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**intel**

**INTELLEC SERIES IV  
MICROCOMPUTER  
DEVELOPMENT SYSTEM  
POCKET REFERENCE  
FOR  
SOFTWARE RELEASE 2.8**

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## Notational Conventions

UPPERCASE	Characters shown in uppercase must be entered in the order shown. You may enter the characters in uppercase or lowercase.
<i>italics</i>	Italics indicate variable information, such as filename or address.
[ ]	Brackets indicate optional arguments or parameters.
{ }	One and only one of the enclosed entries must be selected unless the field is also surrounded by brackets, in which case it is optional.
{ } ...	At least one of the enclosed items must be selected unless the field is also surrounded by brackets, in which case it is optional. The items may be used in any order unless otherwise noted.
...	Ellipses indicate that the preceding argument or parameter may be repeated.
punctuation	Punctuation other than ellipses, braces and brackets must be entered as shown. For example, the punctuation shown in the following command must be entered:  SUBMIT PLM86(PROGA, SRC, '9 SEPT 81')
shading	Shading highlights the commands which can only be used if your development system is part of the NDS-II Network.

### System Designated Device Names

The following device names are defined by the operating system:

- :TI: Serial channel #1 input
- :TO: Serial channel #1 output
- :LP: Line printer (local)
- :SP: Spool printer
- :CI: Console input (typically Series-IV keyboard in foreground)
- :CO: Console output (typically Series-IV display in foreground)
- :VI: Video in (for physical device) } For ISIS-IV
- :VO: Video out (for physical device) } Only
- :BB: Byte bucket

The byte bucket though nonexistent, is treated as a real device by the commands. The byte bucket receives data that you wish to discard. Writing to :BB:, always successful, simply discards data. Reading from :BB: returns an end of file (i.e., zero bytes read).

#### Physical Device Names:

- FL0, FL1 Flexible disks
- WM0 Integrated 5¼" Winchester disk
- WD0-WD3 Winchester 35 MB disk } Drives 0-4
- WF0-WF3 Winchester 84 MB disk }
- HD0 thru HD3 HD5440 hard disks }

## Line Editor Features

Key Name	Function
RETURN	<ol style="list-style-type: none"> <li>1. Terminates the line at the current cursor position.</li> <li>2. Enters the command line into the system.</li> </ol>
ESCAPE (ESC)	<ol style="list-style-type: none"> <li>1. When entered as the first character in a command line, it recalls the last line to the display.</li> <li>2. Terminates the line at the right margin, not at the current cursor position as with RETURN.</li> </ol>
RUBOUT	Deletes the character to the left of the cursor and moves the cursor left one position.
CTRL X (Control plus X)	Deletes all characters in the current line which are to the left of the cursor. The remainder of the line is re-displayed (left-justified) with the cursor at the left margin of the line.
CTRL A (Control plus A)	Deletes all characters from the current cursor position to the end of the line. The cursor position does not change.
DEL CHAR	Deletes the character at the cursor location. The cursor position does not change.
CLEAR LINE	Deletes the entire line and returns the cursor to the start position for that line. Control remains in the line editor.
↑ (up arrow)	Moves the cursor up one line; retains column positioning.
↓ (down arrow)	Moves the cursor down one line; retains column positioning.
→ (right arrow)	Moves the cursor one position to the right but not past the current end of line.
← (left arrow)	Moves the cursor one position to the left but not past the starting position.
HOME	Moves cursor position to current end of line. If the last character entered was a left arrow, this key moves the cursor to the starting position.
CTRL S (Control plus S)	Stops output to the console.
CTRL Q (Control plus Q)	Resumes output to the console.

# Operating Commands

## ACCESS

ACCESS *pathname* [ SET { OWNER } { *data access spec* } { WORLD } { *dir access spec* } { QUERY } ]

where:

- pathname* is a pathname, wildcard pathname, or null. Null (entered as a filename) gives a list of the access rights of the directory associated with the null logical name.
- SET declares the specified attributes.
- data access spec* is READ, WRITE, DELETE, ALL, or NONE.
- dir access spec* is DELETE, ADD, DISPLAY, ALL or NONE.
- QUERY produces interactive querying before each set access operation.

### NOTE

ACCESS accepts either specifier type for either file type; READ = DISPLAY, ADD = WRITE.

## ARCHIVE

ARCHIVE *src-dir* TO *dest-dir*

... [ { INC } { EXC } { MOD } { ACC } { CRE } { DIR } { OWN } { FIL } { { BISO } DATE... { TIME } } { *directory list* } { *owner name* } { *pathname* } ] ...

... [ { ANDIOR } ... [ APPend  
NOupdate  
DELETE  
NAME { *volume name* }  
Log  
Query  
Update  
VOLUME { *logical volume number* } ] ]

where:

<i>src-dir</i>	=	name of the source directory subtree
<i>dest-dir</i>	=	name of the destination directory subtree
ACC	=	ACCESSED
DIR	=	DIRECTORY
INC	=	INCLUDE
EXC	=	EXCLUDE
MOD	=	MODIFIED
CRE	=	CREATED
OWN	=	OWNEDBY
FIL	=	FILE
B	=	BEFORE
S	=	SINCE
O	=	ON
DATE	=	TODAY or <i>mm/dd/yy</i>
TIME	=	<i>hhmm</i> [ <i>ss</i> ] or <i>hh:mm</i> : [ <i>ss</i> ] or <i>h:mm</i>

## ASSIGN

ASSIGN  $\left[ \left[ \begin{array}{c} \textit{logical name} \\ x \end{array} \right] \textit{TO pathname (or NULL)} \right]$

where:

*logical name* is any valid logical name.

*x* is a number from 0–9; when specified, the logical name *:Fx:* is created.

### NOTE

The ASSIGN command is a superset of ISIS; it functions like the LNAME command.

## BACKGROUND

BACKGROUND *pathname* (*a-parameters*) ...

$\left[ \left[ \begin{array}{l} \text{LOG } [( \textit{pathname} ) \text{APPEND}] \\ \text{NOLOG} \end{array} \right] \right]$

where:

*pathname* is a valid pathname (without logical name prefix).

*a-parameters* is a list of up to 10 parameters

LOG and NOLOG specify whether a log of all console activity is to be kept on mass storage.

## Operating Commands

**APPEND** appends current log to pathname if it presently exists.

## BATCH

**BATCH** *pathname*

where:

*pathname* is a valid pathname.

## CANCEL

**CANCEL** { BACKGROUND  
REMOTE *queue* (*jobname* | # *jobnumber*) } [ , ... ]

where:

*queue* is the queue where the remote job is queued for execution.

*jobname* is the final component name of the remote job to be cancelled.

*jobnumber* is the assigned value of the remote job (which can be displayed via the SYSTAT command).

## CHOWNER

**CHOWNER** *pathname* TO *username*

where:

*pathname* is a pathname or a wildcard pathname.

*username* is the name of the new owner of the file.

## CHPASS

**CHPASS** *username*

where:

*username* is the assigned user's identifier.

## CONSOL

CONSOL (Non-operational command.)

## COPY

$$\text{COPY} \left\{ \begin{array}{l} \text{source filename [ , ... ]} \\ \text{:CI:} \end{array} \right\} \text{TO} \left\{ \begin{array}{l} \text{destination filename} \\ \text{:DEVICE:} \end{array} \right\}$$

$$\left[ \left( \begin{array}{l} \text{UPDATE|U} \\ \text{QUERY|Q} \\ \text{EXPANDED|E} \\ \text{BRIEF|B} \\ \text{COPYATTR|C} \end{array} \right) \right]$$

where:

- |                             |   |
|-----------------------------|---|
| <i>source filename</i>      | is a pathname or a wildcard pathname. If the <i>source filename</i> is a wildcard pathname, the <i>destination filename</i> must be a directory file. If more than one source filename is specified, they are concatenated together in the order specified, and destination filename must be a data file. |
| :CI:                        | is console input.   |
| <i>destination filename</i> | is either an existing directory file or a data file.  |
| :DEVICE:                    | is an output device such as :LP:, :SP: or :CO:.   |
| UPDATE and QUERY            | are options that suppress and enable the querying process, respectively.  |
| EXPANDED                    | is the option used to expand the logical filenames to fully-qualified pathnames.  |
| BRIEF                       | option included for ISIS compatibility; used same as UPDATE.  |
| COPYATTR                    | is the option used to create destination file with the same protective attributes as the source file.   |

## Operating Commands

### COUNT

COUNT *n*

*commands*

$\left[ \begin{array}{l} \text{WHILE} \\ \text{UNTIL} \end{array} \right\} \text{argument} \left\{ \begin{array}{l} \cdot \\ \langle \rangle \end{array} \right\} \text{argument} \right] \dots$

*commands*

END

where:

*argument* is a CLI variable value, a CLI variable name or a parameter.

*n* is the number of times the block will repeat (decimal).

#### NOTE

The COUNT command can only be executed from a command file.

### CREATDIR

CREATEDIR *pathname*

where:

*pathname* is the pathname identifying the new directory.

### DELETE

DELETE  $\left\{ \text{pathname} \left[ \left[ \begin{array}{l} \text{DIR} \\ \text{QUERY} \end{array} \right] \right] \right\} [ , \dots ]$

The DELETE command allows the user to specify multiple pathnames to be deleted.

where:

*pathname* is a pathname or a wildcard pathname or a spool request name or a null string.

DIR is mandatory for deleting non-empty directory files and is optional for deleting empty directory files.

**QUERY** is an option that produces interactive querying before each delete operation is executed.

## DIR

$$\text{DIR} \left[ \left\{ \begin{array}{c} \textit{pathname} \\ / \end{array} \right\} \left[ \left[ \left\{ \begin{array}{c} \text{EXPANDED} \\ \text{FOR } \textit{filename} \\ \text{ONECOLUMN} \\ \text{TO } \textit{pathname} \end{array} \right\} \right] \right] \right]$$

where:

- pathname* is either the pathname or a logical name.
- / specifies that the volume name and location will be provided for each volume of the file system that is accessible from the given node.
- EXPANDED specifies that the completed information should be provided for the directory pathname entered.
- FOR *filename* specifies directory information of *filename* to be displayed; *filename* can be wild-carded.
- ONECOLUMN specifies output to be formatted in one column.
- TO *pathname* specifies a file where the completed information is to be written (in addition to the console).

### NOTE

Options can be typed in any order.

## DISMOUNT

DISMOUNT *device name*

where:

- device name* is:
- FL0 or FL1 for 5¼" flexible disk.
  - WM0 for the integrated 5¼" Winchester disk.
  - WD0-WD3 for a Winchester 35 MB disk.
  - WF0-WF3 for a Winchester 84 MB disk.
  - HD0-HD3 for an HD 5440 hard disk.

## Operating Commands

### ENDJOB

ENDJOB (*argument*)

where:

*argument* is a CLI variable value, a CLI variable name, or one of the ten parameters %0 to %9.

### EXIT

EXIT

When entered at the "LOGON-IMPORT-EXIT" prompt in partition 2, causes the Series IV to enter single-user mode (see LOGOFF).

### EXPORT

```
EXPORT pathname [ parameters ] TO queue
```

```
{ LOG [ pathname ] [ APPEND ]  
  NOLOG }
```

where:

- pathname* is a valid pathname.
- parameters* is a list of up to ten parameters.
- queue* is the queue to which the job is to be sent.
- LOG, NOLOG specifies whether a log is to be kept on a mass storage device of any console activity.
- APPEND appends current log to *pathname* if it presently exists.

### FILL

```
FILL { ON  
      OFF  
      SPACE }
```

where:

- ON enables the FILL command.
- OFF disables the FILL command.
- SPACE allows the user to press space bar to complete the entering of a command.

## FORMAT

```
FORMAT physical-device volume-name [FNODES(number)]
      [NOINIT][RESERVE (reserve-option, ...)] [NODUP]
      [INTERLEAVE][AGRAN][NOVERIFY]
      [UPDATE][OVERRIDE]
```

where:

- physical-device* is: FL0 or FL1 for 5¼" flexible disk.  
 WM0 for the integrated 5¼" Winchester disk.  
 WD0–WD3 for a Winchester 35 MB disk.  
 WF0–WF3 for a Winchester 84 MB disk.  
 HD0–HD3 for an HD5440 hard disk.
- volume-name* is the volume root directory name of the physical device.
- FNODES is maximum number of physical formats.
- NOINIT is initial device without a physical format.
- reserve-option* is: OS (*number*)-operating system.  
 OV (*number*)-overlay.
- NODUP allows critical files not to be duplicated to improve performance.
- AGRAN specifies the granularity (number of blocks that make up one logical unit) for a device.
- INTERLEAVE specifies the sector interleave for a disk drive.
- NOVERIFY disables the read verification of the device.
- OVERRIDE allows the user to perform a format on a device when both regions are active (i.e., Toggle, Multi-user or Single-user running a background job).
- UPDATE disables the verification query.

## Operating Commands

### FPORT (ISIS-II, Series IV).

{ S4FPRT S2FPRT }	{	UP <i>iNDX-source-pathname</i> TO <i>destination-pathname</i>	}
		EXIT	
		DOWN [ <i>disk-dir</i> ] <i>ISIS-source-pathname</i>	
		TO <i>iNDX-destination-pathname</i>	
			{ UPDATE }
			{ EXIT }
			{ QUERY }

where:

<i>S4FPRT</i> and <i>S2FPRT</i>	inform the operating system that you are initiating the command from a Series IV or Series II, respectively.
<i>iNDX-source-pathname</i>	is a valid iNDX pathname or wildcard pathname.
<i>destination-pathname</i>	is a disk-directory or an ISIS-filename (optionally preceded by a disk-directory). ISIS-filename and disk-directory are as defined in the <i>ISIS-II User's Guide</i> , order #9800306.
<i>disk-dir</i>	is a disk-directory as defined in the <i>ISIS-II User's Guide</i> .
<i>ISIS-source-pathname</i>	is an ISIS-filename or an ISIS-wildcard-filename as defined in the <i>ISIS-II User's Guide</i> .
<i>iNDX-destination-pathname</i>	is a valid iNDX directory file or a valid Series-IV pathname.
UPDATE, EXIT, and QUERY	are options that determine if you are to be queried prior to each copy operation.

### ICOPY

ICOPY	{	READ <i>ISIS-source-pathname</i> TO <i>iNDX-destination-pathname</i>	}
		WRITE <i>iNDX-source-pathname</i> TO <i>destination-pathname</i>	
			{ QUERY }
			{ UPDATE }

where:

- ISIS-source-pathname* is an ISIS filename or an ISIS wildcard filename as specified in the *ISIS-II User's Guide*, order #9800306. The *ISIS-source-pathname* may optionally be preceded by a disk-directory.
- iNDX-destination-pathname* is a valid iNDX directory file or iNDX pathname.
- iNDX-source-pathname* is a valid iNDX pathname or wildcard pathname.
- destination pathname* is a disk-directory, an ISIS filename, or an ISIS filename preceded by a disk-directory.
- disk directory* may be :F0:, :F1:, :F2, or :F3: for Floppy disks or :F6, :F7, F8:, or :F9: for Hard disks.
- QUERY and UPDATE are options that determine if querying is to occur before files are copied.

## IF

IF *argument* { \* } *argument*  
*commands*

[ OR IF *argument* { \* } *argument* ]  
*commands* ...

[ ELSE ]  
*commands* ]

END

where:

- argument* is a CLI variable value, a CLI variable name or a formal parameter.
- commands* is a set of one or more commands.

### NOTE

The IF command can only be executed from a command file.

### IMPORT

```
IMPORT FROM queue [, queue] ... { { TO BACKGROUND }  
                                     { TO FOREGROUND } }
```

where:

- queue* is a character string up to 14 characters which names the queue at the point where the job awaits execution. Up to 5 queues may be specified in one command.
- TO BACKGROUND is an option that will execute the imported job in background mode.
- TO FOREGROUND is an option that will execute the imported job in the foreground mode.

### LNAME

```
LNAME { { DEFINE logical name FOR pathname [UPDATE] }  
        { REMOVE logical name }  
        { PATH } }
```

To CREATE a Logical Name:

```
LNAME DEFINE logical name FOR pathname [UPDATE]
```

where:

- logical name* is a user defined string of up to fourteen characters used to reference a directory. A logical name has the same syntax as a filename.
- pathname* is the pathname for a directory.
- UPDATE is an option that automatically executes the command even if the logical name has previously been assigned; UPDATE refers the logical name to the new pathname.

To DELETE a Logical Name:

```
LNAME REMOVE logical name
```

where:

- logical name* is the user defined string used as a logical name.

To DISPLAY a Logical Name:

LNAME [PATH]

where:

LNAME displays each logical name used.

PATH displays each logical name and its associated fully-qualified pathname.

## LOG

LOG { *pathname* } [APPEND]  
:BB:

where:

*pathname* is any valid pathname.

:BB: is the Byte Bucket (effectively turns off log).

APPEND appends current log to *pathname* if it presently exists.

## LOGOFF

LOGOFF [EXIT]

where:

EXIT is used to Logoff from Partition 2 in Toggle Mode or User 2 in Multi-user mode. Automatically sets the Series IV into Single-user mode.

## LOGON

LOGON *username* { { INIT (*filename*) }  
NOINIT } }

where:

*username* identifies the user to the operating system.

*filename* is a pathname, wildcard pathname, or both.

## Operating Commands

INIT and NOINIT indicate whether or not the user environment is initialized with a command file (INIT is the default). When initialized, *filename* is optional.

## MOUNT

MOUNT *device-name*

where:

*device-name* is: FL0 or FL1 for 5¼" flexible disk.  
WM0 for the integrated 5¼" Winchester disk.  
WD0–WD3 for a Winchester 35 MB disk.  
WF0–WF3 for a Winchester 84 MB disk.  
HD0–HD3 for an HD5440 hard disk.

## OPEN

OPEN *pathname*

where:

*pathname* is a valid pathname.

### NOTE

The OPEN command can only be executed from a command file.

## OSCOPYY

OSCOPYY *source-device* TO *destination-device* [OVERRIDE]

where:

*source-device* is the physical device where the operating system resides (FL0 or FL1).

*destination-device* is the target system device where the operating system is to be installed (a hard disk; WM0, WD0–WD3, HD0–HD3).

OVERRIDE allows the user to execute OSCOPYY from either region while both regions are active (i.e., Toggle, Multi-user or Single-user running a background job).

## PDSCOPY

```
PDSCOPY { READ (disk-directory) PDS-source TO
          iNDX-destination
          WRITE iNDX-source TO PDS-destination }
```

```
{ QUERY
  UPDATE }
```

where:

*PDS-source* is a valid PDS (the Intel Personal Development System) filename or wildcard filename (that can optionally be preceded by a disk-directory).

*iNDX-destination* is a valid iNDX directory file or pathname.

*iNDX-source* is a valid iNDX pathname or wildcard pathname.

*destination* is a valid PDS pathname (optionally preceded by a disk-directory).

QUERY is an option that produces a user query before each PDSCOPY operation.

UPDATE is an option that disables the automatic querying of PDSCOPY.

## QUEUE

```
QUEUE [ ADD Q list
        DELETE Q list
        LIST ]
```

where:

ADD is for adding queues.

DELETE is for deleting queues.

LIST is for listing queue names.

*Q list* is a list of valid queue names.

## Operating Commands

### READ

READ *variable-name* [, ...]

where:

*variable-name* is either the system defined CLI variable name (STATUS) or any valid CLI variable name.

#### NOTE

The READ command can only be executed from a command file.

### REGION

REGION

This command enables the user to display and modify the current memory size of the regions, the priority of the regions, and the mode of system operation.

#### NOTE

In Multi-user or Toggle modes, only the priority and toggle parameters may be changed.

### RELAB

RELAB *physical-device* TO *volume-name* [OVERRIDE]

where:

*physical-device* is the disk device name:  
FL0-FL1 for 5¼" flexible disks.  
HD0-HD3 for fixed and removable platter hard disks.  
WD0-WD3 for 35 MB Winchester 8-inch disk.  
WM0 for 5¼" integrated Winchester disk.

*volume-name* is the new volume root directory name of the physical device.

OVERRIDE allows the user to execute RELAB while both regions are active (i.e., Toggle, Multi-user or Single-user running a background job).

## RENAME

RENAME *old-pathname* TO *file-name* [UPDATE]

where:

- old-pathname* is the pathname that presently identifies the file.
- filename* is the last path component that the user now wants to identify the file.
- UPDATE disables the user interactive querying.

### NOTE

RENAME accepts ISIS-like rename commands, e.g.,  
 "RENAME :F1:ABC TO :F1:XYZ."

## REPEAT

REPEAT

[ *commands* ]

[[ WHILE ] ] *argument* { \* } *argument* [ THEN ]  
 [ UNTIL ] { < } }

[ *commands* ]

END

where:

- argument* is a CLI variable value, a CLI variable name, or a parameter.
- commands* is a set of one or more commands.

### NOTE

The REPEAT command can only be executed from a command file.

## RUN

RUN (Non-operational command)

## Operating Commands

### SDCOPY

SDCOPY *source-device-name* [TO *dest-device-name*] {  
    FORMAT  
    REPEAT  
    VERIFY  
    COMPARE  
    OVERRIDE } ...

where:

*source-device-name* is the source device, i.e., either FL0 or FL1.

*dest-device-name* is the destination device, i.e., either FL0 or FL1.

FORMAT is an option that first formats the destination device.

VERIFY is an option that verifies the destination device after it has received the copy of the source.

COMPARE is an option that compares the destination to the source to see if they are the same.

REPEAT is an option that repeats the preceding operation (i.e., option) using the same source.

OVERRIDE allows the user to perform an SDCOPY with both regions active (i.e., Toggle, Multi-user or Single-user running a background job).

### SEARCH

SEARCH [ *pathname* or *logicalname* ]  
      OFF

where:

*pathname* designates the directory from which the system cusps should be obtained. The length of the directory pathname is limited to 14 characters.

OFF specifies that the current search path specified by the user is to be turned off.

#### NOTE

SEARCH<CR> may be used to request that the current search path specified by the user be displayed.

## SET

SET *variable-name* TO ["] *value* ["]

where:

*variable-name* is a valid CLI variable name (i.e., a string of up to six characters, alphabetic and numeric, the first character of which must always be alphabetic), or the predefined variable name STATUS.

*value* is a character string. The quotation marks are necessary only if the string contains non-alphanumeric characters.

### NOTE

The SET command can only be executed from a command file.

## SPACE

SPACE / *volume-name*

where:

*volume-name* is the volume root directory for the given physical device.

## STTY

STTY [BAUDRATE (*value*) [G0]] [DISPLAY|NO DISPLAY]  
[REMOTE|LOCAL] [CONFIG (*config file*)] [TERMINAL]  
[PRIMARY|SECONDARY]

where:

**BAUDRATE** is used to indicate that the next argument is the baud rate at which Serial Channel 1 is to operate.

*value* is used to specify the baud rate value (110, 150, 300, 600, 1200, 2400, 4800, 9600 or 19,200 baud). Default baud rate is 300 baud.

**DISPLAY or NO DISPLAY** enables/disables the display of the type-ahead feature.

**TERMINAL** selects terminal mode.

## Operating Commands

- GO** (for use in Submit mode) suppresses the requirement for a carriage return when entering baud rate.
- REMOTE** or **LOCAL** remote switches the console to serial channel 1, local switches the console back to the Series IV keyboard and CRT.
- CONFIG** (*config file*) specifies the configuration file that contains the configuration commands for the specific terminal attached to serial channel 1.
- PRIMARY** or **SECONDARY** specifies which terminal will be affected by STTY execution.

## SUBMIT

**SUBMIT** *pathname* [(*a-parameters*)] ...

[ [ LOG [(*pathname*) [APPEND]] ]  
[ NOLOG ] ]

where:

- pathname* is a valid pathname
- a-parameters* is a list of up to 10 actual parameters to be substituted during execution for the formal parameters embedded within a file.
- LOG** or **NOLOG** specifies whether a log is to be kept on the mass storage device.
- APPEND** appends current log to *pathname* if it presently exists.

## SYSTAT

```
SYSTAT [ [ QUEUE ] [ MYJOB ] [ (queuename { , ... } ) ] ]  
[ (TO pathname) [EXPAND] [ALL] ]
```

where:

- queuename(s)* designates the name(s) of the queue(s) for which jobs are to be listed.
- pathname* designates the file where the information will be listed.

<b>QUEUE</b>	displays information for all queues, or for only those queues explicitly listed after the <b>QUEUE</b> specifier. If this option is specified, the queuenames must be separated by commas.
<b>MYJOB</b>	parallels the <b>QUEUE</b> option but lists information about jobs belonging only to present user.
<b>EXPAND</b>	specifies that complete information is displayed for each job. If <b>EXPAND</b> is not specified, condensed information will be displayed.
<b>ALL</b>	displays appropriate information for all jobs in the specified queue(s). If <b>ALL</b> is not specified, information is displayed only for jobs that are waiting or executing.

## TIME

**TIME**

where:

<i>system id</i>	is the operating system's identification.
<i>Vx.y</i>	is the operating system's version number.
<i>mm/dd/yy</i> and <i>hh:mm:ss</i>	are the current setting of the system clock.

## USERDEF

```
USERDEF { DEFINE username [ID userid] [DIR filename]
          REMOVE username }
```

where:

<i>username</i>	is the name by which the system identifies the user.
<i>userid</i>	is the ID-number by which the system identifies the user.
<i>filename</i>	is the name of the user's home directory. May be a new directory or an existing directory.

## Operating Commands

### USERS

USERS / *volume-name*

where:

*volume-name* is the volume root directory name.

### VERIFY

VERIFY *device-name* [FIX] [FAST] [T0] [T1] [T2] [T3] [T4]  
[OVERRIDE]

where:

*device-name* is: FL0 or FL1 for 5¼" flexible disk.  
WM0 for the integrated 5¼" Winchester disk.  
WD0-WD3 for a Winchester 35 MB disk.  
WF0-WF3 for a Winchester 85 MB disk.  
HD0-HD3 for an HD5440 hard disk.

FIX is an option specifying that an appropriate action be taken and an error message provided, if an error is detected.

FAST is an option specifying speed up of verification by deletion of several checks.

T0-T4 are test options used to specify a combination of tests to be run.

OVERRIDE allows the user to verify the disk with both regions active (i.e., Multi-user, Toggle or Single-user running a background job).

### VIEW

VIEW *pathname*

where:

*pathname* is a valid pathname.

## Programming Command:

DQ\$ALLOCATE: PROCEDURE ( <i>size</i> , <i>except\$p</i> ) SELECTOR EXTERNAL; DECLARE <i>size</i> WORD, <i>except\$p</i> POINTER; END
DQ\$ATTACH: PROCEDURE ( <i>path\$p</i> , <i>except\$p</i> ) CONNECTION EXTERNAL; DECLARE <i>path\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$CHANGE\$ACCESS: PROCEDURE ( <i>path\$p</i> , <i>class</i> , <i>access</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>path\$p</i> POINTER, <i>class</i> BYTE, <i>access</i> BYTE, <i>except\$p</i> POINTER; END
DQ\$CHANGE\$EXTENSION: PROCEDURE ( <i>path\$p</i> , <i>extension\$p</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>path\$p</i> POINTER, <i>extension\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$CLOSE: PROCEDURE ( <i>conn</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>conn</i> CONNECTION, <i>except\$p</i> POINTER; END
DQ\$CREATE: PROCEDURE ( <i>path\$p</i> , <i>except\$p</i> ) CONNECTION EXTERNAL; DECLARE <i>path\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$DECODE\$EXCEPTION: PROCEDURE ( <i>exception\$code</i> , <i>message\$p</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>exception\$code</i> WORD, <i>message\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$DECODE\$TIME: PROCEDURE ( <i>dt\$p</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>dt\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$DELETE: PROCEDURE ( <i>path\$p</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>path\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$DETACH: PROCEDURE ( <i>conn</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>conn</i> CONNECTION, <i>except\$p</i> POINTER; END

## Programming Commands

<p>DQ\$EXIT: PROCEDURE (<i>completion\$code</i>) EXTERNAL;            DECLARE     <i>completion\$code</i>     WORD;            END</p>
<p>DQ\$FILE\$INFO: PROCEDURE (<i>conn, mode, file\$info\$p, excep\$p</i>) EXTERNAL;            DECLARE     <i>conn</i>                     CONNECTION,                       <i>mode</i>                     BYTE,                       <i>file\$info\$p</i>             POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$FREE: PROCEDURE (<i>segment, excep\$p</i>) EXTERNAL;            DECLARE     <i>segment</i>                 SELECTOR,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$ARGUMENT: PROCEDURE (<i>argument\$p, excep\$p</i>) BYTE EXTERNAL;            DECLARE     <i>argument\$p</i>             POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$CONNECTION\$STATUS: PROCEDURE (<i>conn, info\$p, excep\$p</i>) EXTERNAL;            DECLARE     <i>conn</i>                     CONNECTION,                       <i>info\$p</i>                    POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$EXCEPTION\$HANDLER: PROCEDURE (<i>handler\$p, excep\$p</i>) EXTERNAL;            DECLARE     <i>handler\$p</i>             POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$SIZE: PROCEDURE (<i>segbase, excep\$p</i>) WORD EXTERNAL;            DECLARE     <i>segbase</i>                 SELECTOR,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$SYSTEM\$ID: PROCEDURE (<i>id\$p, excep\$p</i>) EXTERNAL;            DECLARE     <i>id\$p</i>                     POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$GET\$TIME: PROCEDURE (<i>dt\$p, excep\$p</i>) EXTERNAL;            DECLARE     <i>dt\$p</i>                     POINTER,                       <i>excep\$p</i>                 POINTER;            END</p>
<p>DQ\$OPEN: PROCEDURE (<i>conn, access, num\$buf, excep\$p</i>) EXTERNAL;            DECLARE     <i>conn</i>                     CONNECTION,                       <i>access</i>                    BYTE,                       <i>num\$buf</i>                 BYTE,                       <i>excep\$p</i>                 POINTER;            END</p>

<p>DQ\$OVERLAY: PROCEDURE (<i>name\$p</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>name\$p</i>             POINTER,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$READ: PROCEDURE (<i>conn</i>, <i>buf\$p</i>, <i>count</i>, <i>except\$p</i>) WORD EXTERNAL;            DECLARE     <i>conn</i>                CONNECTION,                      <i>buf\$p</i>                POINTER,                      <i>count</i>               WORD,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$RENAME: PROCEDURE (<i>old\$p</i>, <i>new\$p</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>old\$p</i>               POINTER,                      <i>new\$p</i>                POINTER,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$RESERVE\$IO\$MEMORY: PROCEDURE (<i>number\$files</i>, <i>number\$buffers</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>number\$files</i>       WORD,                      <i>number\$buffers</i>       WORD,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$SEEK: PROCEDURE (<i>conn</i>, <i>mode</i>, <i>offset</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>conn</i>                CONNECTION,                      <i>mode</i>                 BYTE,                      <i>offset</i>                DWORD,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$SPECIAL: PROCEDURE (<i>type</i>, <i>parameter\$p</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>type</i>                BYTE,                      <i>parameter\$p</i>         POINTER,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$SWITCH\$BUFFER: PROCEDURE (<i>buffer\$p</i>, <i>except\$p</i>) WORD EXTERNAL;            DECLARE     <i>buffer\$p</i>            POINTER,                      <i>except\$p</i>            POINTER;            END</p>
<p>DQ\$TRAP\$CC: PROCEDURE (<i>handler\$p</i>, <i>except\$p</i>) EXTERNAL;            DECLARE     <i>handler\$p</i>          POINTER,                      <i>except\$p</i>            POINTER;            END</p>

## Programming Commands

DQ\$TRAP\$EXCEPTION: PROCEDURE ( <i>handler\$p</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>handler\$p</i> POINTER, <i>except\$p</i> POINTER; END
DQ\$TRUNCATE: PROCEDURE ( <i>conn</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>conn</i> WORD, <i>except\$p</i> POINTER; END
DQ\$WRITE: PROCEDURE ( <i>conn</i> , <i>buf\$p</i> , <i>count</i> , <i>except\$p</i> ) EXTERNAL; DECLARE <i>conn</i> CONNECTION, <i>buf\$p</i> POINTER, <i>count</i> WORD, <i>except\$p</i> POINTER; END

## ASCII Code List

Decimal	Octal	Hexadecimal	Character
0	000	00	NUL
1	001	01	SOH
2	002	02	STX
3	003	03	ETX
4	004	04	EOT
5	005	05	ENQ
6	006	06	ACK
7	007	07	BEL
8	010	08	BS
9	011	09	HT
10	012	0A	LF
11	013	0B	VT
12	014	0C	FF
13	015	0D	CR
14	016	0E	SO
15	017	0F	SI
16	020	10	DLE
17	021	11	DC1
18	022	12	DC2
19	023	13	DC3
20	024	14	DC4
21	025	15	NAK
22	026	16	SYN
23	027	17	ETB
24	030	18	CAN
25	031	19	EM
26	032	1A	SUB
27	033	1B	ESC
28	034	1C	FS
29	035	1D	GS
30	036	1E	RS
31	037	1F	US
32	040	20	SP
33	041	21	!
34	042	22	"
35	043	23	#
36	044	24	\$
37	045	25	%
38	046	26	&
39	047	27	'
40	050	28	(
41	051	29	)
42	052	2A	*
43	053	2B	+
44	054	2C	,
45	055	2D	-
46	056	2E	.

# ASCII Code

Decimal	Octal	Hexadecimal	Character
47	057	2F	/
48	060	30	0
49	061	31	1
50	062	32	2
51	063	33	3
52	064	34	4
53	065	35	5
54	066	36	6
55	067	37	7
56	070	38	8
57	071	39	9
58	072	3A	:
59	073	3B	:
60	074	3C	<
61	075	3D	=
62	076	3E	>
63	077	3F	?
64	100	40	@
65	101	41	A
66	102	42	B
67	103	43	C
68	104	44	D
69	105	45	E
70	106	46	F
71	107	47	G
72	110	48	H
73	111	49	I
74	112	4A	J
75	113	4B	K
76	114	4C	L
77	115	4D	M
78	116	4E	N
79	117	4F	O
80	120	50	P
81	121	51	Q
82	122	52	R
83	123	53	S
84	124	54	T
85	125	55	U
86	126	56	V
87	127	57	W
88	130	58	X
89	131	59	Y
90	132	5A	Z
91	133	5B	[
92	134	5C	\
93	135	5D	]

Decimal	Octal	Hexadecimal	Character
94	136	5E	^
95	137	5F	_
96	140	60	`
97	141	61	a
98	142	62	b
99	143	63	c
100	144	64	d
101	145	65	e
102	146	66	f
103	147	67	g
104	150	68	h
105	151	69	i
106	152	6A	j
107	153	6B	k
108	154	6C	l
109	155	6D	m
110	156	6E	n
111	157	6F	o
112	160	70	p
113	161	71	q
114	162	72	r
115	163	73	s
116	164	74	t
117	165	75	u
118	166	76	v
119	167	77	w
120	170	78	x
121	171	79	y
122	172	7A	z
123	173	7B	{
124	174	7C	
125	175	7D	}
126	176	7E	~
127	177	7F	DEL

## ASCII Code Definition

Abbreviation	Meaning	Decimal Code
NUL	NULL Character	0
SOH	Start of Heading	1
STX	Start of Text	2
ETX	End of Text	3
EOT	End of Transmission	4
ENQ	Enquiry	5
ACK	Acknowledge	6
BEL	Bell	7
BS	Backspace	8
HT	Horizontal Tabulation	9
LF	Line Feed	10
VT	Vertical Tabulation	11
FF	Form Feed	12
CR	Carriage Return	13
SO	Shift Out	14
SI	Shift In	15
DLE	Data Link Escape	16
DC1	Device Control 1	17
DC2	Device Control 2	18
DC3	Device Control 3	19
DC4	Device Control 4	20
NAK	Negative Acknowledge	21
SYN	Synchronous Idle	22
ETB	End of Transmission Block	23
CAN	Cancel	24
EM	End of Medium	25
SUB	Substitute	26
ESC	Escape	27
FS	File Separator	28
GS	Group Separator	29
RS	Record Separator	30
US	Unit Separator	31
SP	Space	32
DEL	Delete	127

## Series IV, System Configuration Switch Settings

Switch Numbers								Functions
1	2	3	4	5	6	7	8	
*	n	0	0	0	0	0	0	Skip power-up test and boot system monitor.
*	n	0	0	0	0	1	0	Boot system from integral floppy disk, drive 0.
*	n	0	1	0	0	1	0	Boot system from integral floppy disk, drive 1.
*	n	0	0	0	1	0	0	Boot system from 740 Hard Disk, fixed platter.
*	n	0	1	0	1	0	0	Boot system from 740 Hard Disk, removable platter.
*	n	0	0	0	1	1	0	Boot system from external peripheral chassis.
*	n	0	0	1	0	1	0	Boot system from integral Winchester drive.
*	n	0	1	1	0	1	0	Reserved for future configuration.
*	n	0	0	1	1	0	0	Reserved for future configuration.
*	n	0	0	1	1	1	0	Reserved for future configuration.
*	n	0	1	1	1	1	0	Reserved for future configuration.
*	n	#	#	#	#	#	1	Boot workstation from network.
*	n	0	0	1	1	1	1	Reserved (special case)

### NOTES:

- 0 = OFF (down); 1 = ON (up); n = DON'T CARE
- Switch 1 (\*) selects 60Hz when up (1) or 50Hz when down (0); for CRT scan rate only.
- Switch 2 (n) is reserved for future configurations.
- Switches 3 and 4 select boot device unit addresses.
- Switches 5, 6 and 7 select boot device.
- Switch 8 selects network communications booting.

## Switch Settings

7. # = Bit Substitute; i.e., substitute the bit pattern that corresponds to the device from which the Operating System (OS) will be booted by default. (For example, a workstation that uses a 740 hard disk, drive 0 as a defaulted boot device, would require a switch pattern of:

\* n 0 0 0 1 0 1

If network communications are lost, the system will boot to the address of switches 3-7.





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Printed in U.S.A.