before you consider issuing a `SWitch RESET` command. also verify that a `SWitch RESET` is complete before you consider issuing another `SWitch` command.

Use the following guidelines to determine when to issue a `SWitch RESET` command after a `SWitch ACS` command is issued:

1. Issue `SWitch RESET` after the `SWitch` process completes, as indicated by the following message:

```
SLS0694I ACS aa: Switch has completed
```

If this message is not displayed, wait for the `SLS6013I` message to be displayed for the active connection before issuing the `SWitch RESET` command.

2. If you receive the following message after the switch process has completed:

```
SLS1004I ACS aa cannot switch; ACS is busy
```

Issue the `SWitch RESET` command on another host. If the `SLS1004I` message is displayed again, start another HSC host and issue the `SWitch RESET` command, or restart an HSC host and then issue the `SWitch RESET` command.

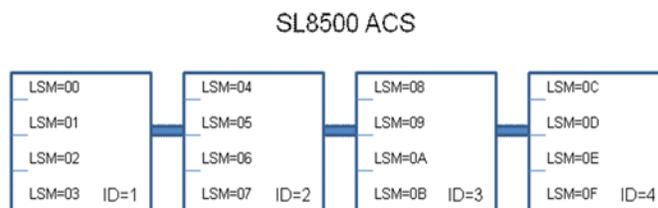
LIBrary lib-id

optionally, specifies the SL8500 library ID for the connection switch. This parameter applies only to the SL8500 library.

lib-id indicates the library id from 1 to 9 or A to G.

For an SL8500 four library ACS cluster, each library is assigned an ID from 1 to 4, as shown in the following figure:

Figure 3–172 SL8500 Cluster Library IDs



An ACS can have up to 16 library connections with A and B Library Controller (LC) connections. For the initial release, only one library (preferred to be ID 1) can have A and B LC connections. The other libraries can have a single LC connection. Each LC can handle dual TCP/IP (2B and 2A). The following table describes the LSM ID correlation to Library ID:

Table 3–16 LSM ID and Library ID

Library ID	LSM ID Range
1	00-03
2	04-07
3	08-0B
4	0C-0F
5	10-13
6	14-17
7	18-1B
8	1C-1F
9	20-23
A	24-27
B	28-2B
C	2C-2F
D	30-33
E	34-37
F	38-3B
G	3C-3F

Note:

- Before issuing this command, use the `Display ACS acs-id` command to see if the library to switch has a TCP/IP address or Host Name assigned to the standby. If there is not a TCP/IP address or Host Name assigned to the standby, do not switch the library as this will cause HSC to lose communication to the library.
 - For a switch to occur (for example, from LCA to LCB), the LC must fail. For example, if there is a network/communication problem with LCA, HSC enters network recovery for the LCA connection(s). If you cannot recover/fix the connection, then issue the `HSC SWitch` command to manually switch LCA to LCB.
 - If the library is partitioned, be aware of the other host software groups (ACSLs, HSC, ELS) that are using other partitions in the same library before issuing the `SWitch` command.
-

Examples

The following example shows the use of the `SWitch` command to switch control of ACS 00 to the Standby ACS:

```
SWITCH ACS 00
```

The following example shows the use of the `SWitch` command to switch control of ACS 00 to the Standby Library:

```
SWITCH ACS 00 LIB 1
```

TRace

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

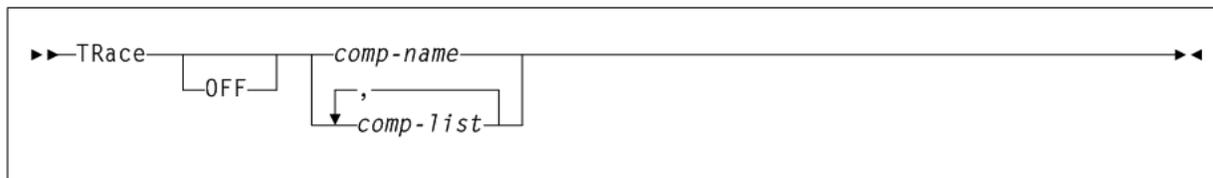
Description

The `TRace` command enables or disables tracing of events for selected HSC and VTCS components.

The MSP GTF `GTRACE` facility performs the actual tracing. To create GTF output for the event, GTF must be started and the `TRace` command must be issued before the event.

Syntax

[Figure 3–173](#) shows `TRace` command syntax.

Figure 3–173 TRace command syntax

Parameters

As shown in [Figure 3–173](#), the TRace command includes the following parameters:

OFF

optionally, turns off tracing for the specified component(s).

comp-name or comp-list

one or more components for which tracing is to be enabled or disabled. If a list of component names is specified, separate the identifiers with blank spaces or commas. Valid component names are listed below. Uppercase letters denote the minimum abbreviations allowed.

The following table describes valid components:

Table 3–17 TRace Components

Component Name	Description
ALloc	Allocation volume lookup
AScomm	Address Space Communications
CAP	CAP Common
Configur	Configuration Control
Database	Database server
FP	Function Points. FP tracing is used only by Oracle developers.
HComm	Host Communications
Initiali	Initialization
Lmu	LMU server
LS	LibraryStation
Mount	Mount/Dismount
Operator	Operator Commands
Recovery	Recovery (Note: must also trace SERvice)
SERvice	Services
Utilitie	Utilities
UUI	Unified User Interface
Volume	Volume/Cell
VTcs	VTCS
Wto	WTO Services
XML	XML Interface

Note:

- When tracing is enabled or disabled for one or more components, the status of all component tracing is displayed.
- By default, all TRace command output goes to GTF. For example, to trace an LMU and send the output to GTF, issue TR LMU. No other parameters are necessary.
- To trace the Recovery component, you must also trace the SERVICE component (a service is used to trace Recovery).
- The LS component displays in message SLS0068I only if LibraryStation has been initialized.

TRACELKP

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

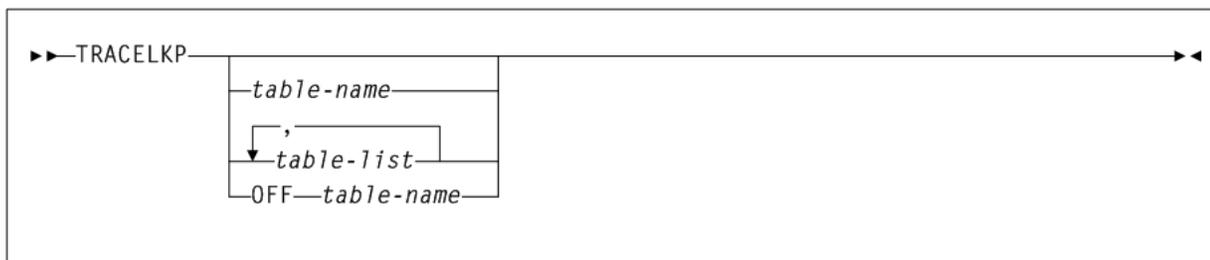
Description

The TRACELKP command enables or disables tracing of LOOKUP events associated with HSC definition files. The GTF GTRACE facility is used to perform the tracing.

Syntax

Figure 3–174 shows TRACELKP command syntax.

Figure 3–174 TRACELKP command syntax



Parameters

As shown in Figure 3–174, the TRACELKP command includes the following parameters:

table-name or table-list

one or more LOOKUP definition files for which tracing is to be enabled or disabled. If a list of event names is specified, separate the identifiers with blank spaces or commas.

When LOOKUP tracing is enabled or disabled for one or more files, the status of all LOOKUP tracing is displayed. All LOOKUP tracing output goes to GTF.

Valid LOOKUP table names are listed in the table below. Uppercase letters denote the minimum abbreviations allowed.

Table 3–18 TRACELKP Lookup Names

LOOKUP name	Description
VOLATTR	VOLATTR (VOLDEF) table
LMUPATH	LMUPATH (LMUPDEF) table
MVCPPOOL	MVCPPOOL (MVCDEF) table
MGMTCLAS	MGMTCLAS (MGMTDEF) table
STORCLAS	STORCLAS (STORDEF) table
LOOKFAIL	Trace the LOOKUP failures in detail. If LOOKFAIL is specified, the detail failure trace records are output for all events that are ON.
MIGRSEL	MIGRSEL (MGMTDEF) table
MIGRVTV	MIGRVTV (MGMTDEF) table

OFF table-name

optionally, disables tracing for the specified component(s). *table-name* indicates the components to be disabled.

UEXIT

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at BASE or FULL service level

Description

The UEXIT command defines how HSC processes your user exits.

HSC user exits allow you to invoke your own processing routines at particular points during HSC processing. User exits controlled by the HSC are loaded at HSC initialization from the load library identified by DDNAME SLSUEXIT. HSC uses the UEXIT command to manage the following:

- SLSUX03
- SLSUX05
- SLSUX06
- SLSUX14
- SLSUX15

Using the UEXIT command, you can start the HSC with a user exit disabled and then enable the exit at any time the HSC is operational. If an exit does not perform as expected, make the necessary changes and load it again.

The UEXIT command optionally enables you to provide unique user exit load module names and to create different versions of an exit that can be run at different times (for

example, day shift versus night shift). The load modules are contained in a user-defined load module library described at HSC startup.

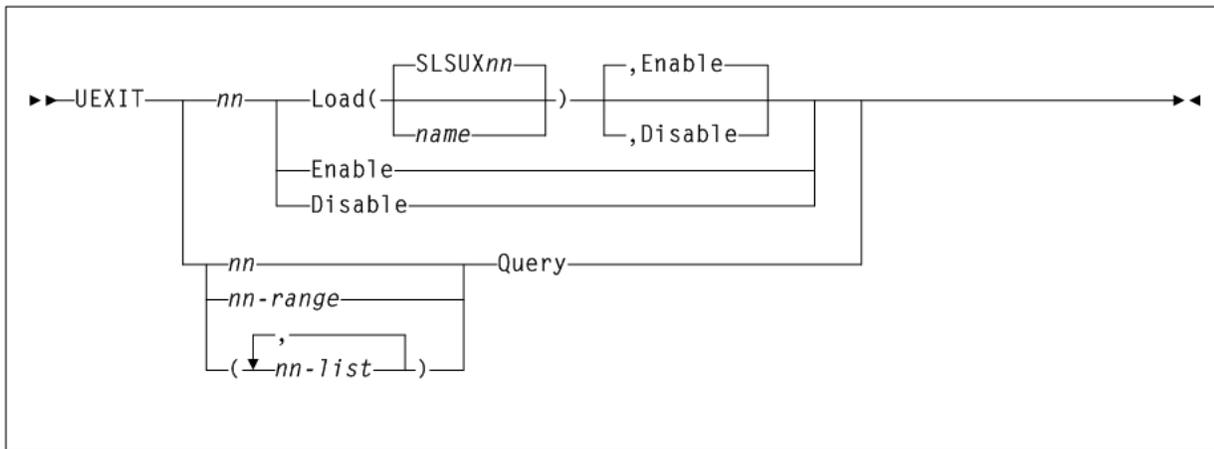
Note:

- User Exit 03 and User Exit 05 are legacy interfaces and have been replaced by alternative facilities that do not require a User Exit.
- User Exit 03 is enabled at HSC initialization. The UEXIT command cannot be used to enable, disable, or reload this exit.

Syntax

Figure 3–175 shows UEXIT command syntax.

Figure 3–175 UEXIT command syntax



Parameters

As shown in Figure 3–175, the UEXIT command includes the following parameters:

nn

specifies the user exit number. Refer to Oracle’s ELS publication *ELS Legacy Interfaces Reference* for user exit numbers.

Load

causes the specified module to be loaded into storage.

SLSUXnn

specifies the default name for the user exit. If name is not specified, then the default name is used when the HSC loads the module into storage.

name

the name of the module to be used for this exit. This is the entry point name which is used to link-edit the load module.

Enable

indicates that upon completion of the command the specified exit is considered as being active. Enable is the default.

Disable

indicates that upon completion of the command the specified exit is considered as being inactive.

Enable

optionally, specifies that the most current module for the specified user exit (*nn*) is to be enabled. This parameter may also be specified with the `Load` parameter.

Disable

optionally, specifies that the most current module for the specified user exit (*nn*) is to be disabled. This parameter may also be specified with the `Load` parameter.

nn, nn-range, or nn-list

can be used with the `Query` parameter to specify a single user exit, a range of exits, or a list of exits.

When specifying a range of user exit numbers, the beginning number must be separated from the ending number by a hyphen.

For example: (04-09)

In a list of user exits, the user exit numbers must be separated by commas and the list must be enclosed in parentheses.

For example: (01,04,10)

Query

requests the status of all the currently loaded versions of the specified user exit number(s). A display of user exit status may be specified for a single user exit, a range of exits, or a list of exits.

UNSCratch

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC at FULL service level

Description

The UNSCratch command unscratches one or more volumes.

Syntax

Figure 3-176 shows UNSCratch command syntax.

Figure 3-176 UNSCratch command syntax



Parameters

As shown in [Figure 3–176](#), the UNSCratch command includes the following parameters:

VOLser(vol-list)

specifies the list of volume serial numbers to be added, deleted, or replaced in the scratch list(s).

vol-list indicates the volume serial numbers; this can be a single volume, a list of volume serial numbers, ranges of volume serial numbers, or combinations of lists with ranges delimited by commas. You can specify a maximum of 100 volume serial numbers. The entire list must be enclosed in parentheses.

UNSElect

Interfaces:

- SLUADMIN utility only
- UUI Support: No

Subsystem Requirements:

Active HSC not required

Description

The UNSElect command unselects a volume that is erroneously in a selected state.

Note:

- Use this utility only if you are certain that the HSC has incorrectly left the volume selected. Incorrect use of this utility can result in HSC abends and errant volumes.

Issue a `Display Volume DEtail` command to determine which host has the volume in question. Then, issue `Display DRives` and `Display Requests` commands on the host that has the volume in question to see if that volume is being used.

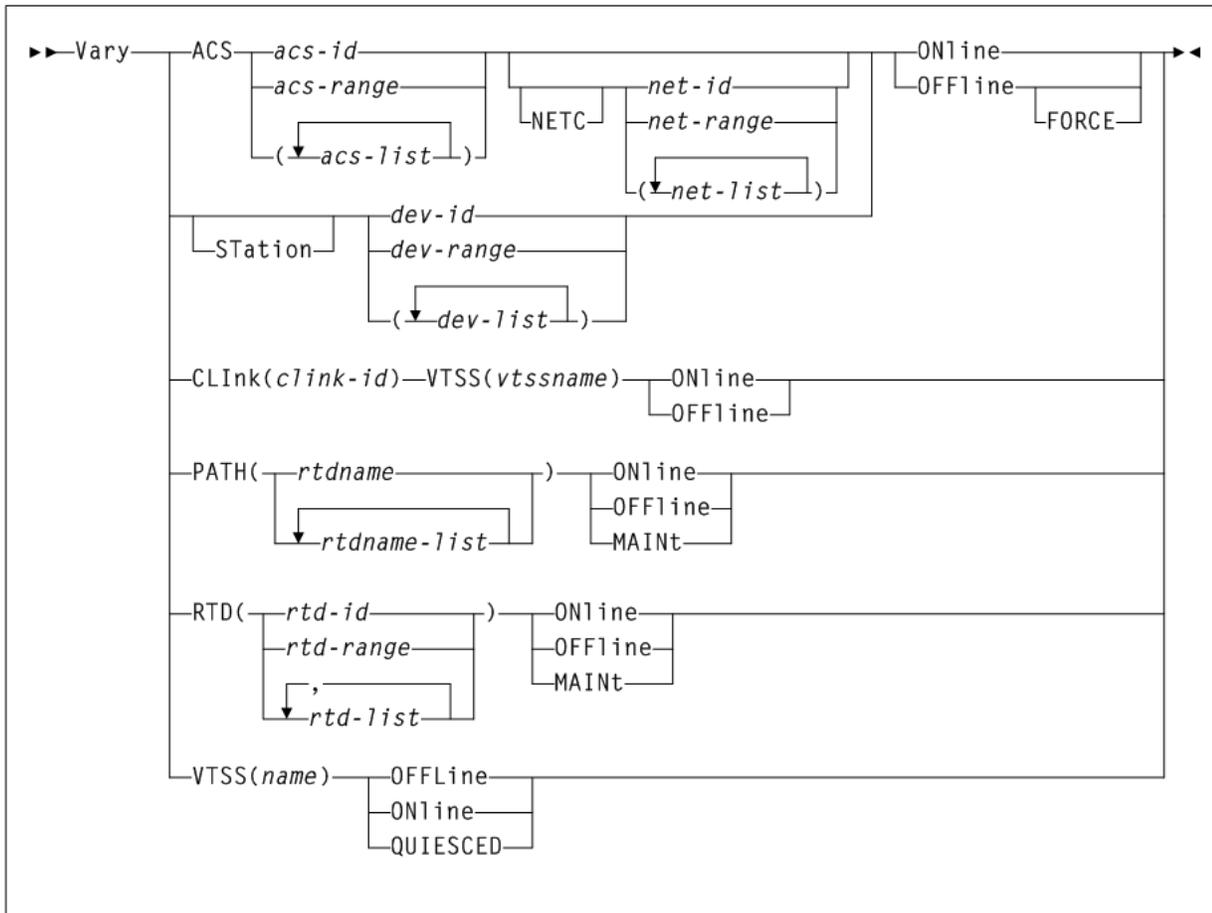
If the selected volume is mounted on a transport, issue a `DISMount` command for the transport. If there is a request active to the LMU for the volume, wait for the request to complete. If the overdue response handler indicates the request has timed out, you may want to terminate the request.

- The UNSElect function can only be invoked when SLUADMIN is invoked APF authorized, key 0 through 7, or supervisor state. The load module invoked by UNSElect is SLUNSEL. Restricting access to this module restricts access to this utility function.
-
-

Syntax

[Figure 3–177](#) shows UNSElect command syntax.

Figure 3–178 Vary command syntax



Parameters

As shown in Figure 3–178, the Vary command includes the following parameters:

ACS(*acs-id*, *acs-range*, or *acs-list*)

optionally, specifies the ACS to be made online, offline, or standby to this host.

acs-id, *acs-range*, or *acs-list* indicates one or more ACSs to be varied. Each *acs-list* element can be either a single ACSid or an ACSid range. Ranges are separated by a dash. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

NETC(*net-id*, *net-range*, or *net-list*)

optionally, used with ACS *acs-id* to vary online/offline a single, range, or list of HSC library network connections.

net-id, *net-range*, or *net-list* indicates one or more network connection to be varied. Each *net-list* element can be either a single *net-id* or a *net-id* range. Ranges are separated by a dash. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

ONline

specifies that the stations are to be made online or standby to this host.

OFFline

specifies that the stations are to be made offline to this host.

FORCE

optionally, indicates that the stations are to be made offline immediately. The **FORCE** option can be specified when the HSC is at the **FULL** service level or is past the **BASE** service level going to the **FULL** service level.

This parameter applies only to the **OFFline** operand.

Station(dev-id, dev-range, or dev-list)

optionally, specifies the stations to be made online, offline, or standby to this host.

In an ACS, a connection between the host CPU and an LMU is referred to as a "station." Each station appears to the host CPU as a 3278-2 device and is physically connected to a port on a supported 3174, 3274 or compatible terminal controller. Each LMU can contain a maximum of 16 stations. Depending on the number of host CPUs connected to the ACS, each host CPU can have either one or several stations to each LMU.

dev-id, *dev-range*, or *dev-list* indicates the stations to an LMU to be varied. Each *dev-list* element can be either a single device number or a range of device numbers. Ranges are separated by a dash. The elements in a list must be separated by commas or blanks, and the entire list must be enclosed in parentheses.

Each device number identifies a device attached to the host issuing the command. Allowable values are 000-FFF.

CLink(clink-id)

the specified CLINK.

clink-id indicates the link ID.

VTSS(vtssname)

the sending VTSS in the Cluster.

vtssname indicates the 1 to 8 character identifier of the sending VTSS.

ONline

specifies that the stations are to be made online or standby to this host.

OFFLine

Vary the specified CLINK offline.

PATH(rtd-name or rtdname-list)

optionally, specifies the path (from a VTSS to RTDs) to be made online, offline, or standby to this host. This permits the individual **RTDPATH** from a VTSS to a device to be varied to the desired state. This path may represent either a direct connection to a RTD from a VTSS or a connection to a Virtual Library.

rtd-name or *rtdname-list* indicates the names assigned to the paths for accessing RTDs for Virtual Libraries from a VTSS

ONline

Vary the specified path (from a VTSS to RTDs) to an online state.

OFFLine

Vary the specified path (from a VTSS to RTDs) to an offline state.

MAINT

Vary the specified path (from a VTSS to RTDs) to an offline (maintenance mode) state.

RTD(rtd-name, rtd-list, or rtd-range)

Change the state of the specified RTDs.

rtd-name, *rtd-range*, or *rtd-list* indicates the unit addresses of one or more RTDs. Lists and ranges of RTDs are limited to 64 items for VSM2s and VSM3s and 256 items for VSM4s.

ONline

Vary the specified RTDs online to their connected VTSSs.

OFFLine

Vary the specified RTDs offline to their connected VTSSs.

MAINT

Vary the specified RTDs offline (maintenance mode) to their connected VTSSs.

VTSS(name)

Change the state of the specified VTSS.

name indicates the VTSS identifier.

Note: Vary VTSS does not change the state of the VTDs or RTDs associated with the specified VTSS.

ONline

Vary the specified VTSS online.

OFFline

Vary the specified VTSS offline.

QUIESCED

Vary the specified VTSS to quiesced state.

Note: Vary VTSS does not change the state of the VTDs or RTDs associated with the specified VTSS.

View

Interfaces:

- Console or PARMLIB only
- UUI Support: No

Subsystem Requirements:

Active HSC at FULL service level

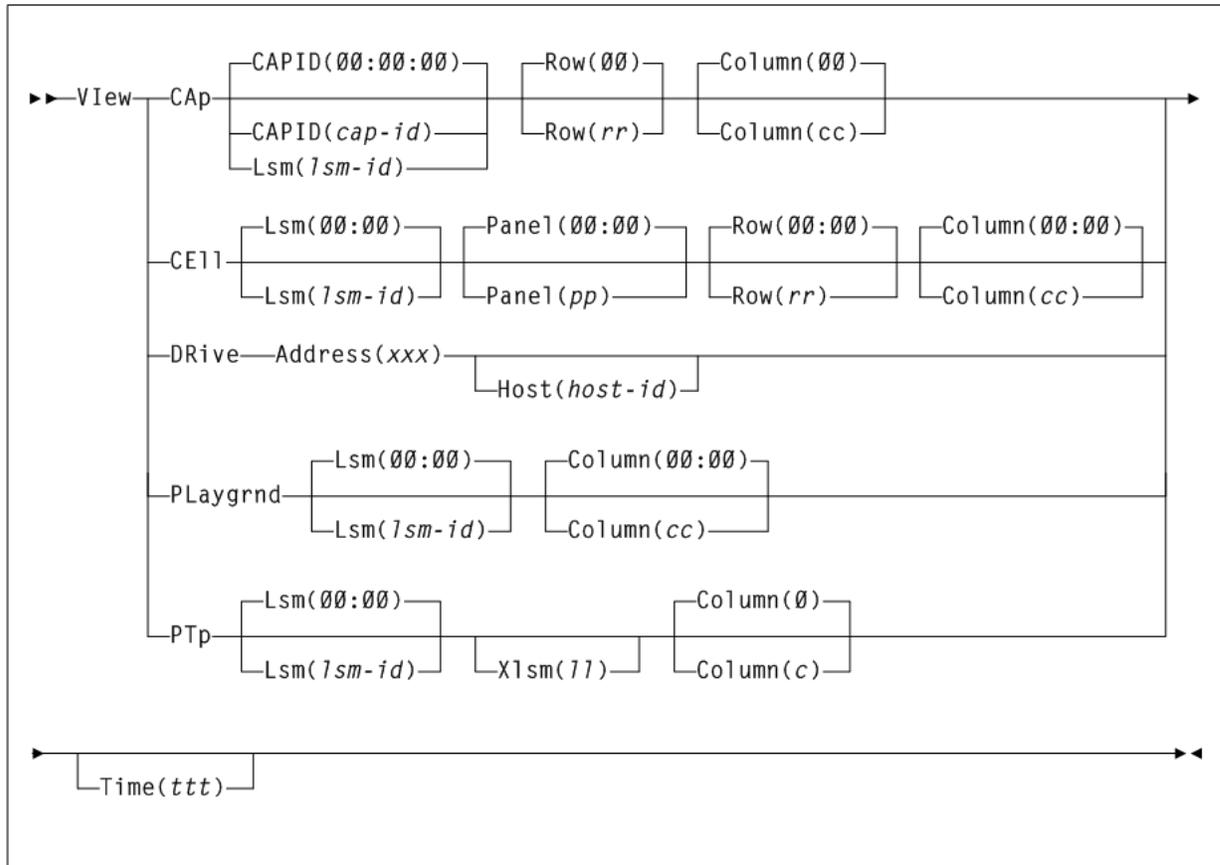
Description

The `View` command enables you to see specified internal components of the LSM when video monitors are attached to the LSM.

Syntax

Figure 3–179 shows `VIEW` command syntax.

Figure 3–179 View command syntax



Parameters

As shown in Figure 3–179, the `VIEW` command includes the following parameters:

CAP

indicates that a camera is to focus on a cell location in a CAP. If you do not specify the `CAPID` or `Lsm` parameter, the command defaults to `CAPid 00:00:00`. If you do not specify the `Row` and `Column` parameters, the command defaults to row 0, column 0.

CAPID(cap-id)

identifies one CAP in an LSM that contains multiple CAPs.

`cap-id` indicates the CAP that you want to view. The format of a `cap-id` is `AA:LL:CC`, where `AA:LL` indicates the `LSMId`, and `CC` indicates the CAP. See "CAPid" on page B-1 for a list of valid values.

Lsm(lsm-id)

identifies an LSM that contains a single CAP.

`lsm-id` indicates the single CAP that you want to view. The format of an `LSMId` is `AA:LL`, where `AA` indicates the `ACSid` (decimal 00-99) and `LL` indicates the LSM number (decimal 00-99).

Row(rr)

identifies a row number in a CAP. If you do not specify this parameter the command defaults to `row 0`.

rr indicates the row number. Allowable values for *rr* are decimal and are specific to the LSM type. See "Rows" on page B-3 for a list of valid values.

Column(cc)

identifies the column number within a CAP. If you do not specify this parameter the command defaults to `column 0`.

cc indicates the column number. Allowable values for *cc* are decimal and are specific to the LSM type. Columns are numbered starting at the left of the panel. See "Columns" on page B-4 for a list of valid values.

CEII

indicates that a camera is to focus on a cartridge storage or diagnostic cell in an LSM panel. If you do not specify the `Lsm`, `Panel`, `Row`, and `Column` parameters, the command defaults to `LSM 00:00, panel 0, row 0, column 0`.

Lsm(lsm-id)

identifies an LSM. If you do not specify this parameter, the command defaults to `LSMid 00:00`.

lsm-id indicates the LSMid. The format of an LSMid is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

Panel(pp)

designates the LSM panel number containing the cartridge storage or diagnostic cell that the camera is to view. If you do not specify this parameter the command defaults to `panel 0`.

pp indicates the panel number. Allowable values for *pp* are decimal and are specific to the LSM type. See "Panels" on page B-2 for a list of valid values.

Row(rr)

identifies a row number in an LSM panel. If you do not specify this parameter the command defaults to `row 0`.

rr indicates the row number. Allowable values for *rr* are decimal and are specific to the LSM type. See "Rows" on page B-3 for a list of valid values.

Column 3 on panel 2 allows row entries only on rows 28-41. The cells on panel 3 are optional.

Column(cc)

identifies the column number within a panel. If you do not specify this parameter the command defaults to `column 0`.

cc indicates the column number. Allowable values for *cc* are decimal and are specific to the LSM type. Columns are numbered starting at the left of the panel. See "Columns" on page B-4 for a list of valid values.

DRive

indicates that a camera is to focus on a cartridge drive. You must designate the `Address` parameter to identify the drive. The `Host` parameter enables you to view a drive defined to another host.

Address(XXX)

specifies the address of a cartridge drive. The `Address` parameter defines the operating system address of the transport you want to inspect.

`xxx` indicates the hexadecimal address of the transport. The HSC verifies that the specified address matches the `LIBGEN`-defined address for the given host.

Host(host-id)

gives meaning to the `Address` parameter when the drive being inspected is not defined in the `LIBGEN` for the host from which the `VIEW` command is being entered.

If you do not specify the `Host` parameter, the HSC checks the `LIBGEN`-defined drive list for the host from which you entered the `VIEW` command. If the address is found in the drive list, the command is executed.

`host-id` indicates the host where the transport is defined.

PLaygrnd

indicates that a camera is to focus on a playground cell. If the `Lsm` and `Column` parameters are not specified, the command defaults to the relative location of the cell in the playground in `LSM 00:00`.

Note: The playground is a reserved area of cells where the robot deposits cartridges that it finds in its hands during LSM initialization. Normal LSM initialization recovery processing moves cartridges from the playground cells to either their home cells or their intended destinations, but under abnormal circumstances cartridges may be left in playground cells. Refer to the appropriate Oracle StorageTek hardware publication for the location of the playground in the LSM.

Lsm(lsm-id)

identifies an LSM. If you do not specify this parameter, the command defaults to `LSMid 00:00`.

`lsm-id` indicates the `LSMid`. The format of an `LSMid` is `AA:LL`, where `AA` indicates the `ACSid` (decimal 00-99) and `LL` indicates the LSM number (decimal 00-99).

Column(cc)

identifies the relative location of the cell in the playground for a panel. If you do not specify this parameter, the command defaults to the relative location of the cell in the playground.

`cc` indicates the relative location of the cell in the playground. Allowable values for `cc` are decimal and are specific to the LSM type. (Some LSMs have multiple playground cells and some have only one.)

PTp

indicates that a camera is to focus on a pass-thru port (PTP) cell. You can designate a particular PTP using the `Lsm` and `Xlsm` parameters, a particular cell using the `Column` parameter, and specify the viewing time using the `Time` parameter.

Note: When the PTP is being shared by two different LSM types, the upper limit of the column value is determined by the LSM with the smaller PTP capacity.

Lsm(lsm-id)

identifies an LSM. If you do not specify this parameter, the command defaults to `LSMid 00:00`.

lsm-id indicates the LSMid. The format of an LSMid is *AA:LL*, where *AA* indicates the ACSid (decimal 00-99) and *LL* indicates the LSM number (decimal 00-99).

Xlsm(l1)

identifies the PTP to be inspected by defining the LSM that shares the PTP.

Each PTP is identified by the two LSMs it services. The `Lsm` parameter identifies which robot is used to view the PTP, and the `xlsm` parameter identifies the LSM that shares the PTP. This distinction is necessary whenever an LSM contains more than one PTP.

If `xlsm` is not specified for an LSM containing two or more PTPs, the HSC examines the `LIBGEN` and selects the first PTP defined there for `Lsm(lsm-id)`.

l1 indicates the LSM number of the adjacent LSM. Values for *l1* are decimal in the range from 00-99. (The ACS is identified in the `Lsm` parameter.)

Column(c)

identifies the column number within a panel. If you do not specify this parameter the command defaults to `column 0`.

c indicates the column number. Allowable values for *c* are decimal and are specific to the LSM type:

- 0-3 for LSM Models 4410, 9310, and 9740
- 0 or 1 for WolfCreek LSMs (all models).

Note: When the PTP is being shared by two different LSM types, the upper limit of the column value is determined by the LSM with the smaller PTP capacity.

Time(ttt)

specifies the video monitor viewing time.

ttt indicates the time, in seconds.

VLEMAINT

Interfaces:

- Console or utility
- UUI Support: Yes

Subsystem Requirements:

Active HSC/VTCS

Description

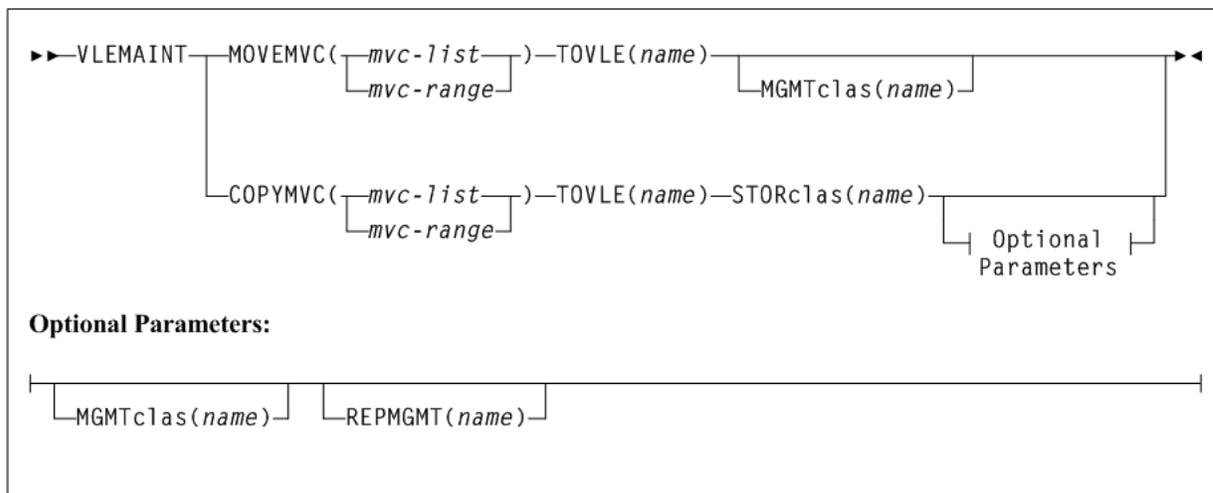
The `VLEMAINT` utility command moves or copies VLE based MVC (VMVC) data content to a specified VLE system, without using VTSS storage resources.

This utility should only be used under the guidance of Oracle Support personnel.

Syntax

Figure 3–180 shows VLEMAINT command syntax.

Figure 3–180 VLEMAINT command syntax



Parameters

As shown in Figure 3–180, the VLEMAINT command includes the following parameters:

MOVEMVC(*mvc-list* or *mvc-range*)

specifies a list or range of VLE based MVCs whose content is to be moved to the specified target VLE system. MVCs selected in the target VLE system inherit the storage class of the source MVC.

mvc-list or *mvc-range* indicates the list or range of MVCs.

MOVEMVC is mutually exclusive with COPYMVC.

TOVLE(*name*)

specifies the target VLE to receive the source VMVC data. This parameter is required.

name indicates the target VLE name. This VLE must be valid (defined to the configuration). Otherwise, the utility terminates with a return code 8.

MGMTclas(*name*)

optionally, specifies a single management class used to filter data sent to the target VLE. Only VTVs with this management class are sent to the target VLE.

name indicates the management class name. This name must be valid (defined in MGMTDEF). Otherwise, the utility terminates with return code 8.

COPYMVC(*mvc-list* or *mvc-range*)

specifies a list or range of VLE based MVCs whose content is to be copied to the specified target VLE system. COPYMVC creates an additional copy of the data to another storage class on the target VLE system.

mvc-list or *mvc-range* indicates the list or range of MVCs.

COPYMVC is mutually exclusive with MOVEMVC. COPYMVC requires a STORclas name to be specified.

TOVLE(name)

specifies the target VLE to receive the source VMVC data. This parameter is required.

name indicates the target VLE name. This VLE must be valid (defined to the configuration). Otherwise, the utility terminates with a return code 8.

STORclas(name)

optionally, specifies the storage class assigned to the VMVC selected at the target VLE for COPYMVC processing. This parameter is required when COPYMVC is specified.

name indicates the storage class name. This name must be valid (defined in MGMTDEF). Otherwise, the utility terminates with a return code 8.

Optional Parameters (VLEMAINT COPYMVC)

If you specify VLEMAINT COPYMVC, the following optional parameters apply:

MGMTclas(name)

optionally, specifies a single management class used to filter data sent to the target VLE. Only VTVs with this management class are sent to the target VLE.

name indicates the management class name. This name must be valid (defined in MGMTDEF). Otherwise, the utility terminates with return code 8.

REPMGMT(name)

optionally, specifies a single management class name assigned to the VTV data after it is received by the target VLE system for COPYMVC processing.

name indicates the management class name. This name must be valid (defined in MGMTDEF). Otherwise, the utility terminates with return code 8.

Note: During COPYMVC processing, any VTV found with the management class specified in REPMGMT is bypassed. This could potentially serve as a copy complete acknowledgment if utility restarts occur.

VOLPCONV

Interfaces:

- SLUADMIN utility only
- UI Support: No

Subsystem Requirements:

Active HSC not required

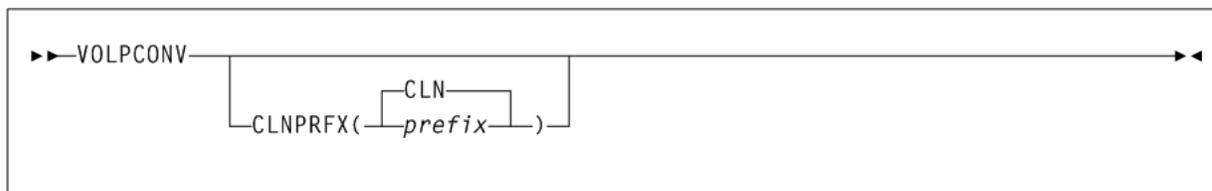
Description

The VOLPCONV command reads existing VOLDEF, SCRDEF, MVCDEF, and VTCS CONFIG input statements and converts them to SET VOLPARM statements. The existing VTCS configuration is also input to the utility.

Syntax

Figure 3–181 shows VOLPCONV command syntax.

Figure 3–181 VOLPCONV command syntax



Parameters

As shown in [Figure 3–181](#), the VOLPCONV command includes the following parameters:

CLNPRFX(prefix or CLN)

specifies a prefix to apply to all types of cleaning cartridges.

prefix indicates a three-character prefix. CLN is the default.

Additional JCL Requirements

In addition to the required JCL definition statements described in "[Invoking SLUADMIN](#)" on page 5-1, the following definition statements apply to the VOLPCONV JCL:

SLSVOLA

input VOLDEF definitions in the form of VOLATTR statements.

Note: VOLATTR statements coded with the masking character (% , ? or *) within the SERIAL parameter are not supported and will cause message SLS0227I to be issued. Any VOLATTR statement using these masking characters must be converted to a range that spans the intent of the masking characters before running VOLPCONV.

SLSSCRP

input SCRPEDEF definitions in the form of SCRPOOL statements.

SLSMVCP

input MVCDEF definitions in the form of MVCPOOL statements.

SLSVTCS

input VTCS configuration definitions. The VTCS configuration definitions can be obtained by running the VTCS DEComp utility.

SLSPARM

output VOLUME or POOL definitions in the form of POOLPARM and VOLPARM control statements. The logical record size of the SLSPARM data set is 80.

VOLRpt

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

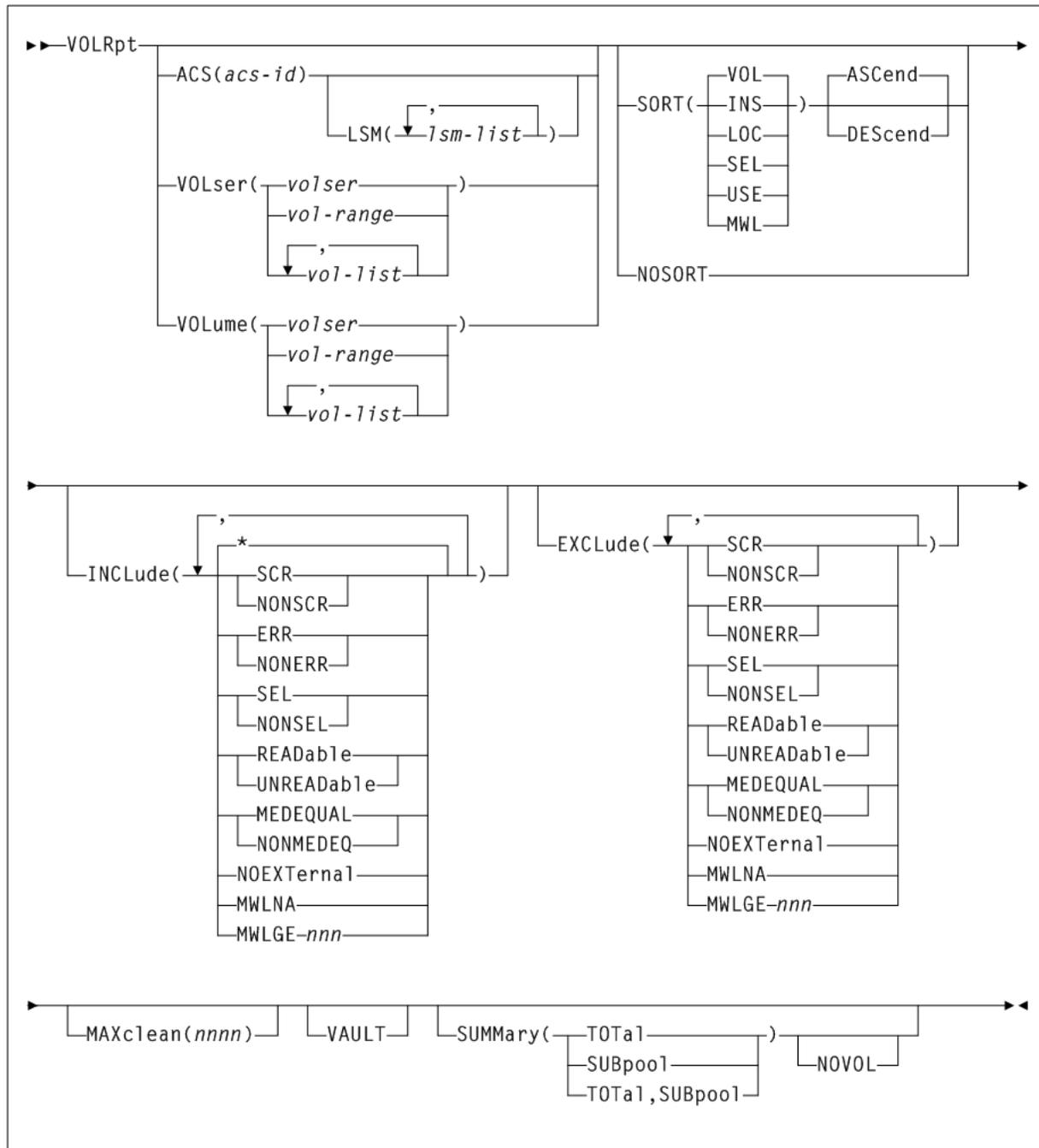
Description

The VOLRpt command produces a volume report.

Syntax

Figure 3–182 shows VOLRpt command syntax.

Figure 3–182 VOLRpt command syntax



Parameters

As shown in [Figure 3-182](#), the VOLRpt command includes the following parameters:

ACS(acs-id)

optionally, specifies that a report is to be produced for only a particular ACS.

acs-id indicates the one or two digit decimal ACS identifier.

LSM(lsm-list)

optionally, specifies that a report is to be produced for only certain LSMs within an ACS.

lsm-list indicates the LSMs. An *lsm-list* can be a single LSM number or a list of LSM numbers. An LSM number is decimal 00-99.

An LSM range is not allowed. If a list is specified, the elements must be separated by blanks or commas, and the entire list enclosed in parentheses.

VOLser or VOLume(volser, vol-range, or vol-list)

optionally, specifies that the report only contain information on certain VOLSERS.

volser, *vol-range*, or *vol-list* indicates the volume serial numbers requested. Any subranges of volumes specified in the *vol-list* that are not in the control data set are listed in the Control Card Image Listing portion of the report using one line per subrange.

A percent sign ("%") may be used as a "wildcard" character in the VOLSER to specify pattern matching. The percent sign designates that any single character can match the corresponding position in the VOLSER.

For example, A9%%%% specifies that all of the six-character volume serial numbers that begin with the characters "A9" are selected for the report.

Q%12% specifies that all five-character VOLSERS that begin with "Q" and have a "12" in the third and fourth positions of the VOLSER are selected for the report. The percent sign cannot be specified in a range specification. Therefore, "A%0000-A%9999" is invalid.

In the Volume Report Listing of the utility, the volumes requested which are not in the control data set are not listed.

SORT

optionally specifies a specified sort sequence.

Multiple sort criteria may be specified. The order, from left to right, specifies the order in which the report is to be sorted.

For example, SORT (INS, USE) produces a report sorted by date inserted in the control data set, and then for each date, sorted by select count.

Note: SORT and NOSORT are mutually exclusive.

The following SORT options are available:

VOL

indicates that the report is to be sorted by volume serial number (VOL is the default).

INS

indicates that the report is to be sorted by date and time the volume was inserted into the control data set.

LOC

indicates that the report is to be sorted by location.

SEL

indicates that the report is to be sorted by date and time the volume was last selected.

USE

indicates that the report is to be sorted by selection count.

MWL

indicates that the report is to be sorted by Media Warranty Life (MWL) percentage, which indicates how much of the media life has been used. Media warranty life is considered to be expired at 100%.

To collect and report media warranty life, tape libraries and transports must meet the following requirements:

- SL8500 or SL3000 libraries
- LMU compatibility level 21 or higher
- T9x40: all media and models at firmware level 1.42 or higher (except 9840B)
- T10000: all models and media at firmware level 1.38 or higher

Refer to Oracle's ELS publication *Managing HSC and VTCS* for more information about media warranty life.

ASCend

optionally, specifies that the report is to be sorted in ascending order. ASCend is the default. This parameter is ignored if NOSORT is specified. ASCend is mutually exclusive with NOSORT and DEScend.

DEScend

optionally, specifies that the report is to be sorted in descending order. This parameter is ignored if NOSORT is specified. DEScend is mutually exclusive with NOSORT and ASCend.

NOSORT

specifies that an unsorted report is to be produced. NOSORT is mutually exclusive with SORT, ASCend, and DEScend.

INCLude

optionally, specifies the criteria for including volume information in the report. If this keyword is specified, all volumes that match at least one of the specified criteria are tentatively selected for the report. Information about volumes may be removed from the list of volumes selected for the report if other options, such as EXCLUDE, VOL, ACS, or LSM are specified.

- INCLude parameters are applied before EXCLude parameters in volume selection.
- Parameter values are not checked for the existence of their opposite values (for example, SEL is still flagged even if NONSEL is specified, and vice versa).
- Positive attributes are applied before negative attributes (for example, SCR is applied before NONSCR).

*

indicates that all volumes in the library are considered for being included in the report. The default is *. If more than one of the following parameters is specified, the parameters must be separated by commas.

SCR

specifies that scratch volumes match the specified criteria.

NONSCR

specifies that nonscratch volumes match the specified criteria.

ERR

specifies that errant volumes match the criteria.

NONERR

specifies that non-errant volumes match the criteria.

SEL

specifies that selected volumes match the criteria.

NONSEL

specifies that nonselected volumes match the criteria.

READable

specifies that volumes with a readable external label match the criteria.

UNREADable

specifies that volumes with an unreadable external label match the criteria.

MEDEQUAL

specifies that volumes for which the media types of the `VOLATTR` and the `VAR` are equal match the criteria.

NONMEDEQ

specifies that volumes for which the media types of the `VOLATTR` and the `VAR` are not equal match the criteria.

NOEXternal

specifies that volumes without an external label match the criteria.

For example, `INCLUDE (SEL, ERR)` tentatively chooses only selected and errant volumes for the report. `INCLUDE` parameters are applied before `EXCLUDE` parameters in volume selection.

MWLNA

specifies that volumes with an unknown media warranty life match the criteria. Media warranty life is obtained at volume dismount for tape libraries with an LMU compatibility level of 21 or above. Use the `Display ACS` command to obtain the LMU compatibility level.

MWLGE nnn

specifies that volumes with a media warranty life greater than or equal to *nnn* percent match the criteria. It also excludes all volumes with an unknown media warranty life.

Specify `INCLUDE (MWLNA)` to force inclusion of all volumes with an unknown media warranty life. Valid values for *nnn* are 0-254.

To collect and report media warranty life, tape libraries and transports must meet the following requirements:

- SL8500 or SL3000 libraries
- LMU compatibility level 21 or higher
- T9x40: all media and models at firmware level 1.42 or higher (except 9840B)
- T10000: all models and media at firmware level 1.38 or higher

Refer to Oracle's ELS publication *Managing HSC and VTCS* for more information about media warranty life.

EXCLude

optionally, specifies the criteria for excluding volume information from the report. Any volumes that match one or more of the exclusion criteria are excluded from the report.

EXCLude parameter values are the same as INCLude values, except for the * parameter (see the INCLude options list above).

As an example, EXCL(NONSEL) excludes nonselected volumes from the report.

- INCLude parameters are applied before EXCLude parameters in volume selection.
- If MWLGE is specified in both the INCLUDE and EXCLUDE parameters, the EXCLUDE limit value must be greater than the INCLUDE limit value.
- Parameter values are not checked for the existence of their opposite values (for example, SEL is still flagged even if NONSEL is specified, and vice versa).
- Positive attributes are applied before negative attributes (for example, SCR is applied before NONSCR).

*

indicates that all volumes in the library are considered for being included in the report. The default is *. If more than one of the following parameters is specified, the parameters must be separated by commas.

SCR

specifies that scratch volumes match the specified criteria.

NONSCR

specifies that nonscratch volumes match the specified criteria.

ERR

specifies that errant volumes match the criteria.

NONERR

specifies that non-errant volumes match the criteria.

SEL

specifies that selected volumes match the criteria.

NONSEL

specifies that nonselected volumes match the criteria.

READable

specifies that volumes with a readable external label match the criteria.

UNREADable

specifies that volumes with an unreadable external label match the criteria.

MEDEQUAL

specifies that volumes for which the media types of the VOLATTR and the VAR are equal match the criteria.

NONMEDEQ

specifies that volumes for which the media types of the VOLATTR and the VAR are not equal match the criteria.

NOEXternal

specifies that volumes without an external label match the criteria.

For example, INCLUDE (SEL, ERR) tentatively chooses only selected and errant volumes for the report. INCLUDE parameters are applied before EXCLUDE parameters in volume selection.

MWLNA

specifies that volumes with an unknown media warranty life match the criteria. Media warranty life is obtained at volume dismount for tape libraries with an LMU compatibility level of 21 or above. Use the Display ACS command to obtain the LMU compatibility level.

MWLGE nnn

specifies that volumes with a media warranty life greater than or equal to *nnn* percent match the criteria. It also excludes all volumes with an unknown media warranty life.

Specify INCLUDE (MWLNA) to force inclusion of all volumes with an unknown media warranty life. Valid values for *nnn* are 0-254.

To collect and report media warranty life, tape libraries and transports must meet the following requirements:

- SL8500 or SL3000 libraries
- LMU compatibility level 21 or higher
- T9x40: all media and models at firmware level 1.42 or higher (except 9840B)
- T10000: all models and media at firmware level 1.38 or higher

Refer to Oracle's ELS publication *Managing HSC and VTCS* for more information about media warranty life.

MAXclean(nnnn)

optionally, specifies the maximum cleaning cartridge usage for the "over max clean" column. The MAXclean specified for each POOLPARM TYPE (CLEAN) overrides this value.

nnnn indicates the maximum usage value. Valid values are 0-32767.

VAULT

optionally, specifies that vaulted volumes are to be included in the detail volume report. VAULT is mutually exclusive with NOVOL, ACS, and LSM.

If the vault CDS subfile does not exist, this parameter is ignored.

Vaulted volumes are not included in the SUMMARY reports. In the detail report, the cell location for a vaulted volume is identified by the word VAULT and the insertion date/time is the date/time that the volume was inserted into the vault; that is, ejected from the tape library. Refer to the *LCM User's Guide* for more information about vaulting.

SUMMARY

optionally, specifies that the utility provide totals of volume attributes on an LSM and ACS basis, and subpool data on an ACS or LSM basis. Totals are affected by the use of limiting parameters such as ACS (and possibly LSM), VOLser or VOLUME, and INCLUDE or EXCLUDE.

If both TOTAl and SUBpool are specified, both reports are provided. The time and date displayed in the header for the Summary Report(s) are the same as the Volume Report Listing header.

TOTAL

specifies that totals of scratch, selected, errant, available cells, and external label status types be provided on an LSM, ACS, and library basis in the report.

The totals are listed on a separate listing, on a new page from the Volume Report Listing and the Control Card Listing.

SUBpool

specifies that subpool totals be provided on an LSM, ACS, and library basis in the report.

Subpool information can be provided using the VOLPARM facility. See "[VOLPARM Control Statement](#)" on page 3-331 for more information about defining VOLPARM information. For alternative methods of specifying subpool information, refer to Oracle's ELS publication *ELS Legacy Interfaces Reference*.

The totals are listed on a separate listing, on a new page from the Volume Report Listing, the Control Card Listing, and the Volume Report Totals Listing.

If subpools overlap (that is, a volume belongs to more than one subpool), then each volume is reported only within the first subpool in which it occurs, and totals for the other subpools may be inaccurate.

NOVOL

optionally, when used with SUMMARY, specifies to display summary or subpool totals without producing volume detail.

NOVOL should not be specified by itself. NOVOL is mutually exclusive with ACS, VOLser, VOLUME, SORT, NOSORT, INCLUDE, EXCLUDE, MAXclean, and VAULT.

Additional JCL Requirements

If you are not using the VOLPARM facility to define your volume characteristics, refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for a description of additional VOLRPT JCL statements that may be required.

Volume Report

The following is an example of a volume report produced by the VOLRpt command issued with the SUMMARY(SUBpool) parameter:

Example 3-56 VOLRpt report

Volume	Cell Loc	Err	Sel	Ext	Cln	Subpool ID	--- Inserted ---	-- Last Used --	Times	MWL	
Serial	Media	Rectech	AA:LL:Pa:Ro:Co	Scr	Lbl Use		Date	Time	Date	Time	Selected %
B00141	T10000T1	T1B35	01:01:02:08:01	Y	R	SMCT10K	20110725	15:52:13	20110920	10:44:52	13 0

Subpool Totals, all Ranges

Subpool ID	Label Type	Range Limits	DRTEST?
DEFAULTPOOL	SL	N/A - N/A	No

Fields

The VOLRpt report includes the following fields:

Volume Serial

the volume serial number

Media

the media type. See [Appendix A, "MEDia, RECtech, and MODel Values"](#).

The media field may be immediately preceded by an asterisk * or dash -.

- An asterisk * indicates that the media defined by a VOLATTR statement is not compatible with the media label value.
- A dash - indicates that the volume has no VOLATTR or VOLPARM defined media value.

Rectech

the recording technique. See [Appendix A, "MEDia, RECtech, and MODel Values"](#).

Cell Loc

the cell location field shows cartridge location by ACS (AA), LSM(LL), panel (PA), row (RO), and column (CO).

Err, Scr, Sel

A Y (yes) flag under the **Errant**, **Scratch**, or **Selected** headings indicates that the volume is currently in that status.

A volume in Errant (Err) status shows the volume's home cell in the **Cell Loc** column.

A Y (yes) flag under the **Selected** heading indicates that the volume is currently selected, that is, being mounted, dismounted, ejected, or moved. An M flag indicates that the volume is currently mounted. The **Selected** column on the totals report includes both selected and mounted volumes. The volume's home cell appears in the **Cell Loc** column.

Ext Lbl

External Label:

- R indicates that the volume has a readable external label.
- U indicates that the volume has an unreadable external label.
- N indicates that the volume has no external label.

Cln Use

Cartridge Usability:

- N indicates that the volume is not usable, for example, a spent cleaning cartridge that is not usable because it has exhausted its cleaning surface.
- M indicates that a cleaning cartridge has exceeded its maximum usage set by the MAXclean value (as specified by the MNTD MAXclean or VOLATTR MAXclean parameters).

Subpool ID

the subpool ID.

Scratch subpools for volumes are listed if scratch subpool definitions have been provided using VOLPARM control statements.

- *NON-VOLPARM* indicates that VOLPARM is in effect, but this volume is not defined in VOLPARM.
- DEFAULTPOOL indicates that the volume is defined in VOLPARM with no associated pool.
- *MVC* indicates that the volume is reserved for VTCS usage as a migration volume.
- *DEFAULT* indicates that the volume is a cleaning cartridge but has not been included in a VOLPARM defined subpool, *DEFAULT* appears.

If VOLPARM is not used, the generated report is the same as in the HSC 6.2 release. Refer to the *HSC 6.2 System Programmer's Guide* for more information.

Inserted

date and time that the volume was inserted.

Last Used

date and time that the volume was last used

MWL Media Warranty Life

Media Warranty Life (MWL) is a percentage value that is obtained at volume dismount for tape libraries that are at LMU compatibility level 21 or later. If you do not know the compatibility level, enter the HSC `Display Acs` command to display it. See "[Display ACS](#)" on page 3-69 for more information.

The MWL percent indicates how much of the media life has been used and is considered to be "expired" at 100%. Values may range from 0 to 254. If the field is blank, the MWL is unknown.

Total Reports

Two totals reports can be produced:

- volume report totals
- subpool totals

Volume Report Totals

Total of cartridges with various characteristics are displayed for LSMs, ACSs, and the entire library.

The total selected volumes is the sum of the number of volumes currently selected and the number of volumes currently mounted.

Note: The free storage cells reported do not include free cells on frozen panels. An LSM with at least one frozen panel is indicated by an asterisk after the free cell count.

Subpool Totals

Totals of cartridges by subpool are produced for LSMs, ACSs, and the entire library.

Note: A value of Y in the **DRTEST** column indicates that the pool is defined using the VOLPARM control statement feature with the keyword `DRTEST (YES)`.

volser indicates the volume serial number of the MVC. If no value is specified, then all MVC copies of the VTVs are deleted.

MGMTclas(mgmtclas-name)

optionally, set the Management Class of the VTVs.

mgmt-class-name indicates the Management Class name that you specified on the `MGMTclas` control statement. For more information, see "MGMTclas Control Statement" on page 3-212.

DISMOUNT VTSSid(name)

optionally, logically dismount the specified VTVs in the specified VTSS.

name indicates the VTSS name.

If migrated copies of the dismounted VTVs exist that an online VTSS can access, you can now use this VTSS to access the VTVs.

Caution: If the VTV copy mounted in the offline VTSS was modified and not migrated, the MVC copy that you recall to an alternate VTSS is not current! Therefore, Oracle strongly recommends that you do not recall these noncurrent MVC copies!

When the offline VTSS is ready to be brought back online, it is strongly recommended that you audit the VTSS before running production jobs that use the VTSS. Also ensure that you clear any boxed VTD conditions before issuing the `VTSS VARY ONLINE` command.

OWNRPLEX(name)

optionally, specifies ownership of a VTV that has been electronically imported.

name indicates the name of the TapePlex that owns the original copy of the VTV. This name must match one of the known TapePlex names in the configuration.

If this name matches that indicated for the `THISPLEX` parameter on the `CONFIG TAPEPLEX` statement, the electronic importing status is removed.

DELEXpot(name)

optionally, specifies which references to electronic exported copies of the VTVs are removed.

name indicates the name of the TapePlex that is to be removed. If this parameter value is omitted, then all references to electronic export copies are removed.

This parameter only removes the reference to the external copy of the VTV from the VTV record. It does not cause a contact of the other TapePlex to modify the remote copy in any way. Depending upon the management class definition for the VTV, removing a reference could cause an automatic re-drive of the export at some later time.

ADDEXpot(name)

optionally, specifies the addition of references to the electronic export copy of the VTV.

name indicates the name of the TapePlex that is to be added. This name must match to one of the names that has been specified in the VTCS configuration.

This parameter only adds the reference to the external copy to the VTV record. It is assumed that the required copy of the VTV will have been physically placed there by some other process. The VTV record can track a maximum of two TapePlex locations.

Note: The DELEXpot operation executes before the ADDEXpot operation. This makes it possible to replace the exported location information in a single call. For configurations where the electronic export function is not used, it is acceptable to use the ADDEXpot and DELEXpot parameters to add dummy tracking or user information to the VTV. The information in the VTV record is always cleared when the VTV data is updated.

RENVTSS(vtss-name)

optionally, sets the name of the VTSS where the VTV was last mounted to *vtss-name*.

vtss-name indicates the new VTSS name. This must be the name of an existing VTSS in your configuration.

Note: To use RENVTSS, the host on which VTVMaint is run must have access to the owning VTSS.

Return Codes

VTVMaint includes the following return codes:

- 0 indicates that all requested updates for the VTV completed successfully.
- 4 indicates that one requested update for the VTV failed and at least one other requested update completed successfully.
- 8 indicates that all requested updates for the VTV failed.

Note: The final return code for the VTVMaint job is the largest return code generated by any single VTVs being updated. For example, if 5 VTVs generate a return code 0 and one VTV generates a return code 8, the final return code is 8.

VTVMaint Report

The following is an example of a VTVMaint report produced by the following command:

```
VTVMaint VTV(X00000-X00002) ULINKMVC MGMTCLAS(M1)
```

Example 3-57 VTVMaint report

```
VTV      RC
X00000   04
X00001   04
X00002   04
```

```
VTVMaint EXCEPTION REPORT
VTV X00000 IS ALREADY IN MGMTCLAS M1
VTV X00001 IS ALREADY IN MGMTCLAS M1
VTV X00002 IS ALREADY IN MGMTCLAS M1
SLS1315I SWS500.V5.CDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET
```

```
SLUADMIN (7.2.0)  STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY          SSYS=HSCI          PAGE 0003
TIME 15:50:09    VTCS VTV REPORT                                     DATE 2015-06-17
VTV              SIZE  COMP <---CREATION----> <--LAST USED--> MGR SCR REPL  MGMT
VOLSER           (MB)  % DATE      TIME      DATE      TIME      RES IMP EXPT CLASS  MVC1  MVC2  MVC3  MVC4  VTV VTSSNAME
X00000           0.01  0    2012MAY19 05:02:08 2012MAY19 05:22 - - R - -  M1    022550 022551 022552 022553 800
X00001           0.01  0    2012MAY19 05:02:08 2012MAY19 05:22 - - R - -  M1    033550 033551 033552 033553 800
X00002           0.01  0    2012MAY19 05:02:08 2012MAY19 05:22 - - R - -  M1    044550 044551 044552 044553 800
```

```
3 INITIALIZED VTVS PROCESSED
0 NON-INITIALIZED VTVS PROCESSED
```

The `VTVMAINT` report shows the following:

- Status of VTVs processed - volser and return code (0 - all updates completed, 4 - some updates completed, 8 - no updates completed).
- An exception report of the reason for all uncompleted updates.
- A VTV report.

VTVRpt

The `VTVRpt` command reports the status of VTVs in your VSM system.

Issue this command with either of the options listed in the following table. Each option is described individually, and in more detail, on the pages to follow.

Table 3–19 *VTVRpt Options*

Option	Description
BASIC	generates a basic VTV report
COPIES	generates a VTV report indicating where all current copies of a VTV reside

VTVRpt BASIC

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

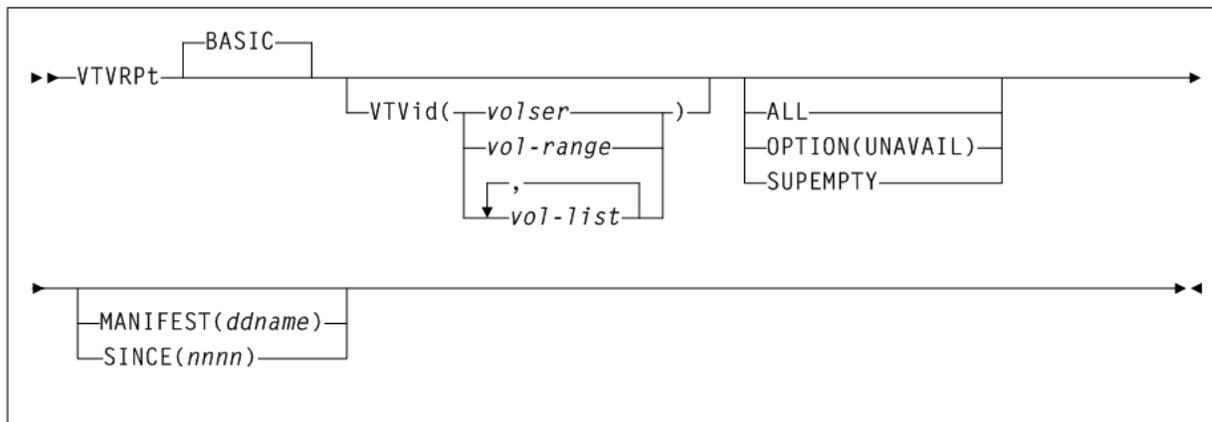
Description

The `VTVRpt BASIC` command generates a basic VTV report.

Syntax

[Figure 3–184](#) shows `VTVRpt BASIC` command syntax.

Figure 3–184 VTVRPt BASIC syntax



Parameters

As shown in Figure 3–184, the VTVRPt BASIC command includes the following parameters:

VTVid(volser, vol-range, or vol-list)

optionally, specifies the VTVs for the report. If you do not specify the VTVs, the report includes all initialized VTVs in your VSM system. A VTV is initialized when VTCS has used it at least once.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs.

ALL

optionally, specifies to report on all VTVs (including non-initialized volumes). If you do not specify ALL, only initialized VTVs are reported.

OPTION(UNAVAIL)

optionally, specifies to report only on unavailable VTVs (VTVs in an offline VTSS). The report lists only unavailable VTVs in three sections: **unavailable mounted on a VTD**, **unavailable VTSS-resident**, and **unavailable VTSS-resident and fenced**.

SUPEMPTY

optionally, suppress the printing of empty VTVs.

The VTV report will not print details of VTVs that contain no data or VTVs that are fenced. SUPEMPTY is mutually exclusive with ALL and OPTION(UNAVAIL).

MANIFEST(ddname)

optionally, specifies the input DD name of the manifest file used to generate the report.

ddname indicates the DD name of the manifest file. You can specify a merged manifest file or multiple manifest files. MANIFEST is mutually exclusive with SINCE.

SINCE(nnnn)

optionally, specifies a time in minutes. Only VTVs that have been accessed within the specified time are processed.

nnnn indicates the time in minutes, from 1 to 9999. SINCE is mutually exclusive with MANIFEST.

VTV Report (Basic)

The following is an example of a VTV report produced by the VTVRpt BASIC command:

Example 3-58 VTVRpt BASIC report

```

SLUADMIN (7.2.0)   STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY           SSYS=HSCI       PAGE 00002
TIME 15:50:09    VTCS VTV REPORT                                           DATE 2015-06-17
SLS1315I HSC1.V70EC21.CDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET

SLUADMIN (7.2.0)   STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY           SSYS=HSCI       PAGE 00003
TIME 15:50:09    VTCS VTV REPORT                                           DATE 2015-06-17
VTV              SIZE  COMP <----CREATION----> <--LAST USED--> MGR SCR REPL  MGMT          MAX
VOLSER           (MB)  %   DATE      TIME      DATE      TIME      RES  IMP  EXPT  CLASS   MVC1  MVC2  MVC3  MVC4  VTV  VTSSNAME
A00240           66.4  85 2010MAY22 16:27:44 2010MAY22 16:57  R  -  -  -  TRACE          4.0  VTSS92
A00241           14.0   0 2010MAY21 13:02:30 2010MAY22 07:48  -  M  -  -  MGMT2CP 702972          0.4  VTSS90
A00406           14.0   0 2010MAY21 13:03:50 2010MAY22 08:45  -  M  -  -  EXHPDM  700486          4.0  VTSS90
...
X50000          2,430.0  0 2009NOV18 09:04:18 2009NOV18 09:07  R  -  I  -  PE  EEXPORT          4.0  VTSS91
X50047           280.0  96 2009DEC03 14:29:35 2010APR30 06:48  R  M  -  I  -  PE  QUADYES 700483 700491 700494 700498 4.0  VTSS91
X50048           280.0  96 2009DEC03 14:29:41 2010MAY27 21:06  -  M  -  I  -  QUADYES 702979 700492 700497 700499 4.0  VTSS91
X50060            0.0    0                -  -  S  I  -                4.0  VTSS92
X50066           280.0  96 2009DEC03 14:56:17 2010MAY27 21:06  -  M  -  I  -  DLVTVYES 702978          4.0  VTSS92
X50067            42.0   0 2010JAN21 11:28:55 2010JAN21 11:28  R  -  -  I  -  EEXPORT          4.0  VTSS91
Y50000            4.8   0 2009NOV20 09:59:52 2009DEC18 11:56  R  -  -  -  E  OTHERDIR          0.4  VTSS91
Y50008           1,260.0  75 2009NOV20 09:59:56 2010MAY27 21:09  -  M  -  -  E  OTHERDIR 702978          0.4  VTSS92
Y50184            578.6  34 2010FEB02 22:25:27 2010MAY22 08:42  -  M  S  -  -  APOOL  702972          0.4  VTSS90
485434 INITIALIZED VTVS PROCESSED
116566 NON-INITIALIZED VTVS PROCESSED
SLS0155I CONDITION CODE FOR UTILITY FUNCTION IS 0

```

Fields

The following list describes the fields for the report generated by a VTVRpt or VTVRpt BASIC command:

VTV Volser

the VTV volser.

Size (MB)

the uncompressed size of the VTV (MB). <MOUNT> indicates that the VTV was mounted when the report ran. <FENCED> indicates that the VTV's state is unknown. If <FENCED> appears, contact Oracle StorageTek Software Support.

Comp %

the VTV compression percentage achieved. This is the difference between the uncompressed and compressed VTV size expressed as a percentage of the uncompressed VTV size. For example if a 100MB VTV compresses to 40MB then the compression% will be given as 60%. A compression of 0% indicates that no compression was possible on the VTV

Creation Date and Time

the date and time that the VTV was created.

Last Used Date and Time

the date and time that the VTV was last used. This date and time value is updated by successful completion of a VTV mount, migrate, recall, or scratch.

Mgr/Res

indicates the copy status of the VTV. The absence of a flag in the columns below indicates that there are no current copies of the VTV within this TapePlex.

- An R in the left column indicates that there is a VTSS resident copy of the VTV

- An **M** in the right column indicates that there is at least one MVC copy of the VTV. As an alternative, if this column contains a **C** then the VTV is also consolidated.

Scr/Imp

indicates the usability of the VTV.

- An **S** in the left column indicates that the VTV is in a scratched state. If the VTV has also been imported from a remote TapePlex, then the VTV cannot be picked for a scratch mount.
- An **I** in the right column indicates that the VTV has been imported from another TapePlex. Imported VTVs cannot be modified.
- An **O** in the left column indicates that the VTV has partial (write once) **VOLSAFE** protection.
- An **A** in the left column indicates that the VTV has full **VOLSAFE** protection.

Repl/Expt

indicates the replication or electronic export status of the VTV. A VTV that is not resident does not have any replication requirements.

It can be one of the following statuses in the left column:

PR

The VTV is currently queued for replication.

SR

Replication of the VTV has started.

R

Replication has completed and another copy of the VTV resides in the partner to the currently resident VTSS.

It can be one of the following statuses in the right column:

PE

The VTV requires electronic export.

SE

Electronic export of the VTV has started.

FE

Electronic export of the VTV has been rejected by the remote TapePlex.

E

Electronic export has completed and another copy of the VTV resides in the partner to the currently resident VTSS.

ME

electronic export of this VTV to one TapePlex completed successfully, but an electronic export of this VTV to another TapePlex failed.

VTVRPT COPIES will provide the names of the two TapePlexes and indicate which one succeeded and which one failed.

MGMT Class

the name of the Management Class for the VTV specified.

MVC1, MVC2, MVC3, MVC4

the MVC(s) that contain the VTV (for both migration and consolidation). If all of these fields are empty, the VTV has not been migrated or consolidated. If one or more of these fields list an MVC volser, the VTV was migrated to each of these MVCs.

Max VTV

the maximum size of the VTV in GB (.4, .8, 2, or 4).

VTSSname

the VTSS where the VTV resides, or, if the VTV is migrated, the VTSS where the VTSS was last resident. If this field is empty, the VTV is non-existent (not created or used, scratched, and deleted) or has been manually imported.

VTVRpt COPIES**Interfaces:**

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC not required

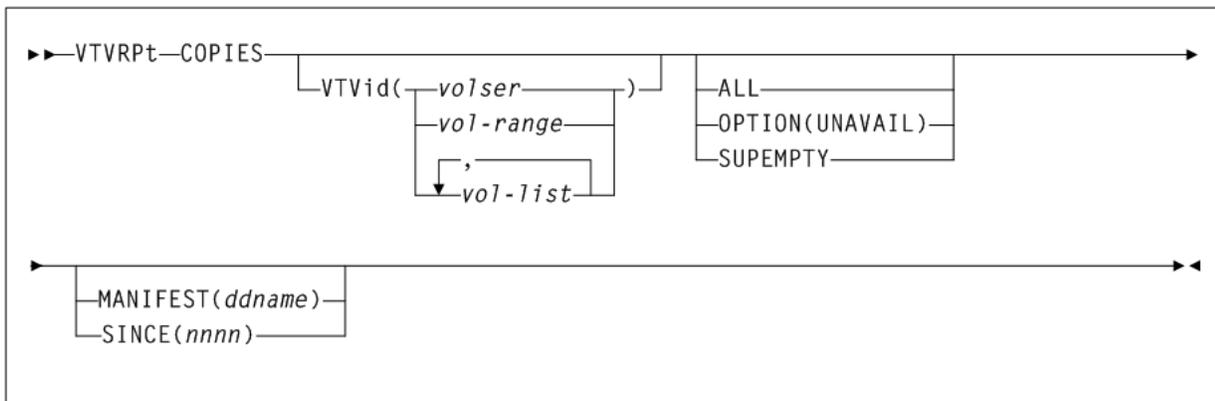
Description

The `VTVRpt COPIES` command generates a VTV report indicating where all current copies of a VTV reside.

Syntax

Figure 3–185 shows `VTVRpt COPIES` command syntax.

Figure 3–185 *VTVRpt COPIES syntax*

**Parameters**

As shown in Figure 3–185, the `VTVRpt COPIES` command includes the following parameters:

VTVid(volser, vol-range, or vol-list)

optionally, specifies the VTVs for the report. If you do not specify the VTVs, the report includes all initialized VTVs in your VSM system. A VTV is initialized when VTCS has used it at least once.

volser, *vol-range*, or *vol-list* indicates the volsers of one or more VTVs.

ALL

optionally, specifies to report on all VTVs (including non-initialized volumes). If you do not specify ALL, only initialized VTVs are reported.

OPTION(UNAVAIL)

optionally, specifies to report only on unavailable VTVs (VTVs in an offline VTSS). The report lists only unavailable VTVs in three sections: **unavailable mounted on a VTD**, **unavailable VTSS-resident**, and **unavailable VTSS-resident and fenced**.

SUPEMPTY

optionally, suppress the printing of empty VTVs.

The VTV report will not print details of VTVs that contain no data or VTVs that are fenced. SUPEMPTY is mutually exclusive with ALL and OPTION(UNAVAIL).

MANIFEST

optionally, specifies the input DD name of the manifest file used to generate the report.

ddname indicates the DD name of the manifest file. You can specify a merged manifest file or multiple manifest files. MANIFEST is mutually exclusive with SINCE.

SINCE(nnnn)

optionally, specifies a time in minutes. Only VTVs that have been accessed within the specified time are processed.

nnnn indicates the time in minutes, from 1 to 9999. SINCE is mutually exclusive with MANIFEST.

VTV Report (COPIES)

The following is an example of a VTV report produced by the VTVRPT COPIES command:

Example 3-59 VTVRPT COPIES report

```

SLUADMIN (7.2.0)   STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY           SSYS=HSCI       PAGE 0002
TIME 15:50:43    VTCS VTV REPORT                                           DATE 2015-06-17
SLS1315I HSC1.V70EC21.CDS WAS SELECTED AS THE PRIMARY CONTROL DATA SET

SLUADMIN (7.2.0)   STORAGETEK ENTERPRISE LIBRARY SOFTWARE UTILITY           SSYS=HSCI       PAGE 0003
TIME 15:50:43    VTCS VTV REPORT                                           DATE 2015-06-17
VTV              SIZE  MGMT      <--VTSS COPIES-->  OWNING  <---MVC COPIES AND LOCATIONS--->  <-EXPORT COPIES-->
VOLSER           (MB)  CLASS    SCR PRIMARY REPLICA  TAPEPLEX  MVC1/3 ACS      MVC2/4 ACS  TAPEPLEX TAPEPLEX

00240            10.5  TRACE    -  VTSS92  -        -
A00241           14.3  MGMT2CP  -  -        -        -        702972  00
A00406           14.1  EXHPDM   -  -        -        -        700486  00
...
X50000           2,462.3  EEXPORT  -  VTSS91  -        EC20REM
X50047           11.4  DLVTVYES -  VTSS91  -        EC20REM  700483  00
X50048           11.4  DLVTVYES -  -        -        EC20REM  702979  00
X50060           NO COPY  DLVTVYES -  -        -        SEC20REM
X50066           11.4  DLVTVYES -  -        -        EC20REM  702978  00
X50067           42.5  EEXPORT  -  VTSS91  -        EC20REM
Y50000           13.3  OTHERDIR -  VTSS91  -        -
Y50008           316.6  OTHERDIR -  -        -        -        702978  00
Y50184           385.2  APOOL    S  -        -        -        702972  00
      485434 INITIALIZED VTVS PROCESSED
      116566 NON-INITIALIZED VTVS PROCESSED
SLS0155I CONDITION CODE FOR UTILITY FUNCTION IS 0

```

Fields

The following list describes the fields for a report generated by the `VTVRPT COPIES` command:

VTV Volser

the VTV volser.

Size (MB)

the compressed size of the VTV (MB). `<MOUNT>` indicates that the VTV was mounted when the report ran. `<FENCED>` indicates that the VTV's state is unknown. If `<FENCED>` appears, contact Oracle StorageTek Software Support.

MGMT Class

the name of the Management Class for the VTV specified.

Scr

indicates whether the VTV is in a scratched state. An `S` in this column indicates that the VTV is in a scratched state.

Primary

the name of the VTSS that contains the primary VTSS resident copy of the VTV. If this field is blank, then there are currently no VTSS resident copies of the VTV.

Replica

the name of the VTSS that contains a replica copy of the VTV. If this field is blank, then there are currently no VTSS resident replica copies of the VTV.

Owning Tapeplex

the name of the TapePlex that has ownership of this VTV. If this field is blank, then the VTV is owned by another TapePlex and can be processed normally. If this field is set, then the VTV has been imported from another TapePlex and its contents cannot be modified.

MVC1, MVC2, MVC3, MVC4

the MVC(s) that contain the VTV (for both migration and consolidation). If all of these fields are empty, the VTV has not been migrated or consolidated. The number next to each MVC volser is the ACS location of the MVC. If this is set to `--`, then the MVC is not library resident.

Export Tapeplex

the names of the TapePlexes to which copies of the VTV have been exported. The copies within these TapePlexes will show the VTV as imported and having an owning TapePlex name. This list is not exhaustive, as some of these TapePlexes may have forwarded copies onto further locations. An asterisk (*) next to the name indicates an export that has been rejected by the target TapePlex.

VVAUDIT

Interfaces:

- Utility only
- UUI Support: Yes

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

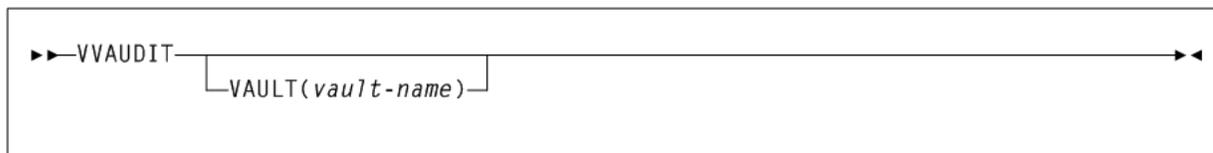
Description

The `VVAUDIT` command synchronizes the vault allocation map with the vault volume records. If the slot in the map indicates that it is allocated, then the vault volume records are searched. If the slot number is not found in any vault volume record, then the slot is freed.

Syntax

Figure 3–186 shows `VVAUDIT` command syntax.

Figure 3–186 *VVAUDIT command syntax*



Parameters

As shown in Figure 3–186, the `VVAUDIT` command includes the following parameters:

VAULT(vault-name)

optionally, audits the specified vault-name. If `VAULT` is not specified, then all vaults are be audited.

vault-name indicates the vault name.

Warn

Interfaces:

- Console or `PARMLIB` only
- UI Support: No

Subsystem Requirements:

Active HSC at `BASE` or `FULL` service level

Description

The `Warn` command sets scratch warning threshold values.

Setting a threshold value causes a warning message to be issued when the number of scratches falls below the specified threshold. The `Warn` command enables you to specify parameters that can narrow the scope of the threshold values you set:

- If `SUBpool`, `MEDIA`, and `RECTech` are not supplied, the threshold value applies to scratch volumes for the specified ACS or LSM.
- If `SUBpool` is supplied, but `MEDIA` and `RECTech` are not, the threshold value applies to scratch volumes for the specified subpool and ACS or LSM.
- If `MEDIA` and `RECTech` are supplied, but `SUBpool` is not, the threshold value applies to scratch volumes for the specified media type, recording technique, and ACS or LSM.

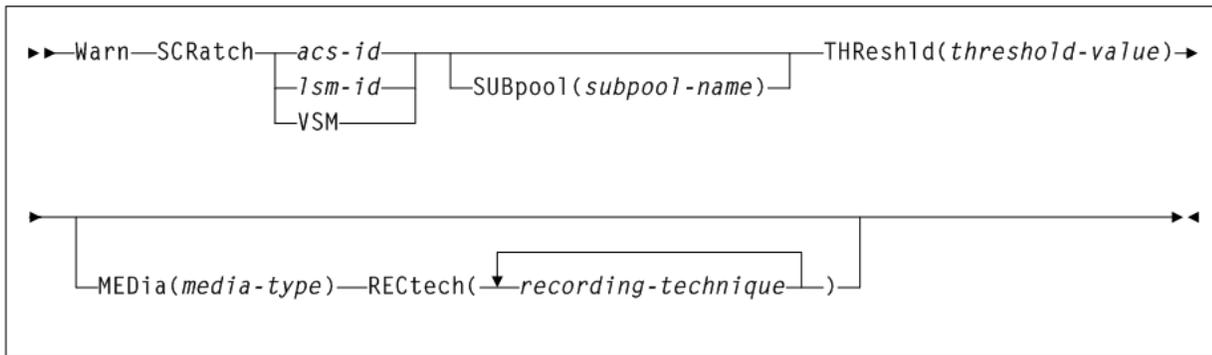
- If `SUBpool`, `MEDia`, and `RECtech` are supplied, the threshold value applies to scratch volumes for the specified subpool, media type, and recording technique in the ACS or LSM.

Note: Use the `Display THReshld` command to display the current Warn threshold values. See "Display THReshld" on page 3-140 for more information.

Syntax

Figure 3–187 shows `Warn` command syntax.

Figure 3–187 Warn command syntax



Parameters

As shown in Figure 3–187, the `Warn` command includes the following parameters:

SCRatch

indicates that scratch threshold values are to be set.

acs-id

the ACS on which to alter threshold values. The ACSid is a decimal value from 00-99.

lsm-id

the LSM on which to alter threshold values. The LSMid is comprised of the ACSid and the LSM number. The format of an LSMid is `AA:LL`, where `AA` indicates the ACSid (decimal 00-99) and `LL` indicates the LSM number (decimal 00-99).

VSM

specifies that threshold values are to be set only for subpools for virtual volumes. VSM is not allowed if `acs-id` or `lsm-id` are also specified.

SUBpool(subpool-name)

optionally, indicates that you want to designate a subpool. This parameter is optional.

`subpool-name` indicates the name of the subpool.

Note: Scratch subpool names are specified with the `SCRPOOL` control statement. Refer to Oracle's ELS publication *ELS Legacy Interfaces Reference* for information.

THReshId(threshold-value)

indicates that you want to alter the threshold value.

threshold-value indicates the minimum number of scratch volumes that are allowed before the HSC issues a warning message. Allowable threshold values are decimal in the range from 0 through 99,999.

The warning interval values are preset at five minutes.

Note: When the number of scratch volumes in an ACS or LSM drops below the threshold value, the system issues a warning message.

MEDia(media-type)

optionally, specifies the media type for the threshold. When **MEDia** is specified, **RECtech** must also be specified.

media-type indicates the media type.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for a list of valid *media-type* values.

RECtech(recording-technique)

optionally, specifies the recording technique for the threshold. **RECtech** indicates the method used to record data tracks on the tape surface. When **RECtech** is specified, **MEDia** must also be specified.

You can enter a list of recording techniques, but they must be separated by commas.

recording-technique indicates the recording technique.

See [Appendix A, "MEDia, RECtech, and MODel Values"](#) for valid *recording-technique* values.

Note: A list specifies a generic pool from which a selection is made. There is no implied priority.

SMC Utilities

This chapter describes the following SMC utilities:

- Unified User Interface utility (SMCUUUI)
This utility enables you to issue HSC Unified User Interface (UUI) commands, VTCS commands, or SMC commands from a batch job.
- POLicy and TAPEREQ Batch Test utility (SMCUTRQ)
This utility enables you to test POLicy and TAPEREQ lookup behavior.
- Tape Management Extract utility (SMCUDBX)
This utility supports scratch synchronization between the SMC client host and the HSC CDS.
- UUI Simulation utility (SMCUSIM)
This utility enables you to issue SMC UUI commands in a test environment. Changes to SMC command settings, tape policies, and allocation user exits can be tested before they are put into production without affecting existing SMC clients and HSC servers.
- Trace Format utility (SMCUGTF)
This utility supports scratch synchronization between the SMC client host and the HSC CDS.
- VSM console SMF Offload utility (SMCUSMF)
This utility enables you to offload SMF records from a VSM console server.

Unlike HSC and VTCS utilities, all SMC utilities are packaged as standalone utility programs. SMC utilities are not initiated using SMC operator commands.

SMC Utility Return Codes and Messages

The following table describes SMC utility return codes:

Table 4–1 SLUADMIN Return Codes

Return Code	Description
0	All utility functions completed normally.
4	At least one utility function encountered an abnormal situation, but it did not cause termination of that utility function or any subsequent utility functions.

Table 4–1 (Cont.) SLUADMIN Return Codes

Return Code	Description
8	At least one utility function encountered an error condition that prevented continuation of that utility function, but any subsequent utility functions represented by control statements were attempted.
12	An error condition was detected that either prevented the start of any utility functions, or terminated the active utility function and prevented processing of subsequent utility functions.

Refer to the publication *ELS Messages and Codes* for a listing of SMC messages that may be returned by SMC utilities. These messages are identified by the SMCU prefix.

Unified User Interface Utility (SMCUUUI)

The SMCUUUI utility enables you to issue SMC and HSC Unified User Interface (UI) commands, or VTCS requests from a batch job. The commands can be routed to a local or remote HSC TapePlex.

Several types of output can be received for a UI command, including:

- Plain text output

This type of output is written to `TEXTOUT`, and corresponds to the normal output produced by the HSC or VTCS command or report utility. If plain text output is requested for an HSC or VTCS report, the report headings are not produced by the UI.

- Structured XML

This type of output is written to `XMLOUT`. Structured XML is a well formed XML data stream with XML header tags and XML data tag elements, and XML data element content. Refer to the *ELS Programming Reference* for a complete list of SMC, HSC and VTCS XML tag names and types.

- Comma Separated Values (CSV)

This output type is optional and is generated only if the `CSV` command is specified. See "CSV Command" on page 5-6 for more information.

This type of output is written to `CSVOUT`. An input template of XML data tag names defines the format of the `CSVOUT` corresponding to a particular request. The output data for each request is a CSV header line that contains a comma-separated list of the XML data tags requested, followed by CSV detail lines. Each CSV detail line contains one comma-separated entry for each requested XML data tag. This type of output is readily adaptable as input into spreadsheets or customized report writers. Refer to the *ELS Programming Reference* for more information about the format for specifying CSV.

The type of output received is controlled by the data set definition statements (DD) defined in the JCL to execute the SMCUUUI utility

Note:

- In general, error messages are not produced for CSV output. To view error messages produced by the UUI process, you must include either a `TEXTOUT` or `XMLOUT` DD statement.
- If the SMCUUUI utility is directing utility functions that may include SORT (such as `VOLRPT`, `MVCRPT`, and so on) to a remote TapePlex, caution should be exercised to run a limited number of these jobs simultaneously for a single SMC HTTP server. The exact number depends on the region size of the SMC running the HTTP server and the amount of data being processed.

Sample JCL

The following example shows sample JCL that executes the SMCUUUI utility.

Example 4-1 JCL to Execute the SMCUUUI Utility

```
//yourstd JOB card
//STEP EXEC PGM=SMCUUUI, PARM='pgmparms'
//STEPLIB DD DSN=your.sea.linklib, DISP=SHR
//STDOUT DD DSN=yourstd.printout.dataset, DISP=SHR
//UUIIN DD *
      CSV and uui commands
//*****
/* Specify at least one of the following output data sets:      *
//*****
//CSVOUT DD DSN=yourcsv.output.dataset, DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset, DISP=SHR
//TEXTOUT DD DSN=yourtext.output.dataset, DISP=SHR
```

Parameters

The following SMCUUUI utility parameters may be specified for *pgmparms* in the sample JCL:

SSYS(subsystem-name)

Specifies the SMC subsystem name (one to four characters in length)

TAPEPlex(name)

Specifies the name of the SMC TapePlex to which the UUI commands will be directed. If omitted, the first active TapePlex found is used.

Use `TAPEPlex(SMC)` to indicate that the input commands are to be issued directly to the SMC, and not to a TapePlex (such as the SMC Display Volume and Display Drive command).

XMLCASE

Specifies the case of alphabetic data fields in XML and CSV output. Valid case formats include the following:

- M indicates mixed uppercase and lowercase. This is the default.
- U indicates uppercase.

XMLDate(format)

Specifies the format of date fields in XML and CSV output. Valid date formats include the following:

- `YYYYMONDD`
- `YYYY-MM-DD`
- `YYYY-MON-DD`
- `HEXSTCK` (hex character `STCK` format)

The default format is `yyyymondd`. For example, `2005Oct14`.

NOHDR

optionally, specifies that `STDOUT` and `TEXTOUT` report headings and pagination carriage control are not produced. `NOHDR` and `LINECNT` are mutually exclusive.

LINECNT

optionally, specifies `STDOUT` and `TEXTOUT` report pagination line count setting. `LINECNT` and `NOHDR` are mutually exclusive.

nn is the number of lines per page. Valid values are 10-99.

Note: Settings for `STDOUT` report headings and pagination can only be specified in the `EXEC` statement program parameters. Settings for `TEXTOUT` report headings, while initially specified by the `EXEC` statement program parameters, can later be modified by specifying `TEXTOUT` `UII` control statements in the `UIIIN` command stream.

For example:

In the following figure, the `EXEC` statement program `PARM='LINECNT(55)'` sets the report pagination to 55 lines per page for both `STDOUT` and `TEXTOUT` output.

However, the `UII` command `TEXTOUT NOHDR` in the `UIIIN` command stream alters the `TEXTOUT` report parameters to disable report headers and pagination.

```
//yourstd JOB card
//STEP EXEC PGM=SMCUUUI,PARM='LINECNT(55)'
//STEPLIB DD DISP=SHR,DSN=your.sea.linklib
//STDOUT DD DISP=SHR,DSN=your.stdout.dataset
//UIIIN DD *
        TEXTOUT NOHDR
        UII commands
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD DSN=yourtext.output.dataset,DISP=SHR
```

NOCC

optionally, indicates that no printer carriage control is to be included. When this option is selected, any non-filled pages will be appended with blank lines for the specified `LINECNT`.

Required Data Set Definition (DD) Statements

This section describes data sets.

UUIIN Data Set

You must specify the UUIIN data set definition. The UUIIN data set can contain the following:

- SMCUUI utility control statements
- SDD command (See "SDD Command" on page 4-8.)
- SMC UUI commands
- HSC UUI commands
- VTCS PGMI requests

Native SMC UUI commands include the following:

- Display DRive
- Display Volume
- POLicy
- SIMulate

Refer to the *ELS Programming Reference* for a list of supported HSC UUI commands and VTCS PGMI requests.

Syntax rules

The following syntax rules apply:

- Input must be 80 byte card images.
- Only columns 1-72 of the 80 byte card image may contain actual command input. Columns 73-80 may be used for sequence numbers if desired.
- If the last non-blank character in columns 1-72 is a "+", the logical command is continued on the next physical card.
- Comments begin with "/*" (in column 2 or beyond) and end with "*/".
- The maximum logical command length is 32000 bytes

Control Statements

Utility control statements allow the report pagination for TEXTOUT output and the target TapePlex to be altered for subsequent SMC, HSC, and VTCS UUI and PGMI commands.

PLEXDest

optionally, sets the destination TapePlex for subsequent commands to the specified *tapeplex-name*. Any communication error occurring during a subsequent SMC, HSC, or VTCS command after execution of the PLEXDest control statement results in the bypassing of all subsequent SMC, HSC, or VTCS commands until another PLEXDest control statement is encountered.

tapeplex-name is the TapePlex name of the target system for subsequent commands.

If "SMC" is specified, all subsequent commands are assumed to be SMC UUI commands and are directed to the simulated SMC environment.

If a valid HSC TapePlex (as defined through a SMC TAPEPlex command) is specified, all subsequent commands are assumed to be HSC or VTCS commands and are directed to the specified *tapeplex-name* through the simulated SMC environment.

TEXTOUT

optionally, sets the report pagination parameters for TEXTOUT output. If any errors are encountered on the TEXTOUT command, all subsequent UUI commands are bypassed until a correct TEXTOUT command is encountered.

- NOHDR optionally, specifies that TEXTOUT report headings and pagination carriage control are not produced. NOHDR and LINECNT are mutually exclusive.
- LINECNT (*nn*) optionally, specifies TEXTOUT report pagination line count setting. LINECNT and NOHDR are mutually exclusive.

nn is the number of lines per page. Valid values are 10-99.

Note:

- Settings for STDOUT report headings and pagination can only be specified in the EXEC statement program parameters. Settings for TEXTOUT report headings, while initially specified by the EXEC statement program parameters, can later be modified by specifying TEXTOUT UUI control statements in the UUIIN command stream.
 - If multiple TEXTOUT statements are input before a single UUI command, the last TEXTOUT statement controls the TEXTOUT report pagination.
 - PLEXDest and TEXTOUT commands can be specified along with CSV commands to alter the destination TapePlex, and the CSV and TEXTOUT output characteristics of subsequent UUI commands. See "[CSV Command](#)" on page 5-6.
-
-

The following example shows SMCUUI parameter specifications:

```
//yourstd JOB card
//STEP EXEC PGM=SMCUUI
//UUIIN DD *
PLEXDEST SMC                /* Statement #1 */
D DRIVE                     /* Statement #2 */
PLEXDEST HSCN               /* Statement #3 */
DISPLAY SCRATCH            /* Statement #4 */
PLEXDEST HSCQ              /* Statement #5 */
DISPLAY SCRATCH            /* Statement #6 */
...other JCL statements
```

This example is described as follows:

- Statement #1 sets the destination for subsequent commands to the local SMC subsystem.
- The D DRIVE Statement #2 is directed to the local SMC subsystem.
- Statement #3 resets the destination TapePlex for subsequent commands to TapePlex HSCN.
- The DISPLAY SCRATCH Statement #4 is directed to HSCN.
- Statement #5 resets the destination TapePlex for subsequent commands to HSCQ.
- Finally, DISPLAY SCRATCH Statement #6 is directed to HSCQ.

The next example shows additional SMCUUI parameter specifications:

```

//yourstd JOB card
//STEP EXEC PGM=SMCUUUI
...other JCL statements
//UIIIN DD *
PLEXDEST HSCN                               /*Statement #1 */
CSV ...csv parameters                       /*Statement #2 */
SCRATCH VOL ACT001-ACT002                   /*Statement #3 */
SCRATCH VOL PAY001-PAY002                   /*Statement #4 */
SCRATCH VOL REC001-REC002                   /*Statement #5 */
PLEXDEST HSCQ                               /*Statement #6 */
SCRATCH VOL Q00001-Q00002                   /*Statement #7 */
CSV ...csv parameters                       /*Statement #8 */
DISPLAY SCRATCH                             /*Statement #9 */
...other UII commands
...other JCL statements

```

This example is described as follows:

- Statement 1 sets the destination TapePlex for subsequent commands to TapePlex HSCN.
If HSCN is not available, or communication errors occur while processing statements 3-5, then subsequent UII commands are bypassed until the next PLEXDest command is encountered (statement 6 in this example).
- Statement 2 sets the CSV output parameters for subsequent UII commands.
If an error occurs on the CSV command, then any subsequent UII commands are bypassed until a subsequent valid CSV command is read. In this case, if the CSV command in statement #2 is invalid, not only are statements 3-5 bypassed, but also statement #7. Statement #6 is still processed to direct subsequent commands to HSCQ.
- Statement #8 sets new CSV output parameters to be used by statement #9.

STDOUT Data Set

The STDOUT data set is where the SMCUUUI utility reports the input and final completion code for each UII request. The STDOUT DD statement is not required. However, Oracle recommends that it be included in case any utility errors occur.

Output Data Set Definition (DD) Statements

You must specify at least one of the XMLOUT, CSVOUT, or TEXTOUT output data set definition statements, as follows:

- XMLOUT

The XMLOUT data set is where the SMCUUUI utility outputs the structured XML output corresponding to the UIIIN command, as shown in the following example:

```

//yourstd JOB card
//STEP EXEC PGM=SMCUUUI
...
//UIIIN DD *
SCRATCH VOL(400720)
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
...

```

The XMLOUT DD would contain the following output:

```

<scratch request>
<header>

```

```

<hsc_version>7.2.0</hsc_version>
<date>2008Apr19</date>
<time>13:54:34</time>
<host_name>MSPB</host_name>
</header>
<volume_data>
<volser>400720</volser>
<result>success</result>
<reason>SLS0167I Volume 400720 successfully added to library as scratch
</reason>
</volume_data>
</scratch_request>

```

- CSVOUT

The CSVOUT data set is where the SMCUI utility writes the CSV output for the requested UIIN commands that specified corresponding CSV formatting. Refer to the *ELS Programming Reference* for more information about the Comma Separated Value (CSV) specification. The maximum logical CSV input length is 4096 bytes.

- TEXTOUT

The TEXTOUT data set is where the SMCUI utility outputs plain text UII responses. This is the same output that would be received from the corresponding SMC, HSC or VTCS command, or written to the SLSPRINT DD by the SLUADMIN or SWSADMIN utility, except that page and column headings are not produced. This data set is optional

Remote UI Input and Output

A new XAPI/UII interface supports remote UII input and output. To enable this support, Include the SDD command in the SMCUI utility.

Note: Remote UII input and output may also be requested using the NCSCOMM interface. Refer to the *ELS Programming Reference* for more information.

Remote UII Input

A data set is transmitted from the client to a remote server for input, without the data set needing to be resident on the server.

Remote UII input is required for commands that require large amounts of input data from sources other than the command line. Commands include VTCS CONFIG, IMPORT, and MERGMFST.

Remote UII Output

A remote command produces an output data set that is transmitted and physically written on the requesting client without it being physically written on the server.

Remote UII output is required for commands that produce non-text, non-XML, non-CSV output data sets. Commands include VTCS EXPORT and MERGMFST.

SDD Command

The SDD command defines an input or output data set to be associated with a “real” HSC or VTCS command that immediately follows it.

In the following example, the `SDD` command is associated with the `IMPORT` command, but not the subsequent `VTVRPT` command:

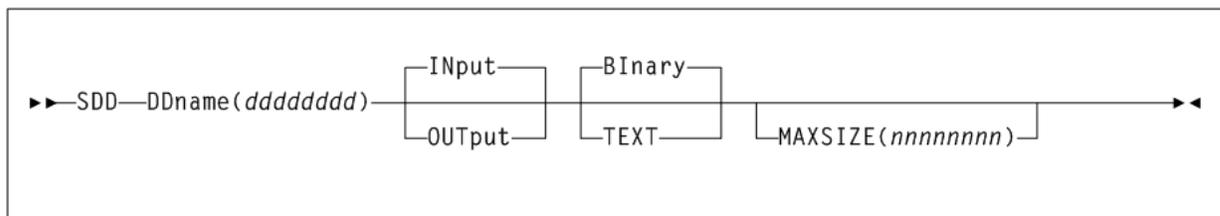
```
SDD DDNAME(MAININ) INPUT BINARY
IMPORT MANIFEST(MANIIN)
CSV FIELD(VOLSER,DATE_MIGRATED),BREAK(VTV_DATA)
VTVRPT VTV(SA2000-SA2999)
```

The `SDD` command can be used in either the `SLUADMIN` or `SMCUUUI` utility. However, only the `SMCUUUI` utility supports remote UI command execution.

Syntax

The following figure shows the syntax for the `SDD` command:

Figure 4–1 SDD command syntax



Parameters

DDname(dddddddd)

the name of the JCL DD that either contains the additional non-command line input, or will contain the output data set upon command completion.

INput|OUTput

optionally, specifies whether the data set specified by the `DDname` parameter is an input or output data set.

`INput` specifies that the data set is read to supply additional non-command line input to the command. This is the default if neither `INput` or `OUTput` are specified.

`OUTput` specifies that the data set is written to contain the non-XML, non-text, non-CSV output produced by the command.

BInary|TEXT

optionally, specifies whether the data read or produced contains `BInary` (that is, non display) characters, or is in `SLSIN TEXT` command format.

If you specify `TEXT` along with the `INput` parameter, this specifies that the input data is in `SLSIN` format. Only the first 72 characters are read and continuation characters may be present. Comment statements are not passed to the `HSC` or `VTCS` command that follows.

`BInary` is the default if neither `BInary` or `TEXT` is specified.

Note: You must specify `TEXT` when the `SDD` control statement is to be associated with the `VTCS CONFIG` command.

MAXSIZE(nnnnnnnn)

optionally, specifies the maximum size (in K units) of the input or output file. If MAXsize is not specified, there is no limit to the maximum size.

CONFIg Command Example

Without the SDD command, the VTCS CONFIg command is only supported under the SLUADMIN utility. Under SLUADMIN without the SDD command, SLUADMIN CONFIg reads the remainder of the SLSIN data set and assumes that the remaining input cards are CONFIg control statements.

The SDD command enables you to specify VTCS CONFIg under either the SMCUUUI or SLUADMIN utility. Additionally, it enables other commands to execute in the same input stream after the VTCS CONFIg command, as shown in the following examples:

SLUADMIN:

```
//jobname job (account),programmer,REGION=0M
//S1 EXEC PGM=SLUADMIN,PARM=MIXED
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//*****
/* Optional UUI output definition DD(s) *
//*****
//SLSCSV DD DSN=yourcsv.output.dataset,DISP=SHR
//SLSXML DD DSN=yourxml.output.dataset,DISP=SHR
//*****
/* SDD associated DD(s) *
//*****
//CONFIGIN DD DSN=your.config.dataset,DISP=SHR
//*****
/* Required SLUADMIN output and input DDs *
//*****
//SLSPRINT DD SYSOUT=A
//SLSIN DD *
SDD DDNAME(CONFIGIN) INPUT TEXT
.CONFIG CDSLEVEL(V61ABOVE)
DISPLAY CLINK
/*
```

SMCUUUI:

```
//jobname job (account),programmer,REGION=0M
//S1 EXEC PGM=SMCUUUI,PARM=MIXED
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//*****
/* Specify as least one of the following output definitions *
//*****
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD SYSOUT=A
//*****
/* SDD associated DD(s) *
//*****
//CONFIGIN DD DSN=your.config.dataset,DISP=SHR
//*****
/* Required SMCUUUI input DD *
//*****
//UUIIN DD *
SDD DDNAME(CONFIGIN) INPUT TEXT
CONFIG CDSLEVEL(V61ABOVE)
DISPLAY CLINK
```

/*

Note:

- The CONFIGIN data set is read and internally packaged for possible transmittal before the CONFIG command is read. The TEXT parameter results in any SLSIN formatting to be resolved as part of the internal packaging (that is, '+' concatenated statements are resolved).
- If any SDD command errors are encountered (that is, the CONFIGIN DD is missing in the JCL or the data set cannot be read), then the succeeding CONFIG statement is bypassed.
- In either of the above examples, the SDD command TEXT parameter is required when associated with the CONFIG command. The SDD command INPUT parameter is the default and may be omitted.

IMPORT Command Example

Without the SDD command, the VTCS IMPORT command is only supported for local processing under either the SLUADMIN or SMCUUUI utility.

The SDD command enables you to execute VTCS IMPORT on a remote server using the SMCUUUI utility, as shown in the following example:

```
//jobname job (account),programmer,REGION=0M
//S1 EXEC PGM=SMCUUUI,PARM=MIXED
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//*****
/* Specify as least one of the following output definitions *
//*****
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD SYSOUT=A
//*****
/* SDD associated DD(s) *
//*****
//MANIIN DD DSN=your.manifest.dataset,DISP=SHR
//*****
/* Required SMCUUUI input DD *
//*****
//UUIIN DD *
SDD DDNAME(MANIIN) MVCS(volser) INPUT BINARY
.IMPORT REPLACE=ALL MANIFEST(MANIIN)
/*
```

Note:

- The MANIIN data set is read and internally packaged for possible transmittal across the network before the IMPORT command is read. The BINARY parameter results in the transmittal of record images.
 - In the above example, both the SDD command BINARY and INPUT parameters are the defaults and may be omitted.
 - While a similar SLUADMIN job with the SDD command could be constructed, it would still be limited to local execution. Only the SMCUUUI utility supports remote UUI command execution.
-
-

EXPORT Command Example

Without the SDD command, the VTCS EXPORT command is only supported for local processing under either the SLUADMIN or SMCUUUI utility. The SDD command enables you to execute VTCS EXPORT on a remote server using the SMCUUUI utility, as shown in the following example:

```
//jobname job (account),programmer,REGION=0M
//S1 EXEC PGM=SMCUUUI,PARM=MIXED
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//*****
/* Specify as least one of the following output definitions *
//*****
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD SYSOUT=A
//*****
/* SDD associated DD(s) *
//*****
//MANIOUT DD DSN=your.manifest.dataset,DISP=SHR
//*****
/* Required SMCUUUI input DD *
//*****
//UUIIN DD *
SDD DDNAME(MANIOUT) OUTPUT BINARY
EXPORT MVC(volser) MANIFEST(MANIIN)
/*
```

Note:

- The MANIOUT data set is written on the client when remote output is received. However the MANIOUT DD will be validated before the EXPORT command is read.
 - In the above example, the SDD command parameter OUTPUT must be specified for EXPORT. However, BINARY is the default and may be omitted.
 - While a similar SLUADMIN job with SDD command could be constructed it would still be limited to local execution. Only the SMCUUUI utility supports remote UUI command execution.
-
-

MERGMST Command Example

The MERGMFST process uses a combination of input and output SDD commands in the SMCUUUI utility, as shown in the following example:

```
//jobname job (account),programmer,REGION=0M
//S1 EXEC PGM=SMCUUUI,PARM=MIXED
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//*****
/* Specify as least one of the following output definitions *
//*****
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD SYSOUT=A
//*****
/* SDD associated DD(s) *
//*****
//MANIIN DD DSN=your.mergein.dataset1,DISP=SHR
// DD DSN=your.mergein.dataset2,DISP=SHR
. . .
// DD DSN=your.mergein.datasetn,DISP=SHR
//MANIOUT DD DSN=your.mergeout.dataset,DISP=SHR
//*****
/* Required SMCUUUI input DD *
//*****
//UIIN DD *
SDD DDNAME(MANIIN) INPUT BINARY
SDD DDNAME(MANIOUT) OUTPUT BINARY
.MERGMFST MERGEIN(MANIIN) MERGEOUT(MANIOUT)
/*
```

Note:

- The MANIOUT data set is written on the client when remote output is received. However, the MANIOUT DD will be validated before the MERGMFST command is read.
 - In the above example, the SDD MANIOUT command OUTPUT parameter must be specified for the MERGEOUT associated DD. However, BINARY is the default and may be omitted.
 - While a similar SLUADMIN job with SDD commands could be constructed, it would still be limited to local execution. Only the SMCUUUI utility supports remote UUI command execution.
-
-

POLicy and TAPEREQ Batch Test Utility (SMCUTRQ)

The SMCUTRQ utility enables you to test SMC tape policy lookups. The program accepts control cards containing the same type of information that is extracted by the SMC during tape allocation and mount processing.

After you input the jobname, stepname, program name and other attributes on the control cards, this utility formats those attributes and requests SMC tape policy lookups from the SMC subsystem as if it were a job with those simulated characteristics.

Next, the utility generates a report indicating what policy was matched, or what TREQDef TAPEREQ statements, if any, were matched for the specific criteria. If the currently active TREQDef file is accessible, as indicated by the TREQDef LIst command, the actual TAPEREQ statements matching each lookup are listed.

The SMCUTRQ utility requires an active SMC subsystem on the same host. If SMC is not active, an error message is produced and the program terminates.

Sample JCL

Execute load module SMCUTRQ in the SMC linklib to produce the report. The following example shows sample JCL that executes the SMCUTRQ utility:

Example 4–2 JCL to Execute the SMCUTRQ Utility

```
//yourstd JOB card
//STEP EXEC PGM=SMCUTRQ
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//STDOUT DD DSN=yourstd.printout.dataset,DISP=SHR
//SYSOUT DD SYSOUT=*
//SMCIN DD *
POL1 jobname stepname pgmname ddname nnnn yyyy/ddd mgmtclas
POL2 C volser dataset.name
```

Control Cards

Each TAPEREQ POLicy lookup requires that you enter at least one control card (POL1), and optionally one or two control cards (POL2, POL3) specifying the job step characteristics to be simulated. The control card format is as follows:

Card 1:

The following table lists information for control card 1:

Table 4–2 Control Card 1 Information

Column	Length	Field	Format
1	4	ID	"POL1" required identifier
6	8	jobname	1-8 character non-generic jobname
15	8	stepname	1-8 character non-generic stepname
24	8	program name	1-8 character non-generic program name
33	8	ddname	1-8 character non-generic ddname
43	4	retention period	4 digit retention period
47	8	expiration date	yyddd, yyyyddd, or yyyy/ddd format expiration date
56	8	management class	1-8 character non-generic SMS management class name

Card 2:

The following table lists information for control card 2:

Table 4–3 Control Card 2 Information

Column	Length	Field	Format
1	4	ID	"POL2" required identifier
6	1	volume type	"S" for specific or "N" for non-specific (scratch)

Table 4–3 (Cont.) Control Card 2 Information

Column	Length	Field	Format
8	6	volume serial	6 character volser
15	44	data set name	44 character non-PDS MSP dataset name

Card 3:

The following table lists information for control card 3:

Table 4–4 Control Card 3 Information

Column	Length	Field	Format
1	4	ID	"POL3" required identifier
6	8	actual RECTECH	Valid recording technique
15	3	label type	Values SL, NL, AL, NSL
19	8	JCL esoteric	Esoteric name

Note:

- All variable length fields must be left justified.
 - Retention period and expiration date fields are mutually exclusive. When both are specified, retention period is used.
 - The management class field enables you to simulate a returned SMS ACS MGMTCLAS and assumes that the SMC SMSDEF MGMTPol (ALL) or (IDAX) policy has been specified. If the SMC finds a matching policy name, then the remaining tape policy lookups are bypassed.
 - If a policy name matching the specified management class name is not found, or if the management class field was not specified, then a series of TAPEREQ lookups is performed using the remaining input criteria.
 - You may ignore the lookup fields that are not important to your lookup. This is determined by looking at what selection criteria you actually use on your TAPEREQ statements. However, it is recommended that you specify all non-mutually exclusive fields.
 - "POL1" control card is required, even if no input fields are coded. Both "POL2" and "POL3" control cards are optional.
 - You can input multiple sets of control cards.
-
-

Sample Input

The following are examples of TAPEREQ lookup scenarios:

Example 1

The following example simulates the TAPEREQ lookup that would occur when:

- Specific volume 123456 for DSN ABC.QUAL1.QUAL2.TEST

- Allocated to DD MYTAPE1 for job TSTNEWPG, step STEP1, executing program TESTPGM.

```
POL1 TSTNEWPG STEP1    TESTPGM MYTAPE1
POL2 S 123456 ABC.QUAL1.QUAL2.TEST
```

Example 2

The following example simulates the TAPEREQ lookup that would occur when:

- Scratch volume for DSN ABC.QUAL1.QUAL2.TEST
- Allocated to DD MYTAPE1 with a retention period of 99 days
- For job TSTNEWPG, step STEP1, executing program TESTPGM.

```
POL1 TSTNEWPG STEP1    TESTPGM MYTAPE1 0099
POL2 N          ABC.QUAL1.QUAL2.TEST
```

Example 3

The following example simulates the TAPEREQ lookup that would occur when:

- Scratch volume for DSN ABC.QUAL1.QUAL2.TEST
- Allocated to DD MYTAPE1
- For job TSTNEWPG, step STEP1, executing program TESTPGM, when the DFSMS ACS routine returns a management class of MCLASS01.

```
POL1 TSTNEWPG STEP1    TESTPGM MYTAPE1 MCLASS01
POL2 N 123456 ABC.QUAL1.QUAL2.TEST
```

Sample Output

The following example shows output from the SMCUTRQ utility:

Example 4-3 SMCUTRQ Utility Output

```
SMCUTRQ 7.2.0    SMC POLICY/TAPEREQ TEST
Time 11:25:49   POLICY/TAPEREQ Lookup Report
```

```
SMCU0019 SMC subsystem=SMC0
```

```
Card 0001: *OL1|JOBNAME|STEPNAME|PGMNAME|DDNAME|RETP|EXPDT|SMSMGMT
Card 0002: *OL2|T|VOLSER|DSN
Card 0003: POL1 ANYJOB  STEP1    TESTPGM DD1
Card 0004: POL2 S 123456 ABC.QUAL1.QUAL2.TEST
```

TAPEREQ lookup keys:

```
JOBname=ANYJOB  STEPname=STEP1  PROGname=TESTPGM DDname=DD1
VOLType=S      VOLSer=123456    DSN=ABC.QUAL1.QUAL2.TEST
```

```
Lookup for POLICY          not matched
Lookup for RECTECH/MEDIA  matched TREQDEF record 5
Statement: TAPEREQ DSN(ABC.**.TEST) MEDIA(VIRTUAL)
Lookup for SUBPOOL        not matched
Lookup for ESOTERIC       not matched
Lookup for MGMTCLAS       not matched
Lookup for DEVTYPREF      not matched
```

```
Card 0005: POL1 ANYJOB  ANYSTEP  ANYPGM  DD1
Card 0006: POL2 S 123456 ABC.D11.XYZ.ABC
```

TAPEREQ lookup keys:

```
JOBname=ANYJOB  STEPname=ANYSTEP  PROGname=ANYPGM  DDname=DD1
VOLType=S      VOLSer=123456      DSN=ABC.D11.XYZ.ABC
```

```
Lookup for POLICY          not matched
Lookup for RECTECH/MEDIA  matched TREQDEF record 10
Statement: TAPEREQ DSN(**.XYZ.**).MEDIA(VIRTUAL)
Lookup for SUBPOOL        not matched
Lookup for ESOTERIC       not matched
Lookup for MGMTCLAS       not matched
Lookup for DEVTYPREF      not matched
```

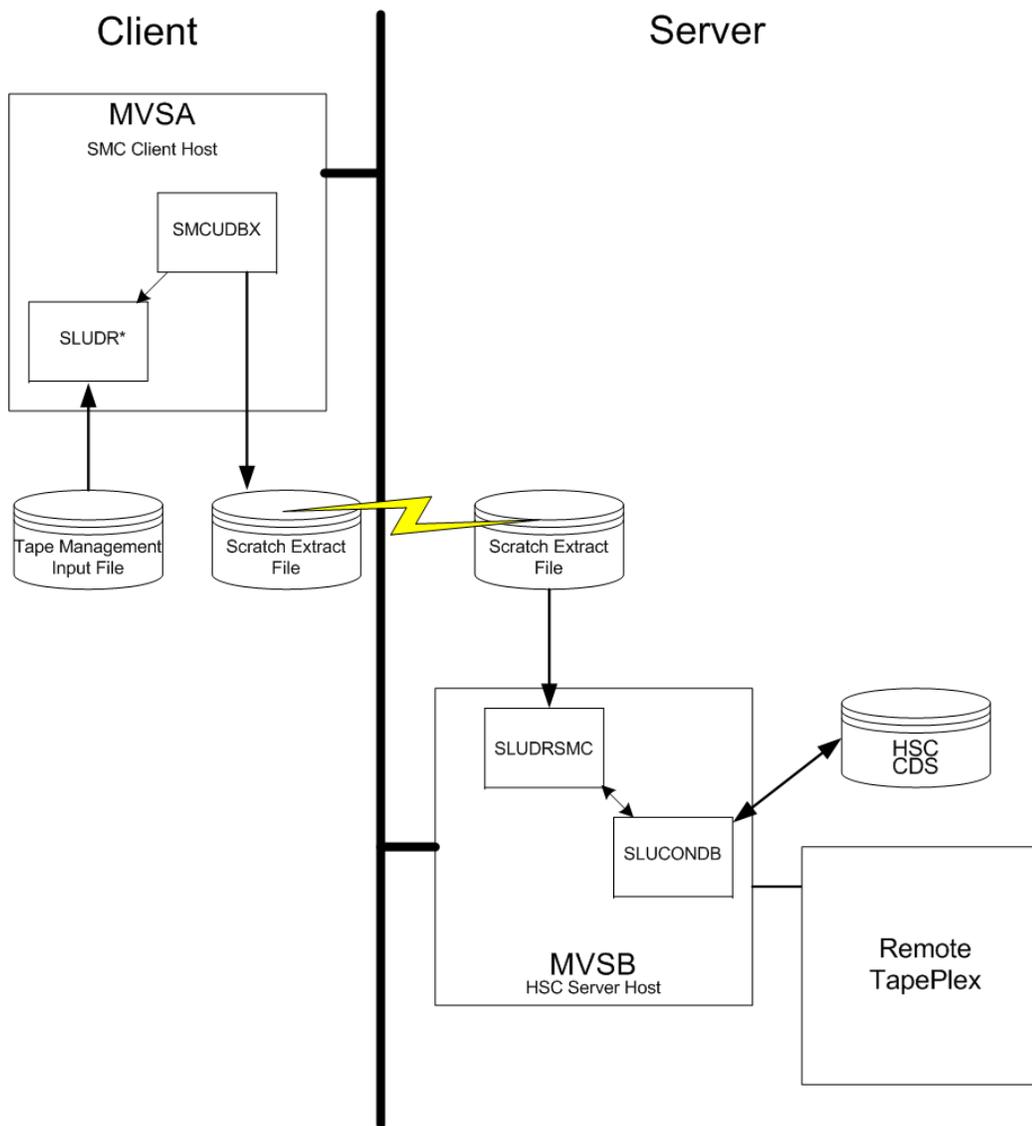
Processing complete; RC=0

Tape Management Extract Utility (SMCUBDX)

The SMCUBDX utility supports scratch synchronization between the SMC client host and the HSC CDS. Using common Tape Management System interface (SLUDR*) routines with HSC, SMC accesses the client tape management system to produce an extract file that can be read as input by the HSC Scratch Conversion Utility (SLUCONDB).

Note: See [Appendix C, "Tape Management System Interface \(SLUDR*\) Routines"](#) for more information about these routines.

The following figure shows The SMCUBDX process:

Figure 4–2 Scratch Synchronization Between SMC Client Host and HSC CDS

figure

If the client and server share a tape management system, the HSC utility `SLUCONDB` may be run directly using the common tape management system database as input.

If, however, the client host has a tape management system that is not accessible to the HSC host, the SMC utility `SMCUBX` can be used to extract scratch volumes from the tape management system using label and date parameters. `SMCUBX` output can then be used as input on the HSC host to the `SLUCONDB` utility. The SMC process supports timing synchronization by comparing the GMT time of the `SMCUBX` run with the last select time of the HSC CDS volume record. If the volume was selected after the SMC scratch run, it is not eligible for scratch by `SLUCONDB`.

Running the SMC Scratch Extract Utility

You can run the SMC scratch extract utility regardless of whether the SMC is executing on the host.

SMCUDBX processes the CA-1 Tape Management Catalog (TMC), the CA-DYNAM/TLMS Volume Master File (VMF), the DFSMSrmm report extract file, or the Zara database, and selects the volume serial numbers for processing based on information specified on the PARM parameter of the JCL EXEC statement.

For CA-1, CA-DYNAM/TLMS, and DFSMSrmm, SMCUDBX calls the appropriate Tape Management System interface routine. For Zara, SMCUDBX invokes the SLUDRZAR routine, which in turn invokes an application programming interface (API) to read Zara's database. The data returned from these routines is used to format the SMC scratch extract file. See [Appendix C, "Tape Management System Interface \(SLUDR*\) Routines"](#) for more information about these routines.

If your installation uses a different tape management system, you can develop a program modeled on one of the supplied examples SLUDRCA1, SLUDRRMM, SLUDRTLML, SLUDRSMC, SLUDRTLML, or SLUDRZAR, or you can write your own program to produce an extract file in the following format:

Table 4-5 Tape Management Subsystem Extract File Format

Position	Field	Format
1	Scratch volume	CL6
7	GMT of run	XL8
15	Unused	CL2

The time filed in the SMC scratch extract file is a character representation of the first four bytes of the output of the MSP STCK macro. For example, if the STCK macro produces a result of X'B0912345 6789ABCD', the GMT field of the SMC extract contains the character value C'B0912345'.

SMCUDBX, SLUDRCA1, SLUDRTLML, SLUDRRMM, and SLUDRZAR are provided as load modules. You can use the current versions of these load modules with CA-DYNAM/TLMS Release 5.4 and above, CA-1 Release 5.0 and above, DFSMSrmm 1.1, and Zara 1.2. The ELS MACLIB file on the ELS installation tape contains the sample source code.

Note:

- If there are local modifications to your tape management system, you must reassemble the associated TMS interface routine.
 - If your tape management system is CA-1 Release 4.9 or below, you must modify and reassemble the SLUDRCA1 routine. See ["Using SMCUDBX with CA-1 Release 4.9 or Below"](#) on page 4-20 for information about modifying and reassembling this routine.
 - If your tape management system is Zara, the SMCUDBX utility must be able to access the data set that contains the Zara API module (ZARAAPI1). You can either store this module in the LINKLIST, or include a JOBLIB or STEPLIB DD statement in the SMCUDBX JCL that points to the library containing the module.
 - Any routine that you modify and reassemble must be re-linked as non-reentrant (NORENT parameter) with AMODE=24 and RMODE=24.
-
-

Using SMCUDBX with CA-1 Release 4.9 or Below

To use SMCUDBX with CA-1 Release 4.9 or below, you must modify and reassemble the SLUDRCA1 routine. The CA-1 MACLIB containing the TMRECORD MACRO must be accessible during the assembly.

Perform the following steps for CA-1 Release 4.9:

1. Delete the asterisk in column 1 of the following line:

```
TMRECORD
```

2. Add an asterisk in column 1 of the following line:

```
TMMTMREC
```

3. Reassemble the SLUDRCA1 routine.

Syntax

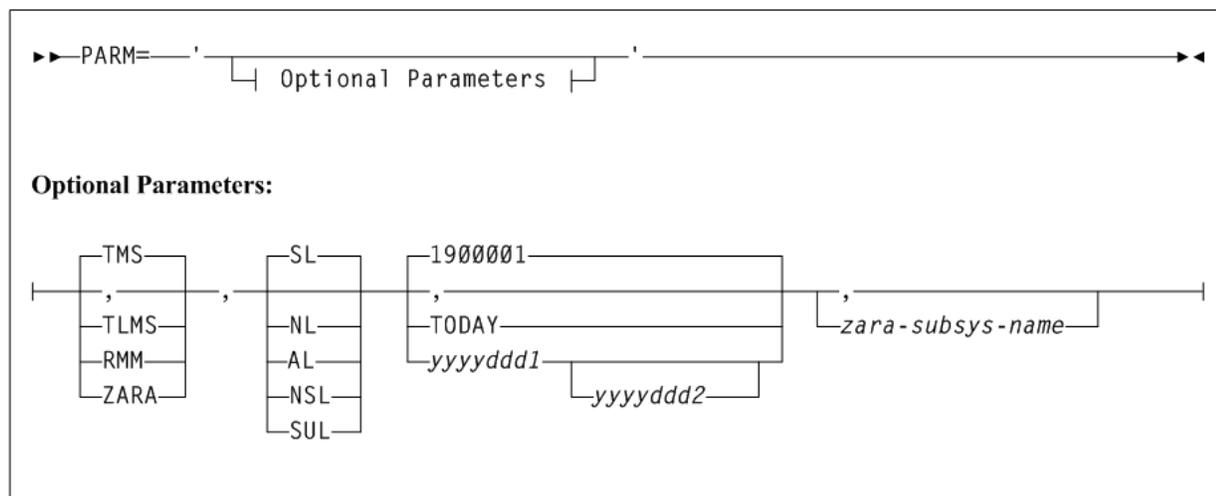
SMCUDBX uses program parameters to determine the Tape Management System interface (SLUDR*) routine to invoke and method of operation. See [Appendix C, "Tape Management System Interface \(SLUDR*\) Routines"](#) for more information about these routines.

You can specify the following values for the PARM parameter on the JCL EXEC statement when running the SMCUDBX utility:

Note: You must enter parameters in the specified order and include commas for omitted parameters.

The following figure shows syntax for the SMCUDBX utility:

Figure 4-3 SMCUDBX PARM parameter syntax



Parameters

PARM=

specifies the parameters that follow can be accessed by the program indicated in the PGM parameter in the JCL.

TMS

optionally, specifies the CA-1 tape management system (TMS). This is the default.

TLMS

optionally, specifies the TLMS: CA-DYNAM/TLMS tape management system.

RMM

optionally, specifies the DFSMSrmm tape management system.

ZARA

optionally, specifies the ZARA tape management system.

SL

optionally, specifies standard label type for the scratch volume selection. This is the default.

NL

optionally, specifies nonlabeled type for the scratch volume selection.

AL

optionally, specifies ANSI label type for the scratch volume selection.

NSL

optionally, specifies nonstandard label type for the scratch volume selection.

SUL

optionally, specifies standard user label type for the scratch volume selection.

Note: The following date-related parameters specify the date or date range when a volume became scratch in the TMC.

Date Related Parameters

The following date-related parameters specify the date or date range when a volume became scratch in the TMC.

1900001

optionally, specifies January 1, 1900 as the date. This is the default.

TODAY

optionally, indicates the current system date. Only volumes placed in scratch status on this date are processed.

yyyyddd1

optionally, the "from" date. The "to" date defaults to the current system date. All specified dates are in Julian notation.

All volumes placed in scratch status starting on day *yyyyddd1* through today's date are processed.

yyyyddd1-yyyyddd2

optionally, the date range in which the volumes became scratch. Neither of these dates can be greater than the current system date.

All volumes placed in scratch status starting on day *yyyyddd1* through day *yyyyddd2* are processed.

zara-subsys-name

Specifies the subsystem name for the Zara tape management system, where *zara-subsys-name* is the four-character name. The default subsystem name is ZARA.

JCL Requirements

The following definitions apply to the SMCUDBX JCL:

DBTMS

Input to the Scratch Extract utility in the form of the CA-1 TMS, the CA-DYNAM/TLMS VMS, or DFSMSrmm report extract file. This DD statement is not required for Zara.

STDOUT

Output messages from the Scratch Extraction utility. This DD statement is required.

DBEXTFIL

Output file from the Scratch Extract Utility. If a DCB LRECL is specified, it must specify a 16-byte value.

If Zara is the tape management system, the Zara API module must either reside in the MSP LINKLIST, or you must include one of the following JCL statements to access the module.

```
//STEPLIB DD DISP=SHR, DSN=your.zaraapi1.library
           DISP=SHR, DSN=your.tmsextract.library

//JOB LIB DD DISP=SHR, DSN=your.zaraapi1.library
```

The following example shows sample JCL that invokes the Scratch Extraction utility to process the CA-DYNAM/TLMS VMF for all tapes scratched in 2003.

Example 4-4 Sample JCL for Scratch Extraction Utility

```
//yourstd JOB card
//STEP0 EXEC PGM=SMCUDBX, PARM='TLMS, ,2003001-2003365'
//STEPLIB DD DISP=SHR, DSN=your.sea.linklib
// DD DISP=SHR, DSN=your.SLUDRxxx.linklib
//DBTMS DD DISP=SHR, DSN=your.tlms.database
//DBEXTFIL DD DISP=(NEW,KEEP), DSN=scratch.extract.file,
// SPACE=(TRK,(5,1)), UNIT=SYSDA
//STDOUT DD SYSOUT=*
/*
```

Output Description

SMCUDBX output includes the following:

- Messages associated with error conditions resulting from an unsuccessful attempt to execute scratch extraction processing
- Messages indicating errors or actions occurring during processing
- Output data set containing Scratch Update utility control statements

The following example shows sample output from the SMCUDBX utility.

Example 4–5 Scratch Extraction Utility Sample Output Messages

SMCUBX 7.2.0 SMC TMS DB SCRATCH EXTRACT
TIME 15:26:41

Page 0001
Date 2015-08-14

Total records extracted for scratch volumes = 977

SMC UI Simulation Utility (SMCUSIM)

The SMCUSIM utility enables you to issue SMC UI commands, including the SMC SIMulate command, in a test environment. Changes to SMC command settings, tape policies, and allocation user exits can be tested before they are put into production without affecting existing SMC clients and HSC servers.

SMCUSIM code executes similarly to the SMC subsystem, with the following exceptions:

- It does not initialize the MSP SSI allocation interfaces.
- It does not set up any command or message handling intercepts.
- It does not use any CSA storage for processing.

The SMCUSIM utility runs as a batch program, and can execute on the same host as the existing SMC subsystem without interfering with SMC client operations. SMCUSIM processing occurs in two phases.

Phase 1 Processing

In this phase, the utility operates similarly to the SMC subsystem startup routine. SMC modules are loaded and the SMCPARMS and SMCCMDS data sets are read.

Similarly to SMC subsystem startup, the SMCPARMS and SMCCMDS data sets are optional. However, as SMCUSIM does not include the SMC subsystem command intercept, you must specify any commands required to set up your test environment during this phase.

Note:

- Follow the guidelines in “Specifying SMC Commands in the SMCCMDS or SMCPARMS Data Sets” on page 52 for commands to include in the SMCPARMS and SMCCMDS data sets.
 - See [Chapter 2, "SMC Commands, Utilities, and Control Statements"](#) for more information about each individual command.
-
-

The SMCUSIM utility processes TAPEPLEX and SERVER commands as if it were an active SMC subsystem, and TCP/IP services may be required. Therefore, the security administration considerations for communication described in Oracle’s ELS publication *Configuring and Managing SMC* do apply.

The following SMC commands are disabled by the SMCUSIM because they may interfere with the actual SMC subsystem or HSC server:

- CMDDef
- HTTP
- LOG

- Route

These commands can be included in the `SMCPARMS` or `SMCCMDS` data sets, but are ignored by the utility.

Phase 2 Processing

In this phase, the utility reads and processes the `UUIIN` data set similarly to the `SMCUUUI` utility, except that only SMC commands are permitted. These commands are targeted to the `SMCUSIM` simulated environment, and have no effect on the actual SMC subsystem.

You can include SMC `SIMulate` commands, or any other SMC command in the `UUIIN` data set to test how a job with the specified parameters would be processed using the `SMCPARMS` and `SMCCMDS` data sets configured in phase 1. HSC UUI commands are not valid, and are flagged in error. Several types of output can be received, including:

- Plain text output

This type of output is written to `TEXTOUT`, and corresponds to the normal output produced by the SMC command.

- Structured XML

This type of output is written to `XMLOUT`. Structured XML is a well formed XML data stream with XML header tags and XML data tag elements, and XML data element content. Only specific SMC commands produced structured XML. Refer to the *ELS Programming Reference* for a complete list of SMC XML tag names and types.

- Comma Separated Values (CSV)

This type of output is written to `CSVOUT`. An input template of XML data tag names defines the format of the `CSVOUT` corresponding to a particular request. The output data for each request is a CSV header line that contains a comma-separated list of the XML data tags requested, followed by CSV detail lines. Each CSV detail line contains one comma-separated entry for each requested XML data tag. This type of output is readily adaptable as input into spreadsheets or customized report writers. Refer to the *ELS Programming Reference* for more information about the format for specifying CSV.

The type of output received is controlled by the data set definition statements (DD) defined in the JCL to execute the `SMCUSIM` utility.

Sample JCL

The following example shows sample JCL that executes the `SMCUSIM` utility:

Example 4-6 JCL to Execute the SMCUSIM Utility

```
//yourstd JOB card
//STEP EXEC PGM=SMCUSIM, PARM='pgmparms'
//STEPLIB DD DISP=SHR, DSN=your.sea.linklib
//          DD DISP=SHR, DSN=your.sea.exitlib
//*****
/* The following data sets are input to phase 1 and are optional
//*****
//SMCPARMS DD DISP=SHR, DSN=parmlib_name(parm_member_name)
//SMCCMDS DD DISP=SHR, DSN=cmdlib_name(cmd_member_name)
//*****
/* The following data set is required
```

```

//*****
//STDOUT DD DISP=SHR,DSN=your.stdout.dataset
//*****
/* The following data set is input to phase 2 and is required
//*****
//UIIIN DD *
CSV and UII commands
//*****
/* At least 1 of the following data sets must be specified
//*****
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD DSN=yourtext.output.dataset,DISP=SHR

```

Parameters

The following SMCUSIM utility parameters may be specified for *pgmparms* in the sample JCL:

SSYS(subsystem-name)

Specifies the SMC subsystem name (one to four characters in length)

TAPEPlex(name)

Specifies the name of the SMC TapePlex to which the UII commands will be directed. If omitted, the first active TapePlex found is used.

Use `TAPEPlex(SMC)` to indicate that the input commands are to be issued directly to the SMC, and not to a TapePlex (such as the SMC Display Volume and Display Drive command).

XMLCASE

Specifies the case of alphabetic data fields in XML and CSV output. Valid case formats include the following:

- M indicates mixed uppercase and lowercase. This is the default.
- U indicates uppercase.

XMLDate(format)

Specifies the format of date fields in XML and CSV output. Valid date formats include the following:

- *YYYYMONDD*
- *YYYY-MM-DD*
- *YYYY-MON-DD*
- *HEXSTCK* (hex character STCK format)

The default format is *yyyymondd*. For example, *2005Oct14*.

NOHDR

optionally, specifies that `STDOUT` and `TEXTOUT` report headings and pagination carriage control are not produced. `NOHDR` and `LINECNT` are mutually exclusive.

LINECNT

optionally, specifies `STDOUT` and `TEXTOUT` report pagination line count setting. `LINECNT` and `NOHDR` are mutually exclusive.

nn indicates the number of lines per page. Valid values are 10-99.

Note: Settings for `STDOUT` report headings and pagination can only be specified in the `EXEC` statement program parameters. Settings for `TEXTOUT` report headings, while initially specified by the `EXEC` statement program parameters, can later be modified by specifying `TEXTOUT UUI` control statements in the `UUIIN` command stream.

For example:

In the following figure, the `EXEC` statement program `PARM='LINECNT(55)'` sets the report pagination to 55 lines per page for both `STDOUT` and `TEXTOUT` output.

However, the `UUI` command `TEXTOUT NOHDR` in the `UUIIN` command stream alters the `TEXTOUT` report parameters to disable report headers and pagination.

```
//yourstd JOB card
//STEP EXEC PGM=SMCUSIM,PARM='LINECNT(55) '
//STEPLIB DD DISP=SHR,DSN=your.sea.linklib
//          DD DISP=SHR,DSN=your.sea.exitlib
//SMCPARMS DD DISP=SHR,DSN=parmlib_name(parm_member_name)
//SMCCMDS DD DISP=SHR,DSN=cmdlib_name(cmd_member_name)
//STDOUT DD DISP=SHR,DSN=your.stdout.dataset
//UUIIN DD *
        TEXTOUT NOHDR
        UUI commands
//CSVOUT DD DSN=yourcsv.output.dataset,DISP=SHR
//XMLOUT DD DSN=yourxml.output.dataset,DISP=SHR
//TEXTOUT DD DSN=yourtext.output.dataset,DISP=SHR
```

MAXRC

specifies whether `SMCUSIM` initialization is to be terminated when the specified command return code is exceeded. If `MAXRC` is not specified, then the `SMCUSIM` always attempts to complete its initialization regardless of any `SMCPARMS` or `SMCCMDS` command failure(s). This is the default behavior.

nn specifies the highest allowed return code. If an `SMC` command executed from the `SMCPARMS` or `SMCCMDS` data set exceeds this value, then `SMC0236` and `SMC0237` messages are produced, and the `SMCUSIM` utility terminates before any commands are read from the `UUIIN DD`. Allowable values are 0, 4, 8, and 12.

Note:

Certain `SMC` commands, such as `CMDDef`, `HTTP`, `LOG`, and `Route`, that are allowed in the `SMC` subsystem environment, but are not allowed in the `SMCUSIM` environment are merely ignored under `SMCUSIM` and do not affect `MAXRC` processing, if specified.

Only commands executed as part of the simulated `SMC` subsystem startup (that is, those read from the `SMCPARMS` and `SMCCMDS` data sets) are evaluated as part of `MAXRC` processing. Commands read from the `UUIIN DD` which result in a return code greater than the specified `MAXRC` value do not automatically terminate the `SMCUSIM` utility

PLEXRC

specifies whether `SMC` subsystem initialization is to be terminated based on the status of `TapePlexes` returned from the automatically issued `RESYNC` command.

If PLEXRC is not specified, then the SMC subsystem will complete its initialization regardless of the outcome of the RESYNC command. This is the default behavior.

n specifies the highest allowed return code from the RESYNC command. Valid values are 0 and 4.

The SMC RESYNC command sets a return code of 8 if SMC cannot communicate with any defined TapePlex, and a return code of 4 if SMC can communicate with one or more, but not all, defined TapePlexes.

NOCC

optionally, indicates that no printer carriage control is to be included. When this option is selected, any non-filled pages will be appended with blank lines for the specified LINECNT.

Required Data Set Definition (DD) Statements

You must specify the UIIIN and STDOUT data set definitions.

UIIIN Data Set

The UIIIN data set can include:

- SMC UII commands
- HSC UII commands
- VTCS PGMI requests

Native SMC UII commands include:

- Display Drive
- Display Volume
- POLicy
- SIMulate

Refer to the *ELS Programming Reference* for a list of supported HSC UII commands and VTCS PGMI requests.

Syntax Rules

The following syntax rules apply:

- Input must be 80 byte card images.
- Only columns 1-72 of the 80 byte card image may contain actual command input. Columns 73-80 may be used for sequence numbers if desired.
- If the last non-blank character in columns 1-72 is a "+", the logical command is continued on the next physical card.
- Comments begin with "/*" (in column 2 and beyond) and end with "*/".
- The maximum logical command length is 32000 bytes.

Control Statements

Utility control statements allow the report pagination for TEXTOUT output and the target TapePlex to be altered for subsequent SMC, HSC, and VTCS UII and PGMI commands.

TEXTOUT

optionally, sets the report pagination parameters for TEXTOUT output. If any errors are encountered on the TEXTOUT command, all subsequent UUI commands are bypassed until a correct TEXTOUT command is encountered.

- NOHDR optionally, specifies that TEXTOUT report headings and pagination carriage control are not produced. NOHDR and LINECNT are mutually exclusive.
- LINECNT(*nn*) optionally, specifies TEXTOUT report pagination line count setting. *nn* is the number of lines per page. Valid values are 10-99. LINECNT and NOHDR are mutually exclusive.

Note:

- Settings for STDOUT report headings and pagination can only be specified in the EXEC statement program parameters. Settings for TEXTOUT report headings, while initially specified by the EXEC statement program parameters, can later be modified by specifying TEXTOUT UUI control statements in the UUIIN command stream.
 - If multiple TEXTOUT statements are input before a single UUI command, the last TEXTOUT statement controls the TEXTOUT report pagination.
 - PLEXDext and TEXTOUT commands can be specified along with CSV commands to alter the destination TapePlex, and the CSV and TEXTOUT output characteristics of subsequent UUI commands.
-
-

STDOUT Data Set

The STDOUT data set is where the SMCUSIM utility reports the input and final completion code for each UUIIN request.

SMCUSIM Utility Sample CSV

The following CSV sample displays Y/N values for major sources of tape policy for the specified simulated job step. Refer to the *ELS Programming Reference* for a complete list of XML tags and their structure.

```
csv field=(jobname,dsname,ifax_matched_policy_flag,           +
ifax_matched_tapereq_flag,ifax_policy_esoteric_flag,         +
ifax_storgrp_esoteric_flag,sms_info_flag,                    +
policy_info_flag,tapereq_info_flag,                           +
userexit_info_flag,owning_tapeplex),                           +
break(simulate_request) notitle fixed
```

Trace Format Utility (SMCUGTF)

The SMCUGTF utility converts SMC GTF output created with the "compact" format (the default format) into the original SMC trace format.

Sample JCL

The following example shows sample JCL that executes the SMCUGTF utility.

Example 4-7 JCL to Execute the SMCUGTF Utility

```
// yourstd jobcard
//STEP EXEC PGM=SMCUGTF
//STEPLIB DD DSN=your.sea.linklib,DISP=SHR
//GTFIN DD DSN=your.compact.gtftrace.dsn,DISP=SHR
//GTFOUT DD DSN=your.formatted.gtftrace.dsn,
// DISP=(NEW,CATLG,DELETE),UNIT=SYSDA,
// SPACE=(space parameters)
```

Note: Space required for the output GTF trace is approximately 6 times the size of the COMPACT input file.

VSM console SMF Offload utility (SMCUSMF)

The SMC SMCUSMF utility enables you to offload SMF records from a VSM console server. The SMF records are placed in a z/OS data set with the following DCB attributes:

- recfm - VB
- lrecl - 27990
- blksize - 27994

Refer to the ELS publication *ELS Programming Reference* for information about these HSC/VTCS SMF records.

Sample JCL

The following JCL sample executes the SMCUSMF utility:

Example 4-8 JCL to Execute the SMCUSMF Utility

```
//jobname JOB (account),REGION=0M
//S1 EXEC PGM=SMCUSMF,PARM='pgmparms'
//STDOUT DD SYSOUT=*
//SMCSMF DD DISP=SHR,DSN=yoursmf.output.dataset
```

Parameters

The following SMCUSMF utility parameters may be specified for *pgmparms* in the sample JCL:

NOHDR

optionally, specifies that the *STDOUT* report headings and pagination carriage control are not produced.

LINECNT(nn)

optionally, specifies *STDOUT* report pagination line count setting.

nn indicates the number of lines per page. Valid values are 10-99.

SERVer(ssss)

specifies the name of the VSM console server from which SMF records are to offloaded.

ssss indicates the server name. The specified server must be the active server for the VSM console TapePlex. *SERVer* is a required parameter.

BEGIN(begin-date:begin-time)

specifies the beginning of the period of SMF record creation. This is the server date and time.

begin-date indicates the starting date, expressed in *yyyymmdd* format.

yyyymmdd

the beginning date.

TODAY

specifies TODAY as the beginning date.

YESTERDAY

specifies YESTERDAY as the beginning date.

begin-time indicates the starting time-of-day (24-hour value, expressed in *hhmmss* format). The allowable range for begin-time is 000000 to 235959. The default value is 000000.

END(end-date:end-time)

optionally, specifies the end of the period of SMF record creation. This is the server date and time.

end-date indicates the ending date, expressed in *yyyymmdd* format.

yyyymmdd

the ending date.

TODAY

specifies TODAY as the ending date.

YESTERDAY

specifies YESTERDAY as the ending date.

end-time indicates the ending time-of-day (24-hour value, expressed in *hhmmss* format). The allowable range for the end-time parameter is 000000 to 235959. The default value is 235959.

SMFTYPE(nnn)

optionally, specifies the SMF record type for the output records.

nnn indicates the record type. Valid values are 128 to 255. The default is 255.

Required Data Set Definition (DD) Statements

The following DD statements are required:

STDOUT

The *SMCUSMF* utility reports final completion code and any error messages in the *STDOUT* data set.

SMCSMF

The *SMCUSMF* utility places SMF records in the *SMCSMF* data set. This is a variable blocked file. The DCB attributes must be:

DCB=(RECFM=VB,LRECL=27990,BLKSIZE=27994)

SMCUSMF Usage

If the VSM console TapePlex is defined with two servers and each server has functioned as the active server for that TapePlex since the last run of SMCUSMF, you must run the following procedure to collect all SMF records from both servers.

With SERVER1 active and SERVER2 inactive:

1. Run SMCUSMF with SERVER(SERVER1).

2. Disable SERVER1:

```
SERVER NAME(SERVER1) DISABLE
```

This command makes SERVER2 active.

3. Run SMCUSMF with SERVER(SERVER2).

4. Re-enable SERVER1:

```
SERVER NAME(SERVER1) ENABLE
```

SERVER2 remains active but SERVER1 is eligible to become the active server if SERVER2 becomes inaccessible. To make SERVER1 the active server once again (if desired), disable SERVER2 and then enable it once SERVER1 has become the active server for the TapePlex.

HSC Standalone Utilities

This chapter describes HSC standalone utilities. These utilities run as independent programs.

The following utilities are included:

- Utility Administrator (SLUADMIN)
- SLICREAT
- Scratch Conversion Utility (SLUCONDB)

Utility Administrator (SLUADMIN)

The SLUADMIN program operates as a batch job and controls initialization processing for most utility functions. The utility administrator (SLUADMIN) can accept multiple commands which are handled as serial requests for multiple utilities. If all requirements needed to execute the utility function are met, control is passed to the appropriate program which handles the actual processing.

Utility functions represented by additional control statements are not started until the prior utility function stops and control is returned to the SLUADMIN program.

Caution: The maximum length of a control statement is 32,767 characters. Exceeding this limit causes message SLS0241I to be displayed, which indicates an invalid utility control statement.

Invoking SLUADMIN

For convenience, most utility programs are packaged to appear as a single, user-invoked program. An exception is Scratch Conversion. All other utility functions are invoked as a normal batch job using the SLUADMIN program and user-specified commands needed to invoke the required utility function.

Utility functions represented by additional commands are not started until the prior utility function stops and control is returned to the SLUADMIN program.

The following is a generic example of JCL that can be modified to execute SLUADMIN. Where “utility and CSV commands” appears in this sample JCL, enter the utility or CSV commands you want to execute.

For example:

```
SET HOSTID(HSC2) FORHOST(HSCB)
OFFLoad LOGF
SCREdist ACS(01)
```

The following example shows JCL that invokes SLUADMIN:

Example 5-1 JCL to Invoke SLUADMIN

```
//jobname      job (account),programmer,REGION=0M
//S1 EXEC      PGM=SLUADMIN,PARM=MIXED
//STEPLIB      DD DSN=your.sea.linklib,DISP=SHR
//SLSPRINT     DD SYSOUT=A
//SLSIN DD      *
               utility and CSV commands
               .
               .
               .
//*****
/* Optional UUI Output Definition Statements *
//*****
//SLSCSV DD DSN=yourcsv.output.dataset,DISP=SHR
//SLSCSVX DD SYSOUT=*
//SLSXML DD DSN=yourxml.output.dataset,DISP=SHR
/*
//
```

Note: Specify a region size of 0M on the JOB statement for all utility functions.

SLUADMIN Execution Parameters

The following optional parameters may be specified for PARM= on the SLUADMIN EXEC statement:

NOHDR

Suppresses printing of report headings. This parameter only affects programs that produce report output., such as ACTivities, VOLRpt, and VTVRpt, and so on.

Note: NOHDR and LINECNT are mutually exclusive.

If NOHDR is not specified, the default is to print headings that include the following information:

- date/time of the report
- page numbers
- host software version number
- name of the utility function executed

NOPHDR

Suppresses printing of page headings, but produces control headers in the output, such as:

```
SLS0030I Message ID NNNN Help Info:
```

or

```
SLS0041I Command CCCCCC Help Info:
```

Note: NOPHDR is mutually exclusive with LINECNT and NOHDR.

This parameter is useful when you issue the Display Cmd or Display Message command to create a file that includes help text for commands or messages.

MIXED

Prints all report headings and messages in mixed case. The default is uppercase.

LINECNT=nn

Specifies the number of lines per page for the SLUADMIN report. Allowable values are 10 through 99; the default is 60 lines per page.

Note: LINECNT and NOHDR are mutually exclusive.

SSYS(ssss)

Optionally, specifies the name of the HSC subsystem for which the SLUADMIN utility is being run. This parameter is required when the HSC subsystem(s) running on the LPAR have specified the MULT parameter.

XMLDate(date)

Specifies the format of date fields in XML and CSV output. Valid date formats include the following:

- *yyyymondd*
- *yyy-mm-dd*
- *yyy-mon-dd*
- HEXSTCK (hex character STCK format)

The default format is *yyyymondd*. For example, 2005Oct14.

XMLCase(case)

Specifies the case of alphabetic data fields in XML and CSV output. Valid case formats include the following:

- M indicates mixed uppercase and lowercase. This is the default.
- U indicates uppercase

SLUADMIN Definition Statements

Additional statements may be required for certain HSC and VTCS commands. In this publication, these statements are described with the applicable command.

General Definition Statements

The following definition statements are always required:

- STEPLIB
specifies the link library that contains the ELS modules.
- SLSPRINT
specifies the destination for the utility output (plain text).
- SLSIN

specifies the input to the SLUADMIN (utility command names and parameters).

Note: SLSIN can also include the SDD command, See "[SDD Command](#)" on page 4-8 for more information.

- SLSOUT

specifies the destination for SLUADMIN processing messages.

CDS Definition Statements

One or more of the following CDS definition statements are required for utility commands executed on a host where the HSC is inactive. These statements specify a primary CDS, and optionally, a secondary and standby CDS.

Note: These statements can be omitted for commands that execute on a host with HSC active. If these statements are omitted, the data sets used by the active HSC on the host are accessed.

SLSCNTL

specifies the primary CDS. This statement is required for utility commands executed on a host where the HSC is inactive.

SLSCNTL2

optionally, specifies the secondary CDS.

If a secondary CDS exists, include this statement so that if a switch occurs and the secondary CDS becomes active, the CDSs can be reordered to maintain database integrity.

SLSSTBY

optionally, specifies the standby CDS.

If a standby CDS exists, include this statement so that if a switch occurs and the standby CDS becomes active, the CDSs can be reordered to maintain database integrity.

When you specify CDS definition statements, the following conditions apply:

- The number of DD statements specified must equal the number defined by the SET TECHNIQUE command. When you run the SET TECHNIQUE command, the number of DD statements defined must equal the number implied by the new technique.
- Rules for selecting primary, secondary, and standby CDS versions are the same as those used by the HSC subsystem. Refer to the publication *Managing HSC and VTCS* for more information about CDS configuration.
- For utilities that are "read only" (for example, VOLRpt), you can specify a single DD (SLSCNTL) and no internal or external name validation is performed.

UI Output Definition Statements

One or more of the following definition statements are required when you want to generate output types added through Unified User Interface (UI) requests. See "[Requesting SLUADMIN Output](#)" on page 5-5 for more information about requesting these output types.

SLSCSV

specifies the destination for the utility output in Comma Separated Value (CSV) format.

SLSCSVX

specifies the destination for CSV exceptions.

SLSXML

specifies the destination for the utility output in structured XML format.

Requesting SLUADMIN Output

In addition to plain text, SLUADMIN supports output types added through Unified User Interface (UUI) requests. Refer to the *ELS Programming Reference* for a list of commands and utilities supported by the UUI.

The output type is controlled by DD statements defined in the SLUADMIN JCL. Output types include the following:

- Plain text

Plain text output is always produced and is unchanged from previous releases. Output is written to the data set specified by the SLSPRINT definition statement.

- Structured XML

This output type is optional and is generated only if the SLSXML definition statement is specified. Output is written to the data set specified by this statement.

Structured XML is a well-formed XML data stream containing XML header tags, data tags, and data element content. Refer to the *ELS Programming Reference* for XML tag names and structure for all UUI requests.

- Comma Separated Values (CSV)

This output type is optional and is generated only if the CSV command and SLSCSV definition statement are specified.

CSV output can be customized. A template of XML data tag names can be input by the user to specify which data values will be output. The output data is a single CSV header line followed by CSV detail lines.

A CSV header line is a list of the XML data tag names requested; each name is separated by a comma. Each CSV detail line is a specified fixed number of data values, separated by a comma. This kind of output is readily adaptable as input into spreadsheets or customizable report writers.

Requesting XML Output

If the SLSXML DD statement is present, it indicates that structured XML output should be provided for all SLUADMIN commands that support the UUI interface.

When XML is generated, exceptions are generated under their own header tag, <exceptions>, at the end of each request. Each exception is reported using the <reason> tag. Refer to the *ELS Programming Reference* for more information.

Requesting CSV Output

If the SLSCSV DD statement is present, comma separated value (CSV) output is provided for all SLUADMIN commands that support the UUI interface.

If the `SLSCSVX` DD statement is present, CSV exceptions are reported. The `SLSCSVX` DD statement is valid only if the `SLSCSV` DD statement is provided. CSV exceptions are generated only if the CSV command is in effect for a request.

The default DCB information for this DD is the same as `SLSPRINT`, `LRECL=121`, `RECFM=FB`).

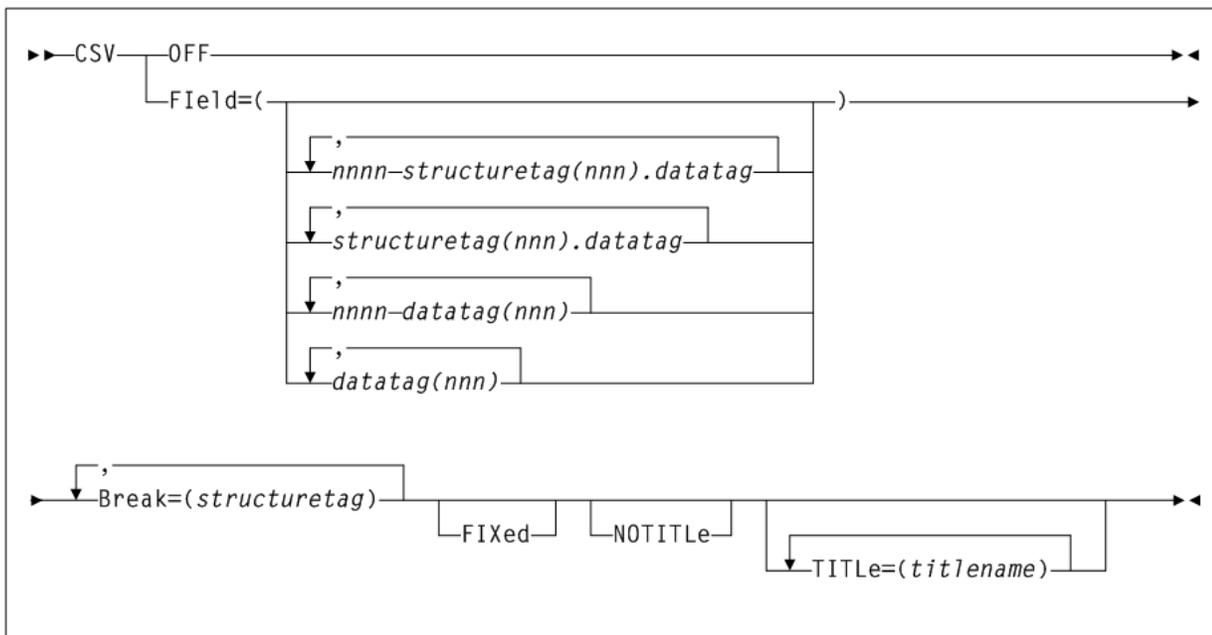
CSV Command

The CSV command controls CSV output processing.

Each CSV command contains a list of CSV element definitions separated by commas. Each CSV element definition specifies an XML data tag name with optional XML structure tag and subscript values. Refer to the *ELS Programming Reference* for more information about ELS XML tags.

Syntax:

Figure 5-1 CSV command syntax



Parameters:

OFF

Disables CSV processing for subsequent requests.

Note: `OFF` is mutually exclusive with all other CSV parameters.

Field

Required if `OFF` is not specified.

- nnnn-** is an optional field name prefix containing 1 to 4 numeric characters followed by a dash. When a field name is prefixed by "*n* (*nnn*) -", the CSV output for the field always contains exactly the number of characters specified. Numeric fields are right-justified with the most left-most digits truncated; other fields are left-justified with the right-most characters truncated. If the value specified is

longer than the actual value, it is padded with blanks on the left for numeric fields and blanks on the right for other fields.

For example:

`8-acs_status` truncates the `acs_status` value to 8 characters.

`12-acs_status` blank-pads the `acs_status` value to 12 characters.

The maximum value of `nnnn` is 1024. The specification of "`nnnn`-" is valid only when the parameter `FIXed` is also specified.

- `structuretag(nnn) .datatag` is an optional XML structure tag and data tag pair. An XML structure tag is an element that contains other elements but does not have content value. Refer to the *ELS Programming Reference* for more information about ELS XML tags.

Specify an XML structure tag/data tag pair only when the data tag occurs within multiple structure tags. For example, the `DISPLAY LSM` request data tag `free_cell_count` is used under the structure `lsm_data` to contain the total LSM free cell count and under the structure `panel_data` to contain the panel free cell count. Specifying `lsm_data.free_cell_count` requests the free cell count from the `lsm_data` structure; specifying `panel_data.free_cell_count` requests the free cell count from the `panel_data` structure. If no structure tag is coded for a data tag that occurs under multiple structure tags, the first occurrence of the data tag in the generated XML is used.

`nnn` is an optional subscript that determines how many of the multiple XML data values are included in the CSV output.

Specify a subscript only when the structured XML data for a single request contains multiple XML structure elements with the same name. This is indicated in the `requestXML` description whenever the column labeled "Maximum Occurrences" is greater than 1. A subscript value can be specified in BOTH the structure tag name AND the data tag name, for example:

```
CSV FIELD=(mvc_instance(4).volser,+
mvc_instance(4).partition_id(2))
```

creates CSV output with 12 fields, four `mvc_instance volser` occurrences, followed by two fields representing the `partition_id` values associated with the first MVC `volser`, then two fields representing the `partition_id` values associated with the second MVC, and so on.

- `datatag(nnn)` is an optional XML data tag. If a data tag does not under more than one structure tag in a request, it is not necessary to specify a structure tag qualifier.

`nnn` is an optional subscript that determines how many of the multiple XML data values are included in the CSV output.

Specify a subscript only when the structured XML data for a single request contains multiple XML structure elements with the same name. This is indicated in the `requestXML` description whenever the column labeled "Maximum Occurrences" is greater than 1.

Note: The XML tag names are NOT case-sensitive and can be specified in any combination of upper and lowercase characters.

Break

Required if OFF is not specified. The break tag must be a valid structure tag defined for the input request. Whenever a trailer tag matching the break tag is found in the output process, a new CSV record is created. Examples of valid break tags are:

- For DISPLAY CDS, cds_data or host_data
- For VOLRPT or Display Volume, volume_data

Fixed

Generates fixed format CSV output. Each field in the CSV output is blank-padded so that it occupies a fixed number of characters. You can use this option to create a customer-specified format flat file for reporting.

NOTITLE

Specifies that no CSV title line is produced. If this keyword is omitted, the first line of each CSV request is a title line containing comma separated tag names.

TITLE

If TITLE is specified, the title names specified are used in the title output line in place of the XML tag names. For any omitted title name, the specified XML tag name from the FIELD parameter is used in the title.

JCL Example: CSV Output:

The following SLUADMIN JCL executes the MVCRPT command to produce a report of the percentage of space available for all MVCs in CSV format. After the job executes, you can FTP the CSV output file to your spreadsheet application.

Refer to the *ELS Programming Reference* for information about the structure and data tags used in this example.

Example 5-2 CSV Output for the MVCRPT command

```
//MVCREPT JOB x,CHRIS,CLASS=A,MSGCLASS=E
//*
//*
//*
//MVCRPT EXEC PGM=SLUADMIN,
// PARM='MIXED,XMLDATE=YYYY-MM-DD'
//STEPLIB DD DSN=your.sea.LINKLIB,DISP=SHR
//SLSCNTL DD DSN=your.sea.CLUSTER.CDS,DISP=SHR
//SLSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//SLSCSV DD DISP=(,CATLG),DSN=hlq.MVCREPT.CSV,
// DCB=(RECFM=VB,LRECL=4096,BLKSIZE=32000),
// UNIT=SYSDA,SPACE=(CYL,(x,y))
//SLSIN DD *
CSV FIELD=(mvc_data.volser,mvc_data.percent_available)+
BREAK=(mvc_data)+
NOTITLE
MVCRPT
/* /*
//
```

SLUADMIN Program Return Codes

The SLUADMIN program sets a return code for the execution of the job step as described below.

The return code for each utility function is listed in a message. For return codes other than 0, additional messages are listed providing more information and description of the error condition. Refer to the publication *ELS Messages and Codes* for any messages encountered.

The SLUADMIN utility includes the following return codes:

- 0 indicates that all utility functions requested through control statements completed normally.
- 4 indicates that at least one utility function encountered an abnormal situation, but it did not cause termination of that utility function or any subsequent utility functions.
- 8 indicates that at least one utility function encountered an error condition that prevented continuation of that utility function, but any subsequent utility functions represented by control statements were attempted.
- 12 indicates that an error condition was detected that either prevented the start of any utility functions, or terminated the active utility function and prevented processing of subsequent utility functions.

Note: If the return code occurred because of a problem with the HSC CDS, the problem must be resolved before the HSC can be initialized safely.

Reports Created by Utility Commands

Several utility commands produce reports when executed. These reports are in addition to the utility function. The following utility commands produce reports:

- LIBGen
- ACTivities
- AUDit
- BACKup
- MOVE
- VOLRpt

Report Headings

Report headings include the following information:

- date/time of the report
- page number(s)
- host software version number
- name of the utility function executed

SLICREAT

The SLICREAT program creates library control data sets and displays library volume capacity in a confirmation message.

These library control data sets are created based on the data set definitions you specify in the SLICREAT data set initialization JCL.

Using SLICREAT involves the following steps:

1. Create data set definitions in the data set initialization JCL using the SLICREAT program.
2. Execute the SLICREAT program to create the library control data sets.
3. Verify successful completion of the SLICREAT program and note the library volume capacity displayed in the confirming message.

These steps are described in the following sections. They must be performed before the library is operational.

Note:

- Before using SLICREAT, you must first create, assemble and link the LIBGen macros. Refer to the publication *Configuring HSC and VTCS* for more information.
 - You can use SLICREAT to reformat your HSC SLSJRNnn journal file(s). Refer to the *ELS Legacy Interfaces Reference* for more information.
-
-

Creating Control Data Set Initialization JCL

Creating the definitions for the library control data set is done by coding JCL in a job file named SLICREAT.

The following is an example of JCL for the SLICREAT program. This sample is also included in the HSC SAMPLIB as member JCLCRT.

Example 5-3 SLICREAT JCL

```
//SLICREAT JOB (account), 'programmer', CLASS=A
//CREATE EXEC PGM=SLICREAT, CDS CREATE MODULE
// PARM='libgen-load-module-name',
// REGION=0M
//*
//STEPLIB DD DSN=your.sea.linklib, DISP=SHR
//SYSPRINT DD SYSOUT=* MESSAGES
//*
//*****
//* LIBRARY PRIMARY CONTROL DATASET (CDS)
//*****
//SLSCNTL DD DSN=SLS.SLSCNTL, P RIMARY CDS
// SPACE=(4096,S,,CONTIG,ROUND), REPLACE 'S' WITH YOUR
// DISP=(NEW,CATLG,DELETE), SPACE CALCULATIONS
// UNIT=SYSDA
//*****
//* LIBRARY SECONDARY CONTROL DATASET (CDS)
//*****
//SLSCNTL2 DD DSN=SLS.SLSCNTL2, SECONDARY CDS
// SPACE=(4096,S,,CONTIG,ROUND), REPLACE 'S' WITH YOUR
// DISP=(NEW,CATLG,DELETE), SPACE CALCULATIONS
// UNIT=SYSDA
//*****
//* LIBRARY STANDBY CONTROL DATASET (CDS)
//***** /
//SLSSTBY DD DSN=SLS.SLSCNTL3, STANDBY CDS
// SPACE=(4096,S,,CONTIG,ROUND), REPLACE 'S' WITH YOUR
// DISP=(NEW,CATLG,DELETE), SPACE CALCULATIONS
```

```

//          UNIT=SYSDA
//*****
//*          LIBRARY JOURNAL DATASET (INITIAL)
//*****
//SLSJRN01 DD  DSN=SLS.SLSJRN01,          INITIAL JOURNAL
//              SPACE=(4096,u, ,CONTIG,ROUND),  REPLACE 'u' WITH YOUR
//              DISP=(NEW,CATLG,DELETE),        SPACE CALCULATIONS
//              UNIT=SYSDA
//***** /
//*          LIBRARY JOURNAL DATASET (ALTERNATE)
//*****
//SLSJRN02 DD  DSN=SLS.SLSJRN02,          ALTERNATE JOURNAL
//              SPACE=(4096,u, ,CONTIG,ROUND),  REPLACE 'u' WITH YOUR
//              DISP=(NEW,CATLG,DELETE),        SPACE CALCULATIONS
//              UNIT=SYSDA
//*****
//*          ONE PAIR OF JOURNALS ARE REQUIRED FOR EACH GENED HOST
//*****
//*

```

DD Statements

The following JCL DD statements must be used to define the library control data sets:

SYSPRINT

output messages.

Refer to the following criteria when allocating the control data sets:

- Do not specify the DCB statement. The HSC defines the required block size (4K).
- The data set(s) must be allocated in a single contiguous extent.
- The CDS(s) must not include existing data sets containing records before running the SLICREAT process.
- Oracle StorageTek recommends that the CDSs do not reside on the same volume(s) as other CDSs or other data sets that generate high I/O activity.

SLSCNTL

primary library control data set.

This is the initial data set that is used to control and synchronize all activities within the HSC. It is used by the HSC until the controlling data set is switched to the secondary, either automatically or manually.

SLSCNTL also controls the SLICREAT process. If you do not include an SLSCNTL DD statement when you run SLICREAT, as follows:

- the CDSs will not be formatted, and
- the size requirement (in blocks) of the LIBGEN load module included in the PARM statement will be calculated and reported and journal formatting will be attempted.

SLSCNTL2

secondary copy of the primary control data set.

This is required only if the SLIRCVRV macro TCHNIQE parameter is SHADOW, STANDBY, BOTH, or ALL.

SLSSTBY

standby control data set.

This data set is required only if the SLIRCVRY macro `TCHNIQE` parameter is `STANDBY` or `ALL`. A secondary data set is required if a standby control data set is specified. This data set is also required for `STBYONLY` processing (see "Using SLICREAT to Create Only the Standby CDS" on page 5-13).

Executing the SLICREAT Program

Execute the SLICREAT program to create the library control data sets.

SLICREAT EXEC Statement

Use the following EXEC statement to execute the SLICREAT program:

```
EXEC PGM=SLICREAT,PARM=' libgen-load-module-name '
```

The `PARM=` value indicates the LIBGEN load module name. The `STEPLIB` statement must point to the appropriate library in which the LIBGEN load module currently resides.

Note:

- SLICREAT requires a LIBGEN load module assembled with the same level macros as the release LINKLIB. A LIBGEN load module created with earlier HSC releases cannot be used as input to a later release of SLICREAT.
 - The CDS files that are created by SLICREAT (`SLSCNTL`, `SLSCNTL2`, and `SLSSTBY`) are verified to be empty data sets before being formatted. If SLICREAT identifies any of these files as containing records, an error message is displayed and the creation process terminates. If this occurs, specify a different data set(s) or delete and redefine the data set(s) and re-execute SLICREAT.
-
-

Verifying Successful Completion of the SLICREAT Program

After the SLICREAT program is successfully processed, a message is generated indicating the status and the capacity of the library. An example is:

```
SLS0557I DATABASE SUCCESSFULLY INITIALIZED; TOTAL CARTRIDGE  
CAPACITY: DDDDDDDDDDD VOLUMES
```

Calculating Cartridge Capacity - SL8500 and SL3000

Message SLS0557I displays the total cartridge capacity for the library. For the SL8500 and SL3000 libraries, you must first vary the library online (`Vary ACS` command) to see the actual capacity of the library rather than the maximum capacity of the library. Before you vary the library, the maximum capacity is based on the highest possible number of panels that the HSC allows to be defined, not the number you defined in LIBGEN.

After you vary the library online, issue the `Display Acs` or `Display Lsm` command to show the actual library capacity.

Using SLICREAT to Create Only the Standby CDS

You can use `SLICREAT` to create an additional CDS. If the HSC was previously installed without a standby CDS, you can run the `SLICREAT` program to create one.

This method does not make a backup of the primary CDS. It formats the additional CDS and enables you to activate it with the `CDS Enable` command.

SLICREAT EXEC Statement to Create Standby CDS

Specify `PARM='STBYONLY'` on the `SLICREAT EXEC` statement to create a standby CDS:

```
EXEC PGM=SLICREAT, PARM='STBYONLY'
```

Note:

- You must have a primary CDS before you can run the `STBYONLY` option of `SLICREAT`.
 - For a standby data set to be recognized by the system, it must be defined by a `CDSDEF` statement in the `PARMLIB`.
-
-

Using SLICREAT to Calculate DASD Space

You can determine the minimum DASD space required for the CDSs by executing `SLICREAT` without specifying the `SLSCNTL` and `SLSJRNNn DD` statements. The HSC generates a message that indicates the minimum space requirements in 4096-byte blocks. When you execute `SLICREAT`, you must specify the number of blocks for each of these data sets that is at least as large as this minimum.

Note: If you are specifying multiple CDSs (`SLSCNTL2`, `SLSSTBY`), Oracle StorageTek recommends that you allocate the same amount of space (in blocks) for all your data sets when you define them.

If the data sets are defined with different space allocations, the HSC uses the size of the smallest data set to determine the number of 4K blocks that it will use for the CDS. The additional space in the other CDS data sets, if any, will not be used by the HSC.

The difference in space between the minimum space required (returned by `SLICREAT`) and the size of the smallest CDS copy is formatted as CDS free blocks.

Scratch Conversion Utility (SLUCONDB)

The `SLUCONDB` program generates scratch transactions from CA-1, CA-DYNAM/TLMS, DFSMSrmm and Zara tape management systems, or from a file extracted from a client system by the SMC `SMCUBX` utility.

Note: See "[Tape Management Extract Utility \(SMCUBX\)](#)" on page 4-17 for more information about the `SMCUBX` utility

`SLUCONDB` can execute as a standalone utility, generating scratch transactions for input to `SLUADMIN`. Alternatively, it can execute on a host with an active HSC system, and, using the `SLUCONDB LIBONLY` parameter, generate UUI scratch transactions sent directly to the active HSC system. In a client/server system, using the `TAPEPLEX` parameter,

SLUCONDB can access an HSC system on another host to acquire CDS data and to send UUI scratch transactions.

WARNING:

- **SLUCONDB should not be executed with any other SCRatch, UNSCRatch, or REPLaceall activity.**
 - **The SLUCONDB module is no longer distributed as source. If you want to synchronize scratch processing with a tape management system not supported by SLUCONDB, alter one of the distributed SLUCONDB tape management interface modules to use the SLUDRINF interface format.**
-
-

Input Formats

SLUCONDB uses program parameters to determine the Tape Management System interface (SLUDR*) routine to invoke. See [Appendix C, "Tape Management System Interface \(SLUDR*\) Routines"](#) for more information about these routines.

You can supply SLUCONDB input values using the PARM parameter on the JCL EXEC statement when running the SLUCONDB utility. You can use either the following formats:

- Keyword Format
- Positional Format

Consider the following:

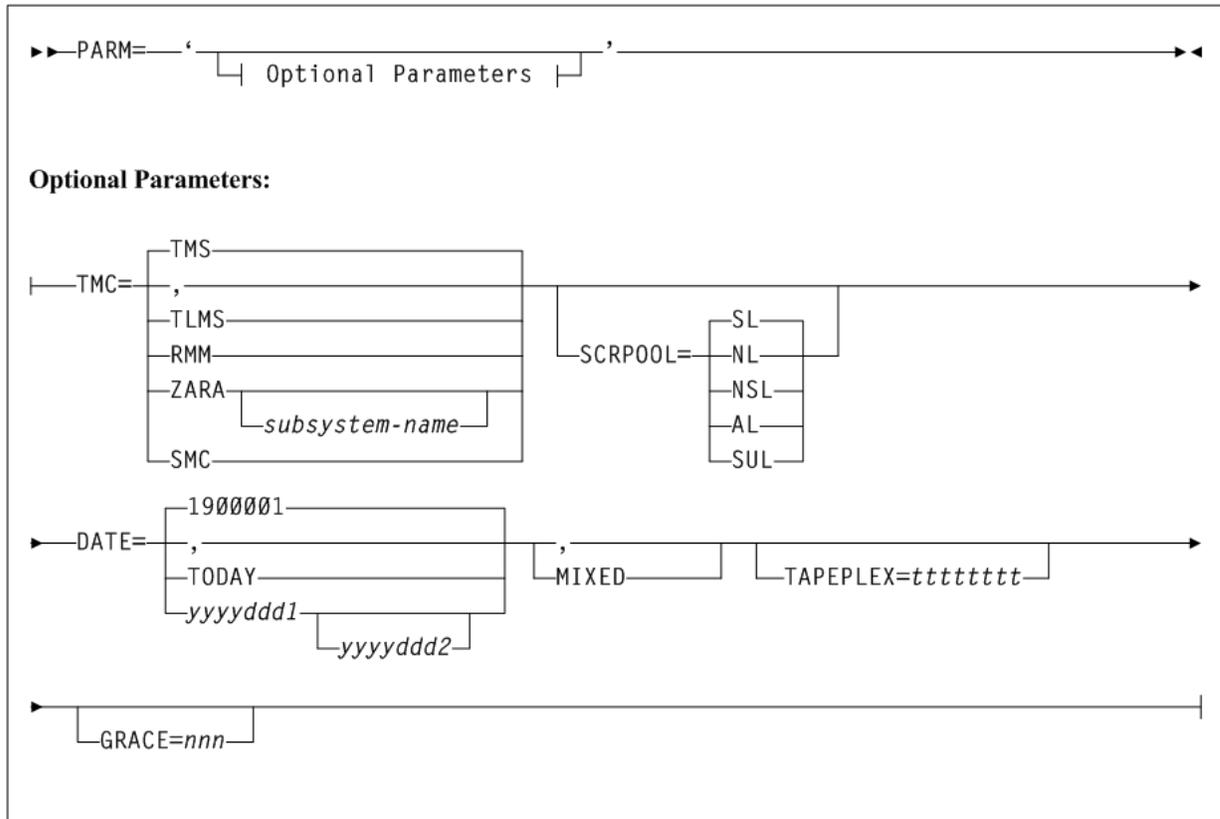
- The GRACE parameter is only permitted using the keyword format.
- The LIBONLY parameter is only permitted using the positional format.

Keyword Format

The following section describes the syntax and parameters for keyword format of the PARM parameter.

Syntax

Figure 5-2 SLUCONDB PARM parameter syntax (keyword format)



Parameters

If you use the keyword format, adhere to the following syntax rules:

- Keywords and values must be separated by "=" (except for the MIXED keyword, which does not have a value).
- Extraneous commas between keywords are not allowed. For example, the following is invalid: PARM='TMC=TMS, , MIXED'.
- Duplicate keywords are not allowed.

Valid parameters include the following:

PARM=

specifies that the parameters that follow can be accessed by the program indicated in the PGM parameter in the JCL.

The defaults for the PARM are:

- TMS
- All label types
- Scratch eligibility begins on January 1, 1900 and ends on the current system date
- Uppercase only
- Generate scratch transactions (no direct update).

TMC=

optionally, specifies the tape management system. For example:

- TMS specifies the CA-1 tape management system (TMS). This is the default.
- TLMS optionally, specifies the TLMS: CA-DYNAM/TLMS tape management system.
- RMM optionally, specifies the DFSMSrmm tape management system.
- SMC optionally, specifies the extract file from the SMC utility SMCUDBX.
If SMC is specified, label and date parameters are not permitted. (Label and date selection are performed by the SMC utility when it creates the extract file.)
- ZARA optionally, specifies the ZARA tape management system.
subsystem-name is an optional subsystem name.

SCRPOOL=

optionally, specifies the scratch pool label type used by the library. Valid label type values are:

- (SL) indicates standard label (the default).
- (NL) indicates non-labeled.
- (NSL) indicates non-standard label.
- (AL) indicates ANSI label.
- (SUL) indicates standard user label

DATE=

optionally, specifies the date or date range when a volume became scratch in the TMC.

- 1900001 optionally, specifies January 1, 1900 as the date. This is the default.
- TODAY optionally, indicates the current system date. Only volumes placed in scratch status on this date are processed.
- *yyyyddd1* optionally, the "from" date. The "to" date defaults to the current system date. All specified dates are in Julian notation.

All volumes placed in scratch status starting on day *yyyyddd1* through today's date are processed.

- *yyyyddd1-yyyddd2* optionally, the date range in which the volumes became scratch. Neither of these dates can be greater than the current system date.

All volumes placed in scratch status starting on day *yyyyddd1* through day *yyyddd2* are processed.

MIXED

optionally, specifies to print all the headings and messages in mixed case characters (uppercase and lowercase characters).

Note: If a comma is specified, or if this keyword is not specified, the system defaults to uppercase letters.

TAPEPLEX=

optionally, specifies the name of an SMC TapePlex to be used to extract CDS volumes and run UUI scratch commands.

tttttttt is the TapePlex name.

The specified TapePlex may be a local HSC executing on the same host as SLUCONDB, or may be an HSC subsystem on another host accessed through the SMC client server feature. Specifying the TAPEPLEX parameter requires an active SMC system on the SLUCONDB host, an active HSC system for the TapePlex, and requires that SLUCONDB be executed from an APF-authorized library.

GRACE=

optionally, specifies a grace period (in hours) for scratch eligibility. A volume accessed after the start of the SLUCONDB run, minus the grace period, is not eligible for scratch.

nnn is a 1-3 digit numeric value from 0 to 999, representing the grace period in hours.

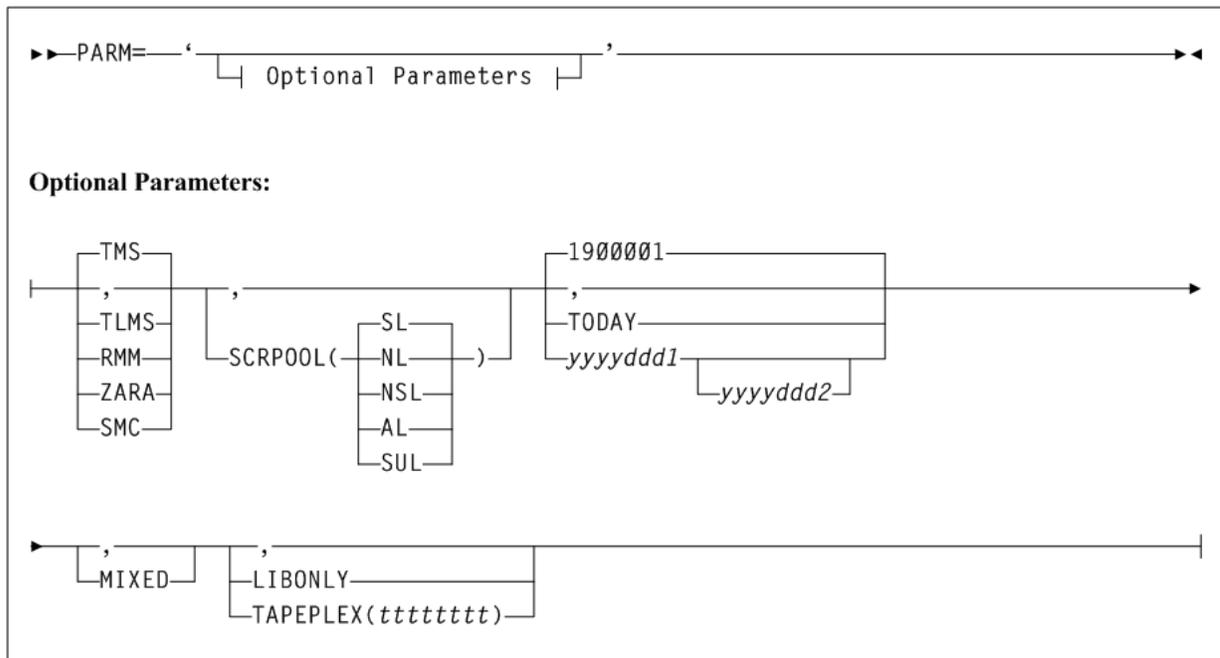
Positional Format

The following section describes the syntax and parameters for positional format of the PARM parameter.

Syntax

Note: You must enter parameters in the specified order and include commas for omitted parameters.

Figure 5-3 SLUCONDB PARM parameter syntax (positional format)



Parameters

PARM=

specifies that the parameters that follow can be accessed by the program indicated in the PGM parameter in the JCL.

The defaults for the PARM are:

- TMS
- All label types

- Scratch eligibility begins on January 1, 1900 and ends on the current system date
- Uppercase only
- Generate scratch transactions (no direct update).

The keywords for the `PARM` are positional. If you accept the system defaults, either do not specify `PARM`, or code "`PARM=`".

TMS

optionally, specifies the CA-1 tape management system (TMS). This is the default.

TLMS

optionally, specifies the TLMS: CA-DYNAM/TLMS tape management system.

RMM

optionally, specifies the DFSMSrmm tape management system.

ZARA

optionally, specifies the ZARA tape management system.

SMC

optionally, specifies the extract file from the SMC utility `SMCUDBX`.

If SMC is specified, label and date parameters are not permitted. (Label and date selection are performed by the SMC utility when it creates the extract file.)

SCRPOOL

optionally, specifies the scratch pool label type used by the library. Valid label type values are:

- `(SL)` indicates standard label (the default).
- `(NL)` indicates non-labeled.
- `(NSL)` indicates non-standard label.
- `(AL)` indicates ANSI label.
- `(SUL)` indicates standard user label

Date Related Parameters

The following date-related parameters specify the date or date range when a volume became scratch in the TMC.

1900001

optionally, specifies January 1, 1900 as the date. This is the default.

TODAY

optionally, indicates the current system date. Only volumes placed in scratch status on this date are processed.

yyyyddd1

optionally, the "from" date. The "to" date defaults to the current system date. All specified dates are in Julian notation.

All volumes placed in scratch status starting on day `yyyyddd1` through today's date are processed.

yyyyddd1-yyyyddd2

optionally, the date range in which the volumes became scratch. Neither of these dates can be greater than the current system date.

All volumes placed in scratch status starting on day *yyyyddd1* through day *yyyyddd2* are processed.

MIXED

optionally, specifies to print all the headings and messages in mixed case characters (uppercase and lowercase characters).

Note: If a comma is specified, or if this keyword is not specified, the system defaults to uppercase letters.

LIBONLY

optionally, specifies that volumes are to be placed in scratch status through the UII interface. Specifying **LIBONLY** requires an active HSC, and requires that **SLUCONDB** be executed from an APF-authorized library

TAPEPLEX

optionally, specifies the name of an SMC tapeplex to be used to extract CDS volumes and run UII scratch commands.

tttttttt is the TapePlex name.

The specified TapePlex may be a local HSC executing on the same host as **SLUCONDB**, or may be an HSC subsystem on another host accessed through the SMC client server feature. Specifying the **TAPEPLEX** parameter requires an active SMC system on the **SLUCONDB** host, an active HSC system for the TapePlex, and requires that **SLUCONDB** be executed from an APF-authorized library

JCL Requirements

The following definitions apply to the **SLUCONDB** JCL:

SLSTMS

input to the utility in the form of either the CA-1 TMC, CA-DYNAM/TLMS Volume Master File (VMF), or **DFSMSrmm** report extract file. This statement is required.

SLSSOUT

output from the utility specifying the Scratch Update utility control statement. This statement is required if **LIBONLY** or **TAPEPLEX** is not specified.

If specifying a temporary or permanent data set for 'DSN=' in the JCL, you must include the appropriate DCB information (that is, **LRECL=72**).

SLSPRINT

output messages from the utility program. This statement is required.

Note: The Scratch Conversion utility uses the UII to extract volume and VTV records from the CDS. The UII requires read access to the CDS, either from statements in the JCL or by getting the data set information from an active HSC. The **SLSCNTL**, **SLSCNTL2**, and **SLSSTBY DD** statements are optional if an active HSC is running on the same system. The **SLSCNTL**, **SLSCNTL2**, and **SLSSTBY DD** statements are not allowed if either **LIBONLY** or **TAPEPLEX** parameters are specified.

SLSCNTL

the primary control data set. This statement is optional.

SLSCNTL2

the secondary control data set. This statement is optional.

SLSSTBY

the standby control data set. This statement is optional.

JCL Examples

The following examples illustrate both generating scratch transactions and directly updating the HSC CDS.

The library referred to as "*your.sea.smp/e.loadlib*" in the following examples refers to the SEALINK library generated during the ELS installation. This library contains the TMS interface (SLUDR*) modules. If you reassemble these modules, this library is the output of your link edit.

Note: The UNIT, SPACE, and DCB parameter settings are determined by the user.

Example 5-4 JCL to Process TMS Database with Active HSC

```
//JOBSCUP JOB (account),programmer
//STEP1 EXEC PGM=SLUCONDB,
// PARM=('TLMS,,MIXED')
//STEPLIB DD DISP=SHR,DSN=your.sea.smp/e.loadlib
//SLSTMS DD DSN=TMS.MASTER.FILE,DISP=SHR
//SLSSOUT DD DSN=&&SCUPINPT,DISP=(NEW,PASS),
// UNIT=,SPACE=,DCB=
//SLSPRINT DD SYSOUT=*
//*
//STEP2 EXEC PGM=SLUADMIN,COND=(4,LT,STEP1),PARM=MIXED
//SLSIN DD DSN=&&SCUPINPT,DISP=(OLD,DELETE)
//SLSPRINT DD SYSOUT=*
//
```

Example 5-5 JCL to Process TMS Database with HSC CDS DDnames

```
//JOBSCUP JOB (account),programmer
//STEP1 EXEC PGM=SLUCONDB,
// PARM=('',2009100-2009110,MIXED')
//STEPLIB DD DISP=SHR,DSN=your.sea.smp/e.loadlib
//SLSTMS DD DSN=TMS.MASTER.FILE,DISP=SHR
//SLSSOUT DD DSN=&&SCUPINPT,DISP=(NEW,PASS),
// UNIT=,SPACE=,DCB=
//SLSPRINT DD SYSOUT=*
//SLSCNTL DD DSN=primary.control.dataset,DISP=SHR
//SLSCNTL2 DD DSN=secondary.control.dataset,DISP=SHR
//SLSSTBY DD DSN=standby.control.dataset,DISP=SHR
//*
//STEP2 EXEC PGM=SLUADMIN,COND=(4,LT,STEP1),PARM=MIXED
//SLSIN DD DSN=&&SCUPINPT,DISP=(OLD,DELETE)
//SLSPRINT DD SYSOUT=A
//
```

Example 5-6 JCL to Process DFSMSrmm Database

```
//JOBSCUP JOB (account),programmer
//STEP1 EXEC PGM=EDGHSKP,PARM='RPTEXT,DATEFORM(J) '
//MESSAGE DD DSN=rmm.message.dataset,DISP=SHR
//REPTEXT DD DSN=rmm.report.extract,DISP=SHR
//*
//STEP2 EXEC PGM=SLUCONDB,
// PARM=('RMM,,,MIXED,LIBONLY')
//STEPLIB DD DISP=SHR,DSN=your.sea.smp/e.loadlib
//SLSTMS DD DSN=rmm.report.extract,DISP=SHR
//SLSPRINT DD SYSOUT=*
//
```

Example 5-7 JCL to Process SMC Extract File

```
//JOBSCUP JOB (account),programmer
//STEP1 EXEC PGM=SLUCONDB,PARM='SMC,,,MIXED,LIBONLY'
//STEPLIB DD DISP=SHR,DSN=your.sea.smp/e.loadlib
//SLSTMS DD DISP=SHR,DSN=your.smc.extract.file
//SLSPRINT DD SYSOUT=*
//
```

Example 5-8 JCL to Process from SMC to a Remote TapePlex

```
//JOBSCUP JOB (account),programmer
//STEP1 EXEC PGM=SLUCONDB,
// PARM=',,,MIXED,TAPEPLEX(PRODPLX) '
//STEPLIB DD DISP=SHR,DSN=your.sea.smp/e.loadlib
//SLSTMS DD DSN=TMS.MASTER.FILE,DISP=SHR
//SLSPRINT DD SYSOUT=*
//
```

Output Description

SLUCONDB output includes the following:

- a listing of input commands with appropriate messages if syntax errors occur
- messages associated with errors in the SLUCONDB process
- messages associated with error conditions resulting from an unsuccessful attempt to scratch a volume (using LIBONLY or TAPEPLEX parameters)
- scratch input transactions (if LIBONLY or TAPEPLEX is not specified).

The following example shows Scratch Conversion utility output, without LIBONLY or TAPEPLEX specified:

Example 5-9 Scratch Conversion Utility output (without LIBONLY or TAPEPLEX)

```
StorageTek Enterprise Library Software Scratch Conversion Utility Page 00001
Time 12:15:39 Date 2010-03-31
SLS4723I Volume (VTV) 400021 used after SLUCONDB start or TODATE
SLS0286I 000005 volumes have been selected
SLS0155I Condition code for utility function is 0
```

The following example shows Scratch Conversion utility output, with LIBONLY or TAPEPLEX specified:

Example 5-10 Scratch Conversion Utility output (with LIBONLY or TAPEPLEX)

StorageTek Enterprise Library Software Scratch Conversion Utility Page 00001
Time 12:15:39 Date 2010-03-31

SLS2321I Volume A00020 successfully added to VSM as scratch
SLS2321I Volume A00023 successfully added to VSM as scratch
SLS0167I Volume FB2110 successfully added to library as scratch
SLS0167I Volume TIM021 successfully added to library as scratch
SLS2280I Volume 400021 selected after SCRATCH command USETOKN
SLS1312I 000004 volumes successfully scratched
SLS0155I Condition code for utility function is 4

VTCS Standalone Utilities

This chapter describes VTCS standalone utilities. These utilities are not issued using the common utility administrator program (SLUADMIN).

RTV Utility

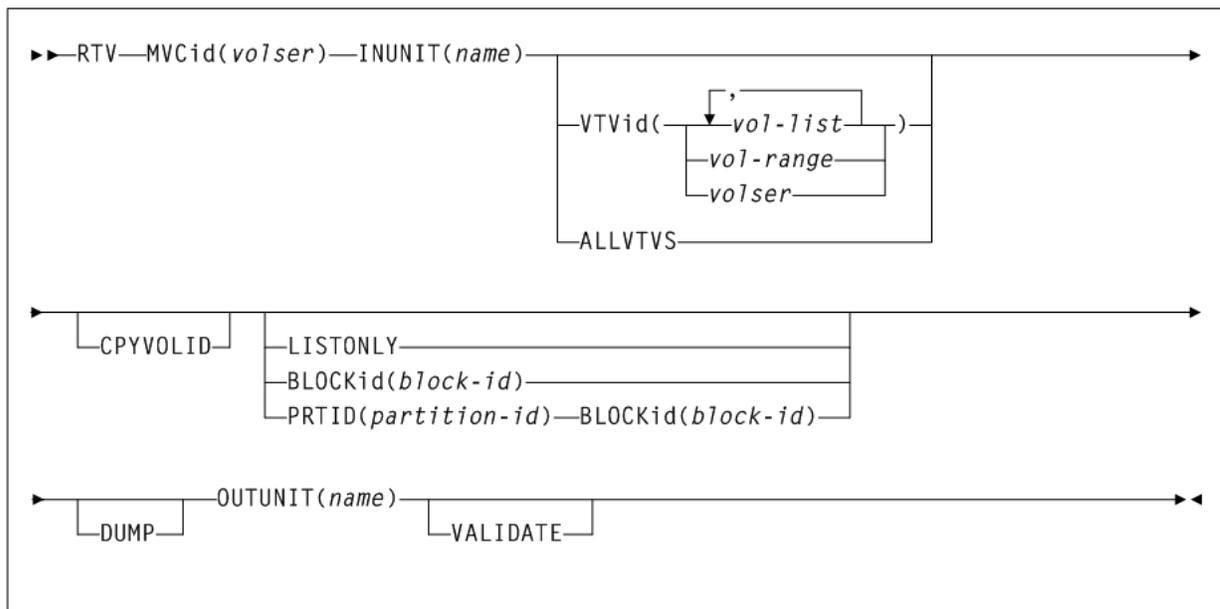
The RTV utility converts VTVs contained on MVCs to data sets on volumes (real tape volumes). This utility is a standalone utility executed using the SWSRTV program.

Refer to the publication *Managing HSC and VTCS* for detailed information about when to use this utility.

Syntax

Figure 6-1 shows RTV utility syntax.

Figure 6-1 RTV utility syntax



Parameters

As shown in Figure 6-1, the RTV utility includes the following parameters:

MVCid

specifies the MVC that contains the VTVs that RTV converts to volume(s) which become real tape versions of the VTVs.

volser indicates the MVC volser.

INUNIT

specifies the name to use to allocate the input tape unit. You can specify an MSP unit address, an esoteric name, or a generic name. The valid values are the same as for the UNIT= JCL parameter.

name indicates the unit name.

VTVid

optionally, specifies one or more VTVs to convert.

volser, *vol-range*, or *vol-list* indicate the volsers of one or more VTVs.

ALLVTVS

optionally, convert the most current copy of all VTVs on the specified MVC. That is, if there are multiple copies of a VTV on the specified MVC, RTV only converts the most current copy of the VTV.

Note: VTVid and ALLVTVS are mutually exclusive.

CPYVOLID

optionally, copy the VTV internal volser from the VTV to the output volume VOL1 record. The default is to not copy the internal volser.

Caution: Use the CPYVOLID parameter carefully! The volser of the output tape will be changed to the volser of the VTV. If the output tape has an external label or if the output is directed to another VTV, this will cause label mismatches and can cause unpredictable and undesirable results.

Note:

- If the output tape is non-labeled or has a non-standard tape label, CPYVOLID will be automatically specified for this VTV decompression, and a standard label tape will be created on the output device.
 - RTV supports VTVs created with standard or ANSI labels. If you do not specify CPYVOLID, RTV processes these label types as described in [Table 6-1](#). This only applies to the VOL1 record. The HDR1/HDR2 labels are always copied from the VTV by RTV for every VTV processed.
-
-

The following table lists RTV label types:

Table 6–1 RTV Label Types

VTV Label Type	Output Standard Label	Output ANSI Label	Output Non-Label
Standard label	VOL1 label not copied	WTOR issued	VOL1 label is copied
ANSI label	WTOR issued	VOL1 label not copied	VOL1 label is copied

In [Table 6–1](#), the WTOR is as follows:

SWSRTV - Label mismatch - Reply RELABEL, RETRY, or CANCEL

The operator responses produce the following results:

- RELABEL specifies to decompress the RTV and overwrite the volser on the output volume.
- RETRY specifies to mount another output volume and retry the operation.
- CANCEL specifies to not decompress the RTV.

LISTONLY

optionally, lists (but does not convert) the VTVs on the specified MVC. For more information, see "[RTV LISTONLY Listing](#)" on page 6-7.

BLOCKID

optionally, specifies the logical block ID where the VTV begins on the MVC.

block-id is the logical block ID (8 hexadecimal characters).

Note:

- BLOCKID and LISTONLY are mutually exclusive. In addition, if you specify the ALLVTVs parameter, or if a list or range of VTVs is specified, the BLOCKid parameter is ignored.
 - Not specifying a BLOCKid value can cause very long execution times with high capacity media. The BLOCKid is used for high speed positioning to a VTV on the MVC.
 - The LISTONLY parameter listing on "[RTV LISTONLY Listing](#)" on page 777 supplies a Block ID value that you can use as input to the RTV utility to convert a VTV to a volume.
-
-

PRTID

optionally, specifies the partition id of the VTV being recovered from a partitioned MVC.

partition-id is the hexadecimal partition ID.

Note:

- If PRTID is specified, BLOCKid must also be specified.
 - PRTID and LISTONLY are mutually exclusive. In addition, if you specify the ALLVTVs parameter, or if a list or range of VTVs is specified, the BLOCKid parameter is ignored.
-
-

DUMP

produce a S0C3 abend dump if RTV cannot decompress a VTV. If you specify `DUMP`, create a `SYSDUMP DD JCL` statement to capture the dump.

OUTUNIT

the name to use to allocate the output tape unit. You can specify an MSP unit address, an esoteric name, or a generic name. The valid values are the same as for the `UNIT=` JCL parameter. This parameter is required if you do not specify `LISTONLY`.

name is the unit name.

VALIDATE

Validates that the RTV utility can successfully process the specified VTV(s) without creating an output tape.

JCL Requirements

The following are required or optional statements for the RTV utility JCL:

STEPLIB

specifies the link library (`SEALINK`) that contains the RTV modules.

SLSPRINT

specifies the destination of the RTV utility report.

SLSIN

specifies the input to the `SWSRTV` program (RTV utility name and parameters).

SYSDUMP

optional DD to capture dump.

Note: Because the RTV utility must be capable of rewriting the tape standard labels on the output unit and positioning over label information on the input unit, Dynamic Allocation invokes bypass label processing (BLP) on the tape volumes. This requires that the library that contains the `SWSRTV` executable code be APF authorized.

RTV Utility Report Messages

The RTV report displays the following messages:

Block number too large in compressed data

Explanation: An error was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Chunked record logic error

Explanation: An error was found while processing a chunked data record for a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Decompress invalid length parameter

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Decompress invalid parameter list

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Decompress logic error

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Decompress pointer to work area is zero

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Dynamic allocation error. Reason Code = xxxx-xxxx

Explanation: An error was encountered while attempting to dynamically allocate the `INUNIT` or `OUTUNIT` device. Refer to the *Fujitsu MSP Authorized Assembler Services Guide* for a description of the dynamic allocation reason codes.

I/O error on input MVC

Explanation: An I/O error was encountered while reading a MVC. Further processing is stopped. The utility terminates with return code 12.

I/O error on output volume

Explanation: An I/O error was encountered while writing the output VTV. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary

Invalid compressed data block read

Explanation: This indicates that an invalid data record was found while processing this VTV. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Invalid VTV page number encountered

Explanation: A record sequence error was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

Invalid VTV record encountered

Explanation: An error was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the `RTV Decompress Report` output. The utility will continue to process other VTVs as necessary.

MVC volser # does not match requested volser #

Explanation: The volume mounted as the input MVC did not match that requested by the `MVCid()` parameter. The utility terminates with return code 12.

MVC record length error

Explanation: A length error was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Incorrect algo byte

Explanation: Explanation: An error was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

No HDR1 record found for requested VTV

Explanation: Following positioning by a BLOCKid() statement, there was no HDR1 record located at the desired position. Remove the BLOCKid statement and rerun the utility. The utility terminates with return code 12.

No HDR1 record found on input MVC

Explanation: The volume mounted as a MVC contained no HDR1 record. The utility terminates with return code 12.

No UHL1 record found on input MVC

Explanation: The volume mounted as a MVC contained no UHL1 record. The utility terminates with return code 12.

No VOL1 record found on input MVC

Explanation: The volume mounted as a MVC contained no VOL1 record. The utility terminates with return code 12.

NULL input buffer pointer

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

NULL output buffer pointer

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Requested VTV not found on MVC

Explanation: The volser requested by the VTVID() parameter was not found on the MVC. The utility terminates with return code 12.

Spanned length final error

Explanation: An error was found while processing a spanned data record for a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Spanned length intermediate error

Explanation: An error was found while processing a spanned data record for a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Unexpected request on input I/O

Explanation: This indicates a program logic error. Further processing is stopped. The utility terminates with return code 12.

Unexpected end of tape on output volume

Explanation: While writing the output VTV, an end of tape indication was encountered. The VTV must be completely contained on a single output volume. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Unexpected request on output I/O

Explanation: This indicates a program logic error. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

Unexpected tape mark on input MVC

Explanation: An unexpected tape mark was found on a MVC. Further processing is stopped. The utility terminates with return code 12.

VTVid range parameter is invalid

Explanation: An invalid range value was found in the VTVid() specification. The utility terminates with return code 12.

VTV logical data check encountered

Explanation: A data check indicator was found in a compressed data record while processing a VTV. Further processing of this VTV is stopped. The VTV will be marked in the RTV Decompress Report output. The utility will continue to process other VTVs as necessary.

VTV volser # does not match requested volser #

Explanation: Following positioning by a BLOCKid statement, the VTV volser did not match that requested by the VTVid() parameter. The utility terminates with return code 12. Remove the BLOCKid statement and rerun the utility.

RTV LISTONLY Listing

The following example shows the listing RTV produces when you specify the LISTONLY parameter.

Example 6-1 RTV LISTONLY Listing

```
SWSRTV          (1.0.0)          StorageTek VTCS RTV Utility          PAGE 0001
TIME 14:28:33          Control Card Image Listing          DATE 12/01/15
RTV MVC(C83107) LISTONLY
```

```
SWSRTV          (1.0.0)          StorageTek VTCS RTV Utility          PAGE 0002
TIME 14:28:33          MVC C83107 Contents Report          DATE 12/01/15
```

VTV	File	Block	<---Created---		<---Migrated---		VTVPAGE	VTV
volser	#	ID	Date	Time	Date	Time	Size	Status
VV6825	1	00000000	2015Nov30	12:07:56	2015Nov30	12:15:56	Large	
VV6863	2	92005F0F	2015Sep27	12:57:54	2015Sep27	12:59:54	Large	
VV6893	3	92005F18	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	
VV0403	4	92005F21	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	

This report lists the following information for VTVs:

- Volser
- Logical file number on the MVC
- Block ID on the MVC
- Time created and migrated
- VTVPAGE size - STANDARD or LARGE
- Status - Not Current, or if blank, the VTV is current

RTV Decompress Listing

The following example shows the listing RTV produces when you do not specify the LISTONLY parameter (that is, you run RTV to convert VTVs to volumes).

Example 6-2 RTV Decompress Listing

```
SWSRTV          (1.0.0)          StorageTek VTCS RTV Utility          PAGE 0001
TIME 14:28:33          Control Card Image Listing          DATE 12/01/15
RTV MVC(C8228) VTV(VV6800-VV6900) CPYVOLID
```

```
SWSRTV          (1.0.0)          StorageTek VTCS RTV Utility          PAGE 0002
TIME 14:28:33          MVC C83223 Contents Report          DATE 12/01/15
```

VTV	File	Block	<---Created--->		<---Migrated--->		VTVPAGE	VTV
volser	#	ID	Date	Time	Date	Time	Size	Status
VV6070	1	00000000	2015Nov30	12:07:56	2015Nov30	12:15:56	Large	
VV0874	2	2B001384	2015Sep27	12:57:54	2015Sep27	12:59:54	Large	
VV0772	3	A3002707	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	
VV6828	4	9B002AB9	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	Not current
VV6828	5	9B002AC2	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	
VV6826	6	9B002ACB	2015Aug18	08:57:26	2015Aug18	08:59:26	Large	

```
SWSRTV          (1.0.0)          StorageTek VTCS RTV Utility          PAGE 0003
TIME 14:28:33          MVC C83223 Contents Report          DATE 12/01/15
```

VTV	Mounted	Final	Decompress
volser	Volser	Volser	Status
VV6826	XX0772	VV6826	Successful
VV6828	XX0773	VV6828	Successful

In addition to the contents fields shown in Figure 67 on page 136, the decompress listing shown in Figure 68 on page 137 lists the VTVs:

- Volser of the output volume as initially mounted
- Final volser of the output volume; if CPYVOLID is specified, the final volser will be identical to the VTV volser, otherwise is final volser is identical to the volser of the output volume as initially mounted
- Decompress status

MEDia, RECTech, and MODel Values

This appendix provides values for MEDia, RECTech, and MODel parameters. These parameters enable you to specify transport and media characteristics. They are specified in various VM Client commands and TMI requests.

Note:

- The SL8500 library supports only the T9840A/B/C/D, T9940B, LTO, SDLT, and T10000A/B/C media types and recording techniques.
 - The SL3000 library supports only the T9840C/D, LTO, SDLT, and T10000A/B/C media types and recording techniques.
 - LTO and SDLT drives are not supported in an MSP environment. These drives are recognized by the HSC but are accessible only to open systems clients using LibraryStation.
-
-

Media Type (MEDia)

The media type, or MEDia, enables you to specify the desired type of media to be used for a data set. It is specified in the following VM Client commands and TMI requests:

- MOUNT command
- QDRLIST TMI request
- QSCRATCH TMI request
- SELSCR TMI request

The following table describes valid Media types:

Table A-1 Media Types

Media Type	Description
LONGitud	Indicates any standard or enhanced (ECART) capacity cartridges.
ZLONGI	Indicates standard, enhanced (ECART), or extended-enhanced (ZCART) capacity cartridges.
Standard	Indicates a standard length, 3480 cartridge. It can be read on any longitudinal drive (4480, 4490, 9490, or 9490EE). Data can be written in 36-track mode on a 4490, 9490, or 9490EE drive but cannot be read on an 18-track (4480) drive. Synonyms include CST, MEDIA1, STD, 1, and 3480.

Table A-1 (Cont.) Media Types

Media Type	Description
ECART	Indicates a 3490E, extended capacity cartridge. It can be used only on a 36-track drive (4490, 9490, or 9490EE). Synonyms include E, ECCST, ETAPE, Long, MEDIA2, and 3490E.
ZCART	Indicates a 3490E, extended-enhanced capacity cartridge. It can be used only on a 9490EE drive. ZCART can be abbreviated as Z
Virtual	Indicates a VTV (Virtual Tape Volume) mounted on a VTD (Virtual Tape Drive).
HELical	<p>Indicates a helical cartridge. A helical cartridge can be used only on RedWood drives. The following subtypes and abbreviations specify a helical cartridge:</p> <ul style="list-style-type: none"> ■ DD3 indicates any DD3A, DD3B, or DD3C helical cartridge. ■ DD3A or A indicates a helical cartridge with a 10GB media capacity ■ DD3B or B indicates a helical cartridge with a 25GB media capacity. ■ DD3C or C indicates a helical cartridge with a 50GB media capacity <p>The seventh position in the external label is encoded with the cartridge type (that is, A, B, or C).</p>
STK1	Indicates any T9840 cartridge.
STK1R	<p>Indicates a T9840 data cartridge. The media indicator in the external label is encoded with the cartridge type (R). STK1R can be abbreviated as R.</p> <p>T9840 cartridge media capacities are 20GB (T9840A and T9840B), 40GB (T9840C), or 75GB (T9840D).</p>
STK1U	Indicates a T9840A, T9840B, or T9840C cleaning cartridge. STK1U can be abbreviated as U.
STK1Y	Indicates a T9840D cleaning cartridge. STK1Y can be abbreviated to Y.
STK2	Indicates any T9940 cartridge.
STK2P	<p>Indicates a T9940 data cartridge. STK2P can be abbreviated as P.</p> <p>T9940 cartridge media capacities are 60GB (T9940A) or 200GB (T9940B).</p>
STK2W	Indicates a T9940 cleaning cartridge. STK2W can be abbreviated as W.
T10000T1	Indicates a full-capacity 500GB T10000A or 1TB T10000B cartridge. T10000T1 can be abbreviated as T1.
T10000TS	Indicates a smaller-capacity 120GB T10000A or 240GB T10000B cartridge. T10000TS can be abbreviated as TS.
T10000CT	Indicates a T10000A or T10000B cleaning cartridge. T10000CT can be abbreviated as CT.
T10000T2	Indicates a full-capacity 5TB T10000C cartridge. T10000T2 can be abbreviated as T2.
T10000TT	Indicates a smaller-capacity 1TB T10000C cartridge. T10000TT can be abbreviated as TT.
T10000CL	Indicates a T10000A, T10000B, or T10000C cleaning cartridge. T10000CL can be abbreviated as CL.

Note:

- T10000C drives can read T10000T1 or T10000TS media but cannot write to that media.
- T10000C drives can only write to T10000T2 or T10000TT media.

When the MEDia parameter is not specified, a default is chosen based on the value of the RECtech parameter. The following table shows default values used if MEDia is omitted:

Table A–2 Media Type Defaults

RECtech Entered	MEDIA Default
18track	Standard
36track, 36Atrack, 36Btrack	LONGitud
36Ctrack	ZLONGI
LONGitud	LONGitud
DD3, Helical	DD3A
STK1R, STK1R34, STK1R35, STK1RA, STK1RA34, STK1RA35, STK1RB, STK1RB34, STK1RB35, STK1RAB, STK1RAB34, STK1RAB35, STK1RC, STK1RC34, STK1RC35, STK1RD, STK1RDE, STK1RDN, STK1RD34, STK1RD35, STK1RDE4, STK1RDE5	STK1R
STK2P, STK2P34, STK2P35, STK2PA, STK2PA34, STK2PA35, STK2PB, STK2PB34, STK2PB35	STK2P
T10K, T10KN, T10KE, T10KA, T10KAN, T1A34, T1A35, T10KAE, T1AE34, T1AE35, T10KC, T10KCN, T1C34, T1C35, T10KCE, T1CE34, T1CE35	T10000T1

Note:

- T10000C drives can read T10000T1 or T10000TS media but cannot write to that media.
- T10000C drives can only write to T10000T2 or T10000TT media.

Recording Technique (RECtech)

The recording technique, or RECtech, enables you to specify the method used to record data tracks on the tape surface for the desired data set. It is specified in the following VM Client TMI requests:

- QDRLIST
- QSCRATCH
- SELSCR

The following table describes valid recording techniques:

Table A–3 Recording Techniques

Recording Technique	Description
LONGitud	Indicates any device that uses longitudinal recording. Devices include 4480, 4490, 9490, and 9490EE drives.
18track	Indicates a 4480 drive.
36track	Indicates a 4490, 9490, or 9490EE drive (any device that records in 36-track mode).
36Atrack	Indicates a 4490 (Silverton) drive.
36Btrack	Indicates a 9490 (Timberline) drive.
36Ctrack	Indicates a 9490EE drive.
HELical	Indicates a device using helical recording.
DD3	Indicates a device using helical recording.
STK1R	Indicates any T9840 drive.
STK1R34	Indicates a 3490E-image T9840 drive.
STK1R35	Indicates a 3590-image T9840 drive.
STK1RA	Indicates any T9840A drive.
STK1RA34	Indicates a 3490E-image T9840A drive.
STK1RA35	Indicates a 3590-image T9840A drive.
STK1RB	Indicates any T9840B drive.
STK1RB34	Indicates a 3490E-image T9840B drive.
STK1RB35	Indicates a 3590-image T9840B drive.
STK1RAB	Indicates any T9840A or T9840B drive.
STK1RAB4	Indicates a 3490E-image T9840A or T9840B drive.
STK1RAB5	Indicates a 3590-image T9840A or T9840B drive.
STK1RC	Indicates any T9840C drive.
STK1RC34	Indicates a 3490E-image T9840C drive.
STK1RC35	Indicates a 3590-image T9840C drive.
STK1RD	Indicates any T9840D drive.
STK1RDE	Indicates an encryption-enabled T9840D drive.
STK1RDN	Indicates a non-encryption-enabled T9840D drive.
STK1RD34	Indicates a non-encryption-enabled 3490E-image T9840D drive.
STK1RD35	Indicates a non-encryption-enabled 3590-image T9840D drive.
STK1RDE4	Indicates an encryption-enabled 3490E-image T9840D drive.
STK1RDE5	Indicates an encryption-enabled 3590-image T9840D drive.
STK2P	Indicates any T9940 drive.

Table A-3 (Cont.) Recording Techniques

Recording Technique	Description
STK2P34	Indicates a 3490E-image T9940 drive.
STK2P35	Indicates a 3590-image T9940 drive.
STK2PA	Indicates any T9940A drive.
STK2PA34	Indicates a 3490E-image T9940A drive.
STK2PA35	Indicates a 3590-image T9940A drive.
STK2PB	Indicates any T9940B drive.
STK2PB34	Indicates a 3490E-image T9940B drive.
STK2PB35	Indicates a 3590-image T9940B drive.
T10K	Indicates any T10000 drives.
T10KN	Indicates all non-encrypted T10000 drives.
T10KE	Indicates all encrypted T10000 drives.
T10KA	Indicates any T10000A drive.
T10KAN	Indicates a non-encryption enabled 3490E- or 3590-image T10000A drive.
T1A34	Indicates a non-encryption enabled 3490E-image T10000A drive.
T1A35	Indicates a non-encryption enabled 3590-image T10000A drive.
T10KAE	Indicates an encryption-enabled 3490E- or 3590-image T10000A drive.
T1AE34	Indicates an encryption-enabled 3490E-image T10000A drive.
T1AE35	Indicates an encryption-enabled 3590-image T10000A drive.
T10KB	Indicates any T10000B drive.
T10KBN	Indicates a non-encryption enabled 3490E- or 3590-image T10000B drive.
T1B34	Indicates a non-encryption enabled 3490E-image T10000B drive.
T1B35	Indicates a non-encryption enabled 3590-image T10000B drive.
T10KBE	Indicates an encryption-enabled 3490E- or 3590-image T10000B drive.
T1BE34	Indicates an encryption-enabled 3490E-image T10000B drive.
T1BE35	Indicates an encryption-enabled 3590-image T10000B drive.
T10KC	Indicates any T10000C drive.
T10KCN	Indicates a non-encrypted 3490E- or 3590-image T10000C drive.
T1C34	Indicates a non-encrypted 3490E-image T10000C drive.
T1C35	Indicates a non-encrypted 3590-image T10000C drive.
T10KCE	Indicates an encryption-enabled 3490E- or 3590-image T10000C drive.
TICE34	Indicates an encryption-enabled 3490E-image T10000C drive.
T1CE35	Indicates an encryption-enabled 3590-image T10000C drive.
Virtual	Indicates a VTV (Virtual Tape Volume) mounted on a VTD (Virtual Tape Drive).

When the RECtech parameter is not specified, a default is chosen based on the value of the MEDIA parameter. The following table shows default values used if RECtech is omitted.

Table A-4 Recording Technique Defaults

MEDIA Entered	RECtech Default
LONGitud	LONGitud
ZLONGI	LONGitud
Standard	LONGitud
ECART	36track
ZCART	36Ctrack
DD3A, DD3B, DD3C, DD3D	DD3
STKR, STK1U, STKY	STK1R
STK2P, STK2W	STK2P
T10000T1, T10000TS, T10000CL	T10K
T10000CT	T10KA and T10KB
T10000T2, T10000TT	T10KC
Virtual	Virtual

Model Type (MODEL)

The model type, or MODEL, enables you to specify the model number of a transport (drive), or drive. MODEL provides the same type of information as RECtech, however, a user may find it more convenient to specify a transport model rather than a recording technique.

Note:

- MODEL and RECtech are mutually exclusive.
 - The SL8500 library supports only model types associated with T9840, T9940, and T10000 series drives.
 - You can specify multiple values for this parameter; separate each value with a comma.
-
-

The following table describes valid model types:

Table A-5 Model Types

Model Type	Description
4480	Indicates a 4480 (18-track) drive.
4490	Indicates a 4490 (36-track Silverton) drive.
9490	Indicates a 9490 (36-track Timberline) drive.
9490EE	Indicates a 9490EE (36-track Timberline EE) drive.
SD3	Indicates an SD-3 (RedWood) drive.

Table A-5 (Cont.) Model Types

Model Type	Description
9840	Indicates a 3490E-image T9840A drive.
984035	Indicates a 3590-image T9840A drive.
T9840B	Indicates a 3490E-image T9840B drive.
T9840B35	Indicates a 3590-image T9840B drive.
T9840C	Indicates a 3490E-image T9840C drive.
T9840C35	Indicates a 3590-image T9840C drive.
T9840D	Indicates a non encryption-enabled 3490E-image T9840D drive.
T9840D35	Indicates a non encryption-enabled 3590E-image T9840D drive.
T9840DE	Indicates an encryption-enabled 3490E-image T9840D drive.
T9840DE35	Indicates an encryption-enabled 3590E-image T9840D drive.
T9940A	Indicates a 3490E-image T9940A drive.
T9940A35	Indicates a 3590-image T9940A drive.
T9940B	Indicates a 3490E-image T9940B drive.
T9940B35	Indicates a 3590-image T9940B drive.
T1A34	Indicates a non-encryption enabled 3490E-image T10000A drive.
T1A35	Indicates a non-encryption enabled 3590-image T10000A drive.
T1AE34	Indicates an encryption-enabled 3490E-image T10000A drive.
T1AE35	Indicates an encryption-enabled 3590-image T10000A drive.
T1B34	Indicates a non-encryption enabled 3490E-image T10000B drive.
T1B35	Indicates a non-encryption enabled 3590E-image T10000B drive.
T1BE34	Indicates an encryption-enabled 3490E-image T10000B drive.
T1BE35	Indicates an encryption-enabled 3590-image T10000B drive.
T1C34	Indicates a non-encryption enabled 3490E-image T10000C drive.
T1C35	Indicates a non-encryption enabled 3590-image T10000C drive.
T1CE34	Indicates an encryption-enabled 3490E-image T10000C drive.
T1CE35	Indicates an encryption-enabled 3590-image T10000C drive.
Virtual	Indicates a VTV (Virtual Tape Volume) mounted on a VTD (Virtual Tape Drive).

Library Identification

Each ACS, LSM, and CAP is assigned a unique identification number during LIBGEN. Use this number in ELS commands and utilities to identify a specific ACSid, LSMid, or CAPid.

ACSid

Each ACS is identified by an ACSid (acs-id), a two digit decimal identifier from 00-99

The first ACS acquires an identifier of 00, the second ACS acquires an identifier of 01, and so forth until all ACSs are identified.

LSMid

Each LSM is identified by an LSMid (lsm-id), consisting of an ACSid and LSM number separated by a colon. The LSMid differentiates each LSM from every other LSM in a library.

The format is AA:LL, where:

- AA is the ACSid, a two digit decimal identifier from 00-99.
- LL is the LSM number, a two digit decimal identifier from 00-99.

CAPid

Each library CAP is identified by a CAPid (cap-id), consisting of an LSMid and CAP number separated by a colon. The format is AA:LL:CC, where:

- AA:LL is the LSMid.
- CC is the CAP number, a two digit decimal identifier from 00-11.

CAP Numbers

The following are valid CAP numbers:

- 00
 - For 4410 and 9310 LSMs, standard 21-cell CAP or the right-hand 40-cell enhanced CAP
 - For 9740 LSMs, fixed rack 14-cell or 10-cell removable magazine CAP
 - For SL3000 LSMs, this is a 234-cell AEM CAP
 - For SL8500 LSMs, the CAP consists of 3, 13-cell removable magazines.

- For SL8500 LSMs, the Bulk CAP consists of 3, 12-cell removable magazines.
- **01**
 - For 4410 and 9310 LSMs, left-hand 40-cell enhanced CAP
 - For SL3000 LSMs, this is an optional CEM CAP consisting of 2, 13-cell removable magazines.
 - For SL8500 LSMs, this is an optional CAP consisting of 3, 13-cell removable magazines.
 - For SL8500 LSMs, the optional Bulk CAP consists of 3, 12-cell removable magazines.
- **02**
 - Priority CAP (PCAP) for a 4410 or 9310 LSM enhanced CAP
 - For SL3000 LSMs, this is an optional CEM CAP consisting of 2, 13-cell removable magazines.
 - For SL8500 LSMs, this is an optional CAP consisting of 3, 13-cell removable magazines.
- **03, 04, 05**
 - For SL3000 LSMs, these are optional CEM/DEM CAPs consisting of 2, 13-cell removable magazines.
- **06**
 - For SL3000 LSMs, this is the only required BDM CAP consisting of 2, 13-cell removable magazines.
- **07, 08, 09, 10**
 - For SL3000 LSMs, these are an optional CEM CAPs consisting of 2, 13-cell removable magazines.
- **11**
 - For SL3000 LSMs, this is a right-side AEM CAP, consisting of 18, 13-cell removable magazines.
 - For SL3000 LSMs, this is a 234-cell AEM CAP

Panels, Rows and Columns

Certain ELS commands and utilities allow you to specify panels, rows, and columns within a library.

Panels

Each panel-list element is a one or two digit decimal number, specific to the LSM type:

- LSM Models 4410 and 9310 PowderHorn
 - 0-11 for outer wall panels
 - 12-19 for inner wall panels
- LSM Model 9360 WolfCreek
 - 0-2 for Model 9360-050
 - 0-3 for Model 9360-075

- 0-4 for Model 9360-100
- LSM Model 9740 TimberWolf
 - 0-2 (panel 3 is included if the optional cells are present).
- LSM Model SL3000 Library
 - Access Expansion Module (AEM optional) - panels 0-1 and 22-23 are located on both ends of the library and in this release serve only as library end caps.
 - Base Drive Module (BDM required) - panels 12-13
 - Drive Expansion Module (DEM optional) - panels 10-11 are located left of the BDM.
 - Cartridge Expansion Module (CEM optional) - panels 2-9 are located left of the BDM or optional DEM.
 - Cartridge Expansion Module (CEM optional) - panels 14-21 are located right of the BDM.
 - Parking Expansion Module (PEM) - Dual Robots only - panel numbers equate to the same panel numbers of the CEM it replaces, depending on its location right or left of the BDM.

Note: The SL3000 library has static panels numbers starting with the left-most back panel (panel 0) and ending with the right-most front panel (panel 23) on a fully-configured library. The panel numbering starts with the BDM, the only required module (panels 12 and 13), and works outward to the left and to the right.

- LSM Model SL8500 Library
 - Base library: 2-10
 - With one expansion panel: 2-23 (expansion panel is 8-15)
 - With two expansion panels: 2-26 (expansion panels are 8-23)
 - With three expansion panels: 2-34 (expansion panels are 8-31)
 - With four expansion panels: 2-42 (expansion panels are 8-39)
 - With five expansion panels: 2-50 (expansion panels are 8-47)

Rows

Each row-list element is a one or two digit decimal number, specific to the LSM type:

- LSM Models 4410 and 9310 PowderHorn
 - 0-14 for outer wall panels
 - 0-5 and 8-14 for inner wall panels.
 - The maximum list is 4 rows (approximately 100 cells).
- LSM Model 9360 WolfCreek
 - 0-41 (all models). The maximum list is 20 rows (approximately 100 cells).
- LSM Model 9740 TimberWolf
 - 0-41 on panels 0, 2, and 3

- 36-41 on panel 1

Note:

- Column 3 on panel 2 allows row entries only on rows 28-41.
 - The cells on panel 3 are optional.
-
-

- LSM Model SL3000 Library
 - Access Expansion Modules - panels 0-1 and 22-23 (no cells in this initial release)
 - Base Drive Module (BDM) - panel 12 (back)
 - * 12-47 with 8 drives installed
 - * 23-47 with 16 drives installed
 - * 35-47 with 24 drives installed
 - Base Drive Module (BDM) - panel 13 (front)
 - * 0-51 on the front panel
 - Drive Expansion Module (DEM) - panel 10 (back)
 - * 12-47 available with 8 drives installed
 - * 23-47 available with 16 drives installed
 - * 35-47 available with 24 drives installed
 - * No rows available with 32 drives installed
 - Drive Expansion Module (DEM) - panel 11 (front)
 - * 0-51 available on the front panel
 - Cartridge Expansion Modules (CEM) - all panels
 - * 0-51 available on both front and back panels
 - Parking Expansion Module (PEM) - all panels
 - * 0-51 available on the back and front panels
- LSM Model SL8500 Library
 - 0-26 on a standard panel
 - * 0-12 on a short panel (panels 4, 6-7)
 - * 6-12 on a PTP panel (panel 5)

Columns

Each column-list element is a one or two digit decimal number, specific to the LSM type:

- LSM Models 4410 and 9310 PowderHorn
 - 0-23 for outer wall panels
 - 0-19 for inner wall panels
- LSM Model 9360 WolfCreek
 - 0-5 (all models).

- LSM Model 9740 TimberWolf
 - 0-3 for panels 0, 2, and 3 (if the optional cells are present)
 - 0-2 for panel 1
- LSM Model SL3000 Library
 - Access Expansion Module (AEM) panels 0-1 and 22-23
 - * No columns available in the initial release
 - Base Drive Module (BDM) - panel 12 (back)
 - * 0 available, if a CEM or DEM is added to the left of the BDM
 - * 1-5 available for rows 12-47 with 8 drives installed
 - * 1-5 available for rows 23-47 with 16 drives installed
 - * 1-5 available for rows 35-47 with 24 drives installed
 - Base Drive Module (BDM) - panel 13 (front)
 - * 0 available with expansion to the left of the BDM
 - * 5 available for rows 39-51 with expansion to the right of the BDM
 - * 1-3 available for rows 0-38 with a CAP installed
 - * 1-4 available for rows 39-51 with a CAP installed
 - * 1-3 not available for rows 9-16 with optional window /Operator panel installed
 - Drive Expansion Module (DEM) - panel 10 (back)
 - * 0 is available with expansion to the left of the DEM
 - * 1-5 available for rows 12-47 with 8 drives installed
 - * 1-5 available for rows 23-47 with 16 drives installed
 - * 1-5 available for rows 35-47 with 24 drives installed
 - * No columns available with 32 drives installed.
 - Drive Expansion Module (DEM) - panel 11 (front)
 - * 0 available with expansion to the left DEM
 - * 1-3 available for rows 0-38 with a CAP installed
 - * 1-5 available for rows 39-51, with a CAP installed
 - * 1-3 not available for rows 9-16 with a window installed
 - * 1-5 available for rows 0-51 on a standard DEM panel
 - Cartridge Expansion Module (CEM) - panels 2, 4, 6, 8 (back)
 - * 0 available with expansion to the left
 - * 1- 5 available on the standard CEM back panel
 - Cartridge Expansion Module (CEM) - panels 3, 5, 7, 9 (front)
 - * 0 available with expansion to the left
 - * 1-3 available for rows 0-38 with a CAP installed
 - * 1-4 available for rows 39-51, with a CAP installed

- * 1-4 available on the standard CEM front panel
- Cartridge Expansion Module (CEM) - panels 14, 16, 18, 20 (back)
 - * 0-5 available on the standard CEM back panel
- Cartridge Expansion Module (CEM) - panels 15, 17, 19, 21 (front)
 - * 0-3 available for rows 0-38 with a CAP installed
 - * 0-5 available for rows 39-51 with a CAP installed
 - * 0-5 available on the standard CEM front panel
- Parking Expansion Module (PEM) - left side PEM
 - * 3-5 available on the back and front panels with a second robot installed
- Parking Expansion Module (PEM) - right side PEM
 - * 0-2 available on the back and front panels with a second robot installed
- LSM Model SL8500 Library
 - 0-1 for all panel types

Note: All SL3000 columns are numbered 0-5 (left to right).

Tape Management System Interface (SLUDR*) Routines

This appendix describes TMS (Tape Management System) interface routines called by the HSC `SLUCONDB` utility and SMC `SMCUDEX` utility. These utilities call the appropriate routine based on the tape management system being used.

Routines include the following:

- `SLUDRCA1`
- `SLUDRRMM`
- `SLUDRTL`
- `SLUDRSMC`
- `SLUDRZAR`

These routines are included in the `SEALINK` library generated during ELS installation. The data returned from these routines is used to format the SMC scratch extract file.

SLUDRCA1

The `SLUDRCA1` routine is called to read the CA-1 Tape Management Catalog (TMC) when CA-1 is defined as the tape management system. `SLUDRCA1` utilizes CA-1 macros to map the layout of the CA-1 TMC.

The macro names which map the CA-1 TMC have changed from Release 4.9 to Release 5.0. Both macros are located at the end of the `SLUDRCA1` routine with the CA-1 Release 4.9 macro as a comment. The version of `SLUDRCA1` supplied in `SAMPLIB` utilizes CA-1 Release 5.0 macro and was assembled using this macro.

- If you are using CA-1 Release 4.9 or earlier, you must comment out the Release 5.0 macro, remove the asterisk in column 1 of the Release 4.9 macro, and reassemble this module. Make sure the appropriate CA-1 macro library is used in the assemble `SYSLIB` concatenation.
- If you run CA-1 Release 5.0 without any local modifications, this module does not need to be reassembled and nothing further must be done to this module. If you have local modifications, you must reassemble this module.

SLUDRRMM

The `SLUDRRMM` routine is called to read the `DFSMSrmm` report extract file when `DFSMSrmm` is defined as the tape management system. `SLUDRRMM` uses the `DFSMSrmm` `EDGRVEXT` macro to map the layout of the report extract file.

Fields read in the extract file include:

- RVTYPE (record type)
- RVVOLSER (volser number)
- RVLCDATE (last change date)
- RVNAME (unit type)
- RVSTATUS (volume status)
- RVEXPDT (volume expiration date)
- RVEXPDTO (volume original expiration date)
- RVLABEL (volume label type).

SLUDRRMM processes the extract and passes the volume record information to SLUCONDB, which builds scratch card images to be input to SLUADMIN. Volume scratch status (scratch/nonscratch) is then updated in the CDS for each volume record in the extract file.

Dates on the RMM report must be in Julian date format (EDGHSKP run with PARM 'DATEFORM(J) '). Tapes listed on the RMM report without expiration dates are skipped by SLUDRRMM.

SLUDRTLM

The SLUDRTLM routine is called to read the CA-DYNAM/TLMS Volume Master File (VMF) when CA-DYNAM/TLMS is defined as the tape management system. SLUDRTLM utilizes a CA-DYNAM/TLMS COPY member to map the layout of the VMF.

SLUDRTLM must be re-assembled if you run TLMS Release 5.4 or if you have local modifications. If you re-assemble this module, make sure the appropriate CA-DYNAM/TLMS source library is used in the assemble SYSLIB concatenation.

SLUDRSMC

The SLUDRSMC routine is called to read the extract file created by the SMCUBX utility from a client tape management system. This file includes one record for every scratch volume extracted that contains the volume serial number and the time of the extract run.

During execution, correct scratch synchronization is provided by matching the time (in GMT format) of the scratch extract run with the volume's "last select time." Any volume selected after the scratch selection run is skipped in SLUCONDB processing.

SLUDRZAR

The SLUDRZAR routine is called to invoke an application programming interface (API) to read Zara's database when Zara is defined as the tape management system.

A

ACSid identification, B-1
ACTivities command
 description, 3-1
 JCL requirements, 3-3
 parameters, 3-2
 syntax, 3-2
ACTMVCGN command
 JCL requirements, 3-5
ACTMVCgn command
 description, 3-4
 parameters, 3-5
 syntax, 3-4
ALLOCDef command
 description, 2-1
 parameters, 2-2
 syntax, 2-1
ALLOCJob command
 description, 2-7
 parameters, 2-7
 syntax, 2-7
ARCHive command
 description, 3-6
 parameters, 3-6
 syntax, 3-6
AUDit command
 description, 3-10
 parameters, 3-11
 syntax, 3-10

B

BACKup command
 description, 3-18
 JCL requirements, 3-19
 parameters, 3-19
 syntax, 3-19

C

CANcel command
 description, 3-19
 parameters, 3-20
 syntax, 3-19
CAPid identification, B-1

CAPPref command
 description, 3-20
 parameters, 3-21
 syntax, 3-21
CDs command
 description, 3-23
 parameters, 3-23
 syntax, 3-23
CDSCREat command
 description, 3-25
 JCL requirements, 3-26
 parameters, 3-25
 syntax, 3-25
CDSDaTA command
 description, 3-27
 parameters, 3-27
 syntax, 3-27
CDSDEF command
 description, 3-28
 parameters, 3-29
 syntax, 3-29
CLean command
 description, 3-31
 parameters, 3-31
 syntax, 3-31
CMDDef command
 description, 2-9
 parameters, 2-9
 syntax, 2-9
Column values, B-4
command interfaces
 HSC, 1-5
 SMC, 1-1
 VTCS, 1-5
COMMPath command
 description, 3-31
 parameters, 3-32
 syntax, 3-32
COMMtest command
 description, 2-10
 parameters, 2-11
 syntax, 2-10
CONFIg CLINK statement
 description, 3-35
 parameters, 3-36
 syntax, 3-36

- CONFIg CLUSTER statement
 - description, 3-37
 - parameters, 3-38
 - syntax, 3-38
- CONFIg command
 - description, 3-34
 - parameters, 3-34
 - syntax, 3-34
- CONFIg GLOBAL statement
 - description, 3-38
 - parameters, 3-39
 - syntax, 3-38
- CONFIg HOST statement
 - description, 3-46
 - parameters, 3-46
 - syntax, 3-46
- CONFIg MVCVOL statement, 3-47
- CONFIg RECLAIM statement
 - description, 3-47
 - parameters, 3-47
 - syntax, 3-47
- CONFIg RTDpath statement
 - description, 3-49
 - parameters, 3-50
 - syntax, 3-49
- CONFIg STORMNGR statement
 - description, 3-51
 - parameters, 3-52
 - syntax, 3-51
- CONFIg TAPEPLEX statement
 - description, 3-52
 - parameters, 3-53
 - syntax, 3-52
- CONFIg VTD statement
 - description, 3-53
 - parameters, 3-54
 - syntax, 3-54
- CONFIg VTSS statement
 - description, 3-55
 - parameters, 3-56
 - syntax, 3-55
- CONFIg VTVVOL statement, 3-58
- CONSolid command
 - description, 3-58
 - parameters, 3-59
 - syntax, 3-58

D

- DBSERVer command
 - description, 3-60
 - parameters, 3-61
 - syntax, 3-61
- DEComp command
 - description, 3-62
 - parameters, 3-62
 - syntax, 3-62
- DELETSCR command
 - description, 3-64
 - parameters, 3-64

- syntax, 3-64
- DIRBLD command
 - description, 3-66
 - parameters, 3-66
 - syntax, 3-66
- DISMOunt command
 - description, 2-12
 - parameters, 2-12
 - syntax, 2-12
- DISMOUNT command
 - description, 3-67
 - parameters, 3-67
 - syntax, 3-67
- Display Acs command
 - description, 3-70
 - parameters, 3-70
 - syntax, 3-70
- Display ACTive command
 - description, 3-71
 - parameters, 3-71
 - syntax, 3-71
- Display ALL command
 - description, 3-79
 - parameters, 3-79
 - syntax, 3-79
- Display Cap command
 - description, 3-79
 - parameters, 3-79
 - syntax, 3-79
- Display CDS command
 - description, 3-81
 - parameters, 3-82
 - syntax, 3-81
- Display CLink command
 - description, 3-83
 - parameters, 3-83
 - syntax, 3-83
- Display CLUster command
 - description, 3-85
 - parameters, 3-86
 - syntax, 3-85
- Display CMD command
 - description, 3-88
 - parameters, 3-88
 - syntax, 3-88
- Display command
 - description, 3-68
 - options, 3-68
- Display COMMPath command
 - description, 3-89
 - parameters, 3-89
 - syntax, 3-89
- Display CONFIG command
 - description, 3-90
 - parameters, 3-90
 - syntax, 3-90
- Display DRive command
 - description, 2-13
 - parameters, 2-14
 - syntax, 2-13

Display DRIVE_INFO command
 description, 3-96
 parameters, 3-96
 syntax, 3-96

Display DRives command
 description, 3-93
 parameters, 3-94
 syntax, 3-93

Display EXceptns command
 description, 3-98
 parameters, 3-98
 syntax, 3-98

Display LINKSto command
 description, 3-100
 parameters, 3-100
 syntax, 3-100

Display LMUPDEF command
 description, 3-101
 parameters, 3-101
 syntax, 3-101

Display LOCKs command
 description, 3-101
 parameters, 3-102
 syntax, 3-101

Display Lsm command
 description, 3-103
 parameters, 3-103
 syntax, 3-103

Display Message command
 description, 3-105
 parameters, 3-105
 syntax, 3-105

Display MGMTDEF command
 description, 3-105
 parameters, 3-106
 syntax, 3-106

Display MIGrate command
 description, 3-106
 parameters, 3-106
 syntax, 3-106

Display MNTD command
 description, 3-109
 parameters, 3-110
 syntax, 3-109

Display MONitor command
 description, 3-110
 parameters, 3-110
 syntax, 3-110

Display MVC command
 description, 3-111
 parameters, 3-111
 syntax, 3-111

Display MVCPool command
 description, 3-116
 parameters, 3-116
 syntax, 3-116

Display OPTion command
 description, 3-119
 parameters, 3-119
 syntax, 3-119

Display PATH command
 description, 3-119
 parameters, 3-119
 syntax, 3-119

Display POLicy command
 description, 2-15
 parameters, 2-16
 syntax, 2-15

Display Queue command
 description, 3-121
 parameters, 3-122
 syntax, 3-121

Display RC command
 description, 2-16
 parameters, 2-16
 syntax, 2-16

Display REPlicat command
 description, 3-122
 parameters, 3-122
 syntax, 3-122

Display Requests command
 description, 3-123
 parameters, 3-124
 syntax, 3-123

Display RTD command
 description, 3-124
 parameters, 3-124
 syntax, 3-124

Display SCRAtch command
 description, 3-128
 parameters, 3-128
 syntax, 3-128

Display SEN command
 description, 3-131
 parameters, 3-132
 syntax, 3-131

Display SERVER command
 description, 3-133
 parameters, 3-133
 syntax, 3-133

Display SERVer command
 description, 2-17
 parameters, 2-17
 syntax, 2-17

Display SMC command
 description, 2-18
 parameters, 2-18
 syntax, 2-18

Display SRVlev command
 description, 3-134
 parameters, 3-134
 syntax, 3-134

Display Status command
 description, 3-134
 parameters, 3-135
 syntax, 3-134

Display STORCLas command
 description, 3-135
 parameters, 3-136
 syntax, 3-135

- Display STORMNGR command
 - description, 2-18
 - parameters, 2-19
 - syntax, 2-19
- Display STORMNgr command
 - description, 3-137
 - parameters, 3-137
 - syntax, 3-137
- Display TAPEPlex command
 - description, 2-19
 - parameters, 2-20
 - syntax, 2-19
- Display TASKs command
 - description, 3-138
 - parameters, 3-139
 - syntax, 3-138
- Display THReshld command
 - description, 3-140
 - parameters, 3-141
 - syntax, 3-140
- Display Volser command
 - description, 3-143
 - parameters, 3-143
 - syntax, 3-143
- Display Volume command
 - description, 2-20
 - parameters, 2-21
 - syntax, 2-20
- Display VOLume_Info command
 - description, 3-145
 - parameters, 3-145
 - syntax, 3-145
- Display VSCRatch command
 - description, 3-146
 - parameters, 3-146
 - syntax, 3-146
- Display VTD command
 - description, 3-147
 - parameters, 3-148
 - syntax, 3-147
- Display VTSS command
 - description, 3-150
 - parameters, 3-150
 - syntax, 3-150
- Display VTV command
 - description, 3-154
 - parameters, 3-155
 - syntax, 3-154
- DRAin command
 - description, 3-158
 - parameters, 3-158
 - syntax, 3-158
- DRCHKPT command
 - description, 3-159
 - parameters, 3-159
 - syntax, 3-159
- DRIVemap command
 - description, 2-21
 - parameters, 2-22
 - syntax, 2-21

- DRMONitr command
 - description, 3-160
 - parameters, 3-160
 - syntax, 3-160
- DRTEST command
 - options, 3-162
- DRTEST CREATE command
 - description, 3-162
 - JCL requirements, 3-164
 - parameters, 3-163
 - syntax, 3-163
- DRTEST PRIMEprd command
 - description, 3-166
 - parameters, 3-167
 - syntax, 3-166
- DRTEST RESET command
 - description, 3-168
 - parameters, 3-168
 - syntax, 3-168
- DRTEST START command
 - description, 3-169
 - parameters, 3-169
 - syntax, 3-169
- DRTEST STOP command
 - description, 3-170
 - parameters, 3-170
 - syntax, 3-170

E

- EEXPORT command
 - description, 3-170
 - parameters, 3-171
 - syntax, 3-170
- Eject command
 - description, 3-173
 - parameters, 3-174
 - syntax, 3-173
- ENter command
 - description, 3-177
 - parameters, 3-178
 - syntax, 3-177
- EXECParm command
 - description, 3-179
 - parameters, 3-179
 - syntax, 3-179
- EXPORT command
 - description, 3-180
 - JCL requirements, 3-182
 - parameters, 3-181
 - syntax, 3-180

F

- FMTLOG command
 - description, 3-182
 - JCL requirements, 3-183
 - parameters, 3-183
 - syntax, 3-183

H

Help command

- description, 2-23
- parameters, 2-23
- syntax, 2-23

HSC

- command interfaces, 1-5
- service levels, 1-8

HTTP command

- description, 2-24
- parameters, 2-25
- syntax, 2-24

I

identification

- ACSid, B-1
- CAPid, B-1
- LSMid, B-1

IMPORT command

- description, 3-183
- JCL requirements, 3-186
- parameters, 3-184
- syntax, 3-184

INITialize command

- description, 3-186
- JCL requirements, 3-188
- parameters, 3-187
- syntax, 3-186

INVENTORY command

- description, 3-189
- parameters, 3-189
- return codes, 3-190
- syntax, 3-189

L

LIBGen command

- description, 3-191
- JCL requirements, 3-192
- parameters, 3-192
- syntax, 3-191

LIMIT command

- description, 2-27
- parameters, 2-28
- syntax, 2-27

Llst command

- description, 2-30
- parameters, 2-30
- syntax, 2-30

LMUPATH control statement

- description, 3-195
- parameters, 3-195
- syntax, 3-195

LMUPDEF command

- description, 3-193
- parameters, 3-194
- syntax, 3-194

LOG command

- description, 2-31

- parameters, 2-32

- syntax, 2-31

LOGUTIL command

- description, 3-197
- parameters, 3-197
- syntax, 3-197

LOGUTIL FOR_LOSTMVC statement

- description, 3-198
- parameters, 3-198
- syntax, 3-198

LOGUTIL GENAUDIT statement

- description, 3-199
- parameters, 3-199
- syntax, 3-199

LOGUTIL LOCATE_VTV statement

- description, 3-200
- parameters, 3-200
- syntax, 3-200

LOGUTIL UNDELETE statement

- description, 3-201
- parameters, 3-201
- syntax, 3-201

LSMid identification, B-1

M

Media Type (MEDIA) values, A-1

MEDVERfy command

- description, 3-202
- parameters, 3-202
- syntax, 3-202

MERGEcds command

- description, 3-204
- JCL requirements, 3-206
- parameters, 3-205
- syntax, 3-205

MERGMFST command

- description, 3-209
- JCL requirements, 3-209
- parameters, 3-209
- syntax, 3-209

messages

- Audit report, 3-16
- CONSolid report, 3-59

METAdata command

- description, 2-34, 3-210
- parameters, 3-210
- syntax, 2-34, 3-210

MGMTclas control statement

- description, 3-212
- parameters, 3-214
- syntax, 3-213

MGMTDEF command

- description, 3-211
- parameters, 3-212
- syntax, 3-212

MIGrate command (Format 1)

- parameters, 3-239
- syntax, 3-238

MIGrate command (Format 2)

- parameters, 3-240
- syntax, 3-240
- MIGRSEL control statement
 - description, 3-221
 - parameters, 3-222
 - syntax, 3-221
- MIGRVTV control statement
 - description, 3-223
 - parameters, 3-224
 - syntax, 3-223
- MNTD command
 - description, 3-241
 - parameters, 3-241
 - syntax, 3-241
- MODEl Type (MODEl) values, A-6
- MODify command
 - description, 3-245
 - parameters, 3-246
 - syntax, 3-246
- Modify command, MSP, 1-2, 1-5
- MONitor command
 - description, 2-36
 - parameters, 2-36
 - syntax, 2-36
- MOUNT command
 - description, 3-249
 - parameters, 3-250
 - syntax, 3-249
- MOunt command
 - description, 2-38
 - parameters, 2-38
 - syntax, 2-38
- MOUNTDef command
 - description, 2-39
 - parameters, 2-40
 - syntax, 2-40
- MOVE command
 - description, 3-252
 - parameters, 3-253
 - syntax, 3-252
- MSGDef command
 - description, 2-44
 - parameters, 2-44
 - syntax, 2-44
- MSGJob command
 - description, 2-46
 - parameters, 2-46
 - syntax, 2-46
- MVCATTR control statement
 - description, 3-225
 - parameters, 3-225
 - syntax, 3-225
- MVCDRain command
 - description, 3-254
 - parameters, 3-255
 - syntax, 3-254
- MVCMAINT command
 - description, 3-256
 - JCL requirements, 3-259
 - parameters, 3-257

- return codes, 3-260
- syntax, 3-257
- MVCPLRPT command
 - description, 3-261
 - parameters, 3-261
 - syntax, 3-261
- MVCRPt command
 - description, 3-266
 - parameters, 3-266
 - syntax, 3-266

O

- OFFload command
 - description, 3-273
 - JCL requirements, 3-274
 - parameters, 3-273
 - syntax, 3-273
- OPTion command
 - description, 3-275
 - parameters, 3-276
 - syntax, 3-275
- OPTION TITLE control statement
 - description, 3-274
 - parameters, 3-274
 - syntax, 3-274
- options
 - Display command, 3-68
 - DRTEST command, 3-162
 - SET command, 3-297
 - VTVRPt command, 3-372

P

- Panel values, B-2
- PARMLIB, issuing commands, 1-7
- POLicy and TAPEREQ Batch Test Utility (SMCUTRQ), 4-13
- POLicy command
 - description, 2-48
 - parameters, 2-49
 - syntax, 2-49
- POOLPARM Change control statement
 - description, 3-334
 - parameters, 3-334
 - syntax, 3-334
- POOLPARM control statement
 - description, 3-326
 - parameters, 3-327
 - syntax, 3-326
- procedure
 - SET CLNPRFX, 3-299
 - SET SLIDRIVS, 3-316
 - SET TCHNIQE, 3-320

R

- READ command
 - description, 2-54
 - parameters, 2-54
 - syntax, 2-54

RECall command
 description, 3-279
 parameters, 3-279
 syntax, 3-279

RECLaim command
 description, 3-280
 parameters, 3-281
 syntax, 3-280

RECONcil command
 description, 3-282
 parameters, 3-283
 syntax, 3-283

Recording Technique (RECtech) values, A-3

RECOVer command
 description, 3-287
 parameters, 3-287
 syntax, 3-287

RELease command
 description, 3-288
 parameters, 3-288
 syntax, 3-288

remote UUI support, 4-8

REPLaceall command
 description, 3-289
 parameters, 3-289
 syntax, 3-289

reports
 ARCHive (MOVEVTV not specified), 3-7
 ARCHive (MOVEVTV specified), 3-9
 Audit, 3-15
 DELETSCR, 3-65
 INVENTORY, 3-191
 MEDVERfy, 3-204
 MVCMAINT, 3-260
 MVCPLRPT, 3-262
 MVCRPt, 3-267
 RECONcil, 3-284
 SCRPT, 3-295
 VOLRpt, 3-366
 VTVMAINT, 3-371
 VTVRPt (Basic), 3-374
 VTVRPt (COPIES), 3-377

RESTore command
 description, 3-290
 JCL requirements, 3-290
 parameters, 3-290
 syntax, 3-290

RESYNChronize command
 description, 2-56
 parameters, 2-57
 syntax, 2-56

return codes
 INVENTORY command, 3-190
 MVCMAINT command, 3-260
 SLUADMIN utility, 5-8
 SMC utilities, 4-1
 VTVMAINT command, 3-371

Route command
 description, 2-57
 parameters, 2-57

syntax, 2-57

Row values, B-3

RTV Utility
 description, 6-1
 JCL requirements, 6-4
 parameters, 6-1
 report messages, 6-4
 RTV Decompress listing, 6-8
 RTV LISTONLY listing, 6-7
 syntax, 6-1

S

SCRATch command
 description, 3-291
 parameters, 3-291
 syntax, 3-291

Scratch Conversion Utility (SLUCONDB), 5-13

SCREdist command
 description, 3-292
 parameters, 3-293
 syntax, 3-292

SCRPT command
 description, 3-295
 parameters, 3-295
 syntax, 3-295

SDD utility command
 CONFig example, 4-10
 description, 4-8
 EXPORT example, 4-12
 IMPORT example, 4-11
 MERGMST example, 4-12
 parameters, 4-9
 syntax, 4-9

SENter command
 description, 3-297
 parameters, 3-297
 syntax, 3-297

SERVer command
 description, 2-58
 parameters, 2-59
 syntax, 2-58

service levels, 1-8

SET CLNPRFX command
 description, 3-298
 parameters, 3-299
 syntax, 3-299

SET command
 options, 3-297

SET command, description, 3-297

SET COMPREFX command
 description, 3-299
 parameters, 3-300
 syntax, 3-300

SET DRVHOST command
 description, 3-301
 parameters, 3-302
 syntax, 3-302

SET EJCTPAS command
 description, 3-302

- parameters, 3-303
- syntax, 3-302
- SET EJCTSKP command
 - description, 3-303
 - parameters, 3-303
 - syntax, 3-303
- SET FREEZE command
 - description, 3-304
 - parameters, 3-304
 - syntax, 3-304
- SET HOSTID command
 - description, 3-305
 - parameters, 3-306
 - syntax, 3-306
- SET HSCLEVEL command
 - description, 3-306
 - parameters, 3-307
 - syntax, 3-307
- SET LOGFILE command
 - description, 3-307
 - parameters, 3-308
 - syntax, 3-308
- SET MAJNAME command
 - description, 3-309
 - parameters, 3-309
 - syntax, 3-309
- SET MIGOPT command
 - description, 3-309
 - parameters, 3-310
 - syntax, 3-310
- SET NEWHOST command
 - description, 3-311
 - parameters, 3-311
 - syntax, 3-311
- SET RMM command
 - description, 3-311
 - parameters, 3-312
 - syntax, 3-312
- SET SCRLABL command
 - description, 3-312
 - parameters, 3-313
 - syntax, 3-313
- SET SLIDRIVS command
 - description, 3-313
 - parameters, 3-314
 - syntax, 3-314
- SET SLISTATN command
 - description, 3-317
 - parameters, 3-317
 - syntax, 3-317
- SET SMF command
 - description, 3-318
 - parameters, 3-318
 - syntax, 3-318
- SET TAPEplex command
 - description, 3-319
 - parameters, 3-319
 - syntax, 3-319
- SET TECHNIQE command
 - description, 3-320
- parameters, 3-320
- syntax, 3-320
- SET VAULT command
 - description, 3-321
 - parameters, 3-321
 - syntax, 3-321
- SET VAULTVOL command
 - description, 3-323
 - parameters, 3-323
 - syntax, 3-323
- SET VOLPARM command
 - description, 3-324
 - JCL requirements, 3-325
 - parameters, 3-325
 - syntax, 3-324
- SET VOLPARM JOIN command
 - description, 3-336
 - JCL requirements, 3-336
 - parameters, 3-336
 - syntax, 3-336
- SET VOLPARM UPDATE command
 - description, 3-333
 - JCL requirements, 3-334
 - parameters, 3-333
 - syntax, 3-333
- SIMulate command
 - description, 2-62
 - parameters, 2-62
 - syntax, 2-62
- SLICREAT Utility
 - calculating DASD space, 5-13
 - creating only stanby CDS, 5-13
 - DD statements, 5-11
 - executing, 5-12
 - JCL, 5-10
 - verifying, 5-12
- SLSMERGE control statement
 - description, 3-206
 - parameters, 3-207
 - syntax, 3-207
- SLUADMIN utility
 - definition statements, 5-3
 - description, 1-6, 5-1
 - execution parameters, 5-2
 - invoking, 5-1
 - output, 5-5
 - return codes, 5-8, 5-9
- SLUCONDB Utility, 5-13
- SLUDR* routines, C-1
- SLUDRCA1 routine, C-1
- SLUDRRMM routine, C-1
- SLUDRSMC routine, C-2
- SLUDRTLML routine, C-2
- SMC command interfaces, 1-1
- SMCCMDS data set, 1-3
- SMCPARMS data set, 1-3
- SMCUBX Utility, 4-17
- SMCUGTF Utility, 4-28
- SMCUSIM Utility, 4-23
- SMCUSMF Utility, 4-29

SMCUTRQ Utility, 4-13
 SMCUUUI Utility, 4-2
 SRVlev command
 description, 3-337
 parameters, 3-337
 syntax, 3-337
 STOPMN command
 description, 3-338
 parameters, 3-338
 syntax, 3-338
 STORclas control statement
 description, 3-226
 parameters, 3-227
 syntax, 3-226
 STORLST control statement
 description, 3-232
 parameters, 3-232
 syntax, 3-232
 STORMNGR command
 description, 2-64
 parameters, 2-65
 syntax, 2-64
 STORSEL control statement
 description, 3-233
 parameters, 3-233
 syntax, 3-233
 SWitch command
 description, 3-339
 parameters, 3-340
 syntax, 3-339
 syntax
 ACTIvities command, 3-2
 ACTMVCgn command, 3-4
 ALLOCDef command, 2-1, 3-10
 ALLOCJob command, 2-7
 ARCHive command, 3-6
 BACKup command, 3-19
 CANcel command, 3-19
 CAPPref command, 3-21
 CDs command, 3-23
 CDSCREat command, 3-25
 CDSData command, 3-27
 CDSDEF command, 3-29
 CLean command, 3-31
 CMDDef command, 2-9
 COMMPath command, 3-32
 COMMtest command, 2-10
 CONFIg CLINK statement, 3-36
 CONFIg CLUSTER statement, 3-38
 CONFIg command, 3-34
 CONFIg GLOBAL statement, 3-38
 CONFIg HOST statement, 3-46
 CONFIg RECLAIM statement, 3-47
 CONFIg RTDpath statement, 3-49
 CONFIg STORMNGR statement, 3-51
 CONFIg TAPEPLEX statement, 3-52
 CONFIg VTD statement, 3-54
 CONFIg VTSS statement, 3-55
 CONSolid command, 3-58
 DBSERVer command, 3-61
 DEComp command, 3-62
 DELETSCR command, 3-64
 DIRBLD command, 3-66
 DISMOunt command, 2-12
 DISMount command, 3-67
 Display AcS command, 3-70
 Display ACTive command, 3-71
 Display ALI command, 3-79
 Display Cap command, 3-79
 Display CDS command, 3-81
 Display CLink command, 3-83
 Display CLUster command, 3-85
 Display CMD command, 3-88
 Display COMMPath command, 3-89
 Display CONFIG command, 3-90
 Display DRive command, 2-13
 Display DRIVE_INFO command, 3-96
 Display DRives command, 3-93
 Display EXceptns command, 3-98
 Display LINKSto command, 3-100
 Display LMUPDEF command, 3-101
 Display LOCKs command, 3-101
 Display Lsm command, 3-103
 Display Message command, 3-105
 Display MGMTDEF command, 3-106
 Display MIGrate command, 3-106
 Display MNTD command, 3-109
 Display MONitor command, 3-110
 Display MVC command, 3-111
 Display MVCPool command, 3-116
 Display OPTion command, 3-119
 Display PATH command, 3-119
 Display POLicy command, 2-15
 Display Queue command, 3-121
 Display RC command, 2-16
 Display REPLICat command, 3-122
 Display Requests command, 3-123
 Display RTD command, 3-124
 Display SCRAtch command, 3-128
 Display SEN command, 3-131
 Display SERVER command, 3-133
 Display SERVer command, 2-17
 Display SMC command, 2-18
 Display SRVlev command, 3-134
 Display Status command, 3-134
 Display STORCLas command, 3-135
 Display STORMNGR command, 2-19
 Display STORMNgr command, 3-137
 Display TAPEPlex command, 2-19
 Display TASKs command, 3-138
 Display THReshld command, 3-140
 Display Volser command, 3-143
 Display Volume command, 2-20
 Display VOLume_Info command, 3-145
 Display VSCRatch command, 3-146
 Display VTD command, 3-147
 Display VTSS command, 3-150
 Display VTV command, 3-154
 DRAIN command, 3-158
 DRCHKPT command, 3-159

DRIVemap command, 2-21
 DRMONitr command, 3-160
 DRTEST CREATE command, 3-163
 DRTEST PRIMEprd command, 3-166
 DRTEST RESET command, 3-168
 DRTEST START command, 3-169
 DRTEST STOP command, 3-170
 EEXPORT command, 3-170
 Eject command, 3-173
 ENter command, 3-177
 EXECParM command, 3-179
 EXPORT command, 3-180
 FMTLOG command, 3-183
 Help command, 2-23
 HTTP command, 2-24
 IMPORT command, 3-184
 INITialize command, 3-186
 INVENTORY command, 3-189
 LIBGen command, 3-191
 LIMIT command, 2-27
 LIst command, 2-30
 LMUPATH control statement, 3-195
 LMUPDEF command, 3-194
 LOG command, 2-31
 LOGUTIL command, 3-197
 LOGUTIL FOR_LOSTMVC statement, 3-198
 LOGUTIL GENAUDIT statement, 3-199
 LOGUTIL LOCATE_VTV statement, 3-200
 LOGUTIL UNDELETE statement, 3-201
 MEDVERfy command, 3-202
 MERGEcDs command, 3-205
 MERGMFST command, 3-209
 METAdata command, 2-34, 3-210
 MGMTclas control statement, 3-213
 MGMTDEF command, 3-212
 MIGrate command (Format 1), 3-238
 MIGrate command (Format 2), 3-240
 MIGRSEL control statement, 3-221
 MIGRVTV control statement, 3-223
 MNTD command, 3-241
 MODify command, 3-246
 MONitor command, 2-36
 MOUNT command, 3-249
 MOunt command, 2-38
 MOUNTDef command, 2-40
 MOVE command, 3-252
 MSGDef command, 2-44
 MSGJob command, 2-46
 MVCATTR control statement, 3-225
 MVCDRain command, 3-254
 MVCMAINT command, 3-257
 MVCPLRPT command, 3-261
 MVCRPt command, 3-266
 OFFload command, 3-273
 OPTion command, 3-275
 OPTION TITLE control statement, 3-274
 POLicy command, 2-49
 POOLPARM Change control statement, 3-334
 POOLPARM control statement, 3-326
 READ command, 2-54
 RECall command, 3-279
 RECLaim command, 3-280
 RECONcil command, 3-283
 RECOVER command, 3-287
 RELease command, 3-288
 REPLaceall command, 3-289
 RESTore command, 3-290
 RESYNChronize command, 2-56
 Route command, 2-57
 SCRAtch command, 3-291
 SCREdist command, 3-292
 SCRPT command, 3-295
 SENter command, 3-297
 SERVer command, 2-58
 SET CLNPRFX command, 3-299
 SET COMPRFX command, 3-300
 SET DRVHOST command, 3-302
 SET EJCTPAS command, 3-302
 SET EJCTSKP command, 3-303
 SET FREEZE command, 3-304
 SET HOSTID command, 3-306
 SET HSCLEVel command, 3-307
 SET LOGFILE command, 3-308
 SET MAJNAME command, 3-309
 SET MIGOPT command, 3-310
 SET NEWHOST command, 3-311
 SET RMM command, 3-312
 SET SCRLABL command, 3-313
 SET SLIDRIVS command, 3-314
 SET SLISTATN command, 3-317
 SET SMF command, 3-318
 SET TAPEPlex command, 3-319
 SET TCHNIQE command, 3-320
 SET VAULT command, 3-321
 SET VAULTVOL command, 3-323
 SET VOLPARM command, 3-324
 SET VOLPARM JOIN command, 3-336
 SET VOLPARM UPDATE command, 3-333
 SIMulate command, 2-62
 SLSMERGE control statement, 3-207
 SRVlev command, 3-337
 STOPMN command, 3-338
 STORclas control statement, 3-226
 STORLST control statement, 3-232
 STORMNGR command, 2-64
 STORSEL control statement, 3-233
 SWitch command, 3-339
 TAPEPlex command, 2-66
 TAPEREQ control statement, 2-77
 TCPip command, 2-69
 TRace command, 2-71, 3-342
 TRACELKP command, 3-344
 TREQDef command, 2-75
 UEXIT command, 3-346
 UEXit command, 2-83
 UNITAttr command, 2-85
 UNSCratch command, 3-347
 UNSElect command, 3-348
 USERMsg command, 2-87
 Vary command, 3-349

- View command, 3-353
- VLEMAINT command, 3-357
- VMSG command, 2-88
- VOLPARM Change control statement, 3-335
- VOLPARM control statement, 3-332
- VOLPCONV command, 3-358
- VOLRpt command, 3-360
- VTSSLST control statement, 3-235
- VTSSSEL control statement, 3-236
- VTVMaint command, 3-369
- VTVRPt BASIC command, 3-372
- VTVRPt COPIES command, 3-376
- VVAUDIT command, 3-379
- Warn command, 3-380
- XCLIENT command, 2-91
- XUDB command, 2-93

T

- Tape Management Extract Utility (SMCUDBX), 4-17
- TAPEplex command
 - description, 2-66
 - parameters, 2-67
 - syntax, 2-66
- TAPEREQ control statement
 - description, 2-76
 - parameters, 2-78
 - syntax, 2-77
- TCPIP command
 - description, 2-69
 - parameters, 2-70
 - syntax, 2-69
- TMS interface (SLUDR*) routines, C-1
- TRace command
 - description, 2-71, 3-342
 - parameters, 2-72, 3-343
 - syntax, 2-71, 3-342
- Trace Format Utility (SMCUGTF), 4-28
- TRACELKP command
 - description, 3-344
 - parameters, 3-344
 - syntax, 3-344
- TREQDef command
 - description, 2-75
 - parameters, 2-75
 - syntax, 2-75

U

- UEXIT command
 - description, 3-345
 - parameters, 3-346
 - syntax, 3-346
- UExIt command
 - description, 2-82
 - parameters, 2-83
 - syntax, 2-83
- Unified User Interface Utility (SMCUUUI), 4-2
- UNITAttr command
 - description, 2-84

- parameters, 2-85
- syntax, 2-85
- UNSCratch command
 - description, 3-347
 - parameters, 3-348
 - syntax, 3-347
- UNSElect command
 - description, 3-348
 - parameters, 3-349
 - syntax, 3-348
- USERMsg command
 - description, 2-87
 - parameters, 2-87
 - syntax, 2-87
- utilities
 - HSC
 - Scratch Conversion Utility (SLUCONDB), 5-13
 - SLUADMIN, 1-6, 5-1
 - SMC
 - POLicy and TAPEREQ Batch Test Utility (SMCUTRQ), 4-13
 - Tape Management Extract Utility (SMCUDBX), 4-17
 - Trace Format Utility (SMCUGTF), 4-28
 - Unified User Interface Utility (SMCUUUI), 4-2
 - UI Simulation Utility (SMCUSIM), 4-23
 - VSM console SMF Offload Utility (SMCUSMF), 4-29
 - VTCS
 - RTV Utility, 6-1
- utility return codes and messages, SMC, 4-1
- UI (Unified User Interface) support, 1-1
- UI Simulation Utility (SMCUSIM), 4-23

V

- Vary command
 - description, 3-349
 - parameters, 3-350
 - syntax, 3-349
- View command
 - description, 3-352
 - parameters, 3-353
 - syntax, 3-353
- VLEMAINT command
 - description, 3-356
 - parameters, 3-357
 - syntax, 3-357
- VMSG command
 - description, 2-88
 - parameters, 2-89
 - syntax, 2-88
- VOLPARM Change control statement
 - description, 3-335
 - parameters, 3-335
 - syntax, 3-335
- VOLPARM control statement
 - description, 3-331
 - parameters, 3-332
 - syntax, 3-332

VOLPCONV command
description, 3-358
JCL requirements, 3-359
parameters, 3-359
syntax, 3-358

VOLRpt command
description, 3-360
JCL requirements, 3-366
parameters, 3-361
syntax, 3-360

VSM console SMF Offload Utility (SMCUSMF), 4-29

VTCS command interfaces, 1-5

VTSSLST control statement
description, 3-234
parameters, 3-235
syntax, 3-235

VTSSSEL control statement
description, 3-236
parameters, 3-236
syntax, 3-236

VTVMaint command
description, 3-369
parameters, 3-369
return codes, 3-371
syntax, 3-369

VTVRpt BASIC command
description, 3-372
parameters, 3-373
syntax, 3-372

VTVRpt command
options, 3-372

VTVRpt command, description, 3-372

VTVRpt COPIES command
description, 3-376
parameters, 3-376
syntax, 3-376

VVAUDIT command
description, 3-379
parameters, 3-379
syntax, 3-379

W

Warn command
description, 3-379
parameters, 3-380
syntax, 3-380

X

XCLIENT command
description, 2-91
parameters, 2-91
syntax, 2-91

XUDB command
description, 2-92
parameters, 2-93
syntax, 2-93
XUDB data set, 2-94