

OS/VS2 MVS JES2 Quick Reference

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Note: This is a subset of the JES2 command set. I have only included the commands that should be most frequently used with (Hercules) MVS 3.8j. I have also excluded from the command syntax operands dealing with RJE and multi-system, shared spool environments.

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JES2 Command Format

JES2 commands can be entered in uppercase or lowercase. Lowercase letters are converted to uppercase and blanks are eliminated unless enclosed by apostrophes. Therefore, when a lowercase response is required, you must enclose the text in apostrophes. Also, when an apostrophe appears in the text of a command and the text is enclosed in apostrophes, you must enter two apostrophes in the text.

Starting JES2

At IPL the system will automatically start JES2. You will receive the following message:

```
* id $HASP426 SPECIFY OPTIONS - HASP-II, VERSION JES2 4.1
```

The following is a list of valid JES2 options and their definitions:

<p>{ <u>NOFMT</u> }</p> <p>{ <u>FORMAT</u> }</p>	<p>No spool volume is to be formatted unless JES2 determines that formatting is necessary.</p> <p>All spool volumes are to be formatted.</p>
<p>{ <u>WARM</u> }</p> <p>{ <u>COLD</u> }</p>	<p>JES2 is to continue processing where it left off.</p> <p>All job data on the spool volumes is to be ignored.</p>
<p>{ <u>REQ</u> }</p> <p>{ <u>NOREQ</u> }</p>	<p>JES2 is to stop and request a \$S command before beginning job processing.</p> <p>JES2 is to begin job processing when ready to do so.</p>
<p>{ <u>LIST</u> }</p> <p>{ <u>NOLIST</u> }</p>	<p>JES2 is to list, on a designated printer, any error flags, replacement cards, and initialization parameters.</p> <p>JES2 is not to list error flags, replacement cards, or initialization parameters.</p>
<p>{ <u>HASPPARM = ddname</u> }</p> <p>{ <u>HASPPARM</u> }</p>	<p>The JES2 initialization parameters contained in the specified library are to be used.</p> <p>The HASPPARM library is the default if no other library is specified.</p>

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$\left\{ \begin{array}{c} \underline{LOG} \\ NOLOG \end{array} \right\}$	JES2 is to allow logging (on the system log) of any initialization parameter statements which follow a LOG statement. JES2 is not to honor the LOG initialization parameter statement.
$\left\{ \begin{array}{c} \underline{NONE} \\ U \end{array} \right\}$	All default (<u>underlined</u>) options are taken.

Stopping JES2

Before stopping the system, you should stop all JES2 processing by entering the \$P command.

\$P

System initiators, printers, and punches will not accept any new work and will become inactive after completing their current activity. However, new jobs will be accepted through input devices.

Withdrawing JES2 from the System

Use the \$P command to withdraw JES2 from the system to which the entering console is attached.

\$P JES2

JES2 will be removed from the system. JES2 can be returned to the system by a START command which invokes a procedure from SYS1.PROCLIB that contains the JCL necessary to start JES2:

S JES2

Starting the Reader

Use the \$S command to start a system input reader.

\$S RDR1

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Canceling Reader Activity

Use the \$C command to cancel current reader activity

\$C RDR1

The job currently being read is to be flushed and the reader is to continue reading when it encounters the next valid job card.

Halting a Reader

Use the \$Z command to temporarily halt reader activity.

\$Z RDR1

Reader activity will stop immediately and will resume at the same point when a subsequent \$S RDR1 command is issued.

Stopping a Reader

Use the \$P command to stop a reader.

\$P RDR1

The specified device will be drained, and the associated system resources will be freed, after the current job is read.

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Assigning Command Authority for a Reader

Use the \$T command to specify the command authority of a reader. A reader may not be used to set the command authority for any local reader device.

$$\$T \left\{ \begin{array}{l} \mathbf{RDRn} \\ \mathbf{RDI} \end{array} \right\}, \mathbf{A} = \mathbf{n}$$

RDRn	The local reader to be assigned the specified authority.
RDI	All internal readers are to be assigned the specified authority.
A=n	The command authority for the specified reader. That is, the JES2 command groups that the reader is authorized to enter. 0 - display only 1 - system control 2 - device control 3 - system and device control 4 - job control 5 - system and job control 6 - device and job control 7 - system, device, and job control

Assigning Job and Message Classes to a Reader

Use the \$T command to set the default job and message classes to be assigned to jobs being processed by a reader.

$$\$T \left\{ \begin{array}{l} \mathbf{RDRn} \\ \mathbf{RDI} \end{array} \right\}, \mathbf{C} = \mathbf{class}, \mathbf{Q} = \mathbf{class}$$

RDRn	The local reader to be assigned the default job and/or message class.
RDI	All internal readers are to be assigned the default job class (Q = class is invalid with this operand).
C = class	The one character job execution class, A-Z or 0-9, to be assigned to jobs submitted through the specified reader which do not specify a job execution class.
Q = class	The one-character message output class, A-Z or 0-9, to be assigned to jobs submitted through the specified reader which do not specify

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message output class.

Starting an Initiator

Use the \$S command to start initiators.

\$S I [n [-n]]

Displaying Initiator Information

Use the \$D command to display the status of an initiator and the job classes assigned to it.

\$D I [n [-n]]

If the initiator identifier number (n) is not specified, information about all initiators is displayed.

Assigning Initiator Job Classes

Use the \$T command to assign the job classes an initiator is to process.

\$T I [n [-n]] , classes

If the initiator identification number (n) is not specified, all initiators will be assigned the indicated job class.

classes The job class or list of job classes, in priority sequence, the initiator is to process. The maximum number of classes that can be specified is determined by a parameter in SYS1.PARMLIB(JES2PM00).

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Stopping an Initiator

You can use either the \$P command to stop initiators or the \$Z command to halt initiators. \$P will cause the specified initiators to terminate and free the associated system resources. \$Z causes the initiators to halt processing but remain in the system. Use \$Z when you want to suspend processing for a short period of time.

\$P I [n [-n]]

If the specified initiator is currently processing, it will be stopped at the completion of the job. If the initiator identifier (n) is not specified, all initiators will be stopped after completing their current activity.

\$Z I [n [-n]]

The initiator(s) to be halted after completing their current activity. If the initiator identifier (n) is not specified, all initiators will be halted.

Starting a Printer

Use the \$S command to start a printer.

\$S PRTn [, PRTn] ...

PRTn The local printer to be started

Restarting Printer Activity

Use the \$E command to discontinue the current printing of a data set group. The data set group is returned to the appropriate print queue, according to its job priority, for later processing.

\$E PRTn [, PRTn] ...

PRTn The local printer to be restarted. The current activity on the specified printer is to be stopped and the output is to be returned to the output queue. When the output is again selected for processing, printing will

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resume at the beginning of the data set group.

Setting Printer Characteristics

If you are uncertain of the controls in effect, enter the \$DU command for the printer in question. You can use the \$T command to:

- Specify printer characteristics at JES2 initialization, when they deviate from the system default.
- Override a system request for a setup you are unable to fulfill.

The setting of forms, trains, and carriage controls is valid only when the specified device is inactive, pausing, or awaiting operator action.

Note: You should either issue a \$P PRTn command and wait for the device to drain before entering the \$T command or issue the \$T command while the system is waiting for forms to be loaded. Because no setup message is issued for a printer that does not require operator intervention to change the carriage control, the requested image cannot be overridden unless there is an error.

\$T PRTn [, C = id] [, T = id] [, F = form] [, F = AUTOM]

PRTn	The local printer for which you are establishing characteristics.
C = id	The identifier (id) - 1-4 alphameric characters - for the carriage tape for a printer without a forms control buffer (FCB) feature, or the FCB image for a printer having the FCB feature. If an FCB image is specified, it must be available in SYS1.IMAGELIB.
T=id	For impact printers, the 1-4 alphameric character train identifier, available in SYS1.IMAGELIB, for the train to be used in the specified printer. The indicated printer must have the UCS feature.
F = form	The form identifier, 1-4 alphameric characters, for the forms that are currently in the printer. The printer is to be put in operator-controlled mode.
F=AUTOM	The specified printer is to be put in automatic mode.

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Setting Printer Options

Use the \$T command to specify printer options, such as double spacing, separator pages, and pausing between data sets.

$$\$T \text{ PRTn } \left[, \text{P} = \begin{Bmatrix} \text{Y} \\ \text{N} \end{Bmatrix} \right] \left[, \text{P} = \begin{Bmatrix} \mathbf{1} \\ \mathbf{2} \\ \mathbf{3} \\ \mathbf{R} \end{Bmatrix} \right] \left[, \text{S} = \begin{Bmatrix} \text{Y} \\ \text{N} \end{Bmatrix} \right]$$

- PRTn The local printer to be affected.
- P=Y The specified local printer is to pause between data sets. The device can be restarted by changing it from a not-ready to a ready state or by entering a \$S command to the device.
- P=N The specified local printer will not pause between data sets.
- K = 1,2, or 3 The specified printer is to be single, double, or triple spaced, regardless of the problem program specifications. When the end of the data set is encountered or when a \$T PRTn,K=R command is entered, the printer will revert to problem program specifications.
- K=R The specified printer is to be reset to the problem program specified spacing.
- S=Y Separator pages are to be placed between data set groups.
- S=N No separator pages are to be placed between data set groups.

Assigning Printer Output Classes

Use the \$T command to assign the output classes a printer is to process.

\$T PRTn, Q = classes

- PRTn The local printer to process the specified classes.
- Q = classes The output classes, specified in priority sequence, the printer is to process. The maximum number of classes that can be specified is determined by a parameter in SYS1.PARMLIB(JES2PM00).

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Repeating Printer Output

Use the \$N command to repeat the printing of job output.

\$N PRTn [, PRTn] ...

PRTn The local device currently printing the output to be repeated. For SYSOUT data sets, use of the \$N command does not result in a new physical copy of the data set to be printed; only a copy-count field is incremented. Therefore, if a spin data set is intentionally or unintentionally canceled or deleted, all further copies are lost.

Previously issued \$N commands for spin data sets are lost during warmstart. When you want to print several copies of an output data set group, wait for the PRINTER REPEATED message to appear between the scheduling of each reprint.

Interrupting Printer Activity

Use the \$I command to interrupt the printing of a data set group.

\$I PRTn [, PRTn] ...

PRTn The local printer to be interrupted. The current activity on the specified printer is terminated and the output is returned to the output queue.

When the data set is again selected for processing, the printer will backspace one or more pages and resume printing. A page is defined as:

- The last page eject (skip to channel) supplied by JES2 (&LINECT value) when the programmer did not supply any page ejects (skip to channel commands). The &LINECT value (system default page value) is specified at JES2 initialization.
- The entire data set, if the programmer supplied LINECT = 0 on the JOBPARM card or in the accounting field on the JOB card.
- The last page eject (skip to any channel) supplied by the programmer, if that eject is not further back than the value of the LINECT parameter specified by the programmer on the JOB or JOBPARM card or the &LINECT value specified at JES2 initialization.

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Backspacing a Printer

Use the \$B command to backspace printer output a number of pages or to the beginning of the data set.

$$\$B \text{ PRTn } \left[, \left\{ \begin{array}{c} n \\ D \end{array} \right\} \right] \left[, \text{ PRTn } \left[, \left\{ \begin{array}{c} n \\ D \end{array} \right\} \right] \right] \dots$$

- PRTn The local device printing the output to be backspaced.
- n The number (1-9999) of pages the output is to be backspaced. This operand is optional only for the last printer specified. If it is omitted, one page is assumed. (See "Interrupting Printer Activity" earlier in this chapter for a definition of a page.)
- D The specified printer is to be backspaced to the beginning of the data set.

Forward-spacing a Printer

Use the \$F command to forward-space printer output a number of pages or to the end of the data set.

$$\$F \text{ PRTn } \left[, \left\{ \begin{array}{c} n \\ D \end{array} \right\} \right] \left[, \text{ PRTn } \left[, \left\{ \begin{array}{c} n \\ D \end{array} \right\} \right] \right] \dots$$

- PRTn The local device printing the output to be forward-spaced.
- N The number (1-9999) of pages the output is to be forward-spaced. This operand is optional only for the last printer specified. If it is omitted, one page is assumed. (See "Interrupting Printer Activity" earlier in this chapter for a definition of a page.)
- D The specified printer is to be forward-spaced to the end of the data set.

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Canceling Printer Output

Use the \$C command to cancel the output currently being printed.

\$C PRTn [, PRTn] ...

PRTn The local device currently printing the output to be canceled.

Note: If the \$C command is used following a \$N command and the data set to be repeated has the FREE=CLOSE attribute, all copies of the data set will be lost.

Halting Printer Activity

Use the \$Z command to temporarily halt printer activity.

\$Z PRTn [, PRTn] ...

PRTn The local printer to be halted.

Stopping a Printer

Use the \$P command to prevent a printer from selecting additional work after it completes the output it is currently processing.

\$P PRTn [, PRTn] ...

PRTn The local printer to be stopped, with a freeing of associated system resources, after completion of the current output.

Starting a Punch

Use the \$S command to start a punch.

\$S PUNn [, PUNn] ...

PUNn The local punch to be started

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Restarting Punch Activity

Use the \$E command to discontinue the current punching of a data set group. The data set group is returned to the appropriate punch queue, according to its job priority, for later processing.

\$E PUNn [, PUNn] ...

PUNn The local punch to be restarted. The current activity on the specified punch is to be stopped and the output is to be returned to the output queue. When the output is again selected for processing, punching will resume at the beginning of the data set group.

Setting Punch Characteristics

If you are uncertain of the controls in effect, enter the \$DU command for the punch in question.

Use the \$T command to identify the forms a punch is using and to control the punching of job identification cards.

Note: *This command is valid only when the specified device is inactive.* You should enter a \$P PUNn command for the device and wait for it to become inactive before entering the \$T command.

\$T PUNn [, P = { Y }] [, S = { Y }] [, F = form] [, F = AUTOM]

PUNn The local punch for which you are establishing controls.

P=Y The specified local punch is to pause between data set groups. The device can be restarted by changing it from a non-ready state to a ready state or by entering a \$S command to the device.

P=N The specified local punch should not pause between data sets.

S=Y The system is to provide identification cards between data set groups.

S=N Identification cards are not to be provided between data set groups.

F = form The form identifier, 1-4 alphameric characters, for the forms currently in the punch. The specified punch is to be put in operator-controlled mode.

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F=AUTOM The punch is to be put in automatic mode.

Interrupting Punch Activity

Use the \$I command to interrupt the punching of a data set group.

\$I PUNn [, PUNn] ...

PUNn The local punch to be interrupted. The current activity on the specified punch is terminated and the output is returned to the output queue.

When the data set is again selected for processing, the punch will resume at the last JES2 checkpoint.

Backspacing a Punch

Use the \$B command to backspace the current punching of a data set group.

\$B PUNn [, { n }] [, PUNn [, { n }]] ...

PUNn The local punch to be backspaced.

n The number (1-9999) of cards the output is to be backspaced. This operand is optional only for the last punch specified. If it is omitted, one card page is assumed.

D The specified punch is to be backspaced to the beginning of the data set.

Forward-spacing a Punch

Use the \$F command to forward-space the current punching of a data set group.

\$F PUNn [, { n }] [, PUNn [, { n }]] ...

PUNn The local punch to be forward-spaced.

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- n The number (1-9999) of cards the output is to be forward-spaced. This operand is optional only for the last punch specified. If it is omitted, one card is assumed.
- D The specified punch is to be forward-spaced to the end of the data set.

Canceling Punch Output

Use the \$C command to cancel the output currently being punched.

\$C PUNn [, PUNn] ...

- PUNn The local device currently punching the output to be canceled.

Halting Punch Activity

Use the \$Z command to temporarily halt punch activity.

\$Z PUNn [, PUNn] ...

- PUNn The local punch to be halted.

Stopping a Punch

Use the \$P command to prevent a punch from selecting additional work after it completes the output it is currently processing.

\$P PUNn [, PUNn] ...

- PUNn The local punch to be stopped, with a freeing of associated system resources, after completion of the current output.

Displaying the Status of JES2 Controlled Devices

Use the \$D command to display the status of JES2-controlled non-direct access devices. This command allows you to display either the status of all devices or detailed information about specific devices. The detailed information consists of:

- Status.

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- Job name, if the device is processing.
- Job number, if the device is processing.
- Job or output class assigned to the device.
- Setup characteristics, if applicable.

$$\$D U \left[\left\{ \begin{array}{l} \text{ALL} \\ \text{PRTS} \\ \text{PUNS} \\ \text{RDRS} \\ \text{RDI} \\ \text{device} \end{array} \right\} \right] \left[\left\{ \begin{array}{l} \text{SHORT} \\ \text{SH} \\ \text{ACTIVE} \\ \text{ACT} \\ \text{STARTED} \\ \text{STAR} \end{array} \right\} \right]$$

- U** When used with no device operands, specifies the status of all, or those specified, local JES2-controlled devices is to be displayed.
- ALL** The system is to display detailed information about all local JES2-controlled devices and internal readers.
- PRTS** The system is to display detailed information about all local printers.
- PUNS** The system is to display detailed information about all local punches.
- RDRS** The system is to display detailed information about all local readers.
- RDI** The system is to display detailed information about all internal readers.
- device** The system is to display detailed information about the specified device. You can specify any combination of the following devices:

<u>Device</u>	<u>Definition</u>
PRTn	a local printer
PUNn	a local punch
RDRn	a local reader

The following modifier operands may be used in conjunction with any other operand. Because the modifier operands have the effect of limiting the scope of information displayed (for example, only active device information is displayed if ACTIVE is specified), they may be used in any combination. For example, if you wanted only the short form of information displayed about devices that were started and active, all three modifier operands would be specified.

- SHORT** or **SH** The system is to display limited status information (device name, unit assignment, and status) for devices (as specified by the device operands).
- ACTIVE** The system is to display the status of devices currently performing

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or ACT work.

STARTED or STAR The system is to display information only for started devices (as specified by the device operands).

Setting the JES2 Internal Job Numbers

Use the \$T command to set or reset the base JES2 job numbers.

$$\$T \left\{ \begin{array}{l} \mathbf{Jn} \\ \mathbf{Sn} \\ \mathbf{Tn} \end{array} \right\}$$

Jn The base number, from 1 to 9999, for automatic batch job number assignment.

Sn The base number, from 1 to 9999, for automatic system task number assignment.

Tn The base number, from 1 to 9999, for automatic time sharing user number assignment.

The next job assigned a job number will be assigned the n value unless there is currently a job in the system with that value. If there is a job in the system with a job number of n, the new job will be assigned the first number beyond n that is not assigned.

Holding All Jobs

Use the \$H command to hold all jobs currently in a system.

$$\$H A$$

A All jobs currently in the system will be placed in hold status. These jobs can be released by a \$A command. Any new jobs read into the system after this command is entered will not be held.

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Releasing All Jobs

Use the \$A command to release all jobs in the system. The \$A command only releases jobs which were held by a \$H A command.

\$A A

A All jobs held by the \$H A command will be allowed to process.

Holding Job Queues

Use the \$H command to keep jobs in specified job queues or all job queues from being executed.

\$H Q [, classes]

Q All job queues or the specified job queues are to be held. While jobs currently in the system and those jobs entering the system are not considered held, they will not be processed until the job queue is released.

classes The one-character job class (A-Z or 0-9) for each job queue to be held.

Releasing Job Queues

Use the \$A command to release job queues held by a \$H Q command.

\$A Q [, classes]

Q All job queues or the specified job queues are to be released and all jobs in that queue will be allowed to process.

Classes The one-character job class (A-Z or 0-9) for each job queue to be released.

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Displaying Job Queue Information

Use the \$D command to display the following job information:

- Job number.
- Job name.
- Job status.
- Job class.
- Job priority.
- Percentage of spool disk utilization.

$$\$D N \left[, Q = \left\{ \begin{array}{l} \mathbf{XEQ} \left[\left\{ \mathbf{class} \left\{ \begin{array}{l} \mathbf{STC} \\ \$ \end{array} \right\} \left\{ \begin{array}{l} \mathbf{TSU} \\ @ \end{array} \right\} * \right\} \right] \\ \mathbf{OUT} \\ \mathbf{PPU} \\ \mathbf{HOLD} \end{array} \right\} \right]$$

N The system is to display the above job information.

Q=XEQ The above information is to be displayed for jobs waiting for execution and/or conversion.

class Specifies the class ,of execution (A-Z or 0-9) for which the display is desired.

STC or \$ STC specifies the display is for system tasks being prepared for execution; this operand can be abbreviated \$.

TSU or @ TSU specifies the display is for time sharing users waiting for execution; this operand can be abbreviated @.

* Specifies the display is for jobs waiting for conversion.

Q=OUT The above job information is to be displayed for all jobs waiting for output processing.

Q=PPU The above information is to be displayed for jobs waiting for print/punch processing. When job status is displayed for a job awaiting print/punch processing, only the default print and punch routings are listed. This does not necessarily mean the job has any output data sets awaiting print and/or punch for the default destination; there may be one or more specially routed data sets awaiting output. The \$DN

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display does not provide this type of job output information.
Q=HOLD The above information is to be displayed for jobs waiting for any activity and in hold status.

Note: *\$D N* is a command whose first two operands are positional in nature. That is, they must be entered in the indicated order.

If only *\$DN* is entered, you will get job information for all jobs. The job information will be displayed for jobs in the following categories:

- All jobs queued for conversion.
- All jobs queued for execution (every class and STCs and TSUs as well).
- All jobs queued for the output processor.
- All jobs queued for print/pooch.

Displaying the Number of Jobs Queued

Use the *\$D* command to display the number of jobs in a particular queue and the percent of spool disk utilization.

$$\$D \ Q \left[, \ Q = \left\{ \begin{array}{l} \mathbf{XEQ} \left[\left\{ \mathbf{class} \left\{ \begin{array}{l} \mathbf{STC} \\ \$ \end{array} \right\} \left\{ \begin{array}{l} \mathbf{TSU} \\ @ \end{array} \right\} * \right\} \right] \\ \mathbf{OUT} \\ \mathbf{PPU} \\ \mathbf{HOLD} \end{array} \right\} \right]$$

Q The system is to display the number of jobs on the specified job queue.

Q=XEQ The number of jobs waiting execution is to be displayed.

class The class of execution (A-Z and 0-9) that is to be displayed.

STC or \$ STC specifies the number of system tasks queued for execution is to be displayed; this operand can be abbreviated \$.

TSU or @ TSU specifies the number of time sharing users queued for execution is to be displayed; this operand can be abbreviated @.

***** The number of jobs queued for conversion is to be displayed.

Q=OUT The number of jobs waiting output processing is to be displayed.

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Q=PPU The number of jobs waiting print/punch is to be displayed.
 Q=HOLD The above information is to be displayed for jobs waiting for any activity and in the hold status.

The operands of the \$DQ command are sensitive to order but not to position. When an operand is omitted, its position is not held by a comma as is traditional with positional operands; operands chosen appear in the order of their definition in the command prototype, separated by commas.

Displaying the Job Output Forms Queue

Use the \$D command to display the following information about data set groups queued for output:

- Forms required.
- Carriage required.
- Train required.
- Number of jobs queued for each output class.

$$\$D F \left[, J = \left\{ \begin{array}{l} Jn [-n] \\ Sn [-n] \\ Tn [-n] \end{array} \right\} \right] \left[, D = \left\{ \begin{array}{l} H \\ A \end{array} \right\} \right]$$

F The system is to display the number of data sets queued for output.

J=Jn[-n] The jobs for which job output information is to be displayed. You can specify a single job number, such as J3, or a range of jobs, such as J4-17. However, the second value must be equal to or greater than the first.

J=Sn[-n] The system task or range of system tasks for which the output information is to be displayed.

J=Tn[-n] The time sharing user or range of time sharing users for which output information is to be displayed.

D=H Job information for jobs in hold status is to be displayed.

D=A Job output information for jobs both in hold and release status is to be displayed.

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If H and A are both omitted, job output information for jobs in release status only will be displayed.

Displaying Information about Currently Active Jobs

Use the \$DA command to display information about:

- Active batch jobs.
- Active system tasks.
- Active time-sharing users.
- Jobs being processed on unit record devices.

\$D A [, JOB] [, STC] [, TSU] [, XEQ] [, DEV]

A	The system is to display the job number, name, status, class, priority, and active system name for each type of job requested, active in the JES2 process requested.
JOB	The system is to display the above information for active batch jobs. JOB may be abbreviated as J.
STC	The system is to display the above information for active system tasks. STC may be abbreviated as S.
TSU	The system is to display the above information for active time-sharing users. TSU may be abbreviated as T.
<i>Note: If neither JOB, STC, nor TSU is specified, JOB is assumed.</i>	
XEQ	The system is to display the above information for executing jobs. XEQ may be abbreviated as X.
DEV	The system is to display the above information for jobs currently being processed on each unit record device. DEV may be abbreviated as D.

Note: If neither XEQ nor DEV is specified and JOB is specified, both are assumed. If neither JOB, STC, or TSU is specified, but either XEQ or DEV is specified, then JOB, STC, and TSU are assumed. If nothing is specified, then JOB, XEQ, and DEV are assumed.

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Displaying Information on Specified Jobs

Use the \$D command to display the following job information for a specified job:

- Number
- Name
- Status
- Class
- Priority

Note: An asterisk (*) will appear if the job is not queued by class.

$$\$D \left\{ \left\{ \begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right\} \left[\begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right] \dots \right\}$$

'jobname'

Jn[-n] The batch job number or range of batch job numbers for which information is to be displayed.

Sn[-n] The system task or range of system tasks for which the above information is to be displayed.

Tn[-n] The time sharing user or range of time sharing users for which the above information is to be displayed.

'jobname' The name of the job for which information is to be displayed. The name must be enclosed in apostrophes and must not include blanks. If there is more than one job with this name, the job information will be displayed for each of them.

Restarting Specified Jobs in Execution

Use the \$E command to restart execution of a job or jobs currently in execution.

$$\$E \left\{ \begin{array}{l} \mathbf{Jn}[-n] [, \mathbf{Jn}[-n]] \dots \\ \mathbf{'jobname'}$$

Jn[-n] The job number or range of job numbers to be restarted.

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'jobname' The name of a batch job to be restarted. This must be the name coded on the JOB card, enclosed in apostrophes. No action is taken if there is more than one job on the queue with this name.

This command can be entered only by those consoles with job and system authority.

Note: *If you wish to restart a job but do not want it to execute at this time, first use the \$H command (hold) on the job and then the \$E command. If you wish to restart a job in execution, you should follow a \$E command with the MVS CANCEL or REPLY commands.*

Changing a Job's Class or Priority

Use the \$T command to change the class or priority of a specified job or list of jobs.

$$\$T \left\{ \begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \\ \mathbf{'jobname'} \end{array} \right\} \left[, \mathbf{P} = \left\{ \begin{array}{l} \mathbf{n} \\ +\mathbf{n} \\ -\mathbf{n} \end{array} \right\} \right] \left[, \mathbf{C} = \mathbf{class} \right]$$

Jn[-n] The job number or range of job numbers for which the class or priority are to be set or reset.

S[n-n] The system task or range of system tasks for which the class or priority are to be set or reset.

T[n-n] The time sharing user or range of time sharing users for which the class or priority are to be set or reset.

'jobname' The name of the job for which the class or priority are to be set or reset.

P=n, +n or -n The new priority (0-15) for the specified job (n) or the value to be added to (+n) or subtracted from (-n) the present priority for the specified job.

Note: *If the job is being actively processed by any JES2 function, its priority cannot be changed.*

C=class The single character (A-Z or 0-9) representing the new class to be assigned to the specified job. A job's class can only be changed if the job is awaiting execution in a class queue. An execution batch monitor job's class cannot be changed.

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The response to the \$T command appears the same as if you entered a \$D command. Check this response to determine whether the desired changes took place.

Holding Specified Jobs

Use the \$H command to place specific jobs in hold status.

$$\text{\$H} \left\{ \left\{ \begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right\} \left[\begin{array}{l} \left\{ \begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right\} \\ \text{\textit{'jobname'}} \end{array} \right] \dots \right\}$$

Jn[-n] The job number or range of job numbers of the jobs to be placed in hold status.

S[n-n] The system task or range of system tasks to be held.

T[n-n] The time sharing user or range of time sharing users to be held.

'jobname' The name of the job to be held. This name must appear as coded on the JOB card and must be enclosed in apostrophes. If there is more than one job with the specified job name, no action will be taken.

Releasing Specified Jobs

Use the \$A command to release jobs held with:

- \$H ALL commands.
- \$H JOB commands.
- TYPRUN=HOLD JCL parameters.
- SETUP control cards.

$$\text{\$A} \left\{ \left\{ \begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right\} \left[\begin{array}{l} \left\{ \begin{array}{l} \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \end{array} \right\} \\ \text{\textit{'jobname'}} \end{array} \right] \dots \right\}$$

Jn[-n] The job number or range of job numbers of the jobs to be released.

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S[n-n]	The system task or range of system tasks to be released.
T[n-n]	The time sharing user or range of time sharing users to be released.
'jobname'	The name of the job to be released. This name must appear as coded on the JOB card and must be enclosed in apostrophes. If there is more than one job with the specified job name, no action will be taken.

Canceling a Job

Use the \$C command to immediately terminate the scheduling or execution of a job and provide a storage dump if desired. The \$C command allows you to cancel a range of jobs as well as a single one, and cancel job output as well as the job itself. The system command CANCEL may also be used to cancel jobs in execution but the use of \$C gives you more flexibility.

$$\$C \left\{ \left[\left\{ \begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right\} \right. \left. \left[\begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right] \right] \dots \left. \right\} \left[\begin{array}{l} \mathbf{D} \\ \mathbf{P} \end{array} \right]$$

'jobname'

Jn[-n]	The job number or range of job numbers of the jobs to be cancelled.
S[n-n]	The system task or range of system tasks to be cancelled.
T[n-n]	The time sharing user or range of time sharing users to be cancelled.
'jobname'	The name of the job to be cancelled. This name must appear as coded on the JOB card and must be enclosed in apostrophes. If there is more than one job with the specified job name, no action will be taken.
D	A storage dump is to be provided if the job is in execution.
P	The job output is to be canceled.

The following considerations should be noted when using \$C:

- \$C is ignored for jobs that are already in the output phase, unless the P operand is specified.
- System tasks and time-sharing users can only be canceled after they have completed execution.

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- Batch jobs that have the non-cancelable attribute are not eligible for cancel during execution.
- If the job does not cancel, reenter the command.

Sending a Message to an Executing Job's JES2 Log

For a job in execution, use the \$D command to write a message to the job's JES2 job log.

$$\$D M \left\{ \begin{array}{c} \mathbf{Jn} \\ \mathbf{Sn} \\ \mathbf{Tn} \\ \mathbf{'jobname'}$$

- $\left. \right\}$, $\left\{ \begin{array}{c} \mathbf{message} \\ \mathbf{'message'}$
- Jn[-n] The job number of the job whose job log is to receive the message.
- S[n-n] The job number of the system task whose job log is to receive the message.
- T[n-n] The job number of the time sharing user whose Job log is to receive the message.
- 'jobname' The name of the job, system task, or time sharing user whose job log is to receive the message.
- 'message' The text of the message. If apostrophes are not included, the message or message is compressed by removing all blanks. Use double apostrophes if an apostrophe is desired within the text.

When using the \$DM command:

- The specified job, STC, or TSU must be in execution, not awaiting execution or output.
- The messages entered by the command will not be printed if the job's submitter specified that no job log was to be printed (NOLOG), or if the attributes specified at JES2 initialization for the job's execution class indicate that no job log is to be generated.
- Use the system SEND command to send a message directly to a time-sharing user's terminal.

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Stopping a Job

Use the \$P command to stop a job, cancel its output, and remove all traces of it from the system after the current activity is complete.

$$\$P \left\{ \left\{ \begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right\} \left[\begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right] \dots \right\} \left[\mathbf{Q} = \text{classes} \right]$$

'jobname'

Jn[-n] The job number or range of job numbers of the jobs to be stopped after completion of their current activity.

S[n-n] The system tasks or range of system tasks to be stopped after completion of their current activity.

T[n-n] The time sharing user or range of time sharing users to be stopped after completion of their current activity.

Note: Started tasks and time sharing users can only be stopped after they have completed execution. To cancel such jobs during execution, use the system CANCEL command. Batch jobs that have the non-cancelable attribute cannot be canceled during execution.

'jobname' The name of the job to be stopped after completion of its current activity. This name must appear as coded on the JOB statement and must be enclosed in apostrophes. If more than one job with the specified name is found, no action is taken. Only one 'jobname' may be specified per \$P command and no job number ranges may be specified with a 'jobname' parameter.

Q = classes Cancel all output queued in the specified output classes (from 1 to 8 classes may be specified at one time). The job will not be canceled from the system if data in other output classes remains queued for output. The Q= operand is ignored if no output is queued for the specified jobs.

To allow stopping and restarting of a job between execution phases, first use the \$E command on the job to allow restarting. You can then stop the job using the system command STOP.

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Listing Job Output Information

Use the \$L command to display the amount of output for a job or jobs in either the held or released output classes.

$$\$L \left\{ \left\{ \begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right\} \left[\begin{array}{l} \mathbf{Jn} [-n] \\ \mathbf{Sn} [-n] \\ \mathbf{Tn} [-n] \end{array} \right] \dots \right\} \left[\mathbf{HOLD} \right]$$

'jobname'

- Jn[-n] The job number or range of job numbers for which the output is to be displayed.
- S[n-n] The system task or range of system tasks for which the output is to be displayed.
- T[n-n] The time sharing user or range of time sharing users for which the output is to be displayed.
- 'jobname'
- The name of the job, as it appears on the JOB statement, for which the output is to be displayed. Only one 'jobname' can be specified per \$L command and no job number ranges can be specified with a 'jobname'.
- HOLD The amount of output in the hold status for jobs in the system is to be displayed. HOLD may be abbreviated as H. Any job number lists following the HOLD operand will be ignored.

Note: HOLD lists only held data sets. If omitted, only non-held data sets are listed. You cannot list both held and non-held data sets with one command.

The system will first list the number of output elements waiting to be processed in each released queue, then the number of elements in each held queue.

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Releasing or Canceling Held Output Datasets

Use the \$O command to release or cancel held output data sets.

$$\$O \left\{ \begin{array}{l} \mathbf{Q} \\ \mathbf{Jn}[-n] \\ \mathbf{Sn}[-n] \\ \mathbf{Tn}[-n] \\ \mathbf{'jobname'}$$

- $\left. \right\} [, \mathbf{Q} = \mathbf{classes}] [, \mathbf{C}] \left[, \mathbf{D} = \left\{ \begin{array}{l} \mathbf{yyddd} \\ \mathbf{nn} \end{array} \right\} \right]$
- Q** All held output data sets in the system are to be affected by this command.
- Jn[-n]** The job number or range of job numbers for which the held output is to be released or canceled.
- Sn[-n]** The system task or range of system tasks for which the held output is to be released or canceled.
- Tn[-n]** The time sharing user or range of time sharing users for which the held output is to be released or canceled.
- 'jobname'** The name of the job, as it appears on the JOB card, for which the output is to be released or canceled.
- Q=classes** The output class or classes A-Z or 0-9. The system is to release or cancel the output in the specified class or classes for the specified job or jobs. If this operand is omitted, all output classes will be released or canceled.
- C** The system is to cancel all of the selected held output or, if Q=classes is specified, the output in certain output classes.
- D=yyddd or nn** The system is to release or cancel only the held output created on or before yyddd (Julian date) or which was created at least nn days ago. The valid range for nn is 0 to 99.

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Canceling Output Datasets

Use the \$P command to cancel ready output data sets on a class and/or routing basis.

\$P Q [, Q = classes]

- Q All queued output data sets not currently active on an output device will be affected.
- Q = classes The output classes (A-Z and 0-9). The system is to cancel all queued output data sets in the specified classes. If more than one Q= operand is specified, the last Q= operand entered will be used. Up to 8 classes may be specified.