

**March 1980**

This manual is for all RT-11 users. It provides a summary of error conditions that may occur during system use, along with recommended recovery procedures.

# **RT-11 System Message Manual**

Order No. AA-5284C-TC

**SUPERSESSION/UPDATE INFORMATION** This manual supersedes AA-5284B-TC

**OPERATING SYSTEM AND VERSION** RT-11 V04

**SOFTWARE VERSION:**  
FORTRAN IV V02.1  
BASIC-11 V02  
MACRO-11 V04

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## 1.0 Using the RT-11 System Message Manual

This manual lists all diagnostic messages that RT-11 Version 4 can produce. The messages for FORTRAN IV and for single-user BASIC-11 are also included. Each message appears here in the same form as on your display terminal or hard copy terminal listing. When you receive a message, look it up in the appropriate section, read the short explanation about the reason for the message and apply the remedies that are described. Section 5.0 lists all messages for FORTRAN IV, and Section 6.0 lists all messages for single-user BASIC-11. Section 7.0 contains all messages for components of the RT-11 operating system. Section 8.0 contains all messages for the MACRO-11 assembler.

RT-11 Version 4 provides keyboard monitor commands that automatically call component parts of RT-11 into service for you. The keyboard monitor commands are English language words that are easy to recall. In addition, they allow you to issue one command to use the services of a utility program, without actually running it. The different monitors and utility programs such as PIP, for example, may be invoked in this way. Therefore, you may see messages from parts of RT-11 that you have not explicitly called into service. Whatever the case, when you see a message that is not from FORTRAN IV or BASIC-11, look it up in the System Messages or MACRO-11 Messages section. You may use either keyboard monitor commands or system utility commands to recover from error conditions. Both are described. The *RT-11 System User's Guide* contains a list of keyboard monitor commands and associated system program commands.

Some error messages describe error conditions that cannot be resolved by you. When you receive a message of this type, you should submit a Software Performance Report (SPR) to DIGITAL. An SPR is a form that most customers (who are in-warranty or have purchased support services) can use to report faults in the software and suggest product improvements. In this manual, the abbreviation SPR means Software Performance Report.

Before using this manual, read the next two sections thoroughly. Section 1.1 describes how to find messages in the different sections of this manual. Section 1.2 describes the format of error messages from RT-11 and the languages it supports.

Several messages from FORTRAN IV, BASIC-11 and RT-11 pertain to hardware problems and to cases when external storage space or memory is not adequate for the work you are trying to do. Section 2.0, Hard Error Conditions, summarizes the most common problems with hardware.

Section 3.0, Increasing Storage and Memory Resources, provides useful guidelines to follow when you have exhausted the resources of your system.

Section 4.0, System Failures, presents guidelines and instructions for both experienced system programmers and less experienced users who are diagnosing the causes of system failures.

## 1.1 Order of Messages

Within the FORTRAN IV, BASIC-11, System, and MACRO-11 sections, each message is in alphabetical order. This manual uses two special conventions to alphabetize messages with certain special characters and general references to your programs and commands.

Eight general references appear in various messages and stand for specific names or values that are copied directly from the work you are doing. They have not been used for alphabetizing. They are:

****	A label, name, or value that FORTRAN IV copies into messages from the FORTRAN IV programs you are using.
x	A specific command option that is copied into messages from commands you have typed.
AAAAAA	A label or name that RT-11 copies into messages from the programs you are using.
a	A single character that RT-11 fills in — usually the single-letter abbreviation for a file or command option.
DEV:FILNAM.TYP	A file specification that RT-11 copies from one of your commands.
MMMMMM NNNNNN	Specific values that RT-11 reports as parts of certain messages — usually count totals, addresses, or offsets that are current at the time of the message.
n	A single digit that RT-11 fills in — usually the unit number in a device specification.

The second alphabetizing convention this manual uses is as follows:

After ignoring all general references, if the first character in a message is not a digit and not a letter, the second character has been used for alphabetizing.

Therefore, if you have trouble finding a message in this manual, review the following procedure:

1. Identify the message's origin — this manual contains messages only for FORTRAN IV, BASIC-11, the RT-11 operating system, and MACRO-11 assembler. Consult other documentation about messages from other programs.
2. If the first character in a message is a special character, such as a question mark (?), ignore it.
3. Ignore any number or name in the message that is specific to your program or files.
4. Look up the message under the characters that remain.

## 1.2 Format of Messages

In this manual, each RT-11 system message appears in the same form as on your display terminal and in your hard copy terminal listings. The messages appear in the following form:

*?Prog-s-Message Text*

The message text is prefixed by the name of the system program (*Prog*) that issued the message. The program name is followed by a code (*s*) that indicates the severity of the error. RT-11 responds to error conditions based on the level of severity indicated by the code.

**Table 1-1: Error Severity Levels**

Level	Severity Code	Effect
Information	I	Execution continues. The program detected a condition that you should be informed of. The message appears at the terminal or in the listing file. The condition may affect execution at a later time and may require future action.
Warning	W	Execution continues. The program detected a condition that may cause errors in execution. Corrective action may be necessary. The message appears at the terminal or in the listing file.
Error	E	Execution terminates. The program detected an error that will cause other errors during execution. Corrective action is necessary. The message appears at the terminal or in the listing file.
Fatal/Severe	F	Execution terminates. The program detected a serious error. You must enter another command to continue processing. The message appears at the terminal or in the listing file.
Unconditional Abort	U	Execution terminates. An extremely serious error occurred that prevents further processing.

The FORTRAN IV and BASIC-11 messages do not appear in the format described in the preceding paragraphs. See Section 5.0 for a description of messages from FORTRAN IV, and Section 6.0 for a description of messages from BASIC-11.

You can use the monitor SET command to change the effect of the severity level on the system's response. In particular, these settings affect the execution of indirect command files. Refer to the *RT-11 System User's Guide* for a description of the SET ERROR command.





## 2.0 Hard Error Conditions

Special error conditions, called “hard” errors, are detected by the hardware rather than by the system software. RT-11 interprets hard errors by printing a short message on the console terminal. The corrective action that you take depends upon the type of hard error condition and the device in use.

Often a hard error condition is simple to correct; the message will indicate an off-line or write-locked device, for example, and the system may wait until you correct the problem.

Other hard errors indicate more serious problems such as bad blocks on the system volume or a malfunction in the hardware itself. You may have to reinitiate the operation or use another device; in extreme cases, you may need the advice of a hardware specialist.

Following are the devices supported by RT-11 and the hard error conditions that may occur for each device. Corrective actions follow the error descriptions.

In all cases, if the error persists after all possible corrective actions have been tried, run the appropriate diagnostics and, if necessary, request the services of a DIGITAL field service representative.

### 2.1 Console Terminal Devices

#### *Error Conditions*

Terminal devices do not report any hard error conditions. However, before using the system, make sure that the terminal is turned on, is on line, and, if appropriate, has sufficient paper and a ribbon in good condition. Adjust the scope on a video terminal so that it is bright enough to be easily read. If you are using a VT100, you should then type CTRL/Q to resume printing.

#### *Corrective Actions*

DECwriter II Out-of-paper: replace paper; turn the terminal off line and then on line. (Turning the terminal off and then on will also work.) You can then enter keyboard input.

### 2.2 Display Processor

#### *Error Conditions*

The VT11 display processor does not report any hard error conditions. Make sure that the display is turned on, and adjust the screen so that it is bright enough to be easily read.

#### *Corrective Actions*

None.

### 2.3 High-Speed Paper Tape Devices

#### *Error Conditions*

Reader: no tape, no power, or off line.  
Punch: no tape or no power.

### *Corrective Actions*

Reader: make sure that the tape is properly positioned in the reader (over the read head with the tape retainer cover closed). Make sure that the reader is turned on.

Punch: make sure that the punch has been loaded properly with sufficient blank tape and is turned on, ready to punch. The punch is working properly if it ejects blank tape when you press the FEED switch.

## **2.4 Line Printers**

### *Error Conditions*

No power, no paper, printer drum gate open, off line, over temperature alarm, or no printer connected to control unit (LP11).

### *Corrective Actions*

Make sure that the printer is turned on and set on line. Make sure that the paper is loaded properly. Make sure that a line printer is connected properly to the controller (LP11).

The system waits while you take corrective action. (You can use the monitor commands SET LP HANG/NOHANG to control the wait feature; see the *RT-11 System User's Guide*.)

## **2.5 Card Readers**

### *Error Conditions*

No power. Indicator lights on the reader unit alert you to these additional error conditions:

Read Check	card is torn on leading or trailing edges, or card has punches in 0 or 81st column positions
Pick Check	card failed to move into the read station
Stack Check	previous card not properly seated in the output stacker (may be mutilated)
Hopper Check	(not present on all card readers) input hopper is empty; output stacker is full (occurs only during transfer initiation and only if you issued a SET CR NOHANG command)

### *Corrective Actions*

Make sure that the card reader is turned on. Make sure that the card deck is loaded properly; you may need to repunch individual cards.

The system waits while you take action. (You can use the monitor commands SET CR HANG/NOHANG to control the wait feature; see the *RT-11 System User's Guide*.)

## 2.6 Cassettes

### *Error Conditions*

Write-locked, off line, unit select, bad tape, or block check (checksum error).

### *Corrective Actions*

Make sure that the write-protect tab on the cassette is properly positioned (the hole covered to write-enable the cassette, or uncovered to write-protect it). Check that the cassette is correctly mounted on the proper drive (0-left, 1-right; the system assumes 0 unless you indicate otherwise).

For checksum and bad tape errors, retry the operation using another cassette; try a different drive if possible; or use the monitor COPY/IGNORE command to ignore input errors while copying.

(You can use the monitor commands SET CT RAW/NORAW to control read-after-write error checking; see the *RT-11 System User's Guide*.)

## 2.7 Magtapes

### *Error Conditions*

Cyclical redundancy or parity (checksum) error, record length error, non-existent memory, write-locked, off line, unit select, or power off.

### *Corrective Actions*

Make sure that all magtape units are powered on (regardless of which one is in use), set on line and, if appropriate, write-enabled (insert a write-ring on the back of a magtape to write-enable it). Make sure that the tape is correctly mounted on the proper unit and that all units are assigned different select numbers. Make sure that 7-track tapes are on 7-track drives, and 9-track tapes on 9-track drives.

For checksum and bad tape errors, retry the operation using another magtape or drive if possible, or use the monitor COPY/IGNORE command or PIP /G option to ignore input errors while copying.

## 2.8 DECTape

### *Error Conditions*

Off line, write-locked, unit select, parity (checksum) error, or bad tape.

### *Corrective Actions*

Make sure that the DECTape unit is set on line and write-enabled, if appropriate. Make sure that the tape is correctly mounted on the proper unit and that all units are assigned different select numbers.

For checksum and bad tape errors, retry the operation using another DECTape or drive if possible. Or, use the monitor COPY/IGNORE command or PIP /G option to ignore input errors while copying. Use the monitor DIRECTORY/BADBLOCKS command or DUP /K option to detect bad blocks. If the bad blocks fall within a file that is small, rename it with a .BAD file type; or use the monitor CREATE command or DUP /C option to create a file that encloses the bad blocks (see the *RT-11 System User's Guide* for more information about the CREATE command).

## 2.9 DECTape II

### *Error Conditions*

Write-locked, parity (checksum) error, or bad tape.

### *Corrective Actions*

Make sure that the DECTape cartridge is inserted properly and that the cartridge is write-enabled.

For checksum and bad tape errors, retry the operation using another DECTape unit, if possible. Or, use the monitor COPY/IGNORE command or PIP /G option to ignore input errors while copying. Use the monitor DIRECTORY/BADBLOCKS command to detect bad blocks. If the bad blocks fall within a file that is small, rename it with a .BAD file type. Or, use the monitor CREATE command or DUP /C option to create a file that encloses the bad blocks (see the *RT-11 System User's Guide* for more information about the CREATE command).

## 2.10 Disks

### *Error Conditions*

Off line, write-locked, unit select, parity error, bad blocks, drive not ready, or volume not formatted.

### *Corrective Actions*

Make sure that the disk drive is set on line and write-enabled, if appropriate. Make sure that the disk is correctly loaded in the proper unit, and that all units are assigned different select numbers. Note the locations of drive 0 and drive 1. Make sure that a new disk is properly formatted before you use it.

For parity errors, retry the operation using another disk or drive if possible, or use the monitor COPY/IGNORE command or the PIP /G option to ignore input errors while copying.

Use the monitor INITIALIZE/BADBLOCKS command or the DUP /B option to detect and identify bad blocks on new devices just received from the manufacturer. This procedure initializes the device directory leaving only FILE.BAD entries in it. This ensures that the system will not try to access these bad blocks during routine operations.

Sometimes disks develop bad blocks as a result of use and age. Use the monitor DIRECTORY/BADBLOCKS command or DUP /K option to detect bad blocks on devices that contain data. If the bad blocks fall within a small area, rename it with a .BAD file type using the monitor CREATE command or DUP /C option (see the *RT-11 System User's Guide*). If hard errors are frequent, you can copy the device to a second device using the DUP /I option or monitor COPY/DEVICE command, and then copy the second device back to the first. This rewrites the headers and eliminates hard errors. However, if hard errors persist, request that a hardware maintenance specialist check the head alignment of your device.

You can also use the FORMAT utility program to reformat devices that generate hard errors. This procedure destroys all data on the device making it suitable for use with RT-11. Use of FORMAT varies depending on the type of device, however. See the *RT-11 System User's Guide* for information about FORMAT.



## 3.0 Increasing Storage and Memory Resources

Some RT-11 system errors result from insufficient free memory space, or insufficient space on a storage volume. Using one (or more) of the procedures listed below may eliminate the problem. If, by using the methods listed below, you still cannot provide adequate storage or memory resources for your application, move the application to a system with larger capacities, if possible.

### 3.1 Enlarging Storage Space

During an output operation, an error message may indicate that your output volume has insufficient space or, if the volume is directory structured, that there is not room for a new entry in its directory. Try one or more of the following methods:

Delete unnecessary files from the output volume, perhaps transferring them to a backup volume.

Use another volume with more space.

Specify an explicit output file size by using the `/ALLOCATE` option or the size option on the output file specification.

Compress the volume by using the monitor `SQUEEZE` command or `DUP /S` option. This creates the largest possible empty space on the volume by consolidating all the free blocks into one area. It also makes more efficient use of the directory space.

If directory overflow persists, allocate more directory segments on another volume (by using the monitor `INITIALIZE/SEGMENTS` command or `DUP /N` option) and transfer the files to this volume.

If device overflow persists, use a larger volume (for example, from `RX01` diskette to `RK05` disk or from `RK05` disk to `RK06` disk).

If these methods do not provide sufficient space, consult the *RT-11 Software Support Manual* for more details about the directory structure of devices and the allocation of files.

### 3.2 Increasing Memory Resources

Many error messages indicate insufficient room in main memory. The following sections present some guidelines for utilizing memory effectively and for rewriting programs so that they require less total memory.

**3.2.1 Using Memory More Effectively** — The following methods make more memory available without requiring you to redesign the program:

Use the SHOW command to find out which device handlers are loaded, then use the UNLOAD command to take unnecessary device handlers out of memory. Do not unload handlers that are needed to run a foreground or system job.

Terminate and unload the foreground program or one or more system jobs.

Use the single-job or base-line monitor (it requires approximately one half the space needed by the foreground/background monitor).

Use the SET USR SWAP command (see the *RT-11 System User's Guide*) to allow USR swapping.

If you create a monitor through system generation, do not add any features to the monitor that you do not need. Each feature you select adds to the size of the monitor in memory. In a multi-terminal system, for example, support for each additional terminal you select adds approximately 200 (decimal) words to the resident monitor.

**3.2.2 Decreasing Program Size** — In general, each of the following methods reduces the maximum amount of memory a program requires at one time.

Use single buffering instead of double buffering.

Use smaller I/O buffers.

Decrease the maximum number of channels open simultaneously.

Overlay the program, or break the code into smaller modules for more efficient overlaying.

Remove any testing code no longer required.

Use algorithms that require less main memory.

Transfer more data storage to mass storage devices.

Break the program into several programs to permit chaining between them.

Use the extended memory overlay feature with the extended memory monitor (XM) so only your program's root need be resident in low memory. See the *RT-11 System User's Guide* for a description of extended memory overlays.



## 4.0 System Failures

An RT-11 system failure occurs whenever the currently running program stops unexpectedly or suspends execution, leaving the system in what appears to be a nonfunctioning state. This section should help you to determine the cause of the system failure and also to distinguish between user errors and system errors.

Paragraphs that begin with \*\* are suggestions primarily for experienced system programmers who have access to monitor source listings, but all users should read them for general knowledge.

Most system failures fall into one of three categories: those that cause a return to the keyboard monitor, those that cause a monitor halt, and those that result in an indefinite program loop. Each is explained in detail below. While attempting to analyze a system failure, always keep in mind any new or unusual system features, such as user-written device handlers, a complex application program, or a special-purpose device.

When the system fails, follow this general procedure. Examine the programmer's console immediately after the failure. Then use the programmer's console to examine the program counter (PC), the stack pointer (SP), the general purpose registers (0 through 5), and certain memory locations. However, if your processor is an LSI-11, 11/03, or 11/23, use the onboard ROM ODT to determine the cause of the halt. See the processor handbook for your PDP-11 for instructions on using ODT. Refer to the processor handbook for your PDP-11 for instructions about the programmer's console or the ROM ODT and how to use them.

The first five of the following specific questions are generally useful for finding the cause of a failure. Later questions are useful in special situations.

1. Did any message appear on the terminal?
2. Is the processor halted or looping? What is the value of the program counter in either case?
3. If the processor is looping, do characters typed on the keyboard echo on the console? Does CRT/L/C have any effect?
4. Is the halt or loop in a device handler? Are all devices ready to run (check the line printer and card reader, if present)? Has code in the handlers been corrupted?
5. What are the contents of location 54 (which points to the base of RMON) and location 46 (which is the USR load address)? The location of the halt or the loop may be determined by comparing the value of the program counter with these numbers. If the program counter is higher than the base of RMON or is within 2K words (010000 bytes, octal) of the start of the USR, the halt or loop occurred in the monitor and the difference between the numbers gives the offset into the monitor code.
6. What is the value of the stack pointer and the first several elements in the stack? Has the stack overflowed (is the stack pointer less than 400)?

7. **\*\*What are the contents of the registers?**
8. **\*\*Has monitor code been corrupted? Determine from a source listing, if available, the integrity of significant areas in RMON, especially the area immediately below the monitor stack.**
9. **\*\*Determine from a source listing, if available, what code is indicated by the halt or loop.**
10. **\*\*What are the contents of the monitor data base (for example, the address of the running job or the addresses of the loaded handlers)?**
11. **\*\*Can the problem be localized to a single job? If so, what are the contents of the job impure area (the job status word, channel status words, the queue elements)?**
12. **\*\*Can the problem be localized to a single device? If so, what are the contents of the handler data, handler queue and device status registers?**
13. **\*\*In FB and XM, has the job impure area been corrupted? Has the stack for the foreground or system job overflowed?**

#### **4.1 Failures That Cause a Return to Keyboard Monitor**

A return to the keyboard monitor has occurred if the monitor's prompting character (a dot) is printed at the left margin of the console terminal. If a monitor message (one beginning with ?MON-) has also been printed, refer to its meaning and corrective action as listed in the System Messages section (Section 7).

**\*\*If no message is printed (only the monitor's dot), an interrupt through an empty vector to code at location 0 or another unexpected jump to location 0 is indicated. The following code is stored at location 0.**

<b>Loc.</b>	<b>Octal Value</b>		
0	040000	BIC R0,R0	;TO ENSURE A HARD EXIT
2	104350	.EXIT	;BACK TO KMON

**\*\*Possible causes of this error include the following: a spurious interrupt request appeared, a vector was never filled, a filled vector was not protected under the FB monitor, an .ASECT was attempted into a protected vector, an application program was run with an incorrect vector address, the program has a JMP or JSR instruction with an undefined label or the program has an RTS instruction with no valid return address on the stack.**

#### **4.2 Failures That Cause Monitor Halts**

Monitor halts occur in high memory above the address in location 54 (the RMON base address pointer). The most common symptoms are the absence of the monitor prompt and the lack of an echo when you type characters.

When a monitor halt occurs, do not attempt to restart the system by pressing the continue key (CONT) on the processor. You must reboot the system. The following sections describe the various kinds of halts that occur under the different monitors and the special problems involved in USR swapping and stack overflow.

#### NOTE

Each description of a halt or loop in the following sections includes a symbol name. Use them to find the appropriate sections of code in the monitor source listings that reveal offsets from location 54. If you are working with the distributed version of RT-11, refer to the link maps on the distribution kit for accurate offsets. If you created the monitor you are working with through system generation, the symbol names described here are accurate but you must refer to the link map created by system generation to determine the offsets. Therefore, for any special monitors you generate through system generation such as a version of FB with multi-terminal support, use the symbols in your link map to identify the appropriate code.

**4.2.1 Base-Line Monitor Halts** — The base-line monitor has four explicit halts. Any other halts that occur may indicate that the monitor code has been corrupted. If that is the case, check for logic errors in the user program and reboot the system.

1. Absolute location 26 (octal)

See *?MON-F-Power fail halt*.

The monitor executes this halt on power up and power down.

2. Absolute location 116 (octal)

See *?MON-F-Memory error NNNNNN*.

The monitor executes this halt when it detects a memory parity error.

3. \*\*Check the symbol DEAD.

The monitor executes this halt when it encounters a hardware error while reading the KMON or USR from the system device. This halt indicates a temporary or permanent failure of the controller or the physical volume. The base-line monitor does not execute this halt when the system device is write-locked. If the system device is write-locked, the monitor issues the message *?MON-F-System write error* and returns to KMON.

4. \*\*Check the symbol 7\$ in routine COMPLT.

The user set bit 7 in the job status word (absolute location 44) to request halts on hard errors, and the monitor detected one. Register 5 points to a queue element, specifically to the pointer to the channel status word. Register 4 points to the current queue element pointer in the handler.

**4.2.2 Single-Job Monitor Halts** — The single-job monitor has six explicit halts. Some of them are mutually exclusive, however, because they depend directly on system generation features that you are free to include or exclude. If a halt that is not enabled occurs, the monitor code may be corrupted. Check for logic errors in the user program, and reboot the system.

1. Absolute location 26 (octal)

See *?MON-F-Power fail halt*.

If the message *?MON-F-Power fail halt* is disabled during system generation, this halt is executed on power up and power down.

2. Absolute location 116 (octal)

See *?MON-F-Memory error NNNNNN*.

If memory support is not enabled during system generation (the default for the distributed version of the single-job monitor), the monitor executes this halt when it detects a memory parity error. If the message is enabled, the monitor issues it and returns to KMON.

3. \*\*Check the symbol 1\$ before TRAPPF.

See *?MON-F-Power fail halt*.

If the message *?MON-F-Power fail halt* is enabled during system generation (the default for the distributed version of the single-job monitor), the monitor executes this halt on power down.

4. \*\*Check the symbol 2\$ in routine CRASHP.

See *?MON-F-Power fail halt*.

If the message *?MON-F-Power fail halt* is enabled during system generation (the default for the distributed version of the single-job monitor), the monitor issues the message and executes this halt on power up.

5. \*\*Check the symbol DEAD. The message *?MON-F-System read failure halt* precedes this halt only if system I/O messages are enabled during system generation.

If system I/O messages are enabled during system generation (the default for the distributed version of the single-job monitor), the monitor executes a halt in routine CRASHP at symbol 2\$ after printing the message *?MON-F-System read failure halt*. This halt occurs when it encounters a hardware error while reading the KMON or USR from the system device. This halt indicates a temporary or permanent failure in the controller or physical volume. If the system device is write-locked, the single-job monitor displays the message *?MON-F-System write error* and returns to KMON, rather than executing this halt.

6. \*\*Check the symbol IOEHLT.

The monitor detected a hard I/O error after you set bit 7 in the job status word (absolute location 44). Register 5 points to a queue element, specifically to the pointer to the channel status word. Register 4 points to the current queue element pointer in the handler.

**4.2.3 Foreground/Background and XM Monitor Halts** — The foreground/background monitor has three explicit halts, but the ones that can occur for a particular version of the monitor depend on features you choose or exclude during system generation.

The XM monitor has the same halts as the foreground/background monitor, but the offsets into RMON differ for the two monitors. Make sure you refer to the appropriate link map to determine the symbol value (see Note in Section 4.2).

Any other halts that occur may indicate that the monitor code is corrupted. When that is the case, check for logic errors in the user program, and reboot the system.

1. Absolute location 26 (octal)

See *?MON-F-Power fail halt*.

If the message *?MON-F-Power fail halt* is disabled during system generation, this halt is executed on power up and power down. If the message is enabled, the monitor issues the message and halts.

2. Absolute location 116 (octal)

See *?MON-F-Memory error NNNNNN*.

If memory parity support is disabled (the default for the distributed versions of the monitors), the monitor executes this halt when it detects a memory parity error. The last item in this list of foreground/background (and XM) monitor halts describes the monitor action when the message is enabled.

3. \*\*Check the symbol SYHALT.

The monitor executes this halt in two general situations. The message *?MON-F-System halt* may precede the halt.

- a. If the message *?MON-F-Power fail halt* is enabled (the default for the distributed version of the foreground/background monitor), the monitor issues the message and executes this halt on power up. On power down, the monitor executes this halt, but without supporting the overhead of the message.

- b. The monitor executes this halt when it traps to 4 or 10 or when it encounters a memory error, but only when it is executing critical monitor or interrupt code — in interrupt service routines, device handlers or selected portions of the monitor. (When the monitor is not executing critical code, it issues a message — *?MON-F-Memory error NNNNNN*, *?MON-F-Trap to 4 NNNNNN*, or *?MON-F-Trap to 10 NNNNNN* — aborts the program, and returns to KMON.)

Check the contents of the stack pointer (register 6). If the contents are less than 400 (octal), stack overflow has caused the trap. Section 4.2.5 of this manual has further information about stack overflow.

The address where the trap occurred is at the top of the stack. If this address is within user code, check for an error in an interrupt service routine or device handler. Verify that handlers are not fetched into areas that will be destroyed by data buffers or overlaid when the USR swaps. Section 4.2.4 of this manual has further information about USR swapping.

Check for a reference to a nonexistent device. The reference causes the handler to trap to 4 when it attempts to access the device registers. You can reduce the possibility of this error by deleting from the system volume all handlers for devices that are not part of your system.

If the address where the trap occurred is in the monitor, calculate the corresponding monitor offset by subtracting the contents of location 54. Consult a source listing of the monitor and compare the monitor you are running to the sources. The monitor (or data in the monitor or user region such as queue elements and channel status tables) may be corrupted.

Hardware problems that cause bus timeout cause this halt because they trap to 4. This is extremely rare, however; consider it only as a last resort.

**4.2.4 USR Swapping** — Many system failures occur when the USR swaps over important memory areas (such as device handlers, queue elements, and completion routines; the latter may occur when you are running FORTRAN IV programs that use SYSLIB calls). One way to detect this type of failure is to use the SET USR NOSWAP command and rerun the program (providing enough free memory exists). If the failure does not recur, then USR swapping is probably causing the problem. The program should be changed so that the USR does not swap over it at all (by being linked with overlays or with a different bottom address) or by making sure that the USR does not swap over any important areas within the program. See the *RT-11 Programmer's Reference Manual* and the *RT-11 Software Support Manual* for details concerning the swapping algorithm.

**4.2.5 Stack Overflow** — Stack overflow occurs when the stack is pushed through its low limit. Whether it may be detected depends on the location of the stack. The normal location for the user background stack is 1000, with a low limit of 400. Most PDP-11 processors detect stack overflow at 400 and generate a trap to 4. (Some processors, for example, the PDP-11/03, do not provide this feature.) If the stack is located elsewhere, overflow detection is not supported by the RT-11 system.

Stack overflow is usually a fatal condition. RT-11 treats all detected user stack overflows as fatal and aborts the offending program. Under the single-job monitor, the system either halts or prints a monitor fatal error message (depending on a SYSGEN feature). The FB monitor aborts the program with the *?MON-F-Trap to 4 NNNNNN* message.

The FORTRAN Object Time System may cause user stack overflow, since it uses large amounts of stack space. Extra stack space can be allocated for background jobs by using LINK/BOTTOM to raise the program base. Extra stack space can be allocated for foreground jobs at link time by using the :stacksize argument with the LINK/BACKGROUND command.

Monitor stack overflow will generally not occur, since enough stack space is allocated to handle “worst-case” situations. To determine if the stack overflowed, inspect the contents of the address in the stack pointer minus 2. If the stack did not overflow, the contents will be 52525 octal, which is the empty stack pattern. If the stack overflowed, the contents will be something other than 52525. If it overflowed, you can allocate more stack space by increasing the value of the conditional STAC\$K in your SYCND.MAC file, and assembling and linking the monitors again.

If you are using a user-written device handler that requires a large amount of stack space, allocate stack space within the handler. A register other than SP should be used to reference the stack.

### **4.3 Failures That Cause Program Looping**

When your system repeats a set of instructions continuously, it is in a loop. Programmed loops cause the system to wait until a device responds appropriately before resuming operation. However, looping can continue indefinitely if hard errors occur. This section describes causes of indefinite looping.

Handler loops are the most common. Refer to Section 4.3.3 of this manual for further information about them.

The general method for diagnosing a program loop condition is to disable any device that generates frequent interrupts (the KW11L clock, for example) and then to single-step through the set of looping instructions to find the location in memory where the loop occurs. (Refer to the processor handbook for the PDP-11 you are using for instructions on single-stepping.) A frequent cause of looping is the loss of an interrupt or interrupt enable bit in a device or terminal interface. If you are familiar with the devices your program is using, you can examine the device registers to determine if this is the case.

**4.3.1 Base-Line and Single-Job Monitor Looping** — There are six loops in the base-line and single-job monitors. In four cases the offsets into RMON are different for the two monitors. Make sure you refer to the appropriate link map to determine the symbol value (see Note in Section 4.2).

1. **\*\*Check the symbol QRESET.**

This loop waits for all I/O to complete before executing an exit or chain. When the system is in this loop, check the queue elements and channel status word for outstanding I/O requests, and then examine the appropriate devices to determine why requests are not satisfied.

2. **\*\*Check the symbol WAITDV.**

This loop waits for I/O completion on a given channel and is entered when a .WAIT request is issued. The device that is causing the loop can be identified by checking register 3, which points to the channel status table.

3. **\*\*Check the symbol QEWAIT.**

This loop waits for a queue element. If an active program waits in this loop for long periods of time, it is bound by queue elements and should have its number of queue elements increased with the .QSET program request. If a program hangs in this loop indefinitely, a device is not satisfying an I/O request. The device can be identified by checking the queue elements and channel status tables. Note that a mark time request (.MRKT) ties up a queue element until it is complete.

4. **\*\*Check the symbol WAITIO.**

This loop waits for I/O completion on a particular channel and register 3 points to the channel status table for the channel. When a program hangs in this loop, the device on the channel is not satisfying an I/O request.

5. **\*\*Check the symbol CDFNWT in the USR.**

This loop is reached by a .CDFN programmed request and delays execution until all I/O is finished. A bad device can cause programs to hang in this loop. Examine the queues, channel tables, and device queues to identify a device that is not satisfying an I/O request, and then examine the device registers.

6. **\*\*Check the symbol RSTTTW in the USR.**

This loop delays a hard reset until console terminal output is finished. If the system seems to hang in this loop, verify that the console terminal vectors are still pointing into RMON, the output interrupt is enabled and the console is operative. Type CTRL/Q to evoke a hard reset. Static electricity often clears the input interrupt enable bit. Although foreground execution continues, the terminal appears inoperative. The absence of the monitor prompt and the lack of an echo after characters you type indicate this. This is not a loop. Type CTRL/Q to restart processing.



7. \*\*Check the symbol RSTIOW in the USR.

This loop is reached by a .SRESET programmed request and delays execution until all I/O is finished. Use the same procedure as for item 5, above.

**4.3.2 Foreground/Background and XM Monitor Looping** — The foreground/background monitor has two loops. The XM monitor has the same two loops, but they are located at different offsets. XM offsets are shown in parentheses in this section.

1. \*\*Check the symbol EXRDKM.

When the system encounters a hard error while reading the KMON or USR, it issues the *?MON-F-System read error* message. It may then continuously retry the read operation. If this loop should occur, the controller is malfunctioning. Halt the processor, and try to reboot the system. If the system does not boot, check the system device for bad blocks.

2. \*\*Check the symbol SCHDLR.

This is the scheduler and null job (idle) loop, which the system enters when no job is runnable. Check the impure areas of all jobs to locate the cause.

Check the symbol BCNTXT to determine the location of the pointer to the background impure area. Check the symbol FCNTXT to determine the location of the pointer to the foreground impure area. Using these pointers, examine the I.BLOK words (see the *RT-11 Software Support Manual* for details), the channel tables and the queues to determine why neither job is runnable.

Note that a job can be blocked by a lack of available queue elements despite the fact that I.BLOK is zero, because on every significant event the job will be run to check for an available queue element. Note also that the EXIT\$ bit in I.BLOK can be set in several different ways — with the .EXIT, .CDFN, or .SRESET programmed requests, for example.

**4.3.3 Handler Looping** — By default, the card reader and line printer handlers will loop on hardware errors until the error condition has been removed. The system will loop through the monitor service code and the handler detection code. This condition can be changed using the monitor SET command (see the *RT-11 System User's Guide*). The other supplied handlers use counts to prevent indefinite retries on a device.



## 5.0 FORTRAN IV Messages

This section contains every error message displayed by FORTRAN IV. FORTRAN IV error messages are generally clear in specifying the exact nature of the error. However, if you cannot determine the location of your error by reading this section, refer to the *PDP-11 FORTRAN Language Reference Manual*.

### 5.1 Special Information About FORTRAN IV Messages

FORTRAN IV has five groups of messages. Section 5.2 lists them in the following order.

\*\*\*\*\*c      These messages are from the first compilation phase. They appear on source listings after the statement to which they apply in the form of a single-letter code (here represented by *c*). These messages report error conditions that are easy to identify, such as syntax errors.

Numbered      These messages are displayed by the FORTRAN IV Object Time System. They appear in the form *nn text* where *nn* is a message number from 0 through 68. These messages report error conditions that result from input and output operations, arithmetic operations, and system failures.

Each of these messages is assigned to one of four error classes, described below. The associated abbreviations are used in this manual to indicate the classification of the error message.

Class	Abbreviation	Description
IGNORE	IG	The error is detected and the FORTRAN compiler supplies necessary changes. No error message is sent to the terminal. Execution continues.
WARNING	W	The error message is sent to the terminal and execution continues.
FATAL	F	The error message is sent to the terminal and execution is terminated.
COUNT:n	C:n	The error message is sent to the terminal and execution continues until the <i>n</i> th occurrence of the error, at which time the error will be treated as FATAL.

ERROR:      These messages are from the second compilation phase. They appear in the form *In Line nnnn, ERROR: text* where *nnnn* is the internal sequence number of the statement in question and *text* is the description of the error.

?FORTRAN-      These messages are fatal compiler error messages. They appear in the form *?FORTRAN-F-text* where *text* is the specific message you receive. These messages report hardware error conditions or conditions that may require rewriting the source program or compiler errors.

WARNING:      These messages are from the second compilation phase. They appear in the form *In Line nnnn, WARNING: text* where *nnnn* is the internal sequence number of the statement in question and *text* is the description of the error. These messages report conditions that may cause errors during execution or that may cause incompatibility with the RT-11 FORTRAN IV compiler.

Note again that some messages can include labels, names and values from the program you are running. This manual uses '\*\*\*\*' and 'x' to indicate run-time specific information for FORTRAN IV messages and ignores those general references in alphabetizing.

## 5.2 List of FORTRAN IV Messages

### \*\*\*\*B

Columns 1 through 5 of a continuation line are not blank. Column 1 of a continuation line may have a 'D' but columns 2 through 5 must be blank. FORTRAN ignores the faulty columns.

Use a blank or a 'D' in column 1 and replace columns 2 through 5 with blanks, if the line is a genuine continuation line.

### \*\*\*\*C

The line is an illegal continuation line. Comments cannot be continued, for example, and the first line of any program unit cannot be a continuation line. FORTRAN ignores the line.

Correct the program.

### \*\*\*\*E

There is no END statement for the program. FORTRAN supplies an END statement when it detects the end-of-file.

Add an END statement to the end of the program.

### \*\*\*\*H

A Hollerith string or quoted literal string is longer than 255 characters or makes the current statement too long. FORTRAN ignores the statement.

Correct and modify the program, if necessary, to support the long string properly.

### \*\*\*\*I

The line contains a character that is not in the FORTRAN character set, not within a Hollerith string, and not in a comment. FORTRAN ignores the character.

Make sure that all non-FORTRAN characters are either in Hollerith strings or in comments.

### \*\*\*\*K

There is a non-numeric character in a statement label. FORTRAN ignores the label.

Correct the label.

### \*\*\*\*L

The line following this warning has more than 80 characters. Note that each space and tab is a single character. FORTRAN truncates the line to 80 characters.

Shorten the line.

**\*\*\*\*\*M**

The statement has a label that is also used on an earlier statement. Each statement label must be unique. FORTRAN ignores all duplicate labels after the first one.

Remove the duplicate label, or change it to a unique form.

**\*\*\*\*\*P**

The statement has unbalanced parentheses. FORTRAN ignores it.

Check for typing errors. Match each open parenthesis with a close parenthesis.

**\*\*\*\*\*S**

The statement has a syntax error. FORTRAN ignores the statement.

Correct the statement.

**\*\*\*\*\*U**

The statement is not legal in FORTRAN. FORTRAN ignores it.

Review the description of the statement you are trying to use, and recode the statement correctly.

**0 Non-FORTRAN error call**

**FORTRAN F or IG**

This message indicates an error condition (not internal to the FORTRAN run-time system) that may have been caused by one of four situations:

1. A foreground job using SYSLIB completion routines was not allocated enough space (using the FRUN /BUFFER option) for the initial call to a completion routine.
2. There was not enough memory for the background job.
3. Under the single-job monitor, a SYSLIB completion routine interrupted another completion routine.
4. An assembly language module linked with a FORTRAN program issued a TRAP instruction with an error code that was not recognized by the FORTRAN error handler. (Note that error messages produced by the FORTRAN extensions package contain this message, preceded by a line describing the error in more detail.)

Check the *RT-11 Programmer's Reference Manual* for the formula used to allocate more space.

Refer to Section 3.0 of this manual for information on how to increase memory space.

Use the FB Monitor to allow more than one active completion routine (see the *RT-11 Programmer's Reference Manual*).

Correct the program logic if correction is needed.

**1 Integer overflow**

**FORTRAN F**

During an integer multiplication, division, or exponentiation operation, the value of the result exceeded 32767.

Use floating point notation to correct the program logic.

**2 Integer zero divide**

**FORTRAN F**

During an integer mode arithmetic operation, an attempt was made to divide by zero.

Correct the program logic.

<b>3 Compiler generated error</b>	<b>FORTRAN F</b>
An attempt was made to execute a FORTRAN statement in which the compiler had previously detected errors.	Consult the program listing generated by the compiler (if one was requested) and correct the program for the errors generated at compile time.
<b>4 Computed GOTO out of range</b>	<b>FORTRAN W</b>
The integer variable or expression in a computed GOTO statement was less than 1 or greater than the number of statement label references in the list.	Control is passed to the next executable statement. Examine the source program and correct the program logic.
<b>5 Input conversion error</b>	<b>FORTRAN C:3</b>
During a formatted input operation, an invalid character was detected in an input field.	A value of 0 is returned. Examine the input data and correct the invalid record or the program logic.
<b>6 Output conversion error</b>	<b>FORTRAN IG</b>
During a formatted output operation, the value of a particular number could not be output in the specified field length without loss of significant digits.	The field is filled with asterisks. Correct the FORMAT statement to allow a greater field length.
<b>10 Floating overflow</b>	<b>FORTRAN C:3</b>
A real value resulting from an arithmetic operation exceeded the largest representable real number.	A value of 0 is returned. Correct the program logic.
<b>11 Floating underflow</b>	<b>FORTRAN IG</b>
A real number resulting from an arithmetic operation was less than the smallest representable real number.	The real number is replaced with a value of 0. Correct the program logic.
<b>12 Floating zero divide</b>	<b>FORTRAN F</b>
During a real mode arithmetic operation an attempt was made to divide by 0.	The operation's result is set to 0. Correct the program logic.
<b>13 Square root of negative number</b>	<b>FORTRAN C:3</b>
An attempt was made to calculate the square root of a negative number.	The result is replaced by 0. Correct the program logic.
<b>14 Undefined exponentiation operation</b>	<b>FORTRAN F</b>
An attempt was made to perform an illegal exponentiation operation. (For example, $-3.**.5$ is illegal because the result would be an imaginary number.)	The operation's result is set to 0. Correct the program logic.
<b>15 Log of zero or negative number</b>	<b>FORTRAN F</b>
An attempt was made to take the logarithm of a negative number or 0.	The operation's result is set to 0. Correct the program logic.

<p><b>16 Wrong number of arguments</b></p> <p>One of the FORTRAN library functions, or one of the system subroutines which checks for such an occurrence, was called with an improper number of arguments.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Check the format of the particular library function or system subroutine call, and correct the call.</p>
<p><b>20 Invalid logical unit number</b></p> <p>An illegal logical unit number was specified in an I/O statement.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Correct the statement so that the logical unit number is an integer within the range 1 to 99.</p>
<p><b>21 Out of available logical units</b></p> <p>An attempt was made to have too many logical units simultaneously open for I/O.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Increase the maximum number of active logical units (six by default) by recompiling the main program, using the /UNITS option to specify a larger number of available channels (the legal range is 1 to 15).</p>
<p><b>22 Input record too long</b></p> <p>During an input operation, a record was encountered that was longer than the maximum record length.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Increase the default maximum record length (136 [decimal] bytes) by recompiling the main program, using the /RECORD option to specify a larger runtime record buffer (the legal range is 4 to 4095).</p>
<p><b>23 Hardware I/O error</b></p> <p>A hardware error was detected during an I/O operation.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.</p>
<p><b>24 Attempt to READ/WRITE past end of file</b></p> <ol style="list-style-type: none"> <li>1. During a sequential write operation this message indicates that the space allocated to the file was insufficient.</li> <li>2. During a sequential read, an attempt was made to read beyond the last record of the file.</li> <li>3. During a random-access write operation, this message indicates that the space allocated to the file was insufficient, or that a programming error occurred during a read (such as attempting to reference a record number that was not within the bounds of the file).</li> </ol>	<p style="text-align: right;"><b>FORTRAN F</b></p> <ol style="list-style-type: none"> <li>1. Refer to Section 3.0 at the beginning of this manual for information on how to increase storage space.</li> <li>2. Use an END= parameter on a sequential read.</li> <li>3. Correct the programming logic error in a random-access read operation. Use the square bracket construction to make more space available when opening a file with CALL ASSIGN.</li> </ol>
<p><b>25 Attempt to read after write</b></p> <p>An attempt was made to read after writing on a sequential file.</p>	<p style="text-align: right;"><b>FORTRAN F</b></p> <p>Follow a write operation with a REWIND or BACKSPACE before performing a read operation, and correct the program logic.</p>

- 26 Recursive I/O not allowed** **FORTRAN F**
- An expression in the I/O list of a WRITE statement initiated another READ or WRITE operation. (This can happen if a FUNCTION that performs I/O is referenced in an expression in a WRITE statement I/O list.)
- Correct the program logic.
- 
- 27 Attempt to use device not in system** **FORTRAN F**
- An attempt was made to access a device that was not legal for the system in use.
- Assign the required logical device name or change the statement in error.
- 
- 28 Open failed for file** **FORTRAN F**
1. The file specified was not found.
  2. FORTRAN selected a channel already in use.
  3. There was no room on the device.
  4. If this message appeared while running the SYSGEN program, it indicates that one of the input files (SYSGEN.CND or SYSTBL.CND) is not on the DK: volume.
1. Verify that the file name exists as specified, and verify that FORTRAN default unit numbers are assigned to the devices expected.
  2. Verify that the channel selected is not already in use by an assembler-level or SYSLIB call.
  3. Refer to Section 3.0 of this manual for information on how to increase storage space.
  4. Copy SYSGEN.CND and SYSTBL.CND again, and restart.
- 
- 29 No room for device handler** **FORTRAN F**
- There was not enough free memory to accommodate a specific device handler.
- Move the file to the system device or to a device whose handler is resident. Refer to Section 3.0 of this manual for information on how to increase memory space. Recompile the FORTRAN program with /NOLINENUMBERS or link with \$SHORT. Use /UNITS to reduce the number of logical units or /RECORD to reduce the record size buffer.
- 
- 30 No room for buffers** **FORTRAN F**
- There was not enough free memory to set up required I/O buffers.
- Reduce the number of logical units that are open simultaneously at the time of the error (/UNITS). Refer to Section 3.0 of this manual for information on how to increase memory space. Recompile the FORTRAN program with /NOLINENUMBERS or link with \$SHORT. Use /RECORD to reduce the record size buffer.
- 
- 31 No available I/O channel**
- More than the maximum number of previously input/output channels (15) available to the FORTRAN run-time system were requested to be simultaneously opened for I/O.



- 32 Fmtd/unfmd-random I/O to same file** **FORTRAN F**  
 An attempt was made to perform a combination of formatted/unformatted or random-access I/O to the same file. Correct the program logic.
- 33 Attempt to read past end of record** **FORTRAN F**  
 An attempt was made to read a larger record than existed in a file. Check the construction of the data file; correct the program logic.
- 34 Unfmd I/O to TT or LP** **FORTRAN F**  
 An attempt was made to perform an unformatted write operation on the terminal or line printer. Assign the logical unit in question to the appropriate device using the ASSIGN keyboard monitor command, the ASSIGN FORTRAN library routine, or the IASIGN SYSLIB routine.
- 35 Attempt to output to a read only file** **FORTRAN F**  
 An attempt was made to write to a file designated as read-only. Check the CALL ASSIGN system subroutine or IASIGN SYSLIB function to make sure that the correct arguments were used. Check for a possible programming error.
- 36 Bad file specification string** **FORTRAN F**  
 The Hollerith or literal string or array specifying the RT-11 device or file name in the CALL ASSIGN system subroutine could not be interpreted. Check the format of the CALL ASSIGN statement. If the square bracket construction is used, an equal sign must follow it.
- 37 Random access read/write before define file** **FORTRAN F**  
 A random-access read or write operation was attempted before a DEFINE FILE operation was performed. Correct the program so that the DEFINE FILE operation is executed before any random-access read or write operation.
- 38 Random I/O not allowed on TT or LP** **FORTRAN F**  
 Random access I/O was attempted on the terminal or line printer. Assign the logical unit in question to the appropriate device, using either the ASSIGN keyboard monitor command, the ASSIGN FORTRAN library routine, or the IASIGN SYSLIB routine.
- 39 Record larger than record size in define file** **FORTRAN F**  
 A record was encountered that was larger than that specified in the DEFINE FILE statement for a random-access file. Shorten the I/O list or redefine the file specifying larger records.
- 40 Request for a block numbered larger than 65535** **FORTRAN F**  
 An attempt was made to reference an absolute disk block address greater than 65535. Correct the program logic.
- 41 DEFINE FILE attempted on an open unit** **FORTRAN F**  
 A file was open on a unit, and another DEFINE FILE operation was attempted on that unit. Close the open file before attempting another DEFINE FILE operation.

- 42 Memory overflow compiling object time format** **FORTRAN F**  
 The OTS ran out of free memory while scanning an array format generated at run time. Use a FORMAT statement specification in compile-time rather than object-time format. Refer to Section 3.0 of this manual for information on how to increase memory space.
- 43 Syntax error in object time format** **FORTRAN F**  
 The OTS detected a syntax error while scanning an array format generated at run time. Correct the programming error.
- 44 Second record request in ENCODE/DECODE** **FORTRAN F**  
 An attempt was made to use ENCODE and DECODE statements on more than one record. Correct the FORMAT statement associated with the ENCODE or DECODE statement so that it specifies only one record. Verify that there is no '/' in the FORMAT statement and that unexpected format reversion does not occur (see the *PDP-11 FORTRAN Language Reference Manual*).
- 45 Incompatible variable and format types** **FORTRAN F**  
 An attempt was made to output a real variable with an integer field descriptor or an integer variable with a real field descriptor. Correct the FORMAT statement associated with the READ or WRITE, ENCODE or DECODE statement.
- 46 Infinite format loop** **FORTRAN F**  
 The format associated with an I/O statement that includes an I/O list had no field descriptors to use in transferring those variables. Correct the FORMAT statement in error.
- 47 Attempt to store outside partition** **FORTRAN F**  
 In an attempt to store data in a subscripted variable, the address calculated for the array element in question did not lie within the section of memory allocated to the job. The subscript in question was out of bounds. (This message is issued only when bounds-checking modules have been installed in FORLIB, that is, FORLIB.V2S.) Correct the program logic.
- 48 Unit already open** **FORTRAN F**  
 An attempt was made to perform an operation illegal on an open file. Close the file before attempting to perform the operation.
- 49 ENDFILE on random file** **FORTRAN F**  
 An ENDFILE statement specified a unit number of a file that was currently open as a random-access file. (ENDFILE applies only to sequential files.) Correct the program logic.

- 50 Keyword value error in OPEN statement** **FORTTRAN F**
- An OPEN statement keyword that requires a value was given an illegal value.
- Correct the OPEN statement so that the value lies within the following ranges:
- |             |                 |
|-------------|-----------------|
| INITIALSIZE | -32768 to 32767 |
| EXTENDSIZE  | -32768 to 32767 |
| BLOCKSIZE   | 0 to 32767      |
- 51 Inconsistent OPEN/CLOSE specifications** **FORTTRAN F**
- The specifications in an OPEN and/or CLOSE statement have indicated one or more of the following: a NEW or SCRATCH file which is READONLY; the APPEND command was used with a NEW, SCRATCH, or READONLY file; the SAVE or PRINT command was used with a SCRATCH file; the DELETE or PRINT command was used with a READONLY file.
- Check the OPEN and CLOSE statements for consistency.
- 59 USR not locked** **FORTTRAN W**
- This message is issued when the FORTRAN program is started if the program was running in the foreground, the /NOSWAP option was used during compilation, and the USR was swapping (that is, a SET USR NOSWAP command has not been done).
- Reexamine the intent of the /NOSWAP option at compile time, and either compile without /NOSWAP or issue a SET USR NOSWAP command before running the program.
- 60 Stack overflowed** **FORTTRAN F**
- The hardware stack overflowed. More stack space may be required for subprogram calls and opening of files. Proper traceback is impaired. This message occurs in the background only.
- Allocate additional space by using the /BOTTOM option at link time. Check for a programming error.
- 61 Illegal memory reference** **FORTTRAN F**
- Some type of BUS error occurred, probably an illegal memory address reference. (In most cases, this is the FORTRAN equivalent of the monitor ?MON-F-Trap to 4 NNNNNN message.)
- If the error occurred within a user-written assembly language routine, check for an error in the source code and correct the programming logic. If the error occurred in the FORTRAN extensions package, verify that the register addresses used in the extensions library correspond to those on the present hardware. Verify that the correct FORTRAN library is being used.
- 62 FORTRAN start fail** **FORTTRAN F**
- The program was loaded into memory but there was not enough free memory remaining for the OTS to initialize work space and buffers.
- Refer to Section 3.0 of this manual for information on how to increase memory space. Recompile the FORTRAN program with /NOLINENUMBERS or link with \$SHORT; if running a foreground job, specify a larger value using the FRUN /BUFFER. Refer to the formulas in the *RT-11 Programmer's Reference Manual*.

**63 Illegal instruction****FORTRAN F**

The program attempted to execute an illegal instruction (for example, floating point arithmetic instruction on a machine with no floating point hardware). (This is the FORTRAN equivalent of the monitor ?*MON-F-Trap to 10 NNNNNN* message.)

If the error occurred within a user-written assembly language routine, check for an error in the source code and correct the programming logic. Otherwise, verify that the correct FORTRAN library is being used.

**64 Virtual array initialization failure****FORTRAN F**

FORTRAN cannot initialize a virtual array in the program. There are four typical causes for this error.

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. The total storage requirements for VIRTUAL arrays exceed system memory that is currently available.</li> <li>2. The program attempted PLAS VIRTUAL array support while running the FB monitor or SJ monitor.</li> <li>3. The program attempted non-PLAS VIRTUAL array support while running the XM monitor.</li> <li>4. Or the program called for PLAS support, but the system does not have EIS hardware.</li> </ol> | <ol style="list-style-type: none"> <li>1. Reduce VIRTUAL memory requirements by decreasing the declared size of VIRTUAL arrays. If two programs will be executing under the XM monitor with PLAS VIRTUAL support, verify that the total VIRTUAL array requirements for both programs does not exceed available memory.</li> <li>2. Use the XM monitor for PLAS VIRTUAL array support.</li> <li>3. Use the SJ or FB monitor for non-PLAS VIRTUAL array support.</li> <li>4. Use the XM monitor, and be sure that the system has EIS hardware when calling for PLAS support.</li> </ol> |
|---|---|

**65 Virtual array mapping error****FORTRAN F**

A statement referred to a location that was beyond the bounds of the extended memory region allocated for VIRTUAL arrays. For example, a subscript value was out of bounds.

Check the subscripts that define the array, and verify that they are within the bounds of the array.

**66 Unsupported OPEN/CLOSE keyword or option****FORTRAN F**

An option specified in the OPEN statement, such as EXTEND, is not supported by the current version of FORTRAN.

Correct the OPEN statement, using only those options that are valid for the current version of FORTRAN on your system.

**67 Unsupported OPEN/CLOSE keyword or option****FORTRAN W**

An option specified in the OPEN statement is not supported by the current version of FORTRAN.

Processing continues, but you should correct the OPEN statement when possible, using only those options that are valid for the current version of FORTRAN on your system.

**68 Direct access record size error****FORTRAN F**

The size of a direct-access record exceeded 32767 double words.

Correct the program logic.

<b>ERROR: ACCESS='DIRECT' requires form='unformatted'</b>		<b>FORTRAN</b>
FORM='FORMATTED' was specified for a direct-access file. FORTRAN IV supports only unformatted direct-access input/output.	Correct the program logic.	
<b>ERROR: Adjustable dimensions illegal for array ****</b>		<b>FORTRAN</b>
An adjustable array was not a dummy argument in a subprogram, or the adjustable dimensions were not integer dummy arguments in the subprogram. FORTRAN uses a dimension of 1.	Correct the source program.	
<b>ERROR: Array **** exceeds maximum size</b>		<b>FORTRAN</b>
See the message <i>ERROR: Array exceeds maximum size</i> .		
<b>ERROR: Array exceeds maximum size</b>		<b>FORTRAN</b>
The storage required for a single array or for all arrays in the program is more than 32K words.	If the message includes the array name, declare it with a smaller size and revise the other program statements that are affected by the change. Otherwise, check all array declarations and reduce the total requirement for array storage.	
<b>ERROR: Array **** has too many dimensions</b>		<b>FORTRAN</b>
The array noted in the message has more than seven dimensions.	Correct the array declaration and other program statements that are affected.	
<b>ERROR: **** attempts to extend COMMON block backwards</b>		<b>FORTRAN</b>
While equivalencing arrays in COMMON, an attempt was made to extend COMMON past the recognized beginning of COMMON storage.	Correct the program logic.	
<b>ERROR: COMMON block exceeds maximum size</b>		<b>FORTRAN</b>
An attempt was made to allocate more than 32K words to COMMON storage.	Correct the statement in error.	
<b>ERROR: Constant in FORMAT statement not in range</b>		<b>FORTRAN</b>
An integer constant in the FORMAT statement is not in the legal range, 1 to 255.	Correct the FORMAT statement.	
<b>ERROR: Dangling operator</b>		<b>FORTRAN</b>
An operator is missing an operand. For example, the statement I=J+ causes this message.	Correct the statement in error.	
<b>ERROR: Defective dotted keyword</b>		<b>FORTRAN</b>
A dotted relational operator was not recognized. Two examples of this situation are misplacing a decimal point or typing '.EW.' rather than '.EQ.'.	Check the spelling and format of relational operators in the statement, and check all decimal points. Correct the statement.	

<b>ERROR: DEFINE FILE mode must be 'U'</b>	<b>FORTRAN</b>
The third argument in the DEFINE FILE statement is not <i>U</i> (for <i>unformatted</i> ).	Replace the third argument with <i>U</i> .
<b>ERROR: DO terminator **** precedes DO statement</b>	<b>FORTRAN</b>
The statement specified as the DO loop terminator does not appear after the DO statement.	Correct the program logic.
<b>ERROR: Expecting left parenthesis after ****</b>	<b>FORTRAN</b>
An array name or function name was not followed by a left parenthesis.	Correct the statement.
<b>ERROR: Expecting left parenthesis after subprogram name</b>	<b>FORTRAN</b>
A subroutine name or function name was not followed by an argument list. Using the same variable name for both a local variable and a subprogram can cause this error.	Check the statement for typing errors and name conflicts. Correct any other statements in the program that are affected.
<b>ERROR: Extra characters at end of statement</b>	<b>FORTRAN</b>
There are extra characters following the legal statement on this line. This error can be caused by a missing comma or an unintentional continuation character on the line following the legal statement.	Check the statement and the following one for typing errors.
<b>ERROR: Floating constant not in range</b>	<b>FORTRAN</b>
A floating constant in an expression is too close to zero to be processed.	Use the constant 0.0, if possible. Correct the program logic to account for the change, if necessary.
<b>ERROR: Illegal adjacent operator</b>	<b>FORTRAN</b>
Two operators (such as +, *, and logical operators) were illegally placed next to each other. For example, $I=J+*N$ .	Correct the statement.
<b>ERROR: Illegal characters in expression</b>	<b>FORTRAN</b>
An illegal character was used in an expression in the statement.	Check for typing error and correct the statement.
<b>ERROR: Illegal DO terminator ordering at label ****</b>	<b>FORTRAN</b>
DO loops were nested improperly.	Correct the program so that the range of each inner DO loop is completely within the range of the proper outer DO loop.
<b>ERROR: Illegal DO terminator statement ****</b>	<b>FORTRAN</b>
The DO statement terminator is not legal. A DO statement terminator may not be a GOTO statement, an arithmetic IF statement, RETURN or another DO statement. A logical IF statement is not a legal DO terminator if it contains one of the other illegal terminators.	Use a legal DO statement terminator, and change the program logic, if necessary.

<b>ERROR: Illegal element in I/O list</b>	<b>FORTRAN</b>
There is a syntax error in the I/O list, because an item, expression, or implied DO specifier is incorrect.	Correct the I/O list.
<b>ERROR: Illegal ENCODE/DECODE FORMAT specifier</b>	<b>FORTRAN</b>
In the ENCODE or DECODE statement, the second argument inside the parentheses is an illegal format specification.	Correct the format specification by using a FORMAT statement label or an array name for the second argument inside the parentheses.
<b>ERROR: Illegal ENCODE/DECODE length expression</b>	<b>FORTRAN</b>
In the ENCODE or DECODE statement, the first argument inside the parentheses is an illegal length specification.	Correct the length specification by using an integer expression for the first argument inside the parentheses.
<b>ERROR: Illegal ENCODE/DECODE target</b>	<b>FORTRAN</b>
In the ENCODE or DECODE statement, the third argument inside the parentheses is an illegal target specification.	Correct the target specification by using an array name, an array element or a variable name for the third argument inside the parentheses.
<b>ERROR: Illegal initial value expression in DO statement</b>	<b>FORTRAN</b>
The equal sign (=) in the DO statement was not followed by a valid integer expression.	Correct the DO statement.
<b>ERROR: Illegal statement in BLOCK DATA</b>	<b>FORTRAN</b>
The BLOCK DATA subprogram contains an illegal statement. A FORMAT statement or any executable statement in a BLOCK DATA subprogram causes this error.	Correct the BLOCK DATA subprogram.
<b>ERROR: Illegal statement label reference</b>	<b>FORTRAN</b>
The statement contains an illegal statement label. The label must be from one to five digits long and may not contain only zeros.	Correct the faulty statement label.
<b>ERROR: Illegal statement on logical IF</b>	<b>FORTRAN</b>
The logical IF statement contains an invalid statement. For example, a logical IF statement may not contain another logical IF or DO statement.	Correct the IF statement and change the program logic, if necessary.
<b>ERROR: Illegal subscripts for subprogram argument</b>	<b>FORTRAN</b>
An illegal element was used in an array subscript list or in a subprogram argument list.	Correct the illegal element in the list.
<b>ERROR: Illegal type for operator</b>	<b>FORTRAN</b>
The wrong variable type was used for the operation. For example, an illegal variable type was used with an exponentiation or logical operator.	Check that each variable has the proper type for the operation FORTRAN is to perform.

<b>ERROR: Illegal usage of or missing left parenthesis</b>	<b>FORTRAN</b>
Either a required left parenthesis was omitted or an illegal left parenthesis was used. For example, a variable reference or constant illegally followed by a left parenthesis causes this error.	Correct the format of the statement.
<b>ERROR: Integer overflow</b>	<b>FORTRAN</b>
An integer constant or the value of an expression in the statement is outside the range -32768 to +32767.	Change the constant or expression so that its value is always within the range -32768 to +32767. Correct the program logic, if necessary.
<b>ERROR: Invalid complex constant</b>	<b>FORTRAN</b>
A complex constant in the statement was improperly formed.	Correct the complex constant.
<b>ERROR: Invalid dimensions for array ****</b>	<b>FORTRAN</b>
The value used as the dimension of an array is not in the range 1 to 32767.	Correct the value.
<b>ERROR: Invalid END= or ERR= keyword</b>	<b>FORTRAN</b>
The proper format was not used for an END= or ERR= specification in the input or output statement.	Check for a typing error in statement and correct it.
<b>ERROR: Invalid EQUIVALENCE</b>	<b>FORTRAN</b>
The EQUIVALENCE clause is illegal, or it conflicts with an earlier EQUIVALENCE.	Correct the program logic.
<b>ERROR: Invalid FORMAT specifier</b>	<b>FORTRAN</b>
The format specifier is invalid because it is not the label of a FORMAT statement or not an array name.	Correct the statement, using a proper format specifier.
<b>ERROR: Invalid implicit range specifier</b>	<b>FORTRAN</b>
An invalid implicit range specifier was used in the statement. A nonalphabetic specifier or a range that is in reverse alphabetic order causes this error.	Correct the statement so that the implicit range specifier indicates alphabetic characters that are in alphabetical order.
<b>ERROR: Invalid logical unit</b>	<b>FORTRAN</b>
A logical unit reference was used that is not an integer variable or constant in the range 1 to 99.	Correct the statement.
<b>ERROR: Invalid octal constant</b>	<b>FORTRAN</b>
An octal constant is too large or contains an illegal digit. Octal constants may only have 0 - 7 digits and must be in the range 0 (octal) to 177777 (octal).	Correct the octal constant.



<b>ERROR: Invalid optional length specifier</b>		<b>FORTRAN</b>
An invalid optional length specifier was used in the data type declaration. For example, REAL*4 and REAL*8 are valid, but REAL*6 has an invalid optional length.	Correct the declaration. Use valid length specifiers.	
<b>ERROR: Invalid RADIX-50 constant</b>		<b>FORTRAN</b>
A character in the RADIX-50 constant is not in the RADIX-50 character set.	Correct the RADIX-50 constant.	
<b>ERROR: Invalid subroutine or function name</b>		<b>FORTRAN</b>
A CALL statement or function reference contains an invalid name. An array name in a CALL statement would cause this error.	Check for typing errors, and check that the statement refers to valid names.	
<b>ERROR: Invalid target for assignment</b>		<b>FORTRAN</b>
The left side of the arithmetic assignment statement is not a variable name or a reference to an array element.	Correct the statement.	
<b>ERROR: Invalid type specifier</b>		<b>FORTRAN</b>
The statement contains an unrecognizable data type.	Correct the statement, using valid data types.	
<b>ERROR: Invalid usage of subroutine or function name</b>		<b>FORTRAN</b>
A subroutine or function name was used in a DIMENSION, COMMON, DATA, EQUIVALENCE or data type declaration statement.	Correct the statement.	
<b>ERROR: Invalid variable name</b>		<b>FORTRAN</b>
A variable name is invalid because it contains an invalid character, it does not begin with an alphabetic character, or it is missing entirely.	Correct the variable name.	
<b>ERROR: Label on declarative statement</b>		<b>FORTRAN</b>
A label was used on a declaration statement.	Correct the statement by removing the label.	
<b>ERROR: Missing 'TO' in ASSIGN statement</b>		<b>FORTRAN</b>
The label specification in the ASSIGN statement was not followed by the keyword TO.	Correct the statement.	
<b>ERROR: Missing assignment operator</b>		<b>FORTRAN</b>
An equal sign was omitted or misplaced in the statement. For example, the invalid statement I+JJ=K would cause this error.	Correct the statement.	
<b>ERROR: Missing comma</b>		<b>FORTRAN</b>
A required comma delimiter was omitted.	Correct the format of the statement.	

<b>ERROR: Missing comma in OPEN or CLOSE keyword list</b>		<b>FORTRAN</b>
Two options in an OPEN or CLOSE keyword list were not separated by a comma.	Correct the statement.	
<b>ERROR: Missing delimiter in expression</b>		<b>FORTRAN</b>
The operator is missing from between two operands in an expression.	Correct the statement.	
<b>ERROR: Missing expression</b>		<b>FORTRAN</b>
A required expression was left out of the statement. For example, the limit expression in a DO statement was omitted.	Correct the statement.	
<b>ERROR: Missing label</b>		<b>FORTRAN</b>
FORTRAN expected a statement label but could not identify one. For example, in the statement ASSIGN J TO I, J is not a valid label reference where the ASSIGN statement requires one.	Correct the statement, using valid statement labels where syntax rules require them.	
<b>ERROR: Missing label list after comma</b>		<b>FORTRAN</b>
In the assigned GOTO statement, a comma follows the integer variable but there is no label list.	Check for typing errors, and correct the statement.	
<b>ERROR: Missing left parenthesis after OPEN or CLOSE</b>		<b>FORTRAN</b>
The keyword list of the OPEN or CLOSE statement is not preceded by a left parenthesis.	Check for a typing error, and correct the statement.	
<b>ERROR: Missing operator after expression</b>		<b>FORTRAN</b>
An expression in the statement was not terminated with a comma, right parenthesis, or operator.	Correct the statement.	
<b>ERROR: Missing quotation mark</b>		<b>FORTRAN</b>
In the FIND statement, a single quotation mark ['] is missing from between the logical unit number and record number.	Correct the FIND statement.	
<b>ERROR: Missing right parenthesis</b>		<b>FORTRAN</b>
A right parenthesis is out of place or missing entirely. For example, in the statement READ(5,100,) the first non-blank character following the format reference should be a right parenthesis.	Correct the statement.	
<b>ERROR: Missing value for keyword in OPEN or CLOSE statement</b>		<b>FORTRAN</b>
A keyword that requires a value was specified without a value.	Correct the statement.	

<b>ERROR: Missing variable</b>		<b>FORTRAN</b>
FORTRAN expected a variable but could not find one. For example, in the statement ASSIGN 100 TO 5, no recognizable variable name follows TO.	Correct the statement.	
<b>ERROR: Missing variable or constant</b>		<b>FORTRAN</b>
There is a comma, parenthesis, or other delimiter where FORTRAN expected a variable or constant. For example, in the statement WRITE(), a unit number should follow the left parenthesis.	Check the format of the statement and correct it.	
<b>ERROR: Mode of expression must be integer</b>		<b>FORTRAN</b>
A required integer variable or expression was omitted. For example, one of these is required in the initial, terminal, and increment parameters of a DO statement.	Check the format of the statement and correct it.	
<b>ERROR: Modes of variable **** and data item differ</b>		<b>FORTRAN</b>
In the DATA statement, the data type of the variable and an item in its associated data list do not agree.	Check the statement for a format error. Verify that the declared or default data type for the variable is appropriate. Check for a typing error in the variable's associated data list.	
<b>ERROR: Multiple declaration for variable ****</b>		<b>FORTRAN</b>
The variable specified appears in another dimensioning statement or data type declaration.	Correct the program logic.	
<b>ERROR: Multiple declaration of OPEN or CLOSE keyword</b>		<b>FORTRAN</b>
In the OPEN or CLOSE statement, the same keyword was used more than once.	Remove all incorrect references to the keyword from the statement.	
<b>ERROR: OPEN or CLOSE keyword value must be quoted string</b>		<b>FORTRAN</b>
A keyword in the statement requires a quoted string value but was given an expression value.	Correct the syntax of the statement.	
<b>ERROR: OPEN or CLOSE statement requires UNIT= specifier</b>		<b>FORTRAN</b>
The OPEN or CLOSE statement could not select the proper logical unit because the UNIT= specification was omitted.	Add a UNIT= specification statement.	
<b>ERROR: P-SCALE factor not in range -127 to +127</b>		<b>FORTRAN</b>
A P-SCALE factor is outside the valid range -127 to +127.	Correct the statement.	
<b>ERROR: Parentheses nested too deeply</b>		<b>FORTRAN</b>
Group repeats in the FORTRAN statement were nested beyond the maximum of eight levels supported by FORTRAN.	Revise the FORMAT statement.	

<b>ERROR: Program or block data statement must be first</b>	<b>FORTRAN</b>
A program name statement or a block data name statement was used, but not as the first statement.	Make sure these statements, if used, appear first in your program.
<b>ERROR: Reference to incorrect type of label ****</b>	<b>FORTRAN</b>
The statement refers to another statement that is the wrong type. For example, a READ statement refers to an executable statement; or a GOTO statement refers to a FORMAT statement.	Check for a typing error in the label. If the label is correct, change the program logic.
<b>ERROR: Reference to undefined statement label</b>	<b>FORTRAN</b>
A statement label was referenced that was not defined anywhere in the program unit.	Correct the program logic.
<b>ERROR: Statement must be unlabeled</b>	<b>FORTRAN</b>
A label was used on a DATA, SUBROUTINE, FUNCTION, BLOCK DATA, statement function definition, or declarative statement.	Remove the label from the statement.
<b>ERROR: Statement too complex</b>	<b>FORTRAN</b>
An arithmetic statement function has more than 10 dummy arguments or is too long for FORTRAN to process.	Reduce the dummy argument list to 10 or fewer. Break long statements into two or more shorter statements.
<b>ERROR: Subroutine or function statement must be first</b>	<b>FORTRAN</b>
A SUBROUTINE, FUNCTION, or BLOCK DATA statement appears in the program unit, but not as the first statement.	Verify that a SUBROUTINE, FUNCTION, or BLOCK DATA statement being used in a program unit is the first statement in that program unit.
<b>ERROR: Subscript of array **** not in range</b>	<b>FORTRAN</b>
A value in an array subscript is larger than the corresponding dimension of the array.	Correct the program so that no subscript values are calculated or assigned beyond the declared dimensions of any array.
<b>ERROR: Syntax error</b>	<b>FORTRAN</b>
The statement was formatted incorrectly.	Review the general format for the faulty statement, and correct it.
<b>ERROR: Syntax error in integer or floating constant</b>	<b>FORTRAN</b>
The wrong form was used for an integer or floating constant. For example, 1.23.45 contains two decimal points.	Correct the constant.
<b>ERROR: Syntax error in label list</b>	<b>FORTRAN</b>
The list of labels for an assigned GOTO or computed GOTO statement contains an error. The error may have been caused by a format error in the label list or a label reference to a statement that is not executable.	Check the format of the label list, and verify that each label in the list is an executable statement. Correct the statement.

<b>ERROR: Target must be array</b>	<b>FORTRAN</b>
An array element referenced in an ENCODE/DECODE statement was not previously dimensioned.	Check the logic of your program. Make sure all arrays have been dimensioned.
<b>ERROR: Unary operator has too many operands</b>	<b>FORTRAN</b>
Two or more operands were used in a statement with an operator that can only have one operand. For example, .NOT. must have a single operand.	Check for typing errors in the statement, including omitted operators and omitted parentheses. Correct the statement.
<b>ERROR: Unlabeled FORMAT statement</b>	<b>FORTRAN</b>
The FORMAT statement does not have a label.	Replace columns 1 through 5 with the proper label.
<b>ERROR: Unrecognized keyword in OPEN or CLOSE statement</b>	<b>FORTRAN</b>
The OPEN or CLOSE statement contains a keyword that the FORTRAN compiler could not recognize.	Check for typing errors in the OPEN or CLOSE statement and correct them.
<b>ERROR: Unrecognized value for OPEN or CLOSE keyword</b>	<b>FORTRAN</b>
The OPEN or CLOSE statement contains a keyword with an invalid quoted string value. For example, DISPOSE = "SURE".	Correct the invalid quoted string value.
<b>ERROR: Usage of variable **** invalid</b>	<b>FORTRAN</b>
An attempt was made to use a common variable, an array variable or a dummy argument as an EXTERNAL variable; or an attempt was made to place a dummy argument or external name in COMMON.	Correct the program logic.
<b>ERROR: Value of constant not in range</b>	<b>FORTRAN</b>
<ol style="list-style-type: none"> <li>1. An integer constant in the line exceeds 65535, the maximum unsigned value.</li> <li>2. The dimension for an array is invalid.</li> <li>3. A floating point constant has an exponent that is too large.</li> </ol>	Correct the statement.
<b>ERROR: Variable **** invalid in adjustable dimension</b>	<b>FORTRAN</b>
A variable used as an adjustable dimension is not an integer dummy argument in the sub-program unit.	Correct the program.
<b>ERROR: Wrong number of operands for binary operator</b>	<b>FORTRAN</b>
Only one operand was used in a statement with an operator that requires two. For example, in the statement I=*J the multiplication operator requires two operands.	Check for typing errors and correct the statement.

**ERROR: Wrong number of subscripts for array \*\*\*\***

**FORTTRAN**

An array reference does not have the same number of subscripts as was specified when the array was dimensioned. Correct the array reference.

**?FORTTRAN-F-Code generation stack overflow**

A statement in the program is too complex to process. Simplify complex statements.

**?FORTTRAN-F-Compiler fatal error, analysis follows**

The FORTRAN IV compiler malfunctioned. A summary of the malfunction follows this message. It includes a partial dump of the compiler, relevant non-FORTTRAN messages about the cause of the malfunction, and specific instructions to be followed. If the analysis includes suggestions for correcting the malfunction, try them. In any case, follow the instructions for reporting the malfunction.

**?FORTTRAN-F-Constant subscript stack overflow**

There are too many constant subscripts in a program statement. Simplify the statement.

**?FORTTRAN-F-Device full**

There is not enough room on the output volume for the object or listing files. Make more space available by deleting unnecessary files or by using the SQUEEZE command. Otherwise, direct the object or listing files to another device or use another volume in the same device.

**?FORTTRAN-F-Dynamic memory overflow**

The program unit being compiled cannot be processed in the available memory space. Break the program unit into smaller subprograms, or run the program on a larger machine.

**?FORTTRAN-F-Error reading source file**

An unrecoverable error occurred while the compiler was attempting to read a source program input file. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORTTRAN-F-Error writing listing file**

An unrecoverable error occurred while the compiler was attempting to write the listing output file. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORTTRAN-F-Error writing object file**

An unrecoverable error occurred while the compiler was attempting to write the object program output file. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORTTRAN-F-File not found**

An input file specified in the command string could not be found on the specified device. Correct the command string to refer to an existing file or proper device, or install the proper volume.

**?FORTRAN-F-HELP file not found**

The FORTRAN IV HELP file, SY:FOR-TRA.HLP, does not exist on the system volume.

Replace the file from the FORTRAN IV distribution medium.

**?FORTRAN-F-Illegal command**

An illegal format was used for the command string presented to the compiler.

Correct the command string.

**?FORTRAN-F-Illegal device**

An illegal device was specified in the compiler command string.

Correct the device specification in the command string.

**?FORTRAN-F-Illegal value for /x switch**

An illegal or improper value was used for the option (/x) in the command string.

Refer to the *PDP-11 FORTRAN Language Reference Manual* for compiler option information.

**?FORTRAN-F-Optimizer stack overflow**

A statement is too complex to process or too many common subexpressions are present in a single basic block of the source program.

Simplify complex statements.

**?FORTRAN-F-Subexpression stack overflow**

While compiling the program, FORTRAN encountered a statement that may cause the run-time stack to overflow at execution time.

Simplify complex statements.

**?FORTRAN-F-Unknown switch-/x**

An invalid option was used in the command string.

Refer to the *PDP-11 FORTRAN Language Reference Manual* for compiler option information.

**?FORTRAN-I-AAAAAA Errors: NNNNNN, Warnings:MMMMMM**

FORTRAN provides this summary for each program unit when it completes compilation. AAAAAA is a six-character name of the program unit. NNNNNN and MMMMMM are the numbers of errors and warning conditions found.

This message is informational.

**WARNING: Loop entry at label \*\*\*\* precludes optimizations**

**FORTTRAN**

A statement outside the DO loop transfers control to this statement inside the DO loop. This is an error if the loop does not have extended range. In any case, FORTRAN does not attempt to optimize the loop.

To permit optimization, change the program and loop logic so that control does not transfer from outside a DO loop to a labeled statement within a DO loop.

**WARNING: Non-standard statement ordering****FORTRAN**

Program statements were not ordered according to the requirements stated in the *PDP-11 FORTRAN Language Reference Manual*.

To be sure that programs can run on other FORTRAN compilers, standardize statement ordering according to the requirements stated in the *PDP-11 FORTRAN Language Reference Manual*.

Although the FORTRAN IV compiler has less restrictive rules for statement ordering than those covered in the *PDP-11 FORTRAN Language Reference Manual* (Chapter 7), violating the stricter rules may mean that programs will not run on other FORTRAN compilers.

**WARNING: Possible modification of \*\*\*\*****FORTRAN**

A variable that is a control parameter of a DO loop may possibly be modified by a statement within the DO loop.

To permit optimization, change the program logic so that DO loop control parameters are not changed by statements within their DO loops.

**WARNING: Variable \*\*\*\* is not word aligned****FORTRAN**

1. A variable or array that is not LOGICAL\*1 was placed in COMMON after a LOGICAL\*1 variable or array.
2. LOGICAL\*1 and non-LOGICAL\*1 variables or arrays, were equivalenced in a program.
3. Attempts to reference the variables or arrays that are not word-aligned at run time will cause an error condition.

This message serves as a warning.

**WARNING: Variable \*\*\*\* name exceeds six characters****FORTRAN**

The FORTRAN IV compiler uses the first six characters of the variable name. Other FORTRAN compilers may consider the overlong name to be an error.



## 6.0 BASIC-11 Messages

This section contains every message displayed by single-user BASIC-11. See the *BASIC-11 Language Reference Manual* for more information about BASIC-11 error conditions.

### 6.1 Special Information About BASIC-11 Messages

This section contains both the abbreviated and long forms of messages from BASIC-11. (You can choose to have either the abbreviated or long forms of messages appear on your display terminal or hard copy terminal listing. See the *BASIC-11/RT-11 Installation Guide* for details on link options.)

Each abbreviated message, followed by its long form, is alphabetized in this section in the following format:

```
?LFM  
?LONG FORM OF MESSAGE                BASIC-11  W or F
```

The first and second lines of the format contain the abbreviated and long forms, respectively, of a message from BASIC-11.

Information that does not appear on your display terminal or hard copy terminal listing appears to the right of the message from BASIC-11. For the purpose of this manual, it indicates that BASIC-11 displayed the message and gives the severity code for the condition that the error message reports. The severity code indicates that the error condition is either a warning or a fatal error. The one-letter code W, meaning warning, indicates that execution continues although the program detected a condition that may cause errors to occur. Corrective action may be necessary at a later time. The one-letter code F, meaning fatal, indicates that execution terminates because the program detected a serious error. You must enter another command to continue processing.

### 6.2 Reducing the Size of Your BASIC-11 Program

Some BASIC-11 errors occur because there is not enough memory available. You can sometimes correct this problem by reducing the size of the BASIC-11 program. In addition to the suggestions contained in section 3.0 of this manual, here are some ways to create more space:

- Eliminate or reduce unnecessary items such as REMARK statements, long error messages, and optional keywords such as LET.

- Make maximum use of multiple statement lines.

- Make efficient use of program loops, subroutines, and user-defined functions.

- Split up large programs into several smaller programs by using the CHAIN or OVERLAY statements.

- Reduce the size of arrays in memory to the size required (using the DIM statement).

Use virtual array files for arrays that are too large to fit into memory.

Reduce the number of simultaneously open files by opening a file just before you need it and closing it immediately after the last use.

After you delete program lines, store the program with the SAVE command and restore it with the OLD command to further optimize program memory requirements.

### 6.3 List of BASIC-11 Messages

?ARG

**?ARGUMENT ERROR**

**BASIC-11 F**

Arguments in a function do not match (in number, range, or type) the arguments defined for the function.

Check that the arguments in the function are of the proper type and number and are in the correct range.

?ATL

**?ARRAYS TOO LARGE**

**BASIC-11 F**

Not enough memory is available for the arrays specified in the DIM statements.

Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program.

?BDR

**?BAD DATA READ**

**BASIC-11 F**

The wrong data type was used for data items to be used as input from a DATA statement or from a file.

Make sure that the elements in the data list are in the correct format as specified in the READ or INPUT statement.

?BLG

**?BAD LOG**

**BASIC-11 W**

The expression in a LOG or LOG10 function equals 0 or is negative. BASIC-11 inserts a result of zero and processing continues.

Correct the program logic, if necessary.

?BRT

**?BAD DATA-RETYPE FROM ERROR**

**BASIC-11 W**

The wrong data type was entered in response to an INPUT statement.

Retype the item that caused the error and execution will continue.

?BSO

**?BUFFER STORAGE OVERFLOW**

**BASIC-11 F**

There is not enough room in memory for the file buffer.

Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program.

?CAO

**?CHANNEL ALREADY OPEN**

**BASIC-11 F**

The OPEN statement specifies a channel that is already associated with an open file.

Correct the program logic; specify another device channel, or eliminate redundant program statements.

?CCP

**?CHECKSUM ERROR IN COMPILED PROGRAM**

**BASIC-11 F**

The file produced by the COMPILE command contains a format error.

Use a copy of the program created by a SAVE or REPLACE command.

<b>?CIE</b>		
<b>?CHANNEL I/O ERROR</b>		<b>BASIC-11 F</b>
Opening or closing a channel produced an error.	Make sure that the peripheral devices and their storage media are working correctly. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. One possible cause for this error is that the file accessed has a length of 0.	
<b>?CNO</b>		
<b>?CHANNEL NOT OPEN</b>		<b>BASIC-11 F</b>
A PRINT #, PRINT USING #, IF END #, or CLOSE statement specifies a file number not associated with an open file.	Use the OPEN statement to assign a file number before attempting to input or output data with the file.	
<b>?COO</b>		
<b>?COMMON OUT OF ORDER</b>		<b>BASIC-11 F</b>
Variables in a program segment were not defined in the same sequence and position as those in a previous segment.	Check that the variables to be shared by programs are listed in the same order in the COMMON statements of each program.	
<b>?CVO</b>		
<b>?CONTROL VARIABLE OUT OF RANGE</b>		<b>BASIC-11 F</b>
The value assigned to the control variable in either the ON GOTO or the ON GOSUB statement was not a positive integer in the range 1-n, where <i>n</i> represents the number of branching options following GOTO or GOSUB.	Execution halts. Correct the program logic and re-try the program.	
<b>?DVO</b>		
<b>?DIVISION BY ZERO</b>		<b>BASIC-11 W</b>
An attempt was made to divide some quantity by 0.	Correct the program logic, if necessary.	
BASIC-11 substitutes a value of 0 for the result and processing continues.		
<b>?EER</b>		
<b>?EXPONENTIATION ERROR</b>		<b>BASIC-11 W</b>
An attempt was made to compute the value $A^B$ , where $A < 0$ and $B$ was not an integer or $B > 255$ . This produces a complex number. (Complex numbers are not representable in BASIC-11.) This message occurs only if the value of $A$ was computed.	Correct the program logic if necessary. Be sure to use valid values for $A$ and $B$ .	
BASIC-11 substitutes a value of zero for the result and execution continues.		
<b>?EIE</b>		
<b>?EXCESS INPUT IGNORED</b>		<b>BASIC-11 W</b>
More data items were input from the terminal than the INPUT statement requested.	Check the program logic; make sure it is clear to the user how many data items should be supplied in response to the question mark (?) prompt.	
Excess data items are ignored and processing continues.		

<b>?ENL</b> <b>?END NOT LAST</b>	<b>BASIC-11 F</b>
The END statement was not the last statement in a BASIC-11 program.	The line number of the END statement must be the highest line number in the program, since any lines having line numbers higher than that of the END statement are not executed. Correct the program and retry.
<b>?ETC</b> <b>?EXPRESSION TOO COMPLEX</b>	<b>BASIC-11 F</b>
An expression is too complex for BASIC-11 to evaluate in the stack area. This may occur because parentheses were nested too deeply or because of many complex user-defined functions.	The degree of complexity that produces this error varies according to the amount of space available in the stack at the time. Break the statement into several simpler ones. Consult the <i>BASIC-11/RT-11 Installation Guide</i> for a method of patching BASIC-11 to increase the stack size.
<b>?FAD</b> <b>?FUNCTION ALREADY DEFINED</b>	<b>BASIC-11 F</b>
The user-defined function was already defined by an earlier statement. BASIC-11 ignores the new definition and continues to apply the earliest one.	Change conflicting function definitions so that each function is defined only once.
<b>?FNF</b> <b>?FILE NOT FOUND</b>	<b>BASIC-11 F</b>
BASIC-11 could not find the requested file on the specified device.	Check for a typing error in the command line. Verify that the device, file name, and file type exist as specified.
<b>?FOV</b> <b>?FLOATING OVERFLOW</b>	<b>BASIC-11 W</b>
The absolute value of the result of a computation is greater than the largest number that can be stored by BASIC-11 (approximately $10^{38}$ ).  BASIC-11 substitutes a value of 0 for the result and processing continues.	This message serves as a warning.
<b>?FSV</b> <b>?NESTED FOR STATEMENTS WITH SAME CONTROL VARIABLE</b>	<b>BASIC-11 F</b>
Nested FOR statements of the form <i>FOR variable = expression 1 TO expression 2 STEP expression 3</i> used the same variable to control execution.	Correct the program logic; for example, if nested FOR statements occur, use I for the first control variable and T or I2 for the second.
<b>?FTS</b> <b>?FILE TOO SHORT</b>	<b>BASIC-11 F</b>
The sequential file space allocated to an output file is inadequate. The file is not closed and all data is lost.	Use another device or perform housekeeping on the device to make more space available. If the error occurs in a data file, specify a larger FILESIZE. If the error occurs in a program file, delete unused files with the UNSAVE command and retry the operation.

<b>?FUN</b>		
<b>?FLOATING UNDERFLOW</b>		<b>BASIC-11 W</b>
The absolute value of the result of a computation is less than the smallest number that can be stored by BASIC-11 (approximately $10^{-38}$ ).	This message serves as a warning.	
BASIC-11 substitutes a value of zero for the result and processing continues.		
<b>?FWN</b>		
<b>?FOR WITHOUT NEXT</b>		<b>BASIC-11 F</b>
The program contained a FOR statement without a corresponding NEXT statement to terminate the loop.	Make sure that each FOR-NEXT loop in the program is terminated by a NEXT statement.	
<b>?ICN</b>		
<b>?ILLEGAL CHANNEL NUMBER</b>		<b>BASIC-11 F</b>
The file number specified is not in the range 1-255 or the IF END statement specifies a file on a terminal.	Correct the statement in error and retry.	
<b>?IDM</b>		
<b>?ILLEGAL DIM</b>		<b>BASIC-11 F</b>
A subscript in a DIM or COMMON statement is not an integer, an array is dimensioned more than once, or an array has more than two dimensions.	Correct the syntax of the dimension statement.	
<b>?IEF</b>		
<b>?ILLEGAL END OF FILE IN COMPILED FILE</b>		<b>BASIC-11 F</b>
The file produced by the COMPILE command contains a format error.	Use a copy of the program created by a SAVE or REPLACE command.	
<b>?IFL</b>		
<b>?ILLEGAL FILE LENGTH</b>		<b>BASIC-11 F</b>
An illegal value was supplied to the FILESIZE option in an OPEN statement.	Refer to the <i>BASIC-11/RT-11 User's Guide</i> for information on the valid range for FILESIZE.	
<b>?IFS</b>		
<b>?ILLEGAL FILE SPECIFICATION</b>		<b>BASIC-11 F</b>
BASIC-11 was unable to interpret the file definition statements as entered because the character string used does not define a valid file specification.	Refer to the <i>BASIC-11 Language Reference Manual</i> for the correct format of the virtual memory file OPEN statement.	
<b>?IID</b>		
<b>?ILLEGAL I/O DIRECTION</b>		<b>BASIC-11 F</b>
An attempt was made to output to a file specified as input or to input from a file defined as output.	Check the OPEN statements to make sure the proper device and file specifications were entered.	

**?IIM****?ILLEGAL IN IMMEDIATE MODE****BASIC-11 F**

An attempt was made to execute an INPUT statement while in immediate mode.

Enter the statement in a program line (followed by a STOP) and execute the statement with an immediate mode GO TO statement.

**?INS****?INCONSISTENT NUMBER OF SUBSCRIPTS****BASIC-11 F**

A subscripted variable was referenced in a way that is inconsistent with the definition of the array in the DIM statement. For example, there were two subscripts in the DIM statement and only one in the reference line, or there was one subscript in the DIM statement and two in the reference line.

Correct the DIM statement to change the amount of space allocated for the array or correct the reference line.

**?IOV****?INTEGER OVERFLOW****BASIC-11 W**

An integer variable was assigned a value greater than +32767 or less than -32768, or an integer expression produced a result that exceeded this range.

The variable or expression should be changed to floating point format.

BASIC-11 substitutes a value of 0 for the result and processing continues.

**?ISE****?INPUT STRING ERROR****BASIC-11 W**

A string entered in response to an INPUT statement began with a single or a double quotation mark but was not terminated by a matching quotation mark.

Correct the INPUT string if necessary.

BASIC-11 assigns to the string all the characters between the initial quote and the line terminator; execution continues.

**?LTL****?LINE TOO LONG****BASIC-11 W**

The line typed is longer than 132 characters.

Break the line into two or more lines or, if reading from a file, make sure that the file contains only legal BASIC-11 program lines.

The line buffer overflows and the line is ignored.

**?MSP****?MISSING SUBPROGRAM****BASIC-11 F**

A CALL statement specifies a nonexistent routine name.

Verify that the subprogram requested exists as specified, that its name was correctly typed, and that it does not contain any logical errors.

**?NER****?NOT ENOUGH ROOM****BASIC-11 F**

There is not enough free memory for the FILESIZE specified.

Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program to increase the amount of free memory.

<b>?NGS</b>		
<b>?NEGATIVE SQUARE ROOT</b>		<b>BASIC-11 W</b>
An expression in the square root function has a negative value.	Correct the program logic, if necessary.	
BASIC-11 substitutes a value of 0 for the result and processing continues.		
<b>?NRC</b>		
<b>?NO ROOM FOR CALL</b>		<b>BASIC-11 F</b>
Not enough memory was available to process the CALL statement.	Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program.	
<b>?NSM</b>		
<b>?NUMBERS AND STRINGS MIXED</b>		<b>BASIC-11 F</b>
String and numeric variables were used in the same expression, or they were set equal to each other (as in A\$=2).	Make sure that numeric expressions are assigned to numeric variables and string expressions are assigned to string variables (for example, A=2 and A\$="2").	
<b>?NWF</b>		
<b>?NEXT WITHOUT FOR</b>		<b>BASIC-11 F</b>
A NEXT statement was used without a corresponding FOR statement or control was transferred into the middle of a loop.	Make sure that each loop begins with a FOR statement and ends with a NEXT statement. Make sure that FOR-NEXT loops are entered only by executing the FOR statement.	
<b>?OOD</b>		
<b>?OUT OF DATA</b>		<b>BASIC-11 F</b>
A READ statement requested additional data, but the data list was exhausted.	Add data items, or reuse data by executing the RESTORE statement.	
<b>?PRU</b>		
<b>?PRINT USING ERROR</b>		<b>BASIC-11 F</b>
1. In the PRINT USING statement, the format specification is not a valid string, is null, or does not contain one valid field.	Correct the PRINT USING statement.	
2. An attempt was made to print a numeric value in a string field, print a string value in a numeric field, or print a negative number in a floating asterisk or floating dollar sign field that does not also specify a trailing minus sign.		
3. The items in the list of strings to be printed are not separated by commas or semicolons.		
<b>?PTB</b>		
<b>?PROGRAM TOO BIG</b>		<b>BASIC-11 F</b>
The line just entered caused the program to exceed the user memory area.	Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program.	

<b>?RES</b>		
<b>?RESEQUENCE ERROR</b>		<b>BASIC-11 F</b>
An illegal optional argument was supplied to the RESEQ command.	Check that the arguments are valid numbers for old starting line number, new starting line number, and interval.	
<b>?RPL</b>		
<b>?USE REPLACE</b>		<b>BASIC-11 F</b>
A file name already associated with an existing file was used in saving a program. The operation does not occur and the original file is not disturbed.	Use a different name, or use the REPLACE command.	
<b>?RWG</b>		
<b>?RETURN WITHOUT GOSUB</b>		<b>BASIC-11 F</b>
A RETURN statement was encountered before its corresponding GOSUB statement.	Check the program logic for correct branching instructions. Do not transfer control to a subroutine except by executing a GOSUB or ON GOSUB statement.	
<b>?SOB</b>		
<b>?SUBSCRIPT OUT OF BOUNDS</b>		<b>BASIC-11 F</b>
The subscript computed is less than 0, greater than 32767, or outside the bounds defined in the DIM statement.	Make sure that array subscripts fall within the legal range.	
<b>?SSO</b>		
<b>?STRING STORAGE OVERFLOW</b>		<b>BASIC-11 F</b>
There is not enough memory to store all the strings used in the program.	Refer to Section 6.2 of this manual for information on how to reduce the size of a BASIC-11 program.	
<b>?STL</b>		
<b>?STRING TOO LONG</b>		<b>BASIC-11 F</b>
The length of a string in a statement exceeded 255 characters.	Split the string into several smaller strings.	
<b>?SUB</b>		
<b>?SUBSTITUTE ERROR</b>		<b>BASIC-11 F</b>
The second delimiter was omitted from between the strings in the SUB command, or the command created an immediate mode statement.	Check for typing errors and reenter the SUB command.	
<b>?SYN</b>		
<b>?SYNTAX ERROR</b>		<b>BASIC-11 F</b>
The program encountered an unrecognizable statement. Common examples of syntax errors are misspelled commands, unmatched parentheses, and other typographical errors. The wrong number of arguments or an illegal delimiter in a function can also cause this error.	Check for a typing error. Correct the program statement.	



<b>?TIC</b>		
<b>?TOO MANY ITEMS IN COMMON</b>		<b>BASIC-11 F</b>
The number of items specified in COMMON exceeds the limit, which is 255.	Reduce the number of items in COMMON by converting individual variables to elements of an array or by passing fewer items to the next program segment.	
<b>?TLT</b>		
<b>?LINE TOO LONG TO TRANSLATE</b>		<b>BASIC-11 F</b>
The line just entered exceeds the area available for translation (input strings are translated as they are entered).	Break the line into two lines. If reading from a file, make sure that the file contains only legal BASIC-11 program lines.	
BASIC-11 ignores the line.		
<b>?TMG</b>		
<b>?TOO MANY GOSUBS</b>		<b>BASIC-11 F</b>
GOSUBs were nested too deeply.	Restrict GOSUB nesting to 20 levels.	
<b>?UAC</b>		
<b>?UNDIMENSIONED ARRAY IN CALL</b>		<b>BASIC-11 F</b>
The first reference to an undimensioned array appears in a CALL statement.	Dimension the array with the DIM statement.	
<b>?UFN</b>		
<b>?UNDEFINED FUNCTION</b>		<b>BASIC-11 F</b>
The function called was not defined by the program or was not loaded with BASIC-11. A function is defined only after it has been executed or chained to. A user-defined function cannot be defined by an immediate mode statement.	Define all undefined functions in the program. Check all function calls in the statement for correct spelling.	
<b>?ULN</b>		
<b>?UNDEFINED LINE NUMBER</b>		<b>BASIC-11 F</b>
The line number specified in an IF, GO TO, GOSUB, or CHAIN statement does not exist in the program.	Check the program logic.	
<b>?VCU</b>		
<b>?VIRTUAL ARRAY CHANNEL ALREADY IN USE</b>		<b>BASIC-11 F</b>
The virtual array channel specified in a DIM statement already appeared in another DIM statement.	Correct the program logic; use a different channel.	



## 7.0 System Messages

This section contains all diagnostic messages from the RT-11 monitor and system programs. If you cannot determine the location of your error by reading the explanation for the message in this section, see the *RT-11 System User's Guide* for a description of the system program or utility that displayed the message.

### 7.1 Special Information About RT-11 System Messages

See Section 1.2 for a description of the format of RT-11 system messages.

### 7.2 List of System Messages

#### ?BA-U-BC

**BATCH**

The BATCH handler found bad code in the control file. This can happen when a .CTL file is garbled or if someone made an editing mistake when altering or creating the file with a text editor.

Make sure that no editing errors have been introduced into the file. Recompile the .BAT file.

#### ?BA-U-FE

**BATCH F**

1. An illegal \F followed by a carriage return was used in the .CTL file, causing a forced end.
2. BATCH was terminated from the console by a \F followed by a carriage return.

1. Insert another BATCH control directive after the \F to prevent forced termination.
2. Do not type \F followed by a carriage return at the console unless you intend to terminate BATCH.

#### ?BA-U-IO

**BATCH F**

An input or output error occurred — probably because of a log file overflow — when the BATCH handler attempted to read the .CTL file or write to the log file.

Rerun the BATCH stream, specifying a larger log file with the square bracket construction (the default log size is 64 decimal blocks).

This message may also appear if the BATCH control file (.CTL) was not in the correct format. Common format errors occur when you run an uncompiled BATCH input file or use a directive to the BATCH run-time system that is preceded by one backslash instead of two.

Make sure that the .CTL file is a valid control file output by the BATCH compiler and that the directives to the BATCH run-time system are in the correct format.

#### ?BA-U-LU

**BATCH F**

The BATCH handler could not find a free channel or a channel it could use. (This can happen if all 16 channels are opened for magtape or cassette operations within the BATCH stream.)

Check the program and make sure that one channel is left open or is not used by magtape or cassette.

## BASIC-11 messages

Section 6.0 contains all BASIC-11 messages.

### NOTE

The BATCH program message END BATCH is alphabetized with messages beginning with the letter "E".

#### ?BATCH-F-'\$' missing

A dollar sign (\$) is not present in the first position of the command line (or card column 1).

Make sure that a dollar sign (\$) occurs in the command line where expected.

#### ?BATCH-F-Abort job

Either an error occurred in compiling a BATCH program or a diagnostic compile was requested with /N.

Check the log file for all error messages.

The compiler forces the job to abort.

#### ?BATCH-F-Bad construction

In RT-11 mode, an IF statement was not in the correct form, or there was an invalid 'text' directive in a command.

Verify that the format of the IF statement is correct, and that the 'text' directive is valid as entered.

#### ?BATCH-F-Bad copy of handler

The copy of BA.SYS in memory is bad.

Unlink the batch handler if necessary, unload the copy of BA.SYS in memory, reload BA.SYS, and run BATCH.

#### ?BATCH-F-Bad option

An invalid option was used in the command line to the BATCH handler.

Check for a typing error in the command line. Make sure that the option indicated is valid.

#### ?BATCH-F-Bad sequence argument

An identification number that is not numeric was specified in a \$SEQUENCE command.

Reenter the command, specifying the identification number as an unsigned decimal number.

#### ?BATCH-F-Bad variable

The variable specified is not one of the characters A through Z.

Enter the variable as an alphabetic character.

#### ?BATCH-F-Bad VID

The correct form was not used when specifying the volume identification in a \$MOUNT command.

Make sure that the equal sign (=) and the name of the volume are included in the command.

**?BATCH-F-Batch fatal error**

An unrecoverable error occurred. This may indicate a problem in the software.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. The system may have to be rebootstrapped. If the problem continues to occur, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?BATCH-F-Batch handler not resident**

The BATCH run-time handler has not been loaded with the RT-11 LOAD command.

Load the BATCH handler, using the LOAD command that is attempting to run BATCH.

**?BATCH-F-Batch stack overflow**

There were too many nested \$CALL commands in the BATCH stream.

Make sure that there are no more than 31 nested \$CALL commands in the stream.

**?BATCH-F-Channel busy**

A channel that should have been free for BATCH was busy as a result of an internal BATCH error.

Retry the program.

**?BATCH-F-Command not unique**

The shortest unique spelling of a command was not used.

Make sure that the command includes enough characters to make it unique.

**?BATCH-F-Dismount error**

The logical device name specified did not exist.

Make sure that the device was assigned with a \$MOUNT command.

**?BATCH-F-EOF with no \$EOJ**

A file was not terminated with a \$EOJ command.

Insert a \$EOJ command as the last statement in the BATCH job.

**?BATCH-F-File created: protected file already exists**

A protected file exists, along with a newly created unprotected file of the same name. The protected file is either a BATCH control file or a log file.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the PIP /Z option or the monitor RENAME/NOPROTECT command.

**?BATCH-F-File not found**

A file specified as input to BATCH was not found, or the /X option was specified but the input to BATCH was not a precompiled (.CTL) file.

Check the file specifications and correct the program to reflect any changes made.

### **?BATCH-F-Illegal '+'**

1. The plus sign (+) construction was used when not allowed (for example, in a \$RUN or \$BASIC input file descriptor). Verify that the plus sign (+) is only used to indicate a positive value in an option, or to separate multiple file descriptors.
2. There was a plus sign (+) in an output file descriptor or a plus sign (+) terminated a file descriptor.

### **?BATCH-F-Illegal character**

The character specified was not used in the proper context. Check the log file to determine the character in error.

### **?BATCH-F-Illegal command line**

The command line to the BATCH compiler is incorrect. Check for a typing error in the command line. Check the format for the command in use and reenter the command.

### **?BATCH-F-Illegal device**

An illegal or nonexistent device was specified in the command line. Check for a typing error in the command line. Verify that the device exists as entered in the command line, or use another device and reenter the command.

### **?BATCH-F-Illegal LOG device**

Magtape, cassette, or a read-only device (for example, CR:) was specified as the log device. Check for a typing error in the command line. Assign the log device to a suitable device.

### **?BATCH-F-Illegal option**

The option name specified is not a valid RT-11 BATCH option or is not valid for this field. Make sure that the option name specified is a valid RT-11 BATCH option or option abbreviation, and is valid for the field to which it applies. See the *RT-11 System User's Guide* for a list of valid BATCH options and option abbreviations.

### **?BATCH-F-Illegal option combination**

More than one option of the same type was specified on the same command line. Make sure that only one option from the following combinations is used: /MACRO, /INPUT, /SOURCE, and /FORTRAN, /INPUT, /SOURCE, and /BASIC, /INPUT, /SOURCE.

### **?BATCH-F-Input error**

A hardware error occurred while BATCH was attempting to read the compiler input file (.BAT). Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?BATCH-F-Input file**

An input file descriptor was not specified in the BATCH compiler command line. Check for a typing error in the command line. Specify an input file in the command line.

**?BATCH-F-Insufficient memory**

There was not enough memory for the BATCH compiler to fetch a device handler it needed. The handler was needed either as an I/O device for the BATCH compiler or to satisfy a \$MOUNT or \$DISMOUNT command in the BATCH job.

Check for a typing error in the command line to the BATCH compiler or in the \$MOUNT or \$DISMOUNT command in the BATCH input file. Refer to Section 3.0 of this manual for information on how to increase storage space.

**?BATCH-F-Line too long**

The input line entered contains more than 80 characters.

Correct the input line.

**?BATCH-F-LOG device error**

A hardware error occurred during an output operation from or to the log device.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?BATCH-F-Multiple option**

The same option was specified more than once in a single command line.

Correct the command line.

**?BATCH-F-No control file**

The program attempted to send the .CTL file to a non-file-structured device (for example, LP:).

Check for a typing error in the command line. Use a file-structured device for the .CTL file, or use the /N option to inhibit execution.

**?BATCH-F-No \$EOJ**

A \$JOB or \$SEQUENCE command was issued without a preceding \$EOJ command to end the previous job.

Correct the BATCH stream by inserting an \$EOJ command.

**?BATCH-F-No file**

Either no file descriptor appeared where expected in the BATCH stream, or no file name was entered in the \$CREATE command.

Enter a file descriptor where expected in the BATCH stream, or enter a file name in the \$CREATE command.

**?BATCH-F-No file name before “.”**

A file type was specified but no file name preceded it.

Correct the format of the file descriptor.

**?BATCH-F-No ‘,’ in \$LIB**

Libraries in a \$LIBRARY command were separated by a comma (,) instead of a plus sign (+).

Edit the \$LIBRARY command in the BATCH input file, using a plus sign (+) instead of a comma (,).

**?BATCH-F-No logical device**

No logical device was specified in a \$MOUNT command.

Correct the command format.

**?BATCH-F-No physical device**

No physical device was specified in a \$MOUNT command.

Correct the command format.

**?BATCH-F-Option not unique**

A unique spelling was not used when specifying an option.

Correct the spelling so that the option contains enough characters to be unique.

**?BATCH-F-Output device full**

The temporary file (.CTL) created by BATCH is too large for the specified device.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?BATCH-F-Output error**

1. Magtape or cassette was specified as the .CTL output device.
2. A hard error was reported while BATCH was attempting to write the compiler output file (.CTL).

1. Check for a typing error in the command line. Verify that the output device specified is neither magtape nor cassette.
2. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?BATCH-F-Output file not open**

The .CTL file output channel was not opened — probably because of an error in the BATCH compiler.

Submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?BATCH-F-Please assign LOG,LST**

The log device (LOG:) or the listing device (LST:) was not assigned.

Use the ASSIGN command to assign LOG: and LST: devices. LOG: must be assigned, and LST: is recommended unless the BATCH stream will definitely not reference LST:.

**?BATCH-F-Please load LOG handler**

The log device handler is not resident.

Check for a typing error in the LOAD command. Load the appropriate device handler.

**?BATCH-F-Protected file already exists**

An attempt was made to create a protected file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

**?BATCH-F-Return from call error**

BATCH could not read the control file that called a subprogram. Execution could not be resumed on return from the call.

Verify that the .CTL file has not been destroyed; recompile if necessary. Retry the operation. Use another drive or unit if possible.

**?BATCH-F-Separator missing**

A file descriptor was not terminated by a space, a plus sign (+), a comma (,) or a carriage return.

Correct the format of the file descriptor.

**?BATCH-F-Too many file descriptors**

More than six file descriptors were specified in a \$command line.

Check for a typing error in the command line. Limit the number of file descriptors to six. Check the format of the command in question.



**?BATCH-F-Too many output files**

More than two output files were specified.

Check for a typing error in the command line. Limit the number of output file specifications to two. (For BATCH, output files represent the compiler output device and file and the log file.)

**?BATCH-F-Unknown command**

The command specified with a dollar sign (\$) in character position 1 was not a legal BATCH command.

Verify that the spelling of the command is correct.

**BE NNNNNN**

ODT found a bad entry from location NNNNNN, a trap instruction where ODT did not expect one. Setting the T bit in the status register, jumping to the middle of ODT, or using an illegal trace trap instruction can cause this error.

Correct the contents of location NNNNNN.

**?BINCOM-E-File Created: protected file already exists — DEV:FILNAM.TYP**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it, or change the protection code with the PIP /Z option or the monitor RENAME/NOPROTECT command.

**?BINCOM-E-Illegal command line**

An incorrect command was issued to BINCOM.

Check for a typing error in the command line and make sure that the format of the command line is correct. Reenter the command.

**?BINCOM-E-Illegal option /x:val**

An option that requires a value was not given one, or an option that does not take a value was given one.

Check for typing errors, and retype the command line.

**?BINCOM-E-Input file not found — DEV:FILNAM.TYP**

The specified input file was not found on the specified device.

Make sure that the command line contains no errors and that the specified file exists on the specified device. If the correct device is not mounted, mount it and reenter the command.

**?BINCOM-E-Not enough available memory**

BINCOM did not have the minimum amount of memory it requires to use as buffer space when it compares files.

Refer to Section 3.0 of this manual for information on how to increase memory resources.

**?BINCOM-E-Output device full**

There was not enough room in the directory of the output device to create the specified output file.

Use SQUEEZE to compress the volume, or use a different volume for this operation. See Section 3.0 of this manual for information on how to increase memory resources.

**?BINCOM-E-Output file full — DEV:FILNAM.TYP**

Not enough room was allocated to the specified output file when it was created. Delete the existing output file, or use a different volume for the output file. See Section 3.0 of this manual for information on how to increase memory resources.

**?BINCOM-E-Read error in — DEV:FILNAM.TYP**

A hardware error occurred while the specified input file was being read. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?BINCOM-E-Write error in — DEV:FILNAM.TYP**

A hardware error occurred while the specified output file was being written. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?BINCOM-I-No differences encountered**

The files that were compared are identical. BINCOM does not create an output file unless you specified the /O option in the command string or used the monitor DIFFERENCES/ALWAYS command. This message is informational.

**?BINCOM-W-File is longer — DEV:FILNAM.TYP**

Whether or not there are any differences in the binary data in the two files that were compared, they are different in content because they have different lengths. This message is informational.

**?BINCOM-W-Files are different**

The files that were compared are different. This message is informational.

**?BOOT-F-No boot on volume**

No bootstrap was written on the volume. Use the DUP /U option or the monitor COPY/BOOT command to write the bootstrap.

**?BOOT-U-Conflicting SYSGEN options**

Support for the error logger, extended memory, and device time-out is not the same in the system handler and monitor. Execution terminates. Be sure the monitor and handler file versions are correct. If these files are lost, assemble the monitor and handlers with the same SYCND.MAC conditional file. See the *RT-11 Installation and System Generation Guide* for details about SYSGEN options.

**?BOOT-U-Handler file not found on volume**

The handler for the system device was not found during the bootstrap operation. Execution terminates. Copy the handler file (xx.SYS) for the system device onto the volume you are trying to boot. Reboot.

### **?BOOT-U-Insufficient memory**

The bootstrap blocks designate a monitor that is too large for the system's memory. For example, attempts to bootstrap the FB monitor on a system that has only 8K of memory would cause this error. Execution terminates.

Select a monitor that is small enough for the system, and use the DUP /U option or the monitor COPY/BOOT command to copy the bootstrap blocks for that monitor.

### **?BOOT-U-I/O error**

1. An I/O error occurred during system bootstrap. Using a monitor before copying that monitor's bootstrap to the volume bootstrap blocks causes this error. Execution terminates.

1. Check that the proper monitor and system handler are on the system disk. Use the backup volume and the DUP /U option or the monitor COPY/BOOT:xx command to make sure that the bootstrap for the monitor is on the corresponding system volume. See the *RT-11 System User's Guide* for more information about copying the bootstrap. If the error persists, check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

2. An error occurred in the interface between the ROM primitive I/O subroutines and the RT-11 software bootstrap. Execution terminates.

2. Retry the bootstrap operation. If the error persists, turn the PDT-11 power off and then on. Then recopy the monitor file onto your system volume from the distribution kit and re-install the bootstrap with the DUP /U option or the monitor COPY/BOOT:PD command. If the problem persists, there may be a hardware problem with the PDT-11.

### **?BOOT-U-Monitor file not on volume**

The system volume's bootstrap blocks designate a monitor file that is not on the volume. Execution terminates.

Check that the proper file is on the system disk. Use the backup volume and the DUP /U option or the monitor COPY/BOOT command to make sure that the bootstrap for the monitor is on the corresponding system volume.

### **?BOOT-U-No memory management hardware**

An attempt was made to boot an XM monitor on a system that does not have memory management hardware. Execution terminates.

Reboot and select the SJ or FB monitor, or use a system that has KT11 memory management hardware.

### **?BOOT-U-Swap file is too small**

The file SWAP.SYS exists on the system volume, but it is less than 25 (decimal) blocks long. Execution terminates.

Copy SWAP.SYS to the system volume from another working system volume or use the monitor CREATE command or DUP /C option to create a file with the correct length. It is also possible to use the DUP /T option or the monitor CREATE/EXTENSION command to extend the file to the correct length.

### ?BOOT-U-SWAP.SYS not found on volume

The system SWAP file was not found on the system volume during the bootstrap operation. Execution terminates.

Copy SWAP.SYS to the system volume. Reboot the monitor.

### ?BOOT-W-Error reading handler

A hardware error occurred while a handler file was being read.

Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

A non-system handler file resides on a bad block. Entries for this handler are removed from the running system's device handler tables.

### ?BOOT-W-Invalid or missing TT.SYS

1. The terminal handler, TT.SYS, was missing from the system volume when the SJ monitor was bootstrapped. Many of the keyboard monitor commands default to device TT:, and its absence from the system can cause many confusing error messages.

1. Copy the file TT.SYS to the system volume. Reboot the system in order to install TT:.

2. The system generation features for the handler do not match the features for the monitor.

2. Obtain a copy of TT.SYS that was created by the same system generation as the monitor (or that has the same set of system generation features). If the file is lost, assemble TT.MAC with SYCND.MAC (see the *RT-11 Installation and System Generation Guide* for details).

### ?CREF-F-Chain-only CUSP

An attempt was made to use R CREF or to use the START command to run a copy of CREF that is in memory.

Use a language processor to invoke CREF.

CUSP stands for commonly used system program.

### ?CREF-F-CRF file error

An input error occurred while DK:CREF.TMP, the temporary input file passed to CREF, was being read.

Run the language processor again to create a new CREF input file.

### ?CREF-F-Device not found

1. A listing was written to magtape or cassette before the magtape or cassette handler was manually loaded.

1. Before writing a listing to magtape or cassette, use the LOAD command to manually load the appropriate device handler.

2. The input file to CREF, CREF.TMP, is not on a random-access device.

2. Verify that CREF.TMP is on a random-access device and that CF: is assigned to it.

3. The language processor chaining to CREF specified an invalid device. This may be a system error.

3. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

### **?CREF-F-File created: protected file already exists**

A protected listing file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the PIP /Z option or the monitor RENAME/NOPROTECT command.

### **?CREF-F-LST file error**

An output error occurred while the cross-reference table to the listing file was being written to. The output volume may not have enough free space for the listing file.

Refer to Section 3.0 of this manual for information on how to increase storage space. If the error persists when space is adequate, check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?CSI-F-Device full**

The output file created by a user program utilizing .CSIGEN with terminal input did not fit on the device specified.

Refer to Section 3.0 of this manual for information on how to increase storage space. Use the /ALLOCATE option or the CSI square bracket ([]) construction to specify the size of the output file.

### **?CSI-F-File not found**

The input file called by a user program utilizing .CSIGEN with terminal input was not found.

Check for a typing error in the command line. Verify that all file names exist as entered in the command line, and retry the operation.

### **?CSI-F-Illegal command**

The command line in a user program utilizing .CSIGEN or .CSISPC with terminal input contains a syntax error.

Check for a typing error in the command line. Check the format of the monitor command and reenter it. Try simplifying the command and re-typing it.

1. An RT-11 directory-structured device was specified for output without a file name (for example, \*RK1:=RK1:RT11FB.SYS/U).
2. A command line contains more than 80 printing characters before a carriage return, or contains invalid characters, such as blanks.
3. A large number of files and devices were specified in a keyboard monitor command.

### **?CSI-F-Illegal device**

The device specified in a user program utilizing .CSIGEN with terminal input does not exist.

Check for a typing error in the command line. Make sure that the device indicated is a valid device; if it is not, copy the required device handler to the system device and rebootstrap the system again since TT: and BA: cannot be installed.

1. A device such as TT: (via a TYPE command) or BA: was referenced when that device handler does not exist on the system device even though a SHOW command lists TT: and BA: as valid devices.

2. The DIRECTORY command was typed or issued when running under the SJ monitor and the TT.SYS file is not on the system device. In this case, the system is barely usable. System commands that require TT.SYS will not operate properly until you copy that file onto your system device and reboot the system.

**?CSI-F-Prot file**

One or more files specified in a user program utilizing .CSIGEN with terminal input already exists and is protected.

Choose a different name for the new output file; or delete, rename, or change the protection code of the existing file with the monitor RENAME/NOPROTECT command or PIP /Z option.

**?CTn: Push rewind or mount new volume**

The end of the cassette mounted on unit *n* was reached. The cassette handler waits for operator response.

Mount a new cassette on the indicated drive for the cassette operation to proceed. Pushing the REWIND button on the indicated drive generates an error for the cassette transfer; the system proceeds with the next operation in the job.

**?DD-W-Patch DD.SYS bootstrap, put CSR+4 at n**

The SET DD: CSR=*n* command was used to change the CSR address used by the DD: handler. The bootstrap contained in the DD: handler still references the original CSR.

Run SIPP to modify the CSR that the bootstrap uses for DECTape II. Specify a base of zero and use the value *n* given in the error message as the offset. The new contents should be the value of the CSR that you want plus 4.

**?DIR-F-Device not active**

Input or output was requested for a device that was not on line, not write-enabled, or not in the system's device tables.

Make sure that the device is on line and is not write locked. Use the INSTALL command to enter the device into the system's device tables.

**?DIR-F-Error reading directory**

A hardware error occurred while the directory was being read.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?DIR-F-File created: protected file already exists**

A protected directory file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the PIP /Z option or the monitor RENAME/NOPROTECT command.

**?DIR-F-Illegal command**

An incorrect command format was used with the DIRECTORY command.

Check the format of the DIRECTORY commands; correct any typing errors and reenter the command.

**?DIR-F-Illegal device**

The desired option cannot be performed on the device specified, because the device is not directory-structured and file-structured, such as TT: or LP:.

Use a valid device name in the command.

**?DIR-F-Illegal directory**

An attempt was made to read a directory that was not in RT-11 format.

If the volume is from another system, use the corresponding option for that format (for example, use /DOS to read a RSTS directory).

**?DIR-F-Illegal option**

The option or combination of options specified is not valid.

Check the format of the DIRECTORY commands; correct any typing errors and reenter the command.

**?DIR-F-Insufficient memory**

There was not enough memory available to perform the sort as specified.

Use fewer file names in the sort: use the DIR /P or monitor /EXCLUDE option to exclude files that do not need to be sorted. For example, use /EXCLUDE \*.SYS to exclude all system files. Specify only the necessary files.

**?DIR-F-Output error**

An error occurred while the output file was being written.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?DIR-F-Output file full**

The output file is full.

Send the output from the DIRECTORY command to a printing device, or use the /ALLOCATE option to specify the size of the output file. See Section 3.0 of this manual for information on how to increase memory and storage resources.

**?DIR-F-Protected file already exists**

An attempt was made to create a protected file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

**?DUMP-F-Device full**

There was not enough room on the device for the DUMP output file.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?DUMP-F-End of file detected**

DUMP found the end of file before the last block specified by an /END:block, /ONLY:block, or /START:block option.

Retype the command with block values (octal) that are correct for the file you want to dump. Use the DIR /B/S option or the monitor DIRECTORY/BLOCKS/ORDER:POSITION command to show the position on the volume and the starting block for each file.

### **?DUMP-F-File or input device not found**

The input file was not on the device volume, or the device was not known to the system. This error occurs if the device was not installed or if its handler was not on the system disk.

Use the DIRECTORY command to check the SY: directory for the file names it contains. Verify that the handler for the input file's device is on SY:. Use the SHOW command to list installed devices, and install the appropriate device, if necessary, with the INSTALL command. Retype the command.

### **?DUMP-F-Illegal command**

There is an error in the DUMP command line, such as more than one input file or output file. The command is not executed.

Retype the command correctly.

### **?DUMP-F-Illegal option**

1. An option in the command line is illegal, has an illegal value, or has no value where a block number (octal) is required.

Correct any typing errors, choose between conflicting options, and retype the command

2. Two specified options conflict.

The command is not executed. DUMP prompts for another command.

### **?DUMP-F-Insufficient memory**

There were fewer than 256 words of memory free for DUMP to use as a buffer. The command is not executed.

Refer to Section 3.0 of this manual for information on how to increase the amount of available main memory.

### **?DUMP-F-No LP**

A line printer handler was not available on the system.

Check for a typing error in the command line. Indicate a specific, legal output device and file name.

### **?DUMP-F-Protected file already exists**

An attempt was made to create a protected file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

### **?DUMP-F-Read error**

A hardware error occurred in reading input.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. The /IGNORE or /G option may be used to ignore input errors.

### **?DUMP-F-Write error**

The output device is full, or a hardware error occurred in writing the output file.

Refer to Section 3.0 of this manual for information on how to increase storage space. Check the procedures for recovery from hard error conditions listed in Section 2.0.

### **?DUMP-W-File created: protected file already exists**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the PIP /Z option or the monitor RENAME/NOPROTECT command.



**?DUP-F-Bad block in system area DEV:**

DUP found a bad block in a critical area of the disk, making the volume unusable. Reformat the volume if possible; retry the operation. If the error persists, the volume must be replaced.

**?DUP-F-Can't Squeeze SY: while foreground loaded**

A foreground or system job was loaded when a SQUEEZE command was issued for the system device. Stop any foreground or system jobs, or wait until they complete and then unload them. Reissue the command.

**?DUP-F-Can't Squeeze SY: while indirect file open**

An indirect command file was open when a SQUEEZE command was issued for the system device. This is an illegal operation from an indirect command file.

**?DUP-F-Channel in use DEV:FILNAM.TYP**

A serious DUP internal error occurred. Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-F-Channel not open DEV:FILNAM.TYP**

A serious DUP internal error occurred. Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-F-Conflicting SYSGEN options DEV:FILNAM.TYP**

The system device handler and the monitor file have different SYSGEN options enabled. Make sure that the correct monitor file was specified in the command. Make sure that the correct device handler is on the volume.

**?DUP-F-Device full DEV:FILNAM.TYP**

1. There was not enough room on the output volume for it to receive all the specified files or data.  
2. There was no unused area large enough to create the file.  
The specified file and successive files on the input volume were not copied.

If the monitor CREATE command was used, specify a smaller file size with the /ALLOCATE option or use the SQUEEZE command to consolidate free space on the output volume. If the monitor SQUEEZE/OUTPUT command was used, initialize the output volume with a smaller number of directory segments. If the monitor COPY/DEVICE/FILE command was used, copy to a different output volume, or use the SQUEEZE command to create a large enough contiguous unused area on the current volume.

**?DUP-F-Directory full DEV:**

No space existed in the output volume directory to create the output file. Use the SQUEEZE command to consolidate free space on the output volume, or copy the output volume to a volume with a larger number of directory segments and reenter the command.

**?DUP-F-Directory input error DEV:**

An error occurred while the directory of the specified device was being read.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation. If the error persists, copy as many files as possible to another volume. Reformat the volume. If the error still occurs, replace the volume.

**?DUP-F-Directory output error DEV:**

An error occurred while the directory of the specified device was being written.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation. If the error persists, copy as many files as possible to another volume. Reformat the volume. If the error still occurs, replace the volume.

**?DUP-F-Error reading bad block replacement table DEV:**

An input error occurred while the bad block replacement table was being read from the specified volume. This table is contained in block 1 (the home block) of the volume.

Check for bad blocks on the volume. If the home block is bad, the volume is unusable and must be replaced. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?DUP-F-Fetch error DEV:**

1. A serious DUP or system internal error occurred.

The copy of DUP.SAV, the monitor file, or the specified device handler may be corrupted on disk.

2. The in-core copy of DUP or the monitor may be corrupted.

Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV and the specified device handler. Retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-F-File not found DEV:FILNAM.TYP**

The specified file was not found.

Check for a typing error in the command line. Retry the operation.

**?DUP-F-Illegal command**

1. The command entered is illegal.
2. The format specification is incorrect.
3. An illegal combination of options was specified.
4. A device may not be valid for the requested operation.

Check for a typing error in the command line. Check the format of the command line. Refer to the *RT-11 System User's Guide* for a list of valid option combinations. Retry the command.

**?DUP-F-Illegal device DEV:**

The specified device was not installed in the monitor device tables.

Check for a typing error in the command line. Use the INSTALL command to add the device to the monitor device tables.

**?DUP-F-Illegal directory DEV:**

The volume in the specified device does not contain a valid RT-11 directory structure.

Initialize the volume before using it for the first time.

**?DUP-F-Illegal option**

An illegal option was specified in the command line.

Check for a typing error in the command line. Use only those options that are valid for the DUP program, as listed in the *RT-11 System User's Guide*.

**?DUP-F-Illegal option value**

A value was specified that was outside the acceptable range.

Check for a typing error in the command line. Refer to the *RT-11 System User's Guide* for a list of valid options and the range of legal values for each option.

**?DUP-F-Input error DEV:FILNAM.TYP**

A hard error occurred during a read operation.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?DUP-F-Insufficient memory**

There was not enough memory available to complete the requested operation.

Refer to Section 3.0 for information on how to increase memory space.

**?DUP-F-Invalid restore data DEV:**

DUP was unable to execute the monitor INITIALIZE/RESTORE command or DUP /D option because data stored in the home block of the volume was invalid.

Procedures to restore the volume are unavailable. All files and directory entries present before the volume was initialized are lost. Refer to the *RT-11 System User's Guide* for more information about the INITIALIZE/RESTORE command.

**?DUP-F-Non-bootable driver DEV:FILNAM.TYP**

A monitor BOOT or COPY/BOOT command, or a DUP /U option was given for a device whose device handler did not contain a primary bootstrap.

The device cannot be booted. Use another device for the operation.

**?DUP-F-No room for file DEV:FILNAM.TYP**

There was no room to create the file. Either the unused area was not as large as the value specified with the /ALLOCATE or the DUP[n] option, or a file already occupies the area specified.

Delete a file or files from the affected area of the volume.

**?DUP-F-No space for extension DEV:FILNAM.TYP**

The unused area following the file was not large enough to accommodate the required size specified by the monitor /EXTENSION command or DUP /T option.

Specify a smaller value on the DUP /T option or /EXTENSION command, or delete a file or files from the affected area of the volume.

**?DUP-F-Output error DEV:FILNAM.TYP**

A hard error occurred during a write operation.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?DUP-F-Output file exists DEV:FILNAM.TYP**

A CREATE command specified a file name that already exists on the output volume. No operation is performed.

Delete the file that currently exists on the volume, or reenter the command with a different file name.

**?DUP-F-Size function failed**

An error occurred while DUP was determining the size of the volume mounted in a device. The monitor, the device handler, or DUP may be corrupted.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual. Reboot the system and retry the operation.

**?DUP-F-Unexpected EOF DEV:FILNAM.TYP**

A serious DUP internal error occurred.

Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV from your distribution volume and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-F-Uninitialized volume DEV:**

The directory of the specified volume was not properly initialized as required by the command.

Initialize the directory with the INITIALIZE command.

**?DUP-F-Volume not RT-11 format DEV:**

The specified volume is not in RT-11 directory-structured format.

Either format the volume using the FORMAT command, or use another volume for the operation.

**?DUP-I-Bad blocks detected nnnn.**

The specified number of bad blocks were detected during the bad block scan initiated by the monitor commands DIRECTORY/BADBLOCKS, INITIALIZE/REPLACE, or INITIALIZE/BADBLOCKS or by the DUP /K, /R, or /B options.

The volume is ready to use.

**?DUP-I-No bad blocks detected DEV:**

No bad blocks were detected during the bad block scan initiated by the monitor commands DIRECTORY/BADBLOCKS, INITIALIZE/REPLACE, or INITIALIZE/BADBLOCKS or by the DUP /K, /R, or /B options.

The volume is ready to use.

**?DUP-U-Channel not open**

A serious DUP internal error occurred.

Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-U-System error**

A serious DUP internal error occurred.

Reboot the system and retry the operation. If the error occurs again, obtain a new copy of DUP.SAV and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?DUP-U-Wrong version of RT-11**

An attempt was made to run RT-11 Version 4 DUP on a version of RT-11 previous to Version 4.

Do not attempt to run RT-11 Version 4 DUP under any version of RT-11 previous to Version 4.

**?DUP-W-Device full DEV:FILNAM.TYP**

There was not enough room on the output volume for the data it was to receive during a COPY/DEVICE command or DUP /I operation.

Use an output volume that is larger than or equal to the input volume. Refer to Section 3.0 of this manual for information on how to increase storage space.

**?DUP-W-Output error DEV:FILNAM.TYP**

An output error occurred during a SQUEEZE operation.

DUP places a .BAD file over the bad block and continues with the operation.

**?DUP-W-Owner name truncated at ten characters**

More than ten characters were entered as the owner name for a magtape, so that the name was truncated by DUP.

If truncation is not acceptable, initialize the magtape again. Remember to enter ten or fewer characters.

**?DUP-W-Owner name truncated at twelve characters**

More than twelve characters were entered as the owner name for a disk, so that the name was truncated by DUP.

If truncation is not acceptable, use the monitor INITIALIZE/VOLUMEID:ONLY command or DUP /V option to change the owner name. Remember to enter twelve or fewer characters.

**?DUP-W-Replacement table overflow DEV:**

More than the maximum replaceable bad blocks were found on the specified device.

DUP prompts you to determine which blocks should be replaced and which should be made .BAD files. The *RT-11 System User's Guide* describes how to create files over bad blocks.

**?DUP-W-Too many bad blocks DEV:**

More than 128 bad blocks were encountered during a bad block scan.

The volume is unusable and must be reformatted or replaced.

**?DUP-W-Verification error at relative block nnnnnn**

During a COPY/DEVICE/VERIFY command, the input data did not match the output data at the specified relative block.

Check the output volume for bad blocks. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation.

**?DUP-W-Volume ID truncated at six characters**

More than six characters were entered as the volume ID for a magtape, so that the volume ID was truncated by DUP.

If truncation is not acceptable, INITIALIZE the magtape again. Remember to enter six or fewer characters.

**?DUP-W-Volume ID truncated at twelve characters**

More than twelve characters were entered as the volume ID for a disk, so that the volume ID was truncated by DUP.

If truncation is not acceptable, use the monitor INITIALIZE/VOLUME:ONLY command or DUP /V option to change the volume ID. Remember to enter twelve or fewer characters.

**?EDIT-F-Command aborted**

A command was prematurely terminated because CTRL/C was typed twice.

Examine the effect of the termination for any undesirable conditions and correct if necessary.

**?EDIT-F-Command buffer full; no command(s) executed**

The command exceeded the space allowed for a command string in the command buffer.

If possible, empty the save or macro buffers, or write part of the text buffer to the output file. Retype the command(s) as a series of smaller commands or shorter sequences.

**?EDIT-F-Directory full**

No room exists in the volume directory for the output file name. (This message occurs following an EB or EW command or following the input specification to the EDIT command.)

Refer to Section 3.9 of this manual for information on how to increase storage space.

**?EDIT-F-End of input file**

You attempted a READ, NEXT, or file search command, but no input data was available because the end of the file was reached.

Close the file by using EX or EF; reopen it if more editing remains to be done.

**?EDIT-F-“<>” error; no command(s) executed**

Iteration brackets were nested too deeply, used illegally, or not matched.

Make sure that all brackets are properly matched and that the number of nested brackets does not exceed 20 levels.

**?EDIT-F-File not found**

An attempt was made to open a nonexistent file for editing.

Check for a typing error in the command line. Verify that the file name exists as entered in the command line, and retry the operation.

**?EDIT-F-Illegal argument; no command(s) executed**

1. The argument specified is illegal for the command used.
2. A negative argument was specified where a positive one is expected.
3. The argument exceeds the range + or - 16,383.

Check the command format for proper argument usage and reenter the command correctly.

**?EDIT-F-Illegal command; no command(s) executed**

- |  |   |
|--|---|
| <ol style="list-style-type: none"><li>1. The editor did not recognize the command line specified.</li><li>2. ED was not the first command used to activate the display hardware.</li></ol> | <ol style="list-style-type: none"><li>1. Check for a typing error in the command line. Check the format of any editing command that produces this error, and reenter the command correctly.</li><li>2. Recall the editor and type ED before entering any other editing commands. Remember to type the insert command (I) before inserting text.</li></ol> |
|--|---|

**?EDIT-F-Illegal device**

<p>An attempt was made to open a file on an illegal device, or to use display hardware when none is available.</p>	<p>Check for a typing error in the command line. Verify that the device indicated is valid and that display hardware exists and is not already in use by another job.</p>
--	---

**?EDIT-F-Illegal file name**

<p>An illegal file name was specified in an EB, EW, or ER command, or as input to the EDIT command.</p>	<p>Check for a typing error in the command line. Make sure that the <i>dev:filnam.typ[n]</i> specification does not exceed 19 characters and is in the proper format. Verify that an input file name exists as entered.</p>
---	---

**?EDIT-F-Illegal macro; no command(s) executed**

- |  |   |
|--|---|
| <ol style="list-style-type: none"><li>1. Delimiters in an M command are improperly used.</li><li>2. An attempt was made to enter an M or EM command during execution of a macro.</li></ol> | <ol style="list-style-type: none"><li>1. Check for a typing error in the command line. Make sure that the character used for the delimiters does not appear in the macro itself.</li><li>2. Do not attempt to enter M or EM until the current macro has finished executing.</li></ol> |
|--|---|

**?EDIT-F-Insufficient memory**

<p>An attempt was made to use the I, S, U, R, N, C, or E commands when there was not enough room for the appropriate buffer.</p>	<p>Delete unwanted buffers to create more room (using the 0U or 0M commands—see the <i>RT-11 System User's Guide</i>), or write text to the output file.</p>
--	--

**?EDIT-F-No file open for input**

<p>An R, N, F, or P command was issued, and no file was open for input.</p>	<p>Check for a typing error in the command line. Use the ER command to open a file for input and then reenter the command.</p>
---	--

**?EDIT-F-No file open for output**

<p>An EX, EF, F, or W command was issued, and no file was open for output.</p>	<p>Check for a typing error in the command line. Use the EW command to open a file for output and then reenter the command.</p>
--	---

**?EDIT-F-Not enough free blocks**

<p>There was not enough disk space available to accommodate a file of the size requested in the EW or EB command, or in the /ALLOCATE specification to the EDIT command.</p>	<p>If possible, use the SQUEEZE command to compress the disk, or request a file of smaller size. See Section 3.0 of this manual for information on how to increase storage and memory resources.</p>
--	--

### **?EDIT-F-Output file full**

There is no space in the output file.

Close the file, using an EF command, or use the EW command to close the file and open a new file for output.

### **?EDIT-F-Protected file already exists**

An attempt was made to edit a protected file, or to create a protected file with the same name as an existing file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

### **?EDIT-F-Protected .BAK file exists**

A protected .BAK file of the same name as the specified file exists as a result of an edit backup operation.

Exit from EDIT, and use the monitor RENAME/NOPROTECT command or the PIP /Z option to change the protection level of the backup file. Perform the edit backup operation again.

### **?EDIT-F-Read error**

A hardware error occurred during a read operation.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?EDIT-F-Search failed**

The text string specified in a G, F, or P command was not found.

Check for a typing error in the command line. Make sure that the text string exists in the file as specified in the command line. If this error occurs following a Get command, the pointer is positioned at the end of the current text buffer and the command may be reentered. After a Find or Position command, end-of-file is detected and the pointer is positioned at the beginning of an empty text buffer; close the file, reopen it, and reenter the command.

### **?EDIT-F-System I/O error**

A system operation (such as opening a file) failed due to an I/O error, most probably involving a write-protected volume.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?EDIT-F-Write error**

A hardware error occurred during a write operation.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?EDIT-W-Command buffer almost full**

The command entered is within 10 characters of exceeding the space available in the Command Buffer.

Complete the command using fewer than 10 characters if possible. Otherwise, type ESCAPE twice to execute that portion of the command line already completed, and then enter the remainder as a second command.

### **?EDIT-W-Superseding existing file**

An EW or EB command was issued for an already existing file name. If the new file is closed, the old one will be deleted.

To avoid replacing the file, terminate the edit with CTRL/C, followed by two ESCAPEs and then the monitor REENTER command.



**?EL-F-Channel error**

An internal error occurred.

Retry the operations that produced the error. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?EL-F-ERRLOG.DAT file I/O error**

An error was encountered while reading or writing the ERRLOG.DAT file.

Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?EL-F-Illegal error**

An internal system error occurred.

Retry the operations that produced the error. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?EL-W-ERRLOG.DAT file full**

The ERRLOG.DAT file is full. The header block continues to be updated but error records are not recorded.

Terminate EL, and reinitialize to enable error logging again.

**?EL-W-Illegal Message received**

A task or background job other than ERROUT attempted to communicate with the EL task.

This message is informational.

The attempt is ignored.

**?ELINIT-F-Channel error**

An internal error occurred.

Retry the operations that produced the error. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?ELINIT-F-Device full**

There was not enough room to create or expand the ERRLOG.DAT file.

Use the monitor SQUEEZE command or DUP /S option to compress the volume, or use a different disk for the operation. See Section 3.0 of this manual for information on how to increase memory and off-line storage resources.

**?ELINIT-F-Device not available**

The device requested by the operator was not loaded.

Load the device handler and run ELINIT again.

**?ELINIT-F-EL task not active**

An attempt was made to initiate error logging before running the error logging job.

Run EL, using the monitor FRUN or SRUN command, before running ELINIT.

**?ELINIT-F-ERRLOG.DAT file I/O error**

An error was encountered reading or writing the ERRLOG.DAT file.

Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?ELINIT-F-Illegal error**

An internal error occurred while the error logger was recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?ELINIT-F-Protected ERRLOG.DAT file exists**

The ERRLOG.DAT file is protected.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file. Then run ELINIT again.

**?ELINIT-W-Illegal command**

An illegal answer was given to one of the operator command initialization questions. The question is asked again.

Correct your response.

**END BATCH**

A BATCH job was terminated.

This message is informational.

Control returns to the monitor.

**BATCH I****?ERROR: FORTRAN messages**

Section 5 has all FORTRAN IV messages.

**?ERROUT-F-Channel error**

A serious error occurred within the ERROUT program.

Submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?ERROUT-F-Device not found**

The device specified in the command string was not found.

Make sure that the specified device is installed. Reenter the command.

**?ERROUT-F-File not found**

The input file containing the error log statistics was not found.

Make sure that the specified file resides on the specified device. Reenter the command.

**?ERROUT-F-Illegal command**

The command typed to ERROUT was not in the correct format.

Make sure that you typed the command in the correct format. Reenter the command.

**?ERROUT-F-Illegal error**

A serious error occurred within the ERROUT program.

Submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?ERROUT-F-Insufficient memory**

There was not enough memory to process the statistics file.

Refer to Section 3.0 of this manual for information on how to increase memory resources.

**?ERROUT-F-I/O error**

A hardware error occurred.

Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?ERROUT-F-Output file full**

There was not enough room to continue writing the output file.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?ERROUT-F-Protected file already exists**

An attempt was made to create a report file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

**?ERROUT-W-Device full**

There was no room available on the specified device to create the output file.

Use another device for this operation, or use the monitor SQUEEZE command on the device to create more room.

**?FILEX-F-DEV:FILNAM.TYP already exists**

An attempt was made to create the named file on a DOS DECTape when a file already existed under the name specified.

Use the /D option to delete the file and retry the transfer, or use a new name to create the file.

**?FILEX-F-Channel not open**

An I/O channel that FILEX required for the command was not open.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FILEX-F-Device full**

There was no room for the file name in the directory or on the output volume.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?FILEX-F-End of file**

During a transfer between a volume in RT-11 format and a volume in universal interchange format, the system detected end-of-file on the interchange volume before completing the transfer. Attempts to read a faulty diskette or to read or write with a faulty device would cause this error.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. If the error occurs on input hardware that is operating properly, check the hardware that wrote the input volume, if possible.

**?FILEX-F-Error reading directory**

An error occurred while the directory of the input device was being read or looked up, or the input device did not have the proper file structure.

Check for a typing error in the command line. Verify that the input device has the correct structure. If so, a hard error condition exists. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### ?FILEX-F-File created: protected file already exists

A protected file exists, along with a newly created unprotected output file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or the PIP /Z option.

### ?FILEX-F-File not found

The input file was not found, or the wildcard construction matched none of the existing files.

Check for a typing error in the command line; verify that the file name exists as entered in the command line, and retry the operation.

### ?FILEX-F-Foreground loaded

An attempt was made to use the /T (or /TOPS) option when a foreground job was active.

Terminate the foreground job and unload it, using the monitor UNLOAD FG command.

### ?FILEX-F-Illegal command

The command entered was illegal for one of the following reasons: the length of the command line exceeded 72 characters; the command line was not in the proper CSI format; the UIC exceeded the allowed number of characters or left square bracket ([]) was used without right square bracket (]); a wildcard construction was used on a sequential-access device; no output or no input file was specified for a copy operation; more than one file name construction (*dev:filnam.typ*) was specified on either side of the equal sign (=) or less than sign (<); an operation that FILEX cannot perform (for example, initializing an RT-11 device) was attempted.

Check for a typing error in the command line. Verify that the format of the command line is correct and that the UIC is in the proper format. Verify that FILEX can perform all specified operations. Then, retry the operation.

### ?FILEX-F-Illegal device

1. The device handler was not found.
2. An illegal device name was used.
3. One of the following was attempted: RK or DT was not used for DOS/BATCH (RSTS) in a copy operation; DT was not used for DOS/BATCH (RSTS) output in an initialize or delete operation; DT was not used for DOS/BATCH (RSTS) output in a copy operation; DT was not used for DECsystem-10 input in any operation.

Check for a typing error in the command line. Check that necessary device handlers are present on the system, and that the device indicated is a legal device name and is valid for the operation indicated.

### ?FILEX-F-Illegal option

An illegal option was used in a command line.

Check for a typing error in the command line. See the *RT-11 System User's Guide* for a list of valid FILEX commands.

### **?FILEX-F-Illegal option combination**

1. An attempt was made to use more than one device option (/S, /T, /U), to use more than one transfer option (/I, /P, /A), or more than one operation option (/D, /L, /F, /Z) in a FILEX command line. You are only allowed to use one option per combination. Check your command line for invalid combinations. Reissue the command.
2. Using keyboard monitor commands, an attempt was made to combine /DOS and /TOPS in a COPY or DELETE command, to use /IMAGE and /ASCII together on a copy operation, or to use one of these with /INTERCHANGE on a DELETE operation.

### **?FILEX-F-Illegal output file name**

The output file name was invalid or null.

Check for a typing error in the command line. Verify that an output file name was specified in the correct format and that it contains no illegal characters.

### **?FILEX-F-Illegal PPN format**

The DOS/BATCH user identification code was not in the form [nnn,nnn], where each nnn is an octal number less than or equal to 377.

Check the format of the user identification code.

### **?FILEX-F-Insufficient memory**

There was not enough main storage for buffers and input list expansion.

Refer to Section 3.0 of this manual for information on how to increase memory space. Try copying the files one at a time without using the wildcard construction on input.

### **?FILEX-F-Not interchange format**

A diskette with the /P option or /INTERCHANGE command did not have a directory in universal interchange format.

Check for typing errors in the command line. Verify that the diskette has a directory in universal interchange format.

### **?FILEX-F-Protected file already exists DEV:FILNAM.TYP**

An attempt was made to CREATE a protected file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

### **?FILEX-F-Read error**

A hardware error occurred during an input operation.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?FILEX-F-UFD not found**

The specified UFD was not found on the DOS input disk.

Verify that no typing error has been made and that the input disk is the correct one.

**?FILEX-F-Write error**

An unrecoverable error occurred while an output file was being processed.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORMAT-F-Bad sector**

An RK06/07 sector is marked bad, but the FORMAT program could not detect it as bad.

Use the CREATE command to cover the bad area with a file named FILE.BAD.

**?FORMAT-F-Device error**

An error occurred while FORMAT was attempting to format the device, or the unit number specified does not exist.

Make sure the unit number specified is valid. If the problem appears to be a hardware error, check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORMAT-F-Device illegal or not supported by FORMAT**

The FORMAT program did not recognize the device specified.

Retype the command line, using a valid device specification.

**?FORMAT-F-Device not ready**

The device specified was not ready for formatting or verifying, because the device is off line, write-protected, or not up to speed.

Check the device unit. Make sure it is powered up, that the volume is write-enabled, and that the device (if it is a disk) is up to speed.

**?FORMAT-F-Error reading manufacturer's bad sector file (RK06/07)**

Sectors on the last file, last track containing manufacturer's bad sector file could not be read. Execution terminates.

Use another disk.

**?FORMAT-F-Error Writing headers (RK06/07)**

The FORMAT program encountered errors while writing headers to a track. Execution terminates.

Use another disk.

**?FORMAT-F-Error writing software bad block file**

Formatting was successful, but no software bad block table was written.

FORMAT prompts for another command. No corrective action is necessary for this condition.

**?FORMAT-F-Formatting/Verifying not allowed when a foreground job is loaded**

An attempt was made to format a device while a foreground or system job was running. This is not allowed because the FORMAT program accesses the device's registers directly.

Wait until the foreground or system job completes before formatting the device. Or, abort the foreground job or system job, use the UNLOAD command to unload the foreground job, and reissue the FORMAT COMMAND.

**?FORMAT-F-Illegal command line**

The command line typed was incorrect, possibly because: an output as well as an input device was specified; more than one input device was specified; a file name was given with the device specification.

Reenter the command line so that it adheres to the following format:

\*input-device[/options]

**?FORMAT-F-Illegal option: /x**

The option specified (/x) was not a valid option for the device specified.

Reenter the command line and use only valid options. See the *RT-11 System User's Guide* for a summary of the FORMAT options.

**?FORMAT-F-Illegal value specified with option:/x**

An illegal value was specified with option /x.

Reenter the command line and use only valid syntax. See the *RT-11 System User's Guide* for a summary of the FORMAT options.

**?FORMAT-F-Insufficient memory**

There was not enough memory to perform the specified function.

See Section 3.0 of this manual for information on how to increase memory resources.

**?FORMAT-F-Manufacturer's bad sector file corrupt (RK06/07)**

The manufacturer's bad sector file is not in a valid format. Execution terminates.

Use another disk.

**?FORMAT-F-No value can be specified with option: /x**

The specified option (/x) does not accept an argument. FORMAT prompts for another command.

Reenter the command line and use only valid syntax. See the *RT-11 System User's Guide* for a summary of the FORMAT options.

**?FORMAT-F-Unit number must be in range 0-7**

An illegal unit number was specified for a device.

Reenter the command line using a device unit number in the range 0-7.

**?FORMAT-F-Unit number too large for RT-11 configuration**

A unit number was specified that exceeds the number of units on the configuration.

Check the number of the required unit. Issue the command again.

**?FORMAT-I-Formatting aborted**

A device error occurred. Formatting is aborted.

The device must be formatted successfully before it can be used. Run the FORMAT program again.

**?FORMAT-I-Formatting complete**

The device is now formatted.

The device is ready for use.

**?FORMAT-I-Verification aborted**

A device error or user abort caused the pattern verification to terminate.

Rerun the pattern verification to verify the volume, if necessary. Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?FORMAT-I-Verification complete**

The FORMAT program verification sequence is complete.

This message is informational.

**?FORMAT-U-Device handler fetch error**

The handler could not be fetched, probably because the device handler was not present to perform device verification.

Make sure that the device handler for the disk being verified resides on the system volume. Run the FORMAT program again.

**?FORMAT-U-Disk is an alignment cartridge**

The RK06/07 disk selected for formatting is an alignment disk. Execution terminates. Use another disk.

**?FORMAT-U-Formatting/Verifying the system volume is not allowed**

An attempt was made to format or verify the volume on which the running RT-11 system currently resides. Specify a different device unit number and format the device. You can also use the monitor /WAIT or the /W option, which permits a pause before formatting begins, so that a second volume can be substituted for the system device. See the *RT-11 System User's Guide* for information on how to do this.

**?FORMAT-U-Too many bad blocks**

The software bad block limit was exceeded. Use another disk for the operation.

**?FORMAT-W-Duplicate option: /x**

The option (/x) was already specified in the command line. Check the command line for duplicate options, and reenter the command.

**?FORTRAN messages**

Section 5.0 contains all FORTRAN IV messages.

**?HELP-F-File not found HELP.TXT**

The file HELP.TXT was not found on either SY: or DK:, and HELP was built to run without an integral text file. Copy HELP.MLB from the system backup volume onto SY:, if SY: has room for it, and use LIBR to create HELP.TXT. Copy the file to DK: if SY: does not have room. Alternatively, copy HELP.SAV from the distribution volume.

**?HELP-F-Help not available for topic AAAAAA**

The information requested is not available. Consult the *RT-11 System User's Guide* or an experienced user.

**?HELP-F-Illegal option**

An option other than /PRINTER or /TERMINAL was attempted with the HELP command. Correct the command line and retry the operation.

**?HELP-F-Syntax error in command, type 'HELP<sup>␣</sup>'**

The HELP command was improperly formatted. Typing HELP followed by a carriage return summons the HELP command text and an explanation of how to use the HELP command.

**?HELP-W-Help not available for subtopic AAAAAA**

The information requested is not available. Consult the *RT-11 System User's Guide* or an experienced user.

**?HELP-W-Help not available for subtopic item AAAAAA**

The information requested is not available. Consult the *RT-11 System User's Guide* or an experienced user.



**?KMON-F-Address**

An address is out of range in an E or D command.

The allowable range is between 0 and the base of RMON (contents of location 54 octal); the locations in the E or D commands should not exceed this range. If device handlers are loaded, the high limit is the beginning of these loaded handlers. Check for a typing error in a prior B command.

**?KMON-F-Ambiguous command**

The command abbreviation entered was not unique (for example, CO could stand for COPY or COMPILE).

Be sure to use enough characters in a command abbreviation to make that command unique. Four characters are usually enough. Refer to the *RT-11 System User's Guide* for the minimum abbreviations.

**?KMON-F-Ambiguous option**

The option abbreviation entered was not unique.

Be sure to use enough characters in an option abbreviation to make that option unique. Four characters are usually sufficient; six characters are sufficient in an option prefixed by 'NO'.

**?KMON-F-Bad fetch DEV:**

An error occurred while KMON was reading a device handler from SY:. This error can occur during the execution of a keyboard monitor LOAD, RUN, SRUN, or FRUN command, or from using indirect files that do not reside on the system device. The keyboard monitor loads device handlers for these commands.

Make sure that the device handlers referenced are installed and are not in an area that contains bad blocks.

**?KMON-F-Command file nesting too deep**

A reference was made to a fourth level of nested indirect command files.

Limit indirect command file nesting to three levels.

**?KMON-F-Command file not at end of line**

1. An indirect file was not the last item (excluding comments) on a keyboard monitor command line (for example, COMPILE FILE @A).

1. Make sure that indirect file is the last item, on a keyboard monitor command line.

**?KMON-F-Command not in system**

Although the specified command is a valid RT-11 command, the current system was generated without support for it.

See the *RT-11 System User's Guide* for a list of valid commands available with the different monitors. Consult the system manager to find out what commands are available with the monitor. Regenerate the monitor to include support for the command.

**?KMON-F-Command string too complicated**

The command is too complicated to parse, probably because there are a very large number of options in the command line.

Simplify the command and reenter it.

**?KMON-F-Conflicting options**

Incompatible options were specified in the command line.

Refer to the *RT-11 System User's Guide* for valid option combinations.

**?KMON-F-Conflicting SYSGEN options**

The SYSGEN options of the device handler disagree with those of RMON.

Select a compatible RMON/handler combination.

**?KMON-F-Console must be local**

A SET TT CONSOL=*n* command specified a logical unit of a terminal that is supported as a remote terminal.

Specify a local terminal as the console terminal and reissue the command.

**?KMON-F-Device full DEV:**

An attempt was made to save a file but there was not enough space on the specified device.

Make room on the device by removing files, or use another device for this operation. See Section 3.0 of this manual for information on how to increase memory or off-line storage resources.

**?KMON-F-Device loaded or not removable DEV:**

1. A REMOVE command specified an illegal device handler, (for example, the TT, BA, or system device handlers).
2. A REMOVE command specified a handler that is loaded.

1. Make sure the device handler specified in the REMOVE command can be removed.
2. Use the SHOW command to determine which handlers are resident, and unload them before removing them.

**?KMON-F-Error in file spec**

An error was made in the format of a file specification, or a file specification did not appear in the command line where one was expected.

Verify that the *dev:filnam.typ* format is used and retype.

**?KMON-F-Extended memory monitor required for DEV:FILNAM.TYP**

1. A program was running under the SJ or FB monitor, but extended memory overlays were requested.
2. The virtual bit of the job status word was set.

Make sure that the system includes memory management hardware, and that the program is run under the XM monitor.

**?KMON-F-File not found DEV:FILNAM.TYP**

1. The file specified in an R, RUN, FRUN, SRUN, GET, SET, INSTALL or indirect file command was not found.
2. The file needed to process the command was not found on the indicated devices.

Check for a typing error in the command line. Verify that the file name was typed in the correct format and that it contains no illegal characters. Verify that the named file resides on the named device and that all files necessary to process the command, such as utility programs and handler files, also reside on the named device. Retype the command line.

## NOTE

This message can occur at system bootstrap if the start-up indirect command file (STARTS, STARTF, or STARTX.COM) is not found. If this message occurs at bootstrap time, the system has been bootstrapped properly even though the start-up file was not found. The start-up file may have been accidentally deleted or renamed.

To prevent this message from appearing whenever the system is bootstrapped, simply replace the start-up file for the monitor in use, or create a new start-up file and give it the proper name for the monitor being used (STARTS.COM for the SJ monitor, STARTF.COM for the FB monitor, and STARTX.COM for the XM monitor).

### ?KMON-F-Foreground active

An attempt was made to execute an FRUN or UNLOAD F command when a foreground job already existed and was active.

Wait for the foreground job to finish before unloading it and starting a new foreground job.

### ?KMON-F-Illegal command

An illegal KMON command was used.

Check for a typing error in the command line. Retry the operation.

### ?KMON-F-Illegal continuation

An attempt was made to continue a line from a non-nested indirect file to the console terminal.

When continuing a line from an indirect command file, make sure that the indirect file is nested.

### ?KMON-F-Illegal date

The DATE command argument was illegal.

Check for a typing error in the command line. Enter the date using the correct format (DATE *dd-mmm-yy*).

### ?KMON-F-Illegal device DEV:

1. An illegal device was indicated, an operation illegal for the specified device was attempted, or an attempt was made to load a device handler for use with a foreground job (dev=F) when the single-job monitor was running.
  2. An attempt was made to install either TT: or BA:.
  3. Under the FB and XM monitors, an attempt was made to unload a device the foreground owns while a foreground job was active. In this case, DEV: is the job name.
  4. An attempt was made to use the commands LOAD TT: (in SJ) or LOAD BA: (in any monitor) when the appropriate file (TT.SYS, BA.SYS, or BAX.SYS) was not present on the system device. In this situation, TT: and BA: still appear in a SHOW listing because RT-11 reserves device slots for them.
1. Check for a typing error in the command line. Verify that the device indicated is valid. Note that devices for R, RUN, GET, SAV, SRUN, and FRUN must be random-access devices. The dev=F (and dev=B) construction is valid only under the FB monitor. Reenter the command.
  2. Copy the TT: or BA: handler file to the system volume, and reboot the system so that TT: or BA: can be installed.
  3. Unload the device after the foreground job has finished.
  4. Copy the TT: or BA: handler file to the system volume and reboot the system.

### ?KMON-F-Illegal device for command file

An indirect file was invoked from a non-block-replaceable device (PC:, CT:, MT:).

Copy the indirect file to a block-replaceable device (such as RK: or DX:) and reenter the command line.

### ?KMON-F-Illegal device installation DEV:FILNAM.TYP

Either the CSR specified in the handler is not valid in the current configuration, or the device set up failed.

Verify that the device specified by the CSR is installed.

### ?KMON-F-Illegal file format DEV:FILENAM.TYP

1. In XM and FB, a .REL file produced by a version of RT-11 previous to Version 3 was specified in the foreground.

1. Because the .REL format of RT-11 Version 3 (and later) differs from the .REL format of Version 2C (and earlier), foreground jobs must be relinked to run under Version 3 and later monitors. Use the monitor LINK/FOREGROUND command or the LINK /R option to relink the file and reenter the command.

2. In XM, the .SAV image specified for the foreground was not a virtual job. In FB, the file was not a .REL file.

2. Verify that the .SAV image specified for the foreground is a virtual job in XM. Also, check the file to make sure the virtual bit is set. Verify that the file is a .REL file when running in FB.

### ?KMON-F-Illegal logical job name

An attempt was made to execute an SRUN command with a job name already associated with an active job or with an illegal job name.

Make sure that the job name contains from one to six characters, and that neither F nor B is used for a logical job name. Verify that the line contains no errors. Use the monitor SHOW JOBS command or the RESORC /J option to obtain a list of current job names. Reenter the SRUN command with a name not already associated with an active job.

### ?KMON-F-Illegal NO on option

A NO prefix was specified with an option that does not allow it (for example, COPY/NOBOOT).

Check the *RT-11 System User's Guide* for a list of options that are legal when prefixed by NO. Omit the option. This may produce the desired effect by default. Check and reenter the command line.

### ?KMON-F-Illegal option

An illegal option was used in a command line.

Check for a typing error in the command line. Use only those options for keyboard monitor commands listed in the *RT-11 System User's Guide*.

### ?KMON-F-Illegal option for program

The option used belongs to another program — not the one implied by the command line.

Examine the command line, select an appropriate option, and retry the operation.

### ?KMON-F-Illegal priority level

The priority level specified by the SRUN/LEVEL option is either not a valid priority level or is the same as another active job.

Use a value from one to six to specify the priority level. Use the monitor SHOW JOBS command or the RESORC /J option to obtain a listing of current job levels.

### ?KMON-F-Illegal terminal

The terminal number specified in the SET TT CONSOLE=*n* command or FRUN or SRUN/TERMINAL option is not a legal unit number.

A unit number may be illegal for the four following reasons: the unit number specified was larger than the maximum number of units supported on the system as configured; the unit number was assigned to a terminal that does not exist on the hardware configuration; the terminal specified was being used by another job; the system console terminal was specified.

Check for a typing error in the command line, and use the SHOW command to obtain a listing of currently installed devices. Correct the unit number.

### ?KMON-F-Illegal time

The TIME command argument was illegal.

Check for a typing error in the command line. Reenter the TIME command in the correct format (TIME *hh:mm:ss*).

### ?KMON-F-Illegal value on option

An option was modified by an illegal value.

Correct the value and retype the command line.

### ?KMON-F-Input error DEV:FILENAM.TYP

1. An input error occurred while the file specified in an R, RUN, GET, FRUN, or SRUN command was being read.
2. An error occurred while block 0 of the handler file was being read during the INSTALL command.
3. An error occurred during a SET command for a handler.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### ?KMON-F-Job active — cannot unload JOBNAME

An attempt was made to execute an UNLOAD command for the job JOBNAME, which exists and is active.

Wait for the job to finish or abort it before unloading and starting a new job. Use the monitor SHOW JOBS command or the RESORC /J option to obtain a listing of current jobs.

### ?KMON-F-Line too long

A command line, or a line in an indirect file, is too long. This condition usually results from too many continuation lines.

Revise the command line into more than one command and retype the operation. Make sure each command line or indirect file line contains 200 (decimal) or fewer bytes.

### ?KMON-F-Must type 'R BATCH', '/U'

An .UNLOAD BA command was entered without first unlinking the handler.

Run BATCH and specify the /U option to unlink the handler. BATCH automatically performs the .UNLOAD BA command.

### ?KMON-F-No file

No file was named where one was expected (for example, RUN followed by RETURN).

Check for a typing error in the command line; check the format of the monitor command and retry the operation, inserting the proper file name.

### ?KMON-F-No foreground job

A SUSPEND, RESUME, or UNLOAD F command was given, but no foreground job was in memory.

Check for a typing error in the command line. Enter a command that does not require a foreground job.

### ?KMON-F-No room

An attempt to install a new device revealed no free device slots in the monitor table; or an attempt to assign a user logical name revealed no free slots in the monitor user name table.

Remove some other device from the system and install the new device, or deassign some other user logical name before assigning the new logical name. Use the SHOW command to display the status of the devices on the system.

### ?KMON-F-No such job — JOBNAME

An attempt was made to execute an UNLOAD, SUSPEND, or RESUME command for the job JOBNAME, which does not exist.

Verify that you typed the job name correctly. Use the SHOW JOBS command to obtain a listing of current jobs with their status.

### ?KMON-F-Not enough memory

1. An attempt was made to use the monitor GET, R, or RUN command on a file that was big enough to overlay the monitor if loaded into memory.
2. An indirect file was too large to be executed.
3. The USR would have moved down into the area of memory mapped by the KT11 PAR1 mapping register. I/O to or from the system scratch area detected not enough memory during command processing (for example, on a SAVE operation).

1. Refer to Section 3.0 of this manual for information on how to increase storage space.
2. Insert a CTRL/C in the middle of the indirect file to break it into two sections.
3. Make the foreground program smaller. Use the UNLOAD command to remove some resident device handlers, if there are too many.

### ?KMON-F-Not enough memory for region

There was not enough memory to create the virtual overlay region when running the program in extended memory.

See Section 3.0 of this manual for information on how to increase memory resources.

### ?KMON-F-Output error DEV:FILENAM.TYP

An output error occurred while a .REL file was being written during FRUN or SRUN command processing, or an output error occurred while a SAVE command was executing.

Verify that the system device is write-enabled. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### ?KMON-F-Parameters

Bad parameters were typed to the SAVE command.

Check for a typing error in the command line. Check the format of the SAVE command and reenter.

**?KMON-F-Protected file already exists DEV:FILNAM.TYP**

A protected file already exists, with the same name as the file name specified with a SAVE command.

Use the monitor RENAME/NOPROTECT command or the PIP /Z option to change the protection level of the existing file or use a different name to create a new file.

**?KMON-F-Region error**

There was not enough extended memory to create the region.

Relink to use less extended memory, or remove other jobs that are competing for the same area of memory.

**?KMON-F-Six system jobs already running — cannot SRUN job**

An attempt was made to execute an SRUN command when the maximum number of jobs — six — was already running.

Wait for a job to finish before running the new job with SRUN.

**?KMON-F-Too many files**

Too many files were specified for I/O in the command line.

Refer to the *RT-11 System User's Guide* for restrictions on file specifications.

**?KMON-U-Command file I/O error**

An I/O error occurred while an indirect file was being read.

This is probably a hardware malfunction. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?KMON-U-Overlay read error**

A hardware error occurred while a KMON overlay, used to process the current command, was being read. This indicates that there is a bad block in the system file in question, or that the system volume has been removed.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Try bootstrapping a different monitor file with the BOOT command. Replace the system volume.

**?KMON-U-System input error**

A hard input error condition occurred on the system device while the system swap area was being read or while the scroller code was being read from the monitor file.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?KMON-U-System output error**

A hard output error condition occurred on the system device while the system swap area was being written.

Verify that the system device is write-enabled. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?KMON-U-System output error DEV:FILNAM.TYP**

A hard error condition occurred as a result of a SET command while the indicated system file was being output.

Verify that the system device is write-enabled. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?KMON-W-Already installed/assigned DEV:**

The device already existed in the system tables.

Remove the device or deassign the device name. Then install the new handler.

**?KMON-W-Device not installed DEV:**

An attempt was made to remove a device that is currently not installed in the system table.

Verify that the device name was typed correctly. Use the SHOW command to determine which handlers are currently installed.

**?KMON-W-File created: protected file already exists DEV:FILENAM.TYP**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or the PIP /Z option.

**?KMON-W-Logical name not found DEV:**

The logical device name in a DEASSIGN command was unknown to the system.

Check for a typing error in the command line. Use the SHOW command to list the physical and logical device names currently known to the system.

**?KMON-W-No clock**

No KW11 clock was available for the TIME command.

The TIME command cannot be used on your system.

**?KMON-W-No date**

The date was requested, but it had not yet been set.

Enter the date, using the format:  
DATE *dd-mmm-yy*.

**?LIBR-F-Bad GSD in DEV:FILNAM.TYP**

There was an error in the global symbol directory (GSD). The file is probably not a legal object module.

Verify that the correct file names were specified as input; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

**?LIBR-F-Bad library for listing or extract**

The input file specified for extraction or to produce a directory listing was not a valid object library file.

Verify the file name in the command line and check for typing errors. It may be necessary to rebuild the input file.

**?LIBR-F-Bad option: /a**

The librarian did not recognize the given option (/a represents the unrecognized option). The librarian restarts and prompts with an asterisk.

Check for a typing error in the command line. Verify that the option is legal for the librarian, and retry the operation.

**?LIBR-F-EOF during extract**

The end of the input file was reached before the end of the module being extracted.

The object module format is probably incorrect. Rebuild the library file. If the error condition persists, reassemble the object module(s) belonging to that file.



**?LIBR-F-File not found DEV:FILNAM.TYP**

One of the input files indicated in the command line was not found. The CSI program prints an asterisk; the command may be reentered.

Check for a typing error in the command line. Verify that the file name exists as entered in the command line, and retry the operation.

**?LIBR-F-Illegal device**

The device indicated was not available.

Verify that the device is valid for the system in use.

**?LIBR-F-Illegal error**

An internal error occurred while the librarian was recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, submit an SPR to DIGITAL; include a program listing and a machine-readable source program, if possible.

**?LIBR-F-Illegal input file DEV:FILNAM.TYP**

A file other than a form library file or a form descriptor file was given as input when a form (/F) library was being created.

Make sure that you entered the input file name correctly and that the file is a valid one.

**?LIBR-F-Illegal option combination**

Options have been specified that request conflicting functions to be performed. For example, if /E (or /EXTRACT) is specified, no other option may be used. If /M (or /MACRO) is specified, only continuation options (/C, //, /PROMPT) may follow.

Examine the logic of the command line and correct it if necessary. Check for typing errors, and retry the operation.

**?LIBR-F-Illegal record type in DEV:FILNAM.TYP**

A formatted binary record had a type not in the range 1-10 (octal).

Verify that the correct file names were specified as input; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

**?LIBR-F-Insufficient memory**

Available memory was used up. The current command is aborted.

Refer to Section 3.0 of this manual for information on how to increase memory space.

**?LIBR-F-Macro name table full, use /M:n**

The number of macros to be placed in the macro name table was greater than the number allowed.

Increase the size of the macro name table by supplying a value (*n*) to the option /M:n. The default is 128 names.

**?LIBR-F-No value allowed: /a**

The specified option (/a) does not take a value. The librarian restarts and prompts with an asterisk.

Check for typing errors; verify that the correct option has been specified in the command line, and retry the operation.

### **?LIBR-F-Output and input filenames the same**

The same file name was specified for both input and output files when the command string to build the macro library was specified.

Use different file names for the input and output files specified to build a macro library. The input and output file type is .MAC.

### **?LIBR-F-Output device full DEV:FILNAM.TYP**

The device was full; LIBR was unable to create or update the indicated library file.

Refer to Section 3.0 of this manual for information on how to increase storage space.

### **?LIBR-F-Output file full**

The output file was not large enough to hold the library file or the list file.

Increase the output file size with the monitor /ALLOCATE command or the *output-filepec[:n]* construction; otherwise increase the free space on the output device.

### **?LIBR-F-Protected file already exists DEV:FILNAM.TYP**

An attempt was made to open an output file using ENTER with a name already assigned to a protected file.

Use the monitor RENAME/NOPROTECT command or the PIP /Z option to change the protection level of the existing file, or use a different name to open a new file.

### **?LIBR-F-Read error in DEV:FILNAM.TYP**

An unrecoverable error occurred during the processing of an input file. The CSI prints an asterisk and waits for another command to be entered.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

### **?LIBR-F-/R or /U given on library file DEV:FILNAM.TYP**

A /R (/REPLACE) or /U (/UPDATE) option incorrectly followed the specified library file in the command string.

Use the /R (/REPLACE) or /U (/UPDATE) options only after input file names containing modules for replacement or updating. Correct and reenter the command string.

### **?LIBR-F-/U given on library file DEV:FILNAM.TYP**

This message results if the /U or /UPDATE illegally modified a forms library file.

Use the monitor LIBRARY/UPDATE command or /U option only after input file names containing modules for replacement or updating.

### **?LIBR-F-Write error**

The LIBR program detected an unrecoverable error while processing an output file. This may indicate that there was not enough space left on a device to create a file, although there may have been enough directory entries left.

Refer to Section 3.0 of this manual for information on how to increase storage space.

### **LIBR-W-Duplicate form name of FORMNM**

Two forms of the same name were specified as input and a /U or /UPDATE option was not given on the second form. The first form encountered was put in the output file. All duplicates are ignored.

Use the monitor LIBRARY/UPDATE command or /U option to update a form of the same name as a previously specified file.

**?LIBR-W-Duplicate module name of AAAAAA**

A new module was inserted in a library, but its name is the same as a module that is already in the library. The librarian does not reenter the name in the directory. The old module is not updated or replaced.

For the librarian program, insertion is the default operation and no command option is needed; the option for update is /U, and the option for replacement is /R.

For the keyboard monitor .LIBRARY command, /INSERT puts the duplicate name in the module; /UPDATE and /REPLACE are not possible operations in this case.

**?LIBR-W-File created — protected file already exists DEV:FILNAM.TYP**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or the PIP /Z option.

**?LIBR-W-Illegal character**

The symbol name entered contained an illegal character.

Retype the command line, using Radix-50 characters only, and retry the operation.

**?LIBR-W-Illegal delete of AAAAAA**

An attempt was made to delete from the library's directory a module or an entry point that does not exist; AAAAAA represents the module or entry point name. The entry point name or module name is ignored, and processing continues.

Check for a typing error in the command line.

**?LIBR-W-Illegal extract of AAAAAA**

An extraction of the identified global symbol was attempted, but the symbol was not found in the library.

Check the command string and the contents of the library file for the correct library file and global symbol specifications.

**?LIBR-W-Illegal insert of AAAAAA**

An attempt was made to insert into a library a module that contains the same entry point as an existing module. AAAAAA represents the entry point name. The entry point is ignored, but the module is still inserted into the library.

No user action is necessary.

**?LIBR-W-Illegal replacement of AAAAAA**

An attempt was made to replace in the library file a module that does not already exist. AAAAAA represents the module name. The module is ignored and the library is built without it.

Review the module names in the library file. Make sure the correct module was specified.

### **?LIBR-W-Null library**

An attempt was made to build a library file containing no directory entries.

Verify that the correct file names were specified as input; check for a typing error in the command line. Verify that the input to the library has at least one directory entry.

### **?LIBR-W-Only continuation allowed**

An attempt was made to enter a command string beyond the end of the current line without the use of a continuation character.

Enter a /C option or // (/PROMPT) at the end of the current line.

### **?LINK-F-Address space exceeded**

The high limit of all program sections exceeded 32K words when all sections were concatenated.

Reduce the size of the program by using overlays, by reducing the size of the root segment, and/or by reducing the size of the largest segment, within each overlay region. Refer to Section 3.0 of this manual for information on how to increase memory resources.

### **?LINK-F-ASECT too big**

An absolute section overlaps into an occupied area of memory or an overlay region.

Locate a segment of available memory large enough to contain the absolute section, and substitute the appropriate starting address.

### **?LINK-F-/B No value**

No argument was specified to the /B option.

Reenter the command string, specifying an unsigned, even, octal number as the argument to the /B or monitor /BOTTOM option.

### **?LINK-F-/B Odd value**

The argument to the /B or /BOTTOM option was not an unsigned, even, octal number.

Reenter the command string, specifying an unsigned, even, octal number as the argument to the /B or /BOTTOM option.

### **?LINK-F-Bad complex relocation in DEV:FILNAM.TYP**

During pass 2 of the linker, a complex relocation string in the input file was found to be invalid.

Check for a typing error in the command line; verify that the correct file names were specified as input. Reassemble or recompile to obtain a good object module and retry the operation. If the error persists, verify that the source code is correct.

### **?LINK-F-Bad GSD in DEV:FILNAM.TYP**

There was an error in the global symbol directory (GSD). The file is probably not a legal object module.

Verify that the correct file names were specified as input; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

### **?LINK-F-Bad RLD in DEV:FILNAM.TYP**

An invalid relocation directory (RLD) command exists in the input file. The file is probably not a legal input module.

Check for a typing error in the command line; verify that correct file names were specified as input. Reassemble or recompile to obtain a good object module and retry the operation. If the error persists, check the source code to make sure that all modules contributing to a data p-sect are word-aligned.

**?LINK-F-Bad RLD symbol in DEV:FILNAM.TYP**

An error occurred in the language processor, because a global symbol named in a relocatable record was not defined in the global symbol definition record.

Reassemble the indicated file. If the condition persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?LINK-F-/H Value too low**

The value specified as the high address for linking was too small to accommodate the code.

Obtain map output without using the /H or /TOP option to determine the space required, and then retry the operation.

**?LINK-F-Illegal character**

The character specified was not used in the proper context.

Examine the command string for errors in syntax, making sure that the characters for symbols are legal Radix-50 characters. Correct and retype.

**?LINK-F-Illegal device**

The volume indicated was not available.

Verify that the device is valid for the system in use.

**?LINK-F-Illegal error**

An internal error occurred while the linker was recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, submit an SPR to DIGITAL; include a program listing and a machine-readable source program, if possible.

**?LINK-F-Illegal record type in DEV:FILNAM.TYP**

A formatted binary record had a type not in the range 1-10 (octal).

Verify that the correct file names were specified as input; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

**?LINK-F-Insufficient memory**

There was not enough memory to accommodate the command, the symbol table, or the resultant load module.

Refer to Section 3.0 of this manual for information on how to increase memory space.

**?LINK-F-Library EPT too big, increase buffer with /G**

/G option was not specified in RT-11 and a /X library with too large an Entry Point Table was encountered.

Relink, and issue /G option on first input line.

**?LINK-F-Library list overflow, increase size with /P**

The linker's library routines list was exceeded.

Relink the program that uses the library routines. The /P:n option default is 170 (decimal). Increase the size of the list by specifying a size greater than the default.

**?LINK-F-/M Odd value**

An odd value was specified for the stack address.

Check for a typing error in the command line. Reenter the command, specifying an even value to the /M or /STACK option.

**?LINK-F-Map device full DEV:FILENAM.TYP**

There was no room in the directory for the file name; or there was no room on the output device for the map file. Refer to Section 3.0 of this manual for information on how to increase storage space.

**?LINK-F-Old library format in DEV:FILNAM.TYP**

The format of the library file is outdated (previous to Version 2C). Rebuild the library file using the current librarian and the command format *LIBRARY/CREATE newlib oldlib* for an object library.

**?LINK-F-Protected file already exists DEV:FILNAM.TYP**

An attempt was made to open a file using a name already associated with an existing protected file. Use the monitor *RENAME/NOPROTECT* command or *PIP /Z* option to change the protection level of the existing file, or use a different name to open a new file.

**?LINK-F-Read error in DEV:FILNAM.TYP**

A hardware error occurred while the indicated input file was being read. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?LINK-F-REL write beyond EOF**

The relocation information section of a REL file overflowed when an entire load module required relocation. Use a square bracket construction or */ALLOCATE* option to enclose a number twice the size of the resulting .SAV file.

**?LINK-F-SAV device full DEV:FILENAM.TYP**

There was no room in the directory for the file name, or there was no room on the output device for the image file (SAV, REL). Refer to Section 3.0 of this manual for information on how to increase storage space.

**?LINK-F-SAV read error**

A hardware error occurred while LINK was reading the image file (SAV, LDA or REL). Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?LINK-F-SAV write error**

A hardware error occurred while LINK was writing the image file (SAV, LDA or REL). Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?LINK-F-Size overflow of section AAAAAA**

The program section in question increased program size to more than 32K words. Reduce the size of the program, either in this section or elsewhere in the program.

**?LINK-F-STB device full DEV:FILNAM.TYP**

There was no room in the directory for the file name, or there was no room on the output device for the symbol table (STB) file. Refer to Section 3.0 of this manual for information on how to increase storage space.

**?LINK-F-STB not allowed with /S and a map**

An attempt was made to produce STB and MAP in the same linking operation, which is prohibited with the */S* or */SLOWLY* option. Produce STB and MAP files in separate linking operations.

**?LINK-F-STB write error**

A hardware error occurred while the symbol table (STB) file was being written.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?LINK-F-Storing text beyond high limit**

1. An input object module may have caused the linker to store information in the image file beyond the high limit of the program; there is an error condition in the object module.
2. The amount of space allocated for the output file was insufficient, or there was not enough room on the output device for the output file.

1. Reassemble or recompile the program.
2. Specify a larger output file size, or refer to Section 3.0 of this manual for information on how to increase storage space.

**?LINK-F-Symbol table overflow**

Too many global symbols were used in the program.

Retry the link, using the /S or monitor /SLOWLY option. If the error still occurs, reduce the size of the library list using the /S and /P:n options, with a value less than the default. If the error continues, the link cannot take place in the available memory. Refer to Section 3.0 of this manual for information on how to increase memory space.

**?LINK-F-/T Odd value**

An odd value was specified for the transfer address.

Check for a typing error in the command line. Reenter the command, specifying an even value to the /T or monitor /TRANSFER option.

**?LINK-F-Too many program segments**

More than 1777 (octal) program segments were specified.

Restructure overlays to reduce the number.

**?LINK-F-Too many virtual overlay regions**

More than eight extended memory overlay regions (windows), including the root, were in use for extended memory jobs.

Reorganize the extended memory overlay structure to use eight or fewer memory overlay regions, including the root.

**?LINK-F-/U or /Y value not a power of 2**

The value specified with the /U, the monitor /ROUND, the /Y, or monitor /BOUNDARY option is not a power of 2.

Reenter the command with a value that is a power of 2.

**?LINK-F-Word Relocation Error in FILENAM**

During concatenation of data p-sects, a word reference was moved to an odd byte.

Place the .EVEN assembler directive at the end of data p-sects to make sure that all word references in data p-sects will be on a word boundary when relocated by LINK.

**?LINK-F-XM physical address space exceeded**

The program used more than 96K of extended memory.

Reorganize the overlays to use less extended memory. See the LINK chapter in the *RT-11 System User's Guide* for more information about the extended memory overlay option.

**?LINK-W-Additive reference of NNNNNN at segment # MMMMMM**

A call or a branch to an overlay segment was not made directly to an entry point in the segment. *NNNNNN* represents the entry point; *MMMMMM* represents the segment number.

Make sure that calls or branches to overlay segments are made directly to entry points in the segment. See the *RT-11 System User's Guide* for more information about using overlays.

**?LINK-W-Bad option: /a**

The linker did not recognize the option (/a) specified in the command line; or an illegal combination of options was used.

If the bad option occurred in the first command line, control returns to the CSI; enter another command. If the bad option occurred on a subsequent command line, the option is ignored and processing continues. In a continued command line, make sure that the only options used are /O, /V, /C, and //. Valid linker options are listed in the *RT-11 System User's Guide*. Reexamine the command line and check for a typing error.

**?LINK-W-Boundary section not found**

The program section name specified as a boundary section with the /Y option (/BOUNDARY) was not found in the modules that were linked; or the program section does not exist in the root segment. The linker continues after the warning, without changing the program section.

Check the responses to the *Boundary section?* prompt and use the correct section name the next time you link.

**?LINK-W-Byte relocation error at NNNNNN**

The linker attempted to relocate and link byte quantities, but failed because the high byte of the relocated value (or the linked value) was not all zeros. *NNNNNN* represents the address at which the error occurred.

Correct the source program so that there are no relocated byte quantities. Reassemble and relink.

The relocated value is truncated to eight bits and the linker continues processing (for SAV and LDA files). For REL files no truncation is performed and processing continues.

**?LINK-W-Complex relocation divide by 0 in DEV:FILNAM.TYP**

An attempt was made to divide by 0 in a complex relocation string in the file indicated. A result of 0 is returned and linking continues.

Check the logic in the relocation string of the program.



**?LINK-W-Complex relocation of AAAAAA**

The complex relocation of global symbols was indicated for the linker in the foreground.

Examine the assembly listing and remove all occurrences of complex relocation. The MACRO assembler tags such occurrences with a C in the binary contents column of the listing.

**?LINK-W-Conflicting section attributes AAAAAA**

The program section symbol was defined with different attributes. The attributes of the first definition are used and the linking process continues.

Check the source program, and use the desired section attributes for that program section.

**?LINK-W-Default system library not found SYSLIB.OBJ**

The linker did not find SYSLIB.OBJ on the system device when undefined globals existed or when overlays were being used.

Obtain a copy of SYSLIB.OBJ from the backup system volume and relink the program, or correct the source files by removing the undefined globals listed on the terminal. The *RT-11 Installation and System Generation Guide* contains instructions for tailoring SYSLIB to meet various needs. The current version of SYSLIB contains the overlay handlers, which are required when overlays are specified.

**?LINK-W-Extend section not found**

The extend section name given with the /E or monitor /EXTEND option was not found in the modules that were linked; or the extend section did not exist in the root segment. The linker continues after the warning, without extending the section.

Check the response to the *Extend section?* prompt, and use the correct section name the next time you link.

**?LINK-W-File created: protected file already exists DEV:FILNAM.TYP**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or the PIP /Z option.

**?LINK-W-File not found DEV:FILNAM.TYP**

The input file indicated was not found.

Check for a typing error in the command line. Verify that the file name exists as entered in the command line and retry the operation.

**?LINK-W-Load address odd**

An odd load address was specified with the /Q option.

Reenter the line with an even address.

**?LINK-W-Load address too low PSECT**

The load address specified for the p-sect was too low. The p-sect was ignored to avoid over-  
laying code in a previous section.

Relink and specify a higher load address for the p-sect.

LINK continues execution without loading the p-sect at the specified address.

**?LINK-W-Load section not found PSECT**

The load section specified was not found in the root.

Reorder the modules to place the p-sect containing the load section in the root. Then relink.

LINK continues execution, ignoring the p-sect that was not found.

**?LINK-W-Map write error**

A hardware error occurred while the map output file was being written. The map output is terminated and the linking process continues.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?LINK-W-Multiple definition of symbol**

The symbol indicated was defined more than once. Extra definitions are ignored.

Make sure each symbol is defined only once.

**?LINK-W-No load address**

No address was specified with the /Q option.

Reenter the command line and specify a load address.

**?LINK-W-/O or /V option error, re-enter line**

An error was made in the use of the /O or /V option. There are four probable errors: a /O option appears after a /V option; no value was given with a /O or /V option; a value was given but it is incorrect; a /O or /V option with the /L option was used.

Check the context and reenter the line.

**?LINK-W-Round section not found AAAAAA**

The symbol representing the program section specified with the /U or monitor /ROUND option was not found in the symbol table. Linking continues with no round-up action.

Check the source to make sure the symbol is globally defined.

**?LINK-W-Stack address undefined or in overlay**

The stack address specified by the /M or monitor /STACK option was either undefined or in an overlay. For SAV files, the stack address is set to the default 1000. For REL files, the default is 0 (and will be revised when the file is run in the foreground).

Check for a typing error in the command line. Verify that the stack address or global symbol is not defined in an overlay segment.

**?LINK-W-Transfer address undefined or in overlay**

The transfer address was not defined or was in an overlay.

Check for a typing error in the command line. Respond to the /T or monitor /TRANSFER option with either a colon followed by an unsigned six-digit octal number or with a carriage return followed by the global symbol whose value is the transfer address of the load module.

**?LINK-W-Undefined globals:**

The globals listed were undefined, because SYSLIB was not present and overlays were used.

Check for a typing error in the command line. The undefined globals are listed on the terminal and also in the link map when requested. Correct the source program. Verify that all necessary object modules are indicated in the command line or are present in the libraries specified. See the *RT-11 Installation and System Generation Guide* for instructions on tailoring SYSLIB.

**MACRO messages**

See Section 8.0 of this manual.

**?MDUP-F-Bad block in system area DEV:**

A bad block was found in a critical area of the disk, making the volume unusable.

Reformat the volume if possible. Retry the operation. If the error persists, the volume must be replaced.

**?MDUP-F-Channel in use DEV:FILNAM.TYP**

A serious MDUP internal error occurred.

Reboot the system and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?MDUP-F-Conflicting SYSGEN options DEV:FILNAM.TYP**

The system device handler and the monitor file have different SYSGEN options enabled. This conflict prevents further processing.

Refer to the *RT-11 Installation and System Generation Guide* for details about the MDUP system program.

**?MDUP-F-Directory I/O error DEV:FILNAM.TYP**

An error occurred while MDUP was reading the directory of the specified device.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation. If the error persists, reformat the volume. If the error still occurs, replace the volume.

**?MDUP-F-Directory input error DEV:**

An error occurred while the directory of the specified device was being read.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation. If the error persists, reformat the volume. If the error still occurs, replace the volume.

**?MDUP-F-Directory output error DEV:**

An error occurred while the directory of the specified device was being written. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation. If the error persists, reformat the volume. If the error still occurs the volume must be replaced.

**?MDUP-F-Error reading bad block replacement table DEV:**

An input error occurred while MDUP was reading the bad block replacement table in block 1 (the home block) of the specified volume. Check for bad blocks on the volume. If the home block is bad, the volume is unusable and must be replaced. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?MDUP-F-File not found DEV:FILNAM.TYP**

The specified file was not found. Check for a typing error in the command line. Retry the operation.

**?MDUP-F-Illegal command**

1. The command entered is illegal. Check for a typing error in the command line. Check the format of the command line.
2. The format of the command line was incorrect. Refer to the *RT-11 System User's Guide* for a list of valid option combinations. Make sure the device specified is valid for the requested operation.
3. An illegal combination of options was specified.
4. A device may not be valid for the requested operation.

**?MDUP-F-Illegal device DEV:**

The specified device is not supported for use with MDUP. Check for a typing error in the command line. See the *RT-11 Installation and System Generation Guide* for the list of devices supported by MDUP.

**?MDUP-F-Illegal directory DEV:**

The volume in the specified device does not contain a valid RT-11 directory structure. Initialize the volume before using it for the first time. Review the discussion about using the MDUP.SAV program in the *RT-11 Installation and System Generation Guide*.

**?MDUP-F-Illegal option**

An illegal option was specified in the command line. Check for a typing error in the command line. Use only those options that are valid for the DUP program as specified in the *RT-11 System User's Guide*.

**?MDUP-F-Illegal option value**

A value was specified that was outside the acceptable range. Check for a typing error in the command line. Refer to the *RT-11 System User's Guide* for a list of valid options and the range of legal values for each option.

**?MDUP-F-Input error DEV:FILNAM.TYP**

A hard error occurred during a read operation.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?MDUP-F-Insufficient memory**

There was not enough memory to complete the requested operation.

Make sure there are at least 12K words of memory for the requested operation. See the section on the MDUP.SAV program contained in the *RT-11 Installation and System Generation Guide*.

**?MDUP-F-Non-bootable driver DEV:FILNAM.TYP**

The specified device handler does not contain a valid primary bootstrap, because either the bootable magtape or MDUP.Mx was built incorrectly.

See the *RT-11 Installation and System Generation Guide* for details about the MDUP.SAV program.

**?MDUP-F-No room for file DEV:FILNAM.TYP**

There was no room for the specified file on the output volume.

Use the /Z option or the INITIALIZE command to initialize the output device before copying the system to the output device. See the *RT-11 Installation and System Generation Guide* for more information.

**?MDUP-F-Output error DEV:FILNAM.TYP**

A hard error occurred during a write operation.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?MDUP-F-Size function failed**

An error occurred while DUP was determining the size of the volume mounted in a device. The monitor, the device handler, or DUP may be corrupted.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual. Reboot the system and retry the operation.

**?MDUP-F-Trap to 4**

A serious MDUP internal error occurred.

Reboot the system and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?MDUP-F-Trap to 10**

A serious MDUP internal error occurred.

Reboot the system and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?MDUP-I-Bad blocks detected nnnnn.**

The specified number of bad blocks was detected during the bad block scan initiated by the /Z/B option or the monitor INITIALIZE/BADBLOCKS command.

The volume is ready to use.

**?MDUP-I-No bad blocks detected DEV:**

No bad blocks were detected during the bad block scan initiated by a DUP /Z/B option or the monitor INITIALIZE/BADBLOCKS command.

The volume is ready to use.

**?MDUP-U-System error**

A serious MDUP internal error occurred.

Reboot the system and retry the operation. If the error still occurs, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?MDUP-W-Too many bad blocks DEV:**

More than 128 bad blocks were encountered during a bad block scan.

The volume is unusable; reformat or replace.

**?MON-F-Bad fetch**

An error occurred while a device handler was being read from SY:, the address at which the handler was to be loaded was illegal, or the handler to be fetched has SYSGEN options that do not match the SYSGEN options of the monitor.

Check that the address at which the handler is to be loaded is not out of the bounds of the program, and that the handler is not so large that it would overflow the program bounds; in this case, try to allow more space for the handler. Examine location 60 of the device handler and the monitor fixed offset for SYSGEN features to see if they agree.

**?MON-F-Dir IO err NNNNNN**

For FB and XM only. See ?MON-F-Directory I/O error NNNNNN.

**?MON-F-Dir ovflo NNNNNN**

For FB and XM only. See ?MON-F-Directory overflow NNNNNN.

**?MON-F-Directory I/O error NNNNNN**

For SJ only. An error occurred during I/O in the directory of a device. The value NNNNNN is the address of the instruction or EMT that caused the error.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?MON-F-Directory overflow NNNNNN**

For SJ only. No more directory segments were available for expansion (occurred during file creation via .ENTER). The value NNNNNN is the address of the instruction or EMT that caused the error.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?MON-F-FP trap NNNNNN**

For SJ only. A floating-point exception trap occurred, and the user program had no .SFPA exception routine active. The job is aborted. The value NNNNNN is the address of the instruction or EMT that caused the error.

Examine the data for floating-point overflow or underflow and adjust it accordingly.

**?MON-F-FPU trap NNNNNN**

For FB and XM only. See *?MON-F-FP trap NNNNNN*.

**?MON-F-III addr NNNNNN**

For FB and XM only. See *?MON-F-Illegal address NNNNNN*.

**?MON-F-III chan NNNNNN**

For FB and XM only. See *?MON-F-Illegal channel NNNNNN*.

**?MON-F-III EMT NNNNNN**

For FB and XM only. See *?MON-F-Illegal EMT NNNNNN*.

**?MON-F-III SST NNNNNN**

For the XM monitor only.

1. The program has not supplied a valid trap address for a synchronous system trap.
2. The program has not properly initialized the trap vector before a trap instruction (BPT, IOT, or TRAP), and the monitor has intercepted the instruction. Zero and odd addresses in the vector locations cause this error.

The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Verify that valid trap addresses are supplied for synchronous system traps. Initialize the trap vector properly for each trap instruction. If the program has no trap instructions, check for a logic error that is causing an inadvertent trap — for example, improper execution of data. See the *RT-11 Software Support Manual* for more information about synchronous system traps.

**?MON-F-III USR NNNNNN**

For FB only. A foreground job attempted to load the USR at an address outside the job's limits. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Make sure that jobs that issue programmed requests requiring the USR provide an area for the USR to swap into. This area must be at least 2K words, wholly within the job's upper and lower limits, and pointed to by location 46.

**?MON-F-Illegal address NNNNNN**

For SJ only. An address specified in a monitor call was odd or was not within the job's address space. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Correct the address in error in the source program.

### **?MON-F-Illegal call to USR NNNNNN**

For SJ only. The USR was called from a completion routine. This error does not have a soft return — that is, .SERR will not inhibit this message. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Correct the program so that the USR is not called from within a completion routine.

### **?MON-F-Illegal channel NNNNNN**

For SJ only. A channel number that was too large was specified. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Use a valid channel number (the default number is 16 channels), or define a larger number (225 maximum) using the .CDFN request.

### **?MON-F-Illegal EMT NNNNNN**

For SJ only. The function code of an EMT was out of bounds. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Check the EMT instruction to determine the correct code.

### **?MON-F-Mem err NNNNNN**

For FB and XM only. See *?MON-F-Memory error NNNNNN*.

### **?MON-F-Memory error NNNNNN**

For SJ only. The monitor found a memory parity error and aborted the user program. The address *NNNNNN* is the value of the program counter after the instruction has been executed. That is, it is the address of the instruction that caused a read of the location with bad parity. (Memory parity support must be chosen during system generation.) If the error persists or occurs at more than one address, memory has become defective. A memory parity error in a system with cache memory indicates failure of the main memory, not the cache memory. Recoverable cache errors are logged if error logging is active.

Run the memory diagnostics and then notify a DIGITAL field service specialist.

### **?MON-F-MMU fault NNNNNN**

For the XM monitor only. The program has a memory management error in the form of a program reference to an address that is outside the currently mapped bounds of the program. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Check the instruction that precedes address *NNNNNN* and correct it. Rerun the program.

### **?MON-F-No dev NNNNNN**

For FB and XM only. See *?MON-F-No device NNNNNN*.



**?MON-F-No device NNNNNN**

For SJ only. A READ/WRITE operation was attempted, but no handler was in memory for the device. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Verify that no .RELEASE was done before the READ/WRITE operation. Make sure that the program uses the .FETCH command to fetch the handler, or load the appropriate handler before running the program.

**?MON-F-Overlay error NNNNNN**

For SJ only. An error occurred when an overlaid user program tried to read an overlay. The value *NNNNNN* is the address of the instruction or EMT that caused the error.

Make sure that the program did not accidentally perform a .CLOSE or .PURGE on channel 15 (decimal). Verify that the device is not off line and that the proper handler is loaded if the overlay program is running from a device type other than that of the system device.

**?MON-F-Ovly err NNNNNN**

For FB and XM only. See *?MON-F-Overlay error NNNNNN*.

**?MON-F-Power fail halt**

A power failure occurred. When power returns, the system prints the message (if display of this message was chosen during system generation) and halts.

Reboot the system.

**?MON-F-Stack overflow**

For SJ only. A trap to 4 or trap to 10 occurred, and the stack pointer is below 0400 (octal).

Refer to the explanation and recovery procedures for the message *?MON-F-Trap to 4 NNNNNN*.

**?MON-F-Swap error**

For FB and XM only. A hard error occurred while the system was attempting to write a user program to the system swap blocks. This may indicate that the system device is write-locked.

Verify that the system device is write-enabled. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?MON-F-System halt**

For FB and XM only. An I/O error occurred while the monitor was reading the KMON or USR into memory. Either the system volume was dismounted or the monitor file contained a bad block. The monitor continues to try to read the KMON after issuing this message.

Verify that the system volume is mounted and ready. Bootstrap a different monitor file on your system volume. If the monitor file is affected, obtain a new monitor file from your system backup device and label the corrupted file FILE.BAD to set aside the bad block.

### ?MON-F-System read failure halt

For SJ only. An I/O error occurred while the KMON or USR was being read into memory, indicating that the system volume is dismounted or the monitor file is situated on the system device in an area that developed one or more bad blocks. (Support for display of this message must be selected during system generation.)

Verify that the system volume is mounted in the proper device and ready. Bootstrap a different monitor file on the system volume. If the monitor file is affected, obtain a new monitor file from the system backup device and label the corrupted file FILE.BAD.

### ?MON-F-System write error

For SJ only. The error occurred when the monitor tried to write to SY: and was prevented, probably by a write-locked system disk.

Verify that SY: is write-enabled when the error occurs (remember that SY: must be write-enabled for the USR to swap). Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

### ?MON-F-Trap to 4 NNNNNN

### ?MON-F-Trap to 10 NNNNNN

1. A trap to location 10 occurs if the job referenced illegal memory or device registers, or if an illegal instruction was used.

Determine the bounds of the user program from the link map or absolute locations 40, 46, 50, and 54. If the error occurred within the bounds of the user program, correct the programming logic. Verify that the program has not corrupted vital monitor data, such as the stack, the queue elements, or the monitor itself. Check USR swapping and program overlaying for possible error. Refer to Section 4.0 of this manual for more information. Check for reference to a device that does not exist on the current system (for example, PRINT FILE.FOR on a system that does not have a line printer).

2. A trap to location 4 occurs if stack overflow occurred, a word instruction was executed with an odd address, or a hardware problem caused bus time-out.

Make sure a transfer address is specified in the .END directive of a MACRO program, or with the linker /T option or monitor LINK/TRANSFER command.

The value NNNNNN is the address of the instruction or EMT that caused the error.

3. A special trap to location 4 occurs if the program counter (PC) is equal to 1 (as in the following error message), indicating that the linker supplied a starting address of 1 for the program.

If none of these errors can be identified, report the problem to DIGITAL using an SPR; include a program listing and a machine-readable source program, if possible.

### ?MON-F-Trap to 4 000001

This can occur if the transfer address was omitted from the .END directive in a MACRO program, or no transfer address was specified with the linker /T option or the monitor LINK/TRANSFER command.

**?MON-F-Unloaded driver NNNNNN**

For FB and XM monitors only. The program attempted to use a device handler that was not in memory and could not be fetched. The value *NNNNNN* is the address of the location or EMT that caused the error.

RT-11 requires device handlers to be loaded manually for foreground and system FB jobs and all XM jobs. Use the LOAD command to load the handler(s) before running the program.

**?MON-W-Directory unsafe**

For FB and XM monitors only. This message, along with whatever message appears immediately above it, indicates an I/O error while the USR was updating a device directory. The directory operation may have failed — one or more files may have been lost. The monitor attempts to complete the directory operation before aborting the job.

Examine the device directory carefully for lost files. Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?MSBOOT-F-File not found**

The specified file was not available for bootstrapping from the magtape.

Check for a typing error.

**?MSBOOT-F-Illegal file name**

An illegal file name was specified.

Check for a typing error in the command line. Verify that the file specification is in the proper format.

**?MSBOOT-F-I/O error**

A hard error occurred during a magtape bootstrap operation.

Refer to the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?MSBOOT-F-Line too long**

More than 80 characters were used in the MSBOOT command line.

Enter a legitimate MSBOOT command, limited to a file name and file type.

**?PAT-F-Command line error**

There is a syntax error in the PAT command line.

Check for typing errors and reenter the command line.

**?PAT-F-Correction file has bad GSD**

There was an error in the global symbol directory (GSD). The file is probably not a legal object module.

Verify that the input file name is correct; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

**?PAT-F-Correction file has bad RLD**

A global symbol named in a relocatable record was not defined in the global symbol definition record. This error condition appeared in the language processor.

Reassemble the indicated file. If the condition persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?PAT-F-Correction file has illegal record**

The format of the correction file is not compatible with the object file format PAT requires. The standard language processors should produce the required format.

Verify that the correction file has the proper format, and retype the command line.

**?PAT-F-Correction file missing**

The command line has no correction file specification. PAT requires both an input file and a correction input file in every command.

Enter a complete command to PAT.

**?PAT-F-Correction file missing RLD record**

The file is missing an RLD 7 command before the first TXT record. This is the p-sect definition command. PAT cannot process the file.

Reassemble the correction file.

**?PAT-F-Correction file read error**

PAT detected an error while reading the correction file. Input hardware can cause this error.

Retry the command. If the error persists, refer to the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?PAT-F-Illegal error**

An internal software error condition occurred.

If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?PAT-F-Incompatible reference to global AAAAAA**

The correction file contains a global symbol with improper attributes.

Modify the attributes of the global symbol. Choose DEFINITION or REFERENCE, and choose RELOCATABLE or ABSOLUTE. Reassemble the correction file, and retype the command line.

**?PAT-F-Incompatible reference to section AAAAAA**

The correction file contains a section name with improper attributes.

Modify the section attributes or section type. Choose RELOCATABLE or ABSOLUTE, and specify .PSECT or .CSECT. Reassemble the correction file, and retype the command line.

**?PAT-F-Input file has bad GSD**

There was an error in the global symbol directory (GSD). The file is probably not a legal object module.

Verify that the input file name is correct; check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and retry the operation.

**?PAT-F-Input file has bad RLD**

An error occurred in the language processor, because a global symbol named in a relocatable record was not defined in the global symbol definition record.

Reassemble the indicated file. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?PAT-F-Input file has illegal record**

The format of the input file is not compatible with the object file format PAT requires. The standard language processors should produce the required format.

Verify that the input file has the proper format, and retype the command line.

**?PAT-F-Input file missing**

The command line does not have an explicit input file specification. PAT requires both an input file and a correction file in every command.

Enter a complete command to PAT.

**?PAT-F-Input file read error**

PAT detected an error while reading the input file. Input hardware can cause this error.

Retry the command. If the error persists, submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?PAT-F-Insufficient memory**

There was not sufficient contiguous memory for PAT to use for the corrected output file.

Refer to Section 3.0 of this manual for information on how to increase memory resources.

**?PAT-F-Only /C allowed**

The input module or correction file specifications contain an illegal option that is neither /C or /C:n.

Enter a command line with appropriate options.

**?PAT-F-Output file full**

There was not enough free space on the output volume for the corrected object file.

If there is sufficient free space on the output volume, use the form `dev:filnam.typ[size]` for the output file specification. Otherwise, refer to Section 3.0 of this manual for information on how to increase storage space.

**?PAT-F-Output write error**

PAT encountered an error while writing the output file. This error occurs when the output device is write-locked or when there is a hardware error.

Check the procedures for recovery from hard error conditions in Section 2.0 of this manual.

**?PAT-F-Unable to locate module AAAAAA**

The correction file has a module name that does not exist in the input file. AAAAAA represents the name of the nonexistent module.

Update the input file to include the missing module, or correct an improper module name in the correction file. Retype the command line.

**?PAT-W-Additional input files ignored**

The command line specified more than two input files. PAT processes the first as the input module to be corrected and the second as the correction file. PAT ignores all other files.

For each correction file, create a single input object module to be corrected. Enter a correct PAT command for the changes you want to make.

**?PAT-W-Additional output files ignored**

The command line has more than one output file specification. PAT cannot create more than one file for each command line. PAT ignores all other output files specified, except the first.

Enter a correct command. For the general command line format `out1,out2,out3=input,correct`, PAT's output file must be in the "out1" position.

**?PAT-W-Correction file checksum error**

PAT found a checksum value that was different from the value for the /C correction file option. Mistyping the /C option value or specifying an invalid version of the correction file causes this error.

Check for typing errors, and check both the checksum value and the correction file name used. Enter a correct command line.

**?PAT-W-Correction file checksum is NNNNNN**

PAT responds to the /C option on the correction file with this message. *NNNNNN* is the octal value of the sum of all binary data composing the file.

This message is informational.

**?PAT-W-Input file checksum error**

PAT found a checksum value that was different from the value for the /C input file option. Mistyping the /C option value or specifying an invalid version of the input file causes this warning.

Check for typing errors, and check both the checksum value and the input file name used. Enter a correct command line.

**?PAT-W-Input module checksum is NNNNNN**

PAT responds to the /C option on the input module with this message. The octal value *NNNNNN* is the sum of all binary data in the file.

This message is informational.

**?PAT-W-Output file created - protected file already exists**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor *RENAME/NOPROTECT* command or *PIP /Z* option.

**?PATCH-F-File protected**

An attempt was made to patch a protected file.

Use the monitor *RENAME/NOPROTECT* command or *PIP /Z* option to change the protection level of the file.

**?PATCH-F-Insufficient memory**

There was not enough free memory to contain the device handler and the internal "overlay tables." This message should not occur under normal circumstances.

Try patching the file on the system device so that handlers need not be loaded. Refer to Section 3.0 of this manual for information on how to increase memory space.

**?PATCH-F-Read error**

PATCH detected an input error in reading from the file.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?PATCH-F-Write error**

PATCH detected an output error in writing to the file.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?PATCH-I-[+2K core]**

The USR is swapping, or PATCH needs more memory for overlay handling. PATCH continues executing normally.

This message is informational.

**?PATCH-I-Checksum=NNNNNN**

PATCH prints out the checksum in response to the /D option after an "E" or "F" command has been issued.

This message is informational.

**?PATCH-I-Search failure for NNNNNN**

The PATCH program could not locate the address NNNNNN.

Take whatever action is appropriate.

**?PATCH-W-Address not in segment**

The specified address exceeded the limits of the particular overlay.

Check the linker load map for the address and proper overlay segment.

**?PATCH-W-Bottom address wrong**

The contents of the address specified did not correspond to the first word in the standard RT-11 overlay handler.

Correct the line in error by specifying the correct address with the x;B command.

**?PATCH-W-Checksum error**

PATCH responded to an incorrectly entered checksum three times. A failure to enter the correct checksum on the third attempt caused an automatic exit to the RT-11 monitor.

The checksum is incorrect because the file being patched has been changed. Delete the incorrectly patched file and repeat the backup procedures before attempting to patch the file a second time.

**?PATCH-W-Illegal command**

The response to the message *FILE NAME* — was incorrect.

Check for a typing error in the command line. The file specification must be of the form *[dev:]filnam[.typ]/options*.

**?PATCH-W-Illegal option**

One of the options encountered in the entered file specification was not a recognized legal option.

Check for a typing error in the command line. Verify that the options used are valid. Retry the operation.

**?PATCH-W-Invalid overlay handler modification**

An attempt was made to insert a zero value into the overlay handler tables for an overlaid program.

Use only a non-zero value in conjunction with the ;O command.

**?PATCH-W-Invalid relocation register**

An attempt was made to reference a relocation register outside the range 0-7.

Check for a typing error in the command line. Set relocation registers within the range 0-7.

**?PATCH-W-Invalid segment number**

The specified segment number did not exist in the file being patched.

Check for a typing error in the command line. Check the linker load map and command string to determine the overlay structure.

**?PATCH-W-Must open word**

The @, P, or X command was typed when no address was open.

Check for a typing error in the command line. Use the @, P, and X commands only when a word is open.

**?PATCH-W-Must specify segment number**

The specified address exceeded the limits of the root segment.

Check for a typing error in the command line. Check the linker load map; a segment number must be explicitly given.

**?PATCH-W-No address open**

An LF, ^, @, X, P, C, or A command was typed when no address was open.

Check for a typing error in the command line. Open a location before using these commands.

**?PATCH-W-Not in program bounds**

1. An attempt was made to reference a location outside the limit defined by location 50 in block zero of the file.
2. The value of the initial stack pointer for the program may also be beyond the last location of the program.

Check for a typing error in the command line. Check the linker load map to determine where the program was loaded. Check the initial value of the stack pointer.

**?PATCH-W-Odd address**

An attempt was made to open an odd address as a word with the / (slash) command.

Use even numbers for word addresses. Use \ (backslash) to open an odd address.

**?PATCH-W-Odd bottom address**

The bottom address specified or contained in location 42 of an overlay file was odd.

The overlay handler must start on an even word boundary.

**?PATCH-W-Program has no segments**

1. An attempt was made to reference an overlay region in a program that was not identified as an overlaid program in the file specification.
2. An attempt was made to reference an overlay region in a program that has none.

Check the linker load map. Verify that the correct file was specified in the command line.

**?PIP-F-Checksum error DEV:FILNAM.TYP**

A checksum error occurred during a formatted binary transfer.

Check for a typing error in the command line. Make sure that the correct file is being transferred. Data may have been lost from the input file. Retry the operation, using the /G or monitor /IGNORE option, and correct the file after input.

**?PIP-F-Device full DEV:FILNAM.TYP**

The output device did not have enough room to contain the specified file, although preceding files were copied.

Refer to Section 3.0 of this manual for information on how to increase storage space.



**?PIP-F-Device in use**

Another job was using the device (normally MT: or MM:).

Retry the operation when the other job is either finished or aborted.

**?PIP-F-Error reading directory**

PIP detected a hardware error while reading a device directory.

The device may not be mounted or on-line. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?PIP-F-File not found DEV:FILNAM.TYP**

The input file specified was not found, or no input files with the expected name or type were found during a wildcard expansion.

Check for a typing error in the command line, verify that the file name exists as entered in the command line, and retry the operation.

**?PIP-F-File sequence number not found**

The input magtape volume has fewer files than the sequence number in the monitor /POSITION option.

Check for a mistyped file sequence number, and check the magtape directory by using the monitor DIRECTORY/POSITION command or DIR /B option. Reenter the command correctly.

**?PIP-F-Illegal command**

The command line is incorrect. An option incompatible with the command may have been typed.

Check for a typing error. Verify that the format and syntax are correct and retry the operation.

**?PIP-F-Illegal delete DEV:FILNAM.TYP**

A magtape was used as the device in a DELETE command, a TYPE/DELETE command, a PRINT/DELETE command or with the /D option in a PIP command line. No files are deleted from the magtape.

Delete the files from the magtape by copying those files that should be saved to another volume with a monitor COPY/QUERY command or a PIP /G option, then reinitialize the original magtape. Transfer the saved files back to the magtape, if necessary.

**?PIP-F-Illegal device**

An illegal or nonexistent device was indicated.

Check for a typing error in the command line. Verify that the device indicated is valid.

**?PIP-F-Illegal directory**

The device did not contain a properly initialized directory structure (end-of-tape file on cassette; empty file directory on other devices).

Initialize the device with the DUP /Z option or INITIALIZE command before using it the first time.

**?PIP-F-Illegal option**

An illegal option was used in a command line.

Check for a typing error in the command line. Use only those options listed as valid for PIP in the *RT-11 System User's Guide*. (Also, see the list of valid options for the COPY, DELETE, and RENAME commands.)

### **?PIP-F-Illegal option combination**

An illegal option combination was used in the command line.

Check for a typing error in the command line. See the *RT-11 System User's Guide* for valid option combinations.

### **?PIP-F-Illegal option value**

During the copying of a magtape, the value of the file sequence number in a COPY/ POSITION command or PIP /M option is not in the range -2 to +999. No files were copied from the magtape.

Check for typing errors. Retype the command with the appropriate file sequence number.

### **?PIP-F-Illegal output file**

The specified file name is illegal for the command.

Retype the command.

### **?PIP-F-Illegal rename DEV:FILNAM.TYP**

An illegal rename operation was attempted.

Check for a typing error in the command line. Verify that the same device name appears in both the input and output specifications.

### **?PIP-F-Illegal use of wildcards DEV:FILNAM.TYP**

1. The output file name or file type did not match the input file specifications in a copy operation.
2. The output file specification contained embedded wildcards (\* or %) as in A\*B.MAC and A%B.MAC.

Check for errors and retype the command line.

### **?PIP-F-Input error DEV:FILNAM.TYP**

PIP detected a hardware error while reading the file.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual. Retry the operation using a /G (/IGNORE) option.

### **?PIP-F-Insufficient memory**

Memory overflow occurred resulting from too many device and/or file specifications (usually in wildcard operations) and no room for buffers.

See Section 3.0 of this manual for information on how to increase memory space. Try copying the files one at a time, without using wildcards.

### **?PIP-F-Library file not copied DEV:FILNAM.TYP**

An OBJ library is an input file in a monitor COPY/BINARY command or PIP /B option. The file name is shown in this message. Copying stops.

Do not use the /BINARY or /B option when copying OBJ libraries. Use the /QUERY or PIP /Q option to selectively copy files, and type NO for each OBJ library.

### **?PIP-F-Output error DEV:FILNAM.TYP**

1. An unrecoverable error occurred while PIP was writing a file, perhaps caused by a hardware or checksum error.

See Section 3.0 of this manual for information on how to increase storage space. Check the procedures for recovery from hard error conditions listed in Section 2.0.

2. There was not enough room available on the device when creating a file.

In a multiple file operation, the command was successfully executed on every file preceding the one interrupted by the error.

#### **?PIP-F-Output file full DEV:FILNAM.TYP**

1. Physical end-of-tape was detected on an output magtape volume.
2. The output file was not large enough for the input file.

For devices other than magtapes, fragmented storage space can cause this message. Copies from magtape or cassette and copies with the /CONCATENATE command or PIP /U option also cause the error.

Use the /ALLOCATE command or square bracket construction to specify large output files, if the output volume has sufficient free space. Check Section 3.0 of this manual for information on how to increase storage space.

#### **?PIP-F-System error**

Either an attempt was made to use a device not on the system, or a serious error has occurred.

Check to be sure that the device you want to use is loaded. Check the directory of the relevant device to insure that the necessary system programs are intact. Reboot the system if necessary.

#### **?PIP-F-Too many output files**

More than one output file was specified in the command line.

Limit the number of output files on the command line to one.

#### **?PIP-F-Use DIR**

An attempt was made to obtain directory listings using PIP in RT-11 Version 4. The PIP /L option and the TYPE/DIRECTORY monitor command are both invalid. Control returns to the monitor.

Use the keyboard monitor DIRECTORY command, or run the DIR utility to list device directories.

#### **?PIP-F-Wrong version of RT-11**

An attempt was made to run RT-11 Version 4 PIP on a version of RT-11 previous to Version 4.

Do not attempt to run RT-11 Version 4 PIP under any version of RT-11 previous to Version 4.

#### **?PIP-W-Checksum error DEV:FILNAM.TYP**

A checksum error occurred during a formatted binary transfer. Execution continues because a /G or /IGNORE option existed within the command line.

Check for a typing error in the command line. Make sure that the correct file is being transferred. Examine the file for errors after input is completed.

#### **?PIP-W-Input error DEV:FILNAM.TYP**

PIP detected a hardware error while reading the file. Execution continues because a /G or monitor /IGNORE option was used in the command line.

Examine the file for errors after the command finishes.

### **?PIP-W-No .SYS action**

The /Y or monitor /SYSTEM option was not included with a command specified on a .SYS file. A wildcard transfer is most likely to cause this message.

Check for a typing error in the command line. The command is executed for all but .SYS files. Use the /Y or monitor /SYSTEM option if .SYS type files should also be included in the operation.

### **?PIP-W-Output file found, no operation performed on DEV:FILNAM.TYP**

The command line included the monitor /NOREPLACE or PIP /N option, and there was already a file on the output volume with the name shown. That file is not changed, and the input file with the same name is not copied.

If files on the output volume that have the same names as input files do not require protection, reissue the command without the /NOREPLACE or /N option. Otherwise, change one of the names in each conflicting pair — the file already on the output volume, the file on the input volume, or the explicit output file name in the command line.

### **?PIP-W-Reboot**

System (.SYS) files have been created, moved, renamed, or deleted from the system device.

If any of the .SYS files in use by the current system have been physically moved on the system device, reboot the system immediately (the actual reboot operation must not be performed until PIP returns with the prompting asterisk for the next command, or until a monitor command returns to the monitor prompt). Otherwise, the message can be ignored.

### **?QUEMAN-E-File not found - DEV:FILNAM.TYP**

The specified file was not found.

Check for a typing error in the command line. Make sure that the specified file resides on the specified device. Reenter the command.

### **?QUEMAN-E-Illegal command**

The command line given to QUEMAN was not in the correct format.

Check for a typing error in the command line and make sure that the command is in the correct format. Reenter the command.

### **?QUEMAN-E-Illegal device - DEV:**

The specified device was not found in the system device tables.

Reenter the command, using a valid device.

### **?QUEMAN-E-Illegal option - /x**

Option x, an invalid option, was specified in the command line.

Check for typing errors in the command line and review the list of valid options. Reenter the command line.

### **?QUEMAN-E-Not enough available memory**

There was not enough room to build the job request.

See Section 3.0 of this manual for information on how to increase memory resources.

### **?QUEMAN-E-Queue Full**

There was not enough room in the workfile for the number of input files specified.

Reduce the number of files requested; or wait until some jobs have run to completion before making additional requests.

**?QUEMAN-F-Handler not loaded - DEV:**

The handler for the device was not loaded. Load the device handler and reenter the command.

**?QUEMAN-F-QUEUE is not running**

The QUEUE program is not running as either a foreground job or a system job. Use FRUN to install QUEUE in the foreground or SRUN to install QUEUE as a system job.

**?QUEMAN-F-Read error in - DEV:FILNAM.TYP**

An error occurred while a file or the directory was being read. This error may be caused by a hard error or an accidental deletion of the QUEUE workfile. Try reading the file or directory again. Use /L to list the current contents of the QUEUE. If the error persists, copy each file off the device. Reformat the disk using the FORMAT program.

If the error persists, the disk is bad. Use a different disk for the operation.

**?QUEUE-E-Cannot delete protected file DEV:FILNAM.TYP**

The referenced file is protected. QUEUE attempted either to delete an input file in response to the /D option or monitor PRINT/DELETE command, to open an output file on a file-structured device, or to delete the workfile when all queue elements were resolved. Use the monitor RENAME/NOPROTECT command or PIP /Z option to remove the protection status of the file and reenter your request.

**?QUEUE-E-Cannot open message channel**

QUEUE was unable to open a message channel on which to receive job requests. This is a serious internal error. Submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?QUEUE-E-File not found DEV:FILNAM.TYP**

The file sent to the workfile was deleted. Make sure that the specified file resides on the specified device. Reenter the job request to print the file.

**?QUEUE-E-Handler not loaded DEV:**

The specified device handler was not loaded. Load the handler and reenter the job request to print the file.

**?QUEUE-F-Cannot open input device DEV:FILNAM.TYP**

The specified input device could not be opened. Make sure that the input device is on line. Reenter the job request.

**?QUEUE-F-Cannot open output device DEV:**

The specified output device could not be opened. Make sure that the output device is on line. Reenter the job request.

**?QUEUE-F-Input error DEV:FILNAM.TYP**

An input error occurred on the specified file. Refer to procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?QUEUE-F-No room for QUEUE workfile on DK:**

There was not enough room on the system device for the QUEUE workfile.

Refer to Section 3.0 of this manual for instructions on how to increase storage space on volumes.

**?QUEUE-F-Output error DEV:FILNAM.TYP**

A hard error occurred during an output transfer while the specified job was being processed.

Check the procedures for recovery from hard error conditions described in Section 2.0 of this manual.

**?QUEUE-F-Output error SY:QUFILE.TMP**

A hard error occurred while the QUEUE workfile was being updated.

Check the procedures for recovery from hard error conditions described in Section 2.0 of this manual.

**?QUEUE-W-Error sending message to JOBNAME**

QUEUE was unable to send an acknowledgment to the requesting job.

The job sending a job request message to QUEUE exited before receiving an acknowledgment message.

**REMINDER: To initiate error logging RUN ELINIT**

The EL task is loaded but not active.

Run ELINIT to initiate error logging.

**?RESORC-F-Error reading directory**

An input error occurred while RESORC was reading a directory segment from the system device.

Make sure that the system device is mounted and up to speed. Scan the system device for bad blocks, using the DUP /K option or the DIRECTORY/BADBLOCKS command.

**?RESORC-F-Input error FILNAM.TYP**

An input error occurred while RESORC was reading the specified file.

Scan the system device for bad blocks. It may be necessary to obtain a fresh copy of the monitor from a backup copy of the system.

**?RESORC-F-Insufficient memory**

There was not enough free memory for RESORC to allocate space to its input buffer.

Unload the foreground or system job, if possible, and any unnecessary handlers.

**?RESORC-F-System error**

A .DSTATUS or .LOOKUP request to the system device failed. Either the system device was not mounted or the image of the monitor currently in memory has been corrupted.

Make sure that the system device is mounted and up to speed. It may be necessary to reboot the system.

**?SCRIPT-W-Bad #ASK in AAAAAA**

In a user-created SYSGEN.CND, the question mark (?) delimiter in an #ASK command was omitted.

Edit the user version of SYSGEN.CND by inserting a question mark (?) after the question in the #ASK command.

**?SCRIPT-W-Bad #SET in AAAAAA**

In a user-created SYSGEN.CND, the equal sign (=) delimiter in a #SET command was omitted.

Edit the user version of SYSGEN.CND by inserting an equal sign (=) between the variable name and answer in the #SET command.

**?SCRIPT-W-Bad substitute pattern in AAAAAA**

In a user-created SYSGEN.CND, the delimiters in a #SUBS command did not match.

Edit the user version of SYSGEN.CND, using the same delimiters on both sides of the pattern in the #SUBS command.

**?SCRIPT-W-Missing file name in AAAAAA**

In a user-created SYSGEN.CND, a #FILE command was issued without a file name and type being specified.

Edit the user version of SYSGEN.CND by inserting the file name and type of the output file in the #FILE command.

**?SCRIPT-W-Missing variable in AAAAAA**

In a user-created SYSGEN.CND, an #IF, #IFN, or #IFGT command was issued without a script variable.

Edit the user version of SYSGEN.CND by inserting the variable to be tested at the end of the #IF, #IFN, or #IFGT command.

**?SCRIPT-W-Nested #CALL in AAAAAA**

In a user-created SYSGEN.CND, a #CALL command was issued from a file other than the original. #CALL commands cannot be nested.

Edit the user version of SYSGEN.CND by deleting the nested #CALL command. Reenter it later as a separate command.

**?SCRIPT-W-Too few #ENDCs in AAAAAA**

In a user-created SYSGEN.CND, the number of #IF, #IFN, and #IFGT commands exceeds the number of #ENDC commands.

Check the user version of SYSGEN.CND to make sure that each #IF, #IFN, or #IFGT command is paired with an #ENDC command. Insert #ENDC commands where necessary.

**?SCRIPT-W-Too many #ENDCs in AAAAAA**

In a user-created SYSGEN.CND, the number of #ENDC commands exceeds the number of #IF, #IFN, and #IFGT commands.

Check the user version of SYSGEN.CND to make sure that each #ENDC command is paired with an #IF, #IFN, or #IFGT command. Add these commands or delete #ENDC commands where necessary.

**?SCRIPT-W-Too many nested #IFs or #SUBS in AAAAAA**

In a user-created SYSGEN.CND, the number of nested #IF, #IFN, and #IFGT commands exceeds ten; or the number of active #SUBS commands exceeds five.

Edit the user version of SYSGEN.CND, using ten or fewer nested #IF, #IFN, and #IFGT commands, or five or fewer active #SUBS commands.

**?SCRIPT-W-Too many variables in AAAAAA**

In a user-created SYSGEN.CND, more than 100 script variables were defined.

Revise the user version of SYSGEN.CND to define 100 or fewer variables.

**?SCRIPT-W-Undefined command in AAAAAA**

In a user-created SYSGEN.CND, where the abbreviation mode is not being used, the script line began with <TAB># but a command was not defined.

Edit the user version of SYSGEN.CND by specifying a command after <TAB>#.

**?SCRIPT-W-Undefined variable in AAAAAA**

In a user-created SYSGEN.CND, a variable name used in an #IF, #IFN, #IFGT, or #SUBS command was not defined.

Check the user version of SYSGEN.CND to make sure that all variable names used in #IF, #IFN, #IFGT, or #SUBS commands are defined. Define any variable names that have not been defined.

**?SIPP-E-Below segment boundary**

An attempt was made to open a location below the low end of the segment. SIPP returns to the *OFFSET?* prompt.

Do not attempt to open a location below the low end of the segment.

**?SIPP-E-Checksum error**

An invalid checksum was typed. SIPP returns to the *SEGMENT?* or *BASE?* question, so that the error can be found and corrected.

If the checksum was mistyped, type CTRL/Y followed by a carriage return to return to the checksum prompt, and type the checksum again. If the modifications were typed incorrectly, type ;V to display all the modifications in words (not bytes) made in the current session. Correct the modifications to reflect the distributed patch. Type CTRL/Y followed by a carriage return and type the correct checksum. Note that SIPP does not install patches and does not create a log file if the checksum is incorrect.

**?SIPP-E-End of file**

An attempt was made to begin patching beyond the end of the file.

SIPP returns with the *OFFSET?* prompt. It does not discard any previous changes.

**?SIPP-E-Exceeds program limit**

The location being examined or modified is beyond the end of the program.

SIPP returns with the *OFFSET?* prompt. It does not discard any previous changes. The current open location is not modified.

**?SIPP-E-Exceeds segment boundary**

An attempt was made to examine or change a location beyond the segment's block boundary.

SIPP returns to the *OFFSET?* prompt without losing any previous changes.

**?SIPP-E-Illegal address**

An attempt was made to examine an address beyond the limit of 77777400.

Control returns to the *OFFSET?* prompt.

**SIPP-E-Illegal command**

The command line typed is not legal.

Check for a typing error in the command string and try again.

**?SIPP-F-Illegal device**

The specified device is not a random-access device.

Use a valid device.



**?SIPP-E-Illegal extension of root segment**

An attempt was made to modify the root beyond the root segment. SIPP returns to the *OFFSET?* prompt.

If the overlaid file contains */V* overlays, the size of the root can be extended up to the block boundary. Do not attempt to extend the root segment if the overlaid file contains one or more */O* overlays.

**?SIPP-E-Illegal input**

The input is illegal. SIPP prompts again. Retry the operation.

Check for a typing error. Review the valid SIPP commands (see the *RT-11 System User's Guide*).

**?SIPP-E-Illegal option**

An option specified in the command string is not valid.

Refer to the valid options listed in the *RT-11 System User's Guide*.

**?SIPP-E-Illegal option combination**

Both the */C* and */D* options were used.

Retry the command line and specify only one of these options.

**?SIPP-E-Illegal search command**

The command or input to the search prompts is not legal.

Check for a typing error and try again.

**?SIPP-E-Invalid Boundary Size**

The search range exceeded the size of the file.

Retype the search command and respond to the prompt with an accurate search range.

**?SIPP-E-Invalid segment number**

The segment number specified does not exist. SIPP repeats the *SEGMENT?* prompt or *START?* prompt if in search mode.

Check for a typing error. Check the program's link map to determine the true overlay structure.

**?SIPP-E-Not V4 overlaid file**

The file being patched is overlaid but was not produced by the Version 4 linker. SIPP repeats its prompt and waits for another command line.

Relink the program, using the Version 4 linker, or modify the file as explained in the *RT-11 System User's Guide*.

**?SIPP-E-Odd base address**

An odd base address was specified. SIPP repeats the *BASE?* prompt.

Type an even number. An odd base address may be specified in response to the *OFFSET?* prompt.

**?SIPP-E-Patch buffer full**

All memory available for storing modifications is in use.

Type CTRL/Y followed by a carriage return to insert the modifications typed so far. If this message occurs while you are extending a file, a segment, or a program, reopen the file and insert a zero one location beyond the point which caused the message to be produced.

**?SIPP-E-Region size exceeds 96K**

The modified program was extended beyond the maximum overlay address space.

Stop the current operation by typing CTRL/C and reapply the modifications. Or, continue the current operation by correcting the size of this segment as indicated in the overlay table, and the two size words for this segment in the window definition block of the handler.

**?SIPP-F-Device full**

The output device did not have enough room for SIPP modification. The log file was not created.

Use the SQUEEZE command to consolidate the disk, or use another device for this operation.

**?SIPP-F-File not found**

The input file was not on the specified device.

Check for a typing error in the command line, verify that the file name exists as you typed it, and try again.

**?SIPP-F-Input error**

A hardware error occurred when SIPP read the file to be modified.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SIPP-F-Insufficient memory**

There was not enough memory available to run SIPP.

Increase the available memory by unloading device handlers, the foreground job, or one or more system jobs.

**?SIPP-F-Output error**

A hardware error occurred when SIPP tried to patch the file.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SIPP-F-Patch aborted, no modifications made**

A hardware error occurred. The patch is not installed.

Check the procedures in Section 2.0 of this manual for recovery from hard error conditions.

**?SIPP-F-Protected file already exists**

An attempt was made to create a log file having the same name as an existing protected file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection status of the file.

**?SIPP-F-Size function failed**

A hardware error occurred while SIPP was determining the size of the volume.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SIPP-I-Approaching segment boundary**

SIPP is within five words of exceeding the high limit (or block boundary) of an overlay segment.

Operation continues.

**?SIPP-I-End of file**

SIPP automatically opened the next location beyond the end of the file during a patch operation.

SIPP returns to the *OFFSET?* prompt.

**?SIPP-I-Extending high limit**

An attempt was made to request a change to a location beyond the program's high limit.

When SIPP installs the patch, it calculates the new high limit and updates location 50 and the bitmap of the program. This informational message is printed only once during a session.

**?SIPP-I-Extending overlay segment**

An attempt was made to request a change to a location beyond the segment's linked limit, but before its block boundary.

When SIPP installs the patch, it automatically updates the segment size in the overlay table. This message will occur the first time an overlay segment is extended during a session. (Each session begins with the *SEGMENT?* or *BASE?* prompt.)

**?SIPP-I-No modifications made**

You exited from the patch correctly or typed ;V, but did not request any modifications to the file.

Operation continues.

**?SIPP-W-Patch buffer approaching limit**

SIPP is about to run out of memory in which to store modifications.

Make only five more modifications. If you are extending the file, type CTRL/Y and insert the remaining patches.

**?SLP-F-Audit trail exceeds line limit**

Illegal combination of /P, /S or /L option values were used.

Check the *RT-11 System User's Guide* for legal combinations of option values. Retype the command.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-Device full**

During a write operation, an EOF occurred.

Refer to Section 3.0 of this manual for information on how to increase storage space, or use another output volume.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-Extra file(s) specified**

More than two output files or more than two input files were specified in the command line.

Retype the command line, using two or fewer output files and two or fewer input files.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-File created: protected file already exists**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or PIP /Z option.

**?SLP-F-File not found**

The specified file is not located on the specified device.

Check the command line for typing errors. Verify the location of the target file and reissue the command.

**?SLP-F-File protected**

An attempt was made to modify a protected file.

Change the protection status of the file with the monitor RENAME/NOPROTECT command or PIP /Z option.

**?SLP-F-Hard error on device**

A hardware error occurred during an I/O transfer.

Refer to the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-Illegal rename**

The SLP program tried to rename the output file that was sent to magtape.

Magtape is not a valid output device for SLP operations — do not send output to it.

**?SLP-F-/x Illegal option**

An illegal option name was specified (x stands for the illegal symbol).

Refer to the *RT-11 System User's Guide* for a list of legal options.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-/x Illegal value**

An option value was specified that is not within the range of legal values.

Refer to the *RT-11 System User's Guide* for a list of legal options and the range of legal values for each option.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

**?SLP-F-Insufficient memory**

There was not enough memory for the combined requirements of the line buffer and block buffers for the files.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Refer to Section 3.0 of this manual for information on how to increase memory resources.

**?SLP-F-Protected file already exists**

An attempt was made to create a protected file having the same name as an existing file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

**?SLP-F-Search failure in source file**

A specified source line was not found in the source file.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Verify that the specified source line exists in the source file. Add the missing source line if necessary, or specify another source line.

**?SLP-F-Source file not specified**

The command did not specify a source file.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Retype the command, specifying a source file.

**?SLP-F-System error**

This is a serious internal error.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Submit an SPR to DIGITAL; include with the SPR a program listing and a machine-readable source program, if possible.

**?SLP-F-/X Value required**

An option was specified that requires a value, but none was given.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Specify a value for the option, and retype the command.

**?SLP-W-Audit trail overwrites line**

Text on a source line went beyond the point where the audit trail was placed.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Use the /P option to reposition the audit trail.

**?SLP-W-Command syntax error**

A line was read from the command file that was not a valid command.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Check the command line for typing errors. Make sure the proper format was used for the command (refer to the *RT-11 System User's Guide*) and retype the command.

**?SLP-W-Line number error**

A command line specified a numeric line locator that was nonexistent or not in the correct format.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Check the command line for typing errors. Make sure the proper format was used for the command (refer to the *RT-11 System User's Guide*) and retype the command.

**?SLP-W-Line too long**

A line was read that was longer than the line buffer.

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Use the /L option to make the buffer larger.

**?SLP-W-Unexpected end of correction file**

The correction file did not contain the end-of-file line ("").

The current editing session is terminated and no output files are produced. Control returns to CSI level.

Change the correction file to include the end-of-file line ("").

**?SRCCOM-F-File created: protected file already exists**

A protected file exists, along with a newly created unprotected file of the same name.

List the directory, unsorted. If the unprotected file appears before the protected file in the directory listing, either delete or rename it. If the protected file appears first, rename it or change the protection code with the monitor RENAME/NOPROTECT command or PIP /Z option.

**?SRCCOM-F-Illegal command**

An invalid command to SRCCOM was typed.

Check the valid commands for SRCCOM. Reenter a valid command.

**?SRCCOM-F-Illegal option**

An invalid option was found, or an option other than /MATCH was given a value.

Check for a typing error in the command line. Use only those options listed in the *RT-11 System User's Guide* for SRCCOM. Also, see the valid options for the DIFFERENCES command in the *RT-11 System User's Guide*, and specify values only for those options requiring values.

**?SRCCOM-F-Illegal option value**

An illegal value was specified in the command to SRCCOM.

Check the *RT-11 System User's Guide* for a list of options and the range of legal values for each option. Reenter the command.

**?SRCCOM-F-Insufficient memory**

There was not enough memory to hold a particular difference section.

Refer to Section 3.0 of this manual for information on how to increase memory space.

**?SRCCOM-F-Protected file already exists DEV:FILNAM.TYP**

An attempt was made to create a protected file with a name already associated with an existing file.

Use the monitor RENAME/NOPROTECT command or PIP /Z option to change the protection level of the existing file, or use a different name to create the new file.

**?SRCCOM-F-Read error**

A hardware error was reported during an input operation.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SRCCOM-F-Too many differences**

More than 310 (octal) lines were found to be different when two files were compared.

Check for a typing error in the command line. A limit of 310 (octal) lines of difference is set for SRCCOM (note that the value specified to the /L [/MATCH] option must be  $\leq 310$ ).

**?SRCCOM-F-Write error**

The output device was full, or a hardware error occurred in writing the output file.

Refer to Section 3.0 of this manual for information on how to increase storage space. Check the procedures for recovery from hard error conditions listed in Section 2.0.

**?SRCCOM-I-No differences found**

The specified files were compared and no differences were found.

This message is informational.

**?SRCCOM-W-Audit trail truncated to eleven characters**

The audit trail exceeded eleven characters and was truncated.

If the truncated audit trail is unacceptable, enter a new set of characters that contains eleven or fewer characters.

**?SRCCOM-W-Files are different**

The specified files were compared and differences were located.

This message is informational.

**?SYSGEN-F-Input error**

A hard I/O error occurred while the SYSGEN.CND file was being read.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SYSGEN-F-Insert error**

A hard I/O error occurred while the SYSTBL.CND file was being read.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?SYSGEN-F-No monitor requested**

A response of NO was given to all possible monitor choices during a SYSGEN run.

Rerun SYSGEN, and respond YES to one or more of the monitor selection questions.

**?SYSGEN-F-Output error**

A hard I/O error occurred while one of the SYSGEN output files was being written, or there is not enough space on the output device to store the command and conditional files.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual, or try using another device for output. Refer to Section 3.0 of this manual for information on how to increase storage space.

**?SYSGEN-W-Answer value too large**

A numeric response was typed that exceeds the highest acceptable answer.

Check for a typing error. Check the dialog description in the *RT-11 Installation and System Generation Guide* for the highest acceptable answer, and type another response.

**?SYSGEN-W-Answer value too small**

A numeric response was typed that is less than the lowest acceptable answer.

Check for a typing error. Check the dialog description in the *RT-11 Installation and System Generation Guide* for the lowest acceptable answer, and type another response.

**?SYSGEN-W-Inappropriate answer**

The response entered was not the type the dialog requested. For example, a response of YES was given when the dialog requested a numeric answer.

Check the dialogue description in the *RT-11 Installation and System Generation Guide* for the type of answer required, and enter another response.

**?SYSLIB-F-Interrupt overrun**

Before an interrupt service routine finished, two more interrupts using the same vector occurred. The job is aborted. (Note that jobs requiring very fast interrupt response may not be able to run under FORTRAN.)

Try to redesign the program or application so that interrupts are less frequent and more evenly spaced. Shorten the service routine(s) as much as possible.

**?VHANDL-F-Window error**

The file created with the linker /V option is using too many windows.

Relink, using fewer windows.

**WARNING: FORTRAN messages**

Section 5 contains all FORTRAN IV messages.



## 8.0 MACRO-11 Messages

The MACRO-11 system prints diagnostic error codes during the second assembly pass as the first character of a source line on which the assembler detects an error. These one-letter diagnostic error codes indicate the type of error that has occurred. This section begins with this group of codes; all other MACRO-11 messages are alphabetized according to the rules detailed in Section 1.1 of this manual.

See the *PDP-11 MACRO-11 Language Reference Manual* for more information about MACRO-11 error conditions.

### 8.1 List of MACRO-11 Messages

A

MACRO-11

MACRO-11 found an addressing or relocation error. Check the list of suggested remedies for the various possible causes of error in the right-hand column, and refer to the *RT-11 System User's Guide* for more detailed information.

#### *General Addressing Errors*

Check for a conditional branch instruction target that is too far above or below the current statement. Make sure that the target is within -128 to +127 (decimal) words of the instruction.

Check for a statement that makes an illegal change to the current location counter. For example, a statement could force the current location counter to cross a .PSECT boundary.

Check for a statement that contains an invalid address expression. For example, an absolute address expression may not have a global symbol, a relocatable value or a complex relocatable value. The directives .BLKB, .BLKW, and .REPT must have an absolute value or an expression that reduces to an absolute value.

Check the statement for separate expressions that are not separated by commas.

Make sure that symbols defined as globals during the first pass, because of an .ENABL GBL directive, have not been defined during the second pass, or a general addressing error occurs.

#### *Illegal Forward References*

Check for a global assignment statement that contains a forward reference to another symbol.

Check for an expression that defines the value of the current location counter and contains a forward reference.

#### *Illegal Argument for Directive*

.ENABL/.DSABL — Check for an illegally defined argument.

**.IF/.IIF** — Check for a missing conditional argument, illegally defined conditional test or an illegal argument expression value.

**.IRP/.IRPC** — Check for a missing dummy argument.

**.LIST/.NLIST** — Check for an illegally defined argument.

**.MACRO** — Check for an illegal or duplicate symbol in the dummy argument list.

**.NARG/.NCHAR/.NTYPE** — Include a symbol in the directive.

**.PSECT** — Check for an illegally defined argument.

**.RADIX** — The new radix can only have a value of 2, 8 or 10.

**.TITLE** — Check for a missing program name or for a program name with an illegal first character. The first character must be from the Radix-50 character set.

*Unmatched Delimiter or Illegal Argument Construction*

**.ASCII/.ASCIZ/.RAD50/.INDENT/.NCHAR** — Check for unbalanced character string or argument string delimiters, an illegal character used as a delimiter, or an illegal argument construction.

**B**

Instructions or word data are being assembled at an odd address. The system increments the location counter by 1, and continues.

Insert a **.EVEN** statement before the statement in error.

**D**

**MACRO-11** found a non-local label that was defined in an earlier statement.

Rename one of the labels.

**E**

**MACRO-11** reached the end of the source input without finding a **.END** directive. The system supplies a **.END** statement and completes the current assembly pass.

Insert a **.END** directive.

**I**

MACRO-11 detected one or more illegal characters. A ? replaces each illegal character on the assembly listing, and MACRO-11 continues after ignoring the character.

Replace illegal characters with characters that are in the language character set.

**L**

MACRO-11 encountered an input line longer than 132 characters. In particular, this error occurs when expansion of a macro causes excessive substitution of real arguments for dummy arguments.

Shorten the line to 132 characters or less.

**M**

MACRO-11 detected a label that is the same as an earlier label. Two labels whose first six characters are equal cause this error.

Change one of the conflicting labels.

**N**

MACRO-11 detected a number that is not in the current program radix. The number is processed as a decimal value.

Correct the number

**O**

MACRO-11 encountered an op-code error, or the permissible nesting level for conditional assemblies was exceeded. Attempting to expand a macro that is unidentified after a .MCALL search also causes this error.

Check for a syntax error in the statement. Make sure the instruction format for the op-code is correct. Check the program logic to verify that conditionals are not nested more than 16 levels deep.

**P**

MACRO-11 encountered a phase error. This error occurs when the definition or value of a label differs from one assembly pass to the next, or when a local symbol is used more than once in a local symbol block.

Check the program logic.

**Q**

MACRO-11 found a statement with questionable syntax. For example, arguments may be missing, there may be too many arguments, or the instruction scan may not have been completed.

Check for a syntax error, and verify that a line feed or form feed immediately follows a carriage return.

**R**

MACRO-11 found an error that involves a register. There may be an invalid reference to a register or an illegal use of a register. Attempting to redefine a standard register symbol without first issuing the .DSABL REG directive also causes this error.

Correct the program logic and the statement.

## T

MACRO-11 detected a truncation error. A number that generates more than 16 bits in a word and an expression in a .BYTE directive (or trap instruction) that generates more than 8 significant bits causes this error. Correct the statement.

## U

MACRO-11 found an undefined symbol. The symbol is assigned a value of zero. Define the symbol.

## Z

MACRO-11 found an incompatible instruction. This is a warning that the instruction is not defined for all PDP-11 hardware configurations. Refer to the appropriate processor handbook for a description of the instruction set to be used with the system.

### ?MACRO-F-Bad switch

The specified option was not recognized by the program. Check for a typing error in the command line. Use only a valid listing control or functional control (or CREF) option.

### ?MACRO-F-Bad option

The specified option was not recognized by the program. Check for a typing error in the command line. Use only a valid listing control or functional control (or CREF) option.

### ?MACRO-F-Device full DEV:

The output volume does not have enough room for an output file specified in the command string. Refer to Section 3.0 of this manual for information on how to increase storage space.

### ?MACRO-F-File not found DEV:FILNAM.TYP

The input file in the command line does not exist on the specified device. Correct any file specification errors in the command line and retype.

### ?MACRO-F-Illegal command

The command line contains a syntax error or specifies more than six input files. Correct the command line and retype.

### ?MACRO-F-Illegal device DEV:

The device specified in the command line does not exist on the system. Either install the device or substitute another.

### ?MACRO-F-Insufficient memory

There were too many symbols, macros, or nested repeat blocks in the program being assembled. Refer to Section 3.0 of this manual for information on how to increase memory space. Try to reduce the complexity of nested macro calls.

### ?MACRO-F-I/O error on DEV:FILNAM.TYP

A hardware error occurred during a read from or write to the specified file. Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

**?MACRO-F-I/O error on work file**

MACRO failed to read, write, or open to its workfile, WRK.TMP.

Check the procedures for recovery from hard error conditions listed in Section 2.0 of this manual.

This error can also occur when there is not enough contiguous disk space to accomodate the workfile.

Use the SQUEEZE command (or the DUP /S option) to accomodate the workfile.

**?MACRO-F-Invalid macro library**

The library file has been corrupted, or it was not produced by the RT-11 librarian, LIBR.

Use LIBR to generate a new copy of SYSMAC.SML.

**?MACRO-F-Output device full on DEV:FILNAM.TYP**

There was no room to continue writing the output file.

Refer to Section 3.0 of this manual for information on how to increase storage space.

**?MACRO-F-Read error on MACRO library**

MACRO detected a bad record in the MACRO library. This error can occur when the library area is bad.

Rebuild the MACRO library.

**?MACRO-F-Storage limit exceeded (64K)**

MACRO's Virtual Symbol Table can store symbols and macros up to 64K in any combination. The program contains more than 64K of one or both of these elements.

Check for a condition that leads to excessive size, such as a macro expansion that recursively calls itself without a terminating condition. If necessary, reduce the requirements of the source program by segmenting it into separate modules, and assemble each of them separately.

**?MACRO-W-I/O error on CREF file: CREF aborted**

Either there was not enough space to perform the operation, or an I/O error occurred while the CREF workfile was being written. CREF processing is terminated but the assembly will continue.

Refer to Section 3.0 of this manual for information about increasing storage space.



READER'S COMMENTS

NOTE: This form is for document comments only. DIGITAL will use comments submitted on this form at the company's discretion. If you require a written reply and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form.

Did you find this manual understandable, usable, and well-organized? Please make suggestions for improvement.

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Did you find errors in this manual? If so, specify the error and the page number.

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Please indicate the type of user/reader that you most nearly represent.

- Assembly language programmer
- Higher-level language programmer
- Occasional programmer (experienced)
- User with little programming experience
- Student programmer
- Other (please specify) \_\_\_\_\_

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Organization \_\_\_\_\_

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City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
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