

READ THIS FIRST – SOFTWARE

Notes for UNIX™ Release 2.0

September 23, 1985

Introduction

The 2.0 release is a major release that adds support for the Sun Network File System (NFS). This release has many additional improvements along with reorganized documentation. See the *System Summary and Change Notes* for details.

Licenses

The 2.0 release ships with all new workstations. New workstations include a license to run 2.0.

In addition, customers with support agreements covering software will be receiving 2.0 for their covered workstations. Workstations upgraded to 2.0 without being covered by a software support agreement are in violation of Sun's software license.

The 2.0 release can also be ordered for \$1200 per workstation which will be running 2.0. Call your Sun sales representative for information.

Getting help

Should you have any problems while installing or using your system, call (415) 960-3500. Have your system's model and serial numbers ready to give the dispatcher. Questions also can be sent by electronic mail to *sun/hotline*. Your mail should include your name, company, phone number, system model number and serial number, a description of your problem, and release (eg, 2.0). This service is provided at no additional charge for systems under warranty or covered by a support agreement. If you have questions about Sun's support services or your shipment, call your sales representative.

Sun always welcomes bug reports when a description is sent by electronic mail to *sun/sunbugs*. Supply all the information needed to reproduce the bug. Sun will provide an acknowledgement. This mail address is not for questions.

Existing Workstations

Check the revision level of the CPU proms on your workstation before you begin installing 2.0. Workstations must have revision level N or newer CPU proms to run 2.0. The CPU proms identify their revision level when the workstation first powers up. Sun will upgrade proms on machines with hardware support agreements free of charge. There is a \$100 charge for unsupported machines. Call your Sales Representative for more information.

If your machine is standalone (not connected to a network with servers) then follow the instructions in the *Upgrading System Software* chapter (chapter 7) of the *System Administration for the Sun Workstation* manual, then continue with *Installing Unix* starting with chapter 1. If your machine has access to a 2.0 server on the Ethernet, then follow the directions in the *Converting Systems to Use the NFS* chapter (chapter 10) of the *Installing Unix* manual.

New Workstations

Follow the instructions in the hardware installation manual for your model of workstation. Then install the 2.0 release according to the instructions in *Installing Unix on the Sun Workstation*. Follow the installation steps carefully.

Known Problems in 2.0

The following are some of the known problems in Release 2.0. Note that some of the 2.0 manuals have errata or replacement pages behind the front cover - the following items supplement these manuals or errata pages.

2.0 root file systems tend to fill.

Be aware that *usr/tmp*, *usr/adm*, and *usr/spool* on servers and clients and diskfull workstations mounting *usr* via NFS, are symbolically linked to directories in *private/usr* which is part of the root file system. These directories tend to grow over time, filling the root file system. On servers and diskful clients, *private/usr* may be relocated in *usr2* and replaced by a symbolic link in *private*. On diskless workstations only *private/usr/tmp* should be relocated in this fashion.

Also consider making client root file systems larger than default 6 megabytes.

Errors in the *Installing Unix* manual.

Please note on the middle of page 4-7, section 4.2.3 Using Fix to Format SMD Disks, that Sun now ships SMD disks with a defect list that can be read by *diag*. This means you should use *diag's fix* command on new SMD disks (as documented), and not use the *format* command as in prior releases. See the note below about existing SMD disks.

setup and *yp* in installation may interact strangely. On page 6-8 and 6-9, ALWAYS pick a domainname.

At the bottom of page 6-12, section 6.4, before step 1, insert the following "step 0".

If your system is not a yellow pages server and is not connected to a network (or is connected to a network without a currently-running yp server), you must bypass the yellow pages by moving */etc/ypbind* to */etc/ypbind-*. If a yp server later becomes available on the network, you should move *ypbind* back to its original name.

If the Yellow Pages is not correctly set up, the console periodically displays 'yp: server not responding for domain noname; still trying'. This can be corrected by renaming */etc/ypbind* as described above, followed by a reboot.

Contrary to the instructions in section 10.1, existing SMD disks that were labelled with 1.3 or earlier *diag* should be REFORMATTED after step 2 in the instructions on page 10-2. This is because 1.4 and 2.0 *diag* use more data cylinders and fewer alternate cylinders. You must use *format* and not *fix* in this case to create a new bad block list.

Errors in the *System Administration* manual.

Delete the final sentence of Section 2.4.3.4, which begins "Change */etc/passwd* ..." and substitute the following: "A yp client's password should be the same in his own */etc/passwd* file and in the yp database. To change the yp database, use the *yppasswd* command as described in section 2.4.7.4. entitled *Special yp Password Change*."

On page 5-14, section 5.4.1, under the topic 'Modem Switches', the provided switch settings are confusing. Also, switch 2 is incorrect. Please refer to the Hayes modem switch settings table on page 11 of the 'Release 2.0 System Summary' for the correct settings.

On page 5-17, section 5.4.3, under the topic 'Updating ttys', correct the first example to read:

```
# mv ttya ttyd0
```

by correcting 'tys1' to 'tya'.

On page 5-17, section 5.4.3, under the topic 'The */etc/remote* File', correct the example by deleting the incorrect ':' in the third line. The resulting correct line reads:

```
:el="D^U^C^S^Q^O@:du:at=hayes:ie=#$%:oe="D:br#1200:tc=dialers:
```

On page 5-17, section 5.4.4, under the topic 'tip Support', delete 'or at=at' from the text. Use only 'at=hayes' in */etc/remote* for Hayes and AT-compatible modems.

On page 5-18, section 5.4.4, under the topic 'uucp Support', delete '(or ACUAT)' from the text. Use only 'ACUHAYES' in *L.sys* for Hayes and AT-compatible modems.

In the Tutorials portion of this manual, section 9.10., 'Device Types', the table should include a line with:

```
ACUHAYES          Hayes Smartmodem 1200
```

Errors in the Release 2.0 System Summary manual

On page 9, section 5.1 incorrectly says that the default file system block size was changed to 8K. The default block sized is still 4K, as in prior releases.

On page 11, section 6.1, under the topic 'Uucp Support', delete '(or ACUAT)' from the text. Use only 'ACUHAYES' in L.sys for Hayes and AT-compatible modems.

On page 11, section 6.1, under the topic 'Tip Support', delete 'or "at"' from the text. Use only 'at=hayes' in /etc/remote for Hayes and AT-compatible modems.

Binaries from prior releases should be compiled for 2.0.

Binaries should be recompiled to insure compatibility with 2.0, and also to take advantage of improvements made to the compilers and libraries.

Workstations with 85MB disks.

Sun uses various types of 85MB disk drives (unformatted capacity). You need to know the specific type of 85MB disk drive in your workstation before running *diag*. The type of 85MB drive (Fujitsu, Micropolis, or Vertex) is shown on a label behind the front cover of the machine. Early Sun-2/160 workstations use Fujitsu disks, but don't have this label.

The formatted capacity of 85MB disks under 2.0 is slightly smaller than the formatted capacity under 1.4.

Compatibility of tapes between 20MB and 45MB 1/4-inch tape drives.

Questions have arisen regarding the interchangeability of tapes written on the 20MB and 45MB 1/4-inch drives. Although tapes written on 20MB drives can generally be read by a 45MB drive when the tape is correctly tensioned, Sun cannot guarantee the same for the reverse direction, i.e., 45MB tapes being read in a 20MB drive.

To retension 1/4-inch tapes, use the *mt ret* command. Alternatively, on machines with Rev Q or later prompts, the *b* (boot) command will first retension a 1/4-inch tape when 100 is added to the tape file number. For example, use *b st(0,0,100)* to retension the tape and boot file 0 from the *st* drive.

Octal serial board driver no longer supplied.

The driver for the Central Data model B1018 and B1043 Octal Serial boards has been removed Sun's system software releases starting with release 2.0. This driver had been provided in previous releases without support. The octal driver is available for a fee through your sales representative.

VPC driver changes.

The VPC driver has been changed from 8-bit I/O transfers to 16 and requires a slight board reconfiguration: switch 3 of DIP switch SW3 on the VPC board needs to be *on* instead *off* as in 1.X. All other switches are the same.

zs serial port problems.

There is a problem which may affect communication on the SCSI board serial ports (/dev/ttys0 through ttys3). If you experience lost or spurious characters, or "silo overflow" console messages associated with a SCSI serial port, Sun Technical Support may be able to provide a remedy. Most customers, however, are not affected by this problem.

Patch for systems running the Interleaf™ WPS™ or OPS-2000™ packages.

The following patch must be applied to all systems (except for Sun-2/100s and Sun-2/150s) running the WPS or OPS-2000 software. This patch forces a shadow display buffer to be allocated. Reboot after the patch is applied.

```
# adb -w lvmunix
shadow_thresh?W 0
_shadow_thresh: 0x200000 = 0
$g
#
```

The following bugs are known to exist in SUNCGI.

The Fortran example program in the manual is incorrect.

Circular arcs may show extra pixels or gaps (the size of the line-width) at odd multiples of 45 degrees. Filled arcs may produce filling outside the interior, or (more rarely) leave a portion of the interior unfilled. The wrong portion of a pie may be filled or edged. This could be the pie piece, rather than the pie, or vice versa. All of these arc problems described depend on the size of the window and only occur for certain angles. Therefore, you may or may not experience them.

Curves of width greater than one pixel are significantly slower than curves of one pixel.

Large numbers of textured (e.g. dashed) polylines (>1000) may produce random glitches.

The *traprop* calling sequence is subject to change.

The calling sequence for the new *traprop* routines may change in a future release.

ie1 is missing from the GENERIC kernel for VME based systems.

This makes it impossible to use the GENERIC kernel on a VME based gateway machine. The fix is to reconfigure the kernel, adding the following line.

```
device ie1 at mb0 csr vme busmem 0xe88000 priority 3
```

This assumes that the Sun-2 Ethernet board is jumpered as the *first* board, and that the VME-to-Multibus™ adapter is set up as 1MB Multibus memory at 0xE00000, using the level 3 autovector (0x1B), with no DVMA™ and no Multibus I/O.

Default *hosts.equiv* file different in 2.0

On nd clients, the setup procedure creates a *etc/hosts.equiv* file with only a "+" in it to allow anyone on the net to rlogin (see section 2.4.6 of Sun Network Services). Note that *etc/hosts.equiv* is not a yp database. A printserver, however, will only print jobs from hosts explicitly named in its *etc/hosts.equiv* file.

Sendmail.cf tells sendmail to look in *etc/hosts.equiv* and/or *usr/lib/mailhosts* to determine which hosts mail can be sent directly to via Ethernet. The solution is to enter all hosts on the Ethernet in *usr/lib/mailhosts*.

C-shell *limit* command broken on systems with SKY boards.

Running the c-shell *limit* command to change, for example, the core dump size or stack size, fails on systems configured with a SKY Fast Floating Point board. These systems will display the following message, produce a core dump, and then exit the current csh:

```
assertion botched: p->ptr > allocp && p->ptr <= alloct
```

Warning: including the *limit* command in a *.login* or *.cshrc* file will prevent the user from logging in.

Sun Technical Support can provide a workaround if you require this facility.

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Notes for UNIX™ Release 2.2

October 9, 1985

Introduction

The 2.2 release is an upgrade release that incorporates bug fixes as well as support for the GP/GB (Graphics Processor / Graphics Buffer) options. See the *Release 2.2 Manual for the Sun Workstation* for details.

Getting help

Should you have any problems while installing or using your system, call (415) 960-3500. Have your system's model and serial numbers ready to give the dispatcher. Questions also can be sent by electronic mail to *sun!hotline*. Your mail should include your name, company, phone number, system model number and serial number, a description of your problem, and release (e.g. 2.2). This service is provided at no additional charge for systems under warranty or covered by a support agreement. If you have questions about Sun's support services or your shipment, call your sales representative.

Sun always welcomes bug reports when a description is sent by electronic mail to *sun!sunbugs*. Supply all the information needed to reproduce the bug. Sun will provide an acknowledgement. This mail address is not for questions.

Existing Workstations

You must already be running release 2.0 or 2.1 to install this release. If not, refer to the *Read This First* for the 2.0 release. Installation instructions for this release are contained in the *Release 2.2 Manual for the Sun Workstation*.

New Workstations

Follow the instructions in the hardware installation manual for your model of workstation. Refer to the *Read This First* for the 2.0 release; then install the 2.0 release according to the instructions in *Installing Unix on the Sun Workstation*. After release 2.0 has been installed successfully, install the 2.2 release according to the instructions in the *Release 2.2 Manual for the Sun Workstation*. Follow the installation steps carefully.

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Notes for UNIX™ Release 2.3

March 17, 1986

Introduction

Release 2.3 is an upgrade release that incorporates bug fixes primarily for SunCGI; however, some important fixes we have made in release 3.0 are included as well. See the *Release 2.3 Manual for the Sun Workstation* for details.

Getting help

Should you have any problems while installing or using your system, call (415) 960-3500. Have your system's model and serial numbers ready to give the dispatcher. Questions also can be sent by electronic mail to *sun!hotline*. Your mail should include your name, company, phone number, system model number and serial number, a description of your problem, and release (e.g. 2.3). This service is provided at no additional charge for systems under warranty or covered by a support agreement. If you have questions about Sun's support services or your shipment, call your sales representative.

Sun always welcomes bug reports when a description is sent by electronic mail to *sun!sunbugs*. Supply all the information needed to reproduce the bug. Sun will provide an acknowledgement. This mail address is not for questions.

Installation

You must already be running release 2.0, 2.1, or 2.2 to install this release. If not, refer to the *Read This First* for the 2.0 release. Installation instructions for this release are contained in the *Release 2.3 Manual for the Sun Workstation*.

Notes for release 2.3:

Release 2.3 manual.

The insert pages for *st(4S)* and *toolplaces(1)* have been added.

On page 11, the size of the *get_arch_f* file is now 3663 bytes, 8 tape blocks.

Additional files in *get_arch_f*.

The following files have been added:

```
/usr/include/sys/ioctl.h
/usr/sys/OBJ/uipc_socket2.o
/usr/sys/OBJ/init_sysent.o
/usr/sys/h/ioctl.h
/usr/sys/netinet/ip.h
/usr/sys/nfs/nfs.h
/usr/sys/nfs/nfs_clnt.h
/usr/sys/sys/init_sysent.c
```

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