



Version 7.4

Quick Reference Card

serena™ Automating Change to
Enterprise Code and Content

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General Information

To process information, press ENTER or PF3.

To cancel without processing information, type CANCEL on the command line.

To access online Help, press PF1.

Use = to jump between panels.

StarTool Commands

Syntax STARTOOL
 {dsn [VOLUME(vser) /VOLSET(vdef)] [SHR/OLD]
 /* / FILE(ddname) [NUMBER(num)]}
 [ISPMODE / XISPMODE / MEMLIST memg /
 / ISPXEQ cmnd / subcommand]

Example STARTOOL lib.cntl

Aliases PDS, PDSE

Defaults ISPMODE if in an ISPF session, otherwise XISPMODE; SHR

Required dsn or FILE(ddname)

Subcommand	Short	Function
ALIAS	AL	Add an alias name for a member
ATTRIB	A	List and modify member attributes
BROWSE	B	Browse data
CALC	CAL	Floating point calculator (ISPMODE only)
CAX	CAX	List active system catalog (ISPMODE only)
CHANGE	C	Switch to a different data set
CMDTBL	CMD	Manage ISPF command tables
COMBINE	COMB	Join several members together
COMPARE	CO	Display data differences
COMPDIR	COMPD	Compare member directory entries
COMPRESS	COMPR	Compress data sets
CONDEND	COND	Conditionally terminate StarTool FDM
CONTROL	CON	Control StarTool FDM global options
COPY	COP	Copy data selectively
CREATE	CR	Create data based on the current data set
CSECTS	CS	Map module CSECTs (ISPMODE only)
DAS	DAS	Disassemble load modules (same as DISASM)
DCF	DC	Script a data set
DDNAME	DD	List TSO session allocations (ISPMODE only)
DECODE	DEC	Decrypt a member
DELETE	DEL	Delete members
DELINK	DELI	Produce object code from a load module
DIRENTRY	DIR	Interpret member directory entries
DISASM	DISA	Disassemble load modules (same as DAS)
DISPLAY	D	List member names from the directory
DSNAME	DS	Display data set allocation information
DUP	DU	Copy data selectively
EDIT	E	Edit data
EDREC	EDR	Invoke ISPF edit recovery
ENCODE	EDC	Encrypt a member
END	EN	Terminate the current function of StarTool FDM
EXCLUDE	EXC	Drop members from MEMLIST
EXEC	EX	Execute a CLIST with subcommands
FILTER	FIL	Filter data sets for LISTC/LISTF and MASK

FIND	FI	Search for a string
FINDMOD	FINDM	Locate system modules
FIXPDS	FIX	Modify a data set
GO	GO	Switch StarTool FDM session (ISPMODE only)
HELP	H	Provide information using StarTool FDM
HEX	HEX	Hexadecimal calculator (ISPMODE only)
HISTORY	HI	Display CSECT IDR data from a module
IDCAMS	IDC	Invoke an IDCAMS command
IF	IF	Search for members with desired attributes
ISPF	ISPF	Stack an ISPF session
ISPMODE	ISPM	Switch StarTool FDM to an ISPF display mode
ISPXEQ	ISPX	Invoke StarTool FDM with an ISPMODE option
LIST	LI	Display data
LISTA	LA	List TSO session allocations (ISPMODE only)
LISTC	LC	List data sets from a catalog (ISPMODE only)
LISTF	LF	List data sets from a volume (ISPMODE only)
LISTGRP	LISTG	Display the member group names
LISTV	LV	List disk volumes (ISPMODE only)
LLA	LLA	Refresh LLA directory entries
LOG	LO	Select one of 9 session logs (ISPMODE only)
MAP	MA	Display the CSECT structure of a module
MASK	MAS	Front-end LISTC and LISTF (ISPMODE only)
MEMBERS	ME	List member names in a member group
MEMLIST	ML	Build a member list table (ISPMODE only)
NUCMAP	NUC	Map nucleus (ISPMODE only)
OPTIONS	O	Provide a directory of subcommands
OUTCOPY	OUTC	Format utility control statements
PATTERN	P	Display member names from the directory
PBROWSE	PB	Browse data (ISPMODE only)
PEDIT	PE	Edit data (ISPMODE only)
PVIEW	PV	Edit data in VIEW mode (ISPMODE only)
PGMDOC	PGM	List module descriptions
PRINT	PR	Print hardcopy listing
PROFMAN	PRO	Manage saved tables (ISPMODE only)
QUIT	Q	Terminate StarTool FDM
READOBJ	READ	Disassemble object code
RECALL	R	Display the previous subcommand
RENAME	REN	Change a member's name
REPLACE	RELP	Change a member's contents
REPRO	REPR	Rebuild or create members
RESTORE	RES	Resurrect deleted members
SEPARATE	SEP	Split into members
SMPGEN	SM	Generate SMP/E sysmods
SUBLIST	SUBL	Create a member subset
SUBMIT	SUB	Submit data for background processing
STATUS	ST	Display the status of ISPMODE functions
SVCMAP	SVC	Investigate SVC routines
TSO	T	Invoke a TSO command processor or CLIST
TSOEDIT	TSOE	Edit data
USAGE	U	Display data set statistics
VERIFY	V	Validate members or a data set
VMAP	VM	Display a disk volume map (ISPMODE only)
VUSE	VU	Display disk usage and statistics
WHOHAS	WH	Check allocation status of a data set
WORKPAD	W	Store or execute commands (ISPMODE only)
XREF	XR	Display intra-module references
ZAP	Z	Modify load module (ISPMODE only)

Member List

Syntax

```
MEMLIST memgroup
[TODAY/YESTERDAY/WEEK/CURRENT/BIWEEK/
  MONTH/QUARTER/HALFYEAR/YEAR/BIYEAR/
  LAST(numdays) /DATE (yyyy/mm/dd) ]
[CHANGED (yyyy/mm/dd:yyyy/mm/dd) ]
[CREATED (yyyy/mm/dd:yyyy/mm/dd) ]
[ABOVE (count1) ]
[ALIAS/NOALIAS ]
[AMODE24/AMODE31/AMODEAN/NOAMODE24/
  NOAMODE31/NOAMODEANY ]
[AUTH/NOAUTH ]
[BELOW(count2) ]
[DC/NODC ]
[EDIT/NOEDIT ]
[EXEC/NOEXEC ]
[FLEVEL/NOFLEVEL ]
[HASALIAS/NOHASALIAS ]
[ID(Puid) / NOID/NOTID (Puid) ]
[LKED(Partl) ]
[LKEDDATE/NOLKEDDATE ]
[LOADONLY/NOLOADONLY ]
[MODULE(* / Fullm /Partm*) ]
[NULL/NONULL ]
[ORPHAN/NOORPHAN ]
[OVERLAY/NOOVERLAY ]
[PAGE/NOPAGE ]
[REFR/NOREFR ]
[RENT/NORENT ]
[RESET/NORESET ]
[REUS/NOREUS ]
[RMODE24/RMODEANY/NORMODE24/NORMODEANY ]
[SCTR/NOSCTR ]
[SINCE/BEFORE ]
[SSI (hxdata) /SSI/NOSSI/PARTSSI (hxdata) ]
[SYSMOD (Partu) / USERDATA (Partu) ]
[TEST/NOTEST ]
[TRANS (Partt) ]
[TTR(Ltr:Htr) ]
[USERDATA (Partu) / SYSMODE (Partu) ]
[USERID (Puid) / NOUSERID/NOTUSERID (Puid) ]
[VSLKED/NOVSLKED ]
[ZAP (Partz) ]
```

Example MEMLIST mema:membl
Aliases ML, MEML, MEMLI, MEMLIS
Defaults memgroup, NORESET, LKEDDATE, SINCE
Required none

Data Set List

Syntax LISTC [name] [RESET] [PROMPT]
 LISTF [name] [RESET] [PROMPT]

Operands

name 1 to 6 alphanumeric characters; the LISTC/LISTF table to retrieve.
RESET Clear the LISTC/LISTF table before adding any new entries.
PROMPT Prompt for LISTC/LISTF operands even if a LISTC/LISTF table exists.

Example LISTC
Aliases LC, LF
Defaults none
Required none

LISTC/LISTF Primary Commands

Command	Short	Function
ALTERNAT	ALT	Displays an alternative view of the LISTC/LISTF table
APPLY	APP	Applies the specified line command to all table entries and executes each entry
COMPRESS	COMPR	Global command, changes to each data set in the table and issues a COMPRESS subcommand
DUAL	DUA	Displays a triple line view of the LISTC/LISTF table
EDITTBL	EDITT	Enters an edit session on LISTC/LISTF table data
ERASE	ER	Deletes the LISTC/LISTF table in memory and disk
EXPRESS	EXPR	Executes all entered line commands without pauses between individual commands
F	F	Finds a string and positions the display start location
FIND	FI	Global command, changes each table data set and issues a find subcommand
GLOBAL	GL	Global command, changes each data set in the table and issues a StarTool FDM subcommand
ID	ID	Changes the table ID name
LEFT	LE	Rotates through alternate views of the LISTC/LISTF table
LISTC	LISTC	Search for more data sets from a catalog source (after prompting)
LISTF	LISTF	Search for more data sets from a volume source (after prompting)
LOAD	LO	Loads data set names from operating system control blocks
LOCATE	L	Positions to a data line in sorted tables by searching the current sorted column for the specified data
MERGE	MER	Merges data from a saved LISTC/LISTF table into the current table
MODEL	MODEL	Global command, changes to each data set in the table and issues a MODEL
NORMAL	NOR	Displays the default view of the LISTC/LISTF table
NOSAVE	NOS	Specifies that the current LISTC/LISTF table should not be saved on disk
OPTIONS	O	Provides primary command selection for the LISTC/LISTF function and operand syntax assistance
OUTPUT	OUT	Outputs the LISTC/LISTF table to print or a data set
REFRESH	REF	Global command, updates information and status for all lines in the LISTC/LISTF table. Also corrects volume name entries for cataloged data sets
REMOVE	REM	Trims the LISTC/LISTF table based on a string match

REPLACE	REPL	Global command, changes to each data set in the table and issues a REPLACE subcommand
RESET	RESET	Often used with data set tagging, clears the DATA/MSG field in all table entries
RFIND	RF	Finds a string (repeat find) and positions the display start location
RIGHT	RI	Rotates through alternate views of LISTC/LISTF table
SAVE	SAVE	Creates a permanent table for use in a different StarTool FDM session
SEEK	SEEK	Global command, changes each data set in the table and looks for a member
SORT	SO	Sorts function tables into an alternate order. Sort with no operands sorts the table in default order, while SORT with a field name sorts the table in that order
TAG	TAG	Applies the specified line command to table entries marked with * TAG * in the DATA/MSG field and executes each entry
UT	UT	Selects the extended user command panel. Commands are maintained in these panels by the StarTool FDM developers as well as your installation
WHOHAS	WHO	Global command, issues a WHOHAS subcommand for each data set in the table
X	X	Clears the LISTC/LISTF table relative to the cursor position
XALL	XA	Clears the LISTC/LISTF table; equivalent to X ALL

LISTC/LISTF Line Commands

The following line commands are supported in the LISTC function.

Note: the DFHSM commands are supported from the UT panel.

Command	Function
+	Provide an extension panel for command entry
=	Repeat the previous line command
6	Change to the data set and MEMLIST all
A	Change to the data set and execute an alternate subcommand
ACAT	Catalog a non-VSAM data set using an alternate user catalog from the UT panel
AUNC	Uncatalogs a non-VSAM data set using an alternate user catalog from the UT panel
B	Change to the data set and MEMLIST all
C	Change to the data set
CAT	Catalog this data set
COPY	Change to the data set and invoke the copy subcommand
DEL	Delete this data set (normally after a confirmation prompt)
DUP	Change to the data set and invoke the DUP subcommand
E	Change to the data set and MEMLIST all
GO	Change to the data set using GO processing (a number is optional)
HBAC	HBACK DFHSM command to back up the data set
HBDE	HBDEL DFHSM command for the data set
HDEL	HDEL DFHSM command for the data set
HMIG	HMIG DFHSM command for the data set
HML2	HMIG DFHSM command for the data set to LEVEL 2
HREC	HRECALL DFHSM command for the data set
HSM	Prompt for various HSM actions on a data set
IDC	Perform an IDCAMS LISTC and direct output to the log
INFO	Display information on the data set in panel format; also update data set information
K	Kill and clear all following line commands

LC	Check the catalog entry for this data set and merge that entry into the LISTC/LISTF table (if different); also, update data set information
LOG	Copy the line into the log
M	Provide line command selection and entry assistance
ML	Change the data set and MEMLIST all
MOD	Change the data set MODEL
O	Provide line command selection and operand syntax assistance
PB	Change the data set and PBROWSE this data set
PE	Change the data set and PEDIT this data set
RACF	Provide entry assist panels for RACF commands: LISTDSD, ADDSD, PERMIT, ALTDSD, DELDSD, and SEARCH
REFR	Refresh and update information and status for this data set
REN	Rename this data set (after prompting)
S	Select line command (normally CHANGE, it is set by SETSEL)
SEEK	Change the data set and check for a member
SETA	Save a StarTool FDM subcommand for repeated use by the ALT line command
TAG	Mark this table entry with * TAG * in the DATA/MSG field
U	Change to the data set and display USAGE
UNC	Uncatalogs this data set (not allowed for SMS managed data sets)
UT	Select the extended user line command panel
VSAM	Invoke VSAM manipulation and information services
W	Add the data set name to the WORKPAD
WHO	Check for users of this data set with the WHOHAS subcommand
X	Drop the table line
XCOP	Change the data set and interface with extended copy
XMIT	Transmit the data set to another user
Z	Change to the data set and COMPRESS

LISTC/LISTF Block Line Commands

Block line commands are doubled letters that delimit a range of table entries for which the same action is to be performed. The following block commands are supported by the LISTC function.

Command	Function
==	= command, repeat the previous line command for the range of lines
AA	A command, change and execute an alternate subcommand for each line
BB	B command, change and MEMLIST all for each line
CC	C command, change data set for each line
DDEL	DEL command, delete each data set (normally after a confirmation prompt on each one)
EE	E command, change and MEMLIST all for each list
GG	GO command, change to each data set using GO processing
LL	LOG command, copy the range of lines into the log
MM	ML command, change and MEMLIST all for each line
OO	O command, provide line command assistance for each line
SS	S command, select each line in the range of table lines
SSEE	SEEK command, change to each data set and check for a member
UU	U command, change and display USAGE for each line
XX	X command, drop the range of table lines
ZZ	Z command, change and COMPRESS for each line

PEDIT Function

Syntax

PEDIT member

[REUSE/NOLOAD/BLOCK]
[COPYBOOK/CB]
[SELECT]
[VIEW]
[AUDIT]
[BACKUP] *
[FROMKEY(key) /] *
[FROMADDRESS (add) /] *
[FROMNUMBER (num)] *
[TOKEY(key)/] *
[TOADDRESS(add)] *
[TONUMBER(num)] *

* Supported for VSAM data sets only

Example PEDIT
Aliases PE, PED, PEDI
Abbreviations FKEY for FROMKEY, FADDR for FROMADDRESS,
FNUM for FROMNUMBER, TKEY for TOKEY,
TADDR for TOADDRESS, TNUM for TONUMBER.

Defaults none
Required none

Global FIND and REPLACE Command

Global commands in LISTA/DDNAME, LISTC/LISTF, and WORKPAD change each data set in the table and issue any StarTool FDM subcommand.

Syntax GLOBAL anysubcommand [anyoperands]

FIND global command in LISTA/DDNAME, LISTC/LISTF, and WORKPAD changes to each data set in the table and issues a FIND subcommand.

Note: in LISTC/LISTF tables, non-partitioned data sets are skipped; in other tables, you should not attempt to search mixed partitioned and non-partitioned data sets with a single FIND global command.

Syntax FIND memgroup 'anystring'
[NUM/SNUM/NONUM/LBLOCK/LDUMP/BLOCK/DUMP]
[CAPS/ASIS/IGNORE]
[WORD/PREFEX/SUFFIX]

REPLACE global command in LISTA/DDNAME, LISTC/LISTF, and WORKPAD changes each data set in the table and issues a REPLACE subcommand.

Note: in LISTC/LISTF tables, non-partitioned data sets are skipped; in other tables, you should not attempt to update mixed partitioned and non-partitioned data sets with a single REPLACE global command.

Syntax REPLACE memgroup 'fromstring' 'tostring'
[NUM/SNUM/NONUM/LBLOCK/LDUMP/BLOCK/DUMP]
[CAPS/ASIS/IGNORE]
[WORD/PREFEX/SUFFIX]
[WRITE/NOWRITE]

RESTORE Option

Syntax

RESTORE member

[COUNT(number)]
[DISPLAY/NODISPLAY]
[FIND('any string')]
[ASIS/IGNORE]
[LIKE(xyz)]
[MODULE(* / Fullm / Partm*)]
[PROMPT/NOPROMPT]
[REPEAT/NOREPEAT/MEMLIST]
[STATS/NOSTATS]
[TTR(start)]

Example RESTORE str memlist find('mydata')
Aliases RES, REST, RESTO, RESTOR
Defaults COUNT(5), DISPLAY, PROMPT, STATS, TTR(0)
Required none

FIX Option

Syntax

FIXPDS

[ORDER]
[EXPANDDIR (#add) / FREEDIR(#unused) / DIRFREE(perc) /]
INITDIR(rblks) / RESET (tblks) /]
* RESET [*CHECK/*NOCHECK]]
[*RELEASE / RELEXTENT / RELSAVE (trks) /]
RELFREE(perc) / MAXSPACE]
[ADDTRK (trka) / ADDCYL (cyla) / ADDFREE (perc)]
[*DSCB (offs, ver, rep)]
[NEWSNNAME(new.data.set.name)]
[*MODDSNNAME(data.set.to.modify) MODVOLUME(volume)]
[*TRK / * CYL / * BLK[*ROUND]]
[*SPACE(number)]
[*EXPDT(yyddd) / RETPD(nnnn)]
[*MGMTCLAS(mgmtclas)]
[*STORTCLAS(storclas)]
[ASM / CLIST / CNTL / LOAD / OBJECT]
[DSORG(PS/PSU / DA/DAU / PO/POU / IS/ISU / VS/VSU)]
[RECFM(F/FB/FA/FM/FBA/FBM/V/VB/VA/VM/VBA/VBM/U)]
[/UA/UM)]
[LRECL(L1)]
[*BLKSIZE(L2)]
[*OPTCD(W/WC/WCZ/C/CZ/Z) / *NOOPTCD]

* Supported for PDSE data sets.

Example FIXPDS release recfm(fba)
Aliases FIX, FIXP, FIXPD
Defaults NOCHECK, RECFM[previous value], LRECL[previous value],
BLKSIZE[previous value], OPTCD[previous value]
Required none

StarBat Option

Sample JCL to execute StarBat

```
//STARBAT1 JOB (JOB CARD PARAMETERS)
//STEPONE EXEC PGM=STARBAT, REGION=2048K
//STEPLIB DD DSN=STEPLIB, DATA.SET, DISP=SHR
//DD03 DD DSN=SAMPLE.INPUT.DATA.SET, DISP=SHR
//DD03O DD DSN=SAMPLE.OUTPUT.DATA.SET, DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSLIST DD SYSOUT=*
//SYSTOTAL DD SYSOUT=*
//SYSIN DD *
DD03
COPYALL=(1,0,C'PGM=PROGRAMF',C'PGM=STARBAT'),PRINTCHR=100
```

StarBat Functions

Function	Short	Description
COPYALL	CA	Copies all records of a data set
COPYMBR	CM	Copies members conditionally based on contents
COPYREC	CR	Copies data and reports records copied
COPYSOME	CS	Copies selected records but applies all changes like COPYALL
EXCLUDEREC	XR	Eliminates unwanted records in a copy
MULTICOPY	MC	Copies data to one or more output data sets
PRINT	P	Prints records in alphanumeric format with record statistics
PRINTALL	PA	Prints all records of a data set
PRINTCHR	PC	Prints records in alphanumeric format
PRINTCHRALL	PCA	Prints all records of a data set
PRINTCHRMBR	PCM	Prints members conditionally based on contents
PRINTHEX	PH	Prints records in vertical hexadecimal format
PRINTHEXALL	PHA	Prints all records of a data set
PRINTHEXMBR	PHM	Prints members conditionally based on contents
PRINTMBR	PM	Prints members in hex conditionally based on contents
SKIP	S	Moves the current record pointer forward
TOTAL	T	Reads input records processing all parameter groups for SUM
UPDATEALL	UA	Updates all records of a data set
UPDATEMBR	UM	Updates members conditionally based on contents
UPDATEREC	UR	Updates records in place
ABEND	AB	Alters default ABEND handling procedures
AND	IF	Creates a logical AND condition check (used with IF)
CHANGE	C	Changes the first occurrence of data in a record
CHANGEALL	CA	Changes all occurrences of data in a record
COPYOVER	CO	Controls the replacement of identically named output members
EXCLUDEREC	XR	Controls the maximum records eliminated by an EXCLUDEREC function
EXPAND	EX	Expands records at a specified location
IF	AND	Selects records to process based on data contents
MAXRECIN	MRI	Controls the number of records to input
MAXRECOUT	MRO	Controls the maximum number of records to output

MEMBER	M	Specifies a member name to process in a PDS
MEMBERS	MS	Specifies a group of members to process in a PDS with a mask
MOVE	MV	Build output records by moving data into them
NEWMBR	NM	Names a new member of an output PDS
NEWMBRS	NMS	Names multiple members of an output PDS using a mask
OPTIONS	OP	Controls STARBAT processing options
OR	(none)	Creates logical OR condition check (used with IF)
OVERALL	OA	Replaces all occurrences of data in a record with other data
OVERLAY	OL	Replaces the first occurrence of data in a record with other data
PADCHAR	PAD	Specifies a padding character for uninitialized parts of a record
PRINT	P	Prints records in alphanumeric format with record statistics
PRINTCHR	PC	Prints records in alphanumeric format
PRINTHEX	PH	Prints records in vertical hexadecimal format
PRINTLPI	PL	Specifies the number of lines per inch for print output pages
RBA	(none)	Processes VSAM data beginning at a relative byte address
RDW	(none)	Controls the inclusion of the record descriptor word
SELECT	S	Selects every nth occurrence of a record
STARTKEY	SK	Processes VSAM data beginning with a generic key
STOPIF	ST	Terminates a function when a given condition is found
SUM	(none)	Accumulates the contents of specified fields
WRITE	w	Writes a record to one or more output files

IDCAMS Utilities

Syntax IDCAMS command operands

Example IDCAMS listcat entry(userid.vsam.ix.cluster) all

Aliases ID, IDC, IDCA, IDCAM

Defaults none

Required IDCAMS command and operands; if no IDCAMS command is entered in ISPF mode, an IDCAMS prompting sequence is initiated.