

RSX-11M-PLUS
Mini-Reference

Order No. AV-414360-TC

RSX-11M-PLUS version 4.1

digital equipment corporation - maynard, massachusetts

First Printing, September 1971

Revised, April 1982

Revised, April 1983

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PREFACE

Manual Objectives

This manual provides a quick reference guide to using specific parts of the IBM i150 PLUS operating system. It describes the commands and procedures for installing the user commonly used parts of the system. The utilities, command-line interpreters, and some other program development tools.

Intended Audience

This manual is intended as a quick reference for IBM i150 PLUS users who are already familiar with the system. It assumes you are already familiar with the documentation in the manual set for the software you are using.

Structure of This Document

This document consists of sections describing each major component of the IBM i150 PLUS system. They are:

On-Line Help Files

Utilities

- Red Back Loader Utility (RBL)
- Backup and Restore Utility (RBL)
- File Compare Utility (CMP)
- File Dump Utility (DUMP)
- Data Sort and Compare Utility (DSU)
- Line Text Editor (RLE)
- IBM Standard Editor (SECT)
- File Transfer Program (FTN)
- Disk Name Generator (DMG)
- Operation Utility (LERR)
- Source Language Input Program (SLIP)
- Display Module Patch Utility (DMP)
- Peripheral Interchange Program (PIP)
- Queue Manager — Free and Queue Utility (QMGR)
- Track Image File Patch (TZAP)

Preface

Command-Line Interpreters

- Monitor Console Runtime (MCR)
- Digital Command Language (DCL)

System Management Tools

- Error Logging System
- Procedure for Handling a Job in a Print Queue

Programming Tools

- On-Line Debugging Tool (ODT)
- Task Builder (TKB)

Reference Information

- ASCII Character Set
- Diagnostic Error Codes
- Recursive Directive Summary in Alphabetical Order by Macro Call
- LIO Error Codes
- RADIX-10 Conversion Table
- Octal/Decimal Conversion Table
- Standard File Types

The Mini Reference also includes blank pages in the back for you to make notes on other system information that you use often. The binder is designed so that the holes in the printed listings line up with the holes in the binder; therefore, you can also include your own listings in the book.

ON-LINE HELP FILES

Extensive help files for the utilities, MCP, DCL, and many other system components are available to you at your terminal.

For help in logging in to the system, type **HELP HRL11** from MCR, or **HELP LOGIN** from DCL. You'll need an user ID and password to log in.

REX-11-M-11 has extensive help two major command languages or CLs. These are MCL and DCL. Can you log in; your terminal is set to either MCR or DCL. All terminals are set to MCR prior to logging in.

From an MCR terminal, type **HELP DCL** for information on available help. From a logged-in DCL terminal, type **HELP** for information on available help.

The general form of the **HELP** command is:

```
[HELP][qualifier][/OUTPUT, T, if needed] topic [pathnames:]  
[HELP][qualifier][/OUTPUT, P] [keyword] commandname [switch]
```

DCL users can also obtain help while entering a command by typing a question mark (?) in response to any DCL prompt. Once the help text has been printed on the terminal, the prompt returns and you can continue to enter the command.

Normally, **HELP** text is displayed on your screen, but the **OUTPUT** qualifier can be used to cause a file to which the **HELP** text is to be written from a logged-in terminal.

If you enter include a file qualifier to the **HELP** command, the default is the name of the file to which your terminal is set.

Except for **NOINPUT**, each of the following qualifiers has the effect of specifying a file where help can be found. The MCP form of these qualifiers is limited to the first three characters. The DCL form includes the entire qualifier name.

> **HELP/LOCAL** [pathname]

or

> **HELP %** [pathname]

Specifies that the **HELP** text is in the file **HELP.HELP** in the default directory on the current volume. **HELP/LOC** and **HELP %** are the same.

> **HELP/PRO[LP]** [pathname]

Specifies that the **HELP** text is in the file **LP.HELP** in the directory **program**, on the default volume.

> **HELP/CL:clname** [pathname]

Specifies that the **HELP** text begins in the file **HELP/CL:clname.HELP**. This qualifier is for use in accordance with keywords CLs for which **HELP** is provided.

On-Line HELP Files

>HELP/MCR [param(s)]

Specifies that the HELP text begins in the file LB(1)2MCR.HELP. This is the default for terminals set to MCR.

>HELP/DCL [param(s)]

Specifies that the HELP text begins in the file LB(1)2DCL.HELP. This is the default for terminals set to DCL.

>HELP/FIL(S)-filepos: [param(s)]

Specifies any file where HELP text is located. If you do not give a complete file specification, the defaults are LUNL:RIBKNAME.DCL.

>HELP/xxx [param(s)]

Specifies that the HELP text is located in the file LB(1)2xxx.HELP, where xxx is a 3 character file name.

BAD COMMAND SUMMARY

Command line for the Bad Block Locator (BAD) use the following format:

BAD *function* [*argument*]

In this command line, *fn* is the abbreviation for the volume or which BAD is being run and *n* is the unit number of the volume.

BAD *commands* are:

ALLOCATE **BAD** *cmd*:**ALO**(*volume:unit*)

Performs an allocation of blocks to BADBLOCKSYS and is included in the bad block descriptor file.

CSS ADDRESS **BAD** *cmd*:**CSS** *name*

Specifies the CSS address of a device that is not in a standard location (read alone version of BAD only).

LIST **BAD** *cmd*:**LI**

Lists bad blocks as they are found.

MANUAL **BAD** *cmd*:**MAN**

Allows you to enter bad blocks, which are then included in the bad block descriptor file.

NOWRITECHECK **BAD** *cmd*:**NOWCHK**

Negates the effect of /NCHK (see below).

OVERRIDE **BAD** *cmd*:**OVR**

Creates the bad block descriptor file on a test-track device.

PATTERN **BAD** *cmd*:**PAT** *mn*

Specifies the double-word data pattern used to locate bad blocks.

RETRY **BAD** *cmd*:**RETRY**

Rescans unit again.

UPDATE **BAD** *cmd*:**UPD**

Reeds the bad block descriptor file and prompts for your volume.

BAD Command Summary

VECTOR **BAD ddn/YEC nnn**

Specifies the interrupt vector address of a device that is not in a standard location (stand-alone version of BAD only).

WRITECHECK **BAD ddn/WCHK**

Uses a write-check operation to take place after each write operation (stand-alone version of BAD only). The switch is not valid for DTs, DXs, or DV-type devices.

BRU COMMAND SUMMARY

Command lines for the Backup and Restore utility (BRU) use the following format:

[qualifier] [device]... [fileset]... [device]... [fileset]...

In this command line, **qualifiers** are any of the qualifiers listed below; **devices** are the physical device or device from which data is removed; **fileset** is the particular file or category of file to be backed up or restored; and **enddevices** are the output devices to which data is being transferred.

BRU qualifiers are:

(APPEND

Appends new backup data to a tape or to a disk if you are using the **IMAGE** qualifier.

BACKUP[SET:member

Specifies the name of the backup set to be placed on tape or disk.

(BAD: MANUAL AUTOMATIC OVERRIDE

Enter the location of bad blocks on volume. The default is (BAD)AUTOMATIC.

(BUFFERS:member

Specifies the default number of directory File Control Blocks (FCBs) kept by the ACP for the volume.

(COMPARE

Compares the data on the output volume to the data on the input volume and reports any differences.

(CREATED: BEFORE:dd-mm-yy BEFORE:hh:mm:ss BEFORE:dd-mm-yy hh:mm:ss) AFTER:dd-mm-yy AFTER:hh:mm:ss AFTER:dd-mm-yy hh:mm:ss)

Directs BRU to process files created before or after a specified date and/or time.

BRU Command Summary

(DENSITY: number

Specifies the data density at which BRU writes to tape.

(DIRECTORY

Displays information (such as backup set names, file names, or volume number of a tape or disk) for a specified tape or disk volume.

(DISPLAY

Displays at your terminal the UFD and file name of each file being backed up.

(ERRORS: number

Specifies the number of nonfatal I/O errors BRU tolerates on tape reads during a backup operation before automatically terminating execution. The default is 2 (indefinite error).

(EXCLUDE

Excludes selectively from a backup or restore operation all files specified on the command line.

(EXTEND: number

Specifies the number of hours by which a file is extended when that file has exhausted its allocated space.

(HEADERS: number

Specifies the number of file headers to allocate initially in the index file.

(IMAGE: SAVE RESTORE

Specifies that you want to do a multiple disk-to-disk backup or restore operation. Use the SAVE option for backup operations, or the RESTORE option for restore operations.

(INITIALIZE

Directs BRU to initialize the output disk before proceeding with the operation.

(INVOLUME: name

Specifies the volume label of the input disk.

/LENGTH: number

Specifies the length of the output tape in decimal feet.

/MAXIMUM: number

Specifies the maximum number of files that can be placed on a volume as determined by the number of file handles in the volume's index file.

/MOUNTED

Allows you to back up files from a drive that is mounted (with the MOUNTED MOUNT command) as a Mac II volume.

/NEW VERSION

Directs BRU to resolve conflicts resulting from files with identical file specifications by creating a new version of the file.

/NOINITIALIZE

Specifies that you do not want to initialize the output disk because it is already in Plus-II format.

/NOCPRESERVE

Specifies that you do not want to preserve file identities.

/NOSUPERSEDE

Specifies that when files on the input and output volumes have identical file specs, the input files will not be transferred and the output file will not be superseded. The default is NOSUPERSEDE.

/OUTVOLUME: name

Specifies the volume label of the output disk. The label can be up to 12800 characters long.

/POSITION: BEGINNING

MIDDLE

END

BLOCK: number

Specifies the location of the index file on the output disk volume.

BRU Command Summary

/PROTECTION: SYSTEM: value
OWNER: value
GROUP: value
WORLD: value

Specifies the default protection status for all files created on the output volume being initialized.

/REMOVED: BEFORE: dd-mm-yy
BEFORE: hh:mm:ss
BEFORE: (dd-mm-yy hh:mm:ss)
AFTER: dd-mm-yy
AFTER: hh:mm:ss
AFTER: (dd-mm-yy hh:mm:ss)

Directs BRU to process files removed before or after a specified date and/or time.

/REWIND

Reverts to the first tape of a tape set before performing the operation.

/SUPERSEDE

Resolves file specification conflicts by deleting the old file on the output volume and replacing it with the file from the input volume. (The default is /NOSUPERSEDE.)

/TAPE_LABEL: label

Specifies a 8-character ANSI volume identifier for identifying the tape volume.

/UFD

Directs BRU to create UFDs (if they do not already exist) on a mounted output volume, then copy into them the files from the same UFDs on the input volume.

/VERIFY

Copies data from the input volume to the output volume, compares the volumes, and reports any differences.

/WINDOWS: number

Specifies on the output disk the default number of mapping pointers allocated to file windows. The default number is the same as that for the input disk.

CMP COMMAND SUMMARY

Commands and lines for the File Compare Utility (CMP) use the following format:

CMP [outfile] [-infile1,infile2]

In this command line, outfile is the file specification for the output file that contains the comparison. 0 is 0 or more of the CMP switches described below, and infile1, infile2 are the two files being compared.

If you do not specify an outfile, CMP output defaults to TL and is displayed on your terminal. If you specify the equals (=) sign, but no output file, CMP displays only the total number of differences it finds in the input files.

CMP switches, which always modify the output file specification or the default output file specification, are:

BLANK LINES [outfile:] [-BL=infile1,infile2]

Specifies that blank lines in input may be included in compare processing. If specified in the form: -BL, blank lines are not included in compare processing. -BL is the default switch.

CHANGE BARS [outfile:] [-CB=infile1,infile2]

Specifies that CMP list infile2 with change bars in the form of exclamation (!), to denote each line that does not have a corresponding line in infile1. -CB is the default switch.

You can change the change bar character from the exclamation mark to any character you wish by means of the /VB switch, described below.

When a section of data in infile has been deleted or infile2 (the output listing file), the first line after the deleted data is marked.

COMMENTS [outfile:] [-CO=infile1,infile2]

Specifies that CMP include comments that is, text preceded by a semicolon (;) in compare processing. -CO is the default switch.

DIFFERENCES [outfile:] [-DI=infile1,infile2]

Specifies that CMP list the differences between the two files (rather than marking the lines in infile2). -DI is the default switch.

-CB and -DI are mutually exclusive switches. If both are specified, -CB overrides -DI.

CMP Command Summary

FORM-FEED [outfile]/[-FF infile1,infile2]

Specifies that CMP include records concerning a single form-feed character if computer processing. / FF is the default switch.

LINES [outfile]/[L:n infile1,infile2]

Specifies that a number out of lines must be identical before CMP recognizes a match. If you do not specify this switch, CMP searches for these identical lines to match (LF=8).

When it encounters a match, CMP prints all the preceding nonmatching lines, along with the first line of the matched sequence of lines, to help you find the location in the code where the match occurred.

LINE NUMBER [outfile]/LN infile1,infile2]

Specifies that lines in the output file be preceded by their line number. Line numbers are incremented by one for each record read, including blank lines. /LN is the default switch. If you specify /SL (below), /LN is ignored.

MERGE BLANKS [outfile]/[-MB wfile1,wfile2]

Specifies that CMP include all blank and tab characters in a line in computer processing. If you specify / MB, CMP interprets any sequence of blank and/or tab characters as a single blank character in computer processing. However, all spaces and tabs are printed in the output listing. /MB is the default switch.

SLP FILE [outfile/SL:au] infile1,infile2]

Directs CMP to generate an output file suitable for use as SLP command input. When you specify /SL, CMP generates the SLP command input necessary to make infile1 and infile2. If a trace-name or alphanumeric symbol is included in the output file, it is specified for SLP input.

SPDDL [outfile]/[-SP:n]infile1,infile2]

Specifies that the output file be spooled on the line printer. You can optionally specify the number for serial or default file to be spooled. /SP is the default switch.

This switch applies only if you have the print spooler from QRCX LHM or the Queue Manager (REX-100-M-PLC6) installed.

TRAILING BLANKS `[outfile1]*[+][TB -infile1,infile2]`

Specifies that CMP include all trailing blanks on a line in compare processing. If you specify `/+TB`, CMP ignores all blanks following the last nonblank character on a line. When you specify `/-TB` and `/+TB` together, blanks that precede a comment (/*) are considered trailing blanks and are ignored. `/TB` is the default switch.

VERTICAL BAR `[outfile/VB:non -infile1,infile2]`

Specifies an ASCII character code to use as a change bar. You use this switch with the `/CB` switch. The value can specify the ASCII character code. For example, you can specify `/VB:171` for a vertical bar if your printer is capable of printing the vertical bar character. `/VB:000` for the exclamation mark is the default setting.



DMP COMMAND SUMMARY

Command lines for the file dump utility (DMP) use the following format:
outfile [switches] infile

In the command line, outfile specifies the output file dump, switches specify options of the DMP switches described below, and infile specifies the input device or a file or input device only.

The command line elements take the following meanings:

ASCII outfile-infile:AS

Specifies that data be dumped one byte at a time in ASCII mode.

BASE ADDRESS outfile:BA:nnn-infile

Specifies a 3-word base block address.

BLOCK outfile-infile:BL:nnn

Specifies the first and last logical blocks to be dumped.

BYTE outfile-infile:BY

Specifies that data be dumped in word bytes format.

DECIMAL outfile-DC-infile

Specifies that data be dumped in decimal word format.

DENSITY outfile-infile-DEN:Bn

Specifies density of an input magnetic tape when DMP is a device name only. Values for n can be 200, 1600, or 6250.

FILE ID outfile-infile:FI:filenumber.sequence number

Specifies the input file with its file-ID instead of a name (MFC Mode only).

HEADER outfile-infile:HD:F
outfile-infile:HD:U

Includes the file header in the data dumped. "F", the default, specifies a formatted File ID dump for the header. "U" specifies an unformatted data dump.

HEADER FILES-11 outfile-infile:HF

Specifies the normal header blocks that have the File ID header structure. Other blocks are dumped as unformatted data.

DMP Command Summary

HEXDECIMAL outfile-*HE* infile

Specifies that data be dumped in hexadecimal byte format.

IDENTIFICATION ID

Causes the current version of DMP to be displayed on screen.

LOGICAL BLOCK outfile-infile-LB

Requests the starting logical block number and a comparison or success/failure indication for the file to be employed.

LOWERCASE outfile-infile-LC

Specifies that the data should be dumped in lowercase characters. This switch is valid only if the output device supports lowercase characters.

LONG WORD outfile-infile-LW

Specifies that data be dumped in hexadecimal double-word format.

MEMORY outfile-MD:[n] infile

Controls line number sequencing during a memory image dump.

OCTAL outfile-infile-OCT

Specifies that the data should be dumped in octal format. If no DMP format switch is indicated, the default is octal format.

RECORD outfile-infile-RG

Dumps one record at a time in the specified format.

REWIND outfile-RW infile[RW]

Issues a rewind command to the tape device before initiating a specified tape. You can use the RW switch at any time to reposition a tape to beginning of tape (BOT).

RADIO-30 outfile-infile-RS

Dumps in Radio-30 word format.

SPACE BLOCKS outfile-infile-SB:[n]

Specifies the number of blocks DMP skips forward (n) or backward (-n) on a tape.

SPACE FILES outfile=outfile\$F,|-jn

Specifies the number of end-of-file (EOF) marks DMP spaces forward to) or backward from each page.

SPOOL outfile\$P=outfile

Specifies the dump file (the output file) to the line printer.

WORD outfile=outfile\$WD

Specifies that data be dumped in regularized word format.



DSC COMMAND SUMMARY

Command lines for the Disk Base and Compression (DSC) are the following format:

Test <device>(<label>)<action>(<label>)<index>

In this command line, <device> is the physical volume reference to which data is copied, <label> identifies the volume id of the output or input device, <action> are the standard switches described below, and <index> is the physical volume or volume from which data is copied.

DSC switches are:

DEPEND <device>:AP <index>

Appends a DSC file to the test volume or a segment task set that already contains a DSC file.

BAD MAN
 NOAUTO
 <device>:BAD MAN:NOAUTO <index>
 OVR
 MAN:OVR

Allows manual entry of bad block locations; see supplemental remarks in option for file's own bad block file.

BLOCKS <device>:BL n <index>

Sets the number of 256 word blocks DSC can include in each of its two buffers.

COMPARE <device>:CMP <index>

Compares input and output volumes for differences.

CSE <device>:CSE <nnnn> <index>

Specifies control status addresses for a specific Status Control Block (SCB). CSE is valid only with the standard version 4 DSC.

DENSITY <device>:DENB <nnnn> <index>

Overrides the DSC default storage density for magnetic tapes at 250 bpi. The first four or five control blocks are magnetic record at 500 bpi density. The second form, 125 bpi density, selects proper magnetic tapes with various track information at 250 bpi and character of the tape at 1000 bpi.

DSC Command Summary

REWIND *o0000v:RWwIndex*

Repositions the tape to the beginning of the current command block.

TMD2 *o0000v:TMD2 nn Index*

Specifies the physical unit number of the formatter on the DIT/DIT2 controller (decimal value range of DSC entry).

UNIT *o0000v:UNIT nn Index*

Specifies the physical unit that will be referenced by the indicated Unit Control Block (UCB). The UNIT address could only work with the stand-alone version of DSC.

VERIFY *o0000v:VE Index*

Copies data from the input volume and compares it with the output volume following the data transfer.

VECTOR *o0000v:VEC nnn Index*

Specifies the vector address to the State Data Block (SDB). The AND switch is valid only with the stand-alone version of DSC.

LINE TEXT EDITOR (ED) COMMANDS

In this section, the following conventions are used:

The asterisk (*) can be used in place of any number in an ED command. It is read as 12,34567.

An ellipsis (...) can be used in many such strings to identify characters between the first and last characters of the string.

ED allows the use of abbreviations in commands.

ADD A string

Adds the text of the string to the end of the current line.

ADD AND PRINT AP string

Adds the text of the string to the end of the current line and displays the current line on the terminal.

ALTMODE AL

to
ESCAPE [~]

In Line Mode, prints previous line and makes it the new current line. In Block Mode, exits from input mode.

BEGIN B

Saves the current line to the line preceding the top line in the file or block buffer. In Line Mode, makes a copy of the file.

BLOCK ON-OFF BL

Changes from the Full Block Mode to Line Mode or from Line Mode to Block Mode to edit a text.

BOTTOM BD

Moves the line pointer to the bottom of the current block in Block Mode or to the bottom of the file in Line Mode.

CHANGE [c] [c1-string] [c2]

Replaces string 1 with string 2 in the current line or lines.

Line Text Editor (LSE) Commands

CLOSE CL [filepec]

Transfers the remaining lines in the block buffer and input file to the output file, and closes all files. Renames output files to ltexten.

CLOSE AND DELETE CDL [filepec]

Transfers the remaining lines in the block buffer and the input file to the output file, closes the output file, and deletes the input file.

CLOSE SECONDARY CLOBES

Closes the secondary input file.

CONCATENATION CHARACTER CC [letter]

Changes the concatenation character used to separate RDL commands on one line to the character specified. (The default concatenation character is &.)

CTRL/Z CLEZ

Closes all open files and terminates the editing session.

DELETE D [n] or D [-n]

Deletes the current line and the next $n-1$ lines if n is a positive number. Deletes n lines preceding the current line, but not the current line, if n is a negative number. Negative numbers can only be used in Block Mode.

DELETE AND PRINT DP [n] or DP [-n]

Deletes lines specified and prints the new current line.

END E

Sets the last line in a file or block buffer as the current line.

ERASE ERASE [n]

Erases the current line in Line Mode. Erases the current block buffer and the next $n-1$ lines in Block Mode.

ESCAPE $\backslash$

or ALTMODE $\backslash$

In Line Mode prints the previous line and makes it the new current line. In Block Mode, exits from Insert Mode.

EXIT EX [filespec]

Transfers the remaining lines in the block buffer and input file to the output file. Closes files, renames the temporary file(s) and terminates the editing session.

EXIT AND DELETE ED [filespec]

Transfers the remaining lines in the block buffer and input file to the output file, closes files, and renames the output file if specified. Deletes the input file and terminates the editing session.

FILE FL [filespec]

Transfers lines from the input file to both the output file and the specified file until a form feed or end-of-file is encountered. The original file remains open. This command is only used in Line Mode.

FIND [n]F string

Finds the line in the current block starting with string, or the nth line, starting with string. A string must begin in the first column of the line to be searched.

FORM FEED FF

Inserts a form feed into the block buffer.

INSERT IN [string]

Inserts the specified string immediately following the current line. If no string is specified, EOL enters input. None.

KILL KILL

Closes the input and output files and deletes the output file.

LINE CHANGE [n][LCstring1string2]

Changes all occurrences of string 1 in the current line (and all lines) to string 2.

LIST ON TERMINAL LI

Displays on the terminal all lines remaining in the block buffer or input file, starting with the current line.

LIST ON PSEUDO DEVICE LP

Displays on the Linotype Listing device (L) all lines remaining in the block buffer or input file, starting with the current line.

LOCATE [r]L string

Locates the left or next occurrence of the specified string. In Block Mode the search stops at the end of the current block.

MACRO MACRO # definition

Defines the macro number # for the LE commands in the definition. The value # can be 1, 2, or 3.

MACRO CALL MC[n]

Executes a macro definition stored in the file MCALL.L.

MACRO EXECUTE [e]MX [n]

Executes macro # n (MCn) while passing numeric arguments # to it. The value # can be 1, 2, or 3.

MACRO IMMEDIATE [n] # definition

Defines and executes a macro # (MCn) immediately. # is macro number #.

NEXT N(n) or N(-n)

Replaces a new current line n lines away from the current line.

NEXT AND PRINT NP[n] or NP(-n)

Replaces a new current line and displays it on the terminal.

OPEN SECONDARY OP filspec

Opens the specified secondary input file.

OUTPUT ON/OFF OU ON or OU OFF

Continues or discontinues a file transfer to output file in Line Mode.

OVERLAY O [n]

Deletes a line, enters Input Mode, and inserts new text, as typed, in place of the deleted line.

PAGE PAG n or -n

Enters Block Mode. Reads page # into current block buffer. If a line from the current page, BEC goes to the top of the file free. Pages are set by some feed characters.

PAGE FIND [n][FF string]

Searches successive line buffers for the nth occurrence of the string. The string must begin in the first column of the line.

PAGE LOCATE [n][PL string]

Searches successive buffers for the nth occurrence of the string. The string can begin anywhere on the line.

PASTE PA[string1string2][f]

Deletes all remaining lines in the input file or hard buffer that contain string 1 and replaces them with string 2.

PRINT P[n]

Displays the current line and the next n-1 lines on the terminal. The line has been printed because the current line.

READ REA n

Reads the next n lines of text into the block buffer. If the buffer already contains text, the new text is appended to it.

RENEW REN [n]

Deletes the current block in the computer and reads a new block of text in replacement. (Block Mode only).

RETURN [n]

Displays the next line on the terminal and makes it the current line. Edit from Input Menu if it is entered as the first character of a line.

RETYPE R string

Replaces the current line with the specified string, or does so the current line if no string is specified.

SAVE SA [n] [filepec]

Saves the current line and the next n-1 lines in the specified file. If no file is specified, uses the line P, SAVE.TEMP.

SEARCH AND CHANGE SC[string1string2][f]

Locates string 1 and replaces it with string 2.

Line Test Editor (LEO) Commands

SELECT PRIMARY SP

Selects the primary file as the input file.

SELECT SECONDARY SS

Selects the secondary file that will be an input file.

SIZE SIZE n

Specifies the maximum number of lines that can be read from a linked buffer.

TAB TA ON or TA OFF

Toggles tabular formatting on or off.

TOP TTOP

Saves the current line to the line preceding the top line of the file being edited. In Line Mode, creates a copy of the file.

TOP OF FILE TOP

Moves to the top of the input file or Work Mode and moves all of the previously edited pages forward in a new block after writing the output file. This operation creates a new version of the file each time it is executed in Line Mode.

TYPE TY n)

Displays the next *n* lines on the terminal. This command is identical to the PRINT command in Line Mode. However, in Work Mode, the line pointer remains at the current line unless EDS reached the end of a block.

UNSAVE UNS (file name)

Inserts all lines from the opened file following the current line. If a file name is used, ZED uses SAVE(TMP).

UPPER CASE UC ON or UC OFF

Enables or disables conversion of lowercase letters to uppercase letters when they are entered at a terminal.

VERIFY V ON or V OFF

Enables checking the operation of the LOCATE and CHANGE commands as they are entered at the terminal; clear the line is located or changed.

WRITE W

Writes the contents of the Mark buffer to the output file and clears the Mark buffer.



DIGITAL STANDARD EDITOR (EDT) COMMANDS

EDT lets you edit text in line mode and character mode using the keypad or nokeypad functions.

LINE MODE COMMANDS

You can edit EDT line mode when you receive an asterisk prompt (*). You can then edit the text on a line by line basis. Enter a **Q&Q** to exit from EDT. The following commands work from EDT line mode:

CHANGE C [range]

Starts either keypad or nokeypad character editing, depending upon the terminal type. EDT defaults to inverted character editing for VT100 and VT100 terminals and nokeypad editing for all other terminals. EDT puts the cursor ahead of the location you specify as range.

Entering a **Q&Q** returns you to line mode.

CLEAR CL [no]buffer

Deletes the contents of a text buffer, but does not delete the buffer itself.

COPY CO [range-1] TO [range-2][qualifier(s)]

Copies text from range 1 to the location in front of the line you specify in range 2. EDT can copy from nokeypad buffer or keypad or from one place to another within a text buffer.

Qualifiers:

CHOP Chops each line to be inserted.

DUPLICATE Inserts the number of text items that you.

DEFINE KEY DEF K([GOLD]number-CONTROL letter) GOLD character AS 'string'

Defines keypad keys in terms of nokeypad commands. The following table describes the command format:

Brace {}	You must choose one of the options.
Dot .	Separates choices.
Brace K	You can use GOLD to specify the alternate function of a keypad or control key.
Number	Number of the keypad key.

Control word	Press CONTROL and a number from A to Z.
GOLD	The GOLD level key.
GOLD character	Press GOLD and any keypad character except 0, 1, 2, 3, and 4.
Level key	One of the keypad characters used to code for the key.

DEFINE MACRO DEF M macroname

Assigns a name to a sequence of control words to be used in the file macro name.

DELETE D [range][qualifier]

Deletes the lines specified and displays a message stating the number of lines deleted. When you do not specify a range, deletes the current line.

Qualifiers:

ONLY: Deletes each line to be deleted.

EXIT Ex [linepair][qualifier(s)]

Exits an editing session and stores the main text buffer in the output file specified. You can delete the name of the output file by the command line that invokes EXIT or in the EXIT command.

Qualifiers:

SEO[backCE][partial increment]: Assigns integer line numbers before the edit command and places them in a fixed field in the file. You define the initial number and the increment between numbers.

SA[va]: Saves the journal file created during the editing session.

FIND F range

Locates the line or lines specified by range.

HELP H [topic[subtopic]]

Displays information on requested topic or subtopic.

INCLUDE **INC** *[filepec]* *[range]*

Copy the file into text buffer. *Filepec* is the name of the file you want to copy. EDT copies the file to the current text buffer in order of the first line of the range.

INSERT **I** *[range]* *[line to be inserted]*

Inserts text into a buffer. When you specify a range, EDT inserts the text before the first line of the range. If you do not specify a range, EDT inserts the text before the current line.

MOVE **M** *[range-1]* **TO** *[range-2]* *[qualifier]*

Moves the lines in range-1 to the location preceding range-2. Delete the text from range-1.

Qualifier:

EDITH: EDT prompts you to enter each line of range-1 to be moved.

OUT **(implied TYPE)** *[range]* *FILE*

Displays the next line of text. You can specify a range of lines to be displayed. However, the **OPEN**, **CLOSE**, **RETURN**, **END**, **LAST**, and **ALL** range specifications must be provided by a percent sign (%).

PRINT **P** *[filepec]* *[range]*

Copy text from a text buffer into a file. *Range* refers to a portion of the buffer to be copied. Without a range, the default is the current text buffer.

QUIT **QUIT** *[qualifier]*

Ends the current editing session without saving the main text buffer.

Qualifier:

SAVE: Saves the contents of the journal file under the name specified in the command line to invoke EDT.

REPLACE **R** *[range]* *[line to be inserted]*

Deletes the lines specified in range and inserts new text. EDT inserts the new text at the first line in the range specification. Without a range, EDT deletes the current line and inserts the new text in its place.

RESEQUENCE **REB** [range]/[qualifier]

Assigns new line numbers to the contents of a buffer of the range of lines specified. Without a range, EDT resequences all lines in the current text buffer.

Qualifier:

SEQUENCE [(odd), (even)] Sets the line line resequenced to the initial value and increments successive numbers by the increment specified.

SET **SET** parameter

Control the operating characteristics of EDT.

Parameters:

CASE [UPPER, LOWER, NONE]

EDT flags upper- or lowercase characters with a preceding space mark. The default is NONE, which does not flag any characters.

CURSOR [no action]

Sets the number of lines over which the cursor moves on the display. Top is the number of lines for the upper limit and bottom is the number of lines for the lower limit.

EDIT [WORD, SENTENCE, PARAGRAPH, PAGE] along

See a user-definable routine for character editing.

KEYPAU

Allows the keypad to control the character-editing operation.

LINES number

Sets the number of lines that EDT displays on the terminal during character editing.

MODE LINE CHANGE

Use in a string of continued file to control the editing mode entered at the end of the modification.

[NO]NUMBERS

Determines whether EDT displays line numbers in the display. Default: NUMBERS

[NO]TRT

Controls the ringing of the terminal bell when an error occurs in string mode editing. Default: NO[TRT]

SCREEN width

Displays the maximum width of the line SED displays. Default: 80 characters.

SEARCH EXACT GENERAL

EDT searches for exact comparisons of *open* or *ignore* open in *keyword*. Default: GENERAL.

(BOUNDED|UNBOUNDED)

EDT stops searching if the next *open* exists. Default: UNBOUNDED.

(BEGIN|END)

EDT leaves the cursor at the end of the string when it is found. If the string is not found, the cursor does not move. Default: BEGIN.

TAB -> **CTAB**

Sets the number of spaces for the first tab stop in bracket editing. Remaining tabs are unoccupied. Default: 8.

TERMINAL COPY|VTEB VI100

Determines the type of terminal in use. EDT gets the terminal type from the operating system and then compares it with the setting.

TRUNCATE

Enables display of a line if the value of **SET SCREEN**. Default: TRUNCATE.

VERIFY

Enables or disables display of remnants from command files and other commands. Default: NOVERIFY.

WRAP n

See **editwrap** for line length, full or half-line, or position. Default: NOWRAP.

SHOW **SHOW** parameter

Displays the opening characteristics of EDT.

Parameters:**BUFFER**

Lists the buffers in use during the current editing session and the number or line of text in each.

CASE

Shows the current case setting.

CURSOR

Shows the current cursor shape.

UNITAL Standard Editor (EVT) Commands

ENTITY WORD, SENTENCE, PARAGRAPH, PAGE

Shows the current setting for the user-definable entity specified.

KEY [GGG]([number])(CONTROL) [give EIGHT D character]

Shows the definition of the specified key in the manual.

SCREEN

Shows the current setting for screen width.

SUBSTITUTE String-1/string-2(range)[qualifiers]

Replaces each occurrence of string-1 with string-2 within the range specified. Within a range, EDT replaces the next occurrence of string-1 with string-2. EDT starts at the first line in the specified range at the end of the substitution.

Qualifiers:

B[R]E[F](n) EDT displays the first n characters of the line containing string-1. The default term is 10.

O[O]E[R] EDT prompts you to verify each line in range-1 to be moved.

A[C]T[TYPE] If "I" does not preply the lines on which it makes changes; else,

SUBSTITUTE NEXT [S] [N]/string-1/string-2

EDT searches for the next occurrence of string-1 from the current location forward. The line on which the substitution is made becomes the current line.

If you do not qualify string-1 or string-2, EDT uses the ranges specified in the two SUBSTITUTED commands.

TYPE T(range)[qualifiers]

Displays the specified range of lines in all the lines in the current text buffer.

Qualifiers:

B[R]E[F](n) EDT displays the first n characters of the selected lines. The default term is 10.

S[TAB] EDT does not change the cursor position.

WRITE WR filepec [range] [qualifier]

Copies the *selected range of text* from a text buffer to the specified file. Does not change the contents of the text buffer. Without a range, EDT copies the contents of the current text buffer to the file.

Qualifiers:

SEQUENCE [initial] [increment] EDT writes the line numbers as part of the output file.

CHARACTER MODE KEYPAD EDITING COMMANDS

The keypad editing functions are those used when you enter Character Mode with the EDT CHANGE command and set the terminal to use the keypad keys with the SET KEYPAD command. You can also use all the mode commands with the Gold Command keys.

DELETE	Deletes the character to the left of the cursor
GO N Integer	Repeats any keypad function except SPACES, EXCLUSIVE, and CTRL/0
LINE FEED	Deletes the word to the left of the cursor
CTRL/A	Compares bit level
CTRL/C	Aborts the current command and returns EDT to keypad edit mode
CTRL/D	Decreases bit level
CTRL/E	Increases bit level
CTRL/K	Unlocks key
CTRL/L	Aborts edit
CTRL/U	Deletes to start of line
CTRL/W	Refreshes screen
CTRL/Z	Returns to line editing sequence

NONKEYPAD CHANGE MODE COMMANDS

Nonkeypad commands ignore edit and format characters before. They can be used in a series without any delimiter between commands. However, nonabbreviations are allowed.

DIGITAL Keying Editor (EDT) Commands

ADVANCE [-]ADV

Send all commands forward to the right and down from the current cursor position. ADV only commands backward to the left and up from the current cursor position.

APPEND [-] [-[count]APPEND] [-] [-[entity-count] [-] [-[entity]-buffer]

Moves the specified entity to another text buffer and deletes the text from the current buffer. Buffer names the receiving text buffer. If no buffer is specified, EDT uses the PASTE buffer.

ASCII [count]ASC

EDT displays an ASCII character when you specify the character's decimal integer representation.

BACK BACK

Sends all commands backward to the left or up from the current cursor position with a plus sign preceding another command.

CHANGE CASE CHGC[entity]

Changes the case of the characters within an entity.

CUT [-] [-[rep]CUT] [-] [-[entity-count] [-] [-[entity] buffer]

Deletes the marked text from the current text buffer and moves it to the specified text buffer, or to the paste buffer if no other buffer is specified. Deletes previous contents of the receiving text buffer.

DELETE [-] [-[rep]D] [-] [-[entity-count] [-] [-[entity] buffer]

Deletes a specified number of entities.

DEFINE KEY DEFK

Defines the keyboard used in keypad editing in terms of unkeypad commands.

EXIT EX

Exits EDT from keypad editing back to line editing.

EXTENDED EXT

Enters line mode command when EDT is in character mode. Returns to change mode after executing the command.

FILL *[+|-]* *[rep]* **FILL** *[+|-]* *[entity-count]* *[+|-]* *[entity]* *[-buffer]*

Places the maximum amount of text on each line within the limit determined by the SED WIDTH command (default 80 characters).

INSERT *[+|-]*

Prepends the current text buffer for insertion of text at front of the cursor position.

NULL *[+|-]* *[rep]* *[+|-]* *[entity-count]* *[+|-]* *[entity]* *[-buffer]*

Does the same the specified number of nulls.

PASTE **PASTE**

[+|-] *[rep]* **PASTE** *[+|-]* *[entity-count]* *[+|-]* *[entity]* *[-buffer]*

Copies the contents of the specified text buffer in front of the cursor cursor position.

QUIT **QUIT**

Ends the editing session so that editing any more and returns to the main SED prompt.

REPLACE *[+|-]*

[+|-] *[rep]* *[+|-]* *[entity-count]* *[+|-]* *[entity]* *[-buffer]*

Deletes the text specified and enters insert mode so that you can replace the deleted text. To exit from insert mode here, press *q* or *Q*.

REFRESH **REF**

REFRESH refreshes the entire screen.

SUBSTITUTE *[+|-]* *[count]* **SUB** *q2*

Replaces one string of characters with another. Count defines the number of substitutions and minus (-) indicates a backward search. Use any non-parameter character as a delimiter, in place of the *q*.

SELECT **SEL**

Lets you select a range of text by entering SED or *q* and any number to toggle to the other end. The select range is the text between the cursor and the position marked by SEL.

SHIFT LEFT *[count]* **SHL**

Shifts the screen image to the left. The amount shifted is equal to the count you specify times 8 (one tab stop). The default count is 1.

DIGITAL Standard Editor (SED) Commands

SHIFT RIGHT [count]SHR

Shifts the screen image to the right. The amount shifted is equal to the count you specify times 6 (one tab stop).

SUBSTITUTE NEXT [+|-]count]SN

Deletes all and is replaced in the last substitute command to appear the next occurrence of all with all. Count defines the number of substitutions and a minus (-) sign indicates a backward search.

TAB TAB

When no tab size is specified with SET TAB or when the cursor is not at the beginning of a line, TAB inserts a tab character at the cursor position.

When a tab size is specified with SET TAB, and the cursor is at the beginning of a line, TAB moves the cursor to the column number specified in the SET TAB command.

TAB ADJUST [+|-]top[TADJ] [+|empty-count] [+|-]empty-buffer]

Adjusts the tab size for the selected range of lines.

TAB COMPUTE TC

Sets the indentation level count to the value obtained by dividing the current column position by the TC * 4 + 1 number.

TAB DECREMENT [count]TD

Decreases the indentation level count.

TAB INCREMENT [count]TI

Increases the indentation level count.

TOP TOP

Moves the current line to the top of the screen.

UNDELETE CHARACTER [count]UNDC

Inserts the last character deleted by a DELETE CHAR command into the current text buffer (in front of the cursor).

UNDELETE WORD [count]UNWD

Inserts the last word deleted by a DELETE WORD command into the current text buffer (in front of the cursor).

UNDELETE LINE `(count)[INDL]`

Inserts the last line deleted by a **DELETE LINE** command into the current text buffer, in front of the cursor.

CIRCUMFLEX `(count)[A...Z]`

Inserts a circumflex character in the text buffer.

LINE RANGES

Most EDT commands allow you to specify a range of lines in which the action of the command is performed. These ranges are:

Single Line Ranges:

<code>(count)</code>	Current location of cursor.
<code>number[.count]</code>	The line number specified.
<code>"string" - string</code>	The most recent preceding line containing the string specified. Without a string specification, EDT uses the last search string.
<code>[range]-[number]</code>	The line that is the specified number of lines after the specified range.
<code>[range]-[number]</code>	The line that is the specified number of lines before the specified range.
BEGIN	The first line in the text buffer.
END	An empty line following the last line in the text buffer.
LAST	The last line in the most recent text buffer before the current text buffer.
ORIGINAL: number	The line numbers assigned to the lines in the main text buffer from the previous input file. You can be misled by the original line numbers even after a line has been assigned new numbers.

Disjunctive Line Ranges:

<code>[range-1],[range-2]</code>	The set of lines from <code>range-1</code> through <code>range-2</code> inclusive. <code>Range-1</code> and <code>Range-2</code> are any single line range specification.
<code>[range]#number - range[END: number]</code>	The specified number of lines beginning with <code>range</code> , where <code>range</code> is any single line range specification.

BEFORE	All lines preceding the current line in the edited buffer.
REST	All lines after and including the current line.
WITHIN	The current text buffer.

Noncontiguous Ranges:

[range,range,...]	All lines specified by each range, which must be single line ranges.
[range AND range...]	Single line ranges.
[range(A) range]	All lines in the merge containing the specified range.

Text Buffer Ranges:

[buffer][range:]	When you use a buffer without a range specification, the default is the entire text buffer and the cursor is placed at the first line in the text buffer.
(BUFFER buffer)[range,	

FLX COMMAND SUMMARY

Command lines for the File Exchange utility (FLX) use the following format:
outfile=infile:switch

FLX assumes the following defaults if no switches are specified on the command line:

Input volume	DD8-11
Output volume	FILES-11

FLX switches are:

BLOCKS outfile:BL:n: infile

Specifies the number of contiguous blocks (n) in total or decimal to be allocated to the output file.

BLOCK SIZE outfile:BS:n: infile

Specifies the block size (n) for contiguous data output.

CONTIGUOUS outfile:CO: infile

Specifies that the output file is to be contiguous.

DELETE outfile:DE:infile:(DE)

Deletes files from a DD8-11 or DD11 (used with the AC adapter) volume.

DIRECTORY outfile:DI: infile

Creates a directory listing of a magnetic or DD8-11 volume or, when used with the AC switch, of a DD-11 volume. The directory is placed in the specified output file.

DENSITY outfile:DN:B:n: infile

Specifies a density of 800, 1600, or 6250 lpi for a magnetic tape volume.

DD8-11 outfile:DO: infile:(DO)

Identifies the volume as a DD8-11 formatted volume.

FORMATTED ASCII outfile:FA:n: infile

Specifies formatted ASCII transfer mode (2b format).

FLX Command Summary

FORMATTED BINARY `outfile/FB:n:infile`

Specifies formatted binary transfer (no file test).

FORTTRAN CONTROL `outfile/FC:n:infile`

Specifies that FORTRAN language control conventions are to be used.

IDENTIFICATION `ID`

Displays the current version number of FLX.

IMAGE MODE `outfile/IM:n:infile`

Specifies image mode (n is in decimal digits).

LIST `outfile/LI`

Same as ID.

NUMBER `outfile/ZN:NB:n[infile]`

Used with /ZFI and /ZTF switches; specifies the number of directory blocks (n) is output for each file when you are adding to R1, R2 disk or RHC tape.

RSE FORMAT `outfile/RS:infile[RS]`

Identifies the volume as a File-11 formatted volume.

RT FORMAT `outfile/RT:infile[RT]`

Identifies the volume as an R1, R2 formatted volume.

REWIND `outfile/—RW:infile[RW]`

Specifies whether a magnetic tape will rewind before FLX begins the file transfer.

SPOOL `outfile/SP:n:infile`

Specifies that the converted file is to be spooled by the print spooler in the Queue Manager.

UID `outfile/UI:infile`

Specifies that the output file is to have the same UID as the input file.

VERIFY `outfile/VE:infile`

Verifies each record written to a device.

ZERO outfile2E - outfileRT

Includes entries for DOB-11 volumes as when used with the RT 1986b, RT 11 volumes. Including cases are file already on the volume.



FMT COMMAND SUMMARY

Command line for the Disk Volume Formatter (FMT) use the following format:

FMT /dev/wherethat /dev/where

In this command line, *dd* is the abbreviation for the volume being formatted and *n* is the unit number of the volume.

FMT switches are:

RAD *dd*=RAD

Round the bad block tolerance ability if it is enabled. Note that one can use this switch only with operating systems that allow opening of hard disk. IBM i150 provides openers, looks as a system generation system.

DENSITY *dd*=DENSE=*n*

Selects high (4mbits) or low (2mbits) density for R302 floppy diskettes. The value *n* can be 500 or 1000.

ERROR LIMIT *dd*=ERL=*n*

Determines the maximum number of errors FMT allows on the volume.

MANUAL *dd*=MAN

Enters manual operation mode and formats the sector or track you specify.

NOVERIFY *dd*=-VE

Inhibits the default verification of a successful FMT operation.

OVERRIDE *dd*=OVR

Overrides or ignores the manufacturer's bad block sector list (MDBBSF).

VERIFY *dd*=VE

Verifies that an FMT operation was successfully completed. This switch is the default.

WRITE LAST TRACK *dd*=WLT

Writes the MDBBSF (on the last track of the device) to add bad sectors listed during an FMT operation.

PMT Command Summary

INDIRECT command

Processes PMT that is a receiving input from an indirect command file. User intervention is not allowed during the operation.

LBR COMMAND SUMMARY

Command Line for the Librarian Utility (LBR) uses the following format:

`outfile[ext] [infile] [-infile2]...[-infileN][sw]`

LBR switches are:

COMPRESS `outfile/CD:age:sep:modulefile`

Compresses a library file by physically deleting logically deleted records, putting the free space at the end of the file, and making the free space available for new library module inserts.

CREATE `outfile/CR:age:sep:modulefile:ext-infiletype`

Allocates a new library file on a direct access device. For example, a text.

DELETE `outfile/DE:module[:module2]...[moduleN]`

Logically deletes library modules and their associated entry points from a file.

DEFAULT `outfile/DF:type...`

or

`/DF:type`

Specifies the default library file type.

DELETE GLOBAL `outfile/DG:globa1[:globa2]...[:globaN]`

Deletes the specified library module entry points from the entry point table.

ENTRY POINT `outfile/EP [infile]...[infileN]`

or

`outfile [infile/EP]...[infileN/EP]`

Includes or excludes entries in the entry point table.

EXTRACT `outfile [infile/EX]:moduleName1...:moduleNameN]`

Reads back one or more modules from a library and writes them into the specified output file.

LIB Command Summary

INSERT outfile&w infile1,infile2,...,infilen]
or
outfile infile:N:name:op:prop:prop (universal)

Inserts library modules into a library file.

LIST outfile,infile[:switch(es)]

Lists all modules in the library file plus additional information, depending on which form of the switch was used.

/T Lists all modules in the library file.

/X Lists all modules in the library file and their corresponding entry points.

/F Lists all modules in the library file and provides a full module description that includes the size, date of creation, and module-dependent information.

MODIFY HEADERS outfile:N:module:op:prop:prop

Modifies the op, and user-specified information in the module header of a universal library.

REPLACE outfile:RP infile1,infile2,...,infilen (global format)
outfile,infile1:RP[,infile2:RP]...[,infilen:RP] (local format)
outfile:RP:name:op:prop:prop infile1,infile2,...,infilen (universal/global format)
outfile,infile1:RP:name:op:prop:prop[,infile2,...,infilen] (universal/local format)

Replaces or, in certain cases, inserts library modules in a library file.

SPOOL outfile,infile:SP

Spools the listing file for printing. This is the default setting, and is not to prevent the file from being printed.

SELECTIVE outfile,infile1:\$s[,infile2:\$s]...[,infilen:\$s]

Runs the selective search algorithm bit in the object module header.

SQUEEZE outfile:\$Z,infile1,infile2,...,infilen (global format)
outfile,infile1:\$Z[,infile2:\$Z]...[,infilen:\$Z] (local format)

Reduces the size of source definitions by removing comments, blank lines, and trailing blanks and tabs from the source text.

SLP COMMAND SUMMARY

Command lines for the Source Language Input Program (SLIP) use only the following format:

outfile/switch,infile[SP or / SP=outfile/switch]

SLP switches have the same effect and can be used on either input or output file specifications, except for the /SP switch which can only modify the outfile. These switches are:

AUDIT TRAIL outfile[-]AU infile
 outfile=infile[-]AU

Enables or disables the audit trail, which indicates the changes made during the most recent editing session.

BLANK FILL outfile[-]BF infile
 outfile=infile[-]BF

Enables or disables blank fill (right justification) for an audit trail.

COMPRESS outfile[-]CM infile
 outfile=infile[-]CM

Deletes the audit trail and any trailing spaces or tabs, and truncates the text at the specified horizontal position.

CHECKSUM outfile=CS[:n]infile
 outfile=infile=CS[:n]

Calculates the checksum value for the audit commands.

DOUBLESPACE outfile[-]DB infile
 outfile=infile[-]DB

Enables or disables double spaced listings. /DB is the default outfile.

NO SEQUENCE outfile=NS=nl infile
 outfile=infile=NS

Does not sequence lines in the output file. New lines are indicated by the asterisk (*), if specified. This switch overrides the /NL and /ND options.

RESEQUENCE outfile=RS=nl infile
 outfile=infile=RS

Resequences the lines in the output file so that the line numbers are incremental for each line written to the output file.

SLP Command Summary

SPOOL outfile, outfile1 [-BPP=infile]

Enables or disables the spooling of output files to a printer. This switch applies only if the first operand has the RSX LUMP or the Queue Manager RSX LUMP PLUSH attribute set.

SEQUENCE outfile,SEQ=infile outfile1,seq=SEQ

Specifies the lines in the output file that the numbers reflect the line numbers of the original input file.

TRUNCATE outfile,TR=infile outfile1,truncate=TR

Specifies that a diagnostic error message occurs when the operands for the truncate fail.

SLP uses the following special operators, in edit mode, to perform specific functions:

Operator	Function
@	Identifies the data to the next character of a SLP edit command line.
^	Suppresses edit-line processing.
~	Inserts an edit-line processing.
~	Indicates an indirect file to SLP processing.
~	Terminates the SLP edit session and returns to SLP command mode.
~	A new character in the input file that SLP would normally use as a delimiter.

PAT COMMAND SUMMARY

PAT command lines use the following format:

[outfile] infile(CS[*n*])<convert>C8[*n*]

in this command line, outfile is the file specification for the output file, infile is the file specification for the input file containing one or more concatenated object modules, and convert is the specification for the conversion file containing updates to be applied to one module in the input file.

The only PAT switch is:

CHECKSUM [outfile] infile(CS[*n*])<convert>C8[*n*]

Tells PAT to calculate the checksum for all the binary data that constitutes the module. PAT displays this checksum to total.



PERIPHERAL INTERCHANGE PROGRAM (PIP) COMMANDS

Default Operation

The default PIP operation (with no switches) is to copy the specified file, using the following format:

outfile = infile[,c][subnewwherec]

PIP allows the following parameters for this command:

outfile If the command does not specify a file name, file type, or version number, PIP uses the input name and type and the next highest version number.

If the command specifies a file name, file type, or version number, no other field can be a wildcard and the command line can only specify one input file.

infile If the command does not specify file name, file type, or version number, the default is **1.1.1**.

subnewwherec

/BL[n] Specifies the number of contiguous blocks allocated for the output file, where n is total or decimal.

If n is decimal, it is followed by a period but.

/NO, /-CO, or /NOCO Specifies a contiguous or noncontiguous output file.

/FC File ownership (output file UFD).

/V Forces the output version number of the copied file to be 1 higher than the current highest version.

/SU Copies the output file, superseding an existing file.

APPEND **outfile[FO] = infile(s)APP[FO]**

Opens an existing file and appends the input file, **infile(s)**, to the end of it.

PIP allows the following parameters for this command:

outfile Explicit file name and file type.

infile(s) Explicit file parameters wildcard by default.

/FO File ownership is the output file UFD; without /FO, ownership is the UFD of the user running PIP.

Peripheral Interchange Program (PIP) Commands

BLOCKSIZE outfile:BBn=infile(s)

Defines the block size for magnetic tape.

CREATION DATE outfile:CD=infile(s)
outfile=infile(s):CD

Causes the output file to use the creation date of the input file rather than the date of the file transfer. This switch cannot be used with the reorganization or with a magnetic tape as an output device.

DATE ,D:A:star:date:and:date

Returns file statistics to files created during the specified period of time.

DELETE infile(s):DE[:LP]

Deletes files. L/P is a switch which, if set, causes PIP to list the files to delete.

DEFAULT [ddn:]JUF0:JDF

Changes the default device and/or JDF's for the current PIP task.

END-OF-FILE infile:EOP[:block:byte]

Specifies the end-of-file markers for a file. If values for block and byte are not entered, PIP places EOP at the last byte of the last block in the file.

ENTER outfile=infile(s):EN[:NV]

Enter a synonym for a file in a directory on the same device, with an option to have the version number of the output file to 1 greater than the other version for the file.

outfile The file name, file type, or file version can be entered as a wildcard, or null. A file that is a wildcard or null contains a corresponding input field.

infile Default for the file name, file type, and file version is "*", ":", and

NV Force a new version of the file.

EXCLUDE likepat:EX

Exclude one file specification during a search.

FILE ID outfile=s:FI:file number:sequence number

Accesses a file by its file identification number (FI-ID).

FREE [drive]:FR

Displays on the terminal the amount of space available on a volume, the largest block of contiguous space, the number of available headers, and the number of headers used.

IDENTIFICATION ID

Identifies the version number of PIP currently in use and whether PIP is linked to ANSOFB.

LIST [infile] [infile(s)](s)LI[switch(es)]

Lists the contents of one or more UFDs with an option to specify blocks for output directories.

infile Having file specification, defaults to TL.

infile Default is *.*.*.

This switch(es) determine which type of report is displayed.

BRIEF
or **BRI** Brief report.

LI Limited report

CONTIN
or **CON** Full report to specify the domain characters per line; its default is device buffer size.

COMP
or **COB** Total blocks report.

FILE UFD
or
UFDLI Files created on current file. The UFD switch also does not generate a directory listing.

MERGE outfile = infile(s)ME[switch(es)]

Overwrites file by concatenating two or more files. The legal switches are:

switch(es):

BL(nu) Specifies the number of contiguous blocks selected for the output file, where n is octal or decimal.

If n is decimal, it is followed by a period (n.)

Peripheral Interchange Program (PIP) Commands

ADD, AOO
or **ADDDO** Specifies a contiguous or noncontiguous output file.

AFD File ownership output file (FDF).

AV Alters the output volume number of the output file to be 1 higher than the current higher volume.

BSL Copies the output file, expanding an existing output file.

NO MESSAGE Interface (NM) (nm)

Control (control) PIP error messages are to be displayed. For example, the message NO SUCH FILE(S). The switches that can be used with the NM switch are:

AL Like directory.

DE Delete file(s).

FD Purge file(s).

UN Unlink file(s).

You can also use any combination of these switches.

PROTECTION SYMBOLIC [file:PR[SY:RWED][OW:RWED]]
[AGR:RWED][WQ:RWED][FO]

Alters the file protection for the file specified. The file name and the type must be explicit.

Symbolic protection codes assign privilege mainly by their meaning, being:

System - SY:RWED
Owner - OW:RWED
Group - GR:RWED
World - WD:RWED

The symbolic codes are:

R - read
W - write
E - extend
D - delete

Source protection codes privilege by setting bits in a protection status word. Add octal values from the following list to deny privilege.

User Class	Privilege	Octal Code	Bit
System	R	1	0
	W	2	1
	B	4	"
	D	10	2
Center	R	20	3
	W	40	4
	B	100	5
	D	200	"
Group	R	400	6
	W	800	7
	B	2,000	8
	D	4000	9
World	R	10000	10
	W	20000	11
	B	40000	12
	D	100000	13

PURGE file(s) /PU[:n]LD]

Deletes a specified range of versions of a file (but does not delete the latest version). Specification of a file version number is not necessary. Wildcards are valid for file name and file type.

When *n* is specified, PIP deletes all but the *n* latest consecutively numbered versions. Without *n*, PIP deletes all but the latest version.

REMOVE file(s) /RM

Removes an entry from a DFD, but does not delete the file.

Peripheral Interchange Program (PIP) Commands

RENAME outfile=infile(pRE)(NV)

Changes the name of one file specified. Use with the /NV switch. /NR creates an output file with a version number 1 higher than the latest version of the file.

outfile A wildcard (*) or null field assumes the value of the corresponding field in the input file

infile Null file name, file type, and file version default as /inp.

NV See COPY

REWIND outfile(RW) infile outfile = infile (RW)

infile Causes the tape on the specified unit to be rewound and erased.

outfile Causes the tape on the specified unit to be rewound before the input file is opened.

SELECTIVE DELETE infile(sD)

Prompt for user response before deleting files

SHARED READING infile(sR)

Allows shared reading of a file that has already been opened for writing

SPAN BLOCKS outfile(outfileSR) = infile(infile)

Allows current file records to cross block boundaries when ANSI tapes are being copied to File 11 volumes.

SPOOL infile(sS)(n)

Specifies a list of files to be printed on a line printer. n is the number of copies. This switch applies only to volumes, the Serial Descriptor or the Queue Manager. However, using it with the Queue Manager is not recommended.

TRUNCATE infile(pTR)

Truncates files to their logical end-of-file point.

USER FILE DIRECTORY ENTRY `outfile(s)[UR][FO] = infile(s)`

Create a User File Directory entry in the Master File Directory on a volume.

`outfile` Specify the UIC as 000 to transfer multiple infile UICs.
`/FO` See APPENDIX.

UNLOCK `infile(s)UR`

Delete a file that was locked as a result of being closed improperly.

UPDATE FILE `outfile = infile(s)UR[FO]`

Open an existing file and writes new data (infile) in it, from the beginning.

`outfile` Must be explicitly identified.
`infile` Null parameter default to 1 (1st input file) replaces the
current contents of output file.



QUEUE MANAGER

The system provides the Queue Manager commands for I/OX-11M. It includes guides to use the commands from either DCL or MCR.

DELETE

Deletes entries in a queue (job by name or by the job's unique entry number).

Format:

```
DCL:DELETE/JOB queuename jobname[/FILE_POSITION:n]  
DCL:DELETE/ENTRY:nn[/FILE_POSITION:n]  
MCR:QUE queuename jobname/FILE:  
MCR:QUE queuename/FILE:DEL
```

HOLD AND RELEASE

You can specify that a job be held when you issue your PRINT or SUBMIT command. You can also hold jobs with the HOLD command and release such jobs with the RELEASE command.

HOLD QUEUE JOB blocks a job in the queue until it is explicitly released.

RELEASE QUEUE JOB unblocks a job that has been held in queue.

Format:

```
DCL:HOLD/JOB queuename jobname  
DCL:HOLD/ENTRY:nn  
MCR:QUE que, name/jobname/HO  
MCR:QUE jobname/HO  
DCL:RELEASE/JOB queuename jobname  
DCL:RELEASE/ENTRY:nn  
MCR:QUE queuename/jobname/REL  
MCR:QUE jobname/REL
```

PRINT

Queue files for printing on a dot printer or on an other output device.

Format:

```
DCL:PRINT/command,q,option[s] file[s]file[s]file[s]  
MCR:PR: [queue name][:job name][:job switch] - [file[s]]file switch[s]
```

Queue Manager

BCL Qualified Qualifiers	MCB Job Strategies
/JOBCOUNT:n	/JOBn
/JOBSubj:jobname	jobname
/UPPERCASE	/OLD
/LOWERCASE	/LO
/NOHOLD	/NO/HO
/PAGE_COUNT:n	/PAn
/NAME:jobname	/cbname
/PRIORITY:n	/PRIO:n
/ORVS:n	/OR:n
/LENGTH:n	/LEN
/NO/RESTART	/NO/RES
/NO/FLAG_PAGE	/NO/1
/AFTER(dd-mm-yy hh:mm-yy) /AFBh:mm dd-mm-yy	
/DEVICE:cbn	cbname
/NOJOB PAGE	/NOJO
MCB File Qualifiers	MCB File Strategies
/NO/DELETE	/NO/DE
/COPIES:n	/CO:n

SET QUEUE

Modifies attributes given in job name, header page, or files that compose job in queue. Such job and files have been entered in queue by the JCLNT command.

Job Format

```

JCL SET QUEUE jobname/jobnamequalifier/qualifier
JCL SET QUEUE /ENTRYname/qualifier/qualifier
VCR FILE jobname/jobname/MOD/switch/switch[a]
VCR FILE /ENTRYname/MOD/switch/switch[a]
  
```

BCL Qualifiers	MCB Strategies
/AFTER(dd-mm-yy hh:mm-yy) /AFBh:mm dd-mm-yy	
/JOBCLNT:n	/JOBn
/ORVS:n	/OR:n
/LENGTH:n	/LEN
/LOWERCASE	/LO
/PAGE_COUNT:n	/PAn
/PRIORITY:n	/PRIO:n
/NO/RESTART	/NO/RE
/UPPERCASE	/NO/LO



ZAP COMMAND AND SWITCH SUMMARY

Invoke ZAP by entering the ZAP command line, using the following format:

`ddm:pb[filname, filetype, version, ...]`

You cannot space a file specification on the command line when you invoke ZAP.

In this command, the file specification is the task image file to be examined or modified. The default file type is ILK and the default version is the latest one.

ZAP command lines use the following switches:

ABSOLUTE `ddm:filname:AB`

Specifies absolute mode.

LIST `ddm:filname:LI`

Displays the overlay segment table for an overlaid task image file.

READ-ONLY `ddm:filname:RO`

Specifies read-only mode.

ZAP Open/Close Commands

ZAP uses the following commands to examine or modify a task image file:

/ (slash)

Opens a location, displays its contents in octal, and stores the contents of the location in the Quantity Register (Q). If the location is odd, it is opened as a byte.

" (quotation mark)

Opens a location, displays the contents of the location as two ASCII characters, and stores the contents of the location in the Quantity Register (Q).

% (percent sign)

Opens a location, displays the contents of the location in EBCDIC format, and stores the contents of the location in the Quantity Register (Q).

\ (backslash)

Opens a location as a byte, displays the contents of the location in octal, and stores the contents of the location in the Quantity Register (Q).

ZAP Command and Status Summary

(Open/Close)

Opens a location, displays the contents as the ASCII character and stores the contents in the location in the Quantity Register (Q).

RET (RETURN key)

Closes the current location as modified and opens the next sequential address if no other value or commands are in the command line. ZAP commands take effect only after you press the RETURN key.

* or (circumflex or up arrow)

Closes the currently open location as modified and opens the preceding location.

_ (underscore)

Closes the currently open location as modified, uses the contents of the location as an offset from the current location, and opens the new location.

@ (at sign)

Closes the currently open location as modified, uses the contents of the location as an absolute address, and opens that location.

- (right angle bracket)

Closes the currently open location as modified, interprets the top-order byte of the contents of the location as the relative branch offset, and opens the target location of the branch.

- (left angle bracket)

Closes the currently open location as modified, returns to the location from which the last series of underscore (_) or up arrow (^) and/or right angle bracket (>) commands began, and opens the next sequential location.

General-Purpose Commands

X

Returns from ZAP and returns control to the CUI.

K

Calculates the offset in bytes between an address and the value assigned to a Relocation Register, displays the offset value, and stores it in the Quantity Register (Q).

D

Displays the jump and branch displacements from the current location to a target location.

V

Displays in octal the value of the expression to the left of the equal sign.

Verifies the contents of the current location.

R

Revs the value of a Solution Register.

100

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

MONITOR CONSOLE ROUTINE (MCR) COMMANDS

In this section, (P) indicates that a command format or keyword is privileged.

ABORT **ABC taskname [keyword]**

Keywords: PMD
TERMIN=Time

Terminates execution of the specified task from the issuing terminal, or from another terminal if the /TERM keyword is used. You can request a Postmortem Dump with the /PMD keyword.

ACTIVE **ACT [keyword]**

Keywords: ALL
TERM=Time

Displays on the terminal all tasks loaded from that terminal, all tasks active in the system, or all tasks active from a specified terminal.

ACTIVE TASK LIST **ATL [taskname]**

Displays the name and status of all active tasks in the system, or the status of the particular task specified.

ALLOCATE **ALL dd[ns] [line:[keyword]]**

Keywords: TERM=Time
TYPE dev

Establishes the specified device as the user's default device in multi-task operating systems. Privileged users can allocate a device to any terminal, using the /TERM keyword, but nonprivileged users can only allocate devices to their own terminals.

Specifying dd allocates the first logical unit of the dd-type device (for example, HMD). Specifying the /TYPE keyword allocates the first available dev-type device (for example, HMD). Specifying all[n] causes a logical device name and assigns it to the physical device being allocated.

ALLOCATE CHECKPOINT SPACE (P) **ACS ddnn[BLKS=n]**

A device is designated a checkpoint file on disk for systems that support the dynamic allocation of checkpoint space. The /BLKS keyword specifies the number of blocks to be allocated to the checkpoint file. Use only to allocate space to a checkpoint file.

Monitor Console Routine (MCR) Commands

ALTER **ALT taskname[keyword]** (P)

Keywords: PR: state and running priority
SPL: running priority only
TERM: TTerm: base priority from a specified terminal

Changes the state or running priority of an installed task.

ASSIGN **ASN ppm: lnn: [keyword]**

Keywords: GBL
LOGIN
TERM=TTerm:

Defines, displays, or deletes logical device assignments as follows:

Local assign operations

ASN ppm: lnn:
ASN ppm: lnn: /TERM=TTerm: (P)

Login assign operations

ASN ppm: lnn: /LOGIN (P)
ASN ppm: lnn: /LOGIN /TERM=TTerm: (P)

Global assign operations

ASN ppm: lnn: /GBL (P)

Local display operations

ASN

Login display operations

ASN /TERM=TTerm: (P)

Global display operations

ASN /GBL (P)

Local delete operations

ASN =
ASN lnn:

Login delete operations

ASN /LOGIN (P)
 ASN =/LOGIN/TERM=TTnn (P)
 ASN /TERM TTnn (P)
 ASN =/term/TERM=TTnn (P)
 ASN /term/LOGIN (P)
 ASN =/term/LOGIN/TERM=TTnn (P)

Global delete operations

ASN /GBL (P)
 ASN =/nn/GBL (P)

BLOCK **BLK** [taskname]/TERM=TTnn]

Declares that the specified task is ineligible to execute or to compete for memory resources. Nonprivileged users can block only tasks running from their own terminals. Privileged users can block any task. However, ACP tasks, CIL tasks, tasks being started, and halted tasks cannot be blocked.

BDDT **BDD** [filepec] (P)

Deletes any system task tasks on a task image (D) on a File 11 volume.

BREAKPOINT TO XTD (P) **BRK**

Places control to the Resident Debugging Tool (XDT).

BROADCAST **BRO** TTnn: message
BRO [filepec
BRO ALL:message (P)
BRO LOG:message (P)
BRO user-name: message

Displays the specified message on one terminal for a nonprivileged user, or on a number of terminals for a privileged user.

BYE **BYE** (keyword)

Keyword: (NO)HID

Logs the user out of a multise, protection system, optionally specifying that the full-duplex terminal driver run hang up a remote line or that CIL not exit the connection.

CANCEL **CAN** taskname

Generates this hard initiation on a task. Privileged users can cancel any task, but nonprivileged users can cancel only tasks that they initiated.

COMMON BLOCK DIRECTORY **CBD [common-engine-name] [keyword]**

Keyword: /TASKS

Displays information about all entries in a specific entry in the Common Block Directory. Also, CBD with the /TASKS keyword displays the name of each task attached to a specific common object and the number of times the task has mapped to the object.

COMMAND LINE INTERPRETER **CLI [keyword cline]**

Keywords: DISABLE cline: none

ELIM cline: on | E.LIM "

ENABLE cline: none

INIT cline: none | (subkeyword(s))

 Subkeywords: CRR="string"

 DISABLE

 CRR="string"

 LOG

 MESSAGE

 NULL

 PAGE

 PROMPT

 QUIT

 RESTORE

 SAVE

 TASK taskname

MESSAGE cline: none "message-text"

SHOW

INQVP

Starts up the user's command line interpreter. Also runs MCR, such as DCL, as a user-written CLI.

CLOCK QUEUE **CLQ[QUEU]**

Displays on the console terminal information about tasks currently in the clock queue.

DEALLOCATE **DEA [idname]**

Deletes a private task-based device whose name is the device name and unit number. Privileged users can Deallocate any device, but nonprivileged users can only deallocate devices that they have allocated. If no device is specified, the command dees all devices of the user's allocated devices.

DEBUG DEB [taskname]

Allows you to debug a task by forcing the task to trace or debug using all Nonprivileged users can debug only tasks that they initiated. Privileged users can debug any task.

**DEVICES DEV [keyword]
 DEV dd:
 DEV ddnn:**

Keywords: LOG

Displays a summary listing of all devices listed devices of a particular type, or the name of a specific device. The LOG keyword displays all of the logged in terminals.

DIGITAL COMMAND LANGUAGE DCL commandLine

Allows you to enter DCL commands from a terminal that is set to MCR.

**DISMOUNT DMO ddnn:)[/label"/];keyword(s)
 DMO /USER[keyword(s)]**

Keywords: DEV (P)
 TERMINAL (P)
 LOCK option

Tells the file system to mark the volume for dismount and to release the current locks. Privileged users can dismount any volume, but nonprivileged users can dismount only devices that they have mounted.

FIX IN MEMORY (P) FIX taskname [keyword]

Keywords: /REG
 /CON

Locks and fixes a task or a common task region into memory.

GROUP GLOBAL EVENT FLAGS FLAGB[flag]keyword]

Keywords: GRH
 ELIM

For privileged users, enables or disables global event flags for any group. For nonprivileged users, enables or disables group global flags only for their own login group. Any user can display all of the group global event flags.

NonRor Console Prompt (NCR) Commands

HELLO-LOGIN HEL [uid,password]
 HEL [user:node[:password]]
 LOG [uid,password]
 LOG [user:node[:password]]

Log you in as a terminal to access a publiced system.

HELP HELP [keyword] [qualifier 2] ... [qualifier 9]
 HELP % [qualifier 2] ... [qualifier 9]

Keywords: CI hostname
 DDL
 FIL [filepec]
 CHD
 LDC
 MCR
 OUT [filepec]

Displays the contents of a help file on the logging terminal.

HOME HOW ddns volume-label[keyword(s)]

Keywords: DEMS density
 EXTchck count
 PRRO [system,owner,group,word]
 LRLed memory-count
 MCR file-count
 NAMES new vol. no-label
 ONE [P]
 ONVFR-[g,n]
 PRC [system,owner,group,word]
 ULC [c,m]
 W
 WIN ndnsvol-st-pathno-count

Modify certain files in the home area of a FibreT disc volume

INITIALIZE VOLUME EMI ddns["volume label"] [keyword(s)]

Keywords: AUTOLIS-4thyrder
 NAD-[option]
 DEMS density
 EXTchck count
 PRRO [system,owner,group,word]
 NDW ndns file position
 NF ndns-index-file-size
 LRL directory count

Keywords: **MAX** *intensity*
OWNER *[g.m] or OWNERID: name**
PRO *[system/device/group/world]*
LIC *[g.m]*
VI
WIK *[protocol-port/level]*

Provides a Flash II volume in disk, magnetic tape, or DECtape. Do not use cover protection systems; use can handle volumes only on devices that you allow read.

INSTALL **INS** *[S]fileseq[keyword(s)]* **(P)**

Keywords: **API** *[Sx,LSx]*
CKP *option*
CI *option*
INC *size*
IDP *option*
PAR *phone*
PMD *option*
PRI *number*
PRO *[system/device/group/world]*
RDN *option*
RQPAR *parameter*
SEC *option*
SV *option*
SYNO *option*
TASK *parameter*
TIME *nm*
 or
TIME *ns*
UUC *[g.m]*
XPR *option*

Mounts specified file known in the system.

LOAD **LDA** *dd[keyword(s)]* **(P)**

Keywords: **PAH** *var units*
CTH *[seq],n-1*
SIZE *varsize*
DSH

Transfers immediate device driver into memory and constructs the internal response to allow access to the device.

LOGICAL UNIT NUMBERS LUN(B) taskname

Displays the logical LUN assignments for a specified task.

MOUNT

Allows the file system software access to a physical device.

File=11 disk or DECtape format:

MOU device=[label][keyword(s)]

Keywords: ACP option (P)
DEKS device
EX=block-count
FDR
FFRO=system owner(group.world)
LOCK option
LRI=memory count
OVR (P)
PARM=user parameter
PRO option
FUS
[NO]SHARE
LQ (log)
LNL
VL
NOWAIT
WIN option
[NO]WRITE

File=11 (ANSI) magnetic tape format:

MOU device=[wt:[file-set-ID]][keyword(s)]

Keywords: ACP option (P)
BS r
CC=option
DENS density
FDR
FFRO=system owner(group.world)
[NO]HTR
[NO]LABEL
LOCK option
OVR (P)
OVRACC (P)

Keywords: OVEREXP (P)
 OVERFSD (P)
 PARML: user parameters
 PRO: option
 RAS
 RB
 [NO]SHALT
 TR: option
 UXC={c,m}
 W
 WD: option
 [NO]WAT
 [NO]WRITE

OPEN REGISTER (P) OPEN[mem-addr] [+n][keyword]
 mem-addr: contents [cbf-chr] [value term]

Keywords: AFX [CPs,USy]
 CPJw[CPs]
 TASK: taskname
 TASKB
 TASKC
 PAR:parthname
 <NL>
 <NL>
 <NL>
 CRVaddr
 REG: registername

Allow verification and optional modification of a register in memory.

PARTITION DEFINITIONS PAR[TITIONS]

Displays a description of each memory partition in the system.

REASSIGN (P) REA taskname lun ddno:

Reassigns task name to logical unit number from one device to another.

REDIRECT (P) RED address: address:

Transfers all I/O requests from one physical device unit to another (from 0 to 4).

Monitor Console Routine (MCR) Commands

REMOVE (P) RES [ddnn:] taskname or RES region=taskname keyword

Keywords: /RES

Deletes an entry from the monitor. Load the System Task Directory (STD) and thereby remove the task from the system. The optional device specification indicates the device from which the task was loaded. The RES keyword removes regions from the CPU.

RESUME RES taskname [keyword]

Keywords: /ALLMA /TMR (P)

Allows nonprivileged users to continue execution of a suspended task that was interrupted from the monitor terminal. Privileged users can resume any suspended task.

RUN RUN taskname [UIC [q,n]] [UIC privileged keyword]
RUN taskname dtime [RES=magu] UIC [q,n] (P)
RUN taskname spco [sbmag] NSI =magu [UIC [q,n]] (P)
RUN taskname atime [RES=magu] UIC [q,n] (P)
RUN [ddnn] [B] [keyword(s)]

Keywords: CK / action
CMD / command-line
ED / editor
INQ / size
IO / option
PAR / phrase
PMD / option
PR / number (P)
RCPAR / phrase
SI / option
TASK / taskname
TIME / add or TIME=NS
UIC [q,n]

In the command UIC [q,n] task, values in parentheses are not required. Time expansion intervals.

SAVE (P) SAV [keyword(s)]

Keywords: WB
MCU=string
SFLE / device
CBH / s

Copies the current system image into the system image file from which the current system was loaded.

SET SET /keyword /value

Keywords: ATAN([wTTn])
 BRO[/TTn]
 BUF=addr[:size]
 CU[/TTn,cl]
 CLOG
 CPT[/TTn]
 DO[/TTn]
 ESC[/TTn]
 ECHO([wTTn])
 ESC660[/TTn]
 FDX([wTTn])
 FORMFEED[/TTn]
 HRT[/TTn,value]
 HH[/TTn]
 HOLD([wTTn])
 LIBUS[/nn]
 LINKS=TTn[:value]
 LOGON[/P]
 LOWER[=dnn]
 MAIN[=name[:base[:type]]]
 MAXEXT[/size[/P]
 MAXEXT[=n]
 MCR[/TTn]
 NITTC[=n,m]
 NOCEN
 OPT[=addr[:nyn[:base[:code]]]
 QVLP[/nn]
 RAB[=name[:base[:size[:type]]]
 PLOT[=hgn[:lwn[:lrc[:base[:P]]] /P]
 RADD[/size
 PRIV[/TTn]
 PUB[=addr]
 REMOTE([wTTn[:speed])
 RND[/nn]
 RNDH[/nn]
 RNDL[/nn]
 RPA[/TTn]
 SECR
 SERIAL[/TTn]
 SLAVE([wTTn])
 SPEED TTn[:conv.mC]
 SWPD[/nn]
 SWPR[=nn]

Monitor Console Paging (MCP) Commands

Keywords: `SYSTEM[sig.m]`
`TERM TTY[no.val]`
`TOP[parameters]`
`TYPEAHEAD TTY[no.val]`
`UID[sig.m] TTY[C]`
`UID TTY[C]`
`WALL TTY[C]`
`WORK[done]`
`WILL[not done]`

Displays characteristics of the system, tasks, and devices. Privileged users can enter the characteristics of any device or task, but nonprivileged users can enter only characteristics for devices and tasks attached to them. All users can display information.

SYSTEM SERVICE MESSAGE (P) SSM message

Displays text from the error log file.

TASKLIST - ATL TAT[*taskname*]

Displays the names and status of all tasks included in the system or of a specific task.

TASKLIST TAB[*taskname*]DEV[*device*]

Displays each task included in the system, a specific task, or one or more tasks included from a specific device.

TIME TIM [hrs:min[*secs*]] [mtdays:year] [hrs:min[*secs*]] [day-mo-year]

For nonprivileged users, sets and displays the date and time. For the system for nonprivileged users, only. Displays them.

USER FILE DIRECTORY UFD ddn[*volume-label*][*g.m*]-*keyword*[*n*]

Keywords: `ALLOC`-`enable`
`FILE` [*username,owner,group,world*]

Creates a User File Directory (UFD) on a File 11 volume and enters its name into the Master File Directory (MFD). Privileged users can create UFDs on any mounted volume, but nonprivileged users can create UFDs only on a volume attached to a device that they have allocated.

UNBLOCK **UNB** *(taskname)* *(keyword)*

Keyword: **TERMINATE** **(P)**

Continues the execution of a previously blocked task. Nonprivileged users can unblock only tasks running from their own terminals. Privileged users can unblock any task.

UNFIX **UNF** *(taskname or UNF region-name)* *(keyword)* **(P)**

Keywords: **FREE**

FREE

Free a fixed task or detached task region from memory.

UNLOAD **UNL** *(id)* **(P)**

Remove a module device driver from memory.

UNSTOP *(TOP)* *(taskname)* *(keyword)*

Keyword: **TERMINATE** **(P)**

Continues execution of a task previously stopped internally by the Executive. Nonprivileged users can unstop only tasks running from their own terminals. Privileged users can unstop any task.



DIGITAL COMMAND LANGUAGE (DCL)

In this section, (P) indicates that a command format or argument is optional.

ABORT **ABORT**[*qualifier[s]*]*commandname*
ABORT/TASK[*qualifier*]*taskname*

Command

Qualifiers: /*COMMAND*
/TASK
/NOPOSTMORTEM
/TERMINAL *term* (P)

Default: /COMMAND

Force an object with a running task or to the status of a specific instance.

ALLOCATE **ALLOCATE**[*qualifier[s]*]*device* [*logicalname*]

Command

Qualifiers: /TERMINAL *term* (P)
/TYPE:*device-type*

Default: NONE

Declare a specific device to be a private device. You can allocate devices by logical name or physical name. If you omit the unit number and colon, the next available device of that class is allocated.

APPEND **APPEND**[*qualifier[s]*]*infile*[,*e*]*outfile*

Command

Qualifiers: /*Default=mmmm-yy*
/SINCE*dd mmm yy*
/THROUGH*dd mmm yy*
/SINCE*dd mmm yy* /THROUGH*dd mmm yy*
/TODAY
/EXCLUDE*filename*

Default: NONE

Append to an existing sequential file records from one or more sequential files. The file specification for the EXCLUDE qualifier can include wild cards. These range qualifiers, together with the EXCLUDE qualifier, are also accepted on the COPY, DELETE, INFORMATION, INQUIRE, RENAME, SET PROTECTION, TYPE, and UNLOCK commands.

ASSIGN **ASSIGN**[qualifier(s)] **device**:logical-device;

Command Qualifiers:

/LOCAL
/LOGIN (P)
/GLOBAL (P)
/SYSTEM (P)
/TERMINAL (P)

Default: **/LOCAL**

Associates a logical name with a physical device, pseudo device, or other device. All references to the logical name are resolved by the system to the associated physical device, pseudo device, or logical device.

ASSIGNQUEUE (P) **ASSIGN/QUEUE** queue-name pseudo-name

Establishes a path between a queue and a pseudo in the Queue Manager subsystem.

ASSIGN/REDIRECT (P) **ASSIGN/REDIRECT** old-device new-device

Redirects output from one physical device to another. You can also redirect a physical device to a pseudo device or vice versa.

ASSIGN/TASK (P) **ASSIGN/TASK** task-name device: lun

Reassigns an installed task's Logical Unit Number (LUN) from one physical device to another. The reassignment overrides the LUN assignment made in the task's disk image file. You cannot change the LUN of an active task.

BACKUP **BACKUP**[qualifier(s)] **source**[(file)pos(s)]**device**:

Command Qualifiers:

Group 1: Selective Backup and Restore

/AFTER[(dd-mm-yy name)] Use with **/CREATED** or with
/BEFORE[(dd-mm-yy name)] **/MODIFIED**
/CREATED
/EXCLUDE
/IMAGEimg
SAVE
RESTORE
/MODIFIED
/NEW_VERSION
/NOINPLACE

Command Qualifiers

Group 2: Initialization

/ACCESS:n	n = default number of FCBS on each volume
/BADBLOCK:arg	
AUTOMATIC	
MANUAL	
OVERWRITE	
/EXTENSION:n	Default is 5
/FILE_PROTECTION:n code	Default is same protection as input volume
/HEADERS:n	
/INDEX:arg	Specifies position of INDEXES on volume; default is same position as in volume
BEGINNING	
MIDDLE	
END	
n	Logical block n
/NOINITIALIZE	
/MAXIMUM_FILES:n	Default is same number of mapping pointers (windows) as input volume
/WINDOWS:n	

Group 3: Tape and Disk Control

/APPEND	
/SAVE_SET:ame	Default is name of disk volume being backed up
/DENSITY:arg	
d00	Default density = 800 bpi (8 mm supports two densities, otherwise default is density of the particular unit)
1600	
d220	
/ERROR_LIMIT:n	Default n = 26
/LABEL:TAPE:vol,ind:label	
/LENGTH:n	Default n = physical length of the output tape
/REWIND	Rewinds last tape of tape set before executing the command; may use with /APPEND

DIGITAL Command Language (DCL)

Command Qualifiers:

Group 4: Verification

/COMPARE

/VERIFY

Group 5: Display

/LIST

/NOLOG

/LOG goes to TTY; default is
/NOLOG

Group 6: Disk Processing

/DIRTYCOPY

/LABELing

INPUT volume:label

(OUTPUT:volume:label)

/LABEL.OUTPUT is optional; if the
only volume:label in command line
is omitted, /LABEL.volume:label
will do

/MOUNTED

/NO/PRESERVE

DATA if /PRESERVE

Backs up and restores files to volume. Location files from a volume to a
backup volume and restores files from the backup volume. BACKUP
works through the Backup and Restore Utility (BRU).

BASIC BASIC[qualifier]

Command

Qualifiers: /B1 (BASIC 1)

/B2 (BASIC-PLUS-2)

/BING automatic

Invokes an interpreter or compiler for the BASIC language. If present, the
default is BASIC-PLUS-2.

BROADCAST BROADCAST from: message
BROADCAST @indirect:spec
BROADCAST[qualifier] message
BROADCAST username message

Command

Qualifiers: /ALL (P)

/LOGGED IN (P)

Displays the specified message at one or more terminals.

CANCEL **CANCEL** taskname

Eliminates a name from the clock queue. CANCEL does not affect a currently executing task, but only the pending entries in the clock queue.

CCBOL-81 **CCBOL-81** [qualifier(s)] filepec

Command Qualifiers:

/(NO)ANSI_FORMAT	Source in conventional format
/(NO)CHECKING	Default is CHECK
/(NO)CROSS_REFERENCE	
/(NO)CRLF	
/(NO)CROSS_REFERENCE	Use CRLF in object code
/(NO)CROSS_REFERENCE	
/(NO)CRLF	Default is NOCRLF
/(NO)DIAGNOSTICS:filepec	Default is NO DIAGNOSTICS
/(NO)LIST	Default is NO LIST
/%KERN:n	Use n characters to specify PSECT kernel
/(NO)OBJECT	Default is NO OBJECT
/(NO)OVERLAY_DESCRIPTION	Default is NO OVERLAY_DESCRIPTION
/(NO)SHOW:filepec	Default is NO SHOW
/(NO)SKELETON	Default is NO SKELETON
/(NO)SUBPROGRAM	Default is NO SUBPROGRAM
/TEMPORARY:filepec	Source temporary work file
/USING:filepec	Default is CCBOL-81
/(NO)WARNINGS,(NO)INFORMATIONAL	Default is WARNINGS

Insert CCBOL-81 compiler if present.

CCBOL-81 **CCBOL-81** [qualifier(s)] filepec

Command Qualifiers:

/(NO)LIST:filepec	Default is NO LIST
/(NO)OBJECT:filepec	Default is NO OBJECT
/(NO)ANSI_FORMAT	Source in conventional format
/(NO)CHECK	No bounds checking
/(NO)CRLF	No CCBOL-81
/(NO)CROSS_REFERENCE	
/(NO)CROSS_REFERENCE	
/(NO)CROSS_REFERENCE	Default is NO
/(NO)CROSS_REFERENCE	2 character kernel (cc) for program section names

Command Qualifiers

/NEST,n	Depth of nested parentheses; default is 10
/NO/OVERLAY	
/RUI/PXCL LITERALS	
/NO/READONLY	Default is NO/READ ONLY
/RUI/SHOWlang, kn	Specify actions to listings
COPY,LLIST	Source statements with listing
MAP	Spool map
VEFB,LOCAT ON	Location of each parameter verb
/NO/IRKELATION	Create GKL file
/NO/SUBPROGRAM	Treat source file as subprogram
/TEMP:dirname	Store temporary work files
/NO/WRNNGS	Warning and fatal diagnostic omitted
/NO/WRNNGS	Only fatal diagnostic printed

Invokes the PDP-11 COMPOL, COMPOL/CTH compiler, if present.

CONTINUE CONTINUE[qualifier][taskname]

Command

Qualifier: /TERMINAL,term, [P]

CONTINUE resumes execution of a previously suspended task. Taskname defaults to CTBn.

CONVERT CONVERT[qualifier(s)] infile outfile

Command

Qualifiers: /NO/APPEND

/RECORDS,SE,n

/NO/FIXED CONTROL

/NO/IDENTIFICATION

/INDEXED

/KEY[n]

/NO/LOG FILE[iletype]

/NO/MASS INSERT

/PRTSE

/PAD[n]/[c]org

Default is 12

Default is UNINDEXED

CONTROL

Default is IDENTIFICATION

Output is indexed

Default is 1

NO/LOG FILE is default

Pads file records to output length. Default pad character is blank.

Command

Qualifiers: /RELATIVE
 /NOIRPLACE
 /SEQUENTIAL
 /NOINCRINATE

Default is NOIRUNCATF

Looks for RMSUNV entries which move records from one file to another. RMPCNV reads records from the input file and writes them to an output file. The range of RMPCNV depends on the organization - sequential, relative, or indexed - of the two files, and on the qualifiers and include in the CONVERT command. See the main text and the RMS-11 documents that are supplied with your system for more information.

COPY **COPY** in1file(s) out1file(s)

Command

Qualifiers: /BLOCK SIZE
 /NOCONTIGUOUS
 /OWN
 /REPLACE
 /NO[SPAN | BLOCKS]

is a DCL unless terminated with decimal point.

Writes out1file DBC on an of copy

Copies files. Unless specified otherwise, COPY preserves the file organization. If the input file then is indexed file, it is copied as indexed file, and so forth. See also the CONVERT command. See APPEND command for description for some qualifiers.

CORAL **CORAL**(qualifier(s) [file(s)] [,a])

Command Qualifiers:

/NOCHECK	Default is /NOCHECK
/COPIES: <i>Generate instruction set</i>	
EIS	Extended instruction set
FS	Floating point instruction set
FPP	Floating point processor
FIO	Program-independent I
/NOEXTEND SOURCE	Default is EXTEND SOURCE
/NO[LIST Object]	Default is NO[LIST]
/NO[MACHINE_CODE]	Default is NO[MACHINE_CODE]
/NAME[set]	
/NO[OBJECT]	Default is OBJECT
/NO[OPTIMIZE] <i>Level(n)</i>	Default is OPTIMIZE

DIGITAL Command Language (DCL)

Command Qualifiers:

/READ_ONLY[org]	Allows READ_ONLY or READWRITE options
ALL	
NONE	
/PURE_DATA	Default is PURE_DATA
/[NO]SHOW[qualifier]	
ALL	
EXPANSING	
NONE	
OVERWRITE	
SOURCE	
STATISTICS	Default is SHOW STATISTICS
SYMBOLS	
/NOSTANDARD	Default is NONSTANDARD
/TEST	Default is TEST 0
/NO/TRACEBACK	Default is NO/TRACEBACK
/NO/TRACE	Default is NO/TRACE

CREATE CREATE filepec:

Creates a sequential file in a directory on a file-oriented device. After you issue the CHMOD command, you can immediately enter text. If you want an empty file, enter a FILE 0.

CREATE/DIRECTORY CREATE/DIRECTORY[qualifier] [ddnn] [g,m]

Command

Qualifiers:

Symbol for a file

ALLOCATION:

PROTECTION:

MODE: no mode

Creates a File File Directory (FUD) on a File-11 volume and enters the name in the volume's Master File Directory (MFD). Nonprivileged users can create directories in mounted volumes only on their own private tape control device.

DEALLOCATE DEALLOCATE[qualifier] [ddnn]

Command

Qualifiers:

ALL

Test all devices

allocation by 11

DEVIC

TERMINAL: (P)

Deletes ALLOCATE and maps a private device to a new device.

DEASSIGN **DEASSIGN**[qualifier(s)] logicaldevice:

Command

Qualifiers: **ALL** Combine with any other qualifier
NOCDR Default
NOCDR (P)
SYSTEM (P) Synonym for global
TERMINAL (P) (P)

Deletes logical-to-physical assignments. **DEASSIGN** dissociates logical names from physical device names, pseudo-device names, or logical device units created by **ASSIGN**.

DEASSIGN/QUEUE (P) **DEASSIGN-QUEUE** queue-name process-name

Caution: Use **ASSIGN/QUEUE**. 1. is used to eliminate the path from a queue to a program in the Queue Manager subsystem.

DEBUG **DEBUG**[task-name]

Places a task to trap in a debugger by setting the 1 bit in the task's Process Status Word. The task must have been built using the **DEBUG** qualifier to the **LINK** command, or have issued an EXECUTIVE directive specifying a debugger. Nonprivileged users can use this command only for nonprivileged tasks running from their own terminal. Privileged users can name any task, but the command must be issued from the terminal the task was run from. The default taskname is **TITLE**.

DELETE **DELETE**[qualifier(s)]

Command

Qualifiers: **NOHISTORY** Files deleted have no history
NOQUERY

Deletes qualified version of file, and releases the storage space that the file occupies. See **APPEND** command description for other qualifiers.

DEBUG

DELETE/ENTRY **DELETE/ENTRY**[qualifier(s)]

Command

Qualifiers: **FILE POSITION**

Deletes QMG file by entry number.

DIGITAL Command Language (DCL)

DELETEJOB **DELETEJOB**[qualifier] queue-name [[j.g.m] jobname]

Command

Qualifier: **AT _CL_POSITION**,n

Deletes QMC jobs by queue name and job name.

DELETEPROCESSOR (**P**) **DELETE**-qualifier process-name

Qualifier: **APPLICATIONS PROCESSOR**

BATCH PROCESSOR

CARD READER

Synonym for **cpu**.

DEVICE

Synonym for **device**.

INPUT

Synonym for **card-reader**.

PRINTER

Synonym for **device**.

PROCESSOR

Deletes print processors, output dispatchers, or batch processors from the Queue Manager subsystem by processor name or device name. This command also sets the device unspooled.

DELETEQUEUE (**P**) **DELETEQUEUE** queue-name/**ERASE**

Deletes queues in the Queue Manager subsystem by name. See **DELETEJOB** and **DELETEJOB** **AT CL_POSITION** to delete jobs from queues.

DIFFERENCES **DIFFERENCES** initial initial

Command

Qualifier: **CHANGE**, **BAFTER**

n is alternative code
ASCII code of change-
over character
Default is 041 jh

IGNORED,g

BLANK LINES

COMMENTS

Comments begin with

FORM FILLIN

SPACING

any group of tabs and
blank equals one blank

TRAILING BLANKS

ALINES,n

The n lines specified must
be the same for a match.

Command
Qualifiers: `[(NO)NUMBERS`
`/OUTPUT[:<spec>`
`/SLP[:<audiofile>]`

List numbers in output file.

Name output file; this is default.

Compare two ASCII (text) files line by line to determine if parallel records (lines) are identical. Can produce a listing of the differences, if any, between the files.

DIRECTORY `DIRECTORY[:<format>[:<destination>[:<otherqual(s)>[:<record(s)>]]]`
Options
Qualifiers: `Format`
`/A[:<N>BYTES`
`/BRIEF`
`/FREE[:<disk>]`
`/FULL`
`/SUMMARY`

FMS 11 attributes

Free blocks on volume; default volume is SY.

Blocks used and allocated

Destination

`/OUTPUT[:<device>]`
`/PRINTER`

Name output file; this is default.

Output to printer

Other qualifiers

`/DATE<dd-mm-yy>`
`/SINCE<dd-mm-yy>`
`/THROUGH<dd-mm-yy>`
`/SINCE<dd-mm-yy>/THROUGH<dd-mm-yy>`
`/TODAY`
`/EXCLUDE[:<spec>`

Displays information on files in directories (VTOs); see `HELP/DCL` command description for other qualifiers.

DIGITAL Command Language (DCL)

DISMOUNT DISMOUNT ednn: [what]

Command

Qualifiers: /ALL

/PUBLIC (P)

/SAVE (S)

/NO LINKCAT

/SYSTEM

Dismount all devices mounted
by user

Dismount all users
from volume

Use keeps running
Affects DB and DM
devices only

Synonym for /PUBLIC

Marks the volume mounted on the specified device as separate off-line and
disconnected from the file system

EDIT EDIT[qualifier] [edit-input]

Command

Qualifiers:

/ED

/KED

/KES

/WAKI

/WUKG

/OUTPUT[filspec]

/CREATE

/SOS

/TECO

/USING:yyy

The text editor

Integrated KED editor

Visual version of KED

Unsupported TECO editor

Unsupported TECO editor

Use with KED and KSP

Use with KED and KES

Unsupported Sun or Stacpac

Unsupported Text Editor and
Corrector

Unsupported user editor

Invokes an editor. See also EDIT/RTX and EDIT/HELP for other qualifiers.

EDIT/EDIT EDIT/EDIT[qualifier(s)] [filspec]

Command

Qualifiers: /NO[COMMAND|RECOVER]

/NO[CREATE]

/NO[JOURNAL,[filspec]]

/NO[OUTPUT,[filspec]]

/NO[READ_ONLY]

/NO[RECOVER]

Default is COMMAND
EDIT/EDIT

Default is CREATE

Default is READ_ONLY
Default is NORECOVER

Invokes KED, the DEC Standard Editor, and the default editor.

EDIT,SLP **EDIT:SLP**(/qualifier(s)) /linespec**Command****Qualifiers:** /(/NO)AUDIT(/arg)(n)

Default is /AUDIT;

/POS=0 to 12288

POSITION n

n = 0-97

SIZE n

n = 1-14

/(/NO)CHECKSUM(n)

/(/NO)LIST(/linespec)

/(/NO)OUTPRT(/linespec)

/(/NO)REPORT

Report execution times
by and total

/(/NO)TAB

Right-justify with tabs
or spaces. Default is /NOTAB

/(/NO)TRUNCATE(n)

Default is truncate and
trailing characters

Invokes the Source Language Input Program (SLIP), a program maintenance editor.

FIX (/P) **FIX** taskname (/qualifier(s))**Qualifiers:** /READONLY, /SEGMENT

/REGION

Causes an installed task or region to be loaded and takes from memory

FORTTRAN **FORTTRAN**(/qualifier(s)) /linespec(n)**Command****Qualifiers:** /(/NO)CHECK

FAP and F77

/CODE arg

FOR arguments are mutually
exclusive

EAE

FIS

FIS

FIS

FIS

FIS

/CONTINUATION(n)

FAP and F77 = 0-99
continuation lines

/(/NO)CLINES

Compile 0 lines

/(/NO)EXTEND_SOURCE

FOR, except 72 columns

/F001

FORTRAN IV

/FAP

FORTRAN IV-PLUS

/(/NO)F77

FORTRAN-77; NOT F77 is

FORTRAN IV-PLUS

/IDENTIFICATION

Character and version number

/(/NO)N

n is 2-word modulus; default is
1024

HOLD:ENTRY **HOLD:ENTRY:=**

Hold a DMT job in the queue by entry number

HOLD:JOB **HOLD:JOB** queueName [[g.m]] jobName

Hold a DMT job in the queue by queue name and job name

INITIALIZE **INITIALIZE**(qualifier[s]) dds volumeLabel

Command

Qualifiers: **/ACCESSED:n**

Number of I/Os accessed
simultaneously

/BAD_BLOCKS:arg
AUTOMATIC
MANUAL
OVERRIDE

/DENSITY:arg
800
1600
8200

/EXTENSION:n Fixed file by n blocks;
default n = 5.

/FILE_PROTECTION:code

/HEADERS:n

/INDEX:arg Locates index file on volume.
Default for tapes & DEC tapes
Default for disks
BEGINNING
MIDDLE
END
0

Logical block n

/MAXIMUM_FILES:n

/NO/SHOW

Default is NO/SHOW

/OWNER(g,m)

Specifies owner of volume

/PROTECT ON:code

/NO LOG

Displays volume information

/WINDOWS=

Default is 1

Produces a volume in File 11 format. See the INITIALIZE/UPDATE.
You must mount the volume /FOREIGN. Nonprivileged users may also
use this device.

INITIALIZE PROCESSOR **INITIALIZE** *qualifiers*
 processorname *parameter* *qualifier*

Command
Qualifiers: **PROCESSOR**
 CARD_READER
 INPUT

Parameter
Qualifiers: **FEATCH_COUNT** *count*, **count**
 NOCONSOLIDATE
 PRINTER_QUEUE *queue name*

INITIALIZE QUEUE **INITIALIZE** *queue* *queue name* **(P)**

Command
Qualifiers: **STATE** **I**
 PRINTER
 VERBOSE **(NO)** **WARNING**

INITIAL_QUEUE creates, states, names, and starts a queue in the Queue Manager subsystem.

INITIALIZE UPDATE **INITIALIZEUPDATE** *qualified s* **(I)** *ddnn*
 volume label

Command
Qualifiers: **PROCESSED** **n**
 DENSITY **n**
 300
 1800
 6000
 EXTENSION **n** Extend list files by *n* blocks
 FILE_PROTECTION *mode*
 OWNER *pp,tt*
 MAXIMUM_FILES **n**
 PROTECTION *mode*
 VERBOSE Defaults **SHOW**
 VOLUME_LABEL *new volume label*
 WINDOW **n** Mapping pointer to the window which is *n*

Initiates the **HOME** utility to alter values in the Volume II file Block without affecting the other data on the volume. **INITIALIZEUPDATE** is only for those and **DISKSPACE** is **Flow-11** Command. You must mount the volume **AURICORN**.

INSTALL **INSTALL**[/qualifier[s]] [/file-spec] {P}

Command

Qualifiers:

/NOCHECKPOINT

/COMMAND task-command*

/EXTEND CN*

n {value} add *n* more
words of address
space

/MULTIUSER_PARTITION pathname Read only portion

/PARTITION pathname

/NOPOSTMORTEM

/PRIORITY n

1-255

/READONLY_COMMON

/INOSLAVE

Default is NOSLAVE.

/TASK_NAME pathname

1-6 characters

/TAG {n|m}

Includes a task in the system Task Directory, but loading it does not create the system.

LIBRARY **LIBRARY**[/operation [/qualifier[s]]]
LIBRARY [/file-spec]

Creates and maintains user-written library files. The command has eight functions, each listed here as a separate command. See main text for name details on all functions and qualifiers.

LIBRARY/COMPRESS **LIBRARY/COMPRESS**:[arg] {s} [/b] {n|m}

Argument: GLOBAL
MODULES n
BLOCKS m

Entry point table entries
Modify name table entries
Scan in 256-word blocks.

Physically delete modules that have been logically deleted. Run **LIBRARY/DELETE**. You can resume the resulting compressed library. You can also use this command to copy a library and compress it.

LIBRARY/CREATE **LIBRARY/CREATE**:[arg] {s} [/qualifier[s]] {b} {m} {s}

Argument: GLOBAL
MODULES n
BLOCKS m

Entry point table entries
Module name table entries
Scan in 256-word blocks

Command:
Qualifiers: /**(NO)GLOBAL**
/MAINT
/NOEXT Identifies object library format.
/SELECTIVE_SEARCH
/SQUEEZE
/UNIVERSAL

Creates a library and optionally formats it to store modules into it.

LIBRARY/DELETE **LIBRARY/DELETE** *libspec* *module[s]*

Deletes object modules from a library. See **LIBRARY/REMOVE** for removing global symbols (entry points) from a library.

LIBRARY/EXTRACT **LIBRARY/EXTRACT** *qualifier* *libspec* *module[s]*

Command:
Qualifier: /**OUTPUT** *libspec*
 Reads one or more modules from a library and writes them to a specified output file. You can extract up to eight modules with a single command. If you extract more than one module, the modules are concatenated in the output file. Default output file is TL.

LIBRARY/INSERT **LIBRARY/INSERT** *libspec* *filespec[s]*

Command:
Qualifiers: /**(NO)GLOBAL**
/SELECTIVE_SEARCH
/SQUEEZE

Inserts modules from one or more files into a library.

LIBRARY/LIST **LIBRARY/LIST** *libspec* *libspec*

Command:
Qualifier: /**BREF**
/ALL
/NO/NAME Name as was global entry points.

Lists the names of all modules in a library on your terminal or on output file.

LIBRARY/REMOVE **LIBRARY/REMOVE** *libspec* *global* *global[s]*

Removes global symbols (entry points) from a library. See **LIBRARY/DELETE** for deleting object modules from a library.

LIBRARY/REPLACE LIBRARY/REPLACE libspec libspec(s)

Command

Qualifiers: /NO/GLOBALS
 /SELECTIVE_SEARCH
 /SQUEEZE

Replaces a module in a library with a new module of the same name and deletes the old module.

LINK LINK[qualifier(s)] libspec[qualifier(s)] libspec(s)

Command

Qualifiers: /ANCILLARY_PROCESSOR(s)

/BASIC

/NO/CHECKPOINTING

SYSTEM

Checkpoints to [1,2]

CRIMESYS

TASK

Checkpoints to task

image file

/CODE/length

DATA_BUFFER

EAT

FPF

PC

Same as POSITION

INDEPENDENT

POSITION INDEPENDENT Same as PC

/COMPATIBLE

/NO/CROSS REFERENCE

/NO/DEBUG[libspec]

Default is OBT

/NO/EXECUTABLE libspec

Same as /TASK

/NO/EXTERNAL

/ERROR LIMIT n

Stop task hold after n

errors

/FAST

/FULL_SEARCH

/NO/HEADER

/NO_PAGE

/LONG

Long map

/MAP libspec

/NO/MEMORY MANAGEMENT[n] Default is MEM

OPTIONS

/OVERLAY DESCRIPTION

/POSTMORTEM

/NO/PRIVILEGE

Default is NOPRIV

DIGITAL Command Language (DCL)

Lennard

Qualifiers:	(NO)RECEIVE (NO)REDUCENT_OVERLAYS (SAVE (SELECTED_SEARCH (NO)SEGREGATE (SEQUENTIAL (SHAPEABLE) (zip) COMMON LIBRARY TASK (SHAVE (SHOW (SYMBOL_TABLE) (document) (NO)SYSTEM_LIBRARY_DISPLAY (Default is NO) YES (NO)TASK (taskspec) (TKE (TRACE (NO)WARNINGS (WORD	Shows reduced form Default is NO SEG Multitask default dependent on TASK Default is YES Same as EXECUTABLE Default is TKE Default is (NO) WARNINGS
--------------------	---	---

LOGIN LOGIN *userid password*

Grants access to a database; prompts for *userid* and *password* and prompts again as a second user.

LOGOUT LOGOUT[*qualifier*]

Command

Qualifier: /NOHOLD

Holds remote line after
logout; default is NOHOLD

Equivalent to LOGON, LOGQUIT also prompts for *userid* and *password* and prompts again as a second user. Also prompts for *userid* and *password* and prompts again as a second user.

MCR MCR *macrocommand*

Executes MCR command from a DCL terminal without leaving DCL.

MACRO MACRO[*qualifier(s)*] *file-spec*[*qualifier(s)*]*file-spec(s)*

Command

Qualifier: /NO[CROSS_REFERENCE] Default is NO[CROSS_REFERENCE]
/NO[ABSOLUTE] *parameter(s)* *parameter(s)*

ABSOLUTE

BINARY

CARD_FORMAT

GLOBAL

LOCAL

LOWER_CASE

REGISTER_DEFINITIONS

TRUNCATION

/CHARACTER[*parameter* *parameter(s)*]

ABSOLUTE

BINARY

CARD_FORMAT

GLOBAL

LOCAL

LOWER_CASE

REGISTER_DEFINITIONS

TRUNCATION

/NO[LIST] *file-spec* Default is NO[LIST]

/NO[OBJECT] *file-spec* Default is NO[OBJECT]

/NO[SHOW] *parameter* *parameter(s)*

ALL

BINARY

CALLS

COMMENTS

DIGITAL Command Language (DCL)

Command

Qualifiers:

CONDITIONALS
CONTENTS
COUNTER
DEFINITIONS
EXPANSIONS
EXTENSIONS
INTENDED DIRECTIVES
OBJECT LIBRARY
SEQUENCE NUMBERS
SOURCE
SYMBOLS

/[NO]WIDE

File

Qualifiers: /LIBRARY

File to macro library

/PAGE:n

Assigns an page line 2

For the use of MACRO-11 to create a *Macro-11*, which assembles one or more MACRO-11 source files into a single relocatable object module suitable for processing by the Task Monitor.

MOUNT MOUNT[qualifier(s)] ddnn: volume-label
(Disks and other random-addressable devices)
MOUNT[qualifier(s)] ddnn: ddnn: ... /target-ID
(magnetic tapes)

Command Qualifiers for Both Disks and Tapes:

/DEFAULT:arg

SAVE

NOLOAD

UNLOAD

/FILE_PROTECTION:mode

Prevention for files created during mount

/FOREIGN

/OVERRIDE IDENTIFICATION (P)

/PARAMETERS: user parameters

/PROCESSOR:arg

argname

UNIQUE(argname)

/PROTECTION:mode

/PUBLIC: (P)

Destinaries and sets device profile

/NO/SHARABLE

/NO/USE

Displays volume information on T

/SYSTEM

/NO/WAT

Default is /NO/WAT

/NO/WRIT

Command Qualifiers for Disks and Other Files II Devices:

/ACCESSIBILITY *n* *n* = a number of File Control Blocks
 /EXTENSION *n* Extends file history to *n* blocks
 /OWNERS *(uid)*
 /UNLOCK
 /WRITELOCK *arg*
 n
 (POSITION, NUMBER)

Command Qualifiers for ANSI and Unlabelled Tapes:

/BLOCK_SIZE *n*
 /CARTRIDGE_CONTROL *arg*
 FORTRAN
 LIST
 NONE
 /DENSITY *arg*
 200
 800
 C900
 /ENC HDRS
 /ENC LABEL
 /OVERPRD *arg*
 ACCESSIBILITY
 EXPIRATION_DATE
 SET IDENTIFICATION
 /RECORD_SIZE *n*
 /TRANSLATE *arg*
 EBCDIC
 NONE
 UTF
 UTF8
 UTS
 /VOL LVID IDENTIFICATION *(volume-ID), (volume-ID), (s)*

Designates volume to be logically known to the system, on line, and available for use. Some qualifiers can be used with any MOUNT command; some are limited to mounting disks (and other random addressable devices) and others are limited to mounting magnetic tapes.

PRINT PRINT *(qualifier[s])* RINCPAC *(qualifier[s])* RINCPAC *(s)*

Command

Qualifiers: /AFTER (add-memo by h.m.m)
 /ADDRESS
 /NO/DELETE

DIGITAL Command Language (DCL)

Command

Qualifiers:

/DEFAULT:conn

/NO[FLAG] PAGE

Flag page on each file
default is NOFLAG

/FORM3:n

n can be 0 through 360, default
is 0

/NOHOLD

Default is NOHOLD

/JOB:conn

/NO[JOB]PAGE

Flag page on job default
is JOB PAGE

/LENGTH

/NO[LOW]PAGE

/NAME:conn

18 characters

/NO[TRANSFER

/PAGE_COUNT:n

/PRIORITY:n

n is 1 through 150 nonprivileged
1 through 250 privileged
Default is 60

/QUEUE:conn

/NO[LIST]GET

/NO[LP]PERCENT

File

Qualifiers:

/COPIES:n

/NO[DELETE

/NO[TRANSFER

Deletes files for printing on a line printer (PLOT) (can also remove jobs for
clear format devices)

PURGE PURGE[qualifier(s)] [space(s)]

Command

Qualifiers:

/KEEP:n

/NO[LOG

Log file on file is defined

Delete all but the latest version of files and releases for groups more
than the defined file storage (see APPEND command description for other
qualifiers)

RELEASE ENTRY RELEASE ENTRY:n

Release file entry number, a print or listed job that has been held in as
queued. The variable n is the DMS entry number.

RELEASEJOB **RELEASEJOB** *queue*name [(*q*)] (*job*)name

Deletes by *queue* name and *job* name a *priority* match *job* that has been held in its *queue*.

REMOVE **REMOVE**(*qualifier*) *task*name (P)

Qualifiers: /*DEQUEUE* (P)

Deletes *INSTALL*, *REMOVE*, *SET*, and *task* name out of the System Task Directory.

RENAME **RENAME**(*qualifier*)(*s*) *oldfile*spec *newfile*spec

Changes the name, type, or version number of an existing file. See *APPEND* command description for other *qualifiers*.

REQUEST **REQUEST** *message*

Sends *message* to the operator's console (CDE).

RUN *uninstalledtask* **RUN**(*qualifier*)(*s*) [*style*spec]

Command

Qualifiers: /*NOCHECKPOINT*
/*COMMAND* "*task*command"
/*EXTEND* *only*
/*NO* /*NOIGNOREREMO*
/*NO* /*POSTMORTEM*
/*PRINTER* *prn* (P)
/*STATUS* *prg*
 task
 command
/*USE* *NAME* *taskname*
/*TIME* *LIMIT* (*n*)
/*LOG* *qual* (P)

When used to run an uninstalled task, *task* is a task image file. *RUN* is a distribution command, encompassing *UNINSTALL*, *INSTALL*, and *REMOVE*.

RUN *installedtask* **RUN**(*qualifier*)(*s*) *task*name

Qualifier

Qualifiers: /*DELAY* *time* (P)
/*DEFER* *time* (P)
/*SCHEDULE* *hh:mm:ss* (P)


```
SET NO PARTITION (P) SET (NO PARTITION:partition_qualifier(s))
```

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Нур. И Петя:

Case:

4734456

:DESIGN

2517E-5

DISCUSSION

SYSTEM

பாடகர்

:TCP

תאריך: 10.05.2017

Средство не является токсичным.

SET PRIORITY (P) SET PRIORITY:n, taskname

After the prom is an action book.

```
SET PROTECTION:code:unsafe:4:special
```

Specifies the retention status of files. Default is `SYNCHRONIZED`, (`OVERWRITE|PRESERVE|NONE`). See `SPICED` command description for details on these.

```
SET QUEUE.ENTRY SET QUEUE.ENTRY:n/qual(HK)
```

Concurrent

អង្គប្រឹក្សា:

After 1000 h, the temperature was 100 °C.

17:09 17:42

:~NOI\$E,ETE

THE FIFTH EDITION

FORM 49-n

415 a

Same as HOLD:QUEUE.

```
./LENGTH:n
```

APPENDIX D

PAGE_COUNT:n

PRINCIPAL:-

it is a through 150 mph speed:

Through 2002, only

Default: 650

FILED

~~NOT TO BE RELEASED~~

INC:RESTART

GROUPWORK

Modified by early number *same* withdrawn at print or band's job name they are in a unique. See SET OUTLINE to verify by job name.

BET QUEUE-JOB **BET QUEUE-JOB:qualifier:column [[g a] | jobname]**

Unapproved

Qualifiers: /AFTER/CCD-gunn-02 blummi

1023-34

* NS217F1 ETE

FILE LOCATION:

✓CHRG r

HOLZ

CONCLUSION

REFERENCES

PAGE CONT.

FR 09

82002 100 17-2 10000

9 is 1. Hence, π^2 is not a square.

¹ 172.9h 2=11 estimated

Default is 50.

DATA & RELEASE/URL:

601155=

CONCLUSIONS

230117Z APR 84
:ZCZC:UFGCASE

Modifications to these terms (including of print or hard copy) will have no effect unless they are in a signed, faxed or e-mailed or modified by this number.

SET SYSTEM (P) SET SYSTEM:ouduqiliu

Discussion and

Qualifiers: www.impactjournal.net

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JPH Ltd

EXTENSION LIMITS

Maximum zoom & logs can be extended

INDEXING

Page 473

POOLApp:rw:ini=

• 0.9 through 1.0
increases print size

Each also contain characteristics of the system.

```
SET TERMINAL SET TERMINAL :inn:5qualified
```

Camrond

முன்கூறு:

Group 1. Common Use

45024108407

[illegible]

References

:DEL

[IN]:CLD_드라이브

INVESTIGATION

NO OVER is default. Same as OFF

Command Qualifiers

LMCR	
PAGE LENGTH	Default is ten rows, hundred columns
NO(PRINTED) (P)	
NO(DELETE) (D)	
NO(JOY) (J)	Same as LOWER
NO(NEW)	

Group 2: Limited Scope

[illegible]

Command

Qualifiers:

Group as Task Group

/NOJOBID

/NOJOBIDLIST

/NOJOBIDLIST

/NOFULLDUPLEX

/NOINTERACTIVE

/NOLOCAL

/NOHASSAL

/NOIFEMOTE

/NOISERIAL

/NOITYELLAHEAD

/NOWRAP

SET FLUSHMODE and other attributes of your terminal. If a terminal does not act according to any terminal.

SHOW ACCOUNTING **SHOW ACCOUNTING**[qualifier]

Command

Qualifiers: /INFORMATION

/TRANSACTION[partition] <file>

Displays current information on your terminal screen for the specified users. Privileged users can display information about any terminal screen.

SHOW ASSIGNMENTS **SHOW ASSIGNMENTS**[time][qualifier]

Command

Qualifiers: /GLOBAL (P)

/LOCAL

Display as LOCAL

/LOGN (P)

/SYSTEM (P)

Same as /GLOBAL

Displays on your terminal all local and login logical device assignments. Privileged users can display assignments from other terminals and global assignments.

SHOW CLOCK_QUEUE **SHOW CLOCK_QUEUE**

Displays information about tasks currently in the clock queue. This information consists of the task name, the real time each task is in the queue, and each task's scheduling interval, if any.

SHOW COMMON SHOW COMMON[.name] [-qualifier]

Command

Qualifier: /TASK

Displays the name of resident programs installed in the system, their ACP addresses, the number of virtual tasks, and the names of the common.

SHOW [DAYTIME SHOW [DAYTIME

Displays the system time and date entry.

SHOW DEFAULT SHOW DEFAULT

Displays the current default device and LFD for your terminal, along with your terminal number.

SHOW DEVICES SHOW DEVICES[.dd] [-qualifier]

Command

Qualifier: /NOPLBL C

/WIDTH

Displays information about the devices installed in the system.

SHOW GROUPFLAGS SHOW GROUPFLAGS

Displays the group global event flags currently in the system.

SHOW LIBRARY SHOW LIBRARY

Displays the current library LFD. This is the LFD when unqualified system utilities are used.

SHOW MEMORY SHOW MEMORY

Shows the Remote Monitoring Display (RMMEMO), a dynamic display of the system's memory activity.

SHOW PARTITIONS SHOW PARTITIONS[.name]

Displays software and mount information about the partitions in the system. You can display information about all partitions or about a single partition.

SHOW PROCESSOR SHOW PROCESSOR[processor-name][arg]

Arguments: BATCH

CARD_READER Same as NFU

DEVICE Only if processor name is given

NFU Same as CARD_READER

PRINTER Same as DEVICE

Displays information about the batch processor, printers, card readers, and other devices under control of the Queue Manager.

SHOW QUEUE SHOW QUEUE[qualifier] [queue-name]

Command

Qualifiers: /ALL All entries in all queues

/BATCH

/DEVICE

Same as /PRINTER; all queues

/PRINTER

Same as /DEVICE

/ENTRY n

/FILES

Files in each JCL, always less than FULL

/FORMS n

/FULL

/NAME:queue-name

/OWNED: uid([g,m])

/PRINTER

Same as device

Displays information about print jobs in queues.

SHOW SYSTEM SHOW SYSTEM[qualifier]

Command

Qualifiers: /CLI

/DIRECTORY Default; displays system UFD

/EXTENSION_LIMIT

/PACKETS

/POOL

Displays information about the current system.

SHOW TASKS SHOW TASKS[task-name][qualifier(s)]

Command

Qualifiers: /ACTIVE(min)

/INSTALLED

/LOGICAL UNITS

Command:
Qualifiers: /ACTIVE
 /FULL
 /ALL

Displays information about active or labelled tasks.

SHOW TASKSDYNAMIC

Format to display task header:
SHOW TASKSDYNAMIC[/DYNAMIC]{header}
Command Qualifier: /RATE =
Format to display Active Task List:
SHOW TASKSDYNAMIC/DYNAMIC[/DYNAMIC]{header}

Command:
Qualifiers: /DYNAMIC: Default is ALL
 /ALL
 /FORMAT: Default for n is 250
 /RATE: Time in seconds for display change;
 Default is 1

Invokes EOD to display or a video terminal or display channel to either a single task header or full or part of the Active Task List. On a hard-copy terminal, SHOW TASKSDYNAMIC provides a temporary display.

SHOW TERMINAL SHOW TERMINAL{jdn: [qualifier]}

Synonym:
Qualifiers: /NO|AUTOLOAD
 /NO|ASR33
 /NO|ASICS
 /NO|BROADCAST
 /NO|CIRCUIT
 /NO|CPIPL
 /NO|CPL
 /NO|CCHD
 /NO|EIGHT_BIT
 /NO|ESCAPE
 /NO|FORM_FEED
 /NO|FULL_DUPLEX
 /NO|HARDCOPY
 /NO|HOLD_SCREEN

Command

Qualifiers: /NO/VT102
/NO/VT100
/NO/WRAP

Displays information about your terminal and other terminals on your system.

SHOW USERS SHOW USERS

Displays all currently logged-in terminals, including DECnet host, serial, and virtual terminals, with the default UID and login TTY for each.

SORT [KEY (attr, attr, n)] [qualifier(s)] [info/qualifier] [FORMAT (arg)]

Command

Qualifiers: /ALLOCATION, /BLOCK_SIZE, /BUCKET_SIZE, /NO/CONTINUOUS, /TWICE, /PROCESS, /ADDRESS_POINTING, /INDEX, /RECORD, /TAG, /SIZE, /SPECIFICATION, /SPEC, /FILE, n

File

Qualifiers: /FORMAT (format, n) Required on info
FIXED Optional on number is 920
STREAM In index
UNKNOWN
VARIABLE
/INDEX, /RELATIVE, /SEQUENTIAL file
Duff
Duff

breaks the SORT command into 3 parts.

START START [qualifier] [taskname]

Command

Qualifiers: /TERMINAL, (P)

Resumes execution of a task stopped by a STOP command. Taskname refers to TTY.

DIGITAL Command Language (DCL)

START PROCESSORNAME (P) **START**/qualifier processorname/qualifier

Qualifiers: APPLICATIONS_PROCESSOR
 BATCH_PROCESSOR
 DATA_READER Same as INPUT
 DEVICE Same as PRINTED
 INPUT Same as DATA_READER
 PRINTER Same as DEVICE
 PROCESSOR

Parameter
 Qualifiers: /FORMS
 /CONTINUE Overrides initialization as in
 /RESTART Define a CONTINUE
 /MKT
 /TOP_OF_FILE
 /BACKGROUND
 /FORMSISPACE
 /ALIGN
 /ALIGN

Starts an output processor or user-defined processor.

START:QUEUE (P) **START:QUEUE** queue-name

Starts a queue.

START:QUEUE-MANAGER (P) **START:QUEUE-MANAGER**

Starts the Queue Manager.

START:UNBLOCK **START:UNBLOCK**[qualifier][task-name]

Keywords:

Qualifiers: /TERMINATION (P)

Continues the execution of a task blocked by the **STOP:UNBLOCK** command. Nonprivileged users can unblock one task running from their own terminal. Privileged users can unblock any task.

STOP:ABORT **STOP:ABORT** process(j)

Stops the current job or a file job or immediately. Privileged users can stop any job. Nonprivileged users can stop only their own jobs.

STOP BLOCK STOP BLOCK [hostname]

Command

Qualifier: /TERMINALJOB (P)

Blocks an installed running task. The task no longer executes or dumps its memory. Nonprivileged users can block tasks running under their own login's ID. Privileged users can block any task.

STOP PROCESSORNAME (P) STOP qualifier processname/qualifier

Qualifier: APPLICATION PROCESSOR

BATCH PROCESSOR

CARD READER

Same as INPUT

DEVICE

Same as PRINTER

INPUT

Same as CARD READER

PRINTER

Same as DEVICE

PROCESSOR

Parameter

Qualifier: /ADDP

/FILEEND

/JOB END

/PAUSE

Stops a batch processor, card-reader processor, printer, or other named processor.

STOP QUEUE (P) STOP QUEUE queuename

Stop queue

STOP QUEUE/MANAGER (P) STOP QUEUE/MANAGER

Command

Qualifier: /ADDP

Stops the Queue Manager when the current job (JOBID) stops. If Queue Manager is unavailable.

SUBMIT SUBMIT [qualifier(s)] [respec(s)]

Command

Qualifier: /AFTER [job-name] or /IN IMMEDIATE

/NO/DELETE

Deletes batch file after run. Command or Respec machine

DIGITAL Command Language (DCL)

Command

Qualifiers: **(NO)HOLD**

Default is **NOHOLD**;
HOLD has same effect
as **HOLD** command.

(NO)LOG FILE
NAME[pathname]

1-8 characters, default
is **LOG** filename.

(NO)PRINTER[queuename]

Optionally name queue
for log print job.

ERRORfile

file 1 through 100 character
length;
1 through 100 character
default is **LOG**.

QUEUEqueue-name

(NO)START

(NO)TRANSFER

Queue **QUEUE** batch job consisting of one or more text batch jobs for
processing by a target processor.

TYPE TYPE [device(s)]

Prints each file on user terminal. See **APPEND** command description
for other qualifiers.

UNFIX UNFIX[qualifier] taskname

Command

Qualifiers: **REGION**

(READONLY)SEQUENT

Fixes a fixed text or image file, taskname. Taskname can also be a region
name.

UNLOCK UNLOCK [device(s)]

Unlocks locked files. Locked files are files that have been improperly
closed. They are identified by an L in the opening listing. See **APPEND**
command description for other qualifiers.

ERROR LOGGING SYSTEM

The Error Logging System records information about errors and warnings that occur on system hardware for immediate action or later analysis and resolution. The system records error codes:

- The Error Logger (ERLOG)
- The Error Log Interface (ELI)
- The Report Generator (RPT)
- The Common File Language Converter (CFL)

This section describes the ELI commands that run ERLOG and the RPT commands that generate error log reports.

ELI COMMANDS

The general format for an ELI command is:

`[/device]/watch[/r, /switch]`

filespec

A device name and/or path of an error log file, backup file, or file to append to the current error log file.

switches

Switches to set, change, or display ERLOG operation. You must specify at least one switch on each ELI command line.

Using ELI Defaults:

`ELI /DIRIG`

The command starts ERLOG, using `LB:1/ELLOG.ERR` as the error log file and `LB:1/BACKUP.ERR` as the backup file. It also starts error logging on the error log device.

Switches:

APPEND /filespec:AP

Appends a previous log file to the current error log file. Logging must be active for this option to work.

BACKUP /filespec:BA

Saves the name for a backup file to the next highest version of the file name. This file is used if the primary error log file becomes unavailable.

Error Logging System

HARD ERROR LIMIT device[s]:HL:n

Set a limit (n) on hard (permanent) errors on a device or devices. If limiting is turned on and the hard error limit is reached, logging of hard errors for that device stops.

LIMITING -LIM

Starts the error logging, using either default limits or those set with BLIMIT:n.

LOGGING filespec:LOG

Turns error logging operation on and starts error limiting, and, if you specify a file name, overrides the default name of the error log file (LOGFILE:LOG.ERR).

NOLIMITING -NOLIM -LIM

Stops the use of error limiting.

NOLOGGING -NOLOG -LOG

Stops error logging operation and turns off error limiting.

RESET device[s]:RE

Resets the GFI and error counts on the specified devices to 0. You may specify up to 16 devices.

SHOW [device[s]]:SH

Displays error logging information for the specified device(s), if you do not specify, error history for all error logging devices on the system. Also displays information about the current operating status of the error logging system.

SOFT ERROR LIMIT device[s]:SL:n

Set a limit (n) on soft (transient) errors on a device or devices. If limiting is turned on and the soft error limit is reached, logging of soft errors for that device stops.

SWITCH filespec:SW

Copies the current logging file to the file specified and begins logging to that file.

RPT COMMANDS

The general format for an RPT command is:

```
[reportfile][device=device][reportfile] [switches]
```

reportfile

The name of the listing file that generates the Error Log Report.

switches

Optional switches to control how RPT selects and formats information from the error log file. You can use the switches with either the error report file specification or the input file specification.

Default:

```
RPT report
```

The default command line selects the following RPT switches:

```
/P(ORCA*)B(FIEF)
/T(PT)A(ALL)
/DA( RANGE:*)
/PACKET:***
/L(EV)O(ALL)
/AN(PT)A(POE)
```

Switches:

DATE *DA:qualifier*

```
Qualifier: P(REV OJC) ndays
R(RANGE) start-end
TODAY]
Y(ESTIMATED)
```

Allows you to select packets based on the date or time occurrence.

DEVICE *DE:qualifier*

```
Qualifier: (device name):*
A(ALL)
```

Allows you to select packets of the particular times based on device or controller name.

Error Logging System

FORMAT **F:outputfile**

Qualifiers: B|I|E|F|
F|U|L|
N|I|N|E|
R|E|G|I|S|T|E|R|E|D|

Always you'll carry the same firm in the pocket, so make a note

PACKET NUMBER : PA:bhbb.cxai:bahh.yaxi

Always use to select a project or range of projects by specifying the project identification number, which is the base number and xxx is the record number. A project specified as * indicates unspecified.

REPORT Router

Qualifiers: DAY
MONTH
WEEK
SYSTEM
USER(s) only

There is a predefined string of value 100 for DDEP to use. The qualifier can have one of the DDEP/AL-defined values to allow defining explicit string.

The DICTA-ask® of names and their matches are

SYSTEM	/NO MONTHLY DATA FROM PREVIOUS MONTHS, E
QTR	/NO QUARTERLY DATA FROM PREVIOUS QUARTER
MONTH	/NO MONTHLY DATA FROM PREVIOUS MONTHS, H, I
DAY	/NO DAILY DATA FROM PREVIOUS DAYS, A, B, C

SERIAL NUMBER SEE: auditiv

Qualifiers: D[river] number and/or P[atch] number

Delivery point: based on origin or peak arrival number.

SUMMARY *(S):summary type*

Qualifiers: HISTORY
 ERROR
 GEOMETRY
 ALL
 NONE

Allows you to select the type of summary reports that RPT generates. You cannot use the multiple comma-separated qualifier syntax that we described earlier in the keywords is ALL or NONE. That is, (SUMMARY) is legal, but (SUMMARY,ERROR) is not. The default is (S)NONE.

TYPE *(T):qualifier*

Qualifiers: ALL
 CONTROL
 ERROR
 MEMORY
 PE[PERIPHERAL]
 PROCESSOR
 SYSTEM[INFO]

Selects packets based on packet type or type.

VOLUME LABEL *(V):volumelabel*

Selects packets based on volume label.

WIDTH *(W):qualifier*

Qualifiers: N[ERROW]
 WIDE

Selects the width of the report header columns (N for 1 character).

Many RPT switches accept lists of qualifiers. The format for these lists is:

(qualifier1,qualifier 2,...)



PROCEDURE FOR HALTING A JOB IN A PRINT QUEUE

The following section describes the commands to stop a job on a print processor without actually disabling the processor or queue manager. This procedure is useful when you accidentally cause a large job that should not be printed.

STOP/ABORT /KILL deletes the active job on a given processor.

Privileged users can delete any job; nonprivileged users can delete their own jobs. You cannot need to know the queue name or job name, but rather the name of the processor to delete the job.

Format

```
DCL>STOP/ABORT processorname  
MCR>QUE processorname/KILL
```

processorname

Specifies the processor whose active job you wish to delete. Note that the MCR command format requires a colon (:) after the processor name.

You can stop the running on any processor under the control of QMIO.

Examples

```
DCL>STOP/ABORT  
Processor? LPO
```

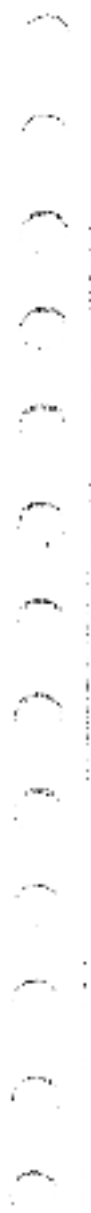
This example shows how to stop a print job on the printer LPO. The currently active job is deleted from the queue and the next available job is wound up.

Notes

Use this command to stop a processor fast, such as if that printer printing something not from needs.

As soon as the active job is deleted, QMIO queues the next eligible job in the processor. The processor has not been aborted or killed, but only the active job on that processor.

You can also release the active job on a non-processor processor with this command.



ON-LINE DEBUGGING TOOL (ODT) COMMANDS

OPEN.DISPLAY.MODIFY TASK LOCATIONS

address **mode-symbol** **contents** **new-value** **terminator**

address (a)

Specifies the effective address of the location (word or byte) to be opened. The address can be expressed absolutely or in relation from the last visible address. An odd address means byte mode.

mode-symbol

Specifies the mode in which the location is to be opened or displayed. If the address is not specified, the last opened location is opened and displayed.

Symbol **Open/Display Location As:**

- 1 Right total word
- 2 Right total byte
- 3 ASCII character word,
- 4 ASCII character byte,
- 5 Right-adj character word

contents

Specifies the current contents of the opened location.

new-value (v)

Specifies the optional value to replace the current contents upon termination of the command line.

terminator

Closes the currently open location, reporting the current contents (if so directed). The terminator is:

Return **00**

Terminates the current sequence, displays the ODT prompt (":"), and waits for the next command.

Line feed **01**

Opens the next sequential location and prints its contents.

Circumflex (^) or up arrow (^)

Opens the preceding location in the current mode. If typed as an I/O prompt rather than as a terminator, opens the display that precedes the last opened location in the same mode.

Underline (_) or back-arrow (-)

Opens the -N reserve location. The effective address equals the contents (previous or current) of the current location added to the address plus N. Mode is the same, except that odd effective addresses from byte mode.

At sign (@)

Opens the location addressed directly by the contents (previous or current) of the current location. Mode is the same, except that odd effective addresses from byte mode.

Right angle bracket (>)

Opens the 16-bit address (branch/shift location) for address address calculation. Assumes the low-order byte of the contents (previous or current) of the next closed location. Here, as a signed value, is multiplied by 2 and added to its effective address plus 2. Mode remains the same as when the location was opened.

Left angle bracket (<)

Reopens the location most recently opened by a $f_i \neq f_{i+1}$ or $f_i \neq f_{i+1}$ if the currently open location was not opened by a $f_i = 0$ or $f_i = 1$. Mode is the same as when the location was opened.

COMMAND INPUT ERRORS

Invalid characters in a command line cannot be corrected. In general, typing an illegal character or command leads to 8 or 9, unless I/O ignores the result from the power machine interface (?) and will be a valid command.

RELOCATABLE ADDRESS

An effective address can be entered as an explicit value relative to (just the contents of) a register or register. Usually the register contains the

relatable base address for the applicable program section or object module. ODT displays task addresses in address form if a register register contains an address offset value equal to or less than the address. It displays offset if the Format Register (FR) contains 3. ODT also displays the registers' initial values. Otherwise, ODT displays addresses in absolute form. The address increments are identified as 0 through 7B, a null value is taken as 0 when an offset is established. The register initially contains 1, the relative value.

Establishing Relocatable Address Offsets

- value/r** Value replaces current contents of relocation register *r*.
- r, value/r** Value is added to (subtracted from) current contents of relocation register *r*.
- !r** Replaces current contents of relocation register *r* with value *x* copied before relocatable release current contents.

Enabling Relocatable Addressing

- R** Set relocation relocation register to 1, the relocatable state.
- OR** Set relocation register *n* to 1, the relocatable state.

Entering or Displaying Relative Address

r Where *r* address is address relative to (plus) the current contents of relocation register *r*.

BREAKPOINTS

A breakpoint must be set in the first word of an instruction. Breakpoints are identified as 00 through 7B. 00 is reserved for use with single step execution. A breakpoint address can be entered in absolute or in relative form over Address File Address.

Inserting Breakpoints

- r address/p** Inserts breakpoint *p* at specified address.
- r address/p** Inserts next entry breakpoint at specified address.

Removing Breakpoints

- R** Removes all inserted breakpoints.
- r** Removes only breakpoint *p*.

Moving Breakpoints

addbreakpt Moves breakpoint to new address, overriding previous address.

Report of Breakpoint Occurrence

nbtradd esp Reports address at which breakpoint is encountered task execution.

Displaying Breakpoint Position

vsbr Displays current absolute address for instruction unit of breakpoint. Replaces replacement value when the current contents of the breakpoint register.

CONTROL OF TASK EXECUTION

Gn Command

G Initiates task at entry address.

address G Initiates task at specified address; address must be valid. Execution continues to a breakpoint or completion.

Proceed Command

p Resumes task execution from a new breakpoint suspension, and continues to a breakpoint or completion.

no Resumes task execution from a new breakpoint suspension, and does not resume this breakpoint again until its recurrence.

sb0 Displays current contents of the specified register; replaces with breakpoint's new value typed before terminating separate current contents.

Single-Instruction Command

s Executes PC-addressed instruction, suspends task, and gives address of next instruction.

ns Executes next instruction, suspends task, and displays address of next instruction.

nbtr address Specifies the next instruction's address.

FILL MEMORY BLOCK - F COMMAND

The memory unit registers, low (L) and high (H), must contain the address boundaries of the filled memory area. Each contains binary.

The following sequence establishes the address reference, which can be in relative or absolute form.

SL (or RH) commands new-address terminator

plus ² Place a value in each argument register (A), and then fetch the current contents of (B) in all memory locations from low limit (LA) through high limit (HI) or the same mode as the last opened location.

LIST MEMORY BLOCK - L COMMAND

- L** Fetch memory locations within specified address limits on remote listing device (D).
- d** Use address value *d* as ending location and initiates listing operation.
- qL** Use address value *q* as a beginning location and initiates listing operation.
- qkL** Use address values *q* and *k* as beginning and ending addresses and initiates listing operation.
- mode** All listing control arguments are specified in a single listing command, which is the (D) register containing the address of the listing device.

CALCULATING OFFSETS - O COMMAND

Calculates positive or negative (2's complement) PC-relative and branch offsets between two given addresses.

From Open Location

address=the (a) address (D) to rel=to branch

Example: 10'86'0C1402'761340 0C0004 > 0C0002

Between Two Specified Addresses

address=address0 pc=rel=branch

Example: 10'26'161370 0C0004,0C0002

GENERAL PURPOSE REGISTERS

C Constant Register

Contains non-operational 16 bit value (unassigned, according to reference is "0"). It does address a 16-bit value expression. 20' prints current contents. New value input: index (C) not used commands.

On-Line Debugging Tool (ODT) Commands

Q: Quantity Register

Always contains the last value printed for reference as "Q" in address of new value expressions.

PROCESSOR STATUS WORD

SS:

Displays the Stack Processor Status Word (SPSW). The new value typed before the terminator replaces the old PSW contents.

DIRECTIVE STATUS WORD

SN:

Displays a Debug Directive Status Word (DSDW). The new value typed before the terminator replaces the old contents.

MISCELLANEOUS SYMBOLS AND OPERATORS

- or space Same as space or apostrophe
- Removes the following argument from the preceding one.
- = Equals address of the last replace operand location.
- ~ Calculates the 1-bit value (positive or the complement) of the preceding operand string, positive is 1 or 0 (not 10's), one shows 1 in Q. Arguments can be signed, or unsigned zero values, potentially address expressions, or any valid ODT expression.

TERMINATING ODT SESSION

- X Terminates ODT and returns control to the system monitor.

For additional information, refer to the *INDEX* or *ODT Reference Manual*.

TASK BUILDER (TKB) SWITCHES AND OPTIONS

The format for Task Builder commands is:

```
>TKB  
TKB <taskname> <in> <out> <file> <inputfile> <outputfile>
```

For example, to save build a program called Zebra, type:

```
>TKB  
TKB>ZEBRA.TST,ZEBRA.MAP,ZEBRA.STB ZEBRA.OBJ...  
TKB>  
ENTER OPTIONS.  
TKB> optionname <argument>  
...  
TKB>[to end Task Builder operation]  
^  
TKB>[if you have another task to build]
```

The Task Builder file specification is:

```
Example: <drive> <dir> <filename> <ext> <version number>  
<drive> <ext> <filename> <version number>
```

The Task Builder uses the following default file types for the files named:

Task Usage File	TKB
Memory Allocation File	MAP
Symbol Definition File	STB
Object Module	OBJ
Library Description	LIB
Initial Command	CMD
Object Module Library	LIB

In the file specification above, n is the version number for an input file and the local version plus 1 for an output file.

SWITCHES

The following switches are used in the description below to designate which input and output files can use the Task Builder switch specified:

CU	Common User Library	USER
CU	Task Library	USER
CM	Task Manager Map	CMAP
CS	Symbol Definition	CSDEF
CI	Input	(CCL),OLB,COLLONG

A comment or three is specified with the TB2 switch, which produces a list of all the switches.

The default value for switches is numeric zero unless otherwise specified.

ACB

Specifies that the task is an *Asynchronous Control Processor (ACP)* as specified by the hardware register (all, single registers and 0, 1, or 2 default registers in 3, 0-units). (TB if applied to the same file, 0)

AL

Makes the task more file checkable and allocates checkpoint space in the task image file. (Default as with ACP in the same command line, 0)

CC

Specifies that the input file contains more than one object module. (CU Task-builds only the task image module. The LIP (Library) switch overrides ACP if it is applied to the same file. (Default is, 0, 0, 0)

CM

Specifies a compatibility mode, no longer used by structure. (Over the top mode are aligned in 2nd-word shared boundaries, 0)

CD

Connects Task Builder to build a second command. (0)

CP

Makes the task image checkpointable and allows the task to be checkpointed to system checkpoint space. (It is not used in the same command line with AL, 0)

CM

- /CR**
Appends a global cross-reference listing to the memory allocation file (M).
- /DA**
Includes a debugging aid in the task image (DIPP) for a task image test-perturb or a user-supplied debugging program (for an input file, [P]).
- /DL**
Specifies a default library file (including SVSIBR.DLL) for global reference that remains unaffected after user-specified library files have been specified. (Can be applied to only one input file per task.)
- /EA**
Specifies that the task uses the extended arithmetic element (EPP) operands. (EA if applied to the code file.)
- /EL**
Specifies the maximum possible size for the library, according to the size specified in the EAE option. (The actual size of the library may be smaller.)
- /EP**
Specifies that the task uses the floating-point processor. (When C or C++ is applied to the code file.)
- /FU**
Specifies a full search of all in-line signatures for a matching definition or reference when processing modules from the external object module library.
- /HB**
Includes a header in the task image. (Default is /HB; /A-HB is used with common blocks, resident libraries, hardware drivers, and system images.)
- /ID**
This switch forces TKB to map your task to one that uses 1-space APBs and 0-space APBs in your code. TKB requires 1-PRIC to run ID PROJECTs.

Task Builder (TBE) Switches and Options

NP

Allows the Task Builder to infer DSFALL that the privileged task policy manages the I/O page. Conversely, NP infers DSFALL that the privileged task is not PR and does not map the I/O page. (F)

LB

Without arguments: TBE page 4 as input # 6 as a library of recursive object modules and searches to resolve undefined global references. In those in task image any modules found in the library their members are undefined references. (F)

With arguments: [5] named module(s) TBE inserts only the modules named in the command regardless of references into the task image. (F)

LI

Causes the Task Builder to build a binary loaded region. Use the /LIB switch with LI.

MA

Includes information from the input file in the memory allocation table (taken together as an input file) or controls the display of information about the default library and several regions (never applied to a memory allocation file). (Default is MA for input file or /MA for a memory allocation file.) (LI)

MM[n]

Specifies that the system in which the task is run has memory management hardware. (Default is MM. If host system has memory management, set to MEM if it does not.) (F)

n with MEM to specify the highest physical address in K-words of the task in system being built. Specify as decimal numbers or in H.

MP

Specifies that the input file describes the task's overlay (link structure for input file) or /LIB file. (F)

MD

The MD switch causes or TBE that the task is a multibyte task.

MM

Tells the Task Builder not to print diagnostic messages. (F)

- /PI**
Specifies that only position-independent code or data is in the shared region. **T,E**
- /PM**
Produces a Performance Dump in the task's command with an SST alarm. **T**
- /PFI:n**
Specifies that the task has privileged access. **PAC** overrides **/PFI:n** applied to the same file or specific base if it is not listed. **0, 4, or 6; default is 0**. **T**
- /RO**
Enables acquisition of the memory-protect overlay operator. **1** in the overlay descriptor file (OLP). **Default is /RO, 1**.
- /SB**
Specifies that the task can receive messages by means of the Executive SEND driver vs. **1** (default is **/SB, 1**). **T**
- /SD**
Allocates task program sections absolutely by using code **140** to **160** as listed by **RO**. **T**
- /SM**
Produces a dump form of the memory location file without the file contents section. **M**
- /SL**
Specifies that the task is placed in an existing task. Shows base, end, order, the **UCB** and **TE** of the entire task. (Applies only to systems with multi-user protection). **T**
- /SP**
Lists the memory location file on the printer via the spooler. (Default is **/SP, 1**). **M**

Task Builder (TKB) Switches and Options

/SO

Builds program sections in the task image in the order in which they are named, rather than in alphabetical order (former use with SOR). THAM I/O handling modules or PCB modules from STRLIB.TI

/SB

Extracts a global symbol definition from the input file if the global symbol name has a matching underlines reference. [1]

/TR

Specify that the task can be traced. [1]

/W

Use the memory-allocation file in I22-format (width format). (Default is 256,100)

/XEH

The XEH switch informs TKB that the task is to have an explicit header.

/XTW

Terminates the building of the task after a error diagnosis are detected, can be used on demand. (terminal must be opened with a decimal point, for example, 5.).

OPTIONS

/H

Option is of interest to high-level language programmers.

/M

Option is of interest to MACRO-11 programmers.

/H,M

Option is of interest to both high-level language and MACRO programmers.

Name used for option input can be 8 characters long, from the ASCII-20 character set: 0-9, 101, and 36.

ABORT = n

Terminates the current task build operation and returns the Task Builder to another. (The n indicates the option syntax. It means internal.) (H,M)

ARSPAT = segname:address:value1...value8

Patches the task image from a base address. Also patches the I-space part of an I- and D-space task. Eight values may be specified. (H)

ACTRL = itemas (decimal integer)

Specifies the number of times that a task can have operation concurrency. (The default is 4). (H)

ASG = device:unitas(n) ...unitB

Assigns logical unit number(s) in device to specified physical device(s). (H,M)

CLSID = library 1;library 2;...;library n;switch:ape

Declares a cluster or group of system owned resident libraries or programs. (From two to six) to be accessed by the task and all residing at the same virtual address space in the task. (H, M)

Switch = Read-only or read-write access for the task. (RO or RW)

APR = Which APR is to be used as the starting APR for the task

CMPT

Declare compilation switches for superscalar mode library. (H,M)

COMMON = name:access-code[:apr]

Declares that the task accesses a system-owned resident common area. Causes the common to be mapped with I-space APRs. The common can contain only data when linked to I- and D-space tasks. (H,M)

DSPPAT = segname:address:value1...value8

Patches the task image from a base address. Also patches the I-space part of an I- and D-space task. Eight values may be specified.

EXTSCT = progname:extension

If the program section has the concatenated attribute, this option extends the size of the named program section by the number of bytes specified in the extension. If the program section has the weekly attribute, it is extended only if the extension value exceeds the length of the section. (H,M)

EXTTSK *n*

Extends the Display portion of an I- and T-section task. Rounds the task memory allocation up the logical 256 decimal words in the range 0x00000001 when it is installed in a system-controlled partition. The extension is rounded to the closest 256-word boundary. The default is the extension to the total task size as specified by the DWR option length parameter. [H,M]

FMTBUF *max-format* [decimal integer]

Specifies the number of characters for maximum format in the longest format specification to be compiled or run time. The default is 128. [M]

GBLDEF = *symbolname*:*symbolvalue*

Defines the named place *symbol* as having a value in the range of 0 through 177777 format. [M]

GRI INC = *symbolname*,*symbolname*...,*symbolname*

Specifies the symbols to be included as unresolved references in the symbol table of a shared resident library. [M]

GBLPAT = *name*:*name*[:*offset*][:*width*] *avail*

Forces the task image from the location addressed by the global symbol place to minus the actual offset value through eight words. All values are zero. [M]

GBLREF = *symbolname*:*symbolvalue*

Defines the named symbol as a global symbol reference originating in the task segment in the task. [H,M]

GBLXCL = *symbolname*:*symbolname*...,*symbolname*

Specifies the symbols that are to be excluded from the symbol definition list of a resident library. [H,M]

LIBR = *name*[:*open-code*][:*type*]

Indicates that the task requires a system-owned resident library. Causes the library to be mapped with both Iquris and Dquris APIs when linked to an I and Dquris task. [H,M]

MAXBUF *max-record*

Specifies the maximum *max-record* buffer size in decimal bytes in any 2K processed by the task. [H]

ODTV = symbol name:vector:length

Declares the named global symbol to be the address of the ODT symbol-table system trap vector (SS 1). The global symbol must be defined in the main program. (M)

PAR = name[:base:length]

Declares the partition for which the task is built. For a mapped system, a size of 0 implies a system, uncolored partition, and a non-zero size implies a user-allocated partition. Base and length do not have to be specified if the partition resides in the host system. The default is PAR=00000000. (H,M)

PRI = priority

Sets the priority at which the task executes; can be overridden when the task is loaded. The priority is a decimal integer between 1 and 255. (H,M)

RESCOM = #basepec:access-code:type

Declares that the task requires a user-owned resident common. Causes the common to be mapped with Program APBcs. When linked in L- and D-space tasks, the common can contain only code. (H,M)

RESLIR = #basepec:access-code:type

Declares that the task requires a user-owned resident library. Causes the library to be mapped with both Program APBcs and Program APBcs when linked in L- and D-space task. (H,M)

REBSUP

Declares task's intention to access a resident supervisor-mode library. (H,M)

ROPAR

Declares partition in which end user portion of machine task is to reside. (H,M)

SUPLIB

Declares task's intention to access a system-owned supervisor-mode library. (H,M)

TASK taskname

Names new task. (H,M)

Task Builder (TKB) Batched and Options

TSKY = segment-name-vector-length

Declares a global symbol to be the address of the task segment's system map vector (SSV). [B,M]

UIC = (g,m)

Declares the UID we have used initiation of a task. The default is the UIC under which the Task Builder is running. [B,M]

UNITB = max-units

Declares the number of logical units used by the task (a decimal number in the range of 0 through 255). The default is 8. [B,M]

VSECT = psect-name-base-window[physical-length]

Specifies the virtual base address, length of virtual memory address space (window), and length of physical memory allocated to this named program section. [B,M]

WINDOWS = n

Declares the number (0 through 31) of extra address windows required by the task. The number specified equals the number of simultaneously mapped regions that the task will use. [B,M]

RMSBACK UTILITY SUMMARY

The RMSBACK File Back-Up Utility (RMSBACK) transfers the contents of an RMS-11 file to another file, on another device, to maintain the file should the original file be lost or damaged.

The command line for the RMSBACK utility is:

`ourfile[switch...]-infile[switch...][infile[switch...]]`

Type `HELP` or `?` for a help message. See the *RMS-11 Utilities manual* for more information.

The RMSBACK switches are listed below.

Global Switches

ID

Identifies the current version. Default: Provides no identification.

QNO QU

Enables or disables query mode. Default: Enables query mode.

EL[file spec]

Provides summary listing to terminal, or to file, if specified. Default: Provides an summary.

Output File Switches

RA

Performs read-after-write data integrity checking. Default: Does no read-after-write checking.

RC

Performs check after writing data integrity checking. Default: Does no check after writing.

RM

Rewinds magnetic tape before writing. Default: Does not rewind magnetic

RU

Reorders existing file. Default: Does not reorder file.

Input File Switches

/CD:dd-mm-yy[*v*]

Backs up files based on creation date. Specify *v* or *B* to back up all files created since the date specified or to *B* to back up all files created before the date specified. If *v* is not specified, all files created on the date specified will be backed up. Default: Performs no date checking.

/RD:dd-mm-yy[*v*]

Backs up files based on revision date. Specify *v* or *B* to back up all files created after the date specified or to *B* to back up all files revised before the date specified. If *v* is not specified, all files revised on the date specified will be backed up. Default: Performs no date checking.

RMSCNV UTILITY SUMMARY

The RMSCNV File Conversion Utility (RMSCNV) converts records from an RMS-11 file of any organization and loads them into another RMS-11 file of any organization.

The command line for the RMSCNV utility is:

[drive:]path[...][mode]switch[...]

Type F1 or F2 for a help screen. See the RMSCNV Online manual for more information.

The RMSCNV switches are listed below.

Global Switches

AP

Appends records to an existing sequential file. Default: Does not append.

BL[n]

Sets magnetic tape block size. Default: CDS 99 bytes.

CA:[file-spec]

Creates an output file with the attributes of the existing input file. Default: Output file must exist or RMSCNV creates a sequential file.

EO

Converts CDS 99 EOF characters to an ASCII's near EOF mark and puts the file write back to the physical EOF. Default: Associates null filled records.

FOx

Sets output file organization, where x is S, R, or I. Default: Does sequential file organization.

ID

Identifies the current version. Default: Provides no identification.

IM

Processes files in block mode. Default: Uses standard RMS-11 record mode.

EMSCRY Utility Summary

[KSA] [keyname]

Reads an indexed file using the key or reference specified by keyname.
Default: Reads file using primary key.

[KSA]

Reads an indexed file using the key or reference specified by key. Default:
Reads file using primary key (0).

[LO]

Eliminates unused file slots when filling buckets in an indexed file. Default:
File buckets to capacity.

[MA]

Uses randomization inside and sequent FUL operations. Default: No
randomization, uses random FUL operations.

[ML:n]

Explicitly sets limit of buffer allocation. Default: EMSCRY calculates the
amount of memory available for allocation.

[PO] [CH] [M]

Prints input records to output record length if necessary. Default: Does not
print records.

[SL] file-spec

Provides summary listing to terminal or in file, if specified. Default: Does
not provide summary.

[Su]

Supersedes existing sequent file. Default: Does not supersede existing
file.

[TR]

Truncates input records to output record length, if necessary. Default:
Does not truncate records.

[WF]

Writes or reads fixed-control data. Default: Ignores fixed-control data.

RMSDES UTILITY SUMMARY

The RMSDES File Design Utility (RMSDES) allows you to design and create sequential, relative, and indexed files.

The command line for the RMSDES utility is:

RMS (filename) (type) (date)

See the *RMS-17 Utilities* manual for more information.

The following sections list the RMSDES attribute settings and commands.

ATTRIBUTE SETTINGS

Section	Attribute Keyword and Variable	Default
System	LANGUAGE logical	
	argument must be one of: RAC RSTN	User's system
	SOURCE ¹	User's system
	FILE PLACEMENT ² logical	NO
File	NAME string	FILE.DAT
	ORGANIZATION argument	
	argument must be one of: SEQUENTIAL RELATIVE INDEXED	SEQUENTIAL
	CLUSTER SIZE number	0 blocks
	ALLOCATION number	0 blocks
	EXTENSION number	0 blocks
	BLOCK SIZE number	1 block
	PROTECTION error	System protection

¹ User's data source.

² Not applicable to RMSDES access keys or to the work stream option.

FRANCO'S Little Summary

Section Keyword	Attribute Keyword and Variable	Default
Format	OWNER string	User's UID
	MAINTAIN_SIZE number	32 bytes
	MAINTAIN_BLOCKS integer	NO
	MAX_BLOCKS number of records	
	CONTROL_BLOCKS	NO
	SUBSTRUCTURE	NO
	SIZE number	0 bytes
	FORCAT argument	
	argument name in use of VARIABLE	VARIABLE
	STREAM FIELD FILE	
Format	CONTROL_FIELD_SIZE number	2 bytes
	BLOCKSPAN logical	YES
	CARRIAGE_CONTROL argument	
	argument name in use of CARRIAGE_RETURN	CARRIAGE_RETURN
	FORTRAN PRINT NOIR	
Keyword	NAME string	No name
	TYPE argument	
	argument name in use of	
	STRING	STRING
	INT	
	REAL	
	COM Mod	

2. Aussagen zu den Folgerungen für die Konzepte „Einkaufspreise“ und „Nettoverkaufspreise“

Section Keyword	Attribute Keyword and Variable	Default
Key 1	NULL_KEY logical	NO
	NULL_VALUE argument	
	argument must be one of: An ASCII character A decimal number	' ' (space)
	DUPLICATES logical	NO (primary key) YES (alternate key)
	SEC_POSITION number	Byte 1
	SIS_LENGTH number	4 bytes
	CHANGES logical	YES (alternate key)
	D412 FUL number	00
	D412 AREA number	Area 0
	INDEX_FUL number	00
Area 0	KEYREL_INDEX AREA number	Area 0
	INDEX_AREA number	Area 0
	ALLOCATION number	0 bytes
	EXTENSION number	0 bytes
	OUTPUT_SIZE number	1 byte
	COMPRESSION logical	NO
	POSITION argument	
	argument must be one of: NONE	NONE
	VARIABLE number	
	LIBRARY number	
	EXACT_POSITIONING logical	NO

* You may specify a number for field key, key sequence, and column that you define.

COMMANDS

CLEAR ALL

Resets all attribute values in all sections to their default values.

CLEAR section ALL

Resets all attribute values in the specified section to their default values.

CLEAR section attribute

Resets the specified attribute value in the specified section to its default value.

CREATE [filename].typ

Creates an empty data file that has the attribute values specified in the design buffer. For individual files in which users are not defined, RMSDES prompts for whether areas are to be defined by default.

If you do not specify a file name and type, the file will have those specified in the design buffer. If you do not specify a file name and type in the design buffer, the file will be created as PURJ.DAT.

CTRL-Z

Terminates RMSDES without saving the design or creating an empty data file.

ESC

In response to any prompt, enters the RMSDES utility prompt and preserves all attribute values in the design buffer.

EXIT [filename].typ

Saves the file design in the description file specified in the command line and terminates RMSDES. The default file type is .DAS.

GET [filename].typ [kind]

Reads the file design specified in a description file, and sets the appropriate attribute values in the design buffer. Reads the attribute values of a data file, and sets the appropriate attribute values in the design buffer. The default file type is .DAS. If the file is a data file, kind must be specified.

HELP

Lists all available help pages and gives instructions for displaying the help.

HELP command

Displays help text for the specified command.

HELP COMMANDS

Lists all valid commands.

HELP SECTIONS

Lists all available help topics for all sections and gives instructions for displaying the text.

HELP section

Displays help text for the specified section and lists all available help topics for all attributes in the specified section.

HELP section attribute

Displays help text for the specified attribute in the specified section.

?

Displays help text for the section, attribute, or value for which you are being prompted. Note also that you can type ? instead of HELP for any item of the HELP command.

QUIT

Terminates RMSDES, without saving the design or creating an output data file.

SAVE filename.typ

Saves the file design in the description file specified in the command line. The default file name is DEF.

SET ALL

Prompts for setting all attribute values in all sections. For attributes whose which areas are not defined, prompts for whether areas are to be defined by default.

RMSDBS Utility Summary

SET section ALL

Prompt for setting ALL attribute values in the specified section.

SET section attribute value

Prompts for specifying attribute value in the specified section.

SHOW ALL

Displays all attribute values in all sections.

SHOW section ALL

Displays all attribute values in the specified section.

SHOW section attribute

Displays the specified attribute value in the specified section.

SHOW ID

Displays the current level and patch version of RMSDBS.

RMSDSP UTILITY SUMMARY

The RMS-11 File Display Utility (RMSDSP) produces a concise description of any RMS-11 file, including back-up files.

The command line for the RMSDSP utility is

```
[command] [file name...], [mode switch...]
```

Type **HELP** or **?** for a help message. See the RMS-11 User's Manual for more information.

The RMSDSP switches are listed below.

Global Switches

-BP

Lists names of back-up files. Shows modes, basic display only.

-FD

Provides detailed display for selected files or back-up files. Default. Provides basic display only.

-ID

Identifies the current version. Does not provide any further details.



RMSIFL UTILITY SUMMARY

The RMS II Indexed File Load Utility (RMSIFL) loads records from an RMS-II file of any organization and loads them into an indexed file.

The command line for the RMSIFL utility is

out[option...] in[option...]

Type HELP or ? for a help message. See the RMS-II Utilities manual for more information.

The RMSIFL switches are listed below.

Global Switch

ID

Identifies the current version. Default: Provides no identification.

Output File Switches

IER[fil-spec]

Writes primary keys of exception records to terminal if no file-spec; or writes exception records to the specified file. Default: Write primary keys of exception records to terminal.

INDER[-S]

Scans preceding if input record is inconsistent. Default: Write no more keys of exception records to terminal.

LO

Header bucket fill size. Default: Fill buckets to capacity.

PD[+ %]

Pad input records to output record length. Default: Handles input records as exception records if different lengths.

TR

Truncate input records to output record length. Default: Handles input records as exception records if different lengths.

RMSR Utility Summary

Input File Switches

-DE:den1[den2....den3:]

Reads the datasets for each work file. Default: Current and new work work files on SY.

-KR:n

Case key of reference number. Default: Case primary key only.

-ND60

Days not wait seconds before loading. Default: Starts records in input file before loading.

RMSRST UTILITY SUMMARY

The RMSPST File Restoration Utility (RMSRST) restores actions were traced up using RMSBACK and produce standard RMSST error as output, so your programs can access them.

This command line to the RMSRST utility is:

```
out[ty]switch [-wrt] [ty]switch [-L] [ty] [switch...]
```

Type HELP or ? for a help message. See the *RMSST Utilities* manual for more information.

The RMSRST switches are listed below.

Global Switches

/ID

Identifies the current version. Default: Provides no identification.

/NOCV

Enables or disables file version number conversion. Default: See RMSBACK. V20 or later conversion is enabled and /NOCV will enable it. For RMSBACK logic prior to V20, conversion is disabled and /CV will enable it.

/NOQRY

Enables or disables query mode. Default: Enables query mode.

/BL[*file-spec*]

Provides summary listing to terminal or *file*. If specified, Default: The value is no summary.

Output File Switches

/PR

Change recording code. Default: Uses original priorities.

/RA

Perform read-after-write data integrity checking. Default: Performs no read-after-writing checking.

RMSRST Utility Summary

/RC

Full range test, after writing data in archive checking. Default: Performance check after writing checking.

/SU

Supersedes existing files. Default: Does not supersede existing files

Input File Switches

/BCdd-mm-yy

Restores disk file based on backup date. Default: Restores to date checking.

/OA:[ut]

Restores files based on original system (OS). Note that in this case, the square brackets are required syntax. Defaults: Applies no archive operation.

/BEfile-spec or

/SE[file-spec1,file-spec2]...[file-spec10]

Restores specified files from container file. Default: Restores all files on container file

RMS-11 COMPLETION CODES AND FATAL ERROR CODES

The following section lists completion codes as returned in the R15 and R14 fields of CR0 and CR2, and fatal error conditions.

For more information on these codes, see Appendix A of the *RMS-11 Main Programmer's Guide*.

COMPLETION CODES

SLABLC	Operation succeeded	Total	00001
		Decimal	1
SUBJCL	Inserted record has duplicate key	Total	00002
		Decimal	2
SUBLX	Error updating index	Total	00003
		Decimal	3
ERRACU	File access error	Total	17774
		Decimal	82
ERRACT	Activity period access error	Total	17775
		Decimal	83
ERRALD	Bad value in ALD field	Total	17776
		Decimal	84
ERRALE	Bad mask in ALN field	Total	17777
		Decimal	85
ERRALQ	Bad value in ALQ code	Total	17778
		Decimal	86
ERRANI	Bad ANSI-format carriage file	Total	17779
		Decimal	87
ERRAOP	Bad mask in AOP field	Total	17780
		Decimal	88
ERRAER	Error reading attributes	Total	17781
		Decimal	89
ERRAWR	Error writing attributes	Total	17782
		Decimal	90
ERRERS	Bad value in ERS field	Total	17790
		Decimal	182

ERRS-11 Completion Codes and Fatal Error Codes

ERRPDC	Bad value in PDC field	Octal: 17400 Decimal: 116
ERRPDC	Termination code found	Octal: 17400 Decimal: 116
ERRPDA	Bad address in PDA field	Octal: 17420 Decimal: 124
ERRPDS	Bad value in PDS field	Octal: 17440 Decimal: 136
ERRPCR	SAR already in use	Octal: 17520 Decimal: 128
ERRPNC	Illegal nested key change	Octal: 17520 Decimal: 128
ERRPTK	Bad linker header	Octal: 17580 Decimal: 168
ERRPLA	File processor error	Octal: 17600 Decimal: 160
ERRPOT	Bad code in COB field	Octal: 17620 Decimal: 162
ERRPRR	File processor error	Octal: 17620 Decimal: 162
ERRPTB	Undefined current-record content	Octal: 17620 Decimal: 162
ERRPDV	Bad value in PDV field	Octal: 17640 Decimal: 164
ERRPDM	Record having HCA defined	Octal: 17640 Decimal: 164
ERRPDA	Bad header specification	Octal: 17660 Decimal: 166
ERRPFW	File processor error	Octal: 17660 Decimal: 166
ERRPDS	Bad library specification	Octal: 17660 Decimal: 166
ERRPDC	File processor error	Octal: 17680 Decimal: 168

ERRDUA	Bad address in DNA field	Octal: 177030 Decimal: -158
ERRDSY	Nonexh directory	Octal: 177040 Decimal: -419
ERRDSR	Device not ready	Octal: 177000 Decimal: -511
ERRDPZ	Device performance error	Octal: 178720 Decimal: -682
ERRDTP	Bad code in DTP field	Octal: 178780 Decimal: -528
ERRDUP	Duplicate key not allowed	Octal: 178740 Decimal: -544
ERRENT	File permission error	Octal: 178720 Decimal: -580
ERRENV	Feature not in selected TMS-11 environment	Octal: 178700 Decimal: -596
ERREOF	End-of-file reached	Octal: 178800 Decimal: -602
ERRESA	Bad address in RSA code	Octal: 178850 Decimal: -606
ERRESL	Bad value in ESL field	Octal: 178914 Decimal: -604
ERRESA	ESS field value not zero	Octal: 178940 Decimal: -608
ERRERF	File expiration data not yet reached	Octal: 178980 Decimal: -612
ERRFVT	File protection error	Octal: 179020 Decimal: -614
ERRFAC	FAC field before operation	Octal: 179040 Decimal: -626
ERRFAL	Operation not supported by remote node	Octal: 179080 Decimal: -634
ERRFEX	File already exists	Octal: 179140 Decimal: -672

RM8-11 Completion Codes and Fatal Error Codes

ERRFLD	Bad value in FLD field	Detail	17050
		Reason	000
ERRFLC	Bad mask in FLD field	Detail	17050
		Reason	000
ERRFLK	File instead by another task	Detail	17060
		Reason	000
ERRFNA	Bad address in FNA field	Detail	17060
		Reason	002
ERRFND	File reference error	Detail	17060
		Reason	000
ERRFNF	File not found	Detail	17060
		Reason	000
ERRFNM	Bad file name	Detail	17060
		Reason	002
ERRFOP	Bad mask in FOP field	Detail	17060
		Reason	000
ERRFUL	Device not full	Detail	17060
		Reason	001
ERRFVN	Bad value in FVN field	Detail	17060
		Reason	000
ERRFX	Index not initialized	Detail	17060
		Reason	000
ERRFC	Bad value in FCT field	Detail	17060
		Reason	000
ERRWNA	Too many NALs of same type	Detail	17060
		Reason	000
ERRGCT	Illegal operation on GCT	Detail	17070
		Reason	000
ERRHRC	Block moved found in source file	Detail	17070
		Reason	000
ERRJCT	Bad value in JCT field	Detail	17080
		Reason	000
ERRJNF	Bad address in JNF field	Detail	17080
		Reason	000

RMS-11 Completion Codes and Fatal Error Codes

ERRKEY	Bad key	Code: 170130 Decimal: 544
ERRKRF	Bad value in KRF field	Code: 170170 Decimal: -970
ERRKSE	Bad value in KSE field	Code: 170187 Decimal: -487
ERRLAN	Bad value in LAN field	Code: 170197 Decimal: -897
ERRLAL	Bad magnitude label	Code: 170197 Decimal: -1002
ERRLEY	Logical channel loop	Code: 170400 Decimal: -1071
ERRLOH	Bad value in LOH field	Code: 170701 Decimal: -103
ERRLOK	Execution not needed	Code: 170731 Decimal: -1062
ERRLOC	Bad value in LOC field	Code: 170741 Decimal: -1066
ERRMIO	Memory address rollover	Code: 170751 Decimal: -1069
ERRMIO	File processor error	Code: 170761 Decimal: -1074
ERRMRN	Bad value in MRN field or bad record number	Code: 170810 Decimal: -1106
ERRMRB	Bad value in MRB field	Code: 170840 Decimal: -1136
ERRNAC	Unrecognized network device name	Code: 170850 Decimal: -1138
ERRNAM	Bad address in NAM field	Code: 170850 Decimal: -1138
ERRNEF	Content not ended file	Code: 170900 Decimal: -1173
ERRNET	Network file lost	Code: 170970 Decimal: -1187

RM5-11 Copyrights Codes and Fatal Error Codes

ERR501	No more matching files	Octal: 170004 Decimal: 1172
ERR502	Bad node name	Octal: 170010 Decimal: 1178
ERR503	No primary key for indexed file	Octal: 170040 Decimal: 1184
ERR504	Definition of XARs illegal	Octal: 170060 Decimal: 1206
ERR505	Bad mask in ORC field	Octal: 170407 Decimal: 1223
ERR510	Extra reading file pointers	Octal: 171440 Decimal: 1248
ERR515	File contains version level disagreement	Octal: 171460 Decimal: 1254
ERR525	Bad value in PCS field	Octal: 171490 Decimal: 1266
ERR530	Bad file data read	Octal: 171490 Decimal: 1266
ERR535	Storage violation	Octal: 171490 Decimal: 1266
ERR540	Bad mask in RAC field	Octal: 170320 Decimal: 1225
ERR541	Bad mask in RAC field	Octal: 170320 Decimal: 1225
ERR553	Bad address in RUC field	Octal: 170280 Decimal: 1207
ERR555	File processor error	Octal: 170290 Decimal: 1209
ERR557	Random device error	Octal: 170290 Decimal: 1209
ERR560	Bad value in REA field	Octal: 171700 Decimal: 1248
ERR570	Bad code in RSM field	Octal: 171700 Decimal: 1248

PPMS-IT Completion Codes and Fatal Error Codes

ERRR1K	Record locked	Code:	170140
		Decimal:	1440
ERRR0NF	File processor error	Code:	170120
		Decimal:	1416
ERRRNF	No such record	Code:	170100
		Decimal:	1402
ERRRNT	Record not sorted	Code:	170080
		Decimal:	1388
ERRR0P	Bad mode in I/O field	Code:	170040
		Decimal:	1104
ERRRPI	File processor error	Code:	167120
		Decimal:	1320
ERRRIV	Bad internal pointer	Code:	165120
		Decimal:	1316
ERRRSL	Bad value in RSL field	Code:	170724
		Decimal:	1336
ERRRSH	Bad value in RSH field	Code:	170720
		Decimal:	1332
ERRRST	Bad address in RSL field	Code:	170724
		Decimal:	1336
ERRRAZ	Bad value in RSL field	Code:	170720
		Decimal:	1332
ERRR7B	Record too big for user buffer	Code:	111780
		Decimal:	11584
ERRR7U	Internal pointer overflow	Code:	114704
		Decimal:	11888
ERRR7Q	Sequential insertion records not in order	Code:	114104
		Decimal:	11800
ERRR7H	Bad mode in RSL field	Code:	170560
		Decimal:	1316
ERRR7Z	Bad value in RSL field	Code:	170516
		Decimal:	1318
ERRR7P	Operation not supported for network	Code:	160712
		Decimal:	10536

PPS-11 Completion Codes and Fatal Error Codes

ERRSYS	System error	Detail: 174000 Decimal: -1000
ERRSTR	Index error	Detail: 174500 Decimal: -1050
ERRSTP	Bad file extension	Detail: 174510 Decimal: -1055
ERRTRF	Bad address in TRF field	Detail: 174580 Decimal: -1080
ERRTNN	Field values ignored by TNN	Detail: 174710 Decimal: -1070
ERRTSS	Bad value in TSS field	Detail: 174750 Decimal: -1075
ERRVER	Bad file version number	Detail: 174800 Decimal: -1080
ERRWCD	Illegal value and in merged string	Detail: 174810 Decimal: -1081
ERRWER	File processor error	Detail: 174820 Decimal: -1082
ERRWLR	Device write-failed	Detail: 174810 Decimal: -1081
ERRWPL	File processor error	Detail: 174810 Decimal: -1081
ERRXAB	Bad address in XAB field	Detail: 174850 Decimal: -1085
ERRXNP	Indexing error in file specification	Detail: 174840 Decimal: -1084

FATAL ERROR CODES

FFRAC7	Illegal concurrent operation	Octal: 177721 Decimal: 45
FRFAST	Illegal operation at 45° level	Octal: 177566 Decimal: 144
FR-RUC	Error in RMS 11 parameter area	Octal: 177369 Decimal: 270
FRPCPS	Bad parameter block	Octal: 177350 Decimal: 260
FRQPAR	Bad QAU	Octal: 176609 Decimal: 649
ERRLEI	Register library not available	Octal: 175755 Decimal: 1052
ERRMAF	Error in internal buffer requires data	Octal: 175755 Decimal: 1052
ERRRAG	Bad RAG	Octal: 175310 Decimal: 482



ASCII CHARACTER SET

Octal Code	Character	Octal Code	Character	Octal Code	Character	Octal Code	Character
000	NUL	040	SP	100	@	140	h
001	SOH	041	!	101	A	141	i
002	STX	042	"	102	B	142	j
003	ETX	043	#	103	C	143	k
004	END	044	\$	104	D	144	l
005	ENO	045	%	105	E	145	m
006	ACK	046	&	106	F	146	n
007	DEL	047	'	107	G	147	o
010	BS	050	(	110	H	150	p
011	HT	051	)	111	I	151	q
012	LF	052	*	112	J	152	r
013	VT	053	+	113	K	153	s
014	FF	054	,	114	L	154	t
015	CR	055	-	115	M	155	u
016	SO	056	.	116	N	156	v
017	SI	057	:	117	O	157	w
020	DLE	060	;	120	P	160	x
021	DC1	061	<	121	Q	161	y
022	DC2	062	=	122	R	162	z
023	DC3	063	>	123	S	163	[
024	DC4	064	?	124	T	164	\
025	NAK	065	@	125	U	165	]
026	SYN	066	A	126	V	166	^
027	ETB	067	B	127	W	167	_
030	CAN	070	C	130	X	170	`
031	EM	071	D	131	Y	171	a
032	SUB	072	E	132	Z	172	b
033	ESC	073	F	133	[	173	c
034	FS	074	G	134	\	174	d
035	GS	075	H	135	]	175	e
036	RS	076	I	136	^	176	f
037	US	077	J	137	_	177	g

* Equivalent to the Radio-50 character set



I/O ERROR CODES

The table below lists BSC-11M I/O error codes. Only partial abbreviations (are) are listed; the complete abbreviation is in (11) (12). The decimal number listed is the hexadecimal byte with the complete word value (2's complement of the decimal number).

Abbreviation	Error Decimal	Number Octal	Meaning
.BAD	-1	377	Bad parameters
.JFC	-2	376	Invalid function code
.DNR	-3	375	Device not ready
.JFI	-4	374	Parity error on device
.JNP	-5	373	Hardware status not present
.JFC	-6	372	Illegal user buffer
.DNA	-7	371	Device not attached
.DAA	-8	370	Device already attached
.DUN	-9	367	Device not attachable
.EDF	-10	366	End of file reached
.EDV	-11	365	End-of-volume reached
.JLK	-12	364	Write attempted to locked unit
.DWO	-13	363	Data overflow
.JLE	-14	362	Send/receive failure
.ABO	-15	361	Request terminated
.PFI	-16	360	Parity violation
.JBU	-17	357	Shareable resource in use
.JVF	-18	356	Illegal overlay request
.JVI	-19	355	Right byte wrong for virtual address
.BLK	-20	354	Logical Block Number unknown
.JGU	-21	353	Invalid UDC module number
.CON	-22	352	UDC connection
.JGD	-23	351	Callers nodes exhausted
.CFI	-24	350	Device full
.JFU	-25	347	Index file full
.JEF	-26	346	No entry in
.JGR	-27	345	Locked from read/write access
.JFU	-28	344	File handle full
.WAG	-29	343	Accessed too often
.CHS	-30	342	File handle checksum failure
.WAT	-31	341	Allocation error for format error
.JFI	-32	340	File processor device read error

40 Error Codes

Abbreviation	Error Decimal	Number Decimal	Meaning
.JFF	33	837	File generated, device write error
.JLk	-34	838	File already requested on JLN
.JNC	35	839	File JO, file number check
.JOC	-36	839	File JO, sequence number check
.JOU	37	838	No file assigned on JLN
.JLO	-38	838	File was not properly closed
.JOT	39	839	No buffer space available for file
.JEG	-40	838	Illegal record size
.JBC	-41	837	File exceeds space allocated in blocks
.JLL	-42	838	Illegal record size on head descriptor block
.JTP	-43	836	Bad record type
.JAC	-44	839	Illegal record number into set
.JAI	-45	839	Illegal record size to bits set
.JCN	-46	842	Illegal record number too large
.JCI	-47	751	Internal consistency error
.JCV	-48	820	Factors not different zeroes
.JEX	-49	817	Record name file name not available in set
.JTR	-50	818	Bad structure file
.JRM	-51	815	Cannot remove old file again
.JRI	-52	814	Bad directory entry
.JOP	-53	813	File already open
.JNK	-54	812	Bad file name
.JED	-55	811	Bad device name
.JRR	-56	810	Bad block in device
.JUP	-57	767	Known sufficient entry in directory
.JTE	-58	805	Not enough stack space for JO or JOP
.JHE	-59	804	Valid hardware error in device
.JFI	-60	804	File JO was not specified
.JQ	-61	808	Illegal sequential operation
.JOT	-62	804	End of tape detected
.JHI	-63	801	Bad volume number
.JHO	-64	800	Bad file number
.JOL	-65	777	Device off line
.JOC	-66	776	Block check, CRC, or framing error
.JNL	-67	775	Header on line
.JNX	-68	774	No such mode
.JFW	-69	773	Path list too short
.JIS	-69	773	Path list too long
.JIR	-70	772	Bad initial buffer
.JMM	-71	771	Too many outstanding messages
.JDI	-72	770	No space available

Abbreviation	Error Decimal	Number Octal	Meaning
.CTL	-71	263	Connection rejected by user
.MRL	-74	266	Connection rejected by network
.EXI	-75	265	File expansion does not material
.ETP	-76	264	Bad tape format
.MND	-77	263	Not ANSI "C" error have room
.NDA	-78	262	No data available
.NCR	-79	261	Task not linked to specified TOS/CK in- struction
.NRI	-80	260	Reserved task not installed
.AST	-80	260	No AST specified to connect
.FLN	-81	257	Device off line when offline request was made
.IES	-82	256	Invalid escape sequence
.FIS	-83	255	Partial escape sequence
.ALC	-84	254	Allocation failure
.ULK	-85	253	Unlink error
.WCR	-85	252	Write check failure
.NLI	-87	251	Task not required
.REJ	-88	250	Transfer rejected by receiving CPU
.FLS	-89	247	Event flag already specified
.DSQ	-90	246	Device queue overflow
.JOU	-91	245	Inconsistent qualifier usage
.DTS	-92	244	Device busy during operation
.TML	-93	243	Too many links to task
.NLT	-94	242	Not a network task
.TMO	-95	241	Timeout on request
.CAR	-96	240	Connection rejected
.JKN	-97	237	Unknown name
.Sub	-98	238	Unable to use device
.MI	-99	235	Media insertion incomplete
.SP	-100	234	Spooler ignored

For additional information, refer to the *IBM AS/400 Operations Reference Manual*.



DIRECTIVE ERROR CODES

Directives to the Directive Status Word (DSW) return the following error codes. The complete abbreviation for these codes is JEJxxx. Only partial abbreviations (xxx) are included in this list. The final error number listed in the low-order byte of the complete word value (2's complement of the decimal).

Abbreviation	Error Decimal	Number Octal	Meaning
.JPH	-1	377	Insufficient dynamic storage
.JPS	-2	376	Specified task not installed
.JTS	-3	375	Unusable core used for task
.JNS	-4	374	Insufficient dynamic storage for word
.JUN	-5	373	Unassigned GEN
.JWP	-6	372	Device driver not received
.JCI	-7	371	Task not active
.JTS	-8	370	Directive inconsistent with task state
.JIX	-9	367	Task already fixed/modified
.JGP	-10	366	Resource task not checkpointable
.JCH	-11	365	Task is checkpointable
	-12		(reserved)
	-13		...
	-14		(reserved)
.JBS	-15	364	Resource buffer too small
.JVB	-16	363	Privilege violation
.JBU	-17	362	Resource in use
.JNV	-18	361	No resource available
.JLV	-19	360	Illegal vector operation
.JLN	-20	359	Invalid table number
.JLF	-21	358	Invalid frame number
	-22		...
	-23		(reserved)
.JST	-24	360	Directive inconsistent request from AST
.JAP	-25	357	Illegal mapping reserved
	-26		(reserved)
.JIF	-27	356	Window task I/O in progress
.JAE	-28	355	Alignment error
.JCV	-29	354	Address window alteration, resource
.JVR	-30	353	Invalid region ID
.JVN	-31	352	Invalid address window ID
.JTP	-32	351	Invalid TL parameter

Diagnostic Error Codes

Abbreviation	Error Decimal	Number Octal	Meaning
.BB	-68	247	Invalid word buffer size (greater than 555)
.LNL	-40	240	LTN token error
.UU	-61	245	Invalid UIC
.IDL	-42	244	Invalid index or unit
.UU	-63	247	Invalid time parameter
.FNE	-40	242	Parameter ignored in system
.JPR	-95	247	Invalid priority (greater than 120)
.JUU	-80	240	Invalid LTN
.UU	-87	257	Invalid word buffer size (greater than 655)
.ADF	-87	258	Partial DMT error (data's space)
.SDP	-95	255	DPU or DPB user invalid

For additional information, refer to the **IBM J900M PLUS Executive Reference Manual**.

EXECUTIVE DIRECTIVE SUMMARY IN ALPHABETICAL ORDER BY MACRO CALL

Abort Task

ABRT\$

FORTRAN Call:

CALL ABORT (task,info)

- task = Name of task to be aborted (Radin-50)
- info = Directive status

Assign Call:

ABRT\$ task

- task = Name of task to be aborted (Radin-50)

Alter Priority

ALTP\$

FORTRAN Call:

CALL ALTPRI (task,ipri,info)

- task = Action task name
- ipri = A 1-based integer value sent to the new priority, from 1 to 250 (see/50)
- info = Directive status

Macro Call:

ALTP\$ task,ipri

- task = Action task name
- ipri = New priority, from 1 to 250 (decimal)

Assign LUN

ALUN\$

FORTRAN Call:

CALL ASSNLLN (unit,unit,unit,info)

- unit = Logical unit number
- dev = Device name (format: 1A2)
- unit = Device unit number
- info = Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

ALONGS *label,unit*

- unit* = Logical unit number
- label* = Device name (two characters)
- unit* = Device unit number

AST *Serials Ekk (SS form recommended)*

ASTXSS

FORTTRAN Call:

Not in the FORTTRAN language, but the IBM standard term is closer to taking in age and speed mechanisms; therefore, this directive is not available to FORTTRAN users.

Macro Call:

ASTXSS *len*

- len* = Line number address

Attach Region

ATRG8

FORTTRAN Call:

CALL *ATRG8* *code*

- code* = An 8-bit integer code consisting of a Region Definition Code. See Section 3.3.1.21.
- code* = Transfer code

Macro Call:

ATRG8 *len*

- len* = Region Definition Code address

Connect To Interrupt Vector

CINT8

FORTTRAN Call:

Not supported

Macro Call:

CINT8 *code,addr,ptr,pr,pr*

- code* = Interrupt vector address — Must be in the range 0000 to 000F as were specified during SYSTEM loadtime, and must be a multiple of 4

Executive Directive Summary in Alphabetical Order by Macro Call

- base** Virtual base address for kernel APLS mapping of the ISR, and enable/disable interrupt routines
- err** Virtual address of the ISR, or C++ statement from the interrupt vector
- err** Virtual address of the enable/disable interrupt routine
- pid** Initial priority of which the ISR is to execute
- ret** Virtual address of an APLS routine to be called after the task-level routine queues an APLS

Clear Event Flag

CLEPS

FORTRAN Call

CALL CLEP (/event,flag)

event Event flag number

flag Directive name

Macro Call

CLEPS **event**

event Event flag number

Cancel Mark Time Requests

CMTKS

FORTRAN Call

CALL CMTK (/event,flag)

event Event flag number

flag Directive name

Macro Call

CMTKS **event,where**

event Event flag number

where Macro name APLS address

where Entry routine address

Connect

CNCTS

FORTRAN Call

CALL CNCT (/name,from,flag,local,global,addr)

name Name, radix-10 of the offgoing task to be connected

Executive Directive Summary in Alphabetical Order by Macro Call

- enb** = Event flag to be set when the offspring task enters an enable state
- enr** = Name of an ASCII routine to be called when the offspring task enters an enable state
- exh** = Name of an I/O word status block to be written when the offspring task exits an enable state
 - Word 1 — Offspring task exit status
 - Word 17 — Reserved
- Exit** = Name of a word to receive the status block address when an ASCII routine
- ids** = Integer to receive the Executive Status Word

Macro Call:

CNCIF *name* *enb* *enr* *exh*

- name** = Name of the ID of the offspring task to be connected
- enb** = The event flag to be cleared on entrance and set when the offspring task enters an enable state
- enr** = Address of an ASCII routine to be called when the offspring task enters an enable state
- exh** = Address of an I/O word status block to be written when the offspring task exits an enable state
 - Word 1 — Offspring task exit status
 - Word 17 — Reserved

Checkpoint Common Region

CPCR

FORTRAN Call:

CALL CPCR *name* *id*

- name** = Name of the ID of the common region to be checkpointed
- id** = Directive status

Macro Call:

CPCR *name*

- name** = Name of the common region to be checkpointed

Create Address Window

CRAW

PORTMAN Call:

CALL CRAW (addr,addr)

addr An 8-word integer array containing a Window Definition Block (see Section 4.2.3.3)

addr Directive status

Macro Call:

CRAW addr

addr = Window Definition Block address

Create Group Global Event Flags

CRGFS

PORTMAN Call:

CALL CRGFS (group,flag)

group Group number for the flags to be created — if not specified, the register's brother UID (RUCR+1) in the task's header is used

flag = Integer to receive the Directive Status Word

Macro Call:

CRGFS group

group Group number for the flags to be created — if not specified, the task's protection UID (RUCR+1) in the task's header is used

Create Region

CRREG

PORTMAN Call:

CALL CRREG (addr,addr)

addr An 8-word integer array containing a Region Definition Block (see Section 3.3.1.2)

addr = Directive status

Macro Call:

CRREG addr

addr = Region Definition Block address

Create Virtual Terminal**CRVTS****SYNTAX:** CRVTS

DATA CRVTS (list) (list) (list) (list) (list) (list)

- list = AST address at which input requests from offpage tasks are received
- list = AST address at which output requests from offpage tasks are received
- list = AST address at which the parent task may be notified of the completion of successful offpage attach and detach requests to the virtual terminal unit
- list = Maximum buffer length allowed for offpage I/O requests
- list = Address of J word buffer to receive information from the stack when an AST occurs
- list = Integer to specify the Directive Status Word

Macro Call:

CRVTS (list) (list) (list) (list)

- list = AST address at which input requests from offpage tasks are received
- list = AST address at which output requests from offpage tasks are received
- list = AST address at which the parent task may be notified of the completion of successful offpage attach and detach requests to the virtual terminal unit if the parameter is not specified, no notification of attach and detach are returned to the parent task
- list = Maximum buffer length allowed for offpage I/O requests

Cancel Time-Based Initiation Requests**CSQRS****SYNTAX:** CSQRS

DATA CSQRS (list) (list)

- list = Task name
- list = Directive status

Macro Call:

CSQRS (list)

- list = Task name

Declare Significant Event (99 form recommended)	DECLSE
FORTRAN Call:	
CALL DECLSE (idst)	
idst Directive status	
Macro Call:	
DECLSE idst	
idst Integer routine address	
Disable AST Recognition (99 form recommended)	DSARSS
FORTRAN Call:	
CALL DSARSS (idst)	
idst Directive status	
Macro Call:	
DSARSS idst	
idst Integer routine address	
Disable Checkpointing (99 form recommended)	DISCPSS
FORTRAN Call:	
CALL DISCPSS (idst)	
idst Directive status	
Macro Call:	
DISCPSS idst	
idst Integer routine address	
Detach Region	OTRGS
FORTRAN Call:	
CALL OTRGS (nreg, idst)	
nreg An 8-word integer array containing n Region Definition Blocks (see Section 1A.1.2)	
idst Directive status	
Macro Call:	
OTRGS nreg	
nreg Region Definition Block address	

Executive Directive Summary in Alphabetical Order by Name Call

Eliminate Address Window

ELAWS

FORTRAN Call:

CALL ELAWS (addrb,ida)

addrb An 4 word integer array containing a Window Definition
 Black Box Definition (B.B.D.)
 ida Directive idata

Main Call:

ELAWS with

with = Window Definition (B.B.D.)

Eliminate Group Global Event Flags

ELGFS

FORTRAN Call:

CALL ELGFS (group,ida)

group Group number of flags to be eliminated
 ida = Integer to access the Executive System Word

Main Call:

ELGFS (group)

group = Group number to flags to be eliminated

Eliminate Virtual Terminal

ELVTS

FORTRAN Call:

CALL ELVTS (vterm,ida)

vterm = Virtual terminal unit number
 ida Integer to receive the Executive Status Word

Main Call:

ELVTS vterm

vterm = Unit number of the virtual terminal to be eliminated

Exit Status

EMSTS

FORTRAN Call:

CALL EMST (problem,stat,ida)

stat = Name of task connected to issuing task to which the status
 is to be printed

Executive Directive Summary in Alphabetical Order by Macro Call

idls A 0-bit quantity to be returned to the connected task

ids = Larger to receive the 0-bit of the Status Word

Macro Calls:

ENRSTB Enable status

name Name of a task connected to the testing task to which the status is to be enabled

status A 0-bit quantity to be returned to the connected task

Enable AST Recognition (35 form recommended)

ENRAB\$

FORTRAN Call

CALL ENRSTB (idls)

idls = Director's status

Macro Call:

ENRAB\$ (idls)

idls = Error routine address

Enable Checkpointing (88 form recommended)

ENCP\$S

FORTRAN Call

CALL ENAURE (ids)

ids = Director's status

Macro Call:

ENCP\$S (ids)

ids = Error routine address

Exit IF

EXIT\$

FORTRAN Call

CALL EXITIF (idls, idf)

idls = Event flag number

idf = Effective status

Macro Call:

EXIT\$S (idls)

idls = Event flag number

Task Exit (\$S term recommended)

EXIT\$S

FORTHIAN Call:

FORTRAN makes that terminates with the STOP statement, and, in a message that includes any follow-up statements pending the task to stop, and an up local character string specified by the STOP statement. CALL EXIT\$S term name with the message STOP THIS FORTHIAN TASK.

Macro Call:

EXIT\$S var
var = Free routine address

Exit With Status

EXIT\$S

FORTHIAN Call:

CALL EXIT\$S (stat)
stat = A 16-bit quantity to be returned to parent task

Macro Call:

EXIT\$S status
status = A 16-bit quantity to be returned to parent task

Extend Task

EXTK\$

FORTHIAN Call:

CALL ENK\$ (blk, linc)
blk = A positive or negative number equal to the number of 50-word blocks by which the task size is to be extended or reduced (if unlisted, task size defaults to installed task size)
linc = Taskline status

Macro Call:

EXTK\$ blk
blk = A positive or negative number equal to the number of 50-word blocks by which the task is to be extended or reduced (if unlisted, task size defaults to installed task size)

Get Command for Command Interpreter

GETC\$

FORTHIAN Call:

CALL GETC\$ (cmd, linc, linc, linc, linc, linc)
linc = Name of a logic to receive the command

- addr** = Integer containing the *addr* of the *info* source in *hex*
- dbuf** = Name of an integer containing the length of the optional information buffer
- info** = Name of an integer containing the length of the optional information buffer
- infoh** = Name of an integer that contains the address in pool of the command loaded (This address was obtained by a previous call to `GET_CMD` with `GET_CMD` specified)
- infov** = Name of an integer containing a value indicating the action to take if there is no command entered
- info** = Integer to receive the Executive status word

Macro Calls:

`CALL GETCMD (addr,dbuf,info,infoh,infov)`

- addr** = Address of buffer to receive command source
- dbuf** = Length of buffer. Maximum buffer size is 84, for RSK, LHM and EDB. For RSK, LHM-Puls
- info** = Address of buffer to receive information on the loading terminal
- infoh** = Length of buffer to receive information
- infov** = Address of command
- info** = Action to take if no command buffer is present.
- `CC.CPS (200)` Return with *ccps* set default
- `CC.CEX (100)` Load CLI to exit instead of returning
- `CC.CST (100)` Force CLI to stop instead of returning
- `CC.CND (200)` Copy command into buffer for do not return it from the file.

Get Command Interpretation Information**GCIFS****FORTRAN Call:**

`CALL GETCLI (addr,dbuf,info,infoh,infov)`

- addr** = Name of an integer array to receive the CLI information
- dbuf** = Length in bytes of the integer array to receive the CLI information

Executive Directive Summary in Alphabetical Order by Macro Call

- add** = Name of a two-word array element containing the BAFAd value of the ULI
- adv** = Name of an integer containing the ASCE name of terminal (ifGull = ULI)
- unit** = Name of an integer containing the total unit number of terminals
- ids** = Directive status

Macro Call

GETUL (add, buf, n, adv, unit)

- buf** = Address of buffer to receive information
- buf** = Length of information buffer
- adv** = Name of BAFAd in the ULI; information is returned in
- adv** = ASCE name of terminal whose ULI should be used
- unit** = Control unit number of terminal

Get ULI Information

GLUN\$

FORTRAN Call

CALL GETULN (unit, buf, n)

- unit** = Logical unit number
- buf** = A Fortran integer array to receive ULI information
- ids** = Directive status

Macro Call

GLUN\$ (unit, buf)

- unit** = Logical unit number
- buf** = Address of two-word buffer that will receive the ULI information

Get MCR Command Line

GMCR\$

FORTRAN Call

CALL GETMCR (buf, ids)

- buf** = Address of two-word buffer containing line
- ids** = Directive status

Macro Call

GMCR\$

Get Mapping Context GMCTX

FORTTRAN Call:

CALL GMCTX (area, info)

area An integer array to receive the mapping context. The size of the array is 0*4, where 4 is the number of window blocks in the base's header. (The maximum size is 5*3+1*60 on RISC-11C systems. The maximum size is 4*3+1*100 on RISC-11C P1128 systems.)

info = Directive status

Macro Call:

GMCTX=area

area The address of a word in a Window Definition Block; it is the number of window blocks at the root's header.

Get Partition Parameters GPTP3

FORTTRAN Call:

CALL GPTP3 (part, buf, info)

part Partition name

buf A 3-word integer array to receive partition parameters

info Directive status

Macro Call:

GPTP3=part,buf

part = Partition name

buf Address of 3-word buffer

Get Region Parameters GREGS

FORTTRAN Call:

CALL GREGS (reg, buf, info)

reg = Region id

buf A 5-word integer array to receive region parameters

info Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

GETIO\$ *int,bot*
int Register III
bot Address of 8-word buffer

Get Sense Switches (SS turn recommended)

GS\$W\$S

FORTRAN Call:

CALL GS\$W\$S (*int*)
int Integer to reverse the console switch settings

The following FORTRAN call allows a program to read the state of a single switch.

CALL SW\$PULL (*int,bot*)
int The switch to be tested (0 to 25)
bot Test results return:
 1 switch on
 2 switch off

Macro Call:

GS\$W\$S *int*
int Time setting address

Get Time Parameters

GT\$M\$S

FORTRAN Call:

CALL GT\$M\$S (*int,bot*)
bot 32 8-word integer array
int Dimension number

Macro Call:

GT\$M\$S *bot*
bot Address of 8-word buffer

Get Task Parameters

GT\$B\$S

FORTRAN Call:

CALL GT\$B\$S (*int,bot*)
bot A 16-word integer array to receive the task parameters

Executive Directive Summary in Alphabetical Order by Macro Call

ids = Directive source

Macro Call:

GPSSS **buf**

buf = Address of 16-word buffer

INHbH ABT Recognition (36 form recommended)

INHABH

FORTTRAN Call:

CALL INABTH (ids)

ids = Directive source

Macro Call:

INHABH **buf**

buf = 16-word buffer address

Map Address Window

MAPS

FORTTRAN Call:

CALL MAP (wfb,ids)

wfb = An 8-word integer array containing a Window Definition Block (see Section 2.2.2.2)

ids = Directive source

Macro Call:

MAPS **wfb**

wfb = Window Definition Block address

Mark Time

MARKTS

FORTTRAN Call:

CALL MARKTS (rtn,mg,ms,ids)

rtn = Event flag number

mg = Time interval magnitude

ms = Time interval unit

ids = Directive source

Executive Directive Summary in Alphabetical Order by Macro Call

The JSA standard call for executing a task for a specified time interval is also included:

CALL WAIT (integer)

- int = Call interval in minutes
- int = Time interval in minutes
- int = Directive status

Macro Call:

SECRET\$ (int) (reg, int, int)

- int = Event log number
- reg = Title interval in minutes
- int = Time interval in minutes
- int = ART entry print address

Map Supervisor D-Space to Supervisor I-Space

MSDS\$

FORTRAN Call:

Not supported

Macro Call:

MSDS\$ mask

- mask = A 16-bit mask with one bit corresponding to each AFR. If the bit is set, the AFR is mapped to supervisor mode I-space. If the bit is clear, the AFR is mapped to user mode D-space. The 16 bits are created in bits 0 through 14 of the mask word.

Move to/from User/Supervisor I-D-Space

MVTS\$

FORTRAN Call:

Not supported

Macro Call

MACRO *action* *action* *buff*

action = One of the following:

- MOV TOI — Move to user I/O
- MOV THO — Move to user I/O
- MOV TSI — Move to supervisor I/O
- MOV TSI — Move to supervisor I/O
- MOV TSI — Move to supervisor I/O
- MOV TSI — Move to supervisor I/O
- MOV TSI — Move to supervisor I/O
- MOV TSI — Move to supervisor I/O

buff = Address of the location in the bus

buff = Buffer to receive the output file, for the macro from system

buff = Value to be signed in the logbook. For the macro from system

Queue ID Request

QIDB

FORTRAN CALL

CALL QID (line,join,join,join,join,join)

line = ID number of the

join = Logical number

join = Event flag number

join = Priority request, but must be present

join = A 2-word integer array to receive final ID status

join = A 4-word integer array containing device-dependent parameters to be placed in parameter words 1 through 6 of the Executive Parameter Block (EPB). Fill in this array by using the GLEPDB loading (see Section 1.5.1.4)

join = Device status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call

QIO\$ *func,unit,pr,prb,wh,pr,prb*

- func* = I/O function code
- unit* = Logical unit number
- pr* = Event flag number
- prb* = Priority; ignored, but must be present
- wh* = Address of I/O status block
- pr* = Address of AET service routine entry point
- prb* = Parameter list of the form *xpl,...,pbl*

Queue I/O Request And Wait

QIO\$

FORTHAN Call:

CALL WAITQIO *func,unit,pr,prb,wh,pr,prb*

- func* = I/O function code
- unit* = Logical unit number
- pr* = Event flag number
- prb* = Priority; ignored, but must be present
- wh* = A 2-word integer array to receive the I/O status
- pr* = A 16-word integer array containing a device descriptor common area to be passed as parameter words 1 through 6 of the DPB
- prb* = I/O status block

Macro Call

QIO\$ *func,unit,pr,prb,wh,pr,prb*

- func* = I/O function code
- unit* = Logical unit number
- pr* = Event flag number
- prb* = Priority; ignored, but must be present
- wh* = Address of I/O status block
- pr* = Address of AET service routine entry point
- prb* = Parameter list of the form *xpl,...,pbl*

Receive Data Or Stop

RCSTS

FORTRAN Call:

CALL RCST (sender, buf, job)

- sender = Sender task name (if not specified, data may be received from any task.)
- buf = Address of 15 word buffer to receive the sender task name and data
- job = Integer to receive the Directive Status Word

Macro Call:

RCSTS (name) buf

- name = Sender Task name (if not specified, data may be received from any task.)
- buf = Address of 15 word buffer to receive the sender task name and data

Receive Data

RCVDS

FORTRAN Call:

CALL RCVDS (task) buf, job

- task = Sender Task name (if not specified, data may be received from any task.)
- buf = A 15 word integer array for received data
- job = Directive status

Macro Call:

RCVDS (task) buf

- task = Sender Task name (if not specified, data may be received from any task.)
- buf = Address of 15 word buffer

Receive Data Or Exit

RCVXS

FORTRAN Call:

CALL RCVXS (task, buf, job)

- task = Sender task name (if not specified, data may be received from any task.)

Executive Directive Summary in Alphabetical Order by Macro Call

inf = 0-17 word instruction for internal data

dir = Directive status

Macro Call:

RDAPS (inf,inf)

inf = Reader link name (If no extension, none may be attached from any word.)

inf = Address of 16-word buffer

Read All Event Flags

RDAPS

FORTRAN Call:

A FORTRAN link can only read a single event flag. The call is:

CALL RDAPRT (inf,inf)

inf = Event flag number (1-64)

inf = Directive status

Macro Call:

RDAPS (inf)

inf = Address of 4-word buffer

Read Event Flag

RDEFS

FORTRAN Call:

CALL RDEFP (ident,inf)

inf = Integer containing an event flag number

inf = Integer variable to receive the Directive Status Word

Macro Call:

RDEFS (inf)

inf = Event flag number

Read Extended Event Flags

RDEFS

FORTRAN Call:

A FORTRAN link can read only a single event flag. The call is:

CALL RDEXT (inf,inf)

inf = Event flag number (1-96)

inf = Directive status

Macro Call:

RDETP8 *buf**buf* = Address of C word buffer

Remove Affinity (SS form recommended)

RMATSS

FORTRAN Call:

CALL RMAT7 (*id*)*id* = Integer to reset the Directive Status Word

Macro Call:

RMAWPN

Request and Pass Queuing Information

RPDIS

FORTRAN Call:

CALL RPDIS (*transmitting*, *target*, *iparam*, *ilbl*, *ilbldest*,
control, *imask*, *break*, *nocall*, *call*)*name* = An array containing the named name of the task to be requested and operationally entered to*type* = Integer containing the group and number for the DDC of the requested target (bits 1-15)*mem* = Integer containing the member code number for the DDC of the requested target (bits 16-31)*iparam* = Array (in PL image) containing the Parameter name of the parent task (This is returned in the information buffer of the RPDISM submacro.)*ilbl* = Array that contains the command line label for the chained task.*ilbldest* = Integer that contains the number of bytes in the command in the *ilbl* array.*imask* = Long word controlling the passing of this directive request when executed. The bit definitions of QDS byte are as follows:

BIT 0 (CK) = 196 Pass this task to work on external execution of the RPDIS directive

BIT 0 (AL) = 1 Pass all of the task's QDS's to the requested task (Default is none.)

Executive Directive Summary in Alphabetical Order by Macro Call

name	Integer containing the ASCII device name of the requested task TL
unit	Integer containing the unit number of the requested task TL device
task	Armed object contains the Radix-60 name the requested task is to run under. (Valid only for CLEs)
addr	Integer containing the instruction pool address of the parent OCB (Only a CLE can specify this argument because the value can only be obtained in the instruction buffer of the GTCMCI substation.)
ids	Integer to receive the directive status code

Macro Call:

RPDMS name,pr,pr,pr,once,pr,unit,buaddr,buaddr,pr,pr,unit,task,addr

name	= Name of task to be obtained on
pr	= Priority task (Not used or supported)
pr	= Request priority (Not used or supported)
pr	= Group code for DTC of the requested task
unit	= Member code for DTC of the requested task
once	= Name of setting task's parent task whose OCB is to be passed. If not specified, all OCB's are passed
buaddr	= Address of buffer to be given to the requested task
buaddr	= Length of buffer to be given to requested task
pr	= Flag byte: RPDMS = (000) Pass typing task to call RPDMS = (11) Pass all OCB's
name	= ASCII device name for TL
unit	= Unit number of task TL
task	= Radix-60 name of task to be started
addr	= Address of DTC to pass (CLEs only)

Request Task

ROSTY

ROSTYMAN Call

CALL REQUEST task,unit,ids

task Task name

Concise Directive Summary in Alphabetical Order by Macro Call

- opt** = A 4-word integer array
 - opt(1)** = Partition name; first half ignored, but must be present
 - opt(2)** = Partition name; second half ignored, but must be present
 - opt(3)** = Priority; ignored, but must be present
 - opt(4)** = User identification code
- dir** = Directive string

Macro Call:

EQSIS task,ptl,prl,mcname,

- task** = Task name
- ptl** = Partition name; ignored, but must be present
- prl** = Priority; ignored, but must be present
- mcname** = IIC group code
- mcno** = IIC machine code

Resume By Reference

RREFS

FORTRAN Call:

CALL RREF (wdb,lab,stat)

- wdb** = An 8-word integer array containing a Window Definition Block (see Section 5.6.2.3)
- lab** = A 10-word integer array which used as the resume trailer
- stat** = Directive status

Macro Call:

RREFS wdb

- wdb** = Window Definition Block

Resume Task

RTSUM

FORTRAN Call:

CALL RTSUM (task,stat)

- task** = Task name
- stat** = Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

RSLMg: 146

tbl = Task name

Run Task

RUNE

WORDMAN Call:

CALL RUN (tbl,pbl,lang,ans,emat,prell,scf)

tbl = Task name

pbl = A downward arrow entry

lang = For task name first half ignored, but must be present

ans = Particular name second half ignored, but must be present

emat = Priority ignored, but must be present

prell = User Identification Code

scf = Schedule data magnitude

tbl = Schedule data user

ans = Reschedule interval magnitude

tbl = Reschedule interval unit

tbl = Effective date

The RSLMg standard call for calculating a task is also included:

CALL STACTP (tbl,lang,ans,scf)

tbl = Task name

lang = Schedule data magnitude

ans = Schedule data user

tbl = Effective date

Macro Call:

RUNE (tbl,pbl,lang,ans,emat,prell,scf)

tbl = Task name

pbl = Particular name ignored, but must be present

prell = Priority ignored, but must be present

Executive Directive Summary in Alphabetical Order by Macro Call

- ugr = UTC gross mode
- umr = UTC monitor mode
- uag = Schedule delta magnitude
- umr = Schedule delta unit
- uag = Reschedule interval magnitude
- umr = Reschedule interval unit

Specify Command Arrival AST

SCAAB

FORTRAN Call

Not supported

Macro Call

SCAAB *list*

- list* AST number, dollar sign, points, ending this paragraph; the dollar command arrival ASTs for the listing GLI task until the directive is specified again.

Supervisor Call (SS form recommended)

SCALBS

FORTRAN Call

Not supported

Macro Call

SCALBS *addrn* *addrc*

- addrn* Address of the system supervisor-mode routine
- addrc* = Address of the completion routine for return to the caller

Set Command Line Interpreter

SCLIB

FORTRAN Call

CALL SCLIB(*list*,*ids*,*umr*,*ugr*)

- list* A two word string constant containing the name of the GLI to which the terminal is to be set
- ids* Integer containing the PDCB name of the terminal to be set (maximum = 12)
- umr* = Integer containing the unit number of terminal
- ugr* Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

SEND (task,buf,flag,ide)

- task = Name of the TLL to which the terminal is to be sent
- buf = Address of the terminal to be sent (default is TLL)
- flag = Data number of terminal

Send Data

SDATS

FORTRAN Call:

CALL SEND (task,buf,flag,ide)

- task = Task name
- buf = A 16-word integer array of data to be sent
- flag = Event flag number
- ide = Directive number

Macro Call:

SDATS (task,buf,flag)

- task = Task name
- buf = Address of 16-word data buffer
- flag = Event flag number

Send Data Request and Pass Disabling Control Block

SDRPS

FORTRAN Call:

CALL SDRP (task,buf,flag,segment,flag,segment,buffer,flag)

- task = Name of the array (REAL, INTEGER, etc) that contains the 16400 words of target task
- buf = Integer array containing data to be sent
- flag = Integer containing number of words (segment) in the array to be sent (On BSCX JNC systems, this argument must be 16, and on BSCX JCM-Plus systems, this argument may be in the range of 1 to 256.) (Default is 16.)
- ide = Integer containing the number of the event flag to be set when this directive is executed successfully

Executive Directive Summary in Alphabetical Order by Macro Call

- iflag** = Integer containing flag bits accounting the execution. They are defined as follows:

BDREX = 128. Force this flag to exit upon successful execution

BDREL = 1. Flag of OCB's

- iparam** = Name of macro concerning the Radix-66 name of the parent task whose OCB should be passed to the target task

- jobadd** = Name of an integer containing internal post address of the OCB to pass

- job** = Integer to receive the contents of the Directive Status Word

Macro Calls

SDRES task (buffer, buffer, job, parent, jobadd)

- task** = Name of task to be cloned or

- buffer** = Address of buffer to be given to the requested task

- buffer** = Length of buffer to be given to requested task

- job** = Exit flag

- flag** = Flag bits (SDRES exit, pass all OCB's)

- parent** = Name of issuing task's parent task whose OCB is to be passed

- jobadd** = Address of OCB to pass CALL's entry

Send, Request And Control

SDRES

POSTMAN Call

CALL SDRC (name, buf, job, job, job, job, job, job)

- name** = Target task name of the offspring task to be connected

- buf** = Name of forward send buffer

- job** = Exit flag to be set when the offspring task exits at this station

- job** = Name of an AS routine to be called when the offspring task exits at this station

Executive Directive Registry in Alphabetical Order by Macro Call

- isds** — Name of an 8-word status block to be written when the offpage link writes its write status
 - Word 0 — Clipping task run status
 - Word 1-7 — Reserved
- isum** — Name of a word to receive the macro block address when an AST occurs
- isls** — Integer to receive the Direction Status Word

Macro Call:

SDRCS *isum, isls, isds, isls, isls*

- name** — Target task name or the offpage link to be connected
- inf** — Address of a 32-word word buffer
- ch** — The event flag to be cleared on isum is and when to off page link value to emit status
- ast** — Address of an AST routine to be called when the clipping task value to emit status
- isls** — Address of an 8-word status block to be written when the offpage link writes its write status
 - Word 0 — Clipping task run status
 - Word 1-7 — Reserved

Set Event Flag

SETFS

FUPTRAN Call:

CALL SETFS (inf, isls)

- inf** — Event flag number
- isls** — Direction status

Macro Call:

SETFS inf

- inf** — Event flag number

Specify Floating Point Exception AST

SFPAS

FUPTRAN Call:

Not supported

Macro Call:

SPPA4 IsC

set AST service routine entry point address

Send Message

SMSGS

FORTRAN Call:

CALL SMSG (tag,ib,ibuff,iperm,iperr)

- tag = Integer containing the target id set
- ibuff Integer array containing the data to be inserted into pre-formatted data packets
- ibuff Integer containing length of the ibuff array
- iperm = Integer array containing any additional parameters
- iperr Integer containing the indices of parameters in the iperm array
- ib = Optional integer to enable the directive status

Macro Call:

FMSRC tag,ibuff,iperm,iperr

- tag = Target identifier
- ibuff Address of optional data buffer
- ibuff = Length in bytes of optional data buffer
- iperm, iperr = Target-specific parameter list

Parameter list for Error Logging:

SMSGS SMLERC(tag,ibuff,iperm,iperr,mask)

- tag = Error tag packet code
- ibuff Error tag packet subtype code
- iperm = Logical unit number of device
- mask = Control mask word

Send Next Command

SNXCS

FORTRAN Call:

CALL SNXC (tag,ibuff, iperr,ibuff)

- ibuff = Device name (ASTN). If not specified, T1 is used

Executive Directive Summary in Alphabetical Order by Macro Call

Unit — The number of the terminal from which the command is to be sent.

ids — Device to receive the Executive Status Word.

Macro Call:

SYNOPSIS *name*(*id*,*num*)

num — Device name (ASCII). If not specified, TE is used.

id — The number of the terminal from which the command is to be sent.

Specify Pretty Error ABT

SPEAS

PORTMAN *code*:

code — Not supported.

Macro Call:

SPRAB *addr*

addr — ASCII address location where pretty address.

Suspend (\$S term recommended)

SPNBS\$S

PORTMAN *code*:

code — CALL SUSPEND: Invalid.

ids — Executive name.

Macro Call:

SPNBS *addr*

addr — Macro address address.

Specify Power Recovery ABT

SPRAS

PORTMAN *code*:

code — EXTENSIONAL: valid.

CALL *PWRBUF* *code*:

code — Name of a subroutine to be executed upon power recovery. The PWRBUF subroutine will effect the following:

CALL sub *id* *num* *unit*

The subroutine is called as a result of a power recovery ABT, and hardware interrupting can be controlled at entry points by using the HSA0/TE (or INASTR) and KNA0/STR subroutines calls.

To Remove an AST

CALL FWRUP

Macro Call

SPRAY 1001

ast = AST service machine entry point address

Below

BPWNS

FORTRAN Call

CALL SPAWN (name,logf,logw,loff,loft,dlof,dloft,lopar,loentlo,
lrm,erf,prnt,tham,tkid)

- ul style="list-style-type: none;">
- name = Name (Ruda-32) of the offspring task to be spawned
- logf = Group code number for the LID of the offspring task
- loff = Variable task number for the LID of the offspring task
- loft = Exact tag to be set when the offspring task enters status
- dlof = Name of an AST service task to be called when the offspring task enters or exits status
- dloft = Name of an AST service task to be called when the offspring task enters or exits status
 - Word 0 = Offspring task exit status
 - Word 1 = Reason
- lrm = Name of a word to register the status block address when the AST occurs
- lopar = Name of a command line to be queued for the offspring task
- loentlo = Length of the command line (0 - 255,999,999 maximum)
- loft = Unit number of (control) to be used as the TID for the offspring task (if the optional dparm parameter is not specified, this parameter may be the unit number of a value terminal model by the issuing task or a value of 0 as specified, the TID of the issuing task is propagated)
- dparm = Device name (optional) if not specified, the virtual terminal is used as TID
- erf = Integer to specify the Executive Status Word

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call

SPWN macro, ltag, mact, pmt, pmtl, tadd, taddlin, tmt, tmtl, tsum, tsumn,

- | | |
|---------|---|
| tname | Address of the address of the offspring task to be spawned |
| tag | Group code number for the TID of the offspring task |
| mac | Macro code number for the TID of the offspring task |
| sta | The event tag to be cleared on the entry and exit when the offspring task enters or exits status |
| act | Address of an APT routine to be called when the offspring task enters or exits status |
| act | Address of an APT routine to be called when the offspring task enters or exits status |
| | Word 0 - Offspring task exit status |
| | Word 1-7 - Reserved |
| taddlin | Address of a command line to be queued for the offspring task |
| taddlin | Length of the command line (maximum length is 79) |
| mact | Macro number or terminal to be used as the TL for the offspring task. If the parent macro parameter is not specified, the parameter must be the macro number of a valid terminal needed by the offspring task. If a value not is specified, the TL of the leading task is propagated. |
| tsum | Device name, macro code (if the specified, the virtual terminal is used as TID) |

NOTE

1. If neither mact nor tsum is specified, the TL of the leading task is propagated.
2. If only mact is specified, TL is virtual terminal.

Specify Receive Data APT

GRDAS

PORTAN Call

Not available to PORTAN.

Macro Call

GRDAS [tag]

tag APT address of the macro parameter

Specify Requested Exit AST

SREAS
SREXS

FORTRAN Call:

CALL SREX (ast,iplb,ipld,summary) / exit

- ast** = Name of the externally declared AST subprogram
- iplb** = Name of an optional integer to receive the Directive Status Word

CALL SREX (ast,iplb,ipld,summary) / exit

- ast** = Name of the externally declared AST subprogram
- iplb** = Name of an integer array to receive the independent parameters
- ipld** = Number of parameters to be returned into the iplb array
- summary** = Reserved for future use
- exit** = Name of an optional integer to receive the Director Status Word

System Call:

SREAS: exit

SREXS: iplb, ipld, summary

- iplb** = AST service routine entry point address
- ipld, summary** = Reserved for system expansion

Send By Reference

SREFB

FORTRAN Call:

CALL SREFB (exit,iplb,ipld,summary,iplb) / exit

- exit** = Receiver task name
- iplb** = Exit flag number
- ipld** = An 8 word integer array containing a Window Definition Block (see Section 3.5.2.2)
- summary** = An 8 word integer array containing additional information
- iplb** = Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

BEER: base,table

- mask = Bitwise mask value
- with = Window Definition Block address
- in = Row/Tag number

Specify Receive-By-Reference AST

ERRAS

FORTRAN Call:

Not supported

Macro Call:

ERRAS test

- in = AST service routine entry point address

Set Affinity

STAFB

FORTRAN Call:

CALL STAF (prefix)

- aff = Affinity mask value
- ids = Integer to receive Duration Source Mask

Macro Call:

STAFB (prefix)

- cp = CPU selected (A through H)
- qs = (CNTRLB min) selected (E through Y)

Set System Time Directive

STIN\$

FORTRAN Call:

CALL SETTIM (symbol,flag,table)

- item = An \$-word in one array, one flag specification header
- flag = An \$-word integer array, previous time header
- ds = Directive status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

START macro help

- label = Address of 8-word aux. line specification buffer
- help = Address of 5-word buffer to receive the previous system time parameters

Stop For Logical OR Of Event Flags

BTLOS

FORTRAN Call:

CALL STOP (label, help, ...)

- label, help = List of event flag numbers

Macro Call:

STOP (gen, aux)

- gen = General name of event flags
- aux = A 16-bit mask word

Stop (SS term recommended)

STOPSS

FORTRAN Call:

CALL STOP (aux)

- aux = Integer to receive the Executive Status Word

Macro Call:

STOPSS

Stop For Single Event Flag

STSEL

FORTRAN Call:

CALL STOP (label, help)

- label = Event flag number
- help = Integer to receive Executive Status Word

Macro Call:

STSEL (n)

- n = Event flag number

Executable Directive Summary in Alphabetical Order by Macro Call

Specify BBT Vector Table For Debugging Aid **SVDBB**

FORTRAN Call:

Not supported

Macro Call:

SVDBB (addr, len)

addr = Address of BBT vector table

len = Length of (that is, number of entries in) table in words

Specify BBT Vector Table For Task **SVTKS**

FORTRAN Call:

Not supported

Macro Call:

SVTKS (addr, len)

addr = Address of task vector table

len = Length of (that is, number of entries in) table in words

Unlock Global Global Event Flags (\$\$ Intra recommended) **ULGFS**

FORTRAN Call:

CALL ULGFS (flag)

flag = Device status

Macro Call:

ULGFS (flag)

flag = Error return address

Unmap Address Window **UNMAPS**

FORTRAN Call:

CALL UNMAP (word, flag)

word = Address of register whose contents is word to be defined (word)
See Section 3.6.2.2.

flag = Operation status

Executive Directive Summary in Alphabetical Order by Macro Call

Macro Call:

UNMAP *addr*

addr Window Definition Base address

Unshop TASK

US1P0

PORTMAP Call:

CALL US1P *name, id*

name Name of task to be unshoped

id *n* Integer to remove directive's name information

Macro Call:

US1P *name*

name Name of task to be unshoped

Variable Receive Data

VRC00

WRITEIN Call:

CALL WRITEIN(*task, bufaddr, buflen, id*)

task Sender task name

bufaddr Address of buffer to receive the sender task name and data

buflen Length of buffer

id *n* Integer to remove the Directive Status Word

Macro Call:

VRC00 (*task, bufaddr, buflen*)

task Sender task name

bufaddr Buffer address

buflen Buffer size in words

Variable Receive Data Or Stop

VRC00

WRITEIN Call:

CALL WRITEIN(*task, bufaddr, buflen, id*)

task Sender task name

Executive Directive Summary in Alphabetical Order by Macro Call

- buf = Address of buffer to receive the sender task name and data
bufLen = Length of buffer
file = Integer to receive the Executive Status Word

Macro Call:

VBU48(bufLen,buf,bufLen)

- task = Sender task name
bufAddr Buffer address
len = Buffer size in words

Variable Receive Data Or Exit

VBU48

FORTRAN Call:

CALL VBU48 (bufLen,bufAddr,bufLen,file)

- task = Sender task name
bufAddr Address of buffer to receive the sender task name and data
bufLen = Length of buffer
file = Integer to receive the Executive Status Word

Macro Call:

VBU48(task,bufAddr,bufLen)

- task Sender task name
bufAddr = Buffer address
bufLen = Buffer size in words

Variable Send Data

VSD48

FORTRAN Call:

CALL VSD48 (bufLen,task,bufLen,file)

- task receiver task name
bufAddr = Address of buffer to receive the sender task name and data
bufLen = Length of buffer
file = Event flag number
file = Integer to receive the Executive Status Word

Macro Call:

VSDY2 (inv),state,buffer,off

- task Receiver task name
- offset Buffer address
- buffer buffer size = words
- off Event flag number

Variable Send, Request and Consent

VSRCS

FORTRAN Unit:

CALL VSRU (name,inf,buffer,infbuf,word,word,unit,flag)

- name Target task name of the offspring task to be connected
- inf = Name of forward send buffer
- infbuf Length of buffer
- unit Event flag to be set when the offspring task exits or enters status
- word Name of an AST function to be called when the offspring task exits or enters status
- word = Name of an I/O-unit buffer to be written when the offspring task exits or enters status
 - Word 1 = Offspring task exit status
 - Word 2 = Response
- unit = Name of a send to receive the status from a correct when an AST occurs
- flag = Boolean to receive the Executive Status Word

Macro Call:

VSRU2 (name,inf,buffer,infbuf,unit,flag)

- name Target task name of the offspring task to be connected
- inf = Address of a forward send buffer
- infbuf Length of buffer
- unit = The event flag to be received in I/O-unit and set when the offspring task exits or enters status

Executive Directive Summary in Alphabetical Order by Macro Call

- wait = Address of an AST routine to be called when the sleeping task enters a wait state
- wait = Address of an I/O wait state block to be sent on when the sleeping task enters a wait state
 - Wait = 0 - Following task call status
 - Wait = 1 - Reserved

Wait For Significant Event (BS term recommended) WSIG\$S

FORTRAN Call:

CALL WSIG\$(

Macro Call:

WSIG\$(

wait = Error routine address

Wait For Logical OR Of Event Flags WTLOS

FORTRAN Call:

CALL WTLO\$(*grp*,*flag*,*wait*)

flag = List of event flag numbers taken by the wait state to be applied to the directive

Macro Call:

WTLO\$(

grp = Directive group or event flag

wait = A 16-bit word (mask word)

Wait For Single Event Flag WTSES

FORTRAN Call:

CALL WTSE\$(*flag*,*wait*)

flag = Event flag number

wait = Directive wait

Macro Call:

WTSE\$(

flag = Event flag number

RADIX-50 CONVERSION TABLE

To convert A, B, C characters to their Radix-50, 6 digit decimal equivalent, use the appropriate first radix from the following table, based on the position that is first, second, or third of the characters in the string.

Character Set	First Character Code	Second Character Code	Third Character Code
Space	000000	000000	000000
A	000100	000100	000001
B	000200	000120	000002
C	001000	000170	000003
D	014400	000240	000004
E	017500	001010	000005
F	022700	000300	000006
G	025700	000400	000007
H	031000	000500	000010
I	031100	000500	000011
J	037200	000620	000012
K	042100	000670	000013
L	045400	000740	000014
M	050500	001010	000015
N	050600	001090	000016
O	056700	001130	000017
P	062000	001210	000020
Q	065100	001250	000021
R	065200	001320	000022
S	075800	001370	000023
T	076400	001440	000024
U	101000	001510	000025
V	105500	001560	000026
W	107700	001630	000027
X	113000	001700	000030
Y	116100	001750	000031
Z	121200	002070	000032
[	124300	002070	000033
^	127400	002140	000034
Unused	132500	002210	000035
0	135600	002260	000036
1	140700	002330	000037
2	143800	002400	000040

RADIX 16 Conversion Table

Character Bit	First Character Code	Second Character Code	Third Character Code
3	147100	002450	000041
4	152200	002550	000042
5	156300	002650	000043
6	161400	002740	000044
7	166500	002750	000045
8	169600	002760	000046
9	171700	002800	000047

OCTAL/DECIMAL CONVERSION TABLE

Octal	Decimal	Octal
15	100000	32768
	0	0
	70000	28572
	60000	24576
14	50000	20480
13	40000	16384
12	30000	12288
	20000	8192
	10000	4096
	0	0
	7000	3584
	6000	3172
11	5000	2560
10	4000	2040
9	3000	1536
	2000	1024
	1000	512
	0	0
	700	448
	600	384
8	500	320
7	400	256
6	300	192
	200	128
	100	64
	0	0
	75	60
	65	48
5	55	40
4	45	32
3	35	24
	25	16
	15	8
	0	0
	7	7
	6	6
2	5	5
1	4	4
0	3	3
	2	2
	1	1
	0	0

Octal to Decimal

For each position of the octal value, locate the octal digit and its decimal equivalent in the conversion table. Add the decimal equivalents to obtain the decimal value.

Example:

$$\begin{array}{r}
 5870200 = \text{with} \\
 \quad \quad \quad \text{o(7)} \quad \text{o(10)} \\
 50000 = 20480 \\
 3000 = 1536 \\
 700 = 448 \\
 20 = 16 \\
 \hline
 5870200 = 22480
 \end{array}$$

Decimal to Octal

Locate in the conversion table the decimal value closest to, but not exceeding, the decimal value to be converted. Record the octal equivalent. Subtract the table decimal value from the decimal value to be converted. Repeat the process until the subtraction balance equals 0. Add the octal equivalents to obtain the octal value.

$$\begin{array}{r}
 \text{Example: } 22480(10) = ?(8) \\
 \quad \quad \quad \text{o(10)} = \text{o(8)} \\
 \begin{array}{r}
 22480 \\
 - 20480 \\
 \hline
 1992 \\
 - 1536 \\
 \hline
 456 \\
 - 448 \\
 \hline
 8 \\
 - 8 \\
 \hline
 0
 \end{array}
 \end{array}$$

STANDARD FILE TYPES

RISC IIIM uses the standard 3 letter file type code, by all DIGITAL supplied software. These codes indicate the actual contents of the files. Although any combination of three letters can be used, DIGITAL recommends that the same combination be used whenever possible. Comments and other system programs that come by these file types, use the standard names as a default. For example, if the comment file ADD = ADD1 is used, the DUCHEAN-IV compiler looks for ADD1.FUN, and, if the file is named ADD.FUN, the compiler reports that there is no such file.

Type	File Contents
BAS	A BASIC-1 language source program
BAT	Batch file definition
BLD	Indirect command files used to compile a program
BSS	A BASIC PLUS-1 language source program
CLL	A CLOS-1 language source program
COB	Cobol source source file
COF	Event logging control file name
COG	Indirect Computer Forensic command library
CWC	MOB or task commands can indirect a command file
CNF	An Event Logging language source file
CUR	A CUI command file
CRF	Cross reference processor generated table file
DAT	File containing data for accessed by a program
DOR	Directory file
DUP	File dump utility output file
ERR	Error Logger output file
FIN	DUCHEAN IV A DUCHEAN-IV PLUS-1 language source file
HLP	Help file
ICF	An Event Logging information from the output from Control file language compiler
LOG	Source or object file file
LSI	A listing file
MAC	A MACRO-1 source program
MAP	A Task Builder module definition map
MLB	A module library
OBJ	An object program (output from either the MACRO-1 or MACRO-2 compiler)
ODI	A Task Builder module descriptor
OLB	An object module library
PAT	Correction file used by user to create a patched object module
PRG	Postprocessor output dump file

Standard File Types

Type	File Contents
.LOG	Tabulated output normally used by the DWT utility
.MAC	The system macro library
.TAB	Sorted table file
.SVV	An Error Logging sorted file
.K-5	A sorted system usage or other sorted file
.TMP	A temporary file
.LSE	A user usage file
.TXT	A text file
.JCL	A JCL program file library

NOTES

[illegible]

