ERROR MESSAGE MANUAL
RELEASE 5.0

uniX*
operating
system

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UNIX

Operating System

Error Message Manual

Release 5.0

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*This manual was set on an AUTOLOGIC, Inc.
APS-5 phototypesetter driven by the TROFF
formatter operating under the UNIX system.*

INTRODUCTION

This manual is designed to provide a description of all UNIX Release 5.0 operating system error messages along with appropriate actions and references for each. Messages are included for all processors supported by the above named release of the UNIX system. These include the 3B20 Simplex (3B20S), the PDP-11/45 and 70, and the VAX-11/750 and 780 processors.

General. While most of the error messages are the same across machines, those messages that are not have entries that are clearly identified as to their specific applicability. Also, there are some messages that have the same meaning, but vary slightly in wording between machines.

Many of the error message entries refer to the system description file and its contents. For more information on this file, see the **Setting Up** UNIX section of the *UNIX System Administrator's Guide*.

The term "support organization" appears frequently throughout this guide and currently refers to one of two groups. These groups are the field service representatives that support the hardware and your local software support organization and/or UNIX Customer Service. The group to contact should be based on the information given in the action section for each error message.

Guide Conventions. All UNIX Release 5.0 operating system error messages are included in this guide. They appear in alphabetical order with one entry per page. The table of contents makes for easy reference. The format of each error message entry follows the template below.

Error Message (Processor(s))

> DESCRIPTION
>> This section includes a detailed description of the error message. It may also consist of references where further information on the error can be found.

> ACTION
>> This section contains probable causes for each error, if applicable, and/or corrective action(s) that should be taken to alleviate the problem. Those messages that require no action are denoted as information-only messages.

> REFERENCES
>> This section contains the name(s) of the UNIX source code module(s) that produce the error message.

(Processor(s)) will appear if the error message does not pertain to all machines. It is in the form:

> (processor-type(s) only)

where *processor-type(s)* will be the name(s) of the processor(s) on which the error can occur. General categories such as VAX-11 and PDP-11 refer to any of the processors in the specified series that are supported in UNIX Release 5.0. The category DEC refers to all PDP-11 and VAX-11 processors supported in the above named release of the UNIX system. For 3B20 Simplex errors, this field is also used to indicate whether the message appears only in the system buffer. If so, the word SYSBUF will appear after the *processor-type(s)*.

Operator Notes. Some messages are issued repeatedly and therefore, tie up the console and render the system unusable. In order to correct the error condition, console messages should be temporarily turned off. To do this, depress the CNTL key and type O on the console terminal. To re-enable, repeat the above procedure.

In addition to the variations mentioned above, some operational differences exist between UNIX running on WECo and DEC processors. Two of the major differences are the placement of the operating system error messages and of system dumps. On the DEC line of processors, all operating system error messages appear on the console terminal, while on the WECo processor most of the messages appear both on the console terminal and in the system buffer. Other less important messages on the 3B20S are only placed in the system buffer. Procedures for scanning the system buffer can be found on the *osm*(7) manual page in the *UNIX System Administrator's Manual*. As for system dumps, they are written to tape on DEC machines and to a disk section on the WECo machine. Procedures for taking system dumps can be found in the *UNIX System Operator's Guide*.

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string **on bad dev** #(8) (DEC only)

DESCRIPTION

A problem has been detected with a file system on a block type device whose major device number exceeds the number of block device drivers generated in the system. The *string* may be one of the following: **bad block, bad count, bad free count, no space,** or **out of inodes.** The # represents the minor device number.

ACTION

The main concern is that the major device number exceeds the number of block device drivers generated in the system. Probable causes for this include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization. The corrective action for the file system problem can be found in the action section for message:

string on *device type* drive # [, ctl #,] [slice #]

where *string* is one of the following: **bad block, bad count, bad free count, no space,** or **out of inodes.**

REFERENCES

os/prf.c

string **on CDT, minor #[octal]** (VAX-11/750 only)

DESCRIPTION

A problem has been detected with the file system residing on the TU58 tape cartridge. The *string* may be one of the following: **bad block, bad count, bad free count, no space,** or **out of inodes.**

ACTION

Refer to the action section for messages:

string on *device type* drive # [, ctl #,] [slice #]

where *string* is one of the following: **bad block, bad count, bad free count, no space,** or **out of inodes.**

REFERENCES

io/cdt.c

type **drive # on controller # not available** (DEC only)

DESCRIPTION

The designated drive is no longer accessible. The *type* may be one of the following: **RP04/5/6, RM05, RM80, RP07, ML11,** and **DISK**.

ACTION

Check that the drive number specified is the number of a powered up, online disk drive. If a dual ported drive is involved, be sure that it is currently residing on your system. If none of the above apply, contact your support organization.

REFERENCES

io/gd.c

unit num **in svc** (3B20S only)

    DESCRIPTION

        A device has been restored to operational service. *Unit* is the type of device and *num* is the unit-number of the device. *Unit* may be one of the following: **acu, dfc, mhd, iop, tn4, tn74, tn75, tn82, tn83, tn85, un52, un53**.

    ACTION

        For information only.

    REFERENCES

        io/acu.c, io/dfcmaint.c, io/iopmaint.c, io/tn4.c, io/tn74.c, io/tn75.c, io/tn82.c, io/tn83.c, io/tn85.c, io/un52.c, io/un53.c

unit num **oos** (3B20S only)

DESCRIPTION

A device has been removed from operational service. *Unit* is the type of device and *num* is the unit-number of the device. *Unit* may be on the following: **acu, dfc, mhd, iop, tn4, tn74, tn75, tn82, tn83, tn85, un52, un53**.

ACTION

For information only.

REFERENCES

io/acu.c, io/dfcmaint.c, io/iop.c, io/iopmaint.c, io/tn4.c, io/tn74.c, io/tn75.c, io/tn82.c, io/tn83.c, io/tn85.c, io/un52.c, io/un53.c

3270: Bad RTNRBUF (3B20S only - SYSBUF)

DESCRIPTION
>A problem was detected in a returned receive buffer.

ACTION
>This message indicates a software problem with the 3270 script. Contact your support organization.

REFERENCES
>io/em.c

3270: Bad RTNXBUF (3B20S only - SYSBUF)

DESCRIPTION

A problem was detected in a returned transmit buffer.

ACTION

This message indicates a software problem with the 3270 script. Contact your support organization.

REFERENCES

io/em.c

3270: Bad tty (RBUF [UNLK]) (3B20S only - SYSBUF)

DESCRIPTION

An invalid terminal id was found in a receive buffer. If **UNLK** appears, the bit to unlock the keyboard was set in the receive buffer.

ACTION

A buffer received back from the IBM processor references an invalid terminal. This is probably a software problem with the 3270 script. Contact your support organization.

REFERENCES

io/em.c

3270: Bad tty (XBUF [UNLK]) (3B20S only - SYSBUF)

DESCRIPTION

An invalid terminal id was found in a transmit buffer. If **UNLK** appears, the bit to unlock the keyboard was set in the transmit buffer.

ACTION

This message indicates a software problem with the 3270 script. Contact your support organization.

REFERENCES

io/em.c

3270: Can't allocate rcv buffers (3B20S only)

DESCRIPTION
> The memory that has been successfully allocated for 3270 receive buffers is unable to be split into individual buffers.

ACTION
> Contact your support organization.

REFERENCES
> io/em.c

3270: Can't get buffer descriptor (3B20S only)

DESCRIPTION

An insufficient amount of 3270 emulation buffer headers are generated in the running system.

ACTION

Increase the number of 3270 buffer headers (EMBHDR) currently allocated in your system description file and generate a new system. Reboot the new system. For additional information on 3270 emulation system parameters, see the **Setting Up** UNIX section in the *UNIX System Administrator's Guide*.

REFERENCES

io/em.c

3270: Can't queue rcv bufs (3B20S only)

DESCRIPTION

An insufficient amount of receive buffers are available to place on the queue of free receive buffers for the controller being started.

ACTION

Increase the size of the emulation receive buffer space (EMRBSZ) and/or decrease the value of the emulation receive buffer size (EMRCVSZ) in your system description file and generate a new system. Reboot the new system. For additional information on 3270 emulation system parameters, see the **Setting Up UNIX** section in the *UNIX System Administrator's Guide*.

REFERENCES

io/emc.c

3270: dev *controller-num* **Lost buffer for** *terminal-num* (3B20S only - SYSBUF)

> DESCRIPTION
>> A block was received for a terminal that was not open. The offending controller and terminal numbers are given. The block was thrown away.

> ACTION
>> This message indicates that a terminal has been prematurely closed. Check with the users of 3270 emulation.

> REFERENCES
>> io/em.c

3270: Kseg failed (3B20S only)

DESCRIPTION

3270 emulation could not obtain memory for its data structures during its initialization and therefore, is currently unusable.

ACTION

This message indicates that there is not enough memory available in the machine to satisfy 3270 emulation buffer needs. If you wait, enough memory may be freed. If ample memory is not freed, you may want to consider modifying the buffer sizes specified or in some other way decrease the size of the offending system. If this is a recurring problem, you might consider adding memory to the machine. For additional information on 3270 emulation system parameters, see the **Setting Up** UNIX section of the *UNIX System Administrator's Guide*.

REFERENCES

io/em.c

acu *unit-num*: **stray interrupt (3B20S only)**

    DESCRIPTION

        An unexpected interrupt was received from the designated automatic call unit (acu).

    ACTION

        This message indicates a hardware problem with the acu. Contact your support organization.

    REFERENCES

        io/acu.c

bad block on *device-type* **drive** # [, **ctl** #,] [**slice** #] (DEC only)

DESCRIPTION

A block number not in the valid range of available free blocks on a file system has been detected. *Device-type* may be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03, RK05, RL01/2, RF11, RS03/4, TU16, TU78, TM11,** and **ML11.** Note that the drive names TE16, TU45, and TU77 are aliases of TU16. A controller (ctl) number will only appear if more than one controller is generated in your system and you are using the general disk (gd) driver. A slice number will only appear if *device-type* is **RM05, RM80, RP04/5/6, RP07, RP03,** and **ML11.**

ACTION

Determine the offending drive and corresponding file system from the controller (ctl) #, drive #, and slice # given in the message. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual.* If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES

io/gd.c, io/hp.c, io/rp.c, io/rk.c, io/rl.c, io/rf.c, io/hs.c, io/ht.c, io/hu.c, io/gt.c, io/tm.c, os/alloc.c

bad block on dev *maj/min* (3B20S only)

DESCRIPTION

A block number not in the valid range of free blocks for the file system mounted on device *maj/min* has been detected.

ACTION

Determine the offending file system by comparing the major/minor drive numbers in the message to the major/minor drive numbers for all mounted file systems. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual*. If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES

os/alloc.c, os/prf.c

bad block on dev #(8), type unknown (DEC only)

DESCRIPTION

The general disk (gd) driver has detected a block number not in the valid range of available free blocks in a file system. The type of the disk drive on which the offending file system resides is unknown to the gd driver. # represents the minor device number.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

bad block on *device-type* drive # [, ctl #,] [slice #]

for the corrective action for the file system problem.

REFERENCES

io/gd.c, os/alloc.c

bad count on *device-type* **drive** # [**, ctl** #**,**] [**slice** #] (DEC only)

DESCRIPTION

The super-block parameters for free blocks and inodes have become corrupted for this file system. *Device-type* may be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03, RK05, RL01/2, RF11, RS03/4, TU16, TU78, TM11,** and **ML11.** Note that the drive names TE16, TU45, and TU77 are aliases of TU16. A controller (ctl) number will only appear if more than one controller is generated in your system and you are using the general disk (gd) driver. The slice number will only appear if *device-type* is **RM05, RP07, RP04/5/6, RP07, RP03,** and **ML11.**

ACTION

Determine the offending drive and corresponding file system from the controller (ctl) #, drive #, and slice # given in the message. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual*. If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES

io/gd.c, io/hp.c, io/rp.c, io/rk.c, io/rl.c, io/rf.c, io/hs.c, io/ht.c, io/hu.c, io/gt.c, io/tm.c, os/alloc.c

bad count on dev *maj/min* (3B20S only)

DESCRIPTION

The super-block parameters for free blocks and inodes have become corrupted for the file system on device *maj/min*.

ACTION

Determine the offending file system by comparing the major/minor drive numbers in the message to the major/minor drive numbers for all mounted file systems. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual*. If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES

os/alloc.c, os/prf.c

bad count on dev #(8), type unknown (DEC only)

    DESCRIPTION

        The general disk (gd) driver has detected that the super-block
parameters for free blocks and inodes have become corrupted for this
file system. The type of the disk drive on which the offending file
system resides is unknown to the gd driver. The # represents the
minor device number.

    ACTION

        The main concern is that the gd driver does not recognize the drive
type. Check that the offending disk drive is of a type supported by
the gd driver. The drive types supported are RP04/5/6, RM05,
RM80, RP07, and ML11. If the drive is of a type listed above,
suspect hardware problems with the disk drive and/or controller and
contact your support organization. Refer to the message:

            bad count on *device-type* drive # [, ctl #,] [slice #]

        for the corrective action for the file system problem.

    REFERENCES

        io/gd.c, os/alloc.c

Bad free count on *device-type* **drive # [, ctl #,] [slice #]** (DEC only)

DESCRIPTION

A corrupted free list block has been detected while attempting to allocate a new block for a file. *Device-type* may be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03, RK05, RL01/2, RF11, RS03/4, TU16, TU78, TM11,** and **ML11.** Note that the drive names TE16, TU45, and TU77 are aliases of TU16. A controller (ctl) number will only appear if more than one controller is generated in your system and you are using the general disk (gd) driver. A slice number will only appear if *device-type* is **RM05, RM80, RP04/5/6, RP07, RP03,** or **ML11.**

ACTION

Determine the offending drive and corresponding file system from the controller (ctl) #, drive #, and slice # given in the message. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual.* If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES

io/gd.c, io/hp.c, io/rp.c, io/rk.c, io/rl.c, io/rf.c, io/hs.c, io/ht.c, io/hu.c, io/gt.c, io/tm.c, os/alloc.c

Bad free count on dev *maj/min* (3B20S only)

DESCRIPTION
> A corrupted free list block has been detected while attempting to allocate a new block from the file system mounted on device *maj/min*.

ACTION
> Determine the offending file system by comparing the major/minor drive numbers in the message to the major/minor drive numbers for all mounted file systems. Unmount the file system. If it is the root file system, you need to go to single user. Check the file system using *fsck*(1M) command. See the *fsck*(1M) manual page in the *UNIX System Administrator's Manual*. If the offending file system is beyond repair, restore it from backup disk or tape.

REFERENCES
> os/alloc.c, os/prf.c

Bad free count on dev #(8), type unknown (DEC only)

DESCRIPTION

> The general disk (gd) driver has detected a corrupted free list block while attempting to allocate a new block for a file. The type of the disk drive on which the offending file system resides is unknown to the gd driver. The # represents the minor device number.

ACTION

> The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

> Bad free count on *device-type* drive # [, ctl #,] [slice #]

> for the corrective action for the file system problem.

REFERENCES

> io/gd.c, os/alloc.c

Bad kmc # load (VAX-11 only)

DESCRIPTION

An attempt to pass arguments to the program running in the designated KMC11B has failed.

ACTION

This message indicates either software or hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. If the above does not apply, suspect hardware problems with the KMC11B and contact your support organization.

REFERENCES

io/kmc.c

Bad PCL count (DEC only)

DESCRIPTION

The PCL initialization routine found less than one or more than two (the maximum allowable) PCL control devices. There must be exactly one entry in the system configuration file for each PCL control device. For more information, see the *pcl*(7) manual page in the*UNIX System Administrator's Manual*.

ACTION

This message indicates a problem with the PCL entries in the system description file. Check that there is at least one PCL entry, but not more than two, in this file and that each entry contains the correct information.

REFERENCES

pwb/pcl.c

bad memory from - *controller:array:page* **to** - *controller:array:page* (3B20S only)

>DESCRIPTION
>>During boot, the system found an unusable section of memory. The "bad" pages are not put on the system's memory free list.

>ACTION
>>Contact your support organization so that the offending memory board(s) can be replaced.

>REFERENCES
>>ml/mmgt.c

cache bypassed (3B20S only)

DESCRIPTION
The system was booted with the **INH-CACHE EAI** option set. The hardware memory cache is disabled.

ACTION
For information only. For instructions on how to re-enable the cache or for further information, see the **3B20S CONSOLE OPERATIONS** section in the *UNIX System Operator's Guide*.

REFERENCES
os/machdep.c

call of function at location 0 (3B20S only)

DESCRIPTION
>   The system detected an internal function call using a null pointer.

ACTION
>   This message may be generated by new device drivers which have not been completely debugged or by unauthorized changes to the existing UNIX device drivers. Check any new drivers or any driver which has been recently modified. If not the above, suspect bad hardware and contact your support organization.

REFERENCES
>   ml/intrmsg.c

Can't allocate message buffer

DESCRIPTION

At system initialization time, it was found that too much memory was being allocated for messages. Messages are currently unusable.

ACTION

Check the MSGSEG and MSGSSZ entries in the system description file. MSGSEG is the number of segments to allocate and MSGSSZ is the size each segment should be. The product of these two numbers, therefore, is the amount of memory to allocate for messages. When this amount exceeds the amount of memory currently available in the machine, the above message will appear during system booting. The system size must be reduced by either modifying the above entries or by other means. Then a new system must be generated and booted. If the above solutions are not acceptable, more memory must be added to the machine. For further information on message parameters, see the section *CONFIGURATION PLANNING* in **Setting Up** UNIX (DEC) or in the **Setting Up** UNIX section of the *UNIX System Administrator's Guide* (3B20S).

REFERENCES

os/msg.c (PDP-11 & VAX-11), io/msg.c (3B20S)

cannot allocate tn85 buffers (3B20S only)

> DESCRIPTION
>> During the tn85 initialization procedure, memory could not be obtained for the buffers that are used to send data to the tn85. This error occurs during system startup only.

> ACTION
>> This message indicates that the tn85s are unusable due to insufficient memory. Any attempt to open **/dev/lp*** will fail with ENOMEM set. Either a smaller system must be generated and booted or more memory must be added to the machine.

> REFERENCES
>> io/tn85.c

CDT: >16 soft errors (VAX-11/750 only)

DESCRIPTION

More than 16 soft errors have been detected on the TU58 tape cartridge system. For more information on the TU58 cartridge tape system, see pp. 92-107 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Contact your support organization.

REFERENCES

io/cdt.c

CDT: bad packet flag #. (VAX-11/750 only)

DESCRIPTION

A bad flag byte was detected in a packet of data for a TU58 tape drive. For more information on TU58 data packets, see pp. 92-107 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Contact your support organization.

REFERENCES

io/cdt.c

CDT: hard err blk #(10) (VAX-11/750 only)

DESCRIPTION

A hard error was detected in the specified block on a TU58 tape drive.

ACTION

This message indicates a hardware problem with the tape drive. Contact your support organization.

REFERENCES

io/cdt.c

CDT init failed (VAX-11/750 only)

    DESCRIPTION

        The TU58 could not be initialized. For more information on the TU58, see pp. 92-107 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

    ACTION

        Contact your support organization.

    REFERENCES

        io/cdt.c

CDT: MOTOR FAILURE (VAX-11/750 only)

DESCRIPTION

A hardware failure has been detected in the TU58. For more information on the TU58 cartridge tape system, see pp. 92-107 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Contact your support organization.

REFERENCES

io/cdt.c

CDT: no tape. (VAX-11/750 only)

    DESCRIPTION

        Absence of a tape cartridge in the TU58 tape drive has been detected.

    ACTION

        If this is true, insert a tape cartridge and try again. If this is not the case or if re-inserting a tape does not alleviate the problem, suspect hardware problems with the tape drive and contact your support organization.

    REFERENCES

        io/cdt.c

CDT: serial receive timeout. (VAX-11/750 only)

DESCRIPTION

The processor could not receive data from the TU58 in the allotted amount of time.

ACTION

This message indicates a hardware problem with the tape drive. Contact your support organization.

REFERENCES

io/cdt.c

CDT: serial transmit timeout. (VAX-11/750 only)

DESCRIPTION

The processor could not transmit data to the TU58 within the allotted amount of time.

ACTION

This message indicates a hardware problem with the tape drive. Contact your support organization.

REFERENCES

io/cdt.c

CDT: unexpected receive data (VAX-11/750 only)

    DESCRIPTION

        The TU58 has received unexpected data.

    ACTION

        Contact your support organization.

    REFERENCES

        io/cdt.c

CDT: Write Locked. (VAX-11/750 only)

DESCRIPTION

An attempt was made to write on a TU58 tape cartridge when file protect was set.

ACTION

Check that the tab on the tape cartridge is set in the outer position to allow you to write on it. When the tab is in the inner position, you cannot write on the cartridge.

REFERENCES

io/cdt.c

channel # device # pio error, status #   (3B20S only - SYSBUF)

     DESCRIPTION

          A programmed I/O (PIO) operation to the specified device and channel has failed. The status number is the contents of the Dual Serial Channel (DSCH) status register. This number is printed in hexadecimal. Bits, from right to left, have the following meaning:

Bit(s)	Description
0-2	High bits of low return code
3-5	High bits of high return code
6	Channel busy flip-flop
7	I/O inhibit override flip-flop
8	Sequencer error
9	Illegal 3 out of 6 device address
10	Command error
11	Channel error
12	Maintenance flip-flop

All bits are active "1".

In the above table, the first six bits(0-5) are the status register bits. Below, along with the hexadecimal equivalents of these bits, are descriptions of the four most important statuses.

0x9	All seems well
0xA	Device reported error
0x11	Illegal command
0x12	Illegal start code

ACTION

          Contact your support organization.

REFERENCES

          ml/intrmsg.c

channel # device # pio timeout (3B20S only - SYSBUF)

DESCRIPTION
A programmed I/O (PIO) operation to the specified device and channel has timed out.

ACTION
This message may indicate a software or hardware problem. It can be generated by new device drivers which have not been completely debugged or by standard UNIX device drivers which have been modified without authorization. Check any such drivers. If neither of the above apply, contact your support organization since this error can also be caused by a device that is powered off or a channel cable that is improperly connected.

REFERENCES
io/intrmsg.c

channel # init failed (3B20S only)

DESCRIPTION

The designated channel could not be initialized during system initialization. If the offending channel is 10 or 11, this error will cause the processor to panic. If so, the message **panic: channel init** will appear following this message.

ACTION

Check that the configuration information in the system description file is correct. If errors are found, correct them, and generate and boot a new system. If the configuration information is correct, suspect hardware problems in the I/O subsystem and contact your support organization.

REFERENCES

ml/io.c

channel error: channel # status # (3B20S only - SYSBUF)

DESCRIPTION

The designated channel has set its error lead.

If the channel number is 10 or 15, the status number is the contents of the Direct Memory Access Controller (DMAC) status register. This number is printed in hexadecimal. Bits, from right to left, have the following meaning:

Bit(s)	Description	Active State
0	My Store Error A (fatal memory error)	0
1	My Store Error B (unequipped memory)	0
2	My Store Error C (memory parity)	0
3-4	Not Used	
5	DIO Data Parity Error	0
6	DMAC Data Parity Error	0
7	DMA RAM Parity Error	1
8	ROM Sequencer Check	0
9	DIO Ready Error	0
10	DIO ASW Error	1
11	DIO Acknowledge Error	1
12	CCIO Data Parity Error	0
13	CCIO Command Error	0
14	ROM Sequencer Parity Error	0
15	Force Error Flip-Flop	1
16-19	Not Used	
20	DMA Fatal Error Summary	0
21	Maintenance Mode	0
22	CCIO Interface Busy	0

If the channel number is 11 through 14 or 16 through 19, the status number is the contents of the Dual Serial Channel (DSCH) status register. This number is printed in hexadecimal. Bits, from right to left, have the following meaning:

Bit(s)	Description
0-2	High bits of low return code
3-5	High bits of high return code
6	Channel busy flip-flop
7	I/O inhibit override flip-flop
8	Sequencer error
9	Illegal 3 out of 6 device address
10	Command error
11	Channel error
12	Maintenance flip-flop

All bits are active "1".

In the above table, the first six bits(0-5) are the status register bits. Below, along with the hexadecimal equivalents of these bits, are descriptions of the four most important statuses.

  0x9   All seems well
  0xA   Device reported error
  0x11   Illegal command
  0x12   Illegal start code

ACTION

This message indicates hardware problems in the I/O subsystem. Contact your support organization.

REFERENCES

io/intrmsg.c

CMI Mem Write Timeout, cnt = #, pc = #, psl = # (VAX-11 only)

DESCRIPTION

A Common Memory Interconnect (CMI) fault has occurred. The "cnt" is the number of times this error has occurred since the last reboot, "pc" is the contents of the program counter, and "psl" is the contents of the program status longword.

ACTION

This message indicates a hardware problem. Contact your support organization.

REFERENCES

os/macherr.c

CRD#: er #, ma # (VAX-11/780 only)

DESCRIPTION

A memory read error has occurred through the Synchronous Backplane Interconnect (SBI). A Correctable Read Data (CRD) error indicates that one bit was wrong and was corrected. The first number given is the number of times this error has occurred since the last reboot. The "er" is the contents of the Synchronous Backplane Interconnect (SBI) error register and "ma" is the contents of memory configuration register C. When this error appears on the console, a more detailed version is put into the error log, **/usr/adm/errfile**. For more details, see pp. 311-324 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

A CRD message is for information only since it was corrected, but to eliminate the chance of further problems it should be brought to the attention of the support organization.

REFERENCES

os/macherr.c

CRD#: mem csr0 = # (VAX-11/750 only)

DESCRIPTION

A Correctable Read Data (CRD) error has occurred. The first number given is the number of times this error has occurred since the last reboot. The "mem csr0" is the contents of control and status register 0. When this message appears on the console, a more detailed version is put in the error log, **/usr/adm/errfile**. For more details, see pp. 149-155 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

A CRD message is for information only since it was corrected, but to eliminate the chance of further problems it should be brought to the attention of the support organization.

REFERENCES

os/macherr.c

csifree: Can't free block (3B20S only)

    DESCRIPTION

        A common synchronous interface protocol driver has attempted to return a block of memory that it believes was freed, while in reality some of the block is still in use.

    ACTION

        This message indicates a software problem with the protocol driver. Contact your support organization.

    REFERENCES

        io/csi.c

DANGER: mfree map overflow #, lost # items at #

DESCRIPTION

One of the tables, mapped through the system's *malloc* mechanism, has overflowed. The first number indicates the address of the table. By searching for this address in the system namelist, the name of the offending table can be discovered. The second number is the number of items lost, while the last number is the starting address of the above items.

ACTION

Increase the number of entries currently allocated for the offending table in your system description file and generate a new system. Boot the new system.

REFERENCES

os/malloc.c

DANGER: out of swap space, needed # blocks

DESCRIPTION

Insufficient space was found on the swap device when attempting to swap out a given process or copy of a pure text image. The number of blocks requested is given. Preceding this will be the message: **WARNING: swap space running out, needed # blocks**. After this warning an attempt is made to clean up the swap area. If this action is unsuccessful, the DANGER message will appear. The system may hang, crash, or it may recover and resume normal operation if and when swap space becomes available.

ACTION

If the system hangs or crashes, reboot. This error may be caused by an operating system and/or user program that has not been completely debugged. Check any such programs. It can also be caused by an excessive user load on the system. If this is the case, increase the amount of swap space specified in your system description file and generate a new system. Boot the new system.

REFERENCES

os/text.c

Device error on *device-type* **drive** #, [ctl #,] [slice #] (DEC only)

DESCRIPTION

This message indicates that a hardware error has occurred on a block type device. *Device-type* may be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03, RK05, RL01/2, RF11, RS03/4, TU16, TU78,** and **ML11.** Note that the drive names TE16, TU45, and TU77 are aliases of TU16. A controller (ctl) number will only appear if more than one controller is generated in your system and you are using the general disk (gd) driver. A slice number will only appear if *device-type* is **RM05, RM80, RP04/5/6, RP07, RP03,** and **ML11.** This message is followed by:

bn = # er = #,#

This is the block number in error, followed by the contents of two of the devices registers. Registers given for specific devices are:

DEVICE	*ERROR REG*	*CONTROL REG*
RL01/2	RLCS	RLDA
RF11	RFCS	RFDAE
RK05	RKER	RKDS
RM05	RMER1	RMDS
RM80	RMER1	RMDS
RP03	RPER	RPDS
RP04/5/6 (PDP-11/hp.c)	RPER1	RPCS2
RP04/5/6 (VAX-11/hp.c)	RPER1	MBA Status Reg
RP04/5/6 (DEC/gd.c)	RPER1	RPDS
RP07	RPER1	RPDS
RS03/4	RSCS2	n/a
TU16 (PDP-11/ht.c)	MTER	MTCS2
TU16 (VAX-11/ht.c & gt.c)	MTER	MBA Status Reg
TU78	TUDTE	MBA Status Reg

For more details on the above registers except for RK05 and RS03/4, see Chapter 7 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82. For RK05 and RS03/4 register information, see the 1978-79 edition of the *PDP11 Peripherals Handbook*, Digital Equipment Corporation. For more details on the MBA Status register, see pp. 399-402 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

Contact your support organization.

REFERENCES

io/gd.c, io/hp.c, io/hs.c, io/rf.c, io/rk.c, io/rl.c, io/rp.c, io/ht.c, io/hu.c, io/gt.c. os/prf.c

Device error on dev #(8), type unknown (DEC only)

DESCRIPTION

This message indicates that a hardware error has occurred on a disk drive whose type is unknown to the general disk (gd) driver. The # represents the minor device number.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

Device error on *device-type* drive #, [ctl #,] [slice #]

for information on the device error.

REFERENCES

io/gd.c, os/prf.c

dfc *unit-num*: **can't send read stat command** (3B20S only)

    DESCRIPTION

        During the processing of an interrupt from the designated dfc, the command to obtain the job status words failed.

    ACTION

        This message indicates a hardware failure in the I/O subsystem. Contact your support organization.

    REFERENCES

        io/dfc.c

dfc *unit-num*: **controller restarted** (3B20S only)

    DESCRIPTION

        After a power failure, the designated dfc has become operational when the power was restored.

    ACTION

        For information only.

    REFERENCES

        io/dfc.c

dfc *unit-num*: **disk power fail** (3B20S only)

DESCRIPTION

A power failure was detected by one of the moving head disks associated with the designated dfc.

ACTION

If a power failure did not actually occur, either someone powered down the disk drive or there is a problem with the disk drive or disk file controller. If the drive was powered down, just power it back up. In the second case, contact your support organization. If there was a power failure, the controller and all its associated disk drives will be restarted when the power is restored.

REFERENCES

io/dfc.c

dfc *unit-num*: **init failed** (3B20S only)

DESCRIPTION
    The designated dfc could not be initialized and brought into service.

ACTION
    Check that the controller is powered up. If so, there is a hardware problem with the dfc and your support organization should be contacted.

REFERENCES
    io/dfcmaint.c

dfc *unit-num*: **io error** (3B20S only)

    DESCRIPTION

        During the processing of an interrupt from the designated dfc, an unrecoverable programmed I/O error has occurred. The system may or may not continue to run.

    ACTION

        This message indicates a hardware problem within the I/O subsystem. Contact your support organization.

    REFERENCES

        io/dfc.c

dfc *unit-num* **kseg failed** (3B20S only)

   DESCRIPTION

   The designated dfc could not obtain memory for its data structures during its initialization. This error occurs during system startup only.

   ACTION

   This message indicates that the designated dfc is currently unusable due to insufficient memory. Either a smaller system must be generated and booted or more memory must be added to the machine.

   REFERENCES

   io/dfcmaint.c

dfc *unit-num*: **read of FIFO 1 failed** (3B20S only)

DESCRIPTION

During the processing of an interrupt from the designated dfc, the first job status control word from the bus interface controller (bic) FIFO could not be obtained.

ACTION

This message indicates a hardware problem with the dfc. Contact your support organization.

REFERENCES

io/dfc.c

dfc *unit-num*: **read of FIFO 2 failed** (3B20S only)

    DESCRIPTION

        During the processing of an interrupt from the designated dfc, the second job status control word from the bus interface controller (bic) FIFO could not be obtained.

    ACTION

        This message indicates a hardware problem with the dfc. Contact your support organization.

    REFERENCES

        io/dfc.c

dfc *unit-num***: reset of bic interrupt failed** (3B20S only)

DESCRIPTION

The 3B20S processor could not reset the bus interface controller (bic) bit after processing an interrupt.

ACTION

This message indicates a hardware problem with the dfc. Contact your support organization.

REFERENCES

io/dfc.c

dfc *unit-num*: **stray interrupt** (3B20S only)

> DESCRIPTION
>> An unexpected interrupt was received from the designated dfc.

> ACTION
>> This message indicates a hardware problem with the dfc. Contact your support organization.

> REFERENCES
>> io/dfc.c

dfc dump seg not initialized (enomem) (3B20S only)

      DESCRIPTION

            The data space for the dump routine could not be obtained during system initialization.

      ACTION

            Either a smaller system must be generated and booted or more memory must be added to the machine.

      REFERENCES

            io/dump.c

dma error channel #, status reg #   (3B20S only - SYSBUF)

DESCRIPTION

A non-fatal direct memory access (DMA) error has occurred. The offending channel is given. The status register number is the contents of the Direct Memory Access Channel (DMCH) status register. This number is printed in hexadecimal. Bits, from right to left, have the following meaning:

Bit(s)	Description	Active State
0-5	Last Addressed Device	
6	Error Summary Bit	1
7	Channel Access Error	1
8-9	Last Command Issued	1
10	DIO Acknowledge Error	0
11	DIO Ready Error	1
12	DIO All Seems Well Error	0
13	Channel Request Error	1
14	DIO Data Parity Error	1
15	Busy Indicator	0

In the above table the first six bits (0-5) represent the last addressed device. The last addressed device is a 3 out of 6 code. It is interpreted as follows:

Bits 0-5	Device # on the Channel
0x07	0
0x0B	1
0x0D	2
0x0E	3
0x15	4
0x16	5
0x19	6
0x1A	7
0x25	8
0x26	9
0x29	10
0x2A	11
0x31	12
0x32	13
0x34	14
0x38	15

ACTION

This message may indicate a software or a hardware problem. It can be generated by new device drivers which have not been completely debugged or by standard UNIX device drivers which have been modified without authorization. Check any such drivers. If neither

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of the above apply, contact your support organization.

REFERENCES

       ml/intrmsg.c

DMC# bad control # (DEC only)

DESCRIPTION

An illegal completion code was received. The first number indicates the DMC device, while the other number is the DMC interrupt code.

ACTION

This message indicates a hardware problem with the DMC11. Contact your support organization.

REFERENCES

io/dmb.c, io/dmr.c

DMC# lost block (DEC only)

    DESCRIPTION

        The buffer header for a DMC transfer operation claimed to be completed cannot be found. The number indicates the DMC device.

    ACTION

        This message indicates a hardware problem with the DMC11. Contact your support organization.

    REFERENCES

        io/dmb.c, io/dmc.c, io/dmr.c

Double panic: *panicstr* (DEC & 3B20S - SYSBUF)

DESCRIPTION
>The system was processing one panic when another occurred. The
>*panicstr* is one of the system panics. This error may be preceded by a
>message generated by the prior panic.

ACTION
>Refer to the action for **panic:** *panicstr*.

REFERENCES
>os/prf.c

drerr: flag=# state=# drstat=# drbar=# (DEC only)

DESCRIPTION

An unexpected NSC interrupt has occurred due to a DR11B hardware failure. The flag and state numbers are driver internal and should be ignored. Drstat, the important number, is the contents of the DR11B status and command register (DRST). Drbar is the contents of the DR11B bus address register (DRBA). See pp.272-4 in the *Peripherals Handbook*, Digital Equipment Corporation, 1980. In the 1981-82 edition of the *Peripherals Handbook*, Digital Equipment Corporation, DR11B is known as DR11W and DRST became the Control and Status Register (DRCSR). See pp. 456-460 in the above book.

ACTION

This message indicates a hardware problem with the DR11B. Contact your support organization.

REFERENCES

io/nsc.c

Drive #, ctl #, type *type* **unknown** (DEC only)

    DESCRIPTION

        The general disk (gd) driver has attempted to access a drive whose type it does not understand. The first two numbers are the drive and controller numbers. The *type* is the contents of the drive type register. All numbers are given in octal.

    ACTION

        Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization.

    REFERENCES

        io/gd.c

drive type change on *device-type* **drive** #, [**ctl** #,] **slice** # (DEC only)

    DESCRIPTION

        The specified disk drive was of type *device-type* but has been changed
        to another type of disk drive. *Device-type* may be **RP04/5/6**, **RM05**,
        or **RM80**. A controller (ctl) number will appear only if more than
        one controller is generated in the system.

    ACTION

        The Logical Address Plug (LAP), also known as the drive number
        plug, was changed on the designated drive. Only RP04/5/6, RM05,
        and RM80 disk drives have removable plugs. The new number was
        associated with a different type of drive when the current system was
        booted. If this is not the case, suspect hardware problems with the
        disk drive and/or controller, and contact your support organization.

    REFERENCES

        io/gd.c, io/gdht.c

dzb: dev sel2 sel4 sel6 (DEC only)

DESCRIPTION

In a system with DZ11 multiplexors with KMC11B assist, a data transfer error has occurred.

The *dev* field can be up to three octal digits long, and identifies the KMC, DZ11, and line involved with the problem. The first digit is the number of the KMC, the second the DZ11, and the last one the line number on the DZ11.

The *sel2* field is an error report type and should always be a **5**. The *sel6* field should always be a **0**. If the *sel2* is not a **5** or the *sel6* is not a **0**, the below error list may not apply.

The *sel4* field is an octal error number from:

001 UNIBUS Non-Existent Memory (NXM). Probably hardware.
002 A basein command already received for this DZ. Probably a software problem in **dzb.c**.
003 No basein for this DZ. Probably a software problem in **dzb.c**.
004 Receive data overrun — reported once per DZ. Probably caused by overloading the KMC; could also be hardware (DZ or KMC).
005 Internal consistency error. KMC error, software or hardware.
006 UNIBUS NXM. Probably hardware.
010 Out of input buffers or queue entries. KMC ran out of internal resources.
011 No basein for this DZ. Probably a software problem in **dzb.c**.
012 Output request before previous request finished. Probably a software problem in **dzb.c**.
013 Input request before previous request finished, Probably a software problem in **dzb.c**.
015 No queue entries available. KMC ran out of internal resources; usually caused by overloading the KMC.
016 UNIBUS NXM. Probably hardware.
017 UNIBUS NXM. Probably hardware.
020 Internal consistency error. KMC error, software or hardware.

If the error message looks something like:

    dzb: 177 7 37777777777 37777777777

the number of clists currently generated in the system is insufficient and should be increased.

ACTION

If the "clist" message is frequently issued, increase the number of clists in the system description file, and compile and boot the new system; otherwise, contact your support organization.

REFERENCES

io/dzb.c

err # # (VAX-11 only)

DESCRIPTION

While attempting to dump to a tape mounted on a TU16 or TU78 tape drive, an error occurred. Note that the drive names TE16, TU45, and TU77 are aliases of TU16. The first number given is the address of the block that was being transmitted at the time of the error. The second number is the contents of one of the drive registers. All numbers are given in hexadecimal. For a TU16, the error register (MTER) is given. See pp. 398-402 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82. For a TU78, the data transfer error register (TUDTE) is given. See pp. 410-420 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Depending on the number of and extent of the error(s), the dump may or may not continue. If it does continue, there is still a chance the data might be worthless. Therefore, if the dump stops prematurely or to be sure that the dump contains accurate data, attempt to take another dump BEFORE booting the system. If this is a recurring problem, suspect hardware problems with the tape drive and contact your support organization.

REFERENCES

ml/gtdump.c, ml/htdump.c, ml/hudump.c

error: *string* | **bad index** # (3B20S only - SYSBUF)

DESCRIPTION

An unexpected hardware interrupt has occurred. If the type of interrupt that occurred is known to UNIX, *string* will be printed. Otherwise, the bad index number will be printed. *String* may be one of the following:

stop & switch [0−7]
memory parity - myc
err reg 9
err reg 10
bad mch cmd
other a
other d
other c
other timeout
channel error
io response
io addr
parity divert
memory refresh - myd
protection
memory mgmt
memory range - myb
other b
instr priv
addr align
err bit 27
err bit 28
err bit 29
err bit 30
err bit 31
null
null channel interrupt
io command failure
null device interrupt

For more detailed information on this error, see the **CONTROL UNIT** section of the *Detailed System Description*.

ACTION

Contact your support organization.

REFERENCES

ml/intrmsg.c

file table overflow (3B20S only)

    DESCRIPTION

        The system file access control table has overflowed. A new reference to a file has failed.

    ACTION

        Increase the number of entries currently allocated for the open-file table (files) in your system description file and generate a new system. Boot the new system.

    REFERENCES

        os/fio.c

hard err on RM05 drive # # # # # (VAX-11 only)

DESCRIPTION

A hard error still exists on a drive access for the RM05 disk drive indicated tn the first field, even after a certain number of retry attempts. The last four fields are the contents of the drive status register (RMDS), and the three drive error registers (RMER1, RMER2, RMER3). See pp. 302-324 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Possible causes include a bad spot on the disk pack and/or the drive being out of alignment. Contact your support organization

REFERENCES

io/hm.c

hard err on RP04/5/6 drive # # # # # (DEC only)

DESCRIPTION

A hard error still exists on a drive access for the RP04/5/6 disk drive indicated in the first field, even after a certain number of retry attempts. The last four fields are the contents of the drive status register (RPDS), and the three drive error registers (RPER1, RPER2, RPER3). See pp. 325-350 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Possible causes include a bad spot on the disk pack and/or the drive being out of alignment. Contact your support organization.

REFERENCES

io/hp.c

Hard error on *drive-type* **drive** # **[,·ctl** #**] slice** # **ds** #**, er** # # # (DEC only)

DESCRIPTION

A hard error still exists on a drive access, even after a certain number of retry attempts. *Drive-type* may be **RP04/5/6**, **RP07**, **RM05**, **RM80** or **ML11**. A controller (ctl) number will only appear if there is more than one controller generated in your system.

For an RP04/5/6 or an RP07, the register contents are those of the drive status register (RPDS) and the three drive error registers (RPER1, RPER2, RPER3). See pp. 325-350 for an RP04/5/6 and pp. 351-367 for an RP07 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

For an RM05 or an RM80, the register contents are those of the drive status register (RMDS), drive error register 1 (RMER1), drive maintenance register 2 (RMMR2), and drive error register 2 (RMER2). See pp. 302-324 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.

ACTION

Possible causes include a bad spot on the disk pack and/or the drive being out of alignment. Contact your support organization.

REFERENCES

io/gd.c, io/gdhp.c, io/gdml.c

Hard error on dev #(8), type unknown ds #, er # # # (DEC only)

DESCRIPTION

A hard error still exists on a drive access, even after a certain number of retry attempts. The type of the disk drive on which this error occurred is unknown to the general disk (gd) driver. The first number represents the minor device number.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Possible causes of the hard error include a bad spot on the disk pack and/or the drive being out of alignment. Contact your support organization. Refer to the message:

Hard error on *drive-type* drive # [, ctl #] slice # ds #, er # # #

for more information on the hard error.

REFERENCES

io/gd.c, io/gdhp.c, io/gdml.c

hardware checking inhibited (3B20S only)

DESCRIPTION
> The system was booted with the **INH-HDW-CHK EAI** option set.
> Memory refresh parity detection is disabled.

ACTION
> For information only. If you wish to enable this feature after the
> system has been booted without it, you may do so using the *msi*
> command. See the *msi*(1M) manual page in the *UNIX System
> Administrator's Manual*.

REFERENCES
> os/machdep.c

iaddress > 2^24

DESCRIPTION

When updating the file control block for a file, a block number in the inode was found to be greater than that permissible.

ACTION

This message indicates a software and/or hardware error. It may be caused by a corrupted file system. To check the state of any file system suspected to be corrupted, unmount it and check with the *fsck*(1M) command. See the *fsck*(1M) command in the *UNIX System Administrator's Manual*. If it is the root file system, you need to go to single user to check it. This error can also be generated by new device drivers which have not been completely debugged or by standard UNIX device drivers which have been modified without authorization. Check any such drivers. If none of the above apply, contact your support organization since this error can also be caused by a disk or memory problem.

REFERENCES

os/iget.c

Iblock table overflow (PDP-11 only)

DESCRIPTION
>The system inode hash table has overflowed.

ACTION
>Increase the number of entries currently allocated for the inode block address cache (iblocks) in your system description file and generate a new system. Boot the new system.

REFERENCES
>os/iget.c

Inode table overflow

DESCRIPTION

The system file control block table has overflowed. An access to a currently unused file has failed.

ACTION

Increase the number of entries currently allocated for the inode table (inodes) in your system description file and generate a new system. Boot the new system.

REFERENCES

os/iget.c

iop *unit-num* **cmd queue overflow** (3B20S only)

    DESCRIPTION

        The job queue of the indicated iop that sends jobs to the iop's peripheral controllers has overflowed.

    ACTION

        Contact your support organization.

    REFERENCES

        io/iop.c

iop *unit-num* **comm # power fail** (3B20S only)

    DESCRIPTION

        The designated community within the specified iop has lost its power. This message will be followed by out-of-service messages in the form:

            unit-num oos

        for all devices in the community.

    ACTION

        Contact your support organization. After the power has been restored to the community, all devices previously taken out-of-service must be brought back into service. See the *don*(1M) manual page in the *UNIX System Administrator's Manual*.

    REFERENCES

        io/iop.c

iop *unit-num* **kseg failed** (3B20S only)

    DESCRIPTION

        The designated iop could not obtain memory for its data structures during its initialization. This error occurs during system startup only.

    ACTION

        This message indicates that the designated iop is unusable due to insufficient memory. Either a smaller system must be generated and booted or more memory must be added to the machine.

    REFERENCES

        io/iopmaint.c

iop *unit-num* **pc** *slot-num* **fatal num** # (3B20S only)

DESCRIPTION

A fatal error in a peripheral controller (pc) has been detected by the input/output processor (iop). Error #'s (in octal) and descriptions are as follows:

KEY:

LD/ULD - LOAD/UNLOAD
DAM - DUAL ACCESS MEMORY
CSA - CONTROL SIGNAL ACKNOWLEDGEMENT
IR - INTERRUPT REQUEST
SR - SERVICE REQUEST
ER - ERROR REPORT
OOR - OUT OF RANGE
PCSD - PERIPHERAL CONTROLLER SUBDEVICE

Error Num	*Description*
01F7	PC ER LEAD SET
02F7	SPARE IR STATUS BIT SET
03F7	SPARE SR STATUS BIT SET
04F7	ILLEGAL TEST IR RECEIVED
05F7	ILLEGAL TEST SR RECEIVED
06F7	ILLEGAL TEST ER RECEIVED
10F7	PC DAM PARITY ERROR DETECTED
11F7	PC CSA TIMED-OUT
12F7	3B20S TRANSFER FOR PC JOB ABORTED
2wF7	ILLEGAL LD/ULD BUFFER IR PARAMETER
3wF7	ILLEGAL LD/ULD BUFFER SR PARAMETER
	w = 0 ILLEGAL PCSD ID
	w = 1 ILLEGAL BYTE COUNT
	w = 2 ILLEGAL LD/ULD POINTER
	w = 3 ILLEGAL BUFFER BOUNDARIES
4yF7	ERROR DETECTED DURING HP JOB ORDER
5yF7	ERROR DETECTED DURING BP JOB ORDER
6yF7	ERROR DETECTED DURING HP JOB COMPL
7yF7	ERROR DETECTED DURING BP JOB COMPL
	y = 0 BOUNDARY ERROR
	y = 1 ULD PTR OOR
	y = 2 LD PTR OOR
	y = 3 PC JOB PTR OOR
8zFy	ILLEGAL HP JOB CMP REPORT
9zFy	ILLEGAL BP JOB CMP REPORT
	z = 0 ILLEGAL RESPONSE DESTINATION FIELD
	z = 1 ILLEGAL PC ID FIELD
	z = 2 ILLEGAL PCSD ID FIELD
A0F7	BABBLING PC IR SIGNAL
A1F7	BABBLING PC SR SIGNAL

ACTION
    Contact your support organization.

REFERENCES
    io/iop.c

iop *unit-num* **pc slot** *slot-num* **unexpected response** (3B20S only)

    DESCRIPTION

        An unexpected interrupt was received from the designated peripheral controller (pc) on the specified iop.

    ACTION

        Contact your support organization.

    REFERENCES

        io/iop.c

iop *unit-num* **pic fatal error** (3B20S only)

    DESCRIPTION

        The designated iop has taken a peripheral interface controller (pic) fatal error.

    ACTION

        This message indicates a problem with the iop hardware. Contact your support organization.

    REFERENCES

        io/iop.c

iop *unit-num* **rsp queue overflow** (3B20S only)

    DESCRIPTION

        The queue where job status messages from the peripheral controllers are put has overflowed.

    ACTION

        This message indicates a problem with the iop hardware. Contact your support organization.

    REFERENCES

        io/iop.c

KMC ERROR ON LOAD (DEC only)

DESCRIPTION

An error has occurred while attempting to communicate with a KMC11B that is controlling DZ11 asynchronous multiplexors.

ACTION

This message indicates a hardware problem with the KMC11B. Contact your support organization.

REFERENCES

io/dzb.c

low ptbl count (3B20S only)

    DESCRIPTION

        When allocating a page table, the number of available page tables dropped below twice the maximum number of page tables required per process.

    ACTION

        Increase the number of entries allocated for page tables (ptbls) in your system description file and generate a new system. Boot the new system.

    REFERENCES

        ml/mmgt.c

Machine Check, type *type* (VAX-11/750 only)
string
pc = #, psl = #
Virt addr = #, error pc = #, mdr = #
Mode = #, read lock timeout = #, tb = #
Caer = #, bus error = #, mcesr = #

> DESCRIPTION
>
> > This message indicates a definite hardware problem. The *type* may be one of the following and is associated with a particular message *string*:
> >
> > | TYPE | MESSAGE |
> > |------|---------|
> > | 00 | CS Parity Error |
> > | 02 | Memory Error |
> > | 03 | Cache Parity Error |
> > | 04 | Write Bus Error |
> > | 05 | Corrected Data |
> > | 07 | Bad IRD |
> >
> > The remaining fields are described below.
> >
> > | | |
> > |---|---|
> > | pc | the program counter at the time of the interrupt |
> > | psl | the program status longword |
> > | Virt addr | the virtual address |
> > | error pc | the program counter at the time of the error |
> > | mdr | the MDR register |
> > | Mode | the save mode register |
> > | read lock timeout | the timeout value |
> > | tb | the translation buffer register |
> > | Caer | the cache error register |
> > | bus error | the bus error register |
> > | mcesr | the machine check error summary register |
> >
> > For further information, see pp. 202-206 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

> ACTION
>
> > Contact your support organization.

> REFERENCES
>
> > os/macherr.c

Machine check, type *type* (VAX-11/780 only)
string **Fault | Abort**
pc = #, psl = #
virt/phys addr = # / #
ces = #, sbi = #, par = #
tb0 = #, tb1 = #

DESCRIPTION

This message indicates a definite hardware problem. Based on the high order byte value for *type*, the system will either fault or abort with one of the following *strings*:

TYPE	MESSAGE
00	CP Read Timeout Fault
02	CP Translation Buffer Parity Error Fault
03	CP Cache Parity Error Fault
05	CP Read Data Substitute Fault
0A	IB Translation Buffer Parity Error Fault
0C	IB Read Data Substitute Fault
0D	IB Read Timeout Fault
0F	IB Cache Parity Error Fault
F1	Control Store Parity Error Abort
F2	CP Translation Buffer Parity Error Abort
F3	CP Cache Parity Error Abort
F4	CP Read Timeout Abort
F5	CP Read Data Substitute Abort
F6	Microcode Lost Abort

The remaining fields are described below.

pc	the contents of the program counter
psl	the contents of the program status longword
virt/phys addr	the virtual and physical addresses
ces	the contents of the CPU error status register
sbi	the contents of the SBI error register
par	the contents of the parity error register
tb0	the contents of the first translation buffer error register
tb1	the contents of the second translation buffer error register

For further information, see pp. 40 and 452-454 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

Contact your support organization.

REFERENCES

os/macherr.c

MBA #, csr # (VAX-11/780 only)

DESCRIPTION

A fault has occurred in the Massbus Adapter (MBA). The first number is the virtual address of the offending adapter. The "csr" is the contents of the MBA configuration/status register. For more details, see pp. 396-398 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

This message indicates a hardware problem. Contact your support organization.

REFERENCES

io/mba.c

memfree # (VAX-11 only)

DESCRIPTION

When looking through the addresses of free memory pages, a zero
was found. This entry was ignored.

ACTION

This message indicates software and/or hardware problems. Check
any new device drivers which have not been completely debugged or
any UNIX device driver which has been modified without
authorization. Also, check that the configuration information in the
system description file is correct. If none of the above apply, suspect
bad hardware and contact your support organization.

REFERENCES

os/malloc.c

memory error detection disabled (3B20S only)

DESCRIPTION

Memory refresh parity error detection has been disabled by operator command. This feature should be enabled so that memory parity errors can be detected. If it is disabled, these errors will go unnoticed.

ACTION

For information only. To re-enable this feature, use the *msi* command. For further information, see the *msi*(1M) manual page in the*UNIX System Administrator's Manual.*

REFERENCES

ml/parity.c

memory error detection enabled (3B20S only)

DESCRIPTION

Memory refresh parity error detection has been enabled by operator command. This allows memory parity errors to be detected. If this feature is disabled, these errors will go unnoticed.

ACTION

For information only. To disable this feature, use the *msi* command. For further information, see the *msi*(1M) manual page in the *UNIX System Administrator's Manual*.

REFERENCES

ml/parity.c

mhd *unit-num*: **reported on board diag error** (3B20S only)

    DESCRIPTION

        The dfc, on which the designated disk drive resides, reported a routine diagnostic error for this disk.

    ACTION

        This message indicates a possible hardware problem with the disk drive. Contact your support organization.

    REFERENCES

        io/dfc.c

mhd *unit-num*: **reported on board exerciser error** (3B20S only)

   DESCRIPTION
         The dfc, on which the designated disk drive resides, reported a
         routine exercise error for this disk.

   ACTION
         The disk pack on the designated drive should first be checked for
         errors. The *dskvfy* command, found on the *dskfmt*(1M) manual page
         in the *UNIX System Administrator's Manual*, should be used for this
         verification. If the pack is error free, the problem is with the disk
         drive. Contact your support organization.

   REFERENCES
         io/dfc.c

mhd *unit-num*: **restarted** (3B20S only)

DESCRIPTION
>   After a power failure, the designated disk drive has become operational when power was restored.

ACTION
>   For information only.

REFERENCES
>   io/dfc.c

NCRP error - *controller:array:page* (3B20S only)

DESCRIPTION

A non-correctable memory refresh parity error was detected in memory controller *controller*, memory array *array*, and page *page*.

ACTION

Following this error, the page of memory where the error occurred will be queued for removal and then removed from the system's memory free list. Contact your support organization so that the offending memory board(s) can be replaced.

REFERENCES

ml/mmgt.c, ml/parity.c

NCSP error - *controller:array:page* (3B20S only)

    DESCRIPTION

        A non-correctable memory parity error was detected in memory controller *controller*, memory array *array*, and page *page*.

    ACTION

        Following this error, the page of memory where the error occurred will be queued for removal and then removed from the system's memory free list. Contact your support organization so that the offending memory board(s) can be replaced.

    REFERENCES

        ml/mmgt.c, ml/parity.c

no file (DEC only)

DESCRIPTION

The system file access control table has overflowed. A new reference
to a file has failed.

ACTION

If this condition persists, increase the number of entries currently
allocated for the system's open-file table (files) in your system
description file and generate a new system. Boot the new system.

REFERENCES

os/fio.c

no space on *device-type* **drive # [, ctl #,] [slice #]** (DEC only)

DESCRIPTION
>A file system has run out of available free blocks. *Device-type* may
>be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03,
>RK05, RL01/2, RF11, RS03/4, TU16, TU78, TM11,** and **ML11.**
>Note that the drive names TE16, TU45, and TU77 are aliases of
>TU16. A controller (ctl) number will only appear if more than one
>controller is generated in your system and you are using the general
>disk (gd) driver. A slice number will only appear if *device-type* is
>**RM05, RM80, RP04/5/6, RP07, RP03,** and **ML11.**

ACTION
>Determine the offending drive and corresponding file system from
>the controller (ctl) #, drive #, and slice # given in the message.
>Remove all unnecessary files from the file system. If this is a
>recurring problem, consider reducing the user load on the file system
>or increasing the size of the file system.

REFERENCES
>io/gd.c, io/hp.c, io/rp.c, io/rk.c, io/rl.c, io/rf.c, io/hs.c, io/ht.c,
>io/hu.c, io/gt.c, io/tm.c, os/alloc.c

no space on dev *maj/min* (3B20S only)

DESCRIPTION
>The file system mounted on device *maj/min* has run out of free blocks.

ACTION
>Determine the offending file system by comparing the major/minor drive numbers in the message to the major/minor drive numbers for all mounted file systems. Remove all unnecessary files from the file system. If this is a recurring problem, consider reducing the user load on the file system or increasing the size of the file system.

REFERENCES
>os/alloc.c, os/prf.c

no space on dev #(8), type unknown (DEC only)

DESCRIPTION

The general disk (gd) driver has detected that the indicated file system has run out of available free blocks. The type of the disk drive on which the offending file system resides is unknown to the gd driver. The # represents the minor device number.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

no space on *device-type* drive # [, ctl #,] [slice #]

for the corrective action for the file system problem.

REFERENCES

io/gd.c, os/alloc.c

No swap space for exec args

DESCRIPTION

During an exec system call, not enough free space was available on the swap device to hold the exec arguments. The exec failed.

ACTION

If this message appears frequently, consider increasing the system's swap area.

REFERENCES

os/sys1.c

NSC timeout: AFC=# flags=# state=# drstat=# (DEC only)

DESCRIPTION

An event anticipated by the NSC driver has not occurred in the given amount of time. The AFC number is the last function code issued to the adapter. The flag and state number are driver internal and should be ignored. Drstat is the contents of the DR11B status and command register (DRST). See pp. 273-4 in the *Peripherals Handbook*, Digital Equipment Corporation, 1980. In the 1981-82 edition of the *Peripherals Handbook*, Digital Equipment Corporation, DR11B is known as DR11W and DRST became the Control and Status Register (DRCSR). See pp. 456-460 in the above book.

ACTION

This message indicates a hardware problem with the adapter. Contact your support organization.

REFERENCES

io/nsc.c

NSC timeout: PROCESS flags=# state=# drstat=# (DEC only)

DESCRIPTION

An event anticipated by the NSC driver has not occurred in the given amount of time. The event is that a user process could not be scheduled in time to empty the adapter. The flags and state numbers are driver internal and should be ignored. Drstat is the contents of the DR11B status and command register (DRST). See pp.273-4 in the *Peripherals Handbook*, Digital Equipment Corporation, 1980. In the 1981-82 edition of the *Peripherals Handbook*, Digital Equipment Corporation, DR11B is known as DR11W and DRST became the Control and Status Register (DRCSR). See pp. 456-460 in the above book.

ACTION

This message indicates that your machine's response time has degraded. The problem should disappear once the system response time improves.

REFERENCES

io/nsc.c

O.S. Messages — — OFF

DESCRIPTION

The ability for the operating system to send error messages to the console terminal has been disabled. This is accomplished by depressing the **CNTL** key and typing **O** on the console terminal.

ACTION

This message is printed for your information. If you wish to re-enable console messages, depress the **CNTL** key and type **O** on the console terminal.

REFERENCES

io/kl.c (PDP-11), io/cons.c (VAX-11), io/tn83.c (3B20S)

O.S. Messages − − ON

   DESCRIPTION

   The ability for the operating system to send error messages to the console terminal has been enabled (the default case). If previously disabled, depressing the **CNTL** key and typing **O** on the console terminal will re-enable this feature.

   ACTION

   This message is printed for your information. If you wish to disable console messages, depress the **CNTL** key and type **O** on the console terminal.

   REFERENCES

   io/kl.c (PDP-11), io/cons.c (VAX-11), io/tn83.c (3B20S)

out of cblocks (ttin) (3B20S only - SYSBUF)

DESCRIPTION

    The system has run out of available character buffers. Terminal input data has been lost.

ACTION

    If this condition persists, increase the number of clists currently allocated in the system description file and generate a new system. Boot the new system.

REFERENCES

    io/tt0.c

out of cblocks (ttwrite) (3B20S only)

> **DESCRIPTION**
>> The system has run out of available character buffers. Terminal output data has been lost.

> **ACTION**
>> If this condition persists, increase the number of clists currently allocated in the system description file and generate a new system. Boot the new system.

> **REFERENCES**
>> io/tt0.c

Out of inodes on *device-type* **drive # [, ctl#,] [slice #]** (DEC only)

DESCRIPTION

The indicated file system contains no more free file control structures. *Device-type* may be one of the following: **RM05, RM80, RP04/5/6, RP07, RP03, RK05, RL01/2, RF11, RS03/4, TU16, TU78, TM11,** and **ML11.** Note that the drive names TE16, TU45, and TU77 are aliases of TU16. A controller (ctl) number will only appear if more than one controller is generated in your system and you are using the general disk (gd) driver. The slice number will only appear if *device-type* is **RM05, RM80, RP04/5/6, RP07, RP03,** and **ML11.**

ACTION

Determine the offending drive and corresponding file system from the controller (ctl) #, drive #, and slice # in the message. Remove all unnecessary files in the file system. If this condition persists, remake the file system with more blocks allocated to the inode list by utilizing the *mkfs*(1M) command. See the *mkfs*(1M) manual page in the *UNIX System Administrator's Manual.*

REFERENCES

io/gd.c, io/hp.c, io/rp.c, io/rk.c, io/rl.c, io/rf.c, io/hs.c, io/ht.c, io/hu.c, io/gt.c, io/tm.c, os/alloc.c

Out of inodes on dev *maj/min* (3B20S only)

DESCRIPTION
>The file system mounted on device *maj/min* contains no more free file control structures.

ACTION
>Determine the offending file system by comparing the major/minor drive numbers in the message to the major/minor drive numbers for all mounted file systems. Remove all unnecessary files in the file system. If this condition persists, remake the file system with more blocks allocated to the inode list by utilizing the *mkfs*(1M) command. See the *mkfs*(1M) manual page in the *UNIX System Administrator's Manual*.

REFERENCES
>os/alloc.c, os/prf.c

Out of inodes on dev #(8), type unknown (DEC only)

DESCRIPTION

The general disk (gd) driver has detected that the indicated file system contains no more free file control structures. The type of the disk drive on which the offending file system resides is unknown to the gd driver. The # represents the minor device number.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

Out of inodes on *device-type* drive # [, ctl # ,] [slice #]

for the corrective action for the file system problem.

REFERENCES

io/gd.c, os/alloc.c

out of text (DEC only)

DESCRIPTION

The system's shared text program control table has overflowed. An attempt to execute a currently unused shared text program has failed.

ACTION

If this condition persists, increase the number of entries currently allocated for the text table (texts) in your system description file and generate a new system. Boot the new system.

REFERENCES

os/text.c

page error queue overflow (3B20S only)

DESCRIPTION
>
> The page error queue has overflowed because too many simultaneous errors have been detected in pages of memory.

ACTION
>
> Preceding this message should be messages indicating that pages of memory have been queued for removal and removed. See messages **page queued for removal** - *controller:array:page* and **page removed -** *controller:array:page*. Save the messages mentioned above and contact your support organization so that the offending memory board(s) can be replaced.

REFERENCES
>
> ml/parity.c

page queued for removal - *controller:array:page* (3B20S only)

DESCRIPTION

A memory page has been queued for removal from the system's memory free list. The page will be removed when it is no longer in use. The system queues a page for removal after 10 correctable or 1 non-correctable parity errors occur on the page.

ACTION

Contact your support organization so that the offending memory board(s) can be replaced.

REFERENCES

ml/mmgt.c, ml/parity.c

page removal queue overflow (3B20S only)

DESCRIPTION

The page removal queue has overflowed because too many pages of memory have been queued for removal simultaneously.

ACTION

Preceding this message should be messages indicating that pages of memory have been queued for removal and removed. See messages **page queued for removal** - *controller:array:page* and **page removed -** *controller:array:page*. Save the messages mentioned above and contact your support organization so that the offending memory board(s) can be replaced.

REFERENCES

ml/parity.c

page removed - *controller:array:page* (3B20S only)

DESCRIPTION

A memory page has been removed from the system's memory free list.

ACTION

Contact your support organization so that the offending memory board(s) can be replaced.

REFERENCES

ml/mmgt.c, ml/parity.c

page restored - *controller:array:page* (3B20S only)

DESCRIPTION

A memory page has been restored to the system's memory free list by operator command.

ACTION

For information only. This message is printed as a result of executing the *msi*(1M) command that restores a page of memory to the system's memory free list. For further information, see the *msi*(1M) manual page in the *UNIX System Administrator's Manual.*

REFERENCES

ml/mmgt.c, ml/parity.c

panic: Bad bdp (DEC only)

> DESCRIPTION
>> An illegal pointer to a VPM buffer descriptor has been detected.

> ACTION
>> Take a dump and reboot the system. This message indicates a software problem. Contact your support organization.

> REFERENCES
>> io/vpmt.c

panic: bad mem free (VAX-11 only)

    DESCRIPTION

        The address of a page frame is outside the legal bounds of available memory.

    ACTION

        Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

    REFERENCES

        os/malloc.c

panic: bad mem free-list (VAX-11 only)

DESCRIPTION

The value of in-core page frame numbers on the freelist is corrupt.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

os/malloc.c

panic: bflush: bad free list (VAX-11 only)

DESCRIPTION
> The linked list of free I/O buffers is corrupt.

ACTION
> Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES
> io/bio.c

panic: blkdev

DESCRIPTION

The major device number of a block type device exceeds the number of block device drivers generated in the system.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

io/bio.c

panic: buffers (PDP-11 only)

DESCRIPTION

Insufficient memory space was found when the system was attempting to allocate the non-addressable buffer pool. This error occurs during system startup only.

ACTION

Boot a different system. Reevaluate the number of entries allocated for the system buffers (buffers) in the offending system description file. Decrease the size of the system by modifying this parameter or modifying the entries in the description file in a way acceptable to you. Regenerate and boot the new system. If decreasing system parameters is unacceptable, memory should be added to the machine.

REFERENCES

os/machdep.c

panic: cannot allocate character buffers (3B20S only)

DESCRIPTION

Sufficient memory could not be obtained so that the character I/O buffer pool could be allocated. This error occurs during system startup only.

ACTION

Boot a different system. Either decrease the size of the offending system or add more memory to the machine. Regenerate and boot the new system.

REFERENCES

os/main.c

panic: cannot allocate system buffers (3B20S only)

DESCRIPTION

Sufficient memory could not be obtained so that the block I/O buffer pool could be allocated. This error occurs during system startup only.

ACTION

Boot a different system. Either decrease the size of the offending system or add more memory to the machine. Regenerate and boot the new system.

REFERENCES

os/main.c

panic: cannot mount root (3B20S only)

DESCRIPTION

An I/O error occurred while the system was trying to mount the root file system.

ACTION

This message indicates either a problem with the root file system or with the disk drive and/or controller on which it resides. The following steps should be taken to correct the problem. First, make sure that the disk pack you are trying to boot from contains a copy of the root file system. Second, attempt to boot from backup root. See the **BOOTING FROM THE BACKUP ROOT FILE SYSTEM** section in the *UNIX System Operator's Guide* for more details. If these steps are unsuccessful, attempt to boot from a different root pack. As a last resort, try rereading in the root file system from tape. If none of the above alleviate this condition, suspect disk subsystem problems. If possible, you might try booting from another drive on the same controller by setting SEC-DISK on the EAI page. This will isolate whether it is a disk drive or a disk controller problem. See the **BOOT PROCEDURES** section in the *UNIX System Operator's Guide* for more details. Contact your support organization.

REFERENCES

os/main.c

panic: channel error (3B20S only)

DESCRIPTION

An unrecoverable I/O channel error has occurred. Prior to the machine panicking, the message **channel error: channel # status #** is sent to the system buffer.

ACTION

Take a dump and attempt to reboot the system. Provided that the delivered UNIX operating system has not been altered, suspect hardware problems in the I/O subsystem, and contact your support organization.

REFERENCES

ml/intrmsg.c

panic: channel init (3B20S only)

> DESCRIPTION
>> This panic results when channel 10 and/or 11 is not able to be initialized during system initialization. Preceding this message will be the message **channel # init failed** where # will be 10 or 11.

> ACTION
>> This message indicates a hardware problem in the I/O subsystem. Contact your support organization.

> REFERENCES
>> ml/io.c

panic: devtab (DEC only)

DESCRIPTION

The list header for the chain of buffers attached to a block type device cannot be found.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

io/bio.c

panic: dup alloc (VAX-11 only)

DESCRIPTION

A memory page frame number marked as unallocated appears as allocated in the memory map.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

os/malloc.c

panic: dup free (VAX-11 only)

DESCRIPTION

When trying to free a page frame number, it was already marked as unallocated.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual.* Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

os/malloc.c

panic: duplicate memory free (3B20S only)

DESCRIPTION

The system tried to free a page of memory that was already free.

ACTION

Take a dump and reboot the system. If the delivered UNIX operating system has not been altered, suspect hardware problems and contact your support organization.

REFERENCES

ml/mmgt.c

panic: iinit (DEC only)

DESCRIPTION

An error occurred while the system was reading in the super-block of the *root* file system. This error occurs during system startup only.

ACTION

Take a dump. Check that the disk drive that contains the root file system is online and available. If so, replace the disk pack on which the root file system resides. Attempt to reboot the system. If the problem still exists, suspect memory or disk drive and/or controller problems and contact your support organization. Meanwhile, try to boot from a different disk drive.

REFERENCES

os/main.c

panic: IO err in swap

DESCRIPTION

An unrecoverable error has occurred during a system swap operation.

ACTION

This message indicates an error on the disk pack or a disk drive and/or controller problem. The following steps should be taken. Take a dump. Change the location of the swap device to a different section on the current pack or replace the disk pack with another. If this alleviates the problem, then the error was caused by a bad spot on the disk pack. If the problem still exists, suspect disk drive and/or controller problems and contact your support organization. Meanwhile, attempt to boot from a different disk drive.

REFERENCES

io/bio.c

panic: lost mem (VAX-11 only)

DESCRIPTION
    While trying to allocate free page frame numbers, no more could be found.

ACTION
    Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES
    os/malloc.c

panic: lost text (VAX-11 only)

DESCRIPTION

Processes, that reference a program with shared text, have lost their pointers to the page table entries for that shared text.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

os/text.c

panic: missing memory (3B20S only)

DESCRIPTION

Not enough memory can be found to allocate a process segment when it is known that enough is available.

ACTION

Take a dump and attempt to reboot the system. Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES

ml/mmgt.c

panic: missing memory in procdup (3B20S only)

DESCRIPTION

Not enough memory can be found to fork a process when it is known that enough is available.

ACTION

Take a dump and attempt to reboot the system. Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES

os/machdep.c

panic: missing memory in swapin (3B20S only)

DESCRIPTION
>Not enough memory can be found to swap a process in when it is known that enough is available.

ACTION
>Take a dump and attempt to reboot the system. Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES
>os/slp.c

panic: no clock (PDP-11 only)

    DESCRIPTION

        Neither the KW11-L or the KW11-P was found at their standard UNIBUS addresses. This error occurs during system startup only.

    ACTION

        The UNIX system requires that the PDP-11 has a clock.

    REFERENCES

        os/machdep.c

panic: no fs

DESCRIPTION

The incore super-block of a mounted file system cannot be found.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect hardware problems with the disk drive and/or controller and contact your support organization.

REFERENCES

os/alloc.c

panic: no imt

DESCRIPTION

A mount point was not found in the system mount table when traversing a file system boundary.

ACTION

Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include both software and hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect hardware problems with the disk drive and/or controller and contact your support organization.

REFERENCES

os/iget.c

panic: no procs

DESCRIPTION
>A process table entry cannot be found during a process fork when it is known that an entry is available.

ACTION
>Take a dump and reboot the system. Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES
>os/slp.c

panic: offline (3B20S only)

DESCRIPTION
:   UNIX has detected that the hardware has been set in the offline state.

ACTION
:   First, check the Emergency Action Interface (EAI) display to be sure that the hardware has been forced online. This is true if the **BFONL** option is set. If it is not set, set it and reboot. For more information, see the **3B20S CONSOLE OPERATIONS** section of the *UNIX System Operator's Guide*. If the problem still exists, contact your support organization.

REFERENCES
:   os/clock.c

panic: out of kernel segments (3B20S only)

    DESCRIPTION

        The system has run out of free segments in its address space.

    ACTION

        Attempt to reboot the same system. If you receive this error again, attempt to boot a different system. Once booted, reevaluate all entries in the offending system description file. Make any necessary modifications to decrease the size of the system so that this error will be eliminated. Generate and boot the new system.

    REFERENCES

        ml/mmgt.c

panic: out of page tables (3B20S only)

DESCRIPTION

The system has run out of page tables.

ACTION

Reboot the system. Increase the number of entries allocated for page tables (ptbls) in the system description file and generate a new system. Boot the new system.

REFERENCES

ml/mmgt.c

panic: out of range memory free (3B20S only)

DESCRIPTION

The system tried to free a page of memory that was out of the legal range of free memory.

ACTION

Take a dump and reboot the system. Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES

ml/mmgt.c

panic: parity (PDP-11 only)

DESCRIPTION
A memory system error has occurred in the realm of the operating system address space. When this occurs in a user process, that process is terminated without a panic.

ACTION
Take a dump and attempt to reboot the system. This message indicates a memory problem that may be intermittent. Contact your support organization.

REFERENCES
os/trap.c

panic: Timeout table overflow

DESCRIPTION

The system timeout table, used to implement software interrupts, has overflowed while attempting to add another entry.

ACTION

Reboot the system. If this condition persists, increase the number of entries currently allocated for the system's call-out table (calls) in your system description file and generate a new system. Boot the new system.

REFERENCES

os/clock.c

panic: Too many external buffers (PDP-11 only)

DESCRIPTION

Insufficient memory space was found when the system was attempting to allocate the non-addressable buffer pool. This error occurs during system startup only.

ACTION

Boot a different system. Reevaluate the number of entries allocated for the system buffers (buffers) and other parameters in the offending system description file. Make the necessary modifications to decrease the size of the system. Regenerate and boot the new system.

REFERENCES

os/ubm.c

panic: trap

    DESCRIPTION

           An unexpected system fault has occurred. On a PDP-11 this message is preceded by:

                ka6 = #
                aps = #
                pc = # ps = #
                trap type #

        on a VAX by:

                user = #
                ps = #
                pc = #
                trap type #
                code = #

        and on a 3B20S by:

                user = # [#]
                istk = #
                ps = #
                pc = #
                trap type *string* | #
                cmd = *string*

        All numbers are given in octal on the PDP-11 and in hexadecimal on the VAX and 3B20S Simplex.

        The above fields are described below.

ka6	the contents of the segmentation register for the area in which the system's stack is kept
user	the address(es) of the page(s) of the uarea for the last running process
istk	the address of the top of the interrupt stack
aps	the location where the hardware stored the Processor Status Word during the trap
pc	the contents of the Program Counter
ps	the contents of the Processor Status Word
code	a hardware dependent number with no particular significance
cmd	the name of the user command running at the time of the trap
trap type	the type of trap

        The "trap type" is one of the following:

        PDP-11:

0	bus error
1	illegal instruction

2   BPT/trace
3   IOT
4   power fail
5   EMT
6   recursive system call (TRAP instruction)
7   11/70 cache parity, or programmed interrupt
8   floating point trap
9   segmentation violation

VAX:

0   reserved addressing fault
1   illegal instruction
2   BPT instruction trap
3   XFC instruction trap
4   reserved operand fault
5   recursive system call (CHMK instruction)
6   floating point trap
7   software level 1 (reschedule) trap
8   segmentation violation
9   protection fault
10   trace trap
11   compatibility mode fault

3B20S:

0   Unknown Hardware Trap
1   Unknown Other CPU Trap
2   Unknown Software Trap
3   Unknown Memory Mgt Trap
4   Kernel System Call
5   Kernel Breakpoint
6   Privileged Instruction
7   Protection Violation
8   Segmentation Violation
9   Addressing Alignment Error
10   Illegal Instruction
11   Non-Existent Memory Reference
12   CPU Reschedule
13   Non-Correctable Parity Error
14   Non-Resident Page

On the PDP-11 and VAX, "trap type" will always be a number
whose description is given in the tables above. On the 3B20S, "trap
type" will be a one of the above descriptive messages if the type was
known to UNIX. If not, it will be a number.

ACTION
    Take a dump and reboot the system. The dump should be analyzed,

using the *crash*(1M) command, in order to identify the cause of the trap. More information on this error can be found on the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. Probable causes include new device drivers which have not been completely debugged, unauthorized modifications to existing UNIX device drivers, running out of system resources, incorrect or lack of information in the system description file, and finally, hardware problems. Contact your support organization.

REFERENCES

os/trap.c

panic: uba, zero entry (VAX-11 only)

DESCRIPTION

While trying to perform physical I/O, an attempt to map to a
UNIBUS address referenced a corrupted area in memory (should not
have been zero).

ACTION

Take a dump and reboot the system. The *crash*(1M) command can
be used to gather more information from the dump about the nature
of the problem. See the *crash*(1M) manual page in the *UNIX System
Administrator's Manual*. Probable causes include both software and
hardware problems. Check any new device drivers which have not
been completely debugged or any UNIX device driver which has
been modified without authorization. Also, check that the
configuration information in the system description file is correct. If
none of the above apply, suspect bad hardware and contact your
support organization.

REFERENCES

io/uba.c

panic: unknown segment type in procdup (3B20S only)

DESCRIPTION
>The system found an unrecognized segment type in a process's segment table during a fork.

ACTION
>Take a dump and reboot the system. The *crash*(1M) command can be used to gather more information from the dump about the nature of the problem. See the *crash*(1M) manual page in the *UNIX System Administrator's Manual*. If the delivered UNIX operating system has not been altered, suspect hardware problems and contact your support organization.

REFERENCES
>os/machdep.c

panic: x25buffers (DEC only)

DESCRIPTION

Sufficient memory could not be obtained to allocate x25's external buffers. This error occurs during system startup only.

ACTION

Boot a different system. Reevaluate the number of entries allocated for the x25 external buffers (x25bufs) in the offending system description file. Decrease the size of the system by modifying this parameter or modifying the entries in the description file in a way acceptable to you. Regenerate and boot the new system. If decreasing system parameters is unacceptable, memory should be added to the machine.

REFERENCES

io/x25b.c

Panicked (DEC only)

DESCRIPTION

Printed after a power fail condition if a panic occurred before or during recovery. Prior to this message, a system panic message **panic:** *panicstr* should appear on the console.

ACTION

This message indicates two problems, the power failure and the panic. The first concern is the power failure. Refer to the action section for the message **Power fail** # for details. To correct the panic condition, refer to the action section for the specified panic. Although it is possible that the power failure may have caused the panic, it is best to investigate each condition separately.

REFERENCES

io/pwr.c

parity (PDP-11 only)

    DESCRIPTION

        A system memory error has occurred. If the processor is an 11/70, this message is followed by:

           # # # #

        which indicate the contents of the Low Error Address Register, the High Error Address Register, the Memory System Error Register, and the Control Register. See chapter 7 in the *PDP-11/70 Processor Handbook*, Digital Equipment Corporation, 1977-78. If this condition occurred while in User Mode, the process is terminated without a panic, otherwise a **panic: parity** condition will follow.

    ACTION

        This message indicates a hardware memory problem. Contact your support organization.

    REFERENCES

        os/trap.c

pcl[#] bad hdr: # (DEC only)

    DESCRIPTION

        A bad message header was received from a remote system. The [#] indicates the PCL11B device number (0 or 1), while the other number is the value of the header in error.

    ACTION

        This message indicates a PCL11B hardware problem with the remote machine. It is printed for your information.

    REFERENCES

        pwb/pcl.c

pcl[#] recv err (DEC only)

DESCRIPTION

A receiver error interrupt occurred while no channel was open. The [#] indicates the PCL11B device number (0 or 1).

ACTION

This message indicates a hardware problem with the PCL11B. Contact your support organization.

REFERENCES

pwb/pcl.c

pcl[#] rsr err # (DEC only)

DESCRIPTION

An unrecognized receiver interrupt occurred. The [#] indicates the PCL11B device number (0 or 1) while the rsr err # is the contents of the receiver status register.

ACTION

This message indicates a hardware problem with the PCL11B. Contact your support organization.

REFERENCES

pwb/pcl.c

pcl[#] tsr err # (DEC only)

DESCRIPTION

An unrecognized transmitter interrupt occurred. The [#] indicates the PCL11B device number (0 or 1), while the tsr number is the contents of the transmitter status register.

ACTION

This message indicates a hardware problem with the PCL11B. Contact your support organization.

REFERENCES

pwb/pcl.c

pcl[#] xmit int # (DEC only)

    DESCRIPTION

        A transmit interrupt occurred while no transmission was in progress. The [#] indicates the PCL11B device number (0 or 1), while the xmit int # is the contents of the transmitter status register.

    ACTION

        This message indicates a hardware problem with the PCL11B. Contact your support organization.

    REFERENCES

        pwb/pcl.c

pid # killed due to non-existent memory (3B20S only)

DESCRIPTION
> A non-existent memory trap occurred when the designated process was running. Pid is the process id.

ACTION
> Provided that the delivered UNIX operating system has not been altered, suspect hardware problems, and contact your support organization.

REFERENCES
> os/trap.c

pid # killed due to non-resident page (3B20S only)

DESCRIPTION

A non-resident page trap occurred when the designated process was running. Pid is the process id.

ACTION

Provided that the delivered UNIX operating system has not been altered, suspect hardware problems, and contact your support organization.

REFERENCES

os/trap.c

pid # killed due to parity error (3B20S only)

DESCRIPTION
A non-correctable memory parity error occurred in a process's memory space. The designated process was terminated.

ACTION
The page of memory where the error occurred will be queued for removal and then removed from the system's memory free list.

REFERENCES
os/trap.c

POWER ALARM EXISTS IN MACHINE (3B20S only)

DESCRIPTION
A power loss has been detected in the machine.

ACTION
The system may crash or remain running in a degraded mode. If it crashes, determine whether the power loss is external or internal. If external, have the power restored if possible. If internal, contact your support organization. If the machine continues to run, this message will be followed by out-of-service messages for those devices that are associated with the affected power supply. In this case, contact your support organization.

REFERENCES
io/pwr.c

Power fail # (DEC only)

DESCRIPTION

A power fail condition has been detected. If power fail recovery has been specified in the system configuration, the initialization process will be informed. The # is incremented each time a power fail occurs and the recovery is successful. It is reset to zero at each system reboot.

ACTION

If the power parameter in the system configuration file has a value of 1, power fail restart is initiated. Otherwise, if its value is 0 (default), automatic restart is inhibited. If power fail restart was enabled and the system continued to run, recovery was successful and all *should* be fine. Do not halt the system as this would be counter-productive to the idea of power fail recovery. Determine the cause of the power failure and take the appropriate steps to see that it is corrected. If power fail restart was enabled and the system failed to recover, determine the cause of the problem, see that it is corrected, and then reboot the system. If power fail restart was disabled, the message **Stopped** will appear on the console. Again, determine the cause of the failure, correct it, and reboot the system.

REFERENCES

io/pwr.c

POWER FAIL IMMINENT (3B20S only)

DESCRIPTION
This message will appear after the processor has been running on battery backup for approximately ten minutes. At this time, the signal SIGPWR will be sent to all processes and the processor will no longer be able to access the disk drives. Battery backup will last for approximately five minutes more.

ACTION
Wait until power is restored and then boot the machine.

REFERENCES
io/pwr.c

proc on q

DESCRIPTION
When making a process runnable, after the occurrence of a wakeup event, it was found that the process was already on the system run queue.

ACTION
Provided that the delivered UNIX operating system has not been altered, contact your support organization.

REFERENCES
os/slp.c

programmed interrupt - level #   (3B20S only)

    DESCRIPTION

        A programmed interrupt with the designated level has occurred.

    ACTION

        This should not occur since this feature is unused on the 3B20 Simplex. If it occurs, contact your support organization.

    REFERENCES

        ml/pirq.c

RDS #: er #, ma #   (VAX-11/780 only)

DESCRIPTION

A memory read error has occurred through the Synchronous Backplane Interconnect (SBI). A Read Data Substitute (RDS) error indicates that the data was badly scrambled and that zero was substituted in. The first number given is the number of times this error has occurred since the last reboot. The "er" is the contents of the Synchronous Backplane Interconnect (SBI) error register and "ma" is the contents of memory configuration register C. When this error appears on the console, a more detailed version is put into the error log, **/usr/adm/errfile**. For more details, see pp. 311-324 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

An RDS error indicates severe hardware problems which may cause the system to crash. Contact your support organization.

REFERENCES

os/macherr.c

RM05 drive # not available (VAX-11/780 only)

DESCRIPTION
>The designated drive is no longer accessible.

ACTION
>Check that the drive number specified is the number of a powered up, online disk drive. If so, check that the drive number plug, known as the Logical Address Plug (LAP), is fully inserted. If a dual ported drive is involved, be sure that it is currently residing on your system. If none of the above apply, contact your support organization.

REFERENCES
>io/hm.c

RP04/5/6 drive # not available (DEC only)

DESCRIPTION
The designated drive is no longer accessible.

ACTION
Check that the drive number specified is the number of a powered up, online disk drive. If so, check that the drive number plug, known as the Logical Address Plug (LAP), is fully inserted. If a dual ported drive is involved, be sure that it is currently residing on your system. If none of the above apply, contact your support organization.

REFERENCES
io/hp.c

RS03/4 not available (PDP-11 only)

DESCRIPTION

An RS03 or RS04 disk drive is no longer accessible.

ACTION

Check that the drive number specified is the number of a powered up, online disk drive. If so, check that the drive number plug, known as the Logical Address Plug (LAP), is fully inserted. If a dual ported drive is involved, be sure that it is currently residing on your system. If none of the above apply, contact your support organization.

REFERENCES

io/hs.c

running low on page tables (3B20S only)

DESCRIPTION

During a process fork, the number of available page tables was found to be less than twice the maximum required per process. The fork failed.

ACTION

If this condition persists, increase the number entries allocated for page tables (ptbls) in your system description file and generate a new system. Boot the new system.

REFERENCES

os/sys1.c

SBI *string*, **cnt** #, **pc** #, **ps** #   (VAX-11/780 only)
fs #, **er** #, **ta** #, **mt** #[, **sc** #]

DESCRIPTION

A Synchronous Backplane Interconnect (SBI) fault has occurred.
The *string* will be one of the following:

silo compare
alert
fault
CPU timeout

The remaining fields are described below.

cnt   the number of SBI messages of the current type that have occurred
       since the last reboot
pc   the contents of the program counter
ps   the contents of the program status word
fs   the contents of the SBI fault status register
er   the contents of the SBI error register
ta   the value of the SBI timeout address
mt   the contents of the SBI maintenance register
sc   the contents of the Silo compare register

If the error was "silo compare" or "fault", this message will be
followed by a dump of the SBI history silo:

Silo: # # # # # # #
      # # # # # # #

The silo contains information on the last 16 bus activities.

For further details, see chapter 16 in the *VAX Hardware Handbook*,
Digital Equipment Corporation, 1980-81.

ACTION

Contact your support organization.

REFERENCES

os/macherr.c

st: can't allocate I/O buffers (PDP-11 & 3B20S only)

DESCRIPTION

At system initialization time, it was found that there was not enough memory available to allocate for synchronous terminal (ST) buffers.

ACTION

This message indicates that synchronous terminals are currently unusable due to insufficient memory. Either the sizes specified for the STIBSZ and/or STOBSZ parameters in the system description file must be decreased, or by other means, the system size must be reduced. If the above solutions are not acceptable, more memory must be added to the machine. For more information on ST configuration parameters, see the section on synchronous terminals in

(PDP-11) or in the **Setting Up** UNIX section of the *UNIX System Administrator's Guide* (3B20S).

REFERENCES

io/st1.c (PDP-11), io/st.c (3B20S)

st: dev *controller #* , *device #* , **XMT fail #**

DESCRIPTION

The specified device associated with the specified controller returned a failure code for a transmit block. The failure codes, in hexadecimal, are:

2   not acknowledged (NAK) response to a transmitted block

8   response to a transmitted block was not received in the allotted time (timeout)

10   garbage response to a transmitted block or select

20   end-of-transmission (EOT) response to a transmitted block.

ACTION

All of these failure codes can be attributed to a problem with the communications line. Contact your support organization. Failure code 2 can also be caused by user level programs that are not completely debugged.

REFERENCES

io/st1.c (PDP-11), io/st.c (VAX-11 & 3B20S)

st: line # ERRTERM reason

DESCRIPTION

On the specified line, an error was received from the KMC11B (DEC) or the UN53 (3B20S). The second number is the error code.

ACTION

All error codes are listed and explained on the *vpm*(7) manual page in the *UNIX System Administrator's Manual*.

REFERENCES

io/st1.c (PDP-11), io/st.c (VAX-11 & 3B20S)

st: line # restart failed (#)

    DESCRIPTION

        After the interpreter detected loss of the modem-ready (MR) signal on the specified line, a restart was attempted. This restart failed. The last number is the termination code.

    ACTION

        See the explanation of the termination code(s) on the *vpm*(7) manual page in the *UNIX System Administrator's Manual*.

    REFERENCES

        io/st1.c (PDP-11), io/st.c (VAX-11 & 3B20S)

stinit: # of printers reduced to

DESCRIPTION

The number of synchronous printers (stnprnt) specified in the system description file is greater than the number of synchronous terminal devices (printers + terminals) configured. Because of this conflict, the actual number of synchronous printers will be assigned a default value - one quarter of all synchronous terminal devices. The specified number represents this default value.

ACTION

This message indicates a problem with the synchronous printer (stnprnt) entry in the system description file. Check that the number of synchronous printers (last field of stnprnt line) does not exceed the total number of synchronous terminal devices (last field of st line).

REFERENCES

io/st1.c (PDP-11), io/st.c (VAX-11 & 3B20S)

Stopped (DEC only)

DESCRIPTION

Printed after a power fail condition if power fail recovery has not been specified. The system is halted.

ACTION

Determine the cause of the power failure and take the appropriate steps to correct the problem. Reboot the system.

REFERENCES

io/pwr.c

stray interrupt at # (DEC only)

DESCRIPTION

A device has interrupted through an unexpected vector on the UNIBUS (MASSBUS for VAX). The vector will be printed in hexadecimal on a VAX, otherwise in octal. The vector printed is usually the correct value for the device, unless # is **0** which is a reserved location.

ACTION

This error can be caused by a device specified at an incorrect vector in the system description file. If this is the case, make the necessary corrections, and remake and boot a new system. If the above does not apply or the vector was **0**, suspect hardware problems and contact your support organization.

REFERENCES

os/trap.c

stray interrupt - channel # (3B20S only)

DESCRIPTION
A stray interrupt has been received from an unused channel.

ACTION
If the problem persists, suspect hardware problems in the I/O subsystem and contact your support organization.

REFERENCES
io/intrmsg.c

stray interrupt - channel: #, device: # (3B20S only)

DESCRIPTION

A stray interrupt has been received from the specified device and channel. The device number is a number in the range 0-15 indicating one of the 16 ports on the channel. UNIX believes that this port is unassigned, although some controller may be physically connected to it.

ACTION

If the problem persists, suspect hardware problems in the I/O subsystem and contact your support organization.

REFERENCES

io/intrmsg.c

stray interrupt - source #   (3B20S only)

DESCRIPTION
> A stray interrupt has been received from an unassigned source. The
> # identifies which interrupt source it was and is of use only to a
> trained field service representative.

ACTION
> If the problem persists, contact your support organization.

REFERENCES
> ml/intrmsg.c

stray UBA interrupt at # (VAX-11 only)

    DESCRIPTION

        A device has interrupt through an unexpected vector on the UNIBUS. The vector will be printed in octal. The vector printed is usually the correct value for a device, unless # is **0** which is a reserved location.

    ACTION

        This error can be caused by a device specified at an incorrect vector in the system description file. If this is the case, make the necessary corrections, and remake and boot a new system. If the above does not apply or the vector was **0**, suspect hardware problems and contact your support organization.

    REFERENCES

        io/uba.c

Tape Dump (VAX-11 only)
 # memory blocks
 # blocks per record
1600 bpi

DESCRIPTION

The above messages will appear on the console after requesting that a dump be taken. The first number is the size in blocks of the memory on your machine. The second number is the block size of the dump.

ACTION

For information only. After the dump is completed, the processor may be rebooted. The tape dump can be loaded onto disk using the following sequence:

umask 8192 (if more than one megabyte of memory)
dd if=/dev/rmt1 of=*file-name* bs=*blocks-per-record*

The 8192 is the factor times 512 that ulimit uses to increase the maximum file size to 4 megabytes. This factor can be adjusted according to the amount of memory on your processor. One megabyte (2048) is used if you do not change the ulimit.

The core dump can be perused by the *crash*(1M) command. For more information of this command, see the *crash*(1M) manual page in the *UNIX System Administrator's Manual*.

REFERENCES

ml/gtdump.c, ml/htdump.c, ml/hudump.c, ml/tsdump.c

Tape error, tssr #(16). (VAX-11/750 only)
Error writing buffer at #(16).

> DESCRIPTION
>> While attempting to dump to a tape mounted on a TS11 tape drive, an error occurred. The address of the block being transmitted at the time of the error is given. The "tssr" is the contents of the TS11 status register. All numbers are given in hexadecimal. For more details on TS11 registers, see pp. 371-387 in the *Peripherals Handbook*, Digital Equipment Corporation, 1981-82.
>
> ACTION
>> Depending on the number of and the extent of the error(s), the dump may or may not continue. If it does continue, there is still a chance that the data might be worthless. Therefore, if the dump stopped prematurely or to be sure that the dump contains accurate data, attempt to take another dump BEFORE booting the system. If this is a recurring problem, suspect hardware problems with the TS11 and contact your support organization.
>
> REFERENCES
>> ml/tsdump.c

Tape needs a ring (VAX-11/750 only)

DESCRIPTION
>   While attempting to write to a tape loaded on a TS11 tape drive, lack
>   of a write ring was detected.

ACTION
>   Unload the tape and insert a write ring in the tape reel. Reload the
>   tape and try again. If this does not clear the error, suspect hardware
>   problems with the TS11 and contact your support organization.

REFERENCES
>   io/ts.c

Tape offline (VAX-11/750 only)

    DESCRIPTION

        While attempting to access a tape loaded on a TS11 tape drive, it was detected that the drive was offline.

    ACTION

        Depress the ONLINE switch. The blue light indicator on the front panel should light. Try to access the tape again. If this does not clear the error, or if the indicator light did not come on, suspect hardware problems with the TS11. Contact your support organization.

    REFERENCES

        io/ts.c

text table overflow (3B20S only)

    DESCRIPTION

        The system shared text program control table has overflowed. An attempt to execute a currently unused shared text program has failed.

    ACTION

        If this condition persists, increase the number of entries currently allocated for the text table (texts) in your system description file and generate a new system. Boot the new system.

    REFERENCES

        os/text.c

tn[7]4 *unit-num* **error** # # (3B20S only)

DESCRIPTION

An error has been detected on the designated tn74 or tn4. Two error numbers are given. The first number is important, while the second number should be ignored. For a tn74 the first number is in the form:

9Eaab00c

where:

aa = peripheral controller (pc) slot number of the tn74

b = port of the tn74
4 for port 0
C for port 1

c = actual error code
5 for a receiver overrun
6 for a pc buffer overflow

For a tn4, the first number is in the form:

9E$aabc$0d

where:

aa = peripheral controller (pc) slot number of the tn4

b = unused

c = port number of the tn4
(0-7)

d = actual error code
5 for a receiver overrun
6 for a pc buffer overflow

ACTION

The receiver overrun error indicates that the pc lost a received character due to insufficient real time. The affected tty line (port) will be left in an unusable state until a "stty" operation is performed. This condition should not happen on a tn74. On the tn4, it indicates that the pc is being overloaded. The load on the tn4 should therefore be reevaluated. The chart below shows the maximum tn4 loading as a function of baud rate:

baud rate	maximum # of channels
9600	2
4800	3
2400	5
1200	8

The pc buffer overflow error indicates that UNIX could not read data from the pc fast enough. Therefore, the pc has discarded a block of 255 bytes of data. This error may result from an improperly terminated hardwired line. Check all hardwired lines attached to the processor.

REFERENCES
io/tn74.c, io/tn4.c

tn75 *unit-num* **can't send rcv buf** (3B20S only)

DESCRIPTION

A receive buffer could not be sent to the designated device due to the unavailability of receive buffers or a hardware failure.

ACTION

First, the number of x25 buffers should be increased. If it has been increased to the maximum and this message still appears, contact your support organization. For more information on X25 buffer needs, see the section on X25 devices in the **Setting Up UNIX** section of the *UNIX System Administrator's Guide*.

REFERENCES

io/tn75.c

tn75: Bad unit *unit-num* **(3B20S only)**

 DESCRIPTION
 An unexpected interrupt was received from the designated tn75.

 ACTION
 This message indicates a probable hardware problem with the tn75.
 If the problem persists, contact your support organization.

 REFERENCES
 io/tn75.c

tn82 *unit-num*: **can't send rcv buf** (3B20S only)

> DESCRIPTION
>> A receive buffer could not be sent to the designated device due to the unavailability of receive buffers or a hardware problem.

> ACTION
>> First, the number of X25 buffers should be increased. If it has been increased to the maximum and this message still appears, contact your support organization. For more information on X25 buffer needs, see the section on X25 devices in the **Setting Up UNIX** section of the *UNIX System Administrator's Guide*.

> REFERENCES
>> io/tn82.c

tn82: Bad unit *unit-num* (3B20S only)

    DESCRIPTION

        An unexpected interrupt was received from the designated tn82.

    ACTION

        This message indicates a probable hardware problem with the tn82.
        If the problem persists, contact your support organization.

    REFERENCES

        io/tn82.c

tn83 *unit-num* **rop off-line** (3B20S only)

DESCRIPTION
>The read-only printer is offline.

ACTION
>For information only. Depressing the ONLINE button on the unit should bring it back online. If not, contact your support organization.

REFERENCES
>io/tn83.c

tn85 *unit-num* **printer # offline** (3B20S only)

DESCRIPTION

The designated printer has been taken offline. The printer number may be 0 or 1 and indicates which of the two possible printers on the tn85 controller is in question.

ACTION

For information only. If you wish to bring the printer online, depress the ONLINE button. If this does not work, contact your support organization.

REFERENCES

io/tn85.c

tn85 *unit-num* **unexpected interrupt | unrecognized response # #** (3B20S only)

    DESCRIPTION

        An unexpected interrupt or an unrecognized response has been received by the designated tn85. Two error numbers are given. The first number is important, while the second number should be ignored. The first number is in the form:

            aabbcddd

        where:

            aa = operation code
              9F for print
              FA for asynchronous report

            bb = peripheral controller (pc) slot
              number of the tn85

            c = port number of the tn85
              8 for printer 0 (subdevice 2)
              C for printer 1 (subdevice 3)

            ddd = unused

    ACTION

        This message, whether generated by an unexpected interrupt or an unrecognized response, may indicate either a software or hardware problem. First, check to see whether any unauthorized changes have been made to the standard UNIX tn85 device driver. If so, this may be the problem and the driver should be restored to its original source version. If not, suspect hardware problems with the tn85 and contact your support organization.

    REFERENCES
        io/tn85.c

UBA: csr #, sr #   (VAX-11/780 only)
: fubar #, fmer #

DESCRIPTION

A UNIBUS interrupt has occurred.

The fields are described below.

csr   the contents of the configuration/status register

sr   the value of the UBA status register which indicates the reason for the interrupt

fubar   the failed UNIBUS address register which contains the address of the UNIBUS register

fmer   the failed mapped error register which contains the address of the UNIBUS map

The values of the first two fields are given in hexadecimal, while the last two are in octal.

For further details, see pp. 337-339 in the *VAX Hardware Handbook*, Digital Equipment Corporation, 1980-81.

ACTION

This error is usually caused by a device specified at an incorrect, unused address in the system description file. If this is the case, make the necessary corrections, and remake and boot a new system. If the above does not apply, suspect hardware problems and contact your support organization.

REFERENCES

io/uba.c

UNIX/*release*: *sysver* (DEC only)
real mem = # bytes
avail mem = # bytes

DESCRIPTION

The above messages are printed on the system console during the startup procedure when booting UNIX. The value for real mem represents the actual size in bytes of the memory on your machine. The value for avail mem represents the amount of memory available for user programs after UNIX has been loaded.

ACTION

For information only. No action is necessary unless the number of bytes of memory mysteriously drops from a previous boot. If this occurs, some of the memory may have become inaccessible and should be investigated.

REFERENCES

os/machdep.c, os/main.c (PDP-11 only)

UNIX/*release*: *sysver* (3B20S only)
total memory: # bytes
available memory: # bytes

DESCRIPTION

The above messages are printed on the system console during the startup procedure when booting UNIX. The value for total memory represents the actual size in bytes of the memory on your machine. The value for available memory represents the amount of memory available for user processes after UNIX has been loaded.

ACTION

For information only. No action is necessary unless the number of bytes of memory mysteriously drops from a previous boot. If this occurs, some of the memory may have become inaccessible and should be investigated.

REFERENCES

os/machdep.c, ml/mmgt.c, os/main.c

unknown tape type *maj/min* (VAX-11 only)

    DESCRIPTION

        The general tape driver has attempted to access a tape drive whose type it does not understand.

    ACTION

        Contact your support organization.

    REFERENCES

        io/gt.c

unkseg of unallocated segment (3B20S only)

DESCRIPTION

The system attempted to free an unallocated kernel segment.

ACTION

This message indicates a software problem. It may be generated by new device drivers which have not been completely debugged or by unauthorized changes to the existing UNIX device drivers. Check any new drivers or any driver which has been recently modified. If not the above, contact your support organization.

REFERENCES

m/mmgt.c

using backup root (3B20S only)

DESCRIPTION
> The system was booted with the **BACKUP-ROOT EAI** option set.
> The root file system has been changed from section 0 to section 7.

ACTION
> For information only. For further details, see the **3B20S CONSOLE OPERATIONS** and the **BOOT PROCEDURES** sections in the *UNIX System Operator's Guide*.

REFERENCES
> os/machdep.c

using secondary disk (3B20S only)

DESCRIPTION

The system was booted with the **SEC-DISK EAI** option set. The root file system has been changed to be on disk drive (mhd) 1 of DFC 0.

ACTION

For information only. For further details, see the **3B20S CONSOLE OPERATIONS** and the **BOOT PROCEDURES** sections of the *UNIX System Operator's Guide*.

REFERENCES

os/machdep.c

utility circuit interrupt (3B20S only)

    DESCRIPTION

        A utility circuit interrupt has been detected.

    ACTION

        This should not occur since this feature is unused on the 3B20 Simplex. Contact your support organization.

    REFERENCES

        ml/utilckt.c

WARNING: data/bss area too big for unibus map (VAX-11 only)
 # pages truncated to 495 pages

DESCRIPTION
> The combined size of the kernel data and bss segments of the running system is too large. This error occurs during system startup only.

ACTION
> The size of the offending system must be decreased. Reevaluate all entries in the offending system description file. Make necessary modifications and remake the system. Boot the new system.

REFERENCES
> io/uba.c

WARNING: swap space running out, needed # blocks

DESCRIPTION

Insufficient space was found on the swap device when attempting to swap out a given process or a copy of a pure text image. The number of blocks requested is given. After the warning is given, an attempt will be made to clean up the swap area. If this is unsuccessful, the message **Danger: out of swap**.... will appear. The system may hang, crash, or it may recover and resume normal operation if and when swap space becomes available.

ACTION

If the system hangs or crashes, reboot. This error may be caused by an operating system and/or user program that has not been completely debugged. Check any such programs. It can also be caused by an excessive user load on the system. If this is the case, increase the amount of swap space specified in your system description file and generate a new system. Boot the new system.

REFERENCES

os/text.c

Write lock error on *device-type* **drive** #, **[ctl #] slice** # (DEC only)

DESCRIPTION

An attempt was made to write on a file system mounted on a disk drive that is write protected. *Drive-type* may be **RP04/5/6, RP07, RM05, RM80,** or **ML11**. A controller (ctl) number will only appear if you are using the general disk driver and you have more than one controller generated in your system.

ACTION

For information only. The write protect feature has been enabled on the designated disk drive. To disable, either flip the toggle switch labeled "write protect" to its alternate position if the drive is of RP04/5/6 or RP07 type, or depress the switch labeled "protect" on an RM05 or "write prot" on an RM80 which will cause the associated indicator light to go out.

REFERENCES

io/gd.c, io/hp.c, io/hm.c

Write lock error on dev # (8), type unknown (DEC only)

DESCRIPTION

An attempt was made to write on a file system mounted on a disk drive that is write protected and whose type is unknown to the general disk (gd) driver.

ACTION

The main concern is that the gd driver does not recognize the drive type. Check that the offending disk drive is of a type supported by the gd driver. The drive types supported are RP04/5/6, RM05, RM80, RP07, and ML11. If the drive is of a type listed above, suspect hardware problems with the disk drive and/or controller and contact your support organization. Refer to the message:

Write lock error in *device-type* drive # , [ctl #] slice #

for instructions on how to disable the write protect feature.

REFERENCES

io/gd.c,

xswap # (VAX-11 only)

DESCRIPTION

An attempt was made to free the core and swap out the currently running process. The # is the process number.

ACTION

This message indicates software and/or hardware problems. Check any new device drivers which have not been completely debugged or any UNIX device driver which has been modified without authorization. Also, check that the configuration information in the system description file is correct. If none of the above apply, suspect bad hardware and contact your support organization.

REFERENCES

os/text.c