

## DISPLAY PROGRAM STATUS (P)

To display the Program Status, enter P when the Select Status Display is on your screen. The following display appears:

NAME	STATE	STEP	PRI	RAM
aaaaaaaa	bbbb	cccc	d	eee
<<< MORE >>>				
or				
** NO MORE **				

Explanation: aaaaaaaa = job-name assigned in the START command, or new job-name assigned in NAME/= parameter in the JCL file that called the job.

bbbb = Current job status (see following table):

Status	Description
SCD1	In job queue but not started; Job Scheduler has not yet examined job.
SCD2	In job queue; Job Scheduler has examined job.
TRN1	Selected, preparing to run.
TRN2	Active, executing initialization instructions.
RUN	Running, executing application instructions.
TRN3	Transitional state between programs or at end-of-job.
????	Undefined; status display not updated.

cccc = Program currently executing (if state is RUN or TRN2).

Next program to be executed (if state is TRN1 or SCD2).

Either the last object program executed or next program to be executed (if state is TRN3).

Undefined (if state is SCD1).

d = Program priority.

eee = Physical RAM pages allocated (if state is not SCD1 or SCD2).

<<< MORE >>> = More information. (Press any key *except* RESET to display more information.)

\*\* NO MORE \*\* = All program status information has been displayed.

## GO TO CONSOLE MODE OR APPLICATION TERMINAL MODE

Press the RESET key to go to System Console Mode; or LOGON to a job to go to Application Terminal Mode.

## RUNNING THE SYSTEM

### APPLICATION TERMINAL OPERATIONS

#### APPLICATION PROGRAM LOGON

To LOGON to a running application, display either the Key Prompt Line or Active Job List and enter the identifying key character for the job. (For example, enter D to LOGON to DATA IV.) When you LOGON to an application your terminal becomes an Application Terminal which can perform all terminal functions required by the application. All Application Terminals are under complete control of the application; MFE/IV controls only the System Console and the System Terminals.

#### OPERATOR SIGNON

In addition to the LOGON, you may have to SIGNON to the application. SIGNON identifies the terminal operator to the application. For example, after you LOGON to VISION, the first display is similar to the following:

```
VISION IS READY, ENTER YOUR ID
001oG, P1, .          ??? _.
```

To SIGNON to VISION, enter your identification (ID).

#### APPLICATION PROGRAM TERMINAL FUNCTIONS

Application program terminal functions are described in the Operator's Manual for the Four-Phase product being executed (ForeWord, DATA IV, VISION, COBOL, or PWS). Under MFE/IV supervision, you can perform all application program functions just as they are described in the pertinent Operator's Manual.

#### OPERATOR SIGNOFF

SIGNOFF releases the operator from the terminal but leaves the terminal attached to the application. SIGNOFF procedures depend on the particular application. Refer to the pertinent Operator's Manual.

#### APPLICATION PROGRAM LOGOFF

LOGOFF releases the terminal from the application. You must LOGOFF from one application before you can LOGON to another. Refer to the pertinent Operator's Manual.

#### RETURN TO SYSTEM TERMINAL MODE

When you LOGOFF, your terminal returns to System Terminal Mode automatically and the Key Prompt Line is displayed.

## BRINGING THE SYSTEM DOWN

### STOP APPLICATION JOB EXECUTION

To stop execution of an active job, issue a STOP.job-name or an ABORT.job-name command (see page 4) from the System Console.

### STOP SYSTEM EXECUTION

To stop system execution, issue a STOP,ALL or ABORT,ALL command (see page 4) from the System Console. When all programs stop, MFE/IV gives control to Interrupt Disc Operating System (IDOS).

### PERFORMING OFFLINE OPERATIONS

Offline operations are performed under control of IDOS before MFE/IV is loaded or after MFE/IV is stopped. For descriptions of IDOS operations, refer to the pertinent IDOS manuals listed in Section 1 of the *MFE/IV Operator's Manual*.

### MANUAL DUMP PROCEDURES

- Set AUTO/MANUAL switch to MANUAL.
- Press SYSTEM RESET switch.
- Press STEP switch.
- Set console keys to 71100001.

#### NOTE

On IV/60 and IV/65 processors, you must open the front panel to access the console keys.

- Press LOAD switch (or turn key-operated LOAD switch clockwise, then release it).
- Set AUTO/MANUAL switch to AUTO (this will cause a HALT).
- Move AUTO/MANUAL switch to MANUAL, then back to AUTO (this will clear the HALT).

(Register X3 will be zero after successful dump.)

If MFE/IV Initialization was not completed but MFE Preprocessor is resident and a line controller is present, memory will be printed directly on the line printer without being written to DUMP47 File.

If System Initialization was completed, memory will be written to the DUMP47 File. To print the DUMP47 File, bring up the MFE/IV System and issue a START, MFEDMP command from the System Console Terminal.

## CREATING CONFIGURATION FILES

Bootstrap the system to load the IDOS \$BATCH routine (see *Four-Phase Equipment Operator's Manual*.) Do not initialize MFE/IV. Enter the following JCL statements from Terminal Zero (you must press CURSOR RETURN key after each statement to transmit the terminal entry to the system):

```
// MFEFIG
```

The MFE/IV Configuration Program MFEFIG will load, then issue prompts.

### INITIAL PROMPTS AND RESPONSES

- IS THIS SCREEN 48 CHARACTERS WIDE ?  
Y MEANS YES, N MEANS NO (N = 81-char screen)
- DO YOU WISH TO VIEW A CONFIGURATION ?  
Y MEANS YES, N MEANS NO (N = creation or change)
- DOES THIS SIMPLY CREATE A NEW FILE ?  
Y MEANS YES, N MEANS NO (N = change a file)

- WHAT IS OLD FILE NAME ?  
ENTER SIX CHARACTER FILE NAME

### CONFIGURATION DEFINITION PROMPTS AND RESPONSES

- DO YOU WISH TO HAVE A PASSWORD ?  
Y MEANS YES, N MEANS NO
- PLEASE ENTER THE NEW PASSWORD  
ENTER EIGHT CHARACTER PASSWORD
- PLEASE REPEAT THE PASSWORD TO REMEMBER IT
- HOW MANY SCREENS ARE THERE ?  
TWO DIGIT NUMBER, MUST FILL (Number = 01 thru 32)
- HOW MANY COLUMNS PER SCREEN LINE ?  
ENTER EITHER 48 OR 96 (All screens in the system)
- HOW MANY LINES PER SCREEN ?  
ENTER 6, 12, OR 24 (All screens in the system)
- WHAT IS DUMP DEVICE ?  
ENTER 8230, 8260, 8270 OR NONE (NONE = no automatic dump)
- HOW MANY PARTITIONS ARE THERE ?  
ENTER 2, 3, 4, OR 5

### FINAL PROMPTS AND RESPONSES

- OK TO REPLACE EXISTING FILE ?  
Y MEANS YES, N MEANS NO
- WHAT IS NEW FILE NAME ?  
ENTER SIX CHARACTER FILE NAME
- DO YOU WANT TO DO MORE ?  
Y OR N, N MEANS DONE

### CHANGING AN EXISTING CONFIGURATION

#### NOTE

Prompts #9, #10, #11 and #12 will be displayed.

- DO YOU WANT TO CHANGE THE PASSWORD ?  
Y MEANS YES, N MEANS NO
- WHAT IS THE PASSWORD ?  
ENTER EIGHT CHARACTER PASSWORD (Old password, then new)  
(You only get 2 chances)
- TYPE SPACE BAR TO CHANGE VALUE. (Down arrow for next value)



# MFE/IV — Multifunction Executive Operator's Quick Reference

## BRINGING THE SYSTEM UP

### START THE SYSTEM

If the processor power was turned OFF, turn the power ON and bootstrap the system. See Turning the Power ON and Bootstrap Loading Procedures for the processor(s) you are using, in the *Four-Phase Equipment Operator's Manual*. (Bootstrap loads the IDOS \$BATCH routine.)

If the system was brought down but processor power remained ON, simply bootstrap the system. See Bootstrap Loading Procedures for the processor(s) you are using, in the *Four-Phase Equipment Operator's Manual*. (Bootstrap loads the IDOS \$BATCH routine.)

### PERFORM OFFLINE OPERATIONS

Offline operations are performed under control of the Interrupt Disc Operating System (IDOS) either before MFE/IV is loaded or after MFE/IV is stopped. Offline Operations are described on pages 9 and 10.

### LOAD AND INITIALIZE MFE/IV

#### Direct Loading and Initialization

To load and initialize MFE/IV directly, enter the following IDOS Job Control Language (JCL) statements directly from Terminal Zero. (You must press CURSOR RETURN key after each statement to transmit the terminal entry to the system):

```
// MFE
//CONFIGURATION = filename@d
//
```

where: MFE = MFE/IV System Initialization Routine  
filename = Name of a previously-constructed Configuration File  
d = Numeric disc drive ID. Default is zero.

(/CONFIGURATION = may be entered as /C =)

#### Indirect Loading and Initialization

To load and initialize MFE/IV indirectly, you must use a previously constructed JCL File. (To construct the JCL File, see Section 3 of the *MFE/IV Operator's Manual*.) To load the JCL File, enter the following IDOS JCL statements from Terminal Zero. (Press CURSOR RETURN key after each statement to transmit the terminal entry to the system.)

```
// JCL-file-name
```

where: JCL-file-name = Name of a particular MFE/IV Initialization JCL File.

Initialization puts all terminals into System Terminal Mode. To continue, you must put one terminal (normally Terminal Zero) into System Console Mode by pressing the RESET key. Any terminal (but only one at a time) can be the System Console Terminal.

## RUNNING THE SYSTEM

### SYSTEM CONSOLE OPERATIONS

#### SPECIFY A PASSWORD

If **PASSWORD** displays when you put the terminal into System Console Mode, you must enter the password. If entry is incorrect, question marks (????) display. Press any key (except **RESET** key) to re-enter. If you cannot enter correct password, press **RESET** key to return to System Terminal Mode. Contact your supervisor.

After password entry, System Console Messages may display. The Console is in either **RESPONSE** condition (RSP displays) or **COMMAND** condition (COMMAND displays). *RSP display means you must enter a response; COMMAND means that you may enter a command.* The time and date response must be entered once every time the system is started.

You must press **CURSOR RETURN** key after each statement to transmit the terminal entry to the system.

#### ENTER TIME AND DATE

Press **RESET** key to put terminal into System Console Mode.

If **PASSWORD** is displayed, enter password to continue. RSP indicator will display, followed by prompting messages:

ENTER CURRENT HOUR  
TYPE 2 NUMBERS

Enter current hour (two-digits 00-24).

ENTER CURRENT MINUTE  
TYPE TWO NUMBERS

Enter current minute (two-digits 00-59).

ENTER TODAY'S DATE  
MM = MONTH, DD = DAY, YY = YEAR  
TYPE MMDDYY (6 NUMBERS)

Enter current date (six-digits MMDDYY).

**COMMAND** will display along with messages from the Console Message Queue.

*System Console Messages* will display automatically.

If **MSG** indicator displays; there are additional messages in the Console Message Queue. To display messages, press either the Arrow Up (↑) key (for single messages) or the **CTRL/HOME** keys (for a screenful of new messages).

#### RESPOND TO CONSOLE INPUT REQUESTS

When **RSP** displays, you must respond before you can continue. Review the displayed messages. The one requiring a response should be obvious from its content. You cannot display new messages nor can you get out of Console Mode until you respond. Your response must be acceptable to the requesting program.

### ENTER CONSOLE COMMANDS

#### NOTE

The job-name specified in console commands is normally six characters; however, if the job is re-named using the // **ASSIGN** statement and the /**NAME** = parameter in a JCL File, job-name may be up to nine characters for any command except the **START** command.

When **COMMAND** displays, you may enter the following Console Commands:

**START,job-name** (or // **job-name**)

where: job-name is the original, six-character name of either an object program on Disc Drive Zero or a JCL File. Even though a job may be renamed by a JCL file statement, the job-name in the **START** command must be the original name and may not exceed six characters. Every job including one or more programs requiring an Application Terminal must have a name beginning with a unique first (key) character.

To start a job, enter:

<b>START,DATA</b>	or // <b>DATA</b>	to start DATA IV
<b>START,IVWORD</b>	or // <b>IVWORD</b>	to start ForeWord
<b>START,VISION</b>	or // <b>VISION</b>	to start VISION
<b>START,PWS</b>	or // <b>PWS</b>	to start Programmer Workstation
<b>START,your-job-name</b>	or // <b>your-job-name</b>	to start your job
<b>START,JCL-file-name</b>	or // <b>JCL-file-name</b>	to start a JCL file

#### NOTE

Start COBOL jobs by specifying either the name of the COBOL executable object program (compiler output) or the name of the JCL file that calls the COBOL executable object program.

**ATTN,job-name**

Job-name must be the job-name in the **START** command that started the job, or the new-job-name assigned by the /**NAME** = parameter statement in the JCL file that called the job.

This command causes the currently-executing program in the job to react if that program has the **ATTN** command module incorporated, otherwise the program ignores the **comm.end**. The program will usually display status information.

**VARY PRIORITY,job-name = n** (or **VARY PRI,job-name = n**)

where: n = any number from 0 through 4.

Job-name must be the job-name in the **START** command that started the job, or the new-job-name assigned by the /**NAME** = parameter statement in the JCL File that called the job.

This command changes job execution priority to the number in the n parameter. Zero is highest priority; 4 is lowest. (Default is 2.)

**VARY TIME LIMIT = option**

where: option can be OFF, ON or four-digit number. (ON is default.)

**VARY TIME LIMIT = OFF** (time limits are ignored)  
**VARY TIME LIMIT = ON** (number of quanta is 300)  
**VARY TIME LIMIT = nnnn** (nnnn ranges from 0000-9999)

**VARY TIME LIMIT** specifies the number of quanta. Time limit is calculated by multiplying the number of quanta by the quantum value. If a program exceeds its time limit, the system dumps memory automatically, aborts the job and puts a **TIME LIMIT EXCEPTION** message into the Console Message Queue. (See *MFE/IV Message Manual*.)

**VARY TIME QUANTUM = nnn**

where: nnn range is 000-100; represents approximate value (in milliseconds) of a single quantum. Values are:

If nnn = 000-025, quantum is 16.67 milliseconds.  
If nnn = 026-042, quantum is 33.33 milliseconds.  
If nnn = 043-058, quantum is 50 milliseconds.  
If nnn = 059-100, quantum is 100 milliseconds.  
(nnn greater than 100 is invalid.)

**VARY TIME QUANTUM** specifies the value of a quantum. Time limit is calculated by multiplying the quantum value by the number of quanta. If a program exceeds its time limit, the system dumps automatically, aborts the job, and puts a **TIME LIMIT EXCEPTION** message into the Console Message Queue. (See *MFE/IV Message Manual*.)

#### DUMP

Dumps all of memory to the **DUMP47** File without interrupting active applications. (To print the **DUMP47** File, enter a **START, MFEDMP** command from the System Console.)

**STOP,job-name**

where: job-name = Name of job being requested to stop.

Job-name must be the job-name in the **START** command that started the job, or the new-job-name assigned by the /**NAME** = parameter statement in the JCL file that called the job.

The currently executing program in the job is requested to stop. It may refuse to stop; however, when the program completes execution, its job will stop.

#### STOP,ALL

All active programs in all jobs are requested to stop. Some programs may refuse to stop. However, as programs complete execution, their jobs will stop. When all jobs have stopped, **MFE/IV** gives control of the processor to **IDOS**.

**ABORT,job-name**

where: job-name = Name of job being aborted.

Job-name must be the job-name in the **START** command that started the job, or the new-job-name assigned by the /**NAME** = parameter statement in the JCL file that called the job.

Dumps memory automatically and terminates specified job.

#### ABORT,ALL

Dumps memory automatically and terminates all jobs.

#### CAUTION

**ABORT** causes abnormal termination.

#### GO TO SYSTEM TERMINAL MODE

To go to System Terminal Mode, press the **RESET** key. The terminal will enter System Terminal Mode and the Key Prompt Line will display.

## RUNNING THE SYSTEM

### SYSTEM TERMINAL OPERATIONS

#### DISPLAY KEY PROMPT LINE

The Key Prompt Line displays automatically when you enter System Terminal Mode. To refresh the prompt line, press the **QUESTION MARK (?)** key. The following refreshed display appears at the bottom of your screen:

TYPE I, D, C, S or ?  
MFE IS READY

Initially, only S and ? are displayed. Key characters are inserted before S as application jobs start and are deleted as jobs stop. Enter S for Status Displays, ? for Active Terminal Control Job List, or the identifying key character to LOGON to a job.

The six-character name of ForeWord is **IVWORD**. To use the eight-character name (ForeWord), the product must be re-named using a JCL file with a // **ASSIGN** and a /**NAME** = **FOREWORD** statement. Key character for **IVWORD** is I; key character for ForeWord is F.

#### APPLICATION LOGON FROM KEY PROMPT LINE

To LOGON to a job (when the Key Prompt Line displays) enter the key character for that job. (For example, enter D to LOGON to DATA IV.) When you LOGON, your terminal goes to Application Terminal Mode.

#### DISPLAY ACTIVE JOB LIST (?)

To display the Active Terminal Control Job List, enter ? when the Key Prompt Line is on your screen. The Key Prompt Line will be refreshed (at the bottom of your screen). Key characters and names of all Active Terminal-Control Application Jobs will appear at the top of your screen:

MFE/IV RELEASE BN(release number)  
TYPE CHARACTER TO SELECT PROGRAM  
I = IVWORD  
D = DATA IV  
k = (your job key, if started)

#### APPLICATION LOGON FROM JOB LIST

To LOGON to a job (when the Terminal Control Job List displays) enter the key character for that job. (For example, enter D to LOGON to DATA IV.) When you LOGON, your terminal goes to Application Terminal Mode.

#### DISPLAY SELECT STATUS DISPLAY (S)

To display the Select Status Display, enter S when the Key Prompt Line is on your screen. The following display will appear:

TYPE H, M, P, T, OR ?  
SELECT STATUS DISPLAY

Then, enter one of the status display keys listed (H, M, P, T, or ?).

### DISPLAY KEY/NAME STATUS LIST (?)

To display the Key/Name Status List, enter ? when the Select Status Display is on your screen. The following display will appear:

H = HARDWARE STATUS, M = AVAILABLE MEMORY  
P = PROGRAM STATUS, T = TIME

To obtain any of the displays listed above, you must first enter S (to restore the Select Status Display) then enter the status display key (H, M, P, or T) that identifies the desired display.

#### DISPLAY HARDWARE STATUS (H)

To display the Hardware Status, enter H when the Select Status Display is on the screen. The following display appears:

DEVICE	OPS	ERRORS
KEYBRD	aaaaaa	bbbb/cccc
DISC	dddddd	/eeee
TAPE	ffffff	gggg/hhhh

Explanation: aaaaaa = Total keystrokes processed  
bbbb = Hardware lost-keystrokes processed  
cccc = IO6 errors.  
dddddd = Disc requests processed  
eeee = Aborted disc operations  
ffffff = Total tape requests processed by tape-driver  
gggg = Retrieved tape operations  
hhhh = Number of aborted tape operations

#### DISPLAY AVAILABLE MEMORY STATUS (M)

To display the Available Memory Status, enter M when the Select Status Display is on your screen. One of two formats appears:

THIS THERE ARE nnn PAGES OF RAM AVAILABLE  
THE JOB SCHEDULER IS ACTIVE AND IS p PAGES

OR

THIS THERE ARE nnn PAGES OF RAM AVAILABLE  
THE JOB SCHEDULER IS NOT ACTIVE

Explanation: nnn = Number of available pages  
p = Number of pages used by the System Job Scheduler

#### DISPLAY SYSTEM TIME (T)

To display the System Time, enter T when the Select Status Display is on your screen. The following display appears:

mm/dd/yy hh/mm/ss

Explanation: mm/dd/yy = The month, day, and year.  
hh/mm/ss = The current hour, minute, and second.