March 1978

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-5284B-TC

SUPERSESSION/UPDATE INFORMATION:	This manual supersedes DEC-11-ORMEB-A-D. This manual includes new and changed information. Changes are indicated in the outside margin by change bars (▮) for additions and bullets (●) for deletions.
OPERATING SYSTEM AND VERSION:	RT-11 V03B
SOFTWARE AND VERSION:	RT-11 FORTRAN IV V02 BASIC-11 V02

To order additional copies of this document, contact the Software Distribution Center, Digital Equipment Corporation, Maynard, Massachusetts 01754

digital equipment corporation · maynard, massachusetts

First Printing, March 1978

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may only be used or copied in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by DIGITAL or its affiliated companies.

The postage-prepaid READER'S COMMENTS form on the last page of this document requests the user's critical evaluation to assist us in preparing future documentation.

The following are trademarks of Digital Equipment Corporation:

DIGITAL	DECsystem-10	MASSBUS
DEC	DECtape	OMNIBUS
PDP	DIBOL	OS/8
DECUS	EDUSYSTEM	PHA
UNIBUS	FLIP CHIP	RSTS
COMPUTER LABS	FOCAL	RSX
COMTEX	INDAC	TYPESET-8
DDT	LAB-8	TYPESET-11
DECCOMM	DECSYSTEM-20	TMS-11
ASSIST-11	RTS-8	ITPS-10

CONTENTS

1.0 USING THE RT-11 SYSTEM MESSAGE MANUAL

This manual lists all of the diagnostic messages that RT-11 Version 3 can produce. The messages for FORTRAN IV and BASIC are also included. Each message appears here in the same form as on your display terminal or printer 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 lists all of the messages for FORTRAN IV, and Section 6 lists all of the messages for BASIC. Section 7 contains all of the messages for the MACRO-11 assembler and all components of the RT-11 operating system.

RT-11 Version 3 reduces the possibility of confusion about its component parts -- the different monitors and utility programs such as PIP, for example -- by providing a large number of monitor level commands that automatically call different programs for you. Therefore, you may see messages from parts of RT-11 even though you don't know exactly what those parts do and have not explicitly called for their services. Whatever the case, when you see a message that is not from FORTRAN IV or BASIC, simply look it up in Section 9, System and MACRO-11 Messages.

Several messages from FORTRAN IV, BASIC and RT-11 pertain to hardware problems and to cases when storage space or memory are not adequate for the work you are trying to do. Section 2, Hard Error Conditions, summarizes the most common problems with hardware, and Section 3, Increasing Storage and Memory Resources, provides useful guidelines to follow when you have exhausted the resources of your system.

Section 4, 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 and SYSTEM AND MACRO-11 sections, each message is in alphabetical order. The 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 FORTRAN IV copies 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 specific 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 has only the messages for FORTRAN IV, for BASIC and, in a single section, for the RT-11 operating system and the 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 Special Information about FORTRAN IV Messages

FORTRAN IV has five groups of messages. Section 5 of this manual lists them in the following order.

*****	messages -- single letter messages such as *****I that appear on FORTRAN IV source listings
Numbered	messages -- FORTRAN IV Object Time System messages that appear in the form "?ERR nnnnnn" where 'nnnnnn' is a message number from 0 through 68
ERROR:	messages from the second compilation phase that appear in the form "In Line nnnnnn, ERROR: text" where 'nnnnnn' is the line number of the error and 'text' is the specific message
?FORTRAN-	messages, fatal compiler error diagnostics that appear in the form "?FORTRAN-F-text" where 'text' is the specific message
WARNING:	messages in the form "In Line nnnnnn, WARNING: text" where 'nnnnnn' is the number of the line that may contain a problem and 'text' is the specific warning

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

1.3 Special Information about BASIC Messages

This manual shows both the abbreviated forms and full forms of BASIC messages. "?IOV" and "?Integer overflow" are examples. In most cases, the full explanation of the problem and the remedies for it are printed with the abbreviated form, and the longer forms refer you to the appropriate abbreviation. For example, the message "?Line too long" refers you to "?LTL."

1.4 Special Information about MACRO-11 Messages

MACRO-11 messages are alphabetized with the RT-11 operating system messages in Section 7.

1.5 Special Information about ODT and BATCH Messages

Messages for the On-line Debugging Techniques utility (ODT) and the BATCH subsystem are alphabetized in Section 7, SYSTEM AND MACRO-11 MESSAGES.

1.6 Special Information about RT-11 System Messages

Each RT-11 message is shown in the following format:

```
?NAME-T-Message
```

Each system message is prefixed by the name (NAME) of the system program that issued the message, and the type of error condition (T) according to the following categories:

Abbreviation	Type	Meaning
F	FATAL	Message is sent to the terminal or the listing output file; the current command or statement is ignored or execution is terminated. You must enter another command or correct the statement in error.
IN or I	INFORM	Informational message; a condition is detected and the system issues a message either at the terminal or in the listing file; execution continues. The condition may affect execution at a later time and may require future action.
W	WARNING	A subcategory of informational messages; a message is sent to the terminal or the listing output file; execution continues.

Under each message is the meaning followed by the possible recovery procedures (if any) by the system, the user, or both.

2.0 HARD ERROR CONDITIONS

Special error conditions, called "hard" errors, are reported 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 "hang" (that is, 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. It may be necessary for you to reinitiate the operation or use another device; in extreme cases, you may need the advice of a hardware expert.

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, ensure 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.

Corrective Actions:

DECwriter II Out-of-paper: Replace paper; turn the terminal offline and then online. (Powering 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. Ensure 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; off-line
Punch: no tape; no power

Corrective Actions:

Reader: ensure that the tape is properly positioned in the reader (over the read head with the tape retainer cover closed); check that the reader is turned on.

Punch: ensure 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; no printer connected to control unit (LP11).

Corrective Actions:

Ensure that the printer is turned on and set on-line; check that it is loaded properly with sufficient paper; ensure 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 Chapter 4 of 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/trailing edges; 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:

Ensure that the card reader is turned on; check 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 may be used to control the wait feature; see Chapter 4 of the RT-11 System User's Guide.)

2.6 Cassettes

Error Conditions:

Write-lock; off-line; unit select; bad tape; block check (checksum error)

Corrective Actions:

Ensure 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; use another cassette or try a different drive if possible, or use the COPY/IGNORE option to ignore input errors while copying.

You can use the monitor commands SET CT RAW/NORAW to control read-after-write error checking; see Chapter 4 of the RT-11 System User's Guide.

2.7 Magtapes

Error Conditions:

Cyclical redundancy or parity (checksum) error; bad tape; write-lock; off-line; unit select; power off

Corrective Actions:

Ensure that all magtape units are turned on (regardless of which is in use), set on-line and write-enabled, if appropriate (insert a write-ring on the back of a magtape to write-enable it); check that the tape is correctly mounted on the proper unit and that all units are assigned different select numbers; ensure 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; use another magtape or drive if possible, or use the COPY/IGNORE option to ignore input errors while copying.

2.8 DECtapes

Error Conditions:

Off-line; write-lock; unit select; parity (checksum) error; bad tape

Corrective Actions:

Ensure that the DECtape unit is set on-line and write-enabled, if appropriate; check 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; use another DECtape or drive if possible, or use the COPY/IGNORE option to ignore input errors while copying. Use the 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 DUP /C option to create a file that encloses the bad blocks (see Chapters 4 and 8 of the RT-11 System User's Guide for more information).

2.9 Disks

Error Conditions:

Off-line; write-lock; unit select; parity error; bad blocks; drive not ready; volume not formatted.

Corrective Actions:

Ensure that the disk drive is set on-line and write-enabled, if appropriate; check that the disk is correctly loaded in the proper unit, and that all units are assigned different select numbers. Note that diskette drive 0 is on the left and diskette drive 1 is on the right. Ensure that a new disk is properly formatted before you use it.

For parity errors, retry the operation; use another disk or drive if possible, or use COPY/IGNORE to ignore input errors while copying. Use the DIRECTORY/BADBLOCKS 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 DUP /C option to create a file that encloses the bad blocks (see Chapters 4 and 8 of the RT-11 System User's Guide for more information).

3.0 INCREASING STORAGE AND MEMORY RESOURCES

Some RT-11 system errors are caused because there is insufficient free memory space to accommodate a particular operation or insufficient space for an output file on a storage volume. Using one (or more) of the procedures listed below may eliminate the problem. If none of these methods provides adequate storage or memory resources for your application, move the application to a system with larger capacities, if possible.

3.1 When You Need More 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 /ALLOCATE or the [n] construction on the output file specification;

Compress the volume using the SQUEEZE command; this creates the largest possible empty space on the volume by condensing all the free blocks into one area, and also makes more efficient use of the directory space;

If directory overflow persists, allocate more directory segments on another volume (by using INITIALIZE/SEGMENTS) and transfer the files to this volume, or use the DIREXT program described in Chapter 2 of the RT-11 System Generation Manual.

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

3.2 When Memory Is Too Small

When a program is loaded or during program execution, a message may 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 Utilizing Memory More Effectively

The following methods make more memory available without requiring you to redesign the program:

Use the UNLOAD command to take unnecessary device handlers out of memory--for example, the BATCH handler (BA);

Unload the foreground program;

Use the single-job monitor (it requires approximately one half the space needed by the foreground/background monitor);

Use the SET USR SWAP command (see Chapter 4 of the RT-11 System User's Guide) to allow USR swapping.

3.2.2 When Your BASIC Program Is Too Large

Some BASIC errors occur because there is not enough available memory. BASIC users can sometimes correct this problem by reducing the size of the BASIC program. Here are some ways to create more space:

Eliminate or reduce unnecessary items such as REMARK statements, long printed 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 use of the CHAIN or OVERLAY statements;

Reduce the size of arrays in memory to the size required (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.

3.2.3 When Other Programs Are Too Large

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 the mass storage devices;

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

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 aid the user in determining the cause of the system failure, and also in distinguishing between user errors and system errors. (Paragraphs that begin with *** are suggestions primarily for experienced systems programmers who have access to monitor source listings, but it is recommended that all users read them at least casually for general knowledge.)

Most system failures fall into one of the three categories: those that cause a return to the keyboard monitor, those that cause a monitor halt, and those that result in a 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.

The general procedure to follow when the system fails is to examine the program counter (PC) immediately after the failure, and then use the PC to examine the registers, the stack pointer and certain locations in memory. Refer to the processor handbook for your PDP-11 for precise instructions about the program counter and how to use it.

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 CRTL/C have any effect?

4. 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 these numbers, the halt or loop occurred in the monitor and the difference between the numbers gives the offset into the monitor code.

5. What is the value of the stack pointer and the first several elements in the stack? Has the stack overflowed (that is, is the stack pointer less than 400)?

6. ***What are the contents of the registers?

7. ***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.

8. ***Determine from a source listing, if available, what code is indicated by the halt or loop.

9. ***What are the contents of the monitor data base (for example, the address of the running job or the addresses of the loaded handlers)?

10. ***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)?

11. ***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?

NOTE

Each description of a halt or loop in the following sections includes a precise offset and corresponding symbol name. Use them to find appropriate sections of code in monitor source listings. The symbol names are accurate for all versions of each monitor you SYSGEN, but offsets may be accurate only for the distributed running version of each monitor. For any special monitors you SYSGEN, therefore, such as a version of FB with multi-terminal support, use the symbols to identify appropriate code.

4.1 Failures that Cause a Return to Keyboard Monitor

A return to the keyboard monitor is recognized when the monitor 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 and MACRO-11 Messages section (Section 7).

***If no message is printed (only the monitor dot), an interrupt through an empty vector to code at location 0 is indicated. Note that the following code is at location 0.

```
Loc.    Octal Value
 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 applications program was run with an incorrect vector address, or the program has a JUMP or JSR instruction with an undefined label.

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 that the monitor prompt is not present and the system does not echo characters you type. When a monitor halt occurs, do not attempt to restart the system by pressing CONTinue on the processor; the system must be rebooted.

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

   See ?MON-F-Power fail halt.

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

2. Absolute location 116

   See ?MON-F-Memory error.

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

3. ***4774 octal bytes offset from contents of location 54; check 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. ***6204 octal bytes offset from contents of location 54; check 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 SYSGEN options that the user is free to choose 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

   See ?MON-F-Power fail halt.

   When the message ?MON-F-Power fail halt has been disabled at SYSGEN time, this halt is executed on power up and power down.

2. Absolute location 116

   See ?MON-F-Memory error.

   When the optional message ?MON-F-Memory error has not been enabled at SYSGEN time (the default for the distributed version of the Single Job monitor), the monitor executes this halt when it detects a memory parity error. When the message is enabled, the monitor issues the message and returns to KMON.

3. ***1650 octal bytes offset from the contents of location 54; check symbol 1$ before TRAPPF.

   See ?MON-F-Power fail halt.

   When the message ?MON-F-Power fail halt is enabled at SYSGEN time (the default for the distributed version of the Single Job monitor), the monitor issues the message and executes this halt on power down.

4. ***1734 octal bytes offset from the contents of location 54; check symbol 2$ in routine CRASHP.

   See ?MON-F-Power fail halt.

   When the message ?MON-F-Power fail halt is enabled at SYSGEN time (the default for the distributed version of the Single Job monitor), the monitor issues the message and executes this halt on power up.

5. ***5304 octal bytes offset from the contents of location 54; check symbol DEAD.

The message ?MON-F-System read failure halt precedes this halt, when system I/O messages have been enabled at SYSGEN time.

When system I/O messages are enabled at SYSGEN time (the default for the distributed version of the Single Job monitor), 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 in the controller or physical volume. The Single Job monitor does not execute this halt because of a write-locked system device; it issues the message ?MON-F-System write error and returns to KMON.

6. ***6512 octal bytes offset from the contents of location 54; check symbol 7$ in routine COMPLT.

   The monitor detected a hard I/O error after the user 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 options the user chooses or excludes during SYSGEN.

The XM monitor has the same halts as the Foreground/Background monitor, but the offsets into RMON differ for the two monitors. XM offsets are shown in parentheses in this section.

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

   See ?MON-F-Power fail halt.

   When the message ?MON-F-Power fail halt has been disabled at SYSGEN time, this halt is executed on power up and power down. When the message is enabled, the monitor issues the message and halts at offset 2114 (XM: 2506) as described below.

2. Absolute location 116

   See ?MON-F-Memory error.

   When the optional message ?MON-F-Memory error is disabled (the default for the distribution 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. ***2114 (XM: 2506) octal bytes offset from the contents of location 54; check symbol 12$ after FATAL.

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

a. When the message ?MON-F-Power fail halt is enabled (the default for the distribution 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, ?MON-F-Trap to 4 or ?MON-F-Trap to 10 --, 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 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 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 all handlers for devices that are not part of your system from the system volume.

   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 with 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 are caused by the USR swapping over important memory areas (such as device handlers, queue elements, completion routines; this may occur when running FORTRAN programs that use SYSF4 calls). One way to detect this type of failure is to SET USR NOSWAP 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 such that the USR does not swap over it at all (by being linked with overlays or with a different bottom address) or by ensuring that the USR does not swap over any important areas within the program. See Section 2.2.5 of the RT-11 Advanced Programmer's Guide for details concerning the swapping algorithm.

4.2.5 Stack Overflow

Stack overflow occurs when the stack is pushed through its low limit. It may or may not be detected depending 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 of the new 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 typically 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 option). The FB monitor aborts the program with the ?MON-F-Trap to 4 message.

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

Monitor stack overflow will generally not occur, since enough stack space is allocated to handle "worst-case" situations.

In the case of a user-written device handler that requires a large amount of stack, it is recommended that stack space be allocated within the handler and that a register other than SP be used to reference the stack.

4.3 Failures that Cause Program Looping

When your system repeats a set of instructions continuously, it is "hung" in a loop. The RT-11 Version 3 monitors have several potential loops, and they are described in this section.

Handler loops are the most common. Refer to Section 4.3.3 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 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 specific instructions on single-stepping.

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 and the appropriate values for the Base Line monitor (BL) are shown in parentheses.

1. ***3416 (BL: 3156) octal bytes offset from the contents of location 54; check 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. ***4760 (BL: 4520) octal bytes offset from the contents of location 54; check symbol 1$ in routine W$AIT.

   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. ***5560 (BL: 5252) octal bytes offset from the contents of location 54; check symbol 1$ in routine QMANGR.

   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. 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.

4. ***5772 (BL: 5464) octal bytes offset from the contents of location 54; check symbol 7$ in routine QMANGR.

   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. ***USR - 1032 (BL: same) octal bytes offset from the base of the USR; check symbol 21$ in routine CDFN. (The contents of RMON offset 266 show the base of 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. ***USR - 1132 (BL: same) octal bytes offset from the base of the USR; check symbol 1$ in routine RSTSR. (The contents of RMON offset 266 show the base of 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. Static electricity is occassionally responsible for clearing the terminal interrupt enable bit. If this is the case, check humidity conditions in the room.

7. ***USR - 1240 (BL: same) octal bytes offset from the base of the USR; check symbol 9$ in routine RSTSR. (The contents of RMON offset 266 show the base of 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 USR offset 1032 (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. ***6050 (XM: 7472) octal bytes offset from the contents of location 54; check symbol 4$ in routine E$XIT after EXTFLG.

   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 enter this loop and continue to try the read operation. If this 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. ***15246 (XM: 20130) octal bytes offset from the contents of location 54; check symbol 1$ in routine EXSWAP.

   This is a scheduler and null job loop, and the system enters it when neither the background job nor the foreground job is runnable. Check the impure areas of both jobs to locate the cause.

   The pointer to the background impure area is at 1574 (XM: 2200) octal bytes offset from the contents of location 54. (Check symbol BCNTXT.) The pointer to the foreground impure area is at 1576 (XM: 2202) octal bytes offset from the contents of location 54. (Check symbol FCNTXT.) Using these pointers, examine the I.JSTA 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.JSTA 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.JSTA 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 Chapter 4 of the RT-11 System User's Guide). The other supplied handlers use counts to prevent indefinite retries on a device.

*******B**

This is a warning that columns 1 - 5 of a continuation line are not blank. Column 1 of a continuation line may have a 'D' but columns 2 - 5 must be blank. FORTRAN ignores the faulty columns.

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

*******C**

This is a warning that 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 entirely.

Correct the program.

*******E**

This is a warning that there is no END statement for the program. FORTRAN supplies an END statement when it detects the end-of-file.

Add an END statment 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 entirely.

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

*******I**

This is a warning that 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.

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

*****K	This is a warning that there is a non-numeric character in a statement label. FORTRAN ignores the label entirely.	Correct the label.
*****L	This warning precedes a line that has more than 80 characters. Each space and tab is a single character, and FORTRAN truncates the line to 80 characters.	Shorten the line.
*****M	This is a warning that 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, and FORTRAN ignores it entirely.	Check for typing errors. Match each open parenthesis with a close parenthesis.
*****S	The statement has a syntax error. FORTRAN ignores the statement entirely.	Correct the statement.
*****U	The statement is not legal in FORTRAN. FORTRAN ignores it entirely.	Review the description of the statement you are trying to use, and recode the statement correctly.

0 Non-FORTRAN error call

FORTRAN	F or IN	This message indicates an error condition (not internal to the FORTRAN run-time system) that may have been caused by one of four situations:	
		A foreground job using SYSLIB completion routines was not allocated enough space (using the FRUN /N option) for the initial call to a completion routine.	Check Chapter 4 of the RT-11 Advanced Programmer's Guide for the formula used to allocate more space.
		There was not sufficient memory for the background job.	Refer to Section 3.0 at the beginning of this manual for information on how to increase memory space.
		Under the single-job monitor, a SYSLIB completion routine interrupted another completion routine.	Use the FB Monitor to allow more than one active completion routine (see Chapter 4 of the RT-11 Advanced Programmer's Guide).
		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.)	Correct the program logic.

1 Integer overflow

FORTRAN	F	During an integer multiplication, division, or exponentiation operation, the value of the result exceeded 32767 in magnitude.	Correct the program logic; use floating point notation.

2 Integer zero divide

FORTRAN	F	During an integer mode arithmetic operation, an attempt was made to divide by zero.	Correct the program logic.

3 Compiler generated error

FORTRAN	F	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.

4 Computed GOTO out of range

FORTRAN	W	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.

5 Input conversion error

FORTRAN	C:3	During a formatted input operation, an illegal 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.

6 Output conversion error

FORTRAN	IG	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.

10 Floating overflow

FORTRAN	C:3	During an arithmetic operation, a real value has exceeded the largest representable real number.	A value of zero is returned. Correct the program logic.

11 Floating underflow

FORTRAN	IG	During an arithmetic operation, a real value has become less than the smallest representable real number.	The real number is replaced with a value of zero. Correct the program logic.

12 Floating zero divide

FORTRAN	F	During a real mode arithmetic operation an attempt was made to divide by zero.	The operation's result is set to zero. Correct the program logic.

13 Square root of negative number

FORTRAN	C:3	An attempt was made to take the square root of a negative number.	The result is replaced by zero. Correct the program logic.

14 Undefined exponentiation operation

FORTRAN	F	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 zero. Correct the program logic.

15 Log of zero or negative number

FORTRAN	F	An attempt was made to take the logarithm of a negative number or zero.	The operation's result is set to zero. Correct the program logic.

16 Wrong number of arguments

FORTRAN	F	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.	Check the format of the particular library function or system subroutine call, and correct the call.

20 Invalid logical unit number

FORTRAN	F	An illegal logical unit number was specified in an I/O statement.	A logical unit number must be an integer within the range 1 to 99. Correct the statement in error.

21 Out of available logical units

FORTRAN	F	An attempt was made to have too many logical units simultaneously open for I/O.	The maximum number of active logical units is six by default. To increase the maximum, recompile the main program using the /UNITS option to specify a larger number of available channels (the legal range is 1 to 15).

22 Input record too long

FORTRAN	F	During an input operation, a record was encountered that was longer than the maximum record length.	The default maximum record length is 136 (decimal) bytes. To increase the maximum, recompile the main program using the /RECORD option to specify a larger run-time record buffer (the legal range is 4 to 4095).

23 Hardware I/O error

FORTRAN	F	A hardware error was detected during an I/O operation.	Check the procedures for hard error conditions listed in Section 1.0 at the beginning of this manual.

24 Attempt to READ/WRITE past end of file

FORTRAN	F	During a sequential write operation this message indicates that the space allocated to the file was insufficient; during a sequential read, an attempt was made to read beyond the last record of the file. During a random-access write operation, this message indicates that the space allocated to the file was insufficient, or that a program-	Refer to Section 3.0 at the beginning of this manual for information on how to increase storage space. Use an END= parameter on a sequential read. Correct the progamming 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.

ming error occurred during a read (such as attempting to reference a record number that was not within the bounds of the file).

25 Attempt to read after write

FORTRAN	F	An attempt was made to read after writing on a sequential file.	A write operation must be followed by a REWIND or BACKSPACE before a read operation can be performed. Correct the program logic.

26 Recursive I/O not allowed

FORTRAN	F	An expression in the I/O list of a WRITE statement caused initiation of 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	The file specified was not found, there was no room on the device, or FORTRAN selected a channel already in use.	Verify that the file name exists as specified. Verify that FORTRAN default unit numbers are assigned to the devices expected. Verify that the channel selected is not already in use by an assembler-level or SYSLIB call. Refer to Section 3.0 at the beginning of this manual for information on how to increase storage space.

		If this message appeared while running SYSGEN, it indicates that one of the input files (SYSGEN.CND or SYSTBL.CND) is not on the DK: volume.	Copy SYSGEN.CND and SYSTBL.CND again and restart.

29 No room for device handler

FORTRAN	F	There was not enough free memory left 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 at the beginning 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 left 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 at the beginning 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

FORTRAN	F	More than the maximum number of input/output channels available to the FORTRAN run-time system (15) were requested to be simultaneously opened for I/O.	Close any logical units previously opened that need not be open at this time.

32 Fmtd/unfmtd-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 for unformatted I/O to read a larger record than actually existed in a file.	Check the construction of the data file; correct the program logic.

34 Unfmtd 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 on a file designated as read-only.	Check the CALL ASSIGN system subroutine or IASIGN SYSLIB function to ensure 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/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 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 illegally attempted 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.

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 was attempted on that unit.	Close the open file using CALL CLOSE before attempting another DEFINE FILE.

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 at compile-time rather than object-time formatting. Refer to Section 3.0 at the beginning of this manual for information on how to increase memory space.

43 Syntax error in object time format

FORTRAN	F	A syntax error was encountered while the OTS was 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 on more than one record.	Correct the FORMAT statement associated with the ENCODE or DECODE 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.

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 into 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, i.e., 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 (using CALL CLOSE) before attempting to use the unit.

49 ENDFILE on random file

FORTRAN	F	An ENDFILE statement specified a unit number of a file which 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

FORTRAN	F	An OPEN statement keyword that requires a value was given an illegal value. The following are valid ranges for the values: INITIALSIZE -32768 to 32767 EXTENDSIZE -32768 to 32767 BLOCKSIZE 0 to 32767	Correct the OPEN statement.

51 Inconsistent OPEN/CLOSE specifications

FORTRAN	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; APPEND to a NEW, SCRATCH, or READONLY file; SAVE or PRINT a SCRATCH file; DELETE or PRINT a READONLY file.	Check the OPEN and CLOSE statements for consistency.

59 USR not locked

FORTRAN	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 (i.e., 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

FORTRAN	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

FORTRAN	F	Some type of BUS error occurred, most probably an illegal memory address reference. (This is the FORTRAN equivalent of the monitor ?MON-TRAP TO 4 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

FORTRAN	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 at the beginning 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 /N option. Refer to the formulas in Chapter 4 of the RT-11 Advanced Programmer's Guide.

63 Illegal instruction

FORTRAN	F	The program attempted to execute an illegal instruction (e.g., floating point arithmetic instruction on a machine with no floating point hardware). (This is the FORTRAN equivalent of the monitor ?MON-TRAP TO 10 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, verfiy 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. The total storage requirements for VIRTUAL arrays may exceed system memory that is currently available. The program may attempt PLAS VIRTUAL array support while running the FB monitor or SJ monitor, or it may attempt non-PLAS VIRTUAL array support while running the XM monitor. Or the program may call for PLAS support, but the system does not have EIS hardware.	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.

65 Virtual array mapping error

FORTRAN	F	A statement makes a reference that is beyond the bounds of the extended memory region allocated for VIRTUAL arrays. For example, a subscript value is 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 was specified in the OPEN statement that is not supported by the current version of FORTRAN, such as EXTEND.	The error is fatal; correct the OPEN statement, using only those options which are valid for the current version of FORTRAN on your system.

67 Unsupported OPEN/CLOSE keyword or option

FORTRAN	W	An option was specified in the OPEN statement that is not supported by the current version of FORTRAN, such as SCAN.	The error is not fatal; processing continues, but you should correct the OPEN statement when possible, using only those options which are valid for the current version of FORTRAN on your system.

68 Direct access record size error

	The size of a direct access record exceeds 32767 double words.	Correct the program logic.

ERROR: ACCESS='APPEND' illegal under RT-11

FORTRAN	The ACCESS='APPEND' option has been specified for a program to be executed under RT-11. RT-11 does not support 'APPEND.'	Rework the program as required.

ERROR: ACCESS='DIRECT' requires form='unformatted'

FORTRAN	FORM='FORMATTED' has been specified for a direct access file. FORTRAN IV supports only unformatted direct access input/output.	Correct the program logic.

ERROR: ACCESS='DIRECT' requires RECORDSIZE= for RT-11 and RSTS/E

FORTRAN	No RECORDSIZE specification was found when attempting to open a direct-access file.	Add the RECORDSIZE= specification to the OPEN statement.

ERROR: Adjustable dimensions illegal for array **

FORTRAN	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.

ERROR: Array ** exceeds maximum size**

FORTRAN	(See ARRAY EXCEEDS MAXIMUM SIZE below.)	

ERROR: Array exceeds maximum size

FORTRAN	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.

ERROR: Array ** has too many dimensions**

FORTRAN	The array noted in the message has more than seven dimensions. The legal range is from one to seven dimensions.	Correct the array declaration and other program statements that are affected.

ERROR: ASSOCIATEVARIABLE illegal for sequential file

FORTRAN	The OPEN statement noted in the message does not specify ACCESS='DIRECT' but does specify an associated variable. FORTRAN assumes the file is sequential and treats the associated variable as illegal.	Add ACCESS='DIRECT' to the OPEN statement, or delete the ASSOCIATEVARIABLE clause.

ERROR: ** attempts to extend COMMON block backwards**

FORTRAN	While attempting to EQUIVALENCE arrays in COMMON, an attempt was made to extend COMMON past the recognized beginning of COMMON storage.	Correct the program logic.

ERROR: COMMON block exceeds maximum size

FORTRAN	An attempt was made to allocate more than 32K words to COMMON storage.	Correct the statement in error.

ERROR: Constant in FORMAT statement not in range

FORTRAN	An integer constant in the FORMAT statement is not in the legal range from 1 to 255.	Correct the FORMAT statement.

ERROR: Dangling operator

FORTRAN	An operator is missing an operand. I=J+ is an example of a statement that causes this message.	Correct the statement in error.

ERROR: Defective dotted keyword

FORTRAN	A dotted relational operator was not recognized. Misplacing a decimal point can cause this error. '.EW.' as a typing error for '.EQ.' is another example.	Check the spelling and format of relational operators in the statement and check all decimal points. Correct the statement.

ERROR: DEFINE FILE mode must be 'U'

FORTRAN	The third argument in the DEFINE FILE statement is not 'U' (for 'unformatted').	Replace the third argument with 'U'.

ERROR: DISPOSE='PRINT' is ignored under RT-11

FORTRAN	The OPEN statement requests spooling of a file. RT-11 does not provide spooling services.	Change the specification to DISPOSE='SAVE'. If you want to print the file on the line printer after the program terminates, use the RT-11 keyboard monitor PRINT command.

ERROR: DO terminator ** precedes DO statement**

FORTRAN	The statement specified as the DO loop terminator does not appear after the DO statement.	Correct the program logic.

ERROR: Expecting left parenthesis after **

FORTRAN	An array name or function name is not followed by a left parenthesis.	Correct the statement.

ERROR: Expecting left parenthesis after subprogram name

FORTRAN	An argument list does not follow a subroutine name or function name. 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.

ERROR: EXTENDSIZE= keyword is not supported under RT-11

FORTRAN	The program has an EXTENDSIZE specification. RT-11 does not support file extension.	Correct the program logic.

ERROR: Extra characters at end of statement

FORTRAN	Extra characters follow the legal statement on this line. A missing comma can cause this error. The following line has a continuation line character by mistake in column 6.	Check the statement and the following one for typing errors.

ERROR: Floating constant not in range

FORTRAN	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.

ERROR: FORM='UNFORMATTED' requires 'NONE' under RT-11 and RSTS/E

FORTRAN	An unformatted file has 'FORTRAN' or 'LIST' as a carriage control specification.	For unformatted files, remove the CARRIAGECONTROL= specification or use CARRIAGECONTROL='NONE'.

ERROR: Formatted file requires 'FORTRAN' or 'LIST' under RT-11 and RSTS/E

FORTRAN	A formatted file has the CARRIAGECONTROL='NONE' specification.	For formatted files, specify either 'FORTRAN' or 'LIST' for the carriage control.

ERROR: Illegal adjacent operator

FORTRAN	Two operators (such as +, *, and logical operators) are illegally placed next to each other. I=J+*N is an example with this error.	Correct the statement.

ERROR: Illegal characters in expression

FORTRAN	There is an illegal character in an expression in this statement.	Check for typing error and correct the statement.

ERROR: Illegal DO terminator ordering at label **

FORTRAN	DO loops are 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.

ERROR: Illegal DO terminator statement **

FORTRAN	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.

ERROR: Illegal element in I/O list

FORTRAN	The I/O list has a syntax error. An item, expression or implied DO specifier is incorrect.	Correct the I/O list.

ERROR: Illegal ENCODE/DECODE FORMAT specifier

FORTRAN	In the ENCODE or DECODE statement, the second argument inside the parentheses is not a FORMAT statement label or an array name. The argument is an illegal format specification.	Correct the format specification.

ERROR: Illegal ENCODE/DECODE length expression

FORTRAN	In the ENCODE or DECODE statement, the first argument inside the parentheses is not an integer expression. The argument is a length specification.	Correct the length specification.

ERROR: Illegal ENCODE/DECODE target

FORTRAN	In the ENCODE or DECODE statement, the third argument inside the parentheses is not an array name, array element or variable name. The argument is a target specification.	Correct the target specification.

ERROR: Illegal initial value expression in DO statement

FORTRAN	A valid integer expression does not follow the equal sign in the DO statement.	Correct the DO statement.

ERROR: Illegal statement in BLOCK DATA

FORTRAN	There is an illegal statement in the BLOCK DATA subprogram. A FORMAT statement or any executable statement in a BLOCK DATA subprogram cause this error.	Correct the BLOCK DATA subprogram.

ERROR: Illegal statement label reference

FORTRAN	There is an illegal statement label in the statement. The label must be from one to five digits long and may not contain only zeroes. For example, GOTO 999999 causes this error because the label is 6 digits long.	Correct the faulty statement label.

ERROR: Illegal statement on logical IF

FORTRAN	The logical IF statement contains an invalid statement. For example, a logical IF statement may not contain another loogical IF or DO statement.	Correct the IF statement, and change the program logic, if necessary.

ERROR: Illegal subscripts for subprogram argument

FORTRAN	The statement has an illegal element in an array subscript list or in a subprogram argument list.	Correct the illegal element in the list.

ERROR: Illegal type for operator

FORTRAN	An illegal variable type is being used with an exponentiation or logical operator. A variable has the wrong type for the operation.	Check that each variable has the proper type for the operation FORTRAN is to perform.

ERROR: Illegal usage of or missing left parenthesis

FORTRAN	Either a required left parenthesis is missing or an illegal left parenthesis is present. A variable reference or constant illegally followed by a left parenthesis causes this error, for example.	Correct the format of the statement.

ERROR: Integer overflow

FORTRAN	An integer constant or the value of an expression in the statement is outside the range from -32767 to +32767.	Change the constant or expression so that its value is always within the range from -32767 to +32767. Correct the program logic, if necessary.

ERROR: Invalid complex constant

FORTRAN	A complex constant in the statement is improperly formed.	Correct the statement.

ERROR: Invalid dimensions for array **

FORTRAN	The statement specifies zero as one of the dimensions of an array. Dimensions must be in the range from one to seven.	Correct the statement.

ERROR: Invalid END= or ERR= keyword

FORTRAN	There is an error in the format of an END= or ERR= specification in the input or output statement.	Check for a typing error in the statement and correct it.

ERROR: Invalid EQUIVALENCE

FORTRAN	The EQUIVALENCE clause is illegal or it conflicts with an earlier EQUIVALENCE.	Correct the program logic.

ERROR: Invalid FORMAT specifer

FORTRAN	The format specifier is not the label of a FORMAT statement and not an array name. The specifier is illegal.	Correct the statement. Use a proper format specifier.

ERROR: Invalid implicit range specifier

FORTRAN	The statement has an illegal implicit range specifier. A non-alphabetic 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 alphabetic order.

ERROR: Invalid logical unit

FORTRAN	A logical unit reference is incorrect. The reference must be an integer variable or constant in the range from 1 to 99.	Correct the statement.

ERROR: Invalid octal constant

FORTRAN	An octal constant is too large or contains an illegal digit. Octal constants may only have digits 0 - 7 and must be in the range from 0 (octal) to 177777 (octal).	Correct the octal constant.

ERROR: Invalid optional length specifier

FORTRAN	An optional length specifier is illegal in the data type declaration. For example, REAL*4 and REAL*8 are legal, but REAL*6 has an illegal optional length.	Correct the declaration. Use legal length specifiers.

ERROR: Invalid RADIX-50 constant

FORTRAN	The RADIX-50 constant has a character that is not in the RADIX-50 character set.	Correct the RADIX-50 constant.

ERROR: Invalid subroutine or function name

FORTRAN	There is an illegal name in a CALL statement or function reference. For example, an array name in a CALL statement causes this error.	Check for typing errors, and check that the statement refers to valid names.

ERROR: Invalid target for assignment

FORTRAN	The left side of the arithmetic assignment statement is not a variable name or a reference to an array element.	Correct the statement.

ERROR: Invalid type specifier

FORTRAN	There is an unrecognizable data type in the statement.	Correct the statement. Use valid data types.

ERROR: Invalid usage of subroutine or function name

FORTRAN	There is a subroutine or function name in a DIMENSION, COMMON, DATA, EQUIVALENCE or data type declaration statement.	Correct the statement.

ERROR: Invalid variable name

FORTRAN	A variable name is illegal because it contains an illegal character, or does not begin with an alphabetic character, or is missing entirely.	Correct the statement.

ERROR: Label on declarative statement

FORTRAN	It is an error to have a label on a declaration statement.	Correct the statement.

ERROR: Missing 'TO' in ASSIGN statement

FORTRAN	The keyword TO does not follow the label specification in the ASSIGN statement.	Correct the statement.

ERROR: Missing assignment operator

FORTRAN	An equal sign is missing or out of place in the statement. For example, the illegal statement I+JJ=K causes this error.	Correct the statement.

ERROR: Missing comma

FORTRAN	A required comma delimiter is missing.	Correct the format of the statement.

ERROR: Missing comma in OPEN or CLOSE keyword list

FORTRAN	Two options in an OPEN or CLOSE keyword list are not separated by a comma.	Correct the statement.

ERROR: Missing delimiter in expression

FORTRAN	Two operands are next to each other in an expression. The operator between them is missing.	Correct the statement.

ERROR: Missing expression

FORTRAN	A required expression is missing. For example, omitting the limit expression in a DO statement causes this error.	Correct the statement.

ERROR: Missing label

FORTRAN	FORTRAN expects a statement label but cannot identify one. For example, ASSIGN J TO I causes this error because J is not a valid label reference where the ASSIGN statement requires one.	Correct the statement. Use valid statement labels where syntax rules require them.

ERROR: Missing label list after comma

FORTRAN	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.

ERROR: Missing left parenthesis after OPEN or CLOSE

FORTRAN	The OPEN or CLOSE statement does not have a left parenthesis preceding its keyword list.	Check for a typing error, and correct the statement.

ERROR: Missing operator after expression

FORTRAN	There is an expression in the statement that is not terminated with a comma, right parenthesis or operator.	Correct the statement.

ERROR: Missing quotation mark

FORTRAN	In the FIND statement, a single quotation mark ['] is not between the logical unit number and record number.	Correct the FIND statement.

ERROR: Missing right parenthesis

FORTRAN	A right parenthesis is out of place or missing entirely. For example, READ(5,100,) causes this error because the first non-blank character following the format reference should be a right parenthesis.	Correct the statement.

ERROR: Missing value for keyword in OPEN or CLOSE statement

FORTRAN	A keyword that requires a value is specified without a value.	Correct the statement.

ERROR: Missing variable

FORTRAN	FORTRAN expects a variable but cannot find one. For example, ASSIGN 100 TO 5 causes this error because no recognizable variable name follows TO.	Correct the statement.

ERROR: Missing variable or constant

FORTRAN	There is a comma, parenthesis or other delimiter where FORTRAN expects a variable or constant. For example, WRITE() causes this error because a unit number should follow the left parenthesis.	Check the format of the statement and correct it.

ERROR: Modes of variable ** and data item differ**

FORTRAN	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.

ERROR: Multiple declaration for variable **

FORTRAN	The variable appears in another dimensioning statement or data type declaration.	Correct the program logic.

ERROR: Multiple declaration of OPEN or CLOSE keyword

FORTRAN	A keyword appears more than once in the OPEN or CLOSE statement.	Remove all incorrect references to the keyword from the statement.

ERROR: NOSPANBLOCKS keyword is ignored under RT-11 and RSTS/E

FORTRAN	The OPEN statement has a NOSPANBLOCKS specification. RT-11 and RSTS/E do not support NOSPANBLOCKS.	Remove the NOSPANBLOCKS specification from the statement.

ERROR: OPEN or CLOSE keyword value must be quoted string

FORTRAN	A keyword in the statement requires a quoted string value but has an expression value.	Correct the syntax of the statement.

ERROR: OPEN or CLOSE statement requires UNIT= specifier

FORTRAN	The OPEN or CLOSE statement cannot select the proper logical unit because the UNIT= specification is missing.	Add a UNIT= specification to the statement.

ERROR: P-SCALE factor not in range -127 to +127

FORTRAN	A P-SCALE factor is outside the legal range from -127 to +127.	Correct the statement.

ERROR: Parentheses nested too deeply

FORTRAN	The FORMAT statement has group repeats that are nested too deeply. FORTRAN supports a maximum of 8 levels of nesting for group repeats.	Revise the FORMAT statement.

ERROR: Reference to incorrect type of label **

FORTRAN	The statement has a reference to another statement that is the wrong type. For example, a READ statement that refers to an executable statement causes this error, and a GOTO statement that refers to a FORMAT statement also does so.	Check for a typing error in the label. If the label is correct, change the program logic.

ERROR: Reference to undefined statement label

FORTRAN	There is a reference to a statement label that has not been defined anywhere in the program unit.	Correct the program logic.

ERROR: Shared keyword is ignored under RT-11

FORTRAN	The statement has a SHARED specification. RT-11 does not support SHARED.	Remove the SHARED specification.

ERROR: Statement must be unlabeled

FORTRAN	There is a label on a DATA, SUBROUTINE, FUNCTION, BLOCK DATA, statement function definition or declarative statement.	Remove the label from the statement.

ERROR: Statement too complex

FORTRAN	An arithmetic statement function has more than 10 dummy arguments or is altogether too long for FORTRAN to process.	Reduce the dummy argument list to 10 or fewer. Break long statements into two or more shorter statements.

ERROR: Subroutine or function statement must be first

FORTRAN	A SUBROUTINE, FUNCTION or BLOCK DATA statement is out of place in the program unit. These statements must appear first in a program unit.	Correct the program.

ERROR: Subscript of array ** not in range**

FORTRAN	A value in an array subscript is larger than the corresponding dimension of the array. For example, after declaring an array NUM as NUM(5,5), the array reference NUM(10,4) causes this error. FORTRAN does not perform the operation the statement describes.	Correct the program so that no subscript values are calculated or assigned beyond the declared dimensions of any array.

ERROR: Syntax error

FORTRAN	The statement is formatted incorrectly.	Review the general format for the faulty statement, and correct it.

ERROR: Syntax error in integer or floating constant

FORTRAN	An integer or floating constant in the statement has the wrong form. For example, 1.23.45 causes this error because it contains two decimal points.	Correct the constant.

ERROR: Syntax error in label list

FORTRAN	The list of labels for an assigned GOTO or computed GOTO statement has an error. A format error in the label list or a label reference to a statement that is not executable causes this error.	Check the format of the label list, and verify that each label in the list is the label on an executable statement. Correct the statement.

ERROR: Unary operator has too many operands

FORTRAN	The statement has two or more operands for an operator that can have only one operand. For example, .NOT. must have only a single operand.	Check for typing errors in the statement, including omitted operators and omitted parentheses. Correct the statement.

ERROR: Unlabeled FORMAT statement

FORTRAN	The FORMAT statement does not have a label.	Replace columns 1 - 5 with the proper label.

ERROR: Unrecognized keyword in OPEN or CLOSE statement

FORTRAN	The OPEN or CLOSE statement has a keyword that the FORTRAN compiler does not recognize.	Check for typing errors in the OPEN or CLOSE statement and correct them.

ERROR: Unrecognized value for OPEN or CLOSE keyword

FORTRAN	The OPEN or CLOSE statement has a keyword with an invalid quoted string value. For example, DISPOSE = 'SURE' causes this error.	Correct the invalid quoted string value.

ERROR: Usage of variable ** invalid**

FORTRAN	The statement attempts to EXTERNAL a common variable, an array variable or a dummy argument; or it attempts to place a dummy argument or external name in COMMON.	Correct the program logic.

ERROR: Value of constant not in range

FORTRAN	The line has an integer constant that exceeds 65535, the maximum unsigned value. An invalid dimension for an array or a floating point constant with an exponent that is too large also causes this error.	Correct the statement.

ERROR: Variable ** invalid in adjustable dimension**

FORTRAN	A variable used as an adjustable dimension is not an integer dummy argument in the subprogram unit.	Correct the program.

ERROR: Wrong number of operands for binary operator

FORTRAN	There is an operator that requires two operands, but the statement has only one. For example, I=*J causes this error because the multiplication operator requires two operands.	Check for typing errors and correct the statement.

ERROR: Wrong number of subscripts for array **

FORTRAN

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

Correct the statement in error.

?FORTRAN-F-Code generation stack overflow

A statement in the program is too complex to process.

Simplify complex statements.

?FORTRAN-F-Compiler fatal error, analysis follows

The FORTRAN IV compiler has malfunctioned. A summary of the malfunction follows this message. It includes a partial dump of the compiler, relevant non-FORTRAN messages about the cause of the malfunction, and specific instructions for you to follow.

If the analysis includes suggestions for remedying the malfunction, try them. In any case, follow the instructions for reporting the malfunction.

?FORTRAN-F-Constant subscript stack overflow

The program has a statement with too many constant subscripts.

Simplify the statement.

?FORTRAN-F-Device full

There is not enough available 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.

?FORTRAN-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.

?FORTRAN-F-Error reading source file

An unrecoverable error occurred while the compiler was attempting to read a source program input file.

Refer to Section 2.0 at the beginning of this manual for hard error procedures.

?FORTRAN-F-Error writing listing file

An unrecoverable error occurred while the compiler was attempting to write the listing output file.

Refer to Section 2.0 at the beginning of this manual for hard error procedures.

?FORTRAN-F-Error writing object file

An unrecoverable error occurred while the compiler was attempting to write the object program output file.

Refer to Section 2.0 at the beginning of this manual for hard error procedures.

?FORTRAN-F-File not found

An input file specified in the command string cannot be found on the specified device.

Correct the command string to refer to an existing file, or refer to the proper device, or install the proper volume.

?FORTRAN-F-HELP file not found

The FORTRAN IV HELP file, SY:FORTRA.HLP, does not exist on the system volume, and no help is available, therefore.

Replace the file from the FORTRAN IV distribution medium, if help information is required.

?FORTRAN-F-Illegal command

The command string presented to the compiler is in an illegal format.

Correct the command string.





?FORTRAN-F-Illegal device

A device specification in the compiler command string is illegal.

Correct the command string.

?FORTRAN-F-Illegal value for /x switch

The switch has an illegal or improper value in the command string.

Refer to Chapter 1 in the FORTRAN Language Reference Manual for compiler switch information.

?FORTRAN-F-Optimizer stack overflow

A statement is too complex to process, or too many common subexpressions occur 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 which may overflow the runtime stack at execution time.

Simplify complex statements.

?FORTRAN-F-Unknown switch-/x

The command string has an invalid switch.

Refer to Chapter 1 in the FORTRAN Language Reference Manual for compiler switch information.

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

FORTRAN provides this summary for each program unit when it completes compilation. AAAAAA is a 6-character name of the program unit. NNNNNN and MMMMMM are the numbers of errors and warning conditions found.

WARNING: Adjustable dimensions illegal for array **

FORTRAN	Adjustable arrays must be parameter arrays in a subprogram, and the adjustable dimensions must be integer dummy arguments in the subprogram. Violating this rule causes FORTRAN to use a dimension of 1 and print this warning.	Correct all program units that use the array.

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

FORTRAN	The statement is inside a DO loop, and another statement outside the DO loop transfers control to this statement. 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: Modification of ** precludes optimizations**

FORTRAN	The variable is a control parameter of a DO loop, but it is also modified by a statement within the DO loop. FORTRAN does not attempt to optimize the loop.	To permit optimization, change the program logic so that DO loop control parameters are not changed by statements within their DO loops.

WARNING: Non-standard statement ordering

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

WARNING: Variable ** is not word aligned**

FORTRAN	Placing a variable or array that is not LOGICAL*1 in COMMON after a LOGICAL*1 variable or array can cause this warning. The warning can also occur if a program equivalences LOGICAL*1 and non-LOGICAL*1 variables or arrays. Attempts to reference variables or arrays that are not word aligned at runtime will cause errors.

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 MESSAGES

?ARG
?Argument error

BASIC	F	Arguments in a function call did not match (in number, range or type) the arguments defined for the function.	Check that the arguments to the function are of the proper type and number and are in the correct range.

?Arrays too large
?ATL

BASIC	F	There was not enough memory available for the arrays specified in the DIM statements.	Refer to Section 3.2.2 at the beginning of this manual for information on how to reduce the size of a BASIC program.

?Bad data read

BASIC	F	See ?BDR.	

?Bad data-retype from error

BASIC	W	The item entered in response to an INPUT statement was the wrong data type.	Retype the item that caused the error and execution will continue.

?Bad log

BASIC	W	See ?BLG	

?BDR

BASIC	F	Data item input from a DATA statement or from a file was the wrong data type.	Ensure that the elements in the data list are in the correct format as specified in the READ or INPUT statement.

?BLG

BASIC	W	An attempt was made to take the logarithm of zero or a negative number.	BASIC inserts a result of zero and processing continues.

?BRT

BASIC	W	The item entered in response to an INPUT statement was the wrong data type.	Retype the item that caused the error and execution will continue.

?BSO
?Buffer storage overflow

BASIC	F	There was not enough room available for the file buffer.	Refer to Section 3.2.2 at the beginning of this manual for information on how to reduce the size of a BASIC program.

?CAO

BASIC	F	An attempt was made to OPEN a device channel that had been initialized by a previous OPEN statement.	Correct the program logic; specify another device channel or eliminate redundant program statements.

?CCP

BASIC	F	The file produced by the COMPILE command contained a format error.	Use a copy of the program created by a SAVE or REPLACE command.

?Channel already open

BASIC	F	See ?CAO.

?Channel I/O error

BASIC	F	See ?CIE

?Channel not open

BASIC	F	See ?CNO.

?CHECKSUM error in compiled program

BASIC	F	The file produced by the COMPILE command contained a format error.	Use a copy of the program created by a SAVE or REPLACE command.

?CIE

BASIC	F	Accessing data in a file produced an error.	Ensure that your peripheral devices and their storage media are working correctly. Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. One possible cause for this error is that the file accessed has a length of zero.

?CNO

BASIC	F	I/O was attempted on a device channel that had not been assigned by an OPEN statement.	Use the OPEN statement to open the device channel before attempting to input or output data on that channel.

?Common out of order

BASIC	F	See ?COO.	

?Control variable out of range

BASIC	F	See ?CVO.	

?COO

BASIC	F	Variables in a program segment were not defined in the same sequence 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.

?CVO

BASIC	F	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 n represents the number of branching options following GOTO or GOSUB.	Execution is halted. Correct the program logic and retry the program.

?Division by zero
?DV0

BASIC	W	The program attempted to divide some quantity by 0.	BASIC substitutes a value of zero for the result and processing continues.

?EER

BASIC	W	The program tried to compute the value A^B, where A<0 and B was not an integer or B>256. This produces a complex number which is not representable in BASIC. This message may also occur if the argument to the EXP function was greater than 87.	BASIC substitutes a value of zero for the result and execution continues.

?EIE

BASIC	W	More data items were input from the terminal than the INPUT statement requested.	Excess data items are ignored and processing continues. Check the program logic; make sure it is clear to the user how many data items he should supply in response to the question mark (?) prompt.

?END not last
?ENL

BASIC	F	The END statement was not the last statement in a BASIC program.	The line number of the END statement must be the largest line number in the program, since any lines having line numbers greater than that of the END statement are not executed. Correct the program and retry.

?ETC

BASIC	F	The expression being evaluated caused the stack to overflow. 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. Breaking the statement into several simpler ones eliminates the error. Consult the BASIC/RT-11 Installation Guide for a method of patching BASIC to increase the stack size.

?Excess input ignored

BASIC W See ?EIE.

?Exponentiation

BASIC W See ?EER

?Expression too complex

BASIC F See ?ETC.

?FAD

BASIC F The statement defines a function that is already defined by an earlier statement. BASIC ignores the new definition and continues to apply the earliest one.

Change conflicting function definitions so that each function is defined only once.

?File not found

BASIC F See ?FNF.

?File too short

BASIC F See ?FTS.

?Floating overflow

BASIC W See ?FOV

?Floating underflow

BASIC W See ?FUN.

?FNF

BASIC	F	The file requested was not found 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.

?FOR without NEXT

BASIC	F	See ?FWN.	

?FOV

BASIC	W	The absolute value of the result of a computation is greater than the largest number that can be stored by BASIC (approximately 10^38) or less than the smallest (approximately 10^-38).	BASIC substitutes a value of zero for the result and processing continues.

?FSV

BASIC	W	Nested FOR statements of the form FOR variable = expression 1 TO expression 2 STEP expression 3 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 J or I2 for the second.

?FTS

BASIC	F	The sequential file space allocated to an output file was inadequate.	Use another device, or perform housekeeping on the device to make more space available.

?FUN

BASIC	W	The absolute value of the result of a computation is less than the smallest number that can be stored by BASIC (approximately 10^-38).	BASIC substitutes a value of zero for the result and processing continues.

?Function already defined

BASIC	F	See ?FAD.	

?FWN

BASIC	F	The program contained a FOR statement without a corresponding NEXT statement to terminate the loop.	Ensure that each FOR loop in the program is terminated by a NEXT statement.

?ICN

BASIC	F	A channel number was specified that was not in the range 1-12.	Correct the statement in error and retry.

?IDM

BASIC	F	A subscript in a DIM or COMMON statement was not an integer, an array was dimensioned more than once, or an array had more than two dimensions.	Correct the syntax of the dimension statement.

?IEF

BASIC	F	The file produced by the COMPILE command contained a format error.	Use a copy of the program created by a SAVE or REPLACE command.

?IFL

BASIC	F	An illegal value was supplied to the FILESIZE option in an OPEN statement.	Refer to the BASIC-11/RT-11 Language Reference Manual for information on the valid range for FILESIZE.

?IFS

BASIC	F	BASIC was unable to interpret the file definition statements as entered; the character string used does not define a valid file specification.	Refer to the BASIC-11/RT-11 Language Reference Manual for the correct format of the virtual memory file OPEN statement.

?IID

BASIC	F	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

BASIC	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.

?Illegal channel number

BASIC	F	See ?ICN.

?Illegal DIM

BASIC	F	See ?IDM.

?Illegal END OF FILE in compiled file

BASIC	F	See ?IEF.

?Illegal file length

BASIC	F	See ?IFL.

?Illegal file specification

BASIC F See ?IFS.

?Illegal I/O direction

BASIC F See ?IID.

?Illegal in immediate mode

BASIC F See ?IIM.

?Inconsistent number of subscripts

BASIC F See ?INS.

?INPUT string error

BASIC W See ?ISE.

?INS

BASIC	F	A subscripted variable was referenced in a way that was inconsistent with the definition of the array in the DIM statement; there were 2 subscripts in the DIM statement and only 1 in the reference line, or there was 1 subscript in the DIM statement and 2 in the reference line.	Correct the DIM statement to change the amount of space allocated for the array, or correct the reference line.

?Integer overflow
?IOV

BASIC	W	An integer variable was assigned a value greater than 32767 or less than -32768, or an integer expression produced a result which exceeded this range.	BASIC substitutes a value of zero for the result and processing continues. The variable or expression should be changed to floating point format.

?ISE

BASIC	W	A string entered in response to an INPUT statement began with a single or a double quotation mark but was not terminated by the appropriate end quotation mark.	BASIC assigns to the string all the characters between the initial quote and the line terminator; execution continues.

?Line too long

BASIC	W	See ?LTL.	

?Line too long to translate

BASIC	F	The line just entered exceeded the area available for translation (line is translated as entered).	The line is ignored. Break the line into two lines. If reading from a file, ensure that the file contains only legal BASIC program lines.

?LTL

BASIC	W	The line typed was longer than 132 characters.	The line buffer overflows and the line is ignored. Break the line into two or more lines, or if reading from a file, ensure that the file contains only legal BASIC program lines.

?Missing subprogram
?MSP

BASIC	F	A subprogram that was requested by a CALL statement was not found.	Verify that the subprogram requested actually exists and that the name was correctly typed.

?Negative square root

BASIC	W	See NGS.	

?NER

BASIC	F	There is not enough free memory for BASIC to use for an input file or program.	Refer to Section 3.2.2 at the beginning of this manual for suggestions about reducing the size of a BASIC program and increasing the amount of free memory available.

?Nested FOR statements with same control var

BASIC	F	Nested FOR statements of the form FOR variable = expression 1 TO expression 2 STEP expression 3 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 J or I2 for the second.

?NEXT without FOR

BASIC	F	See ?NWF.	

?NGS

BASIC	W	An attempt was made to take the square root of a negative number.	A value of zero is substituted for the result and processing continues.

?No room for CALL

BASIC	F	See ?NRC.	

?Not enough room

BASIC	F	See ?NER.	

?NRC

BASIC	F	Not enough memory was available to perform the CALL statement.	Refer to Section 3.2.2 at the beginning of this manual for information on how to reduce the size of a BASIC program.

?NSM
?Numbers and strings mixed

BASIC	F	String and numeric variables were found in the same expression or were set equal to each other (as in A$=2).	Ensure that numeric expressions are assigned to numeric variables and string expressions are assigned to string variables (for example, A=2 and A$="2").

?NWF

BASIC	F	A NEXT statement was encountered before its corresponding FOR.	Ensure that each loop begins with a FOR statement and ends with a NEXT statement. This error message is also generated if control is transferred into the middle of a loop. FOR-NEXT loops should only be entered by executing the FOR statement.

?OOD
?Out of data

BASIC	F	The data list was exhausted and a READ requested additional data.	Add additional data items or reuse data by executing the RESTORE statement.

?PRINT USING error

BASIC F See ?PRU.

?Program too big

BASIC F See ?PTB.

?PRU

BASIC	F	There is an error in the PRINT USING statement caused when the format specification is not a valid string, or is null, or does not contain one valid field. The error is also caused when an attempt is made to print a numeric value in a string field, a string value in a numeric field, or a negative number in a floating asterisk or floating dollar sign field that does not also specify a trailing minus sign. The message is also printed if the items in the list are not separated by commas or semicolons.	Correct the PRINT USING statement.

?PTB

BASIC	F	The line just entered caused the program to exceed the user area in memory.	Refer to Section 3.2.2 at the beginning of this manual for information on how to reduce the size of a BASIC program.

?RES
?RESEQuence error

BASIC	F	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.

?RETURN without GOSUB

BASIC	F	See ?RWG.	

?RPL

BASIC	F	Saving the program would have caused an existing file to be deleted.	Use a different name or use the REPLACE command.

?RWG

BASIC	F	A RETURN statement was encountered before its corresponding GOSUB.	Check the program logic for correct branching instructions. Do not transfer control to a subroutine except by executing a GOSUB or ON GOSUB statement.

?SOB

BASIC	F	The subscript computed was less than zero, greater than 32,767 or was outside the bounds defined in the DIM statement.	Ensure that array subscripts fall within the legal range.

?SSO

BASIC	F	There was not enough memory available to store all the strings used in the program.	Refer to Section 3.2.2 at the beginning of this manual for information on how to reduce the size of a BASIC program.

?STL

BASIC	F	The length of a string in a BASIC statement exceeded 255 characters.	Split the string into several smaller strings.

?String storage overflow

BASIC	F	See ?SSO.

?String too long

BASIC	F	See ?STL.

?SUB

BASIC	F	There was no separator between the strings in the SUB command, or the command created an immediate mode statement.	Check for typing errors and reenter the SUB command.

?Subscript out of bounds

BASIC	F	See ?SOB.

?SUBstitute error

BASIC	F	See ?SUB.

?SYN
?Syntax error

BASIC	F	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 in immediate mode commands. Correct the program statement.

?TIC

BASIC	F	The number of items specified in COMMON exceeded 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.

?TLT

BASIC	F	The line just entered exceeded the area available for translation (lines are translated as entered).	The line is ignored. Break the line into two lines. If reading from a file, ensure that the file contains only legal BASIC program lines.

?TMG
?Too many GOSUBs

BASIC	F	Program GOSUBs were nested too deeply.	Restrict GOSUB nesting to 20 levels.

?Too many items in COMMON

BASIC	F	See ?TIC.	

?UAC

BASIC	F	The first reference to an undimensioned array appeared in a CALL statement.	Dimension the array with the DIM statement.

?UFN

BASIC	F	The function called was not defined by the program or was not loaded with BASIC.	A user-defined function cannot be defined by an immediate mode statement; a function is defined only after the RUN command or CHAIN statement is executed. Check that the name of the routine in the CALL statement is correctly spelled.

?ULN

BASIC	F	The line number specified in an IF, GO TO, GOSUB or CHAIN statement did not exist anywhere in the program.	Check the program logic.

?Undefined function

BASIC	F	See ?UFN.	

?Undefined line number

BASIC	F	See ?ULN.	

?Undimensioned array in CALL

BASIC	F	See ?UAC.	

?Use replace

BASIC	F	Saving the program would have caused an existing file to be deleted.	Use a different name or use the REPLACE command.

?VCU
?Virtual array channel already in use

BASIC	F	The virtual array channel specified in a DIM statement has already appeared in a DIM statement.	Correct the program logic; use a different channel.

A

MACRO-11

MACRO-11 has found an addressing or relocation error. Check the list of suggested remedies in the right hand column, and refer to Chapter 10 in 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. Conditional branch targets must be within -128 to -127 (decimal) words of the instruction.

Check for a statement that makes an illegal change to the current location counter. A statement that forces the current location counter to cross a .PSECT boundary is an example.

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 for separate expressions in the statement that are not separated by commas.

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 illegal argument construction.

B

MACRO-11 has detected a boundary error. 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.

BASIC messages

(Section 6 has all BASIC messages.)

?BATCH-F-'$' missing

A $ was not present in the first position of the command line (or card column 1).

Ensure that $ occurs in the command line where expected.

?BATCH-F-Abort job

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

The compiler forces the job to abort. Check the log file for all error messages.

?BATCH-F-Bad construction

In RT-11 mode, an IF statement was not in the correct form or there was an illegal '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.

UNLOAD the copy of BA.SYS in memory, reload BA.SYS, and run BATCH.

?BATCH-F-Bad sequence argument

The identification number specified in a $SEQUENCE command was not numeric.

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

?BATCH-F-Bad switch

The command line to the BATCH compiler contained an illegal option.

Check for a typing error in the command line. Ensure that the option indicated to the BATCH compiler is legal.

?BATCH-F-Bad variable

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

Enter the variable as an alphabetic character.

?BATCH-F-Bad VID

The volume identification specified in a $MOUNT command was not in the correct form.

Ensure that the equal sign and the name of the volume are included in the command.

?BATCH-F-Batch fatal error

A nonrecoverable error has occurred. This may indicate a problem in the software.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. The system may have to be rebootstrapped. If the problem continues to occur, report the problem to DIGITAL using an SPR (Software Performance Report). Include a program listing and a machine readable source program, if possible.

?BATCH-F-Batch handler not resident

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

LOAD the BATCH handler before attempting to run BATCH.

?BATCH-F-Batch stack overflow

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

Ensure that there are no more than 31 nested $CALL commands in the stream.

?BATCH-F-Channel busy

Internal BATCH error. A channel BATCH was using was busy when it should have been free.

Retry the program.

?BATCH-F-Command not unique

$JOB/UNIQUE has been specified and the spelling of a command was not the shortest unique spelling.

Ensure that the command includes enough characters to make it unique.

?BATCH-F-Dismount error

The logical device name specified did not exist.

Ensure that the device has been 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 not found

A file, specified as input to BATCH, was not found. This error can also be caused by specifying the /X option to BATCH when input is not a precompiled (.CTL) file.

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

?BATCH-F-Illegal '+'

The + construction was used when not allowed (e.g., in a $RUN or $BASIC input file descriptor), or there was a + in an output file descriptor, or a + terminated a file descriptor.

Verify that the + is used either to indicate a positive value in an option, or to separate multiple file descriptors.

?BATCH-F-Illegal character

The character specified was not used in proper context.

Check the log file to determine the character in error.

?BATCH-F-Illegal command line

The command line to the BATCH compiler was 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 device or a non-existent 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 (e.g., PR:) 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 switch

The option name specified was not a legal RT-11 BATCH option or was not legal for this field.

Use only valid option abbreviations for the field to which they apply.

?BATCH-F-Illegal switch combination

More than one option of the same type existed on the same command line.

Ensure that only one option from the following combinations is used: /MACRO, /INPUT, /SOURCE; /FORTRAN, /INPUT, /SOURCE; /BASIC, /INPUT, /SOURCE.

?BATCH-F-Input error

A hardware error was reported while attempting to read the compiler input file (.BAT).

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?BATCH-F-Input file

An input file descriptor was not specified to the BATCH compiler command line.

Check for a typing error in the command line. Specify an input file in the command line.

?BATCH-F-Line too long

The input line entered is greater than 80 characters.

Correct the input line.

?BATCH-F-LOG device error

A hardware error was reported during an output operation on the log device.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?BATCH-F-Multiple switch

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

Correct the command line.

?BATCH-F-No $EOJ

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

Correct the BATCH stream by inserting an $EOJ command.

?BATCH-F-No ',' in $LIB

The $LIBRARY command contained a ','; only '+' can be used to separate libraries in a $LIBRARY command.

Edit the $LIBRARY command in the BATCH input file to use '+' instead of ",".

?BATCH-F-No control file

An attempt was made to send the .CTL file to a nonfile-structured device (e.g., 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 file

No file descriptor was found where expected in the BATCH stream, or no file name was entered in the $CREATE command.

Enter a filename where expected.

?BATCH-F-No file name before "."

An extension was specified but no file name preceded it.

Correct the format of the file descriptor.

?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-Not enough memory

There is not enough memory for the BATCH compiler to fetch a device handler it needs. The handler is 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 document for information on how to increase storage space.

?BATCH-F-Output device full

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

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

?BATCH-F-Output error

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

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

?BATCH-F-Output file not open

The .CTL file output channel was not opened. This is most likely due to an error in the BATCH compiler.

Report the problem to DIGITAL using an SPR (Software Performance Report); include a program listing and a machine readable soure program, if possible.

?BATCH-F-Please assign LOG,LST

The log device (LOG:) and/or the listing device (LST:) were not assigned.

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

?BATCH-F-Please load LOG handler

The log device handler was not resident.

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

?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 +, a comma, or a carriage return.

Correct the format of the file descriptor.

?BATCH-F-Switch not unique

There is a $JOB/UNIQUE command in the job, but an option does not have a unique spelling.

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

?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

Too many 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 $ in character position 1 was not a legal BATCH command.

Verify that the spelling of the command is correct.

BC

BATCH	A Bad Code was found in the control file by the BATCH handler. This can happen when a .CTL file has been garbled or if an editing mistake was made by the programmer when altering or creating the file with EDIT.	Ensure that no editing errors have been introduced into the file. Recompile the .BAT file.

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.

?BOOT-F-I/O error

	An I/O error occurred during system bootstrap. Using the wrong monitor or using a monitor before copying that monitor's bootstrap to the volume bootstrap blocks causes this error.	Check that the proper monitor is on the system disk -- for example, RKMNxx.SYS for an RK-05 DECpack, DXMNxx.SYS for a diskette. Use the backup volume and the COPY/BOOT command to ensure that the bootstrap for the monitor you want to use is on the system volume you want to use. If the error persists, check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?BOOT-F-Insufficient memory

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

Select a monitor that is small enough for your system, and use the COPY/BOOT command to copy the bootstrap blocks for the monitor you select.

?BOOT-F-No memory management hardware

An attempt to boot an XM monitor on a system that does not have memory management hardware causes this error.

Select the SJ or FB monitor, or use a system that has KT-11 memory management hardware.

?BOOT-F-No monitor file on volume

The system volume's bootstrap blocks designate a monitor file that is not on the volume. For example, the bootstrap blocks require an FB monitor file and no file with the appropriate xxMNFB.SYS name exists on the system volume.

Check that the proper volume is on the system disk. Use the backup volume and the COPY/BOOT command to ensure that the bootstrap for the monitor you want to use is on the system volume you want to use.

?BOOT-F-No swap file on volume

The monitor's external swap file, SWAP.SYS, is not present on the device from which you attempted to boot.

Your system volume must contain both the monitor file you need to bootstrap and the file SWAP.SYS. Copy SWAP.SYS to this volume from another working system volume, or create the file by using DUP and the /C option.

?BOOT-F-Swap file is too small

The file SWAP.SYS exists on your system volume but it is too small.

SWAP.SYS must be 24 blocks long. Copy SWAP.SYS to your volume from another working system volume, or use DUP's /C option to create a file with the correct length. You can also use DUP's /T option to extend the file to the correct length.

?BOOT-W-Invalid or missing TT.SYS

The terminal handler, TT.SYS, was missing from your system volume when you bootstrapped the SJ monitor.

The terminal handler, TT.SYS, must be present on the system volume when you use the SJ monitor. Many of the keyboard monitor commands default to device TT:; its absence from the system can cause many confusing error messages. Copy the file TT.SYS to your system volume.

You must then reboot the system in order to install TT:.

This message can also occur if the SYSGEN options for the handler do not match the options for the monitor.

In this case you must obtain a copy of TT.SYS that was created by the same system generation as the monitor (or that has the same set of SYSGEN options).

?CREF-F-Chain-only CUSP

Programs must chain to CREF in order to use it. Attempts to use R CREF or to START a copy of CREF that is in memory cause this error.

Use a language processor to invoke CREF.

?CREF-F-CRF file error

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

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

?CREF-F-Device

The language processor chaining to CREF has specified an invalid device. This may be a system error. However, writing a CREF listing to magtape or cassette before manually LOADing the magtape or cassette handler causes this error. The error also occurs when the input file to CREF, CREF.TMP, is not on a random access device.

Before writing a CREF listing to magtape or cassette, use the LOAD command to manually load the appropriate device handler. Verify that CREF.TMP is on a random access device. If the error persists, submit a Software Performance Report with a program listing and a machine readable source program, if possible.

?CREF-F-List file error

An output error occurred while attempting to write the cross-reference table to the listing file. The output volume may not have enough free space remaining for the listing file.

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

?CSI-F-Device full

This message is caused by a user program utilizing .CSIGEN and indicates that the output file did not fit on the device specified.

Refer to Section 3.0 at the beginning 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 was not found.

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

?CSI-F-Illegal command

There was a syntax error in the command line. The problem may be an RT-11 directory-structured device specified as output without a file name (for example, *RK1:=RK1:RKMNSJ.SYS/U). A command line may be too long (i.e., greater than 80 printing characters before a carriage return).

Check for a typing error in the command line. Check the format of the monitor command and reenter it. This error can also be caused by specifying a keyboard monitor command that includes a large number of files and devices. Try simplifying the command and retyping it.

?CSI-F-Illegal device

The device specified does not exist. This error can occur when referencing a device such as TT: (via a TYPE command) or BA: when that device handler does not exist on the system device even though a SHOW command lists TT: and BA: as valid devices. This message can also occur if you issue the DIRECTORY command when you are running under the SJ monitor and the TT.SYS file is not on the system device. In this case, the system is barely useable. System commands that require TT.SYS will not operate properly until you copy that file onto your system device and reboot the system.

Check for a typing error in the command line. Ensure 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.

?CTn: Push rewind or mount new volume

This message indicates the end of the cassette mounted on unit n has been 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.

D

MACRO-11 has found a non-local label that is defined more than once, specifically in an earlier statement.

Redefine one of the labels.

?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 hard error conditions listed in Section 2.0 at the beginning of this manual.

?DIR-F-Illegal command

An incorrect command was given to DIRECTORY.

Check the format of the DIRECTORY commands; correct any typing errors and re-enter the command.

?DIR-F-Illegal device

The device specified is not a device on which the desired option can be performed; the device is nondirectory-structured and nonfile-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 (e.g., use /DOS to read a RSTS directory).

?DIR-F-Illegal option

The option specified was not valid, or the combination of options was illegal.

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 /EXCLUDE option to exclude files from the sort that you are not concerned with (e.g., /EXCLUDE *.SYS to exclude all system files); specify only those files in which you are interested.

?DIR-F-Output file full

The output file was full.

Send the output from DIRECTORY to a printing device, or use the /ALLOCATE option to specify the size of the output file.

?DIR-F-Write error

An error occurred while writing on the output file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?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 octal block values that are correct for the file you want to DUMP. Use the 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 is not on the device volume or the device is not known to the system. This error occurs if the device is not INSTALLed, or if its handler is 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. 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. DUMP prompts for another command.

Retype the command correctly.

?DUMP-F-Illegal option

An option in the command line is illegal, or has an illegal value, or has no value where an octal block number is required. Two options that conflict also cause this error. The command is not executed. DUMP prompts for another command.

Correct any typing errors and retype the command.

?DUMP-F-Insufficient memory

There are fewer that 256 words of memory free for DUMP to use as a buffer. The command is not executed. DUMP prompts for another command.

Refer to Section 3.2 at the beginning 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 filename.

?DUMP-F-Read error

A hardware error occurred in reading input.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. The /G option (/IGNORE) may be used to ignore input errors.

?DUMP-F-Write error

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

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

?DUP-F-Cannot /S SY: if indirect file open

An attempt was made to use the DUP /S option or the SQUEEZE command on SY: from an indirect file.

The option is illegal.

?DUP-F-Cannot write SY: while FG loaded

A request was given (while the foreground job was loaded) that would change the system volume and consequently cause the system to malfunction.

The request is ignored. Stop the foreground job, or wait until the foreground job is done and then unload it.

?DUP-F-Device full

The system cannot complete the operation because the output volume has insufficient room for all of the files it is to receive.

Reinitialize the output disk and use the COPY command to copy selected files to the output volume. When the output volume is full, use another volume, if necessary.

?DUP-F-Device in use

The requested device is currently in use.

FB-the Foreground program may be using the device
SJ-a previous program using magtape was terminated via CTRL/C. Unload MT and try again.

?DUP-F-Device not active

The volume/device indicated in the command was not available for an I/O operation. The device is in the system but was offline or had no volume in it.

Verify that the devices you want to use are on-line and that the proper storage volumes are mounted in them.

?DUP-F-Directory full

No room existed in the volume directory for the output file name.

Copy the volume to another volume with a large directory.

?DUP-F-Directory not zeroed

The directory of the output volume (for a SQUEEZE command) or the magtape being used has not been properly initialized as required by the command.

Initialize the directory or magtape with the monitor INITIALIZE command.

?DUP-F-Error in system area

A bad block was found in a critical area of the disk, making the disk unuseable (occurs after using the INITIALIZE/BADBLOCKS or INITIALIZE/REPLACE commands or the /Z/B or /Z/R command options for DUP).

Obtain a new disk and retry the operation.

?DUP-F-Error reading directory

An error occurred while reading the directory of the input device.

Try again; if error persists, copy each file off the device individually. Reformat the disk. If error persists, the disk is bad and must be replaced.

?DUP-F-Error writing directory

An error occurred while writing the directory of the output device.

Check write-lock.
Try again; if error persists, copy each file off the device individually. Reformat the disk. If error persists, the disk is bad and must be replaced.

?DUP-F-File exists

An attempt was made to create a file using /C when a file of the same name already exists on the volume.

Change the name of the new file, direct it to another volume, or delete the pre-existing file and retry the operation.

?DUP-F-File not found

The specified file was not on the specified device.

Ensure that the command has been correctly typed, and that the specified file exists on the specified device. If not, mount the correct device, and reenter the command.

?DUP-F-Illegal command

The command entered was illegal or the format specification was incorrect.

Check for a typing error in the command line. Check the format of the command line and retry the operation.

?DUP-F-Illegal contiguous file

After using the /C or /T command options, the required contiguous file was not empty, an empty space could not be created, or the empty space was too small to accommodate the command.

Delete a file from the affected directory segment (behind the file being extended or created).

?DUP-F-Illegal device

The specified device was not file-structured or block-replaceable as required by the operation, or the device is not installed in the monitor system.

Check for a typing error in the command line, and use the SHOW command to list devices that are currently installed in the system.

?DUP-F-Illegal directory

The volume did not contain a properly initialized directory structure (end-of-tape file on magtape and cassette) or the extra words in the directory did not agree after using the /S command option or SQUEEZE command.

Initialize the device with /Z option to DUP or the INITIALIZE command before using it the first time.

?DUP-F-Illegal option

An illegal option or option combination was used in a command line.

Check for a typing error in the command line. Use only those options that are valid for the DUP program.

?DUP-F-Insufficient memory

There was not enough memory available for the buffer space needed to do the requested operation.

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

?DUP-F-Read error

A hard error was reported during a read operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?DUP-F-Too many bad blocks

Too many bad blocks were found on the disk following use of the /Z/B or /Z/R command option for DUP, the INITIALIZE/BADBLOCKS command, or the INITIALIZE/REPLACE command.

Obtain a new disk and retry the operation.

?DUP-F-Unmarked bad block

Bad blocks were found on an RK06, RK07, or RL01 during a /Z/R operation for DUP or the INITIALIZE/REPLACE command which were not "Bad Sector Errors."

If possible, reformat the disk and retry the operation. An alternative remedy is to use the INITIALIZE/BAD command to contain all bad blocks in FILE.BAD. Note that the bad sector error flag is not set for blocks that become bad after a volume has been formatted. RT-11 cannot support replacement for those bad blocks until the volume is reformatted.

?DUP-F-Write error

A hard error was reported during a write operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?DUP-I-Insert DUP-resident disk, continue?

DUP has completed an operation on a substitute volume.

Insert the original volume containing DUP. Type Y followed by a carriage return to continue.

?DUP-I-No bad blocks detected

The bad block scan (which you initiated by using the DUP /K option or the DIRECTORY/BADBLOCKS command) found your device to be free of bad blocks.

The device is ready to use.

?DUP-W-Bad directory block

A bad block was found in the directory (physical blocks 6 through 68, depending on the number of segments) of an RK06, RK07, or RL01 disk and another block was substituted. Extra reads/writes of the directory will occur when .ENTER, .LOOKUP, and .CLOSE programmed requests are invoked.

If the lost efficiency is unacceptable, change disks.

?DUP-W-Error reading directory

A directory I/O error occurred while /S (or SQUEEZE) was being performed on a single device.

This is a warning that the resultant file structure is probably bad.

?DUP-W-Error writing directory

A directory I/O error occurred while /S (or SQUEEZE) was being performed.

This is a warning that the resultant file structure is probably bad.

?DUP-W-Foreground job loaded, continue?

A foreground job is loaded; the indicated operation, if processed, may affect the system operations already in progress.

Type Y and a carriage return to continue; type N and a carriage return to abort the operation. If this message is typed in conjunction with "dev:/INIT are you sure?", the system does not wait on the warning message, but waits on the "dev:/INIT are you sure?" message.

?DUP-W-Input truncated to 12 characters

You entered a volume identification or a device owner name that exceeded 12 characters.

DUP truncated your response to include only the first 12 characters. If this action is not acceptable to you, use the INITIALIZE/VOLUMEID:ONLY command to change the volume ID and owner name. Remember to enter 12 or fewer characters.

?DUP-W-Input truncated to six characters

You entered a volume identification for a magtape that exceeded six characters.

DUP truncated your response to include only the first six characters. If this action is not acceptable to you, use the INITIALIZE/VOLUMEID:ONLY command to change the volume ID. Remember to enter six or fewer characters.

?DUP-W-Input truncated to ten characters

You entered an owner name for a magtape that exceeded ten characters.

DUP truncated your response to include only the first ten characters. If this action is not acceptable to you, use the INITIALIZE/VOLUMEID:ONLY command to change the volume ID. Remember to enter 10 or fewer characters.

?DUP-W-No RT-11 vol id

A SQUEEZE operation was requested on a non-RT-11 volume or one created under an old version of RT-11.

If the volume is not in RT-11 format, do not continue the operation. If the volume is formatted with RT-11 V02C or older, allow the operation to continue by typing Y and a carriage return.

?DUP-W-No swap file on boot volume, continue?

The volume you attempted to boot with the DUP /O option (or the monitor BOOT command) does not have the file SWAP.SYS.

Type a Y followed by a carriage return if the volume to be booted is from RT-11 V03 or an earlier release. Otherwise, type N, and copy SWAP.SYS to the new volume from your current system volume, or use DUP /C to create a 24-block file called SWAP.SYS.

?DUP-W-Output device not specified; DK: is the default output

The COPY/DEVICE command has no output device name or the output device name has a typing error. If DUP continues, it will destroy the contents of the volume on the default user device, DK:.

Check for typing errors, particularly for the colon (:) in the device name. DUP prompts you with:

dev:/Copy are you sure?

Type NO if you do not want to change DK:, and reenter the command line correctly. Type YES if you want DUP to destroy the contents of the DK: volume.

?DUP-W-Read error

A hard error occurred during a read operation (following use of a /S or /I command option for DUP or a SQUEEZE or COPY/DEVICE command). The operation continues, one block at a time. If the message appears only once the system recovered from the error and the output volume is good. If the message appears more than once, the output volume may be bad.

Ignore the message if it appears only once. If it appears more than once, check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?DUP-W-Reboot

/X prevents the device's boot operation when /S/X was used to squeeze the system device.

Reboot the device.

?DUP-W-Write error

A hard error occurred during a write operation (following use of a /S or /I command option for DUP or a SQUEEZE or COPY/DEVICE command). The operation continues, one block at a time. If the message appears only once, the system recovered from the error and the output volume is good. If the message appears more than once, the output volume may be bad.

Ignore the message if it appears only once. If it appears more than once, check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

E

MACRO-11 reached the end of the source input without finding a .END directive. The system supplies a .END, ends assembly pass 1 and begins assembly pass 2.

Insert a .END directive.

?EDIT-F-"<>" error; no command(s) executed

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

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

?EDIT-F-Command aborted

A command has been prematurely terminated because user typed CTRL/C twice.

Examine the effect of the termination for any undesirable conditions.

?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 existed 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 3.0 at the beginning of this manual for information on how to increase storage space.

?EDIT-F-End of input file

A READ, NEXT or file search command was attempted and no input data was available.

The end of the file has been reached. Close the file using EX or EF; reopen it if more editing remains to be done.

?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

The argument specified was illegal for the command used; a negative argument was specified where a positive one was expected; the argument exceeded the range + or - 16,383.	Check the command format for the proper argument usage and reenter the command correctly.

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

The editor did not recognize the command line specified, or ED was not the first command used to activate the display hardware. This error can occur if you are inserting text and forget to type the insert command (I), for example.	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. If an ED command caused the error, recall the editor and type ED before entering any other editing commands.

?EDIT-F-Illegal device

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

?EDIT-F-Illegal file name

The filename specified in an EB, EW, or ER command, or as the input specification to the EDIT command, was illegal.	Check for a typing error in the command line. Ensure that the dev:filnam.typ[n] specification does not exceed 19 characters and is in the proper format. Verify that an input file name exists as entered.

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

Delimiters in an M command were improperly used, or an attempt was made to enter an M or EM command during execution of a macro.

Check for a typing error in the command line. Ensure that the character used for the delimiters does not appear in the macro itself. Do not attempt to enter M or EM until the current macro has finished executing.

?EDIT-F-Insufficient memory

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.

Delete unwanted buffers to create more room (using the 0U or 0M commands --see Chapter 5 of the RT-11 System User's Guide), or write text to the output file.

?EDIT-F-No file open for input

An R, N, F, or P command was issued and no file was open for input.

Check for a typing error in the command line. Use the ER command to open a file for input and then reenter the command.

?EDIT-F-No file open for output

An EX, EF, F or W command was issued and no file was open for output.

Check for a typing error in the command line. Use the EW command to open a file for output and then re-enter the command.

?EDIT-F-Not enough free blocks

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.

Use the SQUEEZE command to compress the disk if possible, or request a file of smaller size.

?EDIT-F-Output file full

Available space for the output file was full.

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-Read error

A hardware error was reported during a read operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?EDIT-F-Search failed

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

Check for a typing error in the command line. Ensure 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.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. This message is most often caused by a write-protected volume.

?EDIT-F-Write error

A hardware error was reported during a write operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?EDIT-W-Command buffer almost full

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

Complete the command using less 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 REENTER.

END BATCH

BATCH IN

A BATCH job has been terminated.

Control returns to the monitor.

ERROR: FORTRAN messages

(Section 5 has all FORTRAN IV messages.)

?ERRUTL-F-Device full

There was not enough room on the disk for the system to create the file ERRTMP.SYS.

SQUEEZE the volume, or use a different volume for the operation.

?ERRUTL-F-Device not in system

The command has an illegal device specification. The error occurs if the device is not INSTALLed or if its handler file is not on the system volume.

Check for typing errors in the command line, and correct them. If the device specification is correct, use the SHOW command to check that it is INSTALLed and the DIRECTORY command to check that its handler is on SY:. Retype the command line.

?ERRUTL-F-EL not in system

An attempt was made to create ERRTMP.SYS or to write the buffer when the EL handler was not installed into the system.

Use the REMOVE and INSTALL commands to put the handler information into the monitor.

?ERRUTL-F-EL not loaded

The EL handler was present in the system table but was not loaded into memory.

Use the LOAD command to move EL into memory from auxiliary storage.

?ERRUTL-F-File full

The file ERRTMP.SYS was full.

Run PSE to add the file ERRTMP.SYS to the FORTRAN-readable file, ERR.SYS. Run ERRUTL using the DEV:/C command to recreate ERRTMP.SYS.

?ERRUTL-F-File not found

The file ERRTMP.SYS was not on the specified device.

Run ERRUTL using the DEV:/C command to create the file.

?ERRUTL-F-Illegal command

There is a command syntax error.

Retype the command line correctly.

?ERRUTL-F-Read error

An error was encountered while reading the file, ERRTMP.SYS.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?ERRUTL-F-Write error

An error occurred while writing the file ERRTMP.SYS.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?ERRUTL-W-Device not loaded

The output device handler is not permanently loaded in memory. If your program uses the EL handler to write ERRTMP.SYS directly, an error will occur.

If you are running ERRUTL, ignore the warning. If your program writes ERRTMP.SYS directly with the EL handler, load the output device handler manually and then re-run the program.

FE

BATCH-F

A forced end occurred due to the appearance in the .CTL file of an illegal \F followed by a carriage return, or BATCH was terminated from the console by a \F followed by a carriage return.

Insert another BATCH control directive after the \F to prevent forced termination.

?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 choose a new name for the file to be created.

?FILEX-F-Channel not open

An I/O channel that FILEX requires for the command is not open.

Check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?FILEX-F-Device full

There was no room in the directory for the file name or there was no room on the output volume.

Refer to Section 3.0 at the beginning 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 cause this error.

Check the procedures for hard error conditions in Section 2.0 at the beginning 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 reading or looking up the directory of the input device, 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 hard error conditions listed in Section 2.0 at the beginning of this manual.

?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.

The transfer is not allowed until the foreground job is terminated and unloaded via UNLOAD FG.

?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 [was used without]; 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 = or < sign; an operation was attempted which FILEX cannot perform (e.g., zeroing an RT-11 device).

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, and retry the operation.

?FILEX-F-Illegal device

The device handler was not found, an invalid or illegal device name was used, or 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 a zero 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 Chapters 4 and 14 of the RT-11 System User's Guide.

?FILEX-F-Illegal option combination

An attempt was made to use more than one /S or /T option in a command line (only one is allowed); an attempt was made to use more than one transfer mode option (/I, /P, /A) or more than one operation option (/D, /L, /F, /Z) in a command line (only one of each is allowed); or an attempt was made to combine /DOS and /TOS in a COPY or DELETE command.	

?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 (octal).

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 at the beginning 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 /INTERCHANGE option does 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-Read error

A hardware error was reported during an input operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning 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 processing an output file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?FORMAT-F-Device error

An error occurred while FORMAT attempted to format the device. This message also occurs if the unit number you specify does not exist.

Make sure the unit number you specify is valid. If the problem appears to be a hardware error, check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?FORMAT-F-Device illegal or not supported by FORMAT

The FORMAT program cannot format the device you specified.

The only valid devices are DY: and RK:. Retype the command line using a valid device specification.

?FORMAT-F-Device not ready

The device you specified was not ready for formatting. This can occur if 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-Duplicate option: /x

The particular option (/x) has already been specified in the command line.

Check the command line for duplicate options and re-enter the command.

?FORMAT-F-Formatting not allowed when a foreground job is loaded

Because the FORMAT program accesses the device's registers directly, formatting cannot take place while a foreground job is running.

Wait until the foreground job completes before you format the device. Or, type CTRL/F followed by two CTRL/Cs to abort the foreground job. Then UNLOAD the foreground job and rerun FORMAT.

?FORMAT-F-Formatting the system volume is not allowed

You have attempted to format the volume on which the running RT-11 system currently resides. FORMAT does not permit this.

Specify a different device unit number and format the device there. Or, use the /W option, which permits you to pause before formatting begins in order to substitute a second volume for the device you specified in the command line. See Appendix C of the RT-11 System User's Guide for more information on how to do this.

?FORMAT-F-Illegal command line

The command line you typed was incorrect. Possible causes for this problem are as follows: specifying an output as well as an input device; specifying more than one input device; giving a file name with the device specification.

Re-enter the command line so that it adheres to the following format:

*input-device[/options]

?FORMAT-F-Illegal option: /x

The particular option (/x) is not a valid option for the device you specified.

Re-enter the command line and use only valid options. See Table C-1 in Appendix C of the RT-11 System User's Guide for a summary of the FORMAT options.

?FORMAT-F-No value can be specified with option: /x

The specified option (/x) does not accept an argument. FORMAT prompts you for another command.

Re-enter the command line and use only valid syntax. See Table C-1 in Appendix C of the RT-11 System User's Guide for a summary of the FORMAT options.

?FORTRAN messages

(Section 5 has all FORTRAN IV messages.)

?HELP-F-File not found HELP.TEC

The file HELP.TEC was not found on the system volume.

Copy HELP.TEC from your system backup volume onto SY:.

?HELP-F-File not found HELP.TXT

The file HELP.TXT was not found on either SY: or DK:.

Copy HELP.TXT from your system backup volume onto SY:, if SY: has room for it. Copy the file to DK: if SY: does not have room.

?HELP-F-Help not available

The information requested is not available.

Consult Chapter 4 of the RT-11 System User's Guide and/or an experienced user.

?HELP-F-Illegal option

An option other than /PRINTER or /TERMINAL was attempted with HELP command.

Correct the command line and retry the operation.

?HELP-F-Syntax error in command, type 'HELP<RET>'

The HELP command was improperly formatted.

Typing HELP (and then pressing the return key) summons the HELP command text, and explanation of how to use the HELP command.

?HELP-W-Help not available for subtopic AAAAAA

The information requested is not available.

Consult Chapter 4 of 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 Chapter 4 of the RT-11 System User's Guide or an experienced user.

I

MACRO-11 has detected an illegal character, or more than one. 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.

IO

BATCH-F

An input or output error occurred when the BATCH handler was attempting to read the .CTL file or write to the log file. The probable cause of this error is a log file overflow.

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) is not in the correct format, e.g., it is an uncompiled BATCH input file.	Ensure that the .CTL file is a valid control file output by the BATCH compiler.

?KMON-F-Address

	An address was 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-Already installed/assigned

	The device already exists in the system tables.	REMOVE the device or DEASSIGN the device name to INSTALL the new handler.

?KMON-F-Ambiguous command

	The command entered could have more than one meaning; 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. Appendix B of the RT-11 System User's Guide shows the minimum abbreviations.

?KMON-F-Ambiguous option

	The option entered could have more than one meaning; the option abbreviation entered was not unique.	Be sure to use enough characters in an option abbreviation to make that option unique.

?KMON-F-Bad fetch

Either an error occurred while reading a device handler from SY:, or the handler to be FETCHed has SYSGEN options that do not match the SYSGEN options of the monitor.

This error can occur during the execution of a keyboard monitor LOAD,RUN, 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. Ensure that the device handlers referenced are INSTALLed and that they do not contain bad blocks.

?KMON-F-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 hard error conditions listed in Section 2.0 at the beginning of this manual.

?KMON-F-Command file nesting too deep

A reference was made to the fourth level of nested indirect command files.

Limit indirect command file nesting to three levels.

?KMON-F-Command file not at end of line

An indirect file must be the last item (except for comments) on a keyboard monitor command line -- for example, COMPILE FILE @A

Correct the command line and retype.

This error can also occur when an illegal character is in the command file name, e.g., @A*B.

Ensure that the command file name contains only legal characters.

?KMON-F-Command file not found

An indirect file was specified in a keyboard monitor command line but the .COM file was not found.	Correct the command line and retype. The default device for indirect files is DK:; ensure that the specified file resides on device DK:.

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 called. The start-up file may have been accidentally deleted or renamed.

To prevent this message from appearing whenever you bootstrap the system, simply replace the start-up file for the monitor that you are using or create a new start-up file with commands of your own choosing 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-Command string too complicated

The command is too complicated to parse. This error can occur if the command line includes a very large number of options.	Simplify the command and reenter it.

?KMON-F-Conflicting options

The options specified on the command line are incompatible.	Refer to Chapter 4 of the RT-11 System User's Guide for the correct options.

?KMON-F-Conflicting SYSGEN options

The SYSGEN options of the device handler disagree with those of RMON (for example, installation of error handler attempted when no error log is supported).

Select a compatible RMON/handler combination.

?KMON-F-Console must be local DL

This error is caused by a SET TT CONSOL=n command specifying a logical unit of a terminal which is supported as a remote terminal, or that is interfaced through a DZ11 multiplexer.

Only local terminals interfaced through a DL11 are supported as the console terminal.

?KMON-F-Device loaded or not removable

A REMOVE command specifies an illegal device handler. Note that the TT, BA and system device handlers cannot be REMOVEd at all. Other handlers can be REMOVEd, but when they are resident in memory, they must be UNLOADed first.

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-File not found

The file specified in an R, RUN, GET, or FRUN command was not found.	Check for a typing error in the command line. Verify that a file name was specified in the correct format and that it contains no illegal characters.

?KMON-F-Foreground active

An attempt was made to execute an FRUN or UNLOAD FG 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-Handler file I/O error

The monitor reads block 0 of the handler during its installation. An I/O error was detected during this read. This is a hard error.	Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?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 an indirect file to the console terminal.	This procedure is valid only in nested indirect files.

?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

An illegal or nonexistent device was indicated, an operation illegal for the specified device was attempted, or an attempt was made to make a device handler resident for use with a foreground job (dev=F) when the single-job monitor was running.	Check for a typing error in the command line. Verify that the device indicated is valid. Note that devices for R, RUN, GET, SAV, FRUN must be random-access devices. The dev=F (and dev=B) construction is valid only under the FB monitor. Reenter the command.
This message will also appear if you try to INSTALL either TT: or BA: (or when you try to INSTALL a device named FG:, since that mnemonic is used for foreground jobs).	Copy the TT: or BA: handler file to the system volume and reboot the system. (You must reboot because you cannot INSTALL TT: or BA:.)
In the FB and XM monitors and while a foreground job is active, the monitor issues this message when you attempt to UNLOAD a device the foreground owns.	UNLOAD the device after the foreground job has finished.
This message can also appear if you try 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) is 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.	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 (RK:, DX:, etc.) and reenter the command line.

?KMON-F-Illegal NO on option

A NO prefix was specified with an option that does not allow it (for example: COPY/NOBOOT).

Omission of the option 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 listed in Chapter 4 and Appendix B of the RT-11 System User's Guide.

?KMON-F-Illegal option for program

The option used belongs to another command.

Examine the command line, select an appropriate option, and retry the operation.

?KMON-F-Illegal REL file format

For FB and XM monitors only. The file is not in the proper relocatable format. Attempts to run a save image file in the foreground or to use a REL file that was produced by an earlier version of RT-11 than Version 3 cause this error.

RT-11 Version 3 REL format differs from the format Version 02C (and earlier versions) produced. Foreground jobs must be relinked to run under a Version 3 monitor. Use LINK/FOREGROUND to relink the file and reenter the command.

?KMON-F-Illegal time

The TIME command argument was illegal.

Check for a typing error in the command line. Reenter the TIME command using the correct format (TIME hh:mm:ss).

?KMON-F-Illegal unit number

The terminal logical unit number specified in the SET TT CONSOL=n command is not a legal unit.

The error may be caused by specifying a unit number larger than the maximum number of units supported on the system as configured, or by specifying a unit number assigned to a terminal which does not exist on the particular hardware configuration.

?KMON-F-Illegal value on option

An option is modified by an illegal value (for example, DIRECTORY/COLUMN:n where n exceeds the allowable number of columns).

Correct the value and retype the command line.

?KMON-F-Line too long

A command line, or line in an indirect file, is too long. This condition usually results from too many continuation lines; the maximum line size is 200 (decimal) bytes.

Revise the command line into more than one command and retype the operation.

?KMON-F-Logical name not found

The logical device name in a DEASSIGN command is 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-F-Must 'R BATCH', type '/U'

An .UNLOAD BA command was attempted without first unhooking the handler.

Run BATCH and specify the /U option to unhook the handler. BATCH automatically performs the .UNLOAD BA command.

?KMON-F-No clock

No KW11 clock was available for the TIME command.

The TIME command cannot be used on your system.

?KMON-F-No date

The date was requested when it had not yet been set.

Enter the date using the correct format (DATE dd-mmm-yy).

?KMON-F-No FG

A SUSPEND, RESUME, or UNLOAD FG 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 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 handler file on SY:

An INSTALL command was entered to install a device (for example, LP:) that had no corresponding device handler file on the system volume.

The SJ and FB monitors look for a file named LP.SYS; the XM monitor looks for LPX.SYS.

Obtain a copy of the required device handler and transfer to your system device. Retype the command line.

?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 logical name you want to use. Use the SHOW command to display the status of the devices on the system.

?KMON-F-Not enough memory

An attempt was made to GET or RUN a file that was too big. The program would overlay the monitor if loaded into memory.

Refer to Section 3.0 at the beginning of the manual for information on how to increase storage space.

An indirect file was too large to be executed.

Try inserting a CTRL/C in the middle of the indirect file to break it into two sections.

The USR moved down into the area of memory mapped by the KT11 PAR1 mapping register.

The foreground program is too large. Or, too many device handlers are resident. Use the UNLOAD command to remove them.

?KMON-F-Overlay read error

A hardware error occurred while reading a KMON overlay to process the current command; this indicates that the system file for the monitor you want to use has a bad block, or that the system volume has been removed.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. Try bootstrapping a different monitor file with the BOOT command. Replace the system volume.

?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-REL file I/O error

A hardware error was encountered trying to read or write the file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?KMON-F-Save file I/O error

An error was reported for a .SAV file during a SAVE (output) or R, RUN, or GET (input) command. Possible errors include end-of-file, hard error, and channel not open.

Verify that the file specified is a legal .SAV file or that enough room existed on the device during the SAVE. Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?KMON-F-System I/O error

A hard error condition was reported on the system device while reading or writing the swap area.

Verify that the system device is write-enabled. Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?KMON-F-Too many files

Too many files were specified in the command line. The requested command does not support the variable types of I/O requested.

Refer to Chapter 4 of the RT-11 System User's Guide for restrictions for file specifications.

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.

?LIBR-F-/R or /U given on library file FILNAM

A /R or /U option illegally followed the specified library file in the command string.

The /R (/REPLACE) and /U (/UPDATE) options must follow only input file names containing modules for replacement or updating. Correct and reenter the command string.

?LIBR-F-Bad GSD in FILNAM

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 an object library file.

Verify the file name in the command line and check for typing errors. A valid object library file is required for extraction or to produce a directory listing. It may be necessary to rebuild the input file.

?LIBR-F-Bad option: /x

The librarian did not recognize the given option (/x). 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. This is an unusual internal consistency-check error.

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 FILNAM

One of the input files indicated in the command line was not found. The CSI 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 error

An internal error occurred while the librarian was in the process of recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, report the error to DIGITAL using an SPR (Software Performance Report); include a program listing and a machine-readable source program, if possible.

?LIBR-F-Illegal error

An internal error occurred while the librarian was in the process of recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, report the error to DIGITAL using an SPR (Software Performance Report); include a program listing and a machine-readable source program, if possible.

?LIBR-F-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-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 switch 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 FILNAM

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-Illegal replace of library file FILNAM

The command line specified that a library file be replaced by another library file.

Check for a typing error in the command line. Only object modules can be replaced in a library file. Enter another command.

?LIBR-F-Insufficient memory

Available free memory has been used up.

The current command is aborted. Refer to Section 3.0 at the beginning 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: 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 filnam 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

The device was full; LIBR was unable to create or update the indicated library file.

Refer to Section 3.1 at the beginning 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 list file.

Increase the output file size with the /ALLOCATE option or the output-filepec[:n] construction; otherwise increase the free space on the output device.

?LIBR-F-Output write error

An unrecoverable error occurred 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 at the beginning of this manual for information on how to increase storage space.

?LIBR-F-Read error in FILNAM

An unrecoverable error has occurred while processing an input file. The CSI prints an asterisk and waits for another command to be entered.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?LIBR-W-Duplicate module name of AAAAAA

A new module has been 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-Illegal character

The symbol name entered contained a non-Radix-50 character.

Retype the command line 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.

Check for a typing error in the command line. The entry point name or module name is ignored and processing continues.

?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.

?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-/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 (/BOTTOM) switch.

?LINK-F-/B Odd value

The argument to the /B option was not an unsigned even octal number.

Reenter the command string specifying an unsigned even octal number as the argument to the /B switch.

?LINK-F-/H Value too low

The value specified as the high address for linking was actually too small to accommodate the code.

Obtain map output without using /H to determine the space required and then retry the operation.

?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 (STACK) option.

?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 (/TRANSFER) option.

?LINK-F-/U or /Y value not a power of 2

The value specified with /U or /Y (/ROUND) and /BOUNDARY is not a power of 2.

Reenter the command with a value that is a power of 2.

?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.

?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-Bad complex relocation in FILNAM

A complex relocation string in the input file was found to be invalid. The message occurs during pass 2 of the linker.

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 FILNAM

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 FILNAM

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, verify that the source code is correct.

?LINK-F-Bad RLD symbol in DEV:FILNAM.TYP

A global symbol named in a relocatable record was not defined in the global symbol definition record. This unusual error condition appeared in the language processor.

Reassemble the indicated file. If the condition persists, submit a Software Performance Report (SPR).

?LINK-F-Complex relocation of AAAAAA

The complex relocation of global symbols was indicated for the linker in foreground. This procedure is not allowed.

Examine your 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-F-Default system library not found SYSLIB.OBJ

The linker did not find SYSLIB.OBJ on the system device when undefined globals existed.

Obtain a copy from your backup system volume and relink your program, or correct the source files by removing the undefined globals listed on the terminal.

?LINK-F-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-F-Illegal ASECT

An attempt was made to place an .ASECT above 1000 in a foreground link or to place an .ASECT into an overlay foreground link.

Correct the source program so that the restriction on .ASECTs is observed.

?LINK-F-Illegal character

The character specified was not used in proper context. Characters for symbols must be legal Radix-50 characters.

Examine the command string for errors in syntax. Correct and retype.

?LINK-F-Illegal device

The device/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 in the process of recovering from a previous system or user error.

Retry the operations that produced this error; if it recurs, report the error to DIGITAL using an SPR (Software Performance Report); 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 at the beginning of this manual for information on how to increase memory space.

?LINK-F-Library list overflow, increase size with /P

The linker's library routines list has been exceeded.

Relink the program that uses the library routines. Remove the /P:n option if the size specified is less than the default of 256 (decimal), 400 (octal); otherwise, increase the size of the list by specifying a size greater than the default.

?LINK-F-Map device full

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 at the beginning of this manual for information on how to increase storage space.

?LINK-F-Old library format in DEV:FILNAM.TYP

The indicated library file is formatted from Version 2C or older.

Rebuild the library file using the current librarian and the command format LIBRARY/CREATE newlib oldlib for an object library.

?LINK-F-Read error in DEV:FILNAM.TYP

A hardware error occurred while reading the indicated input file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning 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) to enclose a number twice the size of the resulting .SAV file.

?LINK-F-SAV device full

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 at the beginning of this manual for information on how to increase storage space.

?LINK-F-SAV read error

A hardware error occurred while reading the image file (SAV, LDA or REL).

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?LINK-F-SAV write error

A hardware error occurred while writing the image file (LDA or REL).

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?LINK-F-Size overflow of section AAAAAA

The program section with the name shown in this message increases program size to more than 32K words.

Reduce the size of the program section or the size of the entire program.

?LINK-F-STB device full

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 at the beginning of this manual for information on how to increase storage space.

?LINK-F-STB not allowed with /S and a MAP

Production of STB and MAP in the same linking operation is prohibited in order to maximize space in the symbol table with /S.

Produce STB and MAP in separate linking operations.

?LINK-F-STB write error

A hardware error occurred while writing the symbol table (STB) file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?LINK-F-Storing text beyond high limit

An input object module has 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.

Reassemble and/or recompile the program.

?LINK-F-Symbol table overflow

Too many global symbols were used in the program.

Retry the link using the /S (/SLOWLY) option. If the error still occurs, the link cannot take place in the available memory. Refer to Section 3.0 at the beginning of this manual, for information on how to increase memory space.

- **?LINK-W-/O Ignored**

Overlays were specified in the wrong order.

Check for a typing error in the command line. The overlay option is ignored. Consult the overlay restrictions in Chapter 11 of the RT-11 System User's Guide.

?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. See Section 11.6 of the RT-11 System User's Guide for more information on using overlays.

Ensure that calls or branches to overlay segments are made directly to entry points in the segment.

?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, only /O, /C, and // are legal options. Valid linker options are listed in Table 11-2 of Chapter 11 in the RT-11 System User's Guide. (See Chapter 4 for a description of the keyboard monitor LINK command.) Reexamine the command line and check for a typing error.

?LINK-W-Bad overlay at segment # NNNNNN

An overlay tried to store text outside its region; NNNNNN represents the segment number.

Check for an .ASECT in the overlay.

?LINK-W-Boundary section not found

The program section name you specified as a boundary section with /Y (/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. NNNNNN represents the address at which the error occurred. Failure is defined as the high byte of the relocated value (or the linked value) not being all zeroes.

The relocated value is truncated to 8 bits and the linker continues processing (for SAV and LDA files). For REL files no truncation is performed and processing continues. Correct the source program so that there are no relocated byte quantities, reassemble, and relink.

?LINK-W-Complex relocation divide by 0 in DEV:FILNAM.TYP

A divide by 0 was attempted in a complex relocation string in the file indicated.

A result of 0 is returned and linking continues.

?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.

The source program should be checked to use the desired section attributes for that program section.

?LINK-W-Extend section not found

The extend section name given with /E (/EXTEND) was not found in the modules that were linked; or the extend section does 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-Map write error

A hardware error occurred while writing the map output file. The map output is terminated and the linking process continues.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?LINK-W-Multiple definition of symbol

The symbol indicated was defined more than once.

Extra definitions are ignored.

?LINK-W-Round section not found AAAAAA

The round program section was not found in the symbol table to match the symbol entered (following use of the /U or /ROUND option).

Linking continues with no round-up action.

?LINK-W-Stack address undefined or in overlay

The stack address specified by the /M (/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 FRUN).

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. The response to the /T (/TRANSFER) option must be either a colon followed by an unsigned 6-digit octal number, or 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.	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 present in the libraries specified.

LU

BATCH-F	A Lock Up occurred in the BATCH handler because it 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 ensure that one channel is left open or is not used by magtape or cassette.

M

	MACRO-11 detected a label that is the same as an earlier label. For example, two labels whose first six characters are equal cause this error.	Change one of the conflicting labels.

MACRO messages

(See the MACRO-11 section of this manual and read the introduction to the MACRO-11 message set at the beginning of this manual.)

?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

The output volume does not have sufficient room for an output file specified in the command string.

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

?MACRO-F-File not found

An 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 6 input files.

Correct the command line and retype.

?MACRO-F-Illegal device

A 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 in the program being assembled.

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

?MACRO-F-I/O error on channel N

A hardware error occurred while attempting to read from or write to the device on the specified channel.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?MACRO-F-I/O error on work file

MACRO failed to read or write to its work file, WRK.TMP.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual. This error can also occur when there is not enough contiguous disk space to accommodate the work file. Use the SQUEEZE command (or the DUP /S option) to correct this condition.

?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

There was no room to continue writing the output file.

Refer to Section 3.0 at the beginning 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. For example, this error occurs 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. Your program contains more than 64K worth 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 your source program by segmenting it into separate modules, and assemble each of them separately.

?MDUP-F-Bad blocks

Too many bad blocks were found on the disk following use of the /Z/B (INITIALIZE/BADBLOCKS) or /Z/R (INITIALIZE/REPLACE) command option or unmarked bad blocks were found when using the /R or /REPLACE option.	If possible, reformat the disk and try again. If the difficulty persists, obtain a new disk and retry the operation.

?MDUP-F-Illegal command

There is a command syntax error.	Retype the command line correctly.

?MDUP-F-Read error

A hard error was reported during a read operation.	Check the procedures for hard error conditions is Section 2.0 at the beginning of this manual.

?MDUP-F-System error

A nonexistent device was indicated or an undefined interrupt occurred.	Insure that the device code being used is correct and the device is on the system.

?MDUP-F-Write error

A hard error was reported during a write operation.

Check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?MDUP-W-Bad directory block

A bad block was found in the directory of an RK06 and another block was substituted. Extra read/writes of the directory will occur when .ENTER, .LOOKUP, and .CLOSE programmed requests are invoked.

If the lost efficiency is unacceptable - change disks.

?MON-F-Bad fetch

Either an error occurred while reading a device handler 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 options to see if they agree.

?MON-F-Dir IO err

(See ?MON-F-Directory I/O error.)

?MON-F-Dir ovflo

(See ?MON-F-Directory overflow.)

?MON-F-Directory I/O error

An error occurred doing I/O in the directory of a device.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?MON-F-Directory overflow

No more directory segments were available for expansion (occurred during file creation via .ENTER).

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

?MON-F-FP trap

A floating-point exception trap occurred, and the user program had no .SFPA exception routine active.

The job is aborted. Examine the data for floating-point overflow or underflow and adjust it accordingly.

?MON-F-FPU trap

(See ?MON-F-FP trap.)

?MON-F-Ill addr

(See ?MON-F-Illegal address.)

?MON-F-Ill chan

(See ?MON-F-Illegal channel.)

?MON-F-Ill EMT

(See ?MON-F-Illegal EMT.)

?MON-F-Ill sst

For the XM monitor only. The program has not supplied a valid trap address for a synchronous system trap. 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 cause this error.

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 inadvertant trap -- for example, improper execution of data.

?MON-F-Ill USR

(See ?MON-F-Illegal call to USR.)

?MON-F-Illegal address

An address specified in a monitor call was odd or was not within the job's limits.

Correct the address in error in the source program.

?MON-F-Illegal call to USR

The USR was called from a completion routine. This error does not have a soft return, that is, .SERR will not inhibit this message.

Correct the program; the USR cannot be called from within a completion routine.

?MON-F-Illegal channel

A channel number that was too large was specified.

The default is 16 channels. Define a larger number (255 maximum) using the .CDFN request.

?MON-F-Illegal EMT

A non-existent EMT was executed (the function code was out-of-bounds).

Check the EMT instruction to determine the correct code.

?MON-F-Mem err
?MON-F-Memory error NNNNNN

The monitor found a memory parity error at address NNNNNN and aborted the user program. If the error persists or occurs at more than one address, the 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 representative.

?MON-F-Mmu fault NNNNNN

For the XM monitor only. The program has a memory management error. A program reference to an address that is outside the currently mapped bounds of the program causes this error.

Check the instruction that precedes address NNNNNN, and correct it. Rerun the program.

?MON-F-No dev

(See ?MON-F-No device.)

?MON-F-No device

A READ/WRITE operation was attempted but no device handler was in memory for it.

Verify that no .RELEASE was done before the READ/WRITE operation. LOAD the appropriate handler before running the program.

?MON-F-Overlay error

A user program with overlays failed to read an overlay.

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-Power fail halt

A power failure or power line transient of sufficient duration to trigger the power fail interrupt has occurred. When power returns, the system prints the message and halts.

Reboot the system.

?MON-F-Stack overflow

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.

?MON-F-Swap error

A hard error was reported 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 hard error conditions listed in Section 2.0 at the beginning of this manual.

?MON-F-System halt

A fatal error occurred within a system routine and the system has halted. The top of the stack contains the PC of the responsible instruction.

The system cannot continue and must be rebooted.

?MON-F-System read error

In the FB or XM monitor, an I/O error occurred trying to read the KMON or USR into memory. Either the system volume is dismounted or the monitor file you want to use has a bad block. The monitor continues to try to read the KMON after issuing this message.

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

An I/O error occurred trying to read the KMON or USR into memory, indicating that the system volume is dismounted or the monitor file is situated on the system device in an area that has developed one or more bad blocks.

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 write error

The error occurred when the monitor tried to write to SY:. The cause is probably a write-locked system disk.

If files are open or the USR needs to swap, verify that SY: is write-enabled. If SY: is write-enabled when the error occurs, check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?MON-F-Trap to 4
?MON-F-Trap to 10

The job referenced illegal memory or device registers, or an illegal instruction was used. Stack overflow occurred, a word instruction was executed with an odd address, or a hardware problem caused bus time-out traps through location 4. If the program counter (PC) is equal to 1, as in the following trap to 4 example, it indicates that the linker has supplied a starting address of 1 for your program.

```
?MON-F-Trap to 4 000001
```

The common cause of this error is omitting the transfer address from the .END directive in a MACRO program.

It can also occur if you omit the transfer address on the linker /T option (or the LINK/TRANSFER command).

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 errors. Refer to Section 4.0, System Failures, at the beginning of this manual for more information. Check for reference to a device that does not exist on the current system (e.g., PRINT FILE.FOR when the system does not have a line printer).

If none of these errors can be identified, report the problem to DIGITAL using an SPR (Software Performance Report); include a program listing and a machine readable source program, if possible.

?MON-F-Unloaded driver

For FB and XM monitors only. The program attempted to use a device driver that was not in memory and could not be .FETCHed.

RT-11 requires you to load device drivers manually for foreground FB jobs and all XM jobs. Use the LOAD command to load the driver(s) before running the program.

?MON-W-Directory unsafe NNNNNN

For FB and XM monitors only. This message, along with whatever message appears immediately above it, indicates an error while the USR was updating a device. The directory operation may have failed -- one file or more may have been lost. The monitor attempts to complete the directory operation before aborting the job. The error occurred in the instruction preceding address NNNNNN.

Examine the device directory carefully for lost files. Check the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?MSBOOT-F-File not found

The specified file is not available for bootstrapping from the magtape.

Check for a typing error.

?MSBOOT-F-I/O error

A hard error occurred during a magtape bootstrap operation.

Refer to the procedures for hard error conditions in Section 2.0 at the beginning of this manual.

?MSBOOT-F-Illegal file name

The file name specified is illegal.

Check for a typing error in the command line. Verify that the file specification is in the proper format.

?MSBOOT-F-Line too long

The MSBOOT command line has more than 80 characters.

Enter a legitimate MSBOOT command, limited to a file name and file type.

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. Exceeding the permissible nesting level for conditional assemblies causes this error. Attempting to expand a macro that is unidentified after a .MCALL search also causes it.

Check for a syntax error in the statement.

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 and when a local symbol is used more than once in a local symbol block.

Check the program logic.

?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 a Software Performance Report.

?PAT-F-Correction file has illegal record

The format of the correction file is not compatible with the object file format PAT requires.
The format is not what the standard language processors should produce.

Verify that the correction file has the proper format, and retype the command line.

?PAT-F-Correction file missing

The command line does not have a 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 read error

PAT detected an error while reading the correction file. Input hardware can cause this error.

Retry the command. If the error persists, see Section 2.0 of this manual.

?PAT-F-Illegal error

PAT has generated an illegal error message call. This is an internal software error condition.

If the error persists, submit a Software Performance Report with the related console dialogue and any other pertinent information.

?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

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 error persisits, submit a Software Performance Report.

?PAT-F-Input file has illegal record

The format of the input file is not compatible with the object file format PAT requires. The format is not what the standard DIGITAL language processors should produce.

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 a Software Performance Report with a copy of the console dialogue and any other pertinent information.

?PAT-F-Insufficient memory

There is not sufficient contiguous memory for PAT to use for the corrected output file.

Check the procedures for increasing available memory in Section 3.0 at the beginning of this manual.

?PAT-F-Only /C allowed

The input module or correction file specifications contain an illegal option. /C and /C:n are the only option forms PAT accepts.

Enter a command line with appropriate options.

?PAT-F-Output file full

There is not enough free space on the output volume for the corrected object file.

If you are sure there is sufficient free space on the output volume, use the form dev:filenam.typ[size] for the output file specification. Otherwise, check the procedures for increasing storage space in Section 3.0 at the beginning of this manual.

?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 hard error conditions in Section 2.0 at the beginning 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. PAT shows the name of the module in this message.

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 specifies 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. For the general command line format outl,out2,out3=input,correct PAT's output file must be in the "outl" position. PAT ignores all other output files.

Enter a correct command.

?PAT-W-Correction file checksum error

PAT finds a checksum value that is 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 you 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.

The message is for your information.

?PAT-W-Input file checksum error

PAT finds a checksum value that is 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 you 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. NNNNNN is the octal value of the sum of all binary data composing the file.

The message is for your information.

?PATCH-F-Insufficient memory

There was not enough free core 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 at the beginning 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 hard error conditions listed in Section 2.0 at the beginning of this manual.

?PATCH-F-Write error

PATCH detected an input error in writing to the file.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning 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 for your information.

?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 for your information only.

?PATCH-W-Address not in segment

The specified address exceeds the limits of the particular overlay.

Recheck the linker load map for the address and proper overlay segment.

?PATCH-W-Bottom address wrong

The contents of the address specified does not correspond to the first word in the standard RT-11 overlay handler.

Correct the line in error; specify the correct address using the x;B command.

?PATCH-W-CHECKSUM error

PATCH responds to an incorrectly entered checksum three times. A failure to enter the correct checksum on the third attempt will cause an automatic exit to the RT-11 monitor.

The file being patched has been changed. The incorrectly patched file should be deleted and the backup procedures repeated 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.

A non-zero value must be given 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. Relocation registers must be set 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. Recheck 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 exceeds 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

The "LF", "^", "@", "X", "P", "C", or "A" command character 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

An attempt was made to reference a location outside the limit defined by location 50 in block zero of the file. 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 "/" command.

Word addresses must be even numbers. Use "\" 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

An attempt was made to reference an overlay region in a program which was not identified as an overlaid program in the file specification, or an attempt was made to reference an overlay region in a program which 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. Insure that the correct file is being transferred. The error may also indicate that data has been lost from the input file. Retry the operation using the /G (/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 at the beginning of this manual for information on how to increase storage space.

?PIP-F-Device in use

The device (normally MT: or MM:) was in use by another job.

Retry the operation when the other job is either finished or aborted.

?PIP-F-Error reading directory

A hardware error occurred while reading a device directory.

The device may not be mounted or on-line. Check the procedures for hard error conditions listed in Section 2.0 at the beginning 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 /POSITION option.

Check for a mistyped file sequence number, and check the magtape directory by using the DIRECTORY/POSITION command. 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

Magtapes are illegal devices in a DELETE command, a TYPE/DELETE command, a PRINT/DELETE command and with the /D option in a PIP command line. No files are deleted from the magtape.

The safest general method for deleting files from a magtape is to copy those files you want to save to another volume with a COPY/QUERY command, and then reinitialize the original magtape. You can transfer the files you have saved back to the magtape, if you wish.

?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 in Table 7-1 of the RT-11 System User's Guide. (See Chapter 4 for a list of valid options for the COPY command.)

?PIP-F-Illegal option combination

An illegal option combination was used in the command line; for example, /A and /B.

Check for a typing error in the command line. (See Chapter 4 of the RT-11 System User's Guide for the valid options for the COPY command.)

?PIP-F-Illegal option value

The value of the file sequence number in a COPY/POSITION command is not in the range from -2 to +999. When copying a magtape and specifying a file sequence number, the number must be in that range. When this message appears, no files are 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

The output file name or file type did not match the input file specifications in a copy operation or else 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

A hardware error occurred while reading the file.	Check the procedures for hard error conditions listed in Section 2.0 at the beginning 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 at the beginning of the 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 input file in a COPY/BINARY command is an OBJ library. The file name is shown in this message. Copying stops.	Do not use the /BINARY option when copying OBJ libraries. Use the /QUERY option to selectively copy files, and type NO for each OBJ library.

?PIP-F-Output error DEV:FILNAM.TYP

An unrecoverable error occurred while writing a file, perhaps caused by a hardware or checksum error; or there was not enough room available on the device when creating a file. In a multiple-file operation, the command is executed on every file preceding the one interrupted by the error.

See Section 3.0 at the beginning of this manual for information on how to increase storage space. Check the procedures for hard error conditions listed in Section 1.0.

?PIP-F-Output file full DEV:FILNAM.TYP

Physical end of tape was detected on an output magtape volume or the output file was not large enough for the input file. For devices other than magtapes, fragmentd storage space can cause this message. Copies from magtape or cassette and copies with the /CONCATENATE option also cause the error.

Use the /ALLOCATE option to specify large output files, if the output volume has sufficient free space. Check Section 3.0 at the beginning of this manual for procedures on increasing storage space.

?PIP-F-System error

A serious and incapacitating error has occurred.

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

Too many output files were specified on the command line.

You are limited to only one output file.

?PIP-F-Use DIR

In RT-11 Version 3, PIP does not provide directory listings. The PIP/L option and the TYPE/DIRECTORY monitor command are both illegal. PIP returns to the monitor.

Use the monitor DIRECTORY command to list device directories.

?PIP-W-Checksum error DEV:FILNAM.TYP

A checksum error occurred during a formatted binary transfer. Execution continues because a /G (/IGNORE) option existed within the command line.

Check for a typing error in the command line. Insure that the correct file is being transferred. Examine the file for errors after input is completed.

?PIP-W-Input error DEV:FILNAM.TYP

A hardware error occurred while reading the file. Execution continues because a /G option exists within the command line.

Examine the file for errors after the command finishes.

?PIP-W-No .SYS action

The /Y (/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 /Y (/SYSTEM) 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 includes the /NOREPLACE option, and there is 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 you do not want to protect files on the output volume that have the same names as input files, reissue the command without the /NOREPLACE option. Otherwise, change one of the names in each confilicting 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

.SYS files have been transferred, 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, it is necessary to 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.

?PSE-F-Illegal command

An error was detected in the command line.	Reenter a corrected command line.

?PSE-F-Input device not found

An illegal device was specified for input.	Reenter the command line with a legal device.

?PSE-F-Input file empty

The ERRTMP.SYS file has no records to be processed in it.

PSE prompts for further action.

?PSE-F-Input file not found

PSE was unable to find the input file. PSE prompts for further input.

Run PSE again or abort.

?PSE-F-Input read error

An error was encountered when attempting to read the input file. All files are closed. PSE prompts for further input.

The input file remains intact.

?PSE-F-Input write error

An error was encountered when attempting to write the output file. PSE prompts for further input.

The input file remains intact.

?PSE-F-Insufficient disk space

The number of blocks entered on the command line for a new output file was not available.

Re-enter the command line with a smaller number of blocks specified.

?PSE-F-Output device not found

An illegal device was specified for output.

Re-enter the command line with a legal device.

?PSE-F-Output file size must be expanded

PSE has determined that even with deletion the output file is not large enough to accommodate the new records. PSE prompts for further input.

A new larger output file must be created. The input file remains intact.

?PSE-F-Output file too small

```
MUST DELETE RECORDS FROM:  MM:DD:YY
                           MM:DD:YY
OK TO DELETE: Y OR N?
```

PSE has determined that there is not enough room in the output file for new records.

If N followed by a carriage return is entered, PSE will prompt for further input, and no records will be deleted. If Y followed by a carriage return is entered, records from the specified days (month:day:year) will be deleted from file and processing will continue.

?PSE-F-Output read error

An error was encountered when reading or writing the output file. PSE prompts for further input.

All files are closed. The input file remains intact.

?PSE-F-Output write error

An error was encountered when attempting to write the output file. PSE prompts for further input.

The input file remains intact.

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 has found a register-type error. 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 statement.

?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, to see if there is a bad block in the device directory.

?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 its input buffer.

Unload the foreground 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 is 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.
?SRCCOM-F-Illegal option		
	An invalid option was found or an option other than /L (/MATCH) was given a value.	Check for a typing error in the command line. Use only those options listed in Chapter 15 of the RT-11 System User's Guide for SRCCOM. See Chapter 4 for valid options for the DIFFERENCES command.
?SRCCOM-F-Insufficient memory		
	There was not enough memory to hold a particular difference section.	Refer to Section 3.0 at the beginning of this manual for information on how to increase memory space.

?SRCCOM-F-Read error

A hardware error was reported during an input operation.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?SRCCOM-F-Too much difference

More than 310 (octal) lines of difference between two files were found.

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 <=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 at the beginning of this manual for information on how to increase storage space. Check the procedures for hard error conditions listed in Section 2.0.

?SYE-F-Illegal command line

There is a command syntax error or an illegal device has been specifed in the command line. Specifying more than one input file or more than one output file causes this error. SYE prompts for another command.

Check the command syntax, and retype the command line.

?SYE-F-Illegal option

An unsupported option was given or a legal switch was given too many times. SYE prompts for another command.

Check for typing errors, and enter another command.

?SYE-F-Input file not found

The input file does not exist on the specified device. SYE prompts for another command.

Check for typing errors, and retype the command line with a correct input file specification.

?SYE-F-Input read error

SYE encountered an error while reading the input file. SYE closes all files and prompts for a command line.

Try re-typing another command line; otherwise terminate SYE.

?SYE-F-Open failure on input file

The input file cannot be opened because a logical unit number cannot be assigned to it at the specified time. SYE reprompts for a command line.

Type another command line.

?SYE-F-Open failure on output file

The output file cannot be opened because a logical unit number cannot be assigned to it at the specified time. SYE closes the input file and reprompts for a command line.

Type another command line.

?SYE-I-NNNNNN. pages

SYE has completed its analysis; its report has the number of pages (decimal) shown in this message. SYE closes all files and prompts for a command line.

The message is for your information. Type another command or terminate SYE.

?SYE-W-Summary table overflow

SYE's report does not have a complete summary because there are too many devices with associated errors. The summary that appears is accurate to a tally of 12 Device Statistics types. There are device types that SYE has processed but not summarized, however. SYE continues to execute.

?SYSF4-F-Interrupt overrun

Before an interrupt service routine finished, two more interrupts using the same vector occurred. The job is aborted. (Note that tasks 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 necessary.

?SYSGEN-F-Answer value too large

You typed a numeric response that exceeds the highest acceptable answer.

Check for a typing error. Check the dialogue description in the RT-11 System Generation Manual (Section 3.4.2) for the highest acceptable answer and type another response.

?SYSGEN-F-Answer value too small

You typed a numeric response that is less than the lowest acceptable answer.

Check for a typing error. Check the dialogue description in the RT-11 System Generation Manual (Section 3.4.2) for the lowest acceptable answer and type another response.

?SYSGEN-F-Illegal system device for baseline monitor

You selected an illegal system device for the baseline monitor. The system device for the baseline SJ monitor must be one of the following devices:

RK	RK05 Cartridge Disk
DT	DECtape
DX	RX01 Diskette

You must restart the SYSGEN dialogue from the beginning.

?SYSGEN-F-Inappropriate answer

The response you entered was not the type the dialogue requested. An example of this error is typing a Y when the dialogue requested a numeric answer.

Check the dialogue description in the RT-11 System Generation Manual (Section 3.4.2) for the type of answer required and enter another response.

- **?SYSGEN-F-Input error**

A hard I/O error has occurred while reading the file SYSGEN.CND.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

- **?SYSGEN-F-Insert error**

A hard I/O error has occurred while reading the file SYSTBL.CND.

Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

?SYSGEN-F-Magtape specification error

You requested magtape support, but you responded NO to both magtape controller options.	Re-run SYSGEN. If you request magtape support again, respond YES to one of the magtape controller questions.

?SYSGEN-F-No monitor requested

You have responded NO to all possible monitor choices during a SYSGEN run.	Re-run SYSGEN, and respond YES to one or more of the monitor selection questions.

- **?SYSGEN-F-Output error**

A hard I/O error has occurred while writing one of the SYSGEN output files.	Check the procedures for hard error conditions listed in Section 2.0 at the beginning of this manual.

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.

WARNING: FORTRAN messages

(Section 5 has all FORTRAN IV messages.)

Z

MACRO-11 found an incompatible instruction. This is a warning that the instruction is not defined for all PDP-11 hardware configurations.

RT-11 System
Message Manual
AA-5284B-TC

READER'S COMMENTS

NOTE: This form is for document comments only. DIGITAL will use comments submitted on this form at the company's discretion. Problems with software should be reported on a Software Performance Report (SPR) form. If you require a written reply and are eligible to receive one under SPR service, submit your comments on an SPR form.

Did you find errors in this manual? If so, specify by page.

_____

_____

_____

_____

_____

_____

Did you find this manual understandable, usable, and well-organized? Please make suggestions for improvement.

_____

_____

_____

_____

_____

_____

Is there sufficient documentation on associated system programs required for use of the software described in this manual? If not, what material is missing and where should it be placed?

_____

_____

_____

_____

_____

_____

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
- ☐ Non-programmer interested in computer concepts and capabilities

Name _____ Date _____

Organization _____

Street _____

City _____ State _____ Zip Code or Country _____

Please cut along this line.

---------- Fold Here ----------

---------- Do Not Tear - Fold Here and Staple ----------

FIRST CLASS
PERMIT NO. 33
MAYNARD, MASS.

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

Postage will be paid by:

digital

Software Documentation
146 Main Street ML5-5/E39
Maynard, Massachusetts 01754