z/OS Introduction and Workshop

Commands
Unit Objectives

After completing this unit, you should be able to:

• Describe MVS commands
• Locate MVS commands manual
• Get online assistance interpreting MVS command output
• Describe JES2 commands
• Locate JES2 commands manual
• Get online assistance interpreting JES2 command output
• List facilities available to enter MVS and JES2 commands
MVS Commands - Summary

ACTIVATE
CANCEL (C)
CHNGDUMP (CD)
CMDS
CONFIG (CF)
CONTROL (K)
DEVserv (DS)
DISPLAY (D)
DUMP
DUMPDS (DD)
FORCE
HALT (Z)
IOACTION (IO)
LIBRARY (LI)
LOG (L)
LOGOFF
LOGON

MODE
MODIFY (F)
MONITOR (MN)
MOUNT (M)
MSGRT (MR)
PAGEADD (PA)
PAGEDEL (PD)
QUIESCE
REPLY (R)
RESET (E)
ROUTE (RO)
SEND (SE)

SET (T)
SETAPPc
SETCEE
SETCON
SETDMN
SETETR
SETGRS
SEtios
SEtLOAD
SEtLOGR
SEtLOGRC
SEtOMvs
SEtPROG
SEtRRs CANCEL
SEtSMF (SS)
SEtSMS
SEtSSII
SEtUNI
SEtXCF

SLIP (SL)
START (S)
STOP (P)
STOPMN (PM)
STOPTR
SWAP (G)
SWITCH (I)
TRACE
TRACK
UNLOAD (U)
VARY (V)
WRITELOG (W)

red – frequent
green – less frequent
black – least frequent
Use the CANCEL command to end an active job, started task, or time-sharing user immediately. The table that follows summarizes the tasks that the CANCEL command can perform. Following the table are usage notes, the complete command syntax, definition of parameters, and examples of use.

If the program that supports the job or started task was designed to recognize the STOP command, use the STOP command before using the CANCEL command. If the CANCEL command fails several times, consider using the FORCE command.
MVS Commands - CANCEL

CANCEL jobname
- a job in execution
- a started task

CANCEL U=userid
- a time-sharing user

CANCEL identifier
- a started task
- a MOUNT command
- an external writer allocation
- the output processing for a job
- a z/OS UNIX process
Use the DISPLAY system command to display information about the operating system, the jobs and application programs that are running, the processor, devices that are online and offline, central storage, workload management service policy status, and the time of day.

The display command is has a large number of variations. We will cover only the most commonly used variations.
MVS Commands - Display System Activity

D A,L    Display active tasks excluding BCP components
D A,taskname    Display detailed information about a specific active task
D A,ALL    Display all active tasks including BCP components
D J,jobname    Display detailed information about a specific batch job
D TS,L    Display TSO users
D TS,username    Display information about a specific TSO user
D TS,ALL    Display detailed information about all TSO users
MVS Commands - Display System Library Information

- **D PARMLIB**  Display system libraries searched for system parameters
- **D PROG,LNKLST**  Display system libraries searched for executable programs
- **D PROG,APF**  Display system libraries authorized for restricted program execution
MVS Commands - Display system hardware configuration

D ASM
D IPLINFO
D IOS,CONFIG(ALL)
D M
D M=CPU
D M=STOR
D M=DEV(#)
D M=CHP(#)

Display auxiliary storage – page data set information
Display system initial program load information
Display I/O Configuration information
Display machine, memory, channel and device information
Display machine type information
Display memory storage information
Display detailed device information
Display detailed channel information
MVS Commands - Display Unix System Service information

D OMVS,A=ALL   Display all Unix System Services Processes
D OMVS,O       Display Unix System Services Options/Parameter Settings
D OMVS,LIMITS  Display Unix System Services Thresholds
D OMVS,F       Display Unix System Services Mounted Filesystems
MVS Commands - Display disk storage information

DEVserv QD,TYPE=ALL  Display information about all DASD devices
D U,,#,1  Display detailed information about a specific DASD unit address
D U,,ALLOC  Display user allocations against DASD devices
D U,VOL=volser  Display DASD unit address of a specific volume serial label
MVS Commands - Display Communications Server resources

D TCPIP,,NETSTAT,HOME
D TCPIP,,NETSTAT,DEVICE
D TCPIP,,NETSTAT,BYTE

D NET,APPLS
D NET,MAJNODES
D NET,TRL
D NET,STATIONS
D NET,PENDING

VTAM (SNA)
MVS Commands - Display miscellaneous

D R,L  Display outstanding system requests for operator responses
D T    Display system time
D C,K  Display useful operator console commands
D IKJTSO,ALL  Display TSO/E parameter settings
D OPDATA    Display subsystem command recognition characters
D SYMBOLS    Display system static symbolics
D SMF    Display system management facility information
D SSI    Display subsystem information
D WLM,APPLENV=*  Display workload manager application environment status
Modify can be executed against many system environments:

- Jobnames & Started Tasks
- TSO
  
  `F TCAS,USERMAX=#`
- Unix System Services
- Catalog Address Space (CAS)
  `F CATALOG,OPEN`
MVS Commands - VARY (V)

VARY can alter the status of specific resources owned by the operating system or optional system tasks.

- Disk storage devices can be varied online/offline
- System Consoles can be varied online/offline
- System Manage Storage (SMS) resources
- Communication Server (TCPIP & VTAM) resources
- Any channel path or device in I/O configuration can be altered
- Workload Manager (WLM) resources
- Parallel Sysplex defined resources
You can use the REPLY command to respond to system requests. To review outstanding requests before replying, issue DISPLAY R.

```
R id,text
```

– where id is the message id number and text is an operator choice of valid responses to the outstanding request.

– look up message issuing the request for reply in LookAt when uncertain about response text syntax and consequences.

```
SDSF SYSLOG  4346.102 SOW1 SOW1 04/27/2007 0W 1965  COLUMNS 51 130
COMMAND INPUT ===>
SCROLL ===> CSR
090 RS IEA793A NO DUMP DATA SETS AVAILABLE FOR DUMPID=001 BY JOB (*MASTER*).
  USE THE DUMPDS COMMAND OR REPLY D TO DELETE THE DUMP
090 R 6,D
090 IEE6001 REPLY TO 06 IS;D
```
MVS Commands - START (S) and STOP (P)

Use the START (S) command to start started tasks, which support system functions such as IMS, CICS, and RACF. Started tasks are defined in cataloged procedures (residing in procedure libraries or through jobs residing in a partitioned data set defined in master JCL).

Use the STOP (P) command to stop system functions and jobs in execution.
JES2 Job Entry Subsystem

The most critical z/OS subsystem.

Highly customizable environment with extensive parameter options.

JES is required to start VTAM, TCPIP, TSO, Batch Jobs, all other major subsystems (DB2, CICS, etc.)

z/OS JES2 Commands SA32-0990-02
$A Release held jobs
$ADD dynamically add JES resources
$B Backup device output
$C Cancel job and other JES resources
$D Display JES resources
$DEL dynamically delete JES resources
$E Reset/Restart JES resources
$F Forward device output
$G Modify resource in remote JES environment
$H Hold JES jobs
$I Interrupt a JES controlled resource
$JDDETAILS  Display details summary of jobs
$JDHISTORY  Display history of JES2 resource usage
$JDMONITOR  Display current status of JES2 monitor subtasks
$JDSTATUS   Display current status
$JSTOP      Terminate monitor address space
$L  List job output information
$M  Send command to other tight coupled JES systems
$N  Send commands through network to remotely connected JES
$O  Release or cancel held output groups
$P  Stop or Purge any further processing of JES2 controlled resource
$R  Route JES job output
JES2 Commands – Summary…page 4 of 4

$T       Alter JES2 controlled parameters, rules and resources
$VS      Enter MVS system commands through JES2
$Z       Halt JES2 resource activity
$ZAPJOB  Remove job structure from job queue

$VS,'S BACKUP'

$ T A0001,I=43200,$VS,"S BACKUP"

$ T A0002,I=43200,$POJOBQ,ALL,PROTECTED,DAYS>1'
JES2 Commands – Common Commands

$D SPL     Display JES2 spool information
$D A       Display JES2 active jobs
$D I       Display JES2 job initiator information
$T A,ALL   Display information about all active JES2 automatic commands
JES2 Commands – Managing the JES Spool

$D SPL
$JDDETAILS
$P S1-9999,PROTECTED
$P T1-9999
$D JOBQ,SPL=(PERCENT>5)
$D JQ,DAYS>5
$P OJOBQ,ALL,PROTECTED,DAYS>5
$T A,ALL
$D ESTLNCT
$T ESTLNCT,OPT=1

Display JES2 spool information
Display JES2 limit details
Purge all Started Task output
Purge all TSO output
Display job output using more than 5%
Display jobs in the spool longer than 5 days
Purge all job output older than 5 days
Display all automated JES commands
Display estimated line count
Modify estimated line count to enforce line limit

Note:
Inability to read or write to JES spool will result in everything waiting
When a JES2 limit is exhausted, everything will wait
MVS & JES2 Command Input Sources

1) System Console Facility
   HMC or Support Element

2) SDSF Console Facility – using / prefix

3) TSO Console Facility – oper command

4) JCL command statement
   // COMMAND ‘mvs_command’

5) JCL JES command statement
   /*$jes2_command
      /*$VS,’mvs_command’

6) FTP
   quote site filetype=jes
   put ‘a file containing /*$ or /*$VS command syntax’
Subsystems such as JES, RACF, DB2, WebSphere MQSeries have system programmer assigned command recognition characters used to prefix subsystem commands. This assigned prefix instructs z/OS which subsystem is to be passed the command.

Several methods for determining assigned subsystem command prefix
D OPDATA (will provide DB2, JES2 and WebSphere MQSeries info)
Search for all occurrences of IEE252I in SYSLOG
‘MEMBER IEFSSN## FOUND IN ‘system parameter library name’
Inspect each IEFSSN## entry for subsystem command recognition prefix
z/OS and JES Command Manuals

z/OS MVS Commands

JES2 Commands

hyperlinks
Unit Summary

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✓ Locate MVS commands manual
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