

MicroPower/Pascal™ –RSX/VMS Messages Manual

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This manual describes diagnostic messages and exception codes that you may encounter during MicroPower/Pascal development. Included in this manual are the MicroPower/Pascal utility program messages, language messages, and exception codes generated by the MicroPower/Pascal kernel, object-time system (OTS), and compiler. Explanations and recovery procedures accompany the messages and codes where necessary or appropriate for this release.

Operating System: RSX-11M Version 4.1
RSX-11M-PLUS Version 2.1
VAX/VMS Version 3.4

Software: MicroPower/Pascal-RSX Version 1.5
MicroPower/Pascal-VMS Version 1.5

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TABLE

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CHAPTER 1

INTRODUCTION

This manual describes diagnostic messages that you may encounter during MicroPower/Pascal development.

This manual is organized into four chapters. When 2-column format is used, the left column gives an explanation of the message, and the right column suggests recovery procedures.

Chapter 1 describes the order and format of the messages, hard error conditions, and how to increase storage space.

Chapter 2 describes messages issued by the utility programs that are used for MicroPower/Pascal development. These utilities are COPYB, MERGE, MIB, PASDBG, and RELOC.

Chapter 3 describes the four categories of MicroPower/Pascal language messages: command line error messages, compile-time error messages, compiler malfunction error messages, and configuration file and prefix file assembly error messages.

Chapter 4 describes the exception codes generated by the MicroPower/Pascal kernel and object-time system (OTS).

1.1 MESSAGE ORDER

The utility program messages (Chapter 2) and the command line and compiler malfunction messages (Sections 3.1 and 3.3) are listed in alphabetical order. The command generating the specific COPYB, MERGE, MIB, or RELOC message will be printed below the error message on your display terminal or hard-copy terminal listing. Sometimes names or values from the operation you are performing appear in the message, as described below.

xx	A specific command switch that is copied into messages from commands you have typed
AAAAAA	A label or name that is copied into a message from a program you are using
a	A single character that you typed, usually the single-letter abbreviation for a file or command switch
dev spec	A device specification that is copied from one of your commands
filespec	A file specification that is copied from one of your commands

INTRODUCTION

MMMMMM
NNNNNN

A specific value that the system reports as part of a message, usually a count total, address, or offset (current at the time of the message)

n

A single digit that you type, usually the unit number in a device specification

1.2 MESSAGE FORMAT

This manual shows messages in the same form as they appear on your display terminal or on hard-copy terminal listings. The COPYB, MERGE, MIB, and RELOC utility program messages appear in the following form:

PROG -- S -MESSAGE TEXT

PROG is the name of the program that issued the message, and S is a code letter indicating the severity of the error. Table 1-1 summarizes the five possible severity codes for S.

Table 1-1
Error Severity Levels

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

PASDBG messages and the compiler command line, compile-time, and compiler malfunction messages appear in the following form:

?PROG-S-MESSAGE TEXT

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In addition to the severity codes listed in Table 1-1, PASDBG messages may contain the severity code C, which represents consistency check.

1.3 HARD ERROR CONDITIONS

Certain error conditions are detected by the hardware rather than by the software. For these errors, the development system prints a short message on the console terminal. The corrective action that you take depends on the type of hard error condition and the device in use.

A hard error condition is often simple to correct. The message will indicate an off-line or write-locked device, for example, and the system may wait until you correct the problem. The following common hard error conditions may be simple to correct. When you have determined and corrected the condition, reenter the command line and try the operation again.

- The device is not on line
- The volume is not mounted in the device
- The volume is full (output only) or your disk quota is exceeded (VMS systems)
- The input file is corrupted
- The device is write-protected (output only)
- The volume is not correctly formatted
- Unit select error
- Parity error

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

1.4 INCREASING FILE STORAGE

During an output operation, an error message may indicate that your output volume has insufficient space or, if the volume is directory structured, that space is not available for a new directory entry. In that case, try one or more of the following solutions:

1. Make sure that you have set up your development system according to the instructions in the appropriate installation guide and the release notes for your MicroPower Pascal system.
2. Delete or transfer to a backup volume any unnecessary files on the output volume.
3. Use another volume with more space.
4. Ask the system manager to increase your disk quota (VMS systems).

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1.5 USING TARGET MEMORY EFFECTIVELY

In general, you can reduce the maximum amount of target memory a program requires at one time in one of two ways:

1. Break the code into smaller modules.
2. Remove any unnecessary testing codes.

If, after trying these suggestions, memory for your application is still insufficient, you must increase the amount of memory in your target system hardware.

CHAPTER 2

UTILITY PROGRAM MESSAGES

This chapter describes the COPYB, MERGE, MIB, PASDBG, and RELOC MicroPower/Pascal utility program messages you may encounter in MicroPower/Pascal development. When messages apply to one specific operating system environment only, the name of the operating system appears in parentheses beside the message.

2.1 COPYB MESSAGES

CPB -- F -Bootstrap in MIM file invalid for MicroPower/Pascal

The MIM file contains an invalid bootstrap. A previous version of a MicroPower bootstrap file may have been used.

Rebuild the MIM file and add a valid bootstrap.

CPB -- F -Comma in command line and input file not specified

Commas are not permitted in the command line, and an input file must be specified.

Specify only one input file in the command line and do not use commas.

CPB -- F -Command I/O error

An error occurred while reading the command line.

Check that the device is on line and try the operation again. If the error persists, check for hardware errors. Refer to Section 1.3 for procedures for recovery from hard error conditions.

CPB -- F -Command syntax error

The indicated invalid command line contains a syntax error.

Check for a typing error and enter a legal command line.

CPB -- F -Corrupted or non-RT disk - Invalid RT directory

The specified device does not contain a volume with a valid RT-11 directory.

Check that the correct volume is mounted and that it is not corrupted. Ensure that it has been initialized as an RT-11 volume.

UTILITY PROGRAM MESSAGES

CPB -- F -Device currently allocated to another image (VMS)

Another user or process has allocated the specified device.

Wait until the other user or process deallocates the device and try the operation again.

CPB -- F -Device not currently attachable (VMS)

The device is not available for attaching.

Check the device status. Correct the problem and verify the operation.

CPB -- F -Device not ready or not mounted foreign (VMS)

The specified device is not ready or is not mounted foreign.

Check that the device is ready and that the volume mounted as a foreign device.

CPB -- F -Directory read error

The device is not ready (all RSX systems) or is not mounted foreign (RSX-11M-PLUS systems only).

Check that the device is ready (all RSX systems) and that it is mounted as a foreign device (RSX-11M-PLUS systems).

A hardware error occurred on the device directory.

Check the procedures in Section 1.3 for recovery from hard error conditions.

CPB -- F -Directory specification illegal in RT file spec -- filespec

The file specification must be a legal RT-11 file specification. It may not contain a directory specification.

Remove the directory specification.

CPB -- F -Error detaching from attached device

A system error occurred.

Retry the operation. If the problem persists, contact the Customer Support Center (CSC) for your area.

CPB -- F -Error parsing file name or assigning LUN to device

The file specification must be a legal RT file specification. A system error may have possibly occurred.

Check for typing errors in the file specification. For VMS systems, check logical device names. Retry the operation. If the error persists, contact the Customer Support Center (CSC) for your area.

CPB -- F -File not a memory image (MIM) file

The input file is not a memory image (MIM) file.

Check for typing errors in the file name.

UTILITY PROGRAM MESSAGES

CPB -- F -File not found on device -- file spec

The specified input file was not found on the volume.

Verify that the correct volume is in the drive and that the correct unit was specified. Check for a typing error in the file specification. Use FLX to verify that the file is on the device.

CPB -- F -Illegal device -- dev spec

The maximum number of characters permitted in the device name is 16(decimal) for a VMS device and 6(decimal) for an RSX device.

Reenter the command. Ensure that the device name does not exceed its character limit. Verify that the device is valid for the system in use.

CPB -- F -Illegal Get Command Line error code

A system error occurred.

Retry the operation. If the problem persists, contact the Customer Support Center (CSC) for your area.

CPB -- F -Illegal RT file specification -- filespec

The file specification must be a legal RT-11 file specification.

Try the operation again, specifying a legal RT-11 file specification.

CPB -- F -Illegal switch - only /CS allowed

A switch other than /CS was specified.

The only valid switch is /CS. Check for typing errors in the command line.

CPB -- F -Indirect command syntax error

The indirect file specification contains a syntax error.

Check for a typing error and enter a legal command line.

CPB -- F -Indirect file depth exceeded

The permissible indirect file depth (1) has been exceeded.

Rewrite the command file to stay within the indirect file depth limit.

CPB -- F -Indirect file open error

The indirect command file was not found.

Check for typing errors in the command line. Ensure that the filespec is correct and that the file exists.

CPB -- F -No bootstrap in MIM file

The specified memory image (MIM) file does not contain a MicroPower/Pascal bootstrap.

Put a bootstrap in the MIM file. Check for a typing error in the command line.

UTILITY PROGRAM MESSAGES

CPB -- F -No input file specified

An input file must be specified.

Try the operation again, specifying the correct input file.

CPB -- F -No such device on system

The specified device is not on the system or was not SYSGENed into the system.

Ensure that the device is on the system and has been SYSGENed into the system.

The device name contains an illegal character or an invalid unit number.

Check for a typing error in the device name.

CPB -- F -No value or @ specified for /CS switch

The value for the /CS switch was missing or @ was specified.

Provide a valid CSR value for the /CS switch.

CPB -- F -Only a single input file allowed and no commas allowed

Commas are not permitted in the command line, and a single input file must be specified.

Specify only one input file in the command line and do not use commas.

CPB -- F -Read error

A hardware error occurred on the device.

Check Section 1.3 for procedures for recovery from hard error conditions.

CPB -- F -Unable to attach device (RSX)

Another user or terminal has allocated the specified device.

Wait until the other user or terminal deallocates the device and retry the operation.

The specified device is a mounted Files-11 volume, not an RT volume.

Check for a typing error in the device name and ensure that the proper volume is in the specified device.

CPB -- F -Wild cards illegal in file spec -- filespec

Asterisks (*) or percent symbols (%) occur in the file specification.

Reenter the command line without using wildcards.

CPB -- F -Write error writing bootstrap to block 0

A hardware error occurred while writing the bootstrap to the boot block.

Check Section 1.3 for procedures for recovery from hard error conditions.

UTILITY PROGRAM MESSAGES

CPB -- W -File name truncated to 6 character RT limit -- filename

The file name should be a legal RT-11 file name containing no more than six characters. The specified file name was truncated to the indicated file name.

It is recommended that the first six characters of a file name be unique.

2.2 MERGE MESSAGES

MRG -- F -Address space exceeded

The upper limit of all program sections exceeded 32K words when all sections were concatenated.

Reduce the size of the static process or, if the target system is mapped, split it into several static processes.

MRG -- F -Bad GSD in -- filespec

An illegal global symbol directory (GSD) record was in the file. The file is probably not a valid object module.

Verify that the correct file names were specified as input. Reassemble or recompile to obtain a good object module and try the operation again. If the error persists, verify that the source code is correct.

MRG -- F -Bad ISD in -- filespec

An invalid internal symbol directory (ISD) command exists in the input file. The file is probably not a valid object module.

Check for a typing error in the command line and verify that the correct file names were specified as input. Reassemble or recompile to obtain a good object module and try the operation again. Do not use the /DE switch on the kernel STB file or on the left side of the equal sign if the kernel STB file is an input file. If the condition persists, contact the Customer Support Center (CSC) for your area.

MRG -- F -Bad ISD symbol in -- filespec

An error occurred in the language processor or an STB file with /DE was specified, because a global symbol named in an internal symbol directory (ISD) record was not defined in a global symbol directory record.

Reassemble or recompile the indicated file. Do not use the /DE switch on the kernel STB file or on the left side of the equal sign if the kernel STB file is an input file. If the condition persists, contact the Customer Support Center (CSC) for your area.

UTILITY PROGRAM MESSAGES

MRG -- F -Bad RLD in -- filespec

An invalid relocation directory (RLD) record exists in the input file. The file is probably not a valid object module.

Check for a typing error in the command line and verify that the correct file names were specified as input. Reassemble or recompile to obtain a good object module and try the operation again. If the error persists, check the source code to make sure that all modules contributing to a data present are word aligned.

MRG -- F -Close error on file -- filespec

A hardware error occurred.

Check the procedures in Section 1.3 for recovery from hard error conditions.

MRG -- F -Command I/O Error

An error occurred while reading the command line.

Check that the device is on line and try the operation again. If the error persists, check for hardware errors. Refer to Section 1.3 for procedures for recovery from hard error conditions.

MRG -- F -Command syntax error

The indicated invalid command line contains a syntax error.

Check for a typing error and enter a legal command line.

MRG -- F -File not found -- filespec

The input file specified was not found on the specified or default device or on the specified or default directory.

Reenter the command line, using the correct file or device specification. Check that the device is ready and that it is mounted. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. For VMS filespecs following a filespec with a specified directory, ensure that a single logical is not used for both the device spec and the directory spec.

MRG -- F -Illegal character in /xx value

An illegal character was used in the value supplied for the switch.

Check for typing errors in the command line and ensure that legal Radix-50 characters are used for values. Reenter the command line.

UTILITY PROGRAM MESSAGES

MRG -- F -Illegal device -- dev spec

The device specification exceeds its limit. The maximum number of characters permitted in the device name is 16(decimal) for a VMS device and 6(decimal) for an RSX device.

Reenter the command. Ensure that the device name does not exceed its character limit. Verify that the device is valid for the system in use.

MRG -- F -Illegal directory

The directory specification exceeds its limit. The maximum number of characters permitted in the directory name is 31 (decimal) for a VMS directory and 11(decimal) for an RSX directory.

Check for a typing error in the command line. Ensure that the directory name does not exceed its character limit.

MRG -- F -Illegal file name -- filespec

The indicated file name is illegal, contains a wildcard (* or %), or is too long.

Check for a typing error in the command line. Ensure that the command line does not contain wildcards.

MRG -- F -Illegal Get Command Line error code

A system error occurred.

Try the operation again. If the error persists, contact the Customer Support Center (CSC) for your area.

MRG -- F -Illegal record type in -- filespec

A formatted binary record had a type not in the range of 1 to 10 (octal). The file is probably not a valid object module.

Verify that the correct file names were specified as input and check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and try the operation again. If the specified file is an object library, check that the /LB switch was specified for the file.

MRG -- F -Illegal switch or switch value

An illegal switch or switch value was specified in the command line.

Check for typing errors. Try the operation again, using the correct switch and a legal switch value. Valid MERGE switches are listed in the MicroPower/Pascal-RSX/VMS System User's Guide.

MRG -- F -Incorrect library module specification

A library module name contains a non-Radix-50 character.

Check for typing errors and ensure that the module name contains only legal Radix-50 characters.

UTILITY PROGRAM MESSAGES

MRG -- F -Indirect command syntax error

The indirect file specification contains a syntax error.

Check for a typing error and enter a legal file specification

MRG -- F -Indirect file depth exceeded

The permissible indirect file depth (3) has been exceeded.

Rewrite the command files to stay within the indirect file depth limit.

MRG -- F -Indirect file open error

The indirect command file was not found.

Check for a typing error in the command line. Ensure that the filespec is correct and that the file exists.

MRG -- F -Insufficient memory

Memory was insufficient to accommodate the command, the symbol table, the library module list, or the resultant output module.

Retry the operation. If the error persists, contact the Customer Support Center (CSC) for your area.

MRG -- F -Library list overflow

The MERGE library routines list buffer was exceeded.

Perform the merge in several steps rather than trying to merge all files at once.

MRG -- F -Module AAAAAA not in library -- filespec

The indicated module was not in the indicated library.

Check for typing errors. Ensure that the /LB switch was specified on the correct library and that the library contains the module.

MRG -- F -Open failure on file -- filespec

The indicated file could not be opened.

Check for typing errors and reenter the command. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. If the indicated file is an output file, ensure that there is room on the specified device.

MRG -- F -Read error in -- filespec

A hardware error occurred while the indicated input file was being read.

Check the procedures in Section 1.3 for recovery from hard error conditions.

UTILITY PROGRAM MESSAGES

MRG -- F -Request core block allocation error

A system error occurred.

Try the operation again. If the problem persists, contact the Customer Support Center (CSC) for your area.

MRG -- F -Required input file missing

The command line contains no input files.

Check for typing errors in the command line. Enter a command that includes input files.

MRG -- F -Size overflow of section AAAAAA

The indicated program section, when concatenated, was larger than 32K words.

Reduce the size of the program section.

MRG -- F -Symbol table overflow

Too many global symbols were used in the program.

The merge cannot take place with current input files. Reduce the number of global symbols and remerge.

MRG -- F -Write error in -- filespec

A hardware error occurred while the indicated output file was being written.

Check the procedures in Section 1.3 for recovery from hard error conditions.

MRG -- W -Conflicting section attributes AAAAAA in -- filespec

The program section symbol was defined with attributes different from those of previous definitions in the file. The attributes of the first definition are used, and the linking process continues.

Check the source program and use the desired section attributes for that section.

MRG -- W -Multiple definition of AAAAAA in -- filespec

The symbol indicated was defined more than once. The first definition is used, and extra definitions are ignored.

Make sure that each symbol is defined only once in all modules.

MRG -- W -Non MicroPower ISDs, creating MicroPower ISDs for -- filespec

The indicated object file had non-MicroPower/Pascal ISDs. MicroPower/Pascal ISDs are created for each GSD symbol definition in the file.

If a Macro module, reassemble the source file. Ensure that the /EN:DBG switch is not used.

In a Pascal module, this message indicates a corrupted object module.

If a Pascal module, recompile the source file.

UTILITY PROGRAM MESSAGES

MRG -- W -Non MicroPower ISDs, creating MicroPower ISDs for NNNNNN module(s) in library -- filespec

The indicated object library has one or more modules with non-MicroPower/Pascal ISDs. NNNNNN(decimal) modules that were referenced had non-MicroPower/Pascal ISDs.

If a Macro module, reassemble the source files for the modules in the library. Ensure that the /EN:DBG switch is not used.

If a Pascal module, recompile the source file and rebuild the library.

MRG -- W -Undefined globals:

The globals listed were undefined. They are listed on the terminal and also in the load map when requested.

Check for a typing error in the command line. Correct the source program. Verify that all necessary modules are specified in the command line or are in the libraries specified. In the case of a partial merge, this message is informational only.

2.3 MIB MESSAGES

MIB -- F -Bad ISD

An illegal internal symbol directory (ISD) record was in the file. The input symbol table (STB) file is probably not a valid STB file.

Verify that the correct file names were specified as input. Rebuild the input files and try the operation again.

MIB -- F -Bootstrap invalid for MicroPower/Pascal -- filespec

The specified file does not contain a valid MicroPower/Pascal bootstrap. A previous version of a MicroPower/Pascal bootstrap file may have been used.

Try the operation again, specifying a valid bootstrap file.

MIB -- F -Close error on file -- filespec

A hardware error occurred.

Check the procedures in Section 1.3 for recovery from hard error conditions.

MIB -- F -Command I/O Error

An error occurred while reading the command line.

Check that the device is on line and try the operation again. If the error persists, check for hardware errors. Refer to Section 1.3 for procedures for recovery from hard error conditions.

UTILITY PROGRAM MESSAGES

MIB -- F -Command syntax error

The indicated invalid command line contains a syntax error.

Check for a typing error and enter a legal command line.

MIB -- F -File not found -- filespec

The input file specified was not found on the specified or default device, or on the specified or default directory.

Reenter the command line, using the correct file or device specification. Check that the device is ready and that it is mounted. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. For VMS filespecs following a filespec with a specified directory, ensure that a single logical is not used for both the device spec and the directory spec.

MIB -- F -Fixed static process caused /CM operation failure

A process was fixed by using the /QB switch at an address that MIB has already assigned to another process during the compact operation.

If the fixed process must be loaded at this address, do not use the /CM switch. To consolidate free space without using the /CM switch, rebuild the application, using the latest version of each process. Start with a MIM file that contains only the kernel and DIGITAL-supplied handlers.

MIB -- F -Hardware memory specification table too fragmented

The hardware memory specification table generated by the configuration file exceeds two blocks. The MEMORY macro was invoked more than 168 times in the configuration file.

Edit the configuration file to create a valid file with fewer than 168 invocations of the MEMORY macro. Rebuild the kernel image, and check to be sure that the MIM (or PIM with /KI) input file is valid.

MIB -- F -Illegal character in /QB program section name

The specified program section contains an illegal character.

Examine the command string for errors in syntax, making sure that legal Radix-50 characters are used for symbols.

UTILITY PROGRAM MESSAGES

MIB -- F -Illegal command

An incorrect command was issued to MIB. For example, the debug (DBG) file was specified as output without the symbol table (STB) as input or without the /EX switch. The output memory image (MIM) file was specified with no process image (PIM) or MIM file as input and no /PR, /GC, or /EX switch. The /KI switch was specified along with an input MIM file. The /EX switch was used with an input PIM file.

Verify that the correct file names were specified as input. Check for a typing error in the command line. Refer to the MicroPower/Pascal-RSX/VMS System User's Guide for the correct MIB command syntax. Try the operation again.

MIB -- F -Illegal device -- dev spec

The device specification exceeds its limit. The maximum number of characters permitted in the device name is 16(decimal) for a VMS device and 6(decimal) for an RSX device.

Reenter the command. Ensure that the device name does not exceed its character limit. Verify that the device is valid for the system in use.

MIB -- F -Illegal directory -- filespec

The directory specification exceeds its limit. The maximum number of characters permitted in the directory name is 31 (decimal) for a VMS directory and 11(decimal) for an RSX directory.

Check for a typing error in the command line. Ensure that the directory name does not exceed its character limit.

MIB -- F -Illegal file format -- filespec

The indicated file is not of the correct format or is corrupted.

Rebuild the file. If the condition persists, contact the Customer Support Center (CSC) for your area.

MIB -- F -Illegal file name -- filespec

The indicated file name is illegal, contains a wildcard (*) or ?, or is too long.

Check for a typing error in the command line. Ensure that the command line does not contain wildcards.

MIB -- F -Illegal Get Command Line error code

A system error occurred.

Try the operation again. If the error persists, contact the Customer Support Center (CSC) for your area.

MIB -- F -Illegal record type in -- filespec

The symbol table (STB) file is not of the correct format or is corrupted.

Rebuild the file and try the operation again.

UTILITY PROGRAM MESSAGES

MIB -- P -Illegal switch or switch value

An illegal switch or switch value was specified in the command line.

Try the operation again, using the correct switch and a legal switch value. Valid MIB switches are listed in the MicroPower/Pascal-RSX/VMS System User's Guide.

MIB -- P -Indirect command syntax error

The indirect file specification contains a syntax error.

Check for a typing error and enter a legal file specification.

MIB -- P -Indirect file depth exceeded

The permissible indirect file depth (3) has been exceeded.

Rewrite the command files to stay within the indirect depth limit.

MIB -- P -Indirect file open error

The indirect command file was not found.

Check for a typing error in the command line. Ensure that the filespec is correct and that the file exists.

MIB -- P -Insufficient memory

Not enough buffer space exists to process this command.

Retry the operation. If the error persists, contact the Customer Support Center (CSC) for your area.

MIB -- P -Invalid bootstrap for MicroPower/Pascal in -- filespec

The MIM file contains an invalid bootstrap. A previous version of a MicroPower/Pascal bootstrap may have been used.

Rebuild the MIM file and include a valid bootstrap file.

MIB -- P -Invalid switch combination

The switches specified are mutually exclusive.

Refer to the MicroPower/Pascal-RSX/VMS System User's Guide for information on MIB and its switches.

MIB -- P -Invalid section start for kernel specified in -- filespec

The command line specified the /KI switch, and the process image (PIM) file in a RAM-only system contains more than two noncontiguous sections. The command line specified the /KI switch, and the PIM file in a ROM/RAM system contains other than two (one or more than two) noncontiguous sections.

Try the RELOC operation again, using the correct command. Then try the MIB operation again.

UTILITY PROGRAM MESSAGES

MIB -- F -Mapped section start not on a 4K word virtual address boundary in -- filespec

The memory image (MIM) file is for a mapped system, but each noncontiguous section in the process image (PIM) file does not start on a 4K word virtual address boundary.

Rebuild the process image (PIM) file with RELOC, using the /AL, /RO, /RW, or /QB switch and the correct values.

MIB -- F -MIM file memory specification table too fragmented

The memory allocation table in the MIM file overflowed its limit of 253(decimal) entries. One 4-byte entry exists for each noncontiguous ROM segment in a ROM/RAM application and for each noncontiguous RAM segment in a RAM-only application. For a mapped system, the /QB switch was used to specify physical section addresses "manually," or many processes were installed and deleted, but the compact operation was not performed on the MIM file. For an unmapped system, the base addresses specified to RELOC caused too many holes.

Try the operation again, with fewer noncontiguous sections. Compact the memory image. Or try the RELOC operation again, using base addresses that cause less memory fragmentation.

MIB -- F -MIM file too small, cannot extend small MIM file in place

The existing memory image (MIM) file is not large enough to accommodate the new process or the bootstrap.

Try the operation again, specifying an input MIM file and an output MIM file to create an output MIM file.

MIB -- F -No bootstrap file specified with /BS switch

The /BS switch requires a MicroPower/Pascal bootstrap file to be specified.

Try the operation again, specifying an appropriate bootstrap file.

MIB -- F -No physical address or 0 specified on /QB section

Only the section name or the address 0 was specified with the /QB switch.

Try the operation again, specifying the section start address.

MIB -- F -No static process list element in -- filespec

The process image (PIM) file specified does not contain a valid static process. Either the Pascal PROGRAM heading or the MACRO-11 DFSPCS macro call was omitted from the relevant source file.

Correct the source file and rebuild the PIM file. Refer to the MicroPower/Pascal Language Guide or the MicroPower/Pascal Runtime Services Manual for information about declaring static processes.

UTILITY PROGRAM MESSAGES

MIB -- F -No value or 0 specified on /xx

A switch that requires a value was specified, but the value was omitted or 0 was specified.

Try the operation again, specifying the required value.

MIB -- F -Nonexistent physical memory specified in -- filespec

The process image (PIM) file for an unmapped system indicates that it should be installed at an address that does not exist in the memory image (MIM) file.

Rebuild the PIM file, either specifying valid base addresses or allowing RELOC to relocate the process automatically by looking up free addresses in the MIM file.

MIB -- F -Not enough memory for RO section

Not enough free ROM memory is in the memory image (MIM) file for the read-only (RO) section in the process image (PIM) file.

If additional unused memory is in the target, edit the configuration file to add memory, then rebuild the MIM file. If there is no unused memory, refer to Section 1.5 for suggestions on how to increase memory space.

MIB -- F -Not enough memory for RW section

Not enough free RAM memory is in the memory image (MIM) file for the read/write (RW) section in the process image (PIM) file.

If additional unused memory is in the target, edit the configuration file to add memory, then rebuild the MIM file. If there is no unused memory, refer to Section 1.5 for suggestions on how to increase memory space.

MIB -- F -/xx value too large

A switch that requires a value was specified, but the value specified was too large.

Refer to the MicroPower/Pascal-RSX/VMS System User's Guide for the valid range of switch values. Try the operation again.

MIB -- F -Open failure on file -- filespec

The indicated file could not be opened.

Check for typing errors and reenter the command. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. If the indicated file is an output file, ensure that there is room on the specified device.

UTILITY PROGRAM MESSAGES

MIB -- F -Process not found, AAAA in -- filespec

The process name specified with the /EX switch was not found in the memory image (MIM) file.

Try the operation again, specifying the correct process name.

MIB -- F -/QB invalid with unmapped MIM file

The /QB switch was specified, but the memory image (MIM) file was for an unmapped system.

Refer to the MicroPower/Pascal-RSX/VMS System User's Guide for information about /QB. Try the operation again, without /QB.

MIB -- F -/QB section not found -- AAAA in -- filespec

The /QB switch was specified, but the section name specified does not exist in the process image (PIM) file.

Try the operation again, using the correct section name.

MIB -- F -Read error in -- filespec

A hardware error occurred while MIB was reading the indicated input file.

Check the procedures in Section 1.3 for recovery from hard error conditions.

MIB -- F -Request core block allocation error

A system error occurred.

Try the operation again. If the problem persists, contact the Customer Support Center (CSC) for your area.

MIB -- F -Specified memory for /QB section unavailable or nonexistent

The /QB switch was specified, but the specified physical address was already in use or does not exist in the memory image (MIM) file.

Try the operation again, using the correct address. Check the map for the PIM file for sizes and the map of the input MIM file for available memory.

MIB -- F -Switches illegal on bootstrap file specification

The bootstrap file specification may not contain any switches.

Try the operation again, omitting the switches on the bootstrap file.

MIB -- F -Syntax error on /BS file specification

The bootstrap file specification contains a syntax error.

Try the operation again, specifying a valid bootstrap file specification.

MIB -- F -Syntax error or missing delimiter on /BS file specification

The bootstrap file specification contains a syntax error.

Try the operation again, specifying a valid bootstrap file specification.

UTILITY PROGRAM MESSAGES

MIB -- F -Too many noncontiguous sections in -- filespec

The process image (PIM) file contains more than eight noncontiguous sections. The PIM file is probably invalid or was built incorrectly.

Rebuild the PIM file and try the operation again, using fewer than eight noncontiguous sections.

MIB -- F -Too many static process list elements in -- filespec

The process image (PIM) file contains more than one static process declaration, or several static processes were merged to produce the PIM file.

Check the source code. Rebuild the PIM file, without merging more than one process.

MIB -- F -Too much memory specified in -- filespec

The memory image (MIM) file specified contains more than 32K words of memory for unmapped systems or more than 2,048K words of memory for mapped 22-bit systems.

Edit the configuration file and rebuild the MIM file.

MIB -- F -Unavailable memory specified in -- filespec

The process image (PIM) file specified is for an unmapped system, and the memory specified was already in use.

Rebuild the PIM file, either specifying valid base addresses or allowing RELOC to relocate the process automatically by looking up free addresses in the MIM file.

MIB -- F -Write error in -- filespec

A hardware error occurred while MIB was writing the indicated output file.

Check the procedures in Section 1.3 for recovery from hard error conditions.

MIB -- W -/BS Invalid with MIM file that contains boot - /BS ignored

The memory image (MIM) file already contains a bootstrap.

Try the operation again, omitting the /BS switch from the command.

MIB -- W -/CM invalid with extract - /CM ignored

Both /CM and /EX were specified, and the /CM was ignored. The extract was completed but compaction was not.

Issue a separate command to MIB to compact the memory image (MIM) file.

MIB -- W -/CM invalid with installation - /CM ignored

The /CM switch was specified with the install operation.

Perform the compact operation as a separate invocation of MIB.

MIB -- W -/CM invalid with unmapped MIM file - /CM ignored

The /CM switch was specified with an unmapped memory image (MIM) file.

Do not use /CM with an unmapped system MIM file.

UTILITY PROGRAM MESSAGES

MIB -- W -Incompatible version number in process

The MIM file has been corrupted, or a process currently in the MIM file was built with an older version of the kernel.

Delete the process from the MIM and from the DBG file, if appropriate. Rebuild the process, merging it with the latest version of the kernel; then reinsert it in the MIM file. If this error persists, you must rebuild the entire application.

MIB -- W -Kernel free RAM table too fragmented

Too many entries are in the kernel free RAM table for the space allocated. The table overflowed, and some of the free RAM cannot be reclaimed.

If the system is mapped, use the /CM switch to compact the memory image (MIM) file. If the system is unmapped, rebuild the MIM file without wasting space.

MIB -- W -No ISD records in -- filespec

The symbol table (STB) file does not contain internal symbol definitions (ISDs). Either the file specified is not a valid STB file or the /DE switch was omitted from the compile, merge, or relocate operations used to build the STB file. Process installation, if specified, is completed, but the debug (DBG) file is not changed.

Repeat the MIB operation, using the correct STB file specification, or rebuild the STB file, using the /DE switch.

MIB -- W -Process not found, AAAAAA in -- filespec

The process name specified with the /PR or /GC switch was not found in the memory image (MIM) file. The debug symbols of the process name specified with the /EX switch were not found in the debug (DBG) file. Any other requested processing was still performed.

Check for typing errors in the process name. Check a map of the MIM file to ensure that the process is installed in the MIM file. Try the operation again, using the correct process name.

2.4 PASDBG MESSAGES

?PASDBG-C-FFRDFAIL, ff read fail

A disk error occurred while reading the DBG file.

Try the command again. If the error persists, check the procedures in Section 1.3 for recovery from hard error conditions listed.

The DBG file is corrupted.

Create a new .DBG file and try the command again.

UTILITY PROGRAM MESSAGES

?PASDBG-C-UNEXMSG, Unexpected target message AAAAAA

After the target was loaded, PASDBG interrogated the DSM and has received an unexpected answer.

The target software has been corrupted by the user program. Use the INIT command to check the status of the DSM.

?PASDBG-E-AMBIENT, Ambiguous BREAK/TRACE/WATCH specified

An ambiguous breakpoint, tracepoint, or watchpoint was specified.

Use the ordinal number of the breakpoint, tracepoint, or watchpoint -- for example, 2 for the second point -- in the command. Use the SHOW BREAK, SHOW TRACE, or SHOW WATCH command to find the appropriate ordinal value.

?PASDBG-E-BADASYN, Receiving noise on comm line

Noise, such as extraneous characters, was received on the communication link between the host and target systems.

Check the connections of the serial cable connecting the host and target for grounding or other problems. Check the entire cable for sources of noise such as power supplies and motors.

?PASDBG-E-BADLINK, Target communication failure in AAAAAA

Communication with the target has failed.

Try the PASDBG INIT command to reinitialize the debugger service module (DSM) in the target. If INIT fails to establish communication, reload the target.

PASDBG is looping internally because the application program contaminated the debugger service module (DSM).

Type CTRL/C to exit the loop.

?PASDBG-E-BADMIM, Illegal MIM file format

The file opened to load the target is not a memory image (MIM) file. The target load has aborted.

Reissue the LOAD command, specifying a valid MIM file.

?PASDBG-E-BADORD, Ordinal value not defined

An enumerated scalar value that is not in the scalar type definition was specified.

Try the command again, using a defined value.

?PASDBG-E-BOTMIM, Bootstrap installed in MIM file

The file opened to load the target contains a bootstrap.

Rebuild the file without MIB's /BS switch. Then try loading the file again.

UTILITY PROGRAM MESSAGES

?PASDBG-E-BRINDATA, Cannot set BREAKPOINT in data

A breakpoint was set in a data area or on a variable.

Try the operation again, setting the breakpoint on a statement or instruction.

?PASDBG-E-BRINDSM, Cannot set BREAKPOINT in DSM

It is illegal to set a breakpoint in the debugger service module (DSM).

Do not set a breakpoint in the DSM.

?PASDBG-E-COMPLEX, Command is too complex

A command that is too long or too complex was used.

Use a smaller command or examine the entire substructure.

?PASDBG-E-ERRBOT, Read error on "TDBOTU/M.BOT"

A device error in accessing the TDBOTU/M bootstrap on the system device occurred during the target load operation.

Try the operation again, using a new copy of TDBOTU.BOT or TDBOTM.BOT.

?PASDBG-E-ERRMIM, Error on MIM file access or bad XL driver

A device error in reading the specified memory image (MIM) file occurred during the target load operation.

Try the operation again.

The XL driver installed in the memory image was incorrectly configured to use the control status register (CSR) 177560, which is reserved for PASDBG.

Rebuild the kernel and device drivers, using a copy of the prefix file XLPFXE.MAC that does not use CSR 177560.

?PASDBG-E-EXTSYM, Variable external to current scope

The variable being examined is defined as EXTERNAL to the module where scope is currently set.

Set scope to the module where the variable is defined as GLOBAL.

?PASDBG-E-HLPERR, I/O error in reading the HELP file

An I/O error was caused by a corrupted file and/or disk.

Restore the file from the distribution kit. If the problem occurs again, try building another system disk.

?PASDBG-E-HLPMAX, Too many help parameters

The HELP command was invoked with more than 10 parameters.

Try the HELP command again, using fewer than 10 parameters.

?PASDBG-E-ILLDEPR, Illegal register for deposit

A register that is out of range was specified in a DEPOSIT or an EXAMINE command.

Try the command again, specifying a register in the range of 0 to 5 for DEPOSIT or 0 to 7 for EXAMINE.

UTILITY PROGRAM MESSAGES

?PASDBG-E-ILLTYPE, Illegal data type

An attempt was made to change the value of a variable with a value of another type -- for example, DEP I := 1.5, when I is of type INTEGER.

Try the command again, depositing a value of the correct type.

?PASDBG-E-LABNDG, Label not defined in current scope

The label specified was not found in the current scope.

Try the command again, using the correct label number, or use the SET SCOPE command to change the scope to include the procedure that contains the label definition.

?PASDBG-E-LOGOPEN, Log file already open

An attempt was made to open two log files simultaneously.

Close the current log file before opening another.

?PASDBG-E-NOANS DSM does not respond, Target Corrupt ?

After the target was loaded, PASDBG interrogated the DSM and has received no answer.

Either the target software has been corrupted by the user program or the communication hardware between the host and target is defective. Use the INIT command to check the status of the DSM and the communication line.

?PASDBG-E-NOCHAN, No free channels for file open

Too many files have been opened at once -- for example, MIM, DBG, indirect command files, and nested indirect command files.

Close some files or reduce the level of nesting in indirect command files.

?PASDBG-E-NOCOMM, No target communication (check power and cables)

The target system did not halt and enter uODT in response to the host's simulated break signal.

Check that the target is set up as described in the installation guide for your MicroPower/Pascal system (target power is on, cables and module jumpers are properly installed, baud rates between host and target match, target is configured to respond to break by entering uODT).

?PASDBG-E-NOCURP, No process active

No process was set, but a command that requires a process to be set was issued.

Use the SET PROCESS command to set the appropriate process and try the command again.

UTILITY PROGRAM MESSAGES

?PASDBG-E-NOFILE, AAAAAA not found

An attempt was made to read a file that is not on the system.

Check for a typing error in the command and verify that the correct device name, file name, and file type were specified. Then try the operation again.

An attempt was made to read/write a file on a device whose device handler has not been loaded.

Exit PASDBG and load the correct device handler. Rerun PASDBG.

An attempt was made to create a log file on a device that is write-protected.

Unprotect the device or put the log file on a different device.

An attempt was made to create a log file on a device with insufficient free space.

Ensure that sufficient free space is on the device for the log file.

An attempt was made to create a log file having the same name as a protected file on the system.

Use another name for the log file.

?PASDBG-E-NOPRAME, Stack frame for AAAAAA not found

The stack frame for a local variable has not been created, because the procedure containing the variable has not been called, the frame does not exist on the current process stack, or the process has not started and therefore does not have a stack. Also, the wrong process could have been set (one in which the variable is not defined). Local variables are not created until the procedure, process, or function is entered. They cannot be referenced until entered.

Correct the command and set a breakpoint at the first statement of the procedure, function, or process.

?PASDBG-E-NOFREE, No free entries in table

Too many active watchpoints or breakpoints and tracepoints have been specified.

Cancel some unused breakpoints, tracepoints, or watchpoints. Since breaks and traces come from the same table, canceling one can make room for the other. Also, some watchpoints use more than one table slot (real numbers use two slots).

?PASDBG-E-NOHALT, Target could not be stopped

The target code has been corrupted.

Reload /TARGET and try again.

UTILITY PROGRAM MESSAGES

?PASDBG-E-NOHELP, Cannot find help file "SY:PASDBG.HLP"

The PASDBG.HLP file is not located on the system device.

Copy file PASDBG.HLP from your distribution kit to the system device and try the HELP command again.

?PASDBG-E-NOISD, No symbol file

The LOAD or LOAD/SY command was issued, but the debug (DBG) file was not found.

Check for a typing error in the command. If no DBG file exists, rebuild the application, specifying the DBG file as well as the memory image (MIM) file.

?PASDBG-E-NOMOD, Module AAAAAA not found

The SET PROGRAM command was issued, but the module name specified was not found in the debug (DBG) symbol table file.

Check for a typing error in the command. If the module is not included in the DBG file, rebuild it to include the module.

?PASDBG-E-NOPFP, Procedure/Function/Process AAAAAA not found

Routine AAAAAA was not found in the specified scope.

Try the operation again, specifying the correct routine name or scope path to the routine.

?PASDBG-E-NOPROC, No such process

The process specified was not found on the target system. If the process is static, it may have been deleted from the system. If the process is dynamic, it may not have been created.

Check for a typing error. Try the operation again, using the correct process name, if appropriate.

?PASDBG-E-NOPROCN, Static process AAAAAA not found

The static process AAAAAA was not found on the target system.

Check for a typing error. Try the operation again, using the correct process name.

?PASDBG-E-NOPROG, Program AAAAAA not found

The program AAAAAA was not found on the target system.

Check for a typing error. Try the operation again, using the correct program name.

?PASDBG-E-NOSCOPE, No scope set

The command issued required the scope to be set.

Set the scope, then try the command again.

UTILITY PROGRAM MESSAGES

?PASDBG-E-NOSTACK, No stack frames for process

The process has not been started, or the stack frames are not linked together (the /DE switch was not used when the program was compiled).

Attempt to examine a static or dynamic process stack entry before the process is invoked (spawned) or after it terminates. Examples of entries are any variables, attributes, or subprogram parameters declared in the process.

The SET PROCESS command was not issued before examining a process stack entry (see paragraph above).

Make sure that the process has started or recompile the program.

You may examine entries on the process stack only after the process is invoked and before it terminates. Otherwise, the process stack does not exist.

Issue the SET PROCESS command before examining process stack entries.

?PASDBG-E-NOSTR, Illegal use of structure reference

An attempt was made to use a structure illegally by depositing a series of values.

Deposit each element of a structure individually.

?PASDBG-E-NOSTRU, No structure found

An attempt was made to examine an entire structure, but the structure was not found in the debug (DBG) file.

Check for a typing error in the command. If the module that contains the structure is not included in the DBG file, rebuild the file to include the module.

?PASDBG-E-NOSUCHBR, No such BREAK/TRACE/WATCH point

An attempt was made to show or cancel a breakpoint, tracepoint, or watchpoint when it was not set, when it was canceled, or when using an incorrect location number, statement number, or address.

Check for a typing error in the command, and try the operation again.

?PASDBG-E-NOTERM, No closing quote in literal

A literal was used, but the closing quotation mark was omitted. Literal strings must be enclosed in single quotation marks.

Try the command again, including the appropriate quotation marks.

?PASDBG-E-NXM, Target memory access error, address, NNNNNN

PASDBG attempted to access a nonexistent or unmapped (mapped targets only) TARGET memory.

Make sure that you used the correct memory address. Set PROCESS to the correct process and try SET PHYSICAL to examine the address.

UTILITY PROGRAM MESSAGES

?PASDBG-E-OUTRNGE, Array index out of range

The index specified for an array reference was out of the defined subrange.

Check the command for a typing error. Correct the command and try the operation again.

?PASDBG-E-PRGNSET, No program set

No program was set, but a command that requires a program to be set was issued.

Use the SET PROGRAM command to set the program and try the operation again.

?PASDBG-E-RANGE, Illegal use of range

An attempt was made to examine a range of variables. Ranges apply only to statements and addresses.

Use the EXAMINE command to examine a variable and ascertain its virtual address. Then examine a range of virtual addresses.

?PASDBG-E-SCANERR, Command scanner error at or near AAAAAA

PASDBG could not interpret the command.

Correct the syntax of the command.

?PASDBG-E-STMTNDF, Statement not defined in current scope

The command issued referred to a statement number that is not defined in the current scope.

Check for a typing error in the command or use the SET SCOPE command to set the correct scope.

?PASDBG-E-STRLONG, String too long

An attempt was made to deposit a string in a variable, but the string was wider than the width of the variable.

Try the command again, using a string no wider than the variable.

?PASDBG-E-SYMNDF, Symbol not defined in current scope

The command issued referred to a symbol name that is not defined in the current scope.

Check for a typing error in the command or use the SET SCOPE command to set the correct scope.

?PASDBG-E-SYNTAX, Illegal syntax at or near AAAAAA

The syntax of the command issued was incorrect.

Try the command again, using the correct syntax.

?PASDBG-E-TARHALT, Target halted; PASDBG in uODT mode NNNNNN

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The target has halted and is now executing uODT (NNNNNN = PC value for next instruction in target). Target can be forced to halt with the SET ODT command.

You may use uODT commands, displayed in reverse video on a VT100, as described in the Microcomputer Processor Handbook. Type the (uODT) P command to restart target or type CTRL/C to resume PASDBG operation.

UTILITY PROGRAM MESSAGES

?PASDBG-E-TSSREQ, /TARGET or /SYMBOL required

A file name with a type other than MIM or DBG was used with the LOAD command, but neither the /TARGET nor the /SYMBOL switch was used. One of these switches is required to indicate whether to load the target or the symbol table (STB) file.

Check the command for a typing error and correct the file type, or use the /TARGET or /SYMBOL switch.

?PASDBG-E-TWOBPT, Cannot set two breakpoints on the same location

An attempt was made to place two breakpoints at the same location.

You may place only one breakpoint at a location.

?PASDBG-E-UNDKSYM, Kernel symbol undefined

The kernel symbol was not defined in the debug (DBG) file as the command requires. The DBG file was not loaded or was built without the kernel symbols.

Load the DBG file or rebuild the application to include the kernel internal symbol directory (ISD).

?PASDBG-F-NOBRK, Task ...BRK not installed

PASDBG is unable to spawn the privileged task ...BRK. The most likely reason is that ...BRK, included in the MicroPower Pascal kit, has not been installed.

Ensure that the ...BRK task is installed on your system.

?PASDBG-I-BOTLD, Primary boot loaded, getting closer...

PASDBG has loaded and started the primary bootstrap loader program in the target's memory. The primary bootstrap is now loading the secondary bootstrap, which in turn will load the MIM file.

Normal operation; no action necessary.

?PASDBG-I-BOTWARN, Starting primary boot load, please wait...

PASDBG is beginning to load the primary bootstrap loader program into the target's memory.

Normal operation; no action necessary.

?PASDBG-I-KSYNAC, Mapping set, KERNEL symbols not available

An attempt was made to examine kernel structures or queues, but the kernel symbols were not included in the debug (DBG) file.

Rebuild the DBG file to include kernel symbols.

?PASDBG-I-NODSM, No DSM, target not yet loaded

The target is not loaded or does not contain the debugger service module (DSM).

Load the target or rebuild the memory image (MIM) file to include the DSM (DEBUG=YES in the configuration file).

UTILITY PROGRAM MESSAGES

If ?PASDBG-E-TARHALT preceded this message, the CONFIG.MAC file specified more RAM than is contained in target.

Edit CONFIG.MAC so RAM is correctly specified and rebuild the application, or reconfigure target memory to conform to CONFIG.MAC.

?PASDBG-I-NOLOG, No log file open

The CLOSE command was issued, but no log file was open.

Use the CLOSE command only if a log file is open.

?PASDBG-I-NONESET, None set

If the target stops on a trace, break, watch, or halt in a routine not defined in the debug symbol table (DIS) file, no scope is set. Normally the default scope is set to the scope that is current when a stop occurs.

?PASDBG-I-PHYMAP, Mapping set to physical

Mapping has been set to physical, so subsequent address references are treated as physical addresses.

?PASDBG-I-SCPRSET, Scope and process set

A stop -- break, watch, trace, or halt -- has occurred, and the scope and process have been set to the position in the target causing the stop.

?PASDBG-W-BADVER, MIM file version number incompatible with debugger

The version number produced by the compiler and the kernel macros does not match the current version number of the debugger.

Rebuild the MIM file, using the corresponding version of MicroPower/Pascal.

?PASDBG-W-DATLONG, Data too long, truncated

The data you attempted to deposit in a variable was longer than the data type of that variable. For example, an attempt was made to deposit a real number value into an integer number variable.

Check the values and data type of the data and variable in question.

?PASDBG-W-ILLMODE, Illegal use of mode switch, ignored

An attempt was made to examine a Pascal variable in a mode that is not valid for that variable.

Examine the variable location that corresponds to the variable, using any mode switch.

UTILITY PROGRAM MESSAGES

?PASDBG-W-NOMODW, Module AAAAAA not found, no module set

The command issued referred to a module name that is not in the debug (DBG) file. The program is set but not the module.

Use the SET PROGRAM/MODULE command to set the correct module name.

?PASDBG-W-ODDADDR, Illegal use of odd address, using word address

The command specified an odd address on a word operation.

Use the /BYTE switch if examining or depositing to a virtual byte location.

2.5 RELOC MESSAGES

REL -- F -Address space exceeded

The high limit of all program sections exceeded 32K words when all sections were concatenated at the specified boundaries. This can be caused by use of the /AL, /EX, /RW, or /UP switches or by using too large a program.

Rewrite the program to make it smaller; try the program again without using the /AL, /EX, /RW, or /UP switches; or try the program again, using different boundary values.

REL -- F -Bad complex relocation

A complex relocation string in the input file was found to be invalid.

Check for a typing error in the command line and verify that the correct file name was specified as input. Reassemble or recompile, and remerge to obtain a good object module. Try the operation again. If the error persists, verify that the source code is correct.

REL -- F -Bad GSD

The global symbol directory (GSD) record had an error. The file is probably not in valid object module format.

Verify that the correct file names were specified as input and check for a typing error in the command line. Reassemble or recompile the source to obtain a good object module and try the operation again.

REL -- F -Bad ISD

An invalid internal symbol directory (ISD) record exists in the input MOB file. The file is probably not in valid object module format.

Check for a typing error in the command line and verify that correct file names were specified as input. Reassemble or recompile to obtain a good object module and try the operation again. If the condition persists, contact the Customer Support Center (CSC) for your area.

UTILITY PROGRAM MESSAGES

REL -- F -Bad ISD symbol

An error occurred in the language processor, because a global symbol named in an internal symbol directory (ISD) record was not defined in a global symbol directory record.

Reassemble or recompile the indicated file. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Bad RLD

An invalid relocation directory (RLD) record exists in the input file. The MOB file is probably not in valid object module format.

Check for a typing error in the command line and verify that the correct file name was specified as input. Reassemble or recompile to obtain a good object module and try the operation again. If the error persists, check the source code to make sure that all modules contributing to a data program section are word aligned.

REL -- F -Bad RLD symbol -- AAAAAA

An error occurred in the language processor, because a global symbol named in a relocation record was not defined in a global symbol directory record.

Reassemble the indicated files. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Close error on file -- filespec

A hardware error occurred.

Check the procedures in Section 1.3 for recovery from hard error conditions.

REL -- F -Command I/O Error

An error occurred while reading the command line.

Check that the device is on line and try the operation again. If the error persists, check for hardware errors. Refer to Section 1.3 for procedures for recovery from hard error conditions.

REL -- F -Command syntax error

The indicated invalid command line contains a syntax error.

Check for a typing error and enter a legal command line.

REL -- F -Hardware memory specification table too fragmented

The hardware memory specification table in the input MIM file, generated by the configuration file when the kernel is built, exceeds two blocks. The MEMORY macro was invoked more than 168 times in the configuration file.

Edit the configuration file to create a valid file with fewer than 168 invocations of the MEMORY macro. Rebuild the kernel image and check to be sure that the MIM input file is valid.

UTILITY PROGRAM MESSAGES

REL -- F -Illegal character in /xx program section name

A non-Radix 50 character was specified in the program section name.

Examine the command string for errors in syntax, making sure that legal Radix-50 characters are used in the program section name.

REL -- F -Illegal character in /xx value

An illegal character was used in the value supplied for the switch.

Check for typing errors in the command line and ensure that legal Radix-50 characters are used for values. Reenter the command line.

REL -- F -Illegal device -- dev spec

The device specification exceeds its limit. The maximum number of characters permitted in the device name is 16(decimal) for a VMS device and 6(decimal) for an RSX device.

Reenter the command. Ensure that the device name does not exceed its character limit. Verify that the device is valid for the system in use.

REL -- F -Illegal directory -- filespec

The directory specification exceeds its limit. The maximum number of characters permitted in the directory name is 31(decimal) for a VMS directory and 11(decimal) for an RSX directory.

Check for a typing error in the command line. Ensure that the directory name does not exceed its character limit.

REL -- F -Illegal file format -- filespec

The indicated MIM file is not of the correct format or is corrupted.

Rebuild the MIM file. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Illegal file name -- filespec

The indicated file name is illegal, contains a wildcard (* or %), or is too long.

Check for a typing error in the command line. Ensure that the command line does not contain wildcards.

REL -- F -Illegal Get Command Line error code

A system error occurred.

Try the operation again. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Illegal input file format

The input MOB file was not processed by MERGE before submittal to RELOC.

Use the MERGE utility program to process the input file. Then try the RELOC operation again.

UTILITY PROGRAM MESSAGES

REL -- F -Illegal record type in -- filespec

A formatted binary record had a type not in the range of 1-10(octal). The file is probably not in valid object module format.

Verify that the correct file names were specified as input and check for a typing error in the command line. Reassemble or recompile the source, remerge, and try the operation again.

REL -- F -Illegal switch or switch value

An illegal switch or switch value was specified in the command line.

Check for typing errors. Try the operation again, using the correct switch and a legal switch value. Valid RELOC switches are listed in the MicroPower/Pascal-RSX/VMS System User's Guide.

REL -- F -Indirect command syntax error

The indirect file specification contains a syntax error.

Check for a typing error and enter a legal file specification.

REL -- F -Indirect file depth exceeded

The permissible indirect file depth (3) has been exceeded.

Rewrite the command files to stay within the indirect file depth limit.

REL -- F -Indirect file open error

The indirect command file was not found.

Check for a typing error in the command line. Ensure that the filespec is correct and that the file exists.

REL -- F -Input file not found -- filespec

The input file specified was not found on the specified or default device or on the specified or default directory.

Reenter the command line, using the correct file or device specification. Check that the device is ready and that it is mounted. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. For VMS filespecs following a filespec with a specified directory, ensure that a single logical is not used for both the device spec and the directory spec.

REL -- F -Invalid bootstrap for MicroPower/Pascal in -- filespec

The MIM file contains an invalid bootstrap. A previous version of a MicroPower/Pascal bootstrap may have been used.

Rebuild the MIM file and include a valid bootstrap file.

UTILITY PROGRAM MESSAGES

REL -- F -Insufficient memory

Memory was insufficient to accommodate the command, the symbol table, or the resultant output.

Retry the operation. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Invalid switch combination

Two or more mutually exclusive switches were specified in the command line.

Refer to the MicroPower/Pascal RSX/VMS System User's Guide for a description of the RELOC switches.

REL -- F -Invalid switch used with -- filespec

An input MIM file was specified along with the /AL, /EX, /QB, /RO, /RW, or /UP switch. You cannot specify an input MIM file with any of these switches.

Decide whether to have RELOC do a lookup in the MIM file or whether you want to set up special addressing. Retype a command line and, if you include an input MIM file, omit the switch or, if you use one of the switches, omit the input MIM file.

REL -- F -Load address odd

An odd address was specified with the /QB option.

Try the operation again, specifying an even address.

REL -- F -Mapped MIM file illegal as input file -- filespec

Input MIM files are not permitted when building a mapped application.

Do not specify an input MIM file.

REL -- F -No address or @ specified for /xx

A switch, such as /RO or /RW, that requires a value was specified, but no value was included.

Try the operation again, including a value on the switch.

REL -- F -Not enough memory for RO section

Not enough free ROM memory is in the input MIM file for the read-only (RO) segment in the process image (PIM) file.

If additional unused memory is in the target, edit the configuration file to add memory and then rebuild the MIM file.

REL -- F -Not enough memory for RW section

Not enough free RAM memory is in the input MIM file for the read/write (RW) segment in the merged object (MIM) file.

If additional unused memory is in the target, edit the configuration file to add memory and then rebuild the MIM file.

UTILITY PROGRAM MESSAGES

REL -- F -Odd /xx value specified

An odd switch value was specified with the indicated switch.

Try the operation again, specifying an even switch value.

REL -- F -Open failure on file -- filespec

The indicated file could not be opened.

Check for typing errors and reenter the command. If only a period (.) appears as the filespec, ensure that the file name does not contain a dollar sign (\$) and does not exceed nine characters. If the indicated file is an output file, ensure that enough room is on the specified device.

REL -- F -Read error in -- filespec

A hardware error occurred while the indicated input file was being read.

Check the procedures in Section 1.3 for recovery from hard error conditions.

REL -- F -Request core block allocation error

A system error occurred.

Try the operation again. If the condition persists, contact the Customer Support Center (CSC) for your area.

REL -- F -Required input MOB file is missing

The command line contains no input MOB file.

Check for typing errors in the command line. Enter a command that includes an input MOB file.

REL -- F -Size overflow of section -- AAAAAA

When the program section load address is added to the section size, the result exceeds 32K words.

Reduce the size of the program either in this section or elsewhere in the program.

REL -- F -Symbol table overflow

Too many global symbols were used in the program.

Reduce the number of global symbols. Reassemble or recompile, reread, and then try the RELOC operation again.

REL -- F -Too many program sections

More than 255(decimal) program sections were specified.

Reduce the number of program sections. Reassemble or recompile, reread, and then try the RELOC operation again.

UTILITY PROGRAM MESSAGES

REL -- F -Too much memory specified in -- filespec

The input memory image file contains more than 32K words of memory for unmapped systems or more than 2048K words of memory for mapped 22-bit systems.

Edit the configuration file and rebuild the MIM file.

REL -- F -Write error in -- filespec

A hardware error occurred while RELOC was writing the indicated output file.

Check the procedures in Section 1.3 for recovery from hard error conditions.

REL -- W -Bad extend section -- AAAAAA

The extend section name given with the /EX switch was not found in the input file that was relocated. RELOC continues after the warning, without extending the section.

Check for a typing error in the section name with the /EX switch and use the correct section name the next time you relocate.

REL -- W -Byte relocation error at NNNNNN

RELOC attempted to relocate byte quantities but failed because the result of the operation was greater than 377(octal). NNNNNN represents the address at which the error occurred. The relocated value is truncated to eight bits, and RELOC continues processing.

Check the source program to verify that the address in question is a correct expression. Reassemble or recompile, reread, and try the relocation again.

REL -- W -Complex relocation divide by 0

An attempt was made to divide by 0 in a complex relocation string in the file indicated. A result of 0 is returned, and relocating continues.

Check the logic in the expression string of the program.

REL -- W -Conflicting section attributes in AAAAAA

The program section symbol was defined with different attributes. The attributes of the first definition are used, and the relocation process continues. The input file is probably not a valid merged object (MOB) file.

Check the source program and use the desired section attributes for the program section. Reassemble or recompile, reread, and try the relocation again.

REL -- W -Illegal virtual section

A virtual section was specified in the input file. MicroPower/Pascal does not support virtual sections.

Do not use virtual sections.

UTILITY PROGRAM MESSAGES

REL -- W -Multiple definition of AAAAAAA

A symbol is defined twice. The input file is probably not a valid merged object (MOB) file.

Check for a typing error in the command line and verify that the correct file name was specified as input. Reassemble or recompile, rerelease, and try the relocation again.

REL -- W -- /QB section not found -- AAAAAAA

The indicated section specified with the /QB switch was not found in the input MOB file.

Check for a typing error in the section name. Check the source to make sure that the section is defined. Try the operation again, specifying the correct section name.

REL -- W -Round section not found

The program section name specified with the /UP option was not found in the symbol table. Relocation continues with no round-up action.

Check the source to make sure that the section is defined. Try the operation again, specifying the correct section name.

REL -- W -Specified section start too low, ignored -- AAAAAAA

The load address specified for the indicated section was smaller than the size of the sections that came before it. The specified start address was ignored.

Leave the relocation as is or try the operation with an appropriate start address.

REL -- W -Text located in ASECT

An attempt was made to place code or data p-sects in the ASECT. MicroPower/Pascal does not support this operation. The code or data is ignored.

The ASECT is read/write and hence not relocated to virtual 0. Place code in the . ABS. p-sect, a read-only p-sect that is placed at virtual 0. This forces the code you enter to be the first in the image.

REL -- W -Undefined globals:

The globals listed were undefined. They are listed at the terminal and in the memory map when requested.

Check for a typing error in the command line. Verify that all necessary object modules were processed by MERGE before you use RELOC.

REL -- W -- /UP address not a power of 2

The address specified with the /UP option is not a power of 2.

Try the operation again, specifying an address that is a power of 2.

UTILITY PROGRAM MESSAGES

REL -- W -Word relocation error at NNNNNNN

During concatenation of data program sections, a word reference was moved to an odd byte.

Place the .EVEN assembler directive at the end of the data program sections to make sure that all word references will be on a word boundary when relocated.

CHAPTER 3

LANGUAGE MESSAGES

This chapter describes the command line, compile-time, compiler malfunction, and configuration file and prefix file assembly error messages for the MicroPower/Pascal language.

3.1 PASCAL COMMAND LINE ERRORS

?PASCAL-F-Cannot specify both object and listing file with /FI switch

The /FI switch allows either an object file or a listing file to be specified.

To obtain both an object file and a listing file, invoke the compiler separately for each file.

?PASCAL-F-/CH switch requires value

The /CH switch was specified without a checking type.

Refer to Chapter 2 of the MicroPower/Pascal-RSX/VMS System User's Guide for a list of checking types.

?PASCAL-F-Illegal value on /CH switch

An unrecognized checking type was specified for the check switch.

Refer to Chapter 2 of the MicroPower/Pascal-RSX/VMS System User's Guide for information on checking types.

?PASCAL-F-Illegal value on /IN switch

The code type specified is not a valid type abbreviation.

Refer to Chapter 2 of the MicroPower/Pascal-RSX/VMS System User's Guide for a list of code types and their abbreviations.

?PASCAL-F-/IN switch requires value

The output code switch was specified without a code type.

Refer to Chapter 2 of the MicroPower/Pascal-RSX/VMS System User's Guide for a list of code type choices.

LANGUAGE MESSAGES

3.2 COMPILE-TIME PASCAL ERRORS

1 Syntax: ";" expected

A new statement was started before the previous one was properly ended with a semicolon.

Insert a semicolon at the end of the statement.

2 Syntax: "," expected

A comma is required to separate multiple array indexes and multiple WITH object variables.

Insert a comma between array indexes or between WITH object variables.

3 Syntax: ":" expected

A colon is required to separate a variable name from a type identifier.

Insert a colon between the variable name and the type identifier.

4 Syntax: ":=" expected

The assignment statement syntax requires the assignment operator.

Insert the assignment operator between the variable name and the expression.

5 Syntax: ")" expected

The expression requires enclosure in parentheses.

Check the source code for matching parentheses.

6 Syntax: "]" expected

Array variables and array declarations require enclosure in brackets.

Check the source code for matching brackets.

7 Syntax: "=" expected

An equal sign is required to separate a constant identifier from a constant value or to separate a type identifier from a type definition.

Insert an equal sign between the constant identifier and the constant or between the type identifier and the type definition.

8 Syntax: "[" expected

Array variables and array declarations require enclosure in brackets.

Check the source code for matching brackets.

9 Syntax: ".." expected

The .. symbol is required between the endpoints of a user-defined subrange.

Insert a ".." between the endpoints of the subrange.

10 Syntax: "(" expected

The expression requires enclosure in parentheses.

Check the source code for matching parentheses.

LANGUAGE MESSAGES

11 Syntax: "" expected

String literals must be enclosed in quotation marks.

Check the source code for matching quotation marks.

12 Syntax: ";" expected after procedure body

A semicolon is required following the END for a procedure.

Insert a semicolon at the end of the procedure.

13 Syntax: "." expected after main program body

A period is required following the END statement for the main program body.

Use a period, not a semicolon.

14 Syntax: "BEGIN" expected

The delimiter BEGIN was not found at the beginning of a compound statement, routine, or program.

Check the source code for matching BEGIN/END pairs.

15 Syntax: "END" expected

The delimiter END was not found at the end of a compound statement, subprogram, or program.

Check the source code for matching BEGIN/END pairs.

16 Syntax: "UNTIL" expected

No UNTIL was found at the end of a REPEAT statement sequence.

Check the source code for matching REPEAT/UNTIL pairs.

17 Syntax: "THEN" expected

The THEN symbol was omitted from an IF/THEN statement sequence. A THEN clause should follow the conditional expression.

Check for a syntax error in the expression.

18 Syntax: "OF" expected

CASE statements and array and set declarations require the reserved word OF.

Insert the reserved word OF after the case selector or before the base type.

19 Syntax: "DO" expected

The reserved word DO is expected following the Boolean expression in a WHILE statement or the final value in a FOR statement.

Insert the reserved word DO after the Boolean expression or after the final value.

20 Syntax: "TO" or "DOWNTO" expected

The upper and lower bounds of a FOR statement must be separated by TO or DOWNTO.

Check for a syntax error in the initial expression.

LANGUAGE MESSAGES

21 Syntax: "ARRAY" expected

Begin an array declaration with the reserved word ARRAY.

Insert the reserved word ARRAY at the beginning of an array declaration.

22 Syntax: "PROGRAM" or "MODULE" expected

A Pascal source must start with a PROGRAM or a MODULE declaration.

Begin a program or module with the appropriate reserved word.

23 Syntax: File variable expected

I/O statements for files other than INPUT or OUTPUT require a file variable.

Rewrite the statement so that it contains a file variable.

24 Syntax: Identifier expected

The indicated statement requires an identifier.

Rewrite the statement so that it contains the appropriate identifier.

25 Syntax: Type name expected

The type of a procedure or function parameter must be a type name or a conformant array schema.

Rewrite the parameter list so that it contains a type name or a conformant array schema.

26 Syntax: Binary operator expected

The indicated expression does not contain the correct number of operands in relation to the operators used.

Rewrite the expression so that it contains the appropriate number of operands.

27 Syntax: Operand expected

The indicated expression does not contain the correct number of operands in relation to the operators used.

Rewrite the expression so that it contains the appropriate number of operands.

28 Syntax: Integer label expected

The target of a GOTO statement is not a valid label.

Rewrite the statement so that it contains a legal label.

29 Syntax: Variable of type RECORD expected

An attempt was made to specify the field of a variable that was not a record.

Check the variable declaration.

30 Syntax: Variable of type ARRAY expected

An attempt was made to subscript a variable that was not an array.

Check the variable declaration.

LANGUAGE MESSAGES

31 Syntax: Variable of type PACKED ARRAY OF CHAR expected

The indicated statement requires a variable of type PACKED ARRAY OF CHAR.

Rewrite the statement so that it contains a variable of type PACKED ARRAY OF CHAR.

32 Syntax: String constant expected

The indicated statement requires a string constant.

Rewrite the statement so that it contains a string constant.

33 Syntax: File variable or pointer variable expected

The symbol "^" was seen after a variable that was not a pointer or a file.

Check for a syntax error in the expression.

34 Syntax: Array of characters expected

The indicated statement requires a variable of type ARRAY OF CHAR.

Rewrite the statement so that it contains a variable of type ARRAY OF CHAR.

35 Syntax: Pointer variable expected

The NEW and DISPOSE routines require a pointer variable.

Rewrite the statement so that it contains a pointer variable.

36 Syntax: Field variable expected for NEW

The NEW and DISPOSE routines require a field variable when using tag fields.

Rewrite the statement so that it contains a field variable.

37 Syntax: Boolean value expected

The expression in an IF, WHILE, or REPEAT statement must be Boolean.

Rewrite the statement so that it contains a Boolean expression.

38 Syntax: Procedure name expected

Procedure declarations require a name following the reserved word PROCEDURE.

Rewrite the declaration so that it contains a procedure name.

39 Syntax: Function name expected

Function declarations require a name following the reserved word FUNCTION.

Rewrite the declaration so that it contains a function name.

40 Syntax: Variable name expected

The indicated statement requires a variable.

Rewrite the statement so that it contains the appropriate variable.

41 Syntax: Record identifier expected

The WITH statement requires a record.

Rewrite the statement so that it contains a record identifier.

LANGUAGE MESSAGES

42 Syntax: Identifier expected

The indicated statement requires an identifier.

Rewrite the statement so that it contains the appropriate identifier.

43 Syntax: "]" or "," must follow index expression

Array indexes are separated by a comma, and the subscript expression is terminated by a right square bracket.

Check for a syntax error in the index expression.

44 Syntax: Unexpected ")"

The symbol ")" was detected where it was not expected.

Check the source code for matching parentheses.

45 Syntax: Use ";" to separate declarations

Consecutive declarations must be separated by semicolons.

Insert a semicolon between the declarations.

46 Line too long

The indicated source line, including expanded tabs, exceeds 160 characters.

Rewrite the source line so that it contains fewer than 160 characters.

47 Illegal character

An illegal character was found at the indicated point. Any character with an ASCII code less than 32(decimal), other than CR, LF, TAB, and FF, is an illegal character.

Rewrite the source line so that it contains only legal characters.

48 Illegal real number

In a real number, at least one digit is required following the decimal point, or an exponent should follow the E in a real constant.

Rewrite the source line so that it contains a legal real number.

49 Error limit exceeded

The program contains too many errors for the compiler to continue.

Correct the reported errors and recompile.

50 Illegal digit for radix

The indicated constant contains a digit or digits not legal for its radix.

Rewrite the source line so that it contains a legal constant.

51 Illegal integer value

Integers must be in the range -32768 to 32767.

Rewrite the source line so that it contains only legal integers.

LANGUAGE MESSAGES

52 Illegal value for real number

Real constants must be in the range -2.938736E-39 to 1.701411E+38.

Rewrite the source line so that it contains only legal real numbers.

53 String of length zero

A character constant with no characters (for example, '') was detected.

Rewrite the source line so that it contains a legal string literal.

54 Variable must be cast to type of same size

Type casting may not change the size of a variable.

Rewrite the source line so that it contains a type identifier compatible with the variable.

55 Illegal use of reserved word

A reserved word was used as a constant, a variable, or a type name.

Rewrite the source line, using an identifier that is not a reserved word.

56 Nesting limit exceeded

The combined nesting levels of the program, routines, and WITH and FOR statements cannot exceed 15.

Restructure the statements so that the nesting limit is not exceeded.

57 Extra END found after block

An extra END statement follows a procedure or a function block.

Check the source file for matching BEGIN/END pairs.

58 Extra procedures found after main program body

The main program body must be the last block in a PROGRAM. Any additional procedures should occur before the main program body.

Resequence program sections so that all procedures precede the main program block.

59 Extra statements found after end of program

No statements can be written after the program end.

Check the source file for matching BEGIN/END pairs.

60 Extra text found after end of program

The program end was followed by additional text.

Check the source file for matching BEGIN/END pairs.

61 Block must begin with LABEL, CONST, TYPE, VAR, PROCEDURE, FUNCTION, PROCESS, or BEGIN

The header of a program or a routine was not followed by LABEL, CONST, TYPE, VAR, PROCEDURE, FUNCTION, PROCESS, or BEGIN.

Check the nesting and order of procedures and functions.

LANGUAGE MESSAGES

62 Block declarations are incorrectly ordered

In a nested procedure, a VAR declaration was used after a PROCEDURE or a FUNCTION declaration at the same level.

Resequence the declarations.

63 Label is target of illegal GOTO

The indicated label is not within the scope of its definition.

Place the label definition within the scope that uses the label.

64 Block ended incorrectly

An illegal symbol follows a block.

Check for a syntax error at the end of the block.

65 Statement ended incorrectly

An illegal symbol follows a statement.

Check for a syntax error at the end of the statement.

66 Unexpected ELSE clause

The symbol ELSE was detected where it was not expected.

Check for a misplaced semicolon following the THEN clause of the preceding IF/THEN sequence.

67 Illegal CASE label

A specified CASE label was not in the range of the case selector expression, or the same CASE label was used again.

Rewrite the CASE statement, using only legal case labels.

68 ELSE clause not allowed in CASE statement

The default clause in a CASE statement must be preceded by OTHERWISE.

Check for misuse of an IF statement.

69 Illegal label

Alphabetic characters are not valid label characters.

Rewrite the source line so that it contains a legal label.

70 Procedures do not have a result type

A result type was declared for a procedure in the procedure declaration. Procedures, unlike functions, do not return result types.

Remove the result type from the procedure declaration.

71 Illegal parameter element

The specified actual parameter does not comply with the rules for VAR parameters.

Refer to Chapter 6 of the MicroPower/Pascal Language Guide for the rules regarding VAR parameters.

LANGUAGE MESSAGES

72 Function identifier is never assigned a value

Function values are returned by assigning the resultant value to the name of the function. That was not done in the function.

Assign a value to the function identifier.

73 Ill-formed expression

The indicated expression does not contain the correct number of operands in relation to the operators used.

Rewrite the expression so that it contains the appropriate number of operands.

74 Illegal constant

The indicated structured constant does not match its type or contains a variable.

Rewrite the source line so that it contains a valid structured constant.

75 Declaration terminated incorrectly

An illegal symbol follows a declaration.

Check for a syntax error at the end of a declaration section.

76 Illegal type syntax

The TYPE declaration is incorrect.

Check for a syntax error in the TYPE declaration.

77 Too many procedures

The limit on procedures, functions, and processes in a compilation unit is 110.

Restructure the program so that that limit is not exceeded.

78 Too many forward references

The number of unresolved forward references cannot exceed 25.

Restructure the program so that that limit is not exceeded.

79 Too many identifiers

The number of active identifiers cannot exceed 997.

Restructure the program so that that limit is not exceeded.

80 Too many strings or identifiers

Too many strings or identifiers were used, or the strings or identifiers were too long.

Reduce the size or the number of strings, or shorten the identifier names.

81 Illegal directive

An illegal compiler directive, a word preceded by %, was found.

Check for a typing error in the %INCLUDE directive.

82 Too many %INCLUDE levels

Only five levels of INCLUDE files may be nested below the primary file.

Check for a recursive reference to an INCLUDE file.

LANGUAGE MESSAGES

83 Identifier cannot be redefined or defined after use at this level

Once defined at a given level, an identifier cannot be redefined at the same level.

Rewrite the source line, using a unique identifier.

84 Undefined identifier

The indicated identifier was not declared.

Provide an appropriate declaration for the indicated identifier.

85 Array subscript out of range

An array is indexed with a value outside the subscript range declared for the array.

Rewrite the source line so that it contains a legal array subscript.

86 Integer overflow or division by zero

The MOD, DIV, or / operator has a denominator that was evaluated to zero, or the two constant operands of that operator will overflow when the operation is executed.

Rewrite the expression.

87 Illegal array index

The indicated array declaration defines an array too large to be represented in memory.

Rewrite the array declaration.

88 Value out of range

The value of the expression in an assignment statement exceeds the range of the target variable on the left side.

Rewrite the expression.

89 Illegal subrange

The upper limit of a subrange was lower than the lower limit of the subrange, based on the ordinal values of their base type.

Rewrite the declaration of the subrange.

90 Index must be non-real scalar type

A real number may not be used as an array index.

Rewrite the source line so that it contains a legal array index.

91 Set must be non-real scalar type

Real numbers may not be used as set elements.

Rewrite the source line so that it contains a legal set.

92 Illegal set value

The indicated set definition contains a value greater than 256.

Rewrite the source line so that it contains a legal set value.

LANGUAGE MESSAGES

93 Case label must be non-real scalar type

The case label must be a nonreal scalar type that is the same as the type of the case selector.

Rewrite the case statement so that it contains a legal case label.

94 Case label type does not match tag field type

In a case variant declaration, one of the variant labels was not of the same type as the case label.

Rewrite the declaration so that it contains legal case variant labels.

95 Tag identifier already used in this record

The indicated case variant label was previously defined.

Rewrite the declaration so that it contains unique case variant labels.

96 Label cannot be redefined at this level

The indicated label was previously defined.

Rewrite the source line, using unique labels.

97 Undeclared label

In a GOTO statement, a label was used that was not previously declared.

Provide a declaration for the indicated label.

98 Multiply-defined label

The indicated label was previously defined.

Rewrite the source line, using unique labels.

99 Undefined tag field

One of the extra parameters of the NEW/DISPOSE procedures or SIZE functions did not appear in the variant label list.

Rewrite the source line so that it contains a legal variant.

100 Undefined label

All declared labels must be defined in the procedure or the program in which they are declared.

Provide a declaration for the indicated label.

101 Undefined forward procedure/function/process

The body for a procedure, function, or process that was declared FORWARD was not defined.

Provide a body for the indicated procedure, function, or process.

102 Undefined forward type

A type was declared as a pointer to another type that was not defined in the block being compiled.

Provide a declaration for the indicated type.

LANGUAGE MESSAGES

103 Parameter list cannot be duplicated in forward-declared procedure/function/process body

The parameter list must be specified at the FORWARD or the EXTERNAL declaration and may not be duplicated at the declaration of the procedure, function, or process body.

Rewrite the source line so that it does not contain the parameter list.

104 Function result type cannot be duplicated in forward-declared function body

A function result type must be specified at the forward declaration and may not be duplicated at the function heading of the body.

Rewrite the source line so that it does not contain the result type.

105 Multiply-defined forward procedure/function/process name

Procedures, functions, and processes may be defined FORWARD only once in a compilation unit.

Rewrite the program so that FORWARD routines are defined only once.

106 This function was declared as a forward procedure

The definitions for the indicated function conflict.

Check the declarations of the indicated routine.

107 This procedure was declared as a forward function

The definitions for the indicated procedure conflict.

Check the declarations of the indicated routine.

108 External procedures/functions must be defined at outermost level

Procedures or functions that are nested inside other procedures or functions cannot be declared EXTERNAL or GLOBAL.

Remove the attributes or move the routine to the outermost level.

109 Function cannot be applied to an operand of this type

The actual parameter to a standard function has an error.

Rewrite the source line so that it contains a legal parameter.

110 Illegal format syntax

The WRITE parameter contains too many colons. Only one colon is permitted when you write an integer; only two colons are permitted when you write a real number.

Rewrite the source line so that it contains a legal format syntax.

111 Illegal format expression

An illegal value was detected following a colon in a WRITE statement. Only integers are permitted as values.

Rewrite the source line so that a legal expression follows the colon.

LANGUAGE MESSAGES

112 Variables of this type are not allowed in READ statements

The indicated variable cannot be read with a READ statement. Remove the indicated variable from the READ statement.

113 Variable missing in READ statement

A READ statement must contain at least one variable. Rewrite the statement so that it contains at least one variable.

114 Variables of this type are not allowed in WRITE statements

Sets, records, and structured types, except packed arrays of characters, may not be written directly to a text file. Remove the indicated variable from the WRITE statement.

115 Undefined variant label

The indicated case variant label was not defined. Check the record declaration.

116 Value missing in WRITE statement

A WRITE statement must contain at least one value. Rewrite the statement so that it contains at least one value.

117 Too many actual parameters

The call to the procedure or the function has more actual parameters than the number declared. Check the procedure or the function declaration.

118 Too few actual parameters

The call to the procedure or the function has fewer actual parameters than the number declared. Check the procedure or the function declaration.

119 Actual parameter type does not match formal parameter type

The actual parameter is not type compatible with the corresponding formal parameter. Check the formal parameter list.

120 Operator cannot be applied to these operand types

The indicated operator may not be used with those operands. Rewrite the expression.

121 Unary "+" or "-" cannot be applied to set operands

The "+" or "-" symbols are arithmetic operators, not set operators. Rewrite the expression.

LANGUAGE MESSAGES

122 Illegal comparison of record, array, file, or pointer values

A relational operator can compare only operands that are scalars or packed arrays of characters.

Rewrite the expression.

123 Cannot assign a real value to an integer variable

A real value must be converted to an integer value before it can be assigned to an integer variable.

Use the TRUNC or the ROUND functions to convert the real value to an integer value.

124 Operands are of differing or incompatible type

The indicated line contains an operation between two operands whose types do not conform to the compatibility rules.

Refer to the MicroPower/Pascal Language Guide for type compatibility rules.

125 No strict inclusion of sets allowed

The IN operator requires an ordinal value on the left and a set on the right. A set on the left is illegal.

Rewrite the expression.

126 Illegal IN operands

The left operand on the IN operator must be of the same type as the elements of the set used as the right operand.

Rewrite the expression.

127 FOR loop control variable must be declared at this level

The FOR loop control variable must be declared in the same procedure, function, or process in which the FOR statement is used.

Provide a declaration in the proper scope for the FOR loop control variable.

128 FOR loop control variable can only be a simple non-real scalar variable

A real number may not be used as a FOR loop control variable.

Rewrite the statement so that it contains a legal FOR loop control variable.

129 Expression type is incompatible with FOR index type

The initial value type or the final value type in a FOR statement is not compatible with the index variable type.

Rewrite the statement so that it contains legal values.

130 CASE selection expression must be a non-real scalar type

A real number may not be used as a CASE selector.

Rewrite the statement so that it contains legal case selectors.

LANGUAGE MESSAGES

131 CASE label does not match selection expression type

The CASE label type is not the same as the selector expression. Rewrite the statement so that it contains legal case labels.

132 Index expression type does not match array declaration

The type of the expression used to index the array does not match the array index type. Check the array declaration.

133 Expressions or packed fields cannot be passed as VAR parameters

Procedure or function VAR parameters must be variables. Expression and packed record fields are not allowed. Refer to Chapter 6 of the MicroPower/Pascal Language Guide.

134 Assignment operands are of differing or incompatible types

The target of an assignment statement must be assignment compatible with the expression being assigned to it. Refer to the MicroPower/Pascal Language Guide for type compatibility rules.

135 Cannot pack unstructured types

Only record or array types can be packed. Individual variables cannot be declared with the PACKED attribute. Remove the PACKED attribute.

136 File cannot contain a file component

The type definition of a file cannot contain any file types. Rewrite the type definition.

137 Multiply-defined CASE label

The case label was already used within the case statement. Rewrite the statement so that it contains unique case labels.

138 Illegal function assignment

The value assigned to the function result is not compatible with the function result type. Refer to the MicroPower/Pascal Language Guide for type compatibility rules.

139 FOR index variable missing

A FOR statement must have a control variable. Rewrite the statement so that it contains a control variable.

140 Reassignment of FOR loop control variable not allowed

The FOR loop control variable may not be modified inside the body of the loop. Rewrite the FOR loop so that it does not modify the control variable.

LANGUAGE MESSAGES

141 Only functions can be called from expressions

A procedure was called from within the expression. Procedures, unlike functions, do not return values and may not be called from expressions.

Rewrite the expression.

142 Assignment to constants not allowed

The left side of an assignment must be a variable. You cannot assign values to a constant.

Rewrite the statement so that it contains a variable.

143 Must assign value before using variable

A variable was used before a value was assigned to it.

Assign a value to the variable.

144 Strings may not cross line boundaries

The end of a line was detected before the end of a string literal.

Terminate the string before the end of the line.

145 Type casting may not increase the size of a variable

Type casting may not change the size of a variable.

Rewrite the source line so that it contains a type identifier compatible with the variable.

146 Type casting must use type identifier

The right operand of a type cast (:::) must be a type identifier.

Rewrite the source line so that it contains a type identifier.

147 Positional parameter after non-positional in parameter list

When you mix positional and nonpositional parameters in the same parameter list, all positional parameters must appear before any nonpositional parameters.

Reorder the parameter list.

148 Multiply-defined non-positional parameter

The indicated parameter was previously defined in the parameter list.

Rewrite the source line so that it contains unique parameters.

149 No default value specified for this parameter

Formal parameters without a default value must have an actual parameter when the routine is called.

Rewrite the source line so that it contains an actual parameter.

150 Default values only allowed on value parameters

Default values cannot be applied to VAR or procedure/function parameters.

Rewrite the routine invocation so that it contains default values for value parameters only.

LANGUAGE MESSAGES

151 Incompatible attributes

The indicated line contains attributes having conflicting meanings.

Rewrite the source line so that it contains compatible attributes.

152 AT attribute not allowed here

The AT attribute may be used only at the outermost level.

Restructure the program so that it contains the AT attribute at the outermost level.

153 Unrecognized or illegal attribute

That attribute is illegal or is not allowed in that context.

Rewrite the source line so that it contains a legal attribute.

154 Identifier can be declared GLOBAL or EXTERNAL only at program (top) level

The GLOBAL and EXTERNAL attributes may be used at only the outermost level.

Restructure the program so that GLOBAL and EXTERNAL identifiers occur at the top level.

155 Illegal reference to a WRITEONLY data item

A read access was attempted on an item declared with a WRITEONLY attribute.

Rewrite the source line so that it uses the WRITEONLY attribute legally.

156 Illegal reference to a READONLY data item

A write access was attempted on an item declared with a READONLY attribute.

Rewrite the source line so that it uses the READONLY attribute legally.

157 Unknown formal parameter

The indicated actual parameter has no corresponding formal parameter.

Check the parameter list and correct the source program.

158 Attributes for PROCESSES are not allowed on PROCEDURES and FUNCTIONS

Attributes may be applied only to processes.

Remove the attributes from the procedure or the function.

159 TERMINATE attribute only legal on procedures at first level within a PROCESS

The TERMINATE attribute was detected on a procedure that is nested "too deep" inside a process.

Restructure the program to contain the TERMINATE procedure at the correct nesting level.

160 An item of this type will not fit in the given size

When you use the BIT, BYTE, and WORD attributes, the type of the variable must be smaller than or equal to the size indicated by the chosen attribute.

Rewrite the source line so that it uses the BIT, BYTE, and WORD attributes legally.

LANGUAGE MESSAGES

161 INITIALIZE procedures must be declared at outermost level

Procedures with the INITIALIZE attribute may not be nested within other procedures.

Move the procedure with the INITIALIZE attribute to the outermost level.

162 Non-positional formal parameter not found

An actual parameter was specified, using the nonpositional syntax, for an undefined formal parameter.

Check the procedure/function declaration.

163 Unsupported runtime environment

An undefined value was specified for the SYSTEM attribute. "MICROPOWER" is the only valid value.

Rewrite the source line so that it contains the value "MICROPOWER" for the SYSTEM attribute.

164 This function only meaningful as a WRITE parameter

The BIN, OCT, and HEX functions are permitted only in a WRITE statement.

Rewrite the source line so that the BIN, OCT, and HEX functions are used legally.

165 Fields of a record must have increasing offsets

When you use the POS attribute, the values for consecutive fields must have increasing values.

Rewrite the record declaration so that it contains increasing values for consecutive POS attributes.

166 Parameters not allowed on INITIALIZE procedures

A procedure with the INITIALIZE attribute may not have any parameters.

Rewrite the INITIALIZE procedure without using any parameters.

167 External aliasing not allowed on variable lists

If a 6-character build-time name is specified with the EXTERNAL or the GLOBAL attributes, the identifier list must contain only one element.

Rewrite the source line so that it contains only one 6-character build-time name.

168 Conformant arrays are restricted to one parameter

Conformant arrays may have only one index parameter.

Reduce the number of indexes in the array declaration.

169 Packed conformant arrays may be only one dimension of CHAR

Packed conformant arrays may be only of type CHAR.

Rewrite the source line so that it contains a legal conformant array.

170 I/O is not legal from within an INITIALIZE procedure

No input or output is permitted from an INITIALIZE procedure.

Rewrite the INITIALIZE procedure so that it does not contain any I/O statements.

LANGUAGE MESSAGES

171 Type identifier not allowed here

The indicated structured constant contains a misplaced type identifier.

Rewrite the source line so that it contains a legal structured constant.

172 Files must be passed as VAR parameters

A file must not be passed as a value parameter.

Rewrite the source line so that it passes the file as a VAR parameter.

173 READLN, WRITELN and PAGE may only be applied to TEXT files

The predefined routines READLN, WRITELN, and PAGE may be used only on files of type TEXT.

Use the PUT or the GET procedures on nonTEXT files.

174 ":" not allowed here

Declarations may not contain attributes on the left side of the colon.

Rewrite the source line so that it contains attributes only on the right side of the colon.

175 /* ... */ comments are not allowed

Comment delimiters permitted are (**) and ().

Substitute a legal form of comment delimiters.

176 Operand stack overflow, expression too complex

During evaluation of the indicated expression, an internal compiler stack was overflowed.

Rewrite the expression as several simpler expressions.

177 DATA_SPACE must be larger than STACK_SIZE

The value for the DATA_SPACE attribute must be larger than the value for the STACK_SIZE attribute.

Substitute a larger value for the DATA_SPACE attribute.

178 Illegal set expression

The indicated expression contains a set variable that is not compatible with the base type.

Rewrite the source line so that it contains a legal set expression.

179 Illegal value for PRIORITY attribute

Valid values for the PRIORITY attribute are 1 through 255, inclusive.

Rewrite the source line so that it contains a legal value for the PRIORITY attribute.

180 Multiply-defined TERMINATE procedure

The indicated TERMINATE procedure was already defined.

Rewrite the program so that it contains unique TERMINATE procedures.

LANGUAGE MESSAGES

181 Illegal integer value

Integers must be in the range -32768 to 32767.

Rewrite the source line so that it contains only legal integers.

182 Nonstandard: Non-decimal constant

183 Nonstandard: Type casting

184 Nonstandard: Default parameter value

185 Nonstandard: Non-positional parameter

186 Nonstandard: Extended attributes

187 Nonstandard: PROCESS declaration

188 Nonstandard: Extended directive

189 Nonstandard: Structured function result type

190 Internal compiler error -- please contact Digital Equipment

An internal compiler error occurred. The error may be the result of overflowing an internal data structure or an internal consistency check.

See the MicroPower/Pascal-RSX/VMS Release Notes. If additional help is needed, consult the Customer Support Center (CSC) for your area.

3.3 COMPILER MALFUNCTION ERRORS

A compiler malfunction error may, but is unlikely to, occur during compilation. In each case, the compiler failed to perform properly and cannot produce object code or macro code. In a few cases, recovery is possible by altering the compilation unit or by providing more disk space for the compiler's output files. Appropriate suggestions are provided for those error messages where that sort of recovery may be possible. In no case should you use an object file generated by the compiler after it issues one of those messages.

In the unlikely event that such an error occurs or that the suggested recovery is not successful, you should contact the Customer Support Center (CSC) for your area. The problem did not result from a programming error.

If the system detects a compiler error not covered in the following list, the following message is printed.

?PASCAL-F-Unknown error in ??????

The ?????? symbol stands for the relative location where the error was detected -- for example, main program, procedure, or block number.

LANGUAGE MESSAGES

The messages in this category are:

?PASCAL-F-Bad addresses assigned to cache pages

?PASCAL-F-Bad debug symbol: MMMMM

?PASCAL-F-Bad debug type: MMMMM

?PASCAL-F-Bad debug var type: MMMMM

?PASCAL-F-Bad param name type

?PASCAL-F-Context stack overflow

?PASCAL-F-Delta = NNNNN

Possibly recoverable. The identified procedure is too large.

Break up the procedure into smaller procedures and recompile.

?PASCAL-F-Dolevel p-op with level 0 not expected in genblk

?PASCAL-F-Error opening compiler work file

Possibly recoverable:

Disk off line or powered down.

Place disk on line; restore power.

Insufficient space for one or more of the three temporary work files.

Delete unnecessary files.

?PASCAL-F-Error opening listing file

Possibly recoverable:

Disk off line or powered down.

Place disk on line; restore power.

Insufficient space for the listing file.

Delete unnecessary files.

Specified file already exists with its protection bit set.

Unprotect the file.

?PASCAL-F-Error opening output code file

Possibly recoverable:

Disk off line or powered down.

Place disk on line; restore power.

Insufficient space for the object code file.

Delete unnecessary files.

Specified file already exists with its protection bit set.

Unprotect the file.

?PASCAL-F-Errors diagnosed: MMMMM

LANGUAGE MESSAGES

?PASCAL-F-Expected blockentry pseudo-op not found ... actual
pseudo-op = MMMMM

?PASCAL-F-Expected isdsym2 pseudo-op not found ... actual
pseudo-op = MMMMM

?PASCAL-F-Failure searching proc range list

?PASCAL-F-File not found: AAAAAA

?PASCAL-F-For stack overflow

?PASCAL-F-Gblextdecl pseudo-op not expected here

?PASCAL-F-Illegal index into forstack

?PASCAL-F-Illegal index into labeltable

?PASCAL-F-Illegal index into markstack

?PASCAL-F-Illegal instruction detected in putmac ... instruction
= MMMMM

?PASCAL-F-Illegal instruction detected in putobj ... instruction
= MMMMM

?PASCAL-F-Illegal keytable index detected in copylinkverify ...

?PASCAL-F-Illegal keytable index detected in keytableverify ...

?PASCAL-F-Illegal keytable index detected in lastkeyverify ...

?PASCAL-F-Illegal keytable index detected in properaddressverify ...

?PASCAL-F-Illegal keytable index detected in tempspverify ...

?PASCAL-F-Illegal keytable index detected in travrsverify ...

?PASCAL-F-Illegal mode in refexternalvariable

?PASCAL-F-Illegal offset detected in adjustoffsets ... newoffset
= MMMMM

Possibly recoverable; see message ?PASCAL-F-Delta = NNNNNN

?PASCAL-F-Illegal p-op detected in chkdis

?PASCAL-F-Illegal psect detected in fixmac ... psect
index = NNNNNN

?PASCAL-F-Illegal psect index in defforindex ... index = NNNNNN

?PASCAL-F-Illegal psect index in dolevel ... psect index = NNNNNN

?PASCAL-F-Illegal psectindex in putoffset of putobj

?PASCAL-F-Illegal psectindex in putrelative of putobj

?PASCAL-F-Illegal psectindex in writeoffset of putmac

?PASCAL-F-Illegal pseudo-op detected before blockcode ...

?PASCAL-F-Illegal pseudo-op = MMMMM

LANGUAGE MESSAGES

?PASCAL-F-Illegal pseudo-op in genblk ... illegal
pseudo-op = MMMMM

?PASCAL-F-Illegal standardid in sysroutine ... illegal
standardid = NNNNNN

?PASCAL-F-Illegal tempkey index into keytable

?PASCAL-F-Include file not found: AAAAAA

?PASCAL-F-Internal temporaries error in allowmodify

?PASCAL-F-Internal temporaries error in settemp

?PASCAL-F-Isdsym1/isdsym2 pseudo-op's not expected here

?PASCAL-F-Label pool empty ... labelltablesize = NNNNNN

Possibly recoverable. May be caused by a program with too many labels or with large procedures.

Try revising the procedures to use fewer labels, or partition larger procedures into two or more smaller procedures.

?PASCAL-F-Node pool empty ... nodetablesizze = NNNNNN

Possibly recoverable:

Use of the /CH or the /DE command switch increases the size of the generated code and may cause compiler limitations to be exceeded.

Eliminate either the /CH or the /DE switch (or both) and recompile.

May be caused by a program with large procedures.

Try partitioning large procedures into two or more smaller procedures.

?PASCAL-F-Non-external procedure without address ... procedure index = NNNNNN

?PASCAL-F-Not yet implemented

?PASCAL-F-Operand stack overflow

?PASCAL-F-Out of memory, near line NNNNNN

Possibly recoverable. May be caused by a program with too many labels, type declarations, or default parameters or with a large procedure.

Reduce the number of labels, type declarations, and/or default parameters. Try revising the procedure containing the indicated line number by coding the algorithm to use structured statements or fewer labels or by partitioning the procedure into two or more smaller procedures. Refer to Appendix I, Section I.3, of the MicroPower/Pascal Language Guide for further information on compiler limits.

LANGUAGE MESSAGES

?PASCAL-F-Pascal label array exceeded ... plabelsize = NNNNNN

?PASCAL-F-Procedure information missing: proc NNNNNN

?PASCAL-F-Severe error

?PASCAL-F-Stack aligned in newtemp ...

?PASCAL-F-Tempkey index into keytable

?PASCAL-F-Temporaries pool empty

?PASCAL-F-Too many qsd records

?PASCAL-F-Too many keys

Possibly recoverable:

Use of the /CH or the /DE switch increases the size of the generated code and may cause compiler limitations to be exceeded.

May be caused by a program with large procedures.

Eliminate either the /CH or the /DE switch (or both) and recompile.

Try partitioning large procedures into two or more smaller procedures.

?PASCAL-F-Undeleted temporaries in block ...

Possibly recoverable. An expression may be too complex, especially when the /IN:NHD switch is selected.

Try simplifying complex expressions. You may need to introduce a combination of intermediate statements and intermediate results. If an expression is passed as an actual value parameter, assign the expression to a variable and pass the variable as the parameter.

?PASCAL-F-Unknown character: chr MMMMM

?PASCAL-F-Unrecognized operator MMMMM

?PASCAL-F-Unrecognized statement kind MMMMM

?PASCAL-F-Virtual memory overflow

Possibly recoverable. Use of the /CH or the /DE command switch increases the size of the generated code and may cause compiler limitations to be exceeded.

Eliminate either the /CH or the /DE switch (or both) and recompile.

?PASCAL-F-With stack overflow

?PASOTS-F-Array subscript out of bounds

?PASOTS-F-Attempted reference through NIL pointer

?PASOTS-F-Bad file name

LANGUAGE MESSAGES

?PASOTS-F-Can't open file "AAAAAA"

The directory from which you are performing MicroPower/Pascal-VMS development must not be a subdirectory of a root directory. The MicroPower/Pascal-VMS compiler opens temporary files in your default directory. The temporary files cannot be opened if your default directory is a subdirectory of a root directory. A root directory is a directory specification of the form:

{directory-name.}
or
<directory-name.>

Note the trailing period (.) in the specification. For example, if the system disk is dba0, the system defined logical SYSSYSROOT translates to "dba0:[sys0.]". "[sys0.]" is a root directory. If MicroPower/Pascal-VMS development is performed in an account in which the log-in directory or the default directory is a subdirectory of a root directory, the MicroPower/Pascal-VMS compiler will not operate correctly.

Use SET DEFAULT to change your default directory so that it is not a subdirectory of a root directory, or create a new account with the AUTHORIZE utility. When running the AUTHORIZE utility to add a new account, be sure that the /DEVICE parameter does not contain a root directory specification.

For further information on root directories, see the VAX-11/RSX-11M User's Guide, Section 2.5.3, and the VAX-11 Record Management Services Reference Manual, Section 5.1.5.

?PASOTS-F-Can't read

?PASOTS-F-Can't reset (output)

?PASOTS-F-Can't rewrite (input)

?PASOTS-F-Case selector matches no label

?PASOTS-F-Channel not open

?PASOTS-F-Dispose() of Nil

?PASOTS-F-Division by zero

?PASOTS-F-Duplicate Dispose()

?PASOTS-F-End of file

?PASOTS-F-EXP overflow

?PASOTS-F-File not open

?PASOTS-F-File overflow

?PASOTS-F-Floating point format error

?PASOTS-F-Floating point overflow

?PASOTS-F-FPP error

LANGUAGE MESSAGES

?PASOTS-F-Illegal value for integer
?PASOTS-F-Integer overflow
?PASOTS-F-LOG of zero or a negative number
?PASOTS-F-New() exceeded memory
?PASOTS-F-New() of zero length
?PASOTS-F-NFS access to file device
?PASOTS-F-No channels available
?PASOTS-F-Open and no file
?PASOTS-F-Open failure
?PASOTS-F-Put not allowed
?PASOTS-F-Real overflow
?PASOT F-Reserved instruction trap
?PASOT F-Reset and no file
?PASOTS-F-Reset failure
?PASOTS-F-Reset, no file
?PASOTS-F-Rewrite failure
?PASOTS-F-Seek on sequential file
?PASOTS-F-Seek out of range
?PASOTS-F-Set element out of range
?PASOTS-F-Square root of a negative number
?PASOTS-F-Stack exceeded memory
?PASOTS-F-Stack overflow

Possibly recoverable. May be caused by a program with too many labels, type declarations, or default parameters or with a large procedure.

Reduce the number of labels, type declarations, and/or default parameters. Try revising the procedure containing the indicated line number by coding the algorithm to use structured statements or fewer labels or by partitioning the procedure into two or more smaller procedures. Refer to Appendix I, Section I.3, of the MicroPower/Pascal Language Guide for further information on compiler limits.

?PASOTS-F-Subscript out of bounds

LANGUAGE MESSAGES

?PASOTS-F-Transfer Error

Hardware error -- bad block, device powered down, device off line, or write locked. Correct the error condition and retry.

?PASOTS-F-Trap to 4

?PASOTS-F-Trunc/round overflow

?PASOTS-F-Variable subrange exceeded

?PASOTS-F-Write past eof

Possibly recoverable. Not enough contiguous disk space is available for compiler file allocation. Delete unnecessary files.

3.4 CONFIGURATION FILE AND PREFIX FILE ASSEMBLY ERRORS

This section lists the error messages that can be generated when errors are detected in the configuration file and prefix file during program assembly. Such errors are fatal and will abort the assembly. To recover, correct the configuration file or prefix file as indicated below and reassemble the program.

3.4.1 Resources Macro Errors

.ERROR ; RESOURCES macro has not been invoked

.ERROR ; RESOURCES macro invoked multiple times

Make sure that the resources macro is invoked only once. Check for the OPTIMIZE=NO option in the processor macro, because that causes the resources macro to be invoked automatically.

3.4.2 Traps Macro Errors

.ERROR ; \$TRTR4 specified with T11 processor

Trap-to-4 cannot be specified with the T11 processor.

3.4.3 Processor Macro Errors

.ERROR ; Both T11 and MMU specified

Both T11 and MMU were specified in the configuration file. MMU cannot be specified if T11 is specified.

.ERROR ; FIS and MMU specified together

Both FIS and MMU were specified in the configuration file. Specify only one.

LANGUAGE MESSAGES

.ERROR ; PROCESSOR macro has not been invoked

The PROCESSOR macro must be invoked in the configuration file.

3.4.4 KXT11 Macro Errors

.ERROR ; Conflicting nxm/break options

.ERROR ; Invalid nxm option

.ERROR ; KXT11 macro has not been invoked

3.4.5 Memory Macro Errors

.ERROR ; Too little RW memory for pool

Not enough read/write memory was specified for the kernel pool.
Increase the size of the pool.

3.4.6 ENDCFG Macro Errors

.ERROR ; Both KXT11C and MMU are specified

.ERROR ; KXT11C macro must be invoked prior to ENDCONFIG

3.4.7 KXT11C Macro Errors

.ERROR ; AAAAAA is illegal for the clocking parameter in KXT11C macro

.ERROR ; AAAAAA is illegal for mapping in KXT11C macro

.ERROR ; AAAAAA is illegal for the reset parameter in KXT11C macro

.ERROR ; AAAAAA is not legal for the powerup parameter on KXT11C macro

3.4.8 Prefix File Errors

.ERROR ; Bit 0 of Port B can't be an input and also timer 2's output

.ERROR ; Bit 0 of port C can't be a handshake signal and timer 3's output

.ERROR ; Bit 0 of port C can't be an input and also timer 3's output

.ERROR ; Bit 4 of Port B can't be an input and also timer 1's output

LANGUAGE MESSAGES

.ERROR ; Bits 0 thru 3 of port A must all be inputs, or all outputs
.ERROR ; Bits 4 thru 7 of port A must all be inputs, or all outputs
.ERROR ; Can't specify handshake on Bit Port
.ERROR ; Can't specify one's catchers on outputs
.ERROR ; Deskew illegal on Bit or Input ports
.ERROR ; Device does not support programmable baud rate

The device specified in the XL driver's prefix file does not have a programmable baud rate.

.ERROR ; DMA spec must be specified as TRUE, YES, FALSE, or NO
.ERROR ; If one port is bidirectional, other ports must be Bit Ports
.ERROR ; If port A,B are linked, port A can not be a bit port
.ERROR ; If ports A,B are linked, port B has to be a Bit Port"
.ERROR ; Illegal port number specified
.ERROR ; Linked ports spec is illegal with port C
.ERROR ; Linked ports spec must be specified as TRUE, YES, FALSE, or NO
.ERROR ; Must configure port C in order to use handshake signals
.ERROR ; Must configure port C in order to use timer 3 external I/O
.ERROR ; No such baud rate: NNNNNN

The wrong baud rate (NNNNNN) was specified in the XL driver's prefix file.

.ERPGF ; Ones catcher feature can only be used on Bit Ports
.ERROR ; Only one port can use pulsed handshake
.ERROR ; Open Collector spec must be specified as TRUE, YES, FALSE, or NO
.ERROR ; OUTPUTS spec is only used on Bit Type ports
.ERROR ; Pat Recognition spec must be specified as TRUE, YES, FALSE, or NO
.ERROR ; Pattern Recognition not allowed on channel C"
.ERROR ; Port B must be a Bit Port to use timer 1 or 2 ext I/O
.ERROR ; Port C can only be a Bit Port
.ERROR ; Port C handshake inputs can't be defined as outputs
.ERROR ; Port C handshake outputs can't be defined as inputs
.ERROR ; Port C only contains data lines 0 thru 3

LANGUAGE MESSAGES

.ERROR ; Ports A,B output lines must all be O.C. or all be Active pullup

.ERROR ; Specified Timer Linkage spec does not exist

.ERROR ; Specified Timer Output Duty Cycle does not exist"

.ERROR ; Specified handshake mode does not exist

.ERROR ; Specified port type does not exist

.ERROR ; Specified timer number does not exist

.ERROR ; Specified value for deskew time is illegal

.ERROR ; Specified value of inverted polarity spec is out of range

.ERROR ; Specified value of ones catcher spec is out of range

.ERROR ; Specified value of output spec is out of range

.ERROR ; 3 wire or pulsed handshakes illegal on bidirectional ports

.ERROR ; TIMER CONFIG macro used after END CONFIG macro

.ERROR ; Timer ext. trigger must be specified as TRUE, YES, FALSE, or NO

.ERROR ; Timer external count must be specified as TRUE, YES, FALSE, or NO

.ERROR ; Timer external gate must be specified as TRUE, YES, FALSE, or NO

.ERROR ; Timer external output must be specified as TRUE, YES, FALSE, or NO

.ERROR ; Timer retrigger must be specified as TRUE, YES, FALSE, or NO

CHAPTER 4

EXCEPTION CODES

This chapter describes the exception codes that MicroPower/Pascal applications can generate. Since these applications can be created with either Pascal or MACRO-11, the codes are given in the Pascal and MACRO-11 formats.

The exception codes reside in 16 major categories called exception types. Each exception type may have a number of explicit exception codes. A type without an explicit code uses the general code ESSNSC.

The Pascal-generated exception types are listed alphabetically in bold letters at the left margin. The equivalent MACRO-11-generated types begin with the characters EXS and appear at the right margin. The associated codes listed under each exception type apply to both Pascal and MACRO-11 and begin with the characters ESS. Where appropriate, explanations and recovery procedures follow the codes.

BREAKPOINT_TRAP EX\$BPT

A BPT instruction was executed.

(no codes) ESSNSC

EMULATOR_TRAP EX\$EMT

An EMT instruction was executed.
Codes are user specifiable
in the range 0 to 255.

EXECUTION EX\$EXC

Break ESS\$BRK

The BREAK key on the console terminal was pressed.

This message appears only on applications that have been configured to support the FALCON microcomputer.

Power fail ESS\$PWF

Not implemented. Reserved for future release.

Stopped ESS\$STP

Not implemented. Reserved for future release.

EXCEPTION CODES

HARD_IO	EXSHIO
All exceptions of this type are specific to device handlers. Refer to the Status Code section in the description of the particular device handler in the MicroPower/Pascal Runtime Services Manual. The rightmost three characters of the exception code map to the rightmost three characters of the device handler status code.	
Aborted	ESSABT
Attention required	ESSATN
Controller error	ESS\$CTL
Device allocated	ESSDAL
Device off line	ESSOFL
Drive error	ESSDRV
End of file	ES\$EOF
End of volume	ES\$EVL
Format error	ESSFOR
Illegal function	ESSIFU
Invalid block number	ESSIBN
Invalid data	ESSIVD
Invalid device address	ESSIDA
Invalid mode	ESSIUM
Invalid parameter	ESSIVP
Non-existent memory	ESSNXM
Overflow	ESSOVF
Overrun	ESSOVR
Packet not available	ESSPNA
Parity error	ESSPAR
Power	ESS\$PWR
Stopped	ESS\$PD
Time out	ESSTIM
Unsafe	ESSUNS
Volume invalid	ESSVOL
Write lock	ESSWLK

EXCEPTION CODES

ILLEGAL_OPERATION	EX\$TOP
Floating opcode error	ESS\$FOP
For LSI-11/23 processors only, the floating-point processor detected an error in the opcode.	Be sure that the program has not accidentally modified itself.
Illegal instruction	ESS\$ILL
An instruction that is illegal for this type of processor was executed.	Check that the program does not use instruction codes that are invalid for the current processor — for example, FIS instructions must be used to be run on a processor with FIS only.
MEMORY_FAULT	EX\$MEM
Bus error	ESS\$BUS
Bus timeout.	Check hardware configuration for missing or malfunctioning memory and/or memory. Also check the configuration file CONFIG.MAC for incorrect configuration parameters.
Memory parity	ESS\$MPT
LSI-11/23 only.	Check memory hardware for malfunctions.
MMU error	ESS\$MMU
LSI-11/23 only.	Check memory hardware for malfunctions.
Vector fetch	ESS\$VFC
Nonexistent memory (NXM) trap.	Check hardware configuration for missing or malfunctioning memory and/or memory.
NUMERIC	EX\$NUM
Conversion	ESS\$CON
For LSI-11/23 processors only, the floating-point processor detected a conversion error on a store-and-convert floating-to-integer instruction.	Check that the value being converted is in the range of typo INT(FPREG) + 0.000000 to 32767.0.
Exponential overflow	ES\$EOV
The result of the operation $\text{EXP}(x)$ was greater than 1.70141×10^{38} .	The value of $ \text{exp} $ must be decreased so that the limit is not exceeded.

EXCEPTION CODES

Floating point divide by zero

ESSFDZ

The value 0 was used as a divisor in a real-number expression.

Do not use 0 as a divisor.

Floating point overflow

ESSFOV

The value of a real-number expression was greater than 1.701411x10+38.

Rewrite the expression so that the value is less than 1.701411x10+38.

Floating point underflow

ESSFUN

The value of a real-number expression was less than 2.938736x10-39.

Rewrite the expression so that the value is greater than 2.938736x10-39.

Integer divide by zero

ESSIDZ

The value 0 was used as a divisor in an integer expression.

Do not use 0 as a divisor.

Integer overflow

ESSIOV

The value of an integer expression exceeded 32767.

The expression must be rewritten so that the integer value is less than 32767.

Log of a non-positive value

ESSLNP

An attempt was made to take the log of a number less than or equal to 0.

You cannot take the log of a number less than or equal to 0.

Non-positive integer modulus

ESSINM

A nonpositive number was used in a modulus -- for example, 5 MOD -2.

A modulus must be in the range 1 to 32767.

Square root of a negative value

ESSSRN

An attempt was made to take the square root of a negative number.

You cannot take the square root of a negative number.

Undefined variable

ESSUDV

For LSI-11/23 processors only, the floating-point processor detected an undefined variable -- for example, -0.

This message is informational only. It is reported only if the FIUV bit of the FP-11 status register is set. If the FIUV bit is not set, the arithmetic operation is treated as if it were +0.

EXCEPTION CODES

Unsigned divide by zero	ESSUDZ
The value 0 was used as a divisor in an unsigned integer expression.	Do not use 0 as a divisor.
Unsigned overflow	ESSUOV
The value of an unsigned integer expression exceeded 65535.	Rewrite the expression so that the value is less than 65535.
RANGE	EX\$RAN
Array subscript out of bounds	ESSASO
A reference was made to an array subscript that was not within the bounds of the array declaration.	Check the subscript value.
Case selector out of range	ESSCSO
The value of a case selector had no "path," and an OTHERWISE clause was not present.	Add an OTHERWISE clause.
Program consistency check	ESSPCC
A general exception used for checking the validity of data.	
Reference of a NIL pointer	ESSNIL
A reference was made to a pointer with a 0 value.	Be sure that the program uses pointers correctly.
Set element out of range	ESSSEO
A reference was made to a set element that was not within the bounds of the set declaration.	Make sure that the specified element or set is correct.
Stack overflow	ESSSTO
A process has overflowed its stack.	Increase the value specified for the STACK_SIZE parameter or STACK_SIZE attribute to increase the amount of stack space allocated to the process.
Stack underflow	ESSSTU
A process has underflowed its stack. Although a process is unlikely to underflow its stack, an adjacent stack belonging to another process may overflow, causing this stack underflow exception.	Determine which process overflowed its stack and take corrective action.

EXCEPTION CODES

Variable subrange exceeded	ESSVSE
A reference was made to a subrange element that was not within the bounds of the declaration.	Check the specified element or subrange.
RESERVED_1	EX\$RS1
Reserved by DIGITAL.	
RESERVED_2	EX\$RS2
Reserved by DIGITAL.	
RESOURCE	EX\$RSC
DISPOSE of already disposed pointer	ES\$DDP
An attempt was made to do a DISPOSE(..) on a previously disposed pointer.	Be sure that the program disposes of structures properly.
File system DISPOSE failed	ES\$FDF
Internal consistency checking error from the file system.	Be sure that the program has not accidentally modified the memory locations used by the kernel. If the condition persists, contact the Customer Support Center (CSC) for your area.
Insufficient space for data buffer	ES\$NMB
	Increase the size of the heap by specifying a larger value for the DATA_SPACE attribute.
Insufficient space for file variable	ES\$NMF
	Increase the size of the heap by specifying a larger value for the DATA_SPACE attribute.
Insufficient space for kernel structure	ES\$NMK
An attempt was made to create a process or structure without enough space in the kernel pool.	Increase the kernel pool by changing the size argument of the MEMORY macro or RESOURCES macro in the configuration file.

EXCEPTION CODES

Insufficient space for PASCAL structure	ESSNMP
The NEW procedure attempted to create a dynamic variable, but insufficient space for this data structure was in the heap.	Increase the size of the heap by specifying a larger value for the DATA_SPACE attribute.
Insufficient space for stack	ESSNMS
An attempt was made to create a process without enough space in the heap for the process stack.	Increase the heap by changing the DATA_SPACE attribute.
NEW of length zero	ESSNLZ
The NEW procedure was called with a record size of parameter 0.	Be sure that the program is not attempting to create an empty record -- for example, VAR Foo = RECORD END;.
SOFT_IO	EX\$SIO
Attempt to delete open file	ESSCDA
An open file cannot be deleted.	CLOSE the file before trying to delete it.
Attempt to signal handler failed	ESSDVF
The device handler that was signaled returned an error.	Check that the device is ready -- for example, confirm that it is powered up and on line.
Attempt to signal DSP failed	ESSDSF
The object-time system (OTS) could not pass an I/O request to the directory service process (DSP).	The DSP was not included in the system, the program has accidentally modified memory used by the DSP, or the handler has been terminated.
Close error	ESSCLS
The file tentatively specified by CLOSE or PURGE could not be found.	Be sure that the program has not accidentally modified the memory locations used by the kernel, the DSP, or the device handler. If the condition persists, contact the Customer Support Center (CSC) for your area.
Contention error	ESSCNT
The specified device or file cannot be accessed by the current process.	Be sure that several processes have not opened the same file or device with different specifications for the SHARING parameter.

EXCEPTION CODES

Device full	ESSDCF
No more blocks are available on the device for data storage.	Delete one or more files from the disk or mount a new disk on the drive.
Direct access on a sequential file	ESSDAS
An attempt was made to directly access a file opened for sequential access.	Be sure that the program is not using the FIND procedure to access a file opened with the SEQUENTIAL parameter.
Directory full	ESSDRF
No room is left in the directory for another file entry. This is not the same exception as device full.	Declare a larger directory with the INIT_DIRECTORY procedure.
Directory i/o truncated	ESSDIO
Internal consistency checking error from the directory service process (DSP). The operation is incomplete or inaccurate.	Check that the device is ready -- for example, powered up and on line. Be sure that the program has not accidentally modified the memory locations used by the kernel, the DSP, or the device handler. If the condition persists, contact the Customer Support Center (CSC) for your area.
Directory read error	ESSDRE
Internal consistency checking error from the directory service process (DSP). The DSP could not read from the device. The operation is incomplete or inaccurate.	Check that the device is ready -- for example, powered up and on line. Be sure that the program has not accidentally modified the memory locations used by the kernel, the DSP, or the device handler. If the condition persists, contact the Customer Support Center (CSC) for your area.
Directory write error	ESSDWE
Internal consistency checking error from the directory service process (DSP). The DSP could not write to the device. The operation is incomplete or inaccurate.	Check that the device is ready -- for example, powered up and on line. Be sure that the program has not accidentally modified the memory locations used by the kernel, the DSP, or the device handler. If the condition persists, contact the Customer Support Center (CSC) for your area.

EXCEPTION CODES

File not found	ESSFNF
An attempt to open an existing file (OLD parameter) failed. The specified file was not found in the directory.	Verify that the file-spec in the OPEN statement is valid.
File not open	ESSFNO
The specified file variable was invalid, or the file was not open.	Verify that the file is opened before any file operations are performed.
File not rewritten	ESSPNW
A call to PUT or READ was attempted on a file on which a REWRITE was not performed, or the UPDATE option of the ACCESS_METHOD parameter to OPEN was not specified.	Perform a REWRITE or specify ACCESS_METHOD := UPDATE in the OPEN statement, whichever is appropriate.
File was not reset	ESSFNS
A GET or a READ was attempted on a file on which a RESET was not performed.	Perform a RESET.
Illegal boolean value	ESSBIV
The value is not a valid Boolean.	A valid Boolean value must be specified.
Illegal device spec	ESSIDS
The device specification was illegal or invalid.	Be sure that the program contains correct device specifications, that the device exists in the target configuration and the appropriate handler is included at application build time, and that the handler has not been terminated.
Illegal directory	ESSIDR
The directory service process (DSP) could not read the device's directory. The device blocks containing the directory may have been improperly altered, the device medium may have been damaged by a head crash or careless handling, or a directory may not exist on the medium.	Be sure that the program has not accidentally modified the memory used by the kernel, the DSP, or the device handler. Create a new directory with the INIT DIRECTORY procedure. Replace the medium; then create a new directory.
Illegal field width	ESSIFW
The specified field width parameter in a call to WRITE or WRITFLN was not a positive number.	Use only positive numbers to specify field width.

EXCEPTION CODES

Illegal file spec	ESSIFS
The file specification was illegal or invalid.	Be sure that the program contains correctly formatted file and device specifications.
Illegal floating point value	ESSFIV
The value is not a valid floating point.	The floating-point value must have a magnitude in the range 2.938736×10^{-39} to $1.701411 \times 10^{+38}$.
Illegal function	ESSIFN
This can be generated by one of four conditions occurring in MACRO-11 programs:	Refer to Chapter 5 of the <u>MicroPower/Pascal Runtime Services Manual</u> for information on the Directory Services Process (DSP) and the QIO subroutine.
1. An illegal function code was specified (value out of range).	
2. The specified function is not supported in this release.	
3. The specified function is unsupported by the DSP and QIO.	
4. An inappropriate function was specified -- for example, READ_DIRECTORY was specified on a non-file-structured device.	
Illegal integer value	ESSIIV
The value is not a valid integer.	Values of type INTEGER must be in the range -32768 to 32767.
Illegal rename spec	ESSIRS
A call to the RENAMEFILE procedure specified two different devices.	Devices must be the same for a rename operation.
Illegal ring buffer name	ESSILR
The specified ring buffer does not exist or cannot be found.	Be sure that the ring buffer name is formatted correctly. The program should not attempt to access the ring buffer within a procedure with the INITIALIZE attribute.

EXCEPTION CODES

Illegal semaphore	ESSILS
Internal consistency checking error from the directory service process (DSP). An attempt to create, delete, or receive on a semaphore failed.	Be sure that it has not accidentally modified memory used by the kernel, the DSP, or the device handler. In the case of a create failure, try increasing the value specified for the DATA SPACE attribute. If the condition persists, contact the Customer Support Center (CSC) for your area.
Illegal unsigned value	ESSUIV
The value is not a valid unsigned integer.	Values of type UNSIGNED must be in the range 0 to 65535.
Illegal use of UPDATE parameter	ESSIUP
The OPEN procedure's UPDATE option may be specified only when SHARING is specified as READWRITE.	Be sure that the program does not specify UPDATE in conjunction with the INTERACTIVE or READONLY parameters.
Invalid configuration date	ESSICD
The unit number of the device being accessed is not legal.	Either change the unit number specified in the program or change the unit number specification in the device handler's prefix file.
Lookup error	ESSLKP
An attempt to open an existing file (OLD parameter) failed. An entry for the specified file was not found in the directory.	Verify that the file-spec in the OPEN statement is valid.
No write-access allowed	ESSFRO
An attempt was made to write to a file that was opened with the READONLY parameter.	Check parameters in the OPEN statement.
Partial i/o transfer	ESSPIT
The amount of data transferred was less than the amount requested.	
Protection error	ESSPRO
An attempt was made to delete or rename a protected file or to create a new file with the same name as an existing protected file.	Unprotect the file with the UNPROTECT_FILE procedure.

EXCEPTION CODES

Read past EOF	ES\$REF
The read operation continued past the file limits. The data read may not be valid.	This exception will occur when using the FIND procedure with an invalid index parameter.
Record size of zero specified	ES\$RSZ
The directory service process (DSP) attempted to call the NEW procedure with a record length of zero.	Be sure that the program has not created an empty record -- for example, VAR Foo = RECORD END;.
Unsupported function	ES\$UPN
An attempt was made to use a MicroPower/Pascal feature that is now obsolete.	Be sure to read the appropriate MicroPower/Pascal-RSX/VMS Release Notes to determine the capabilities and limitations of your system.
Write past EOF	ES\$WEF
The next write operation will exceed the file limits. The condition of the file is unpredictable.	Indicate a larger file size in the OPEN statement. Check for sufficient free space on the appropriate device.
SYSTEM_SERVICE	EX\$SVC
Already owned vector	ESSAOV
A call to CONNECT/INTERRUPT was issued specifying an already owned vector. This error can also be generated if the vector is not specified in the CONFIG.MAC file.	Check the CONFIG.MAC file for the vector specification. Check program logic.
Cannot specify both descriptor and name	ESSCDN
A structure descriptor and structure name cannot be specified.	Specify a name or descriptor.
Exception procedure not defined	ES\$EPN
A REVERT was performed on an exception procedure that was not ESTABLISHED.	Call the ESTABLISH procedure for the process before calling REVERT.
Illegal parameter	ESSIPM
The specified parameter was not within the bounds of the parameter type.	Make sure that the correct parameter was specified.

EXCEPTION CODES

Illegal process identifier	ESSIPR
The specified process descriptor was invalid.	Make sure that the process has been created and was not subsequently stopped and that the process descriptor is not corrupted.
Illegal queue semaphore identifier	ESSIOS
The specified queue semaphore descriptor was invalid.	Make sure that the queue semaphore has been created and was not subsequently destroyed and that its descriptor is not corrupted.
Illegal ring buffer identifier	ESSIRB
The specified ring buffer descriptor was invalid.	Make sure that the ring buffer has been created and was not subsequently destroyed and that its descriptor is not corrupted.
Illegal semaphore identifier	ESSISM
The specified semaphore descriptor was invalid.	Make sure that the semaphore has been created and was not subsequently destroyed and that its descriptor is not corrupted.
Illegal structure identifier	ESSIST
The specified structure descriptor was invalid.	Make sure that the structure has been created and not subsequently deleted, that the structure descriptor is not corrupted, and that a required device handler was not excluded from the application.
Illegal vector	ESSIVC
The specified vector was invalid.	Be sure that the vector address is in the range V_MIN..V_MAX (see Appendix E of the <u>MicroPower/Pascal Language Guide</u>).
Invalid address	ESSIAD
The specified address was invalid.	Make sure that an odd number was not used to specify the address.
Must specify descriptor or name	ESSMDN
A structure descriptor or name is required in the call.	Specify the proper name or descriptor.

EXCEPTION CODES

Must specify process descriptor	ES\$MSP
A process descriptor was not specified in the process call.	Specify the proper descriptor.
Must specify structure descriptor	ES\$MSS
A structure descriptor was not specified in the structure call.	Specify the proper descriptor.
Reply descriptor expected	ES\$RDE
A reply semaphore descriptor must be specified.	Specify the proper semaphore.
Structure is in use	ES\$SIU
The specified structure is being used by another process and cannot be deleted.	Be sure that no other process is using the structure before deleting it.
Structure name already in use	ES\$SNI
The specified structure name already exists.	Choose a unique name.
Un-owned vector	ES\$UNV
The specified vector is not owned by any process.	
TRAP	EX\$TRP
A TRAP instruction was executed.	
Codes are user specifiable in the range 0 to 255.	
USER_1	EX\$US1
Codes are user specifiable in the range 0 to 255.	
USER_2	EX\$US2
Codes are user specifiable in the range 0 to 255.	

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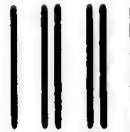
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