AIX Version 4.2

Release Notes

Software Release AIX 4.2.0r1
Part Number **AX2RNA/IS1**

Eighth Edition (May 1997)

This edition of *Release Notes* applies to AIX 4.2 and to all subsequent releases of this product until otherwise indicated in new releases or technical newsletters.

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Introduction 1

About This Guide

Purpose

The *AIX 4.2 Software Release Notes* contains information on the functionality of the AIX 4.2.0r1 product.

Scope

The *AIX 4.2 Release Notes* contains information on:

- new or changed features for this release of the AIX 4.2 operating system
- value-added features of Motorola's AIX 4.2 operating system
- general notes about AIX 4.2
- known problems in this release of the operating system
- changes and corrections to documents in the AIX 4.2 product library

Prerequisites

Some instructions in this guide assume that you are familiar with:

- AIX system administration commands
- System Management Interface Tool (SMIT)

For more information about these concepts, refer to the *AIX Version 4.2 System Management Guide: Operating System and Devices.*

Use this guide in conjunction with the *AIX 4.2 Installation Guide* and the *AIX 4.2 Quick Installation Guide.*

Getting Help for System Problems

If you encounter difficulties with AIX 4.2 on your system or on a supported board, contact your Value Added Reseller (VAR) or distributor first. If further assistance is needed, you can contact the Motorola Computer Group Sales office or Motorola Computer Group's customer support group at:

- U.S.A. 1-800-551-1016
- Canada 1-800-387-2416
- Maidenhead, U.K. 44-1628-39121
- Paris, France 33-1-467-43560
- Duesseldorf, Germany 49-211-65899-55

When you call, please be prepared to provide the following information:

- the type of system (Series E, Series RISC PC, or RISC PC Plus) or motherboard (MVME, Ultra, Atlas, or XR Series) you are using with AIX 4.2
- your system or board ID or serial number
- the name of your company, your name, and a telephone number
- a brief description of the problem, including the severity of its impact on your ongoing efforts

This information will be forwarded to the appropriate technical engineering contact, who will return your call promptly.

Features 2

Overview

This chapter describes new and changed features of the AIX 4.2 environment, as well as Motorola value-add features.

For more information about standard features in AIX 4.2, refer to the *AIX 4.2 Product Description*.

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What's New in this Release

The following new features have been implemented in AIX 4.2:

Newly Supported Hardware

- support for MVME332XT asynchronous controller
- support for PMC cards on MVME130*x* boards
- support for Formation PCI cards
- support for RNS FDDI adapters
- 4-slot PCI-PCI card for PowerStack II Pro 4000
- support for the MVME376 adapter

Changes to Storage Management

- Larger data files allowed (to 64 GB)
- Larger executables (2 GB for data section, 256MB for code)
- Larger file systems and devices (1 terabyte)
- NFS remains V2 (max file size 2GB)
- Merging of LVM and CLVM
- Disk sharing between systems

Changes to Communication Features

- Enhanced Network Environment
- NTP - Network Time Protocol Version 3 (RFC 1305)

Changes that affect programmers and users

- Enhanced Common Desktop Environment
- Graphical workspace manager
- API for dynamic loading of program objects
- Shared Library enhancements

- 604 specification

Other Features

- Asynchronous communication support enhancements
- Year 2000 enablement - 4 digit date fields ISO 8601
- Additional National language support
- Printing to generic third-party asynchronous adapters supported
- X Server Enhancements

Packaging

Two CD-ROMs for base OS

Two Bonus CD-ROMs:

- Java
- Adobe Acrobat Reader 2.1
- Ultimedia Services for AIX Version 2.1.4
- Netscape Navigator, Version 3.0
- Netscape FastTrack Server
- Internet Connection Secure Server for AIX

2

Motorola Value-Added Features

The AIX 4.2 product is based on IBM's AIX 4.2 operating system. Minimal changes have been made to this product to support Motorola-specific hardware platforms.

This section describes value-added features that are specific to all systems running Motorola's version of the AIX 4.2 operating system.

xdiff Utility Available

The `xdiff` program is available in AIX 4.2 Service Level AOS1.2 and later releases. `xdiff` is a graphical interface to the `diff` command that allows side-by-side viewing of differences between files and automated merging of selected differences to create a new version of a file.

`xdiff` is automatically installed with the Personal Productivity bundle. Alternatively, you can install it directly from the `X11.apps.motorola` fileset.

Environmental Monitor Commands

The following commands have been added to Motorola's AIX 4.2 operating system and are documented in the manual pages in section 1M. These commands are used with the environmental monitor and are supported on all systems except RISC PC (and RISC PC Plus) systems:

- `envctl`
- `envdiag`
- `rc.motpowerfail`

You must use the `man` command to access these manual pages; they are not available through InfoExplorer.

Environmental Monitor Special Files (Devices)

The following manual pages have been added to the manual pages section 7 on Motorola's AIX 4.2 operating system. These pages describe aspects of environmental monitor special files (devices) and are supported on all systems except RISC PC (and RISC PC Plus) systems:

- `envmon`
- `envmon_msg`
- `envmon_odm`

You must use the `man` command to access these manual pages; they are not available through InfoExplorer.

Guidelines 3

Overview

This section contains information about and guidelines for the AIX 4.2 operating system.

Installation

3

AIX Version 4.2 Shipped on Four CD-ROM Disks

AIX 4.2 is shipped on multiple media. If you are using CD-ROM when migrating from a previous release of AIX to Version 4.2, important instructions are provided in the *AIX 4.2 Installation Guide.*

Migrating to AIX Version 4.2 from a Version of AIX 4.1

Migrations to AIX 4.2 are available for systems which are currently running Version AOS 1.3 and later. For information on how to migrate your system from a version of the AIX 4.1 operating system, refer to the *Installation Guide.*

Note: It is possible, but unlikely, that problems which were fixed by PTF in AIX 4.1 will recur in 4.2.0. If so, contact your Value Added Reseller or distributor to see if an appropriate 4.2.0 PTF is available.

Required Firmware Upgrade for VME Systems

If you are upgrading a VME system from an earlier version of AIX 4.1 to AIX 4.1.5r1, you must upgrade your firmware to PPC1BUG version. 3.0.

AIX Common Desktop Environment 1.0

This section provides information on moving to the AIX Common Desktop Environment (CDE) 1.0 from any version of AIX 4.1.

Notes:

1. AIX Common Desktop Environment (AIX CDE) is the default desktop shipped with AIX 4.1.3 or higher.
2. AIXwindows Desktop is the default desktop shipped with AIX 3.2.x, 4.1.0, 4.1.1 and 4.1.2.

An on-line help volume is provided to assist you in migrating to AIX CDE 1.0 from the AIX windows Desktop. This help will be displayed automatically the first time you log onto AIX CDE 1.0 if you have previously logged onto the AIXwindows desktop on AIX 4.1.0, 4.1.1 or 4.1.2. You can also view this on-line help by selecting "Welcome to AIX CDE 1.0 from the Help Manager subpanel.

Note: A minimum of 64MB of paging space is required to run AIX CDE.

For Customers Moving to AIX CDE 1.0 from Any Version of AIX 4.1

Some changes have been made to action, data type and front panel definitions between AIX 4.1.0, 4.1.1 or 4.1.2 and this release of AIX. Therefore, the following list provides options for customers moving to AIX CDE 1.0 from any version of AIX 4.1:

- If you have not made any customizations to your desktop, if you do not have your home directory out in a networked environment, and if you do not mount a file system containing action, data type and front panel definition files, you do not need to make any changes.

  The **X11.Dt.compat** fileset should be installed to aid in the transition from AIXwindows Desktop on AIX 4.1 to the AIX CDE 1.0 desktop. This fileset contains executables, icons, action and data type definitions and symbolic links to maintain compatibility with previous versions of the CDE desktop. This fileset also contains the Migrate Actions icon and its associated action definition. The "Welcome to AIX CDE 1.0" help volume contains additional information the contents of this fileset. This fileset can be deinstalled later when you no longer have a need for the files contained within it.

- If you have made customizations to your desktop action and data type definition file (***.dt**) or to your front panel definition files (***.fp**) or installed icons on the front panel, you need to

migrate these changes to the new desktop using Migrate Actions (**dtmigrate**).

To start **dtmigrate**:

1. Click the Application Manager control from the Front Panel
2. Click the Desktop_Tools icon
3. Click the Migrate Actions icon

- If you have customized your desktop actions, data types or front panel, or are planning on running the desktop with file systems that contain action, data type or front panel definitions and the Calendar resource file (**.desksetdefaults**) shared between an AIXwindows Desktop on AIX 4.1.1 or 4.1.2 and an AIX Common Desktop Environment on AIX 4.1.3 or higher you must take special action. See the "Welcome to AIX CDE 1.0" help for details.

Running the AIX Common Desktop Environment

If, after migrating to AIX CDE 1.0 from AIXwindows desktop on AOS1.0 or AOS1.1 you have problems with the desktop (for example, icons on the front panel do not execute properly, icons are missing, or actions can not be found), check that the following has been done:

1. The X11.Dt.compat fileset has been installed.
2. Action, data type and front panel definitions in personal directories have been migrated to a valid format for AIX CDE 1.0.

The "Welcome to AIX CDE 1.0" help volume contains information about these steps and other useful information to aid in the transition to AIX CDE 1.0.

Network Boot Support

Network boot is only supported on integrated ethernet controllers and on DEC 2104x and 2114x-based PCI ethernet cards.

Ultimedia Services and UIM/X

Ultimedia Services and UIM/X users upgrading from AIX AOS1.1 or earlier to AIX Version 4.2 also need to upgrade to the following levels of UMS and/or UIM/X:

- Ultimedia Services Version 2.1.4 or later

Ultimedia Services is available as part of both the AIX 4.2 Bonus Pack for Entry Clients and the AIX 4.2 Bonus Pack for Workgroups, Connections, Entry Server and Advanced Servers.

Graphics Licensed Programs

Users of these graphics licensed programs will need to upgrade to the following levels when migrating to AIX 4.2:

- IBM PEX and PHIGS Programming Interfaces Version 4.2 for AIX (5765-660)
- OpenGL 1.0 and GL 3.2 for AIX 4.2 (5765-659)

AIX Network Install Manager (NIM) README

The AIX Network Install Manager (NIM) includes a **README** file that is installed with the NIM Master **bos.sysmgt.nim.master** fileset. The pathname of the file is **/usr.lpp/bos.sysmgt/nim/README**. The **README** file contains additional information about the AIX Version 4.2 NIM product.

SystemView License Use Management Runtime

Some of the products included in this release have been modified to use the license management software. These products require a license password in order for you to use them. SystemView License Use Management Runtime for AIX is the new license management product. It is an enhancement of iFOR/LS included in AIX 4.1. and contains new license management functions, but still uses the same

techniques and is completely compatible with iFOR/LS. For further information on SystemView license Use Management Runtime see *Using SystemView License Use Management Runtime for AIX* .

7135 RAIDiant Array for AIX

Required 7135-110 Microcode Update: Customers upgrading systems with attached 7135-110 Radiant Array subsystems to AIX 4.2 must also obtain and install the latest version of controller and drive microcode. This microcode update can be obtained via hardware service channels (800-IBM-SERV in the U.S.) by requesting ECA 005. A new publication for the 7135, containing information on microcode and device driver installation, should also be ordered. This publication is titled 7135 *Radiant Array for AIX: Installation Guide and Reference,* SC23-1742.

Creating or Modifying a 7135 LUN: When creating or modifying a LUN IBM does not recommend setting the **Reserve Lock** field to **NO** in a multiple host environment. Setting the **Reserve Lock** field to **NO** in a multiple host environment can expose the system to file corruption unless an application exists to coordinate access to the shared disk.

Installing NetWare

When installing NetWare for AIX on your system using a language other than English, do the following:

1. Type ‘local’ at the system prompt.
2. Note the value of the **LC_ALL** variable.
3. Set the **LC_ALL** variable to **en_US** using the command:
   `export LC_ALL=en_US`
4. Install NetWare
5. After installing NetWare, reset the **LC_ALL** variable to the original value noted in step 2.

AIX 4.1 Customized InfoExplorer Files are Overwritten

When migrating to AIX 4.2 from AIX 4.1, the InfoExplorer files under **/usr/lpp/info/data** are overwritten with AIX 4.2 versions. If you have made customizations to the InfoExplorer configuration files, such as **/usr/lpp/info/data/ispaths**, you should backup the customized files before starting the migration and merge your changes into the AIX Version 4.2 files after the migration is complete.

Using sendmail Version 5.64 on AIX 4.2

Sendmail Version 5.64 (supported on AIX 3.2 and 4.1) and sendmail Version 8.7 (supported on AIX 4.2 or later) are not compatible. UCB sendmail version 8.7 will not work with the Version 5.64 **/etc/sendmail.cf** file. There is no script available to assist in migration of the Version 5.64 /etc/sendmail.cf file to the Version 8.7 **/etc/sendmail.cf** file.

During migration installation of AIX 4.2, the Version 5.64 sendmail files are saved in the following locations:

```
/usr/lpp/save.config/usr/sbin/sendmail
/usr/lpp/save.config/etc/sendmail.cf
/lpp/save.config/etc/sendmail.nl
```

The **/etc/aliases** file was not modified during the installation.

Although sendmail Version 5.64 is not supported on AIX 4.2, if you have made complex changes to your previous sendmail configuration and cannot immediately merge those changes into the sendmail Version 8.7 files, you can use the following procedure to copy the saved sendmail Version 5.64 files for temporary use on AIX 4.2. You must replace all the above files. The sendmail Version 8.7 and 5.64 files will not interoperate.

Use these instructions to revert to sendmail Version 5.64:

1. Login as root
2. Stop sendmail using the command:

```
stopsrc -s sendmail
```

3. Save the existing **sendmail** files:

```
cp -p /usr/sbin/sendmail /usr/sbin/sendmail.orig
cp -p /etc/sendmail.cf /etc/sendmail.cf.orig
cp -p /etc/sendmail.nl /etc/sendmail.nl.orig
```

4. Restore the sendmail Version 5.64 files using the commands:

```
cp /usr/lpp/save.config/usr/sbin/sendmail
/usr/sbin/sendmail
cp /usr/lpp/save.config/etc/sendmail.cf
/etc/sendmail.cf
cp /lpp/save.config/etc/sendmail.nl /etc/sendmail.nl
```

5. Restart **sendmail** using the command:

```
startsrc -s sendmail -a "-bd -q30m"
```

Using the sendmail Version 8.7 .forward File

Sendmail has been updated on AIX 4.2 to UCB Version 8.7. Please note that the use of the \ (backslash) in the **$HOME/.forward** files has changed from the previous UCB version.

If you are defining local users in a file defined by class L in the **/etc/sendmail.cf** file, then you no longer need to specify a \ (backslash) in front of the user name in your **$HOME/.forward** file. The backslash is now interpreted as part of the username. This only applies if you have defined local users in a file specified in class L in the **/etc/sendmail.cf** file.

Node-locked Licenses Unavailable for Some Products

The *AIX 4.1 iFOR/LS System Management Guide* and *AIX 4.1 iFOR/LS Tips and Techniques* include information about and references to node-locked licenses. However, node-locked licenses are not available for some products that are NetLS license-enabled. Only concurrent access licenses are generated for these products.

Motorola products that this affects are:

- C for AIX
- C Set ++
- XL FORTRAN
- XL Pascal
- Configuration Management Version Control (CMVC)
- IBM Cobol

You must use a concurrent access license with the above products, meaning that you need a server package rather than a client package.

IRQs 14 and 15 Available for Plug-In ISA Cards

Commercial System Desktops and Servers have four PCI interrupt lines. Each line can be independently routed to an interrupt line on the system interrupt controller. PCI interrupt lines on systems with ISA slots are routed as follows:

Table 3-1. PCI Interrupt Routing on Systems with ISA Slots

Interrupt Line	Routed to IRQ
PIRQ0	9
PIRQ1	9
PIRQ2	11
PIRQ3	11

This makes IRQs 14 and 15 available for use by plug-in ISA cards (as well as IRQ 5 and IRQ 7, which have always been available).

Note This information applies only to systems with ISA slots.

The above settings are the default settings, programmed by the firmware. To modify this mapping on a system running PPCBug firmware, use the `env` command at the `PPC1-Diag` firmware prompt to change the `PCI Interrupts Route Control Registers` environment variable. For more information, refer to the *PPCBug Firmware Package User's Manual, Part 1 of 2*.

To modify this mapping on a system running PowerPC Open Firmware, you can use the `setenv` command at the `ok` firmware prompt to change the `pirq-route` environment variable. For information on how to access the `ok` prompt, refer to the *Open Firmware User's Manual*. To change the `pirq-route` variable, enter the following command at the `ok` prompt:

```
setenv pirq-route 0xddccbbaa
```

where *dd*, *cc*, *bb*, and *aa* correspond to the two-digit hexadecimal equivalents of the IRQs for PIRQ3, PIRQ2, PIRQ1, and PIRQ0, respectively. (Note the inverse order of the IRQs specified.)

For example, to route PIRQ0, PIRQ1, PIRQ2, and PIRQ3 to IRQs 5, 9, 14, and 11, respectively, you would enter the following command at the PPCOF `ok` prompt:

```
setenv pirq-route 0x0B0E0905
```

To revert to the default mapping after the `pirq-route` variable has been added, enter the following command at the `ok` prompt to remove the `pirq-route` variable:

```
unset pirq-route
```

Installing a PCI Expansion Chassis on a PowerStack II Series EX System

When installing a PCI expansion chassis on a PowerStack II Series EX system with the AIX 4.1 operating system already running, you must follow this procedure or your system will hang during boot:

1. Remove any cards from the PCI Expansion Chassis the first time it is rebooted.
2. Start `smit`.
3. Select `Devices`.
4. Select `Install/Configure Devices Added after IPL`.
5. Put the installation CD-ROM in the CD-ROM device.
6. In the `INPUT device/directory` field, enter the CD-ROM as the input device (usually `/dev/cd0`).
7. After completion shutdown system, install chosen cards in the PCI Expansion Chassis and reboot.

Multiple Beep Volume Settings Not Supported

The hardware that generates the system's "beep" does not support multiple volume settings for the beep. Thus, the user's volume setting is ignored, except to check whether the setting is `Off`.

Base Operating System

getattr() Routine Does Not Release Memory

The `getattr()` routine allocates memory for the `CuAt` structures that are returned. This memory is automatically freed when your application exits. However, you need to free this memory in your application if it invokes `getattr()` routine several times and runs for a long time.

Changing tty Port Attributes—chdev Command

The root user cannot use the `chdev` command to change the tty port attributes if the port is active and in use.

Ensuring Sufficient Disk Space in /var/dt

The Common Desktop Environment (CDE) writes log and error files to the `/var/dt` directory. If this directory is full, the desktop commands do not work correctly.

Verify that the `/var/dt` desktop is not full before starting the desktop. If this directory is full or close to full, you must delete some files from this directory before you start the desktop.

Common Desktop Environment (CDE) Manual Pages Directory Not in MANPATH

The Common Desktop Environment (CDE) manual pages are in the directory `/usr/dt/man`. This directory is not normally part of the defined path for manual pages (`MANPATH`). The `man` command is unable to find these CDE manual pages until you add this directory to your `MANPATH`.

Add these lines to your `$HOME/.profile` file to add the `/usr/dt/man` directory to the `MANPATH` variable:

```
MANPATH=$MANPATH:/usr/dt/man
export MANPATH
```


Adding Internal Loopback Functionality

If you wish to add internal loopback functionality to your system, apply PTFs U446595 and U446527.

National Language Support

Chinese (Simplified) Keyboard Translate Table

You can view the keyboard information for the Simplified Chinese Keyboard (Code Set IBM-eucUCS) in the file:

```
/usr/lpp/X11/defaults/xmodmap/zh_CN/keyboard
```

If you are running with the ZH_CN locale (UTF-8 codeset), this keyboard information is located in the file:

```
/usr/lpp/X11/defaults/xmodmap/ZH_CN/keyboard
```

Chinese (Simplified) Input Method Support

As of the AOS 1.3 release of AIX 4.1, support for the 5-stroke input method has been removed. Pressing Shift-F5 and Shift-F6 no longer invokes the 5-stroke input method under the simplified Chinese (zh_CN) locale.

Error Logging with errpt Command

When you run the `errpt` command under a non-English language environment, in some cases the system may return a 4-digit hexadecimal value instead of the error message text. This indicates that the system cannot find a message number for that message in your language's codepoint catalog.

Change the language environment setting to English with the following command:

```
LANG=C
```

and then run the `errpt` command. The English text for the error message is displayed.

Optional Software

Viewing Information about Optional Software

Licensed programs include AIX 4.2 and optionally purchased products. Each program can have one or more separately installable filesets. The Package Installation Database is an InfoExplorer database which contains information about the contents of these separately installable filesets.

If you would like to use the Package Installation Database for reference when installing other filesets, install the following filesets using instructions in *Installation Guide*.

```
pkg_gd Package Installation Database for Current Media
```

If you have a graphics, console and want to use the graphical Info Explorer user interface, you should also install this fileset:

```
x11.info AIXwindows InfoExplorer Runtime Environment
```

View the Package Installation Database using the command:

```
info -l lp_info
```

Graphics

3

Starting the X Server on Machines with Planar Graphics Capabilities

When you start an X server, all graphics adapters in the system, including the planar graphics subsystem, are used. If you do not have a display attached to your planar graphics subsystem and you wish to tell the system to ignore the planar graphics subsystem, use the standard AIX X Server start-up flag `-P`. For more information about using the `-P` flag, refer to the `X` and `xinit` man pages.

In the following example, the cvga0 adapter is the planar graphics subsystem. This screen shows a typical example of the use of the `-P` flag:

```
# lsdisp

DEV_NAME  SLOT  BUS  ADPT_NAME  DESCRIPTION
========  ====  ===  =========  ===========
gga0      06    pci  S15        IBM Personal Computer Power Series S15 Graphics
Adapter
cvga0     07    pci  Cirrus     Standard Graphics Adapter

          Default display = gga0

# xinit -- -P11 gga0
```

Serial Dials/LPFKeys Support

Serial Dials/LPFKeys support has changed to meet expanding product and customer requirements. These requirements have resulted in a new Serial Dials/LPFKeys device driver. this new device driver removes the restriction which prevents standard devices other than Dials/LPFKeys (for example, TTYs, printers, modems) from being configured on the native serial ports once a Dials/LPFKeys has been serially attached and configured. Additionally, Dials/LPFKeys can now be configured on any valid serial port, not just the native serial ports.

The high-level interface for serial Dials/LPFKeys remains unchanged. However, existing serial Dials/LPFKeys device instances must be migrated to the new serial Dials/LPFKeys device driver in order to utilize the new features. A utility for performing the required device migration has been made available to ease this transition. The utility, **convert_sgio**, is located in the **/usr/lib/methods** directory.

Note: If any programs are accessing a configured serial Dials/LPFKeys device, the utility will be unable to complete the migration. The Xserver is one such program. As such, the X server must be exited prior to running the migration utility.

An attempt is made to run the migration utility during installation. Note that failure of the migration utility during installation (for example, X server running) causes a message to be sent to stdout but does not cause an installation failure. Correct the indicated problems and continue with the migration manually.

The new Serial Dials/LPFKeys device driver and the associated migration utility are shipped as an update to the "Serial Graphics Input Adapter Software" fileset.

Known Problems 4

Overview

This chapter contains information on known problems in this release of AIX 4.2. Workarounds have been provided whenever they are available.

For additional troubleshooting information, refer to *AIX 4.2 Installation Troubleshooting* and *AIX 4.2 Problem Solving Guide and Reference.*

Memory Leak Exists in Motif Version 1.2.3

Tracking Number

TAR 1-48103

Problem

Version 1.2.3 and earlier versions of the Motif graphical user interface contain a bug which causes a leak in system memory.

Workaround

Upgrade to version 1.2.4 or later of Motif.

or

Apply PTF U446520.1.

SMIT Erase Methods Inconsistent

Tracking Number

TAR 1–48101

Problem

In the ASCII version of SMIT the method to erase a digit from a fixed length field is inconsistent.

Workaround

Use the delete key for the last character in the field and the backspace key for the other digits.

For example, if a numerical field consists of a maximum of 4 digits the delete key must be used to delete the fourth (last) digit (the backspace key does not work). However, the delete key cannot be used to delete any of the other digits in the field. The backspace key must be used to delete any digits in locations 1-3.

POSIX Compliance Testing Suite Failures

Tracking Number

TARs 1-48794, 1-48833

Problem

The POSIX compliance testing suite has several failures.

While running the POSIX test suite (NIST-PCTS 151-2 Ver. 1.8), a `tcsendbreak[04]` failure occurs.

In addition, the POSIX test hangs after it fails the interface section. The interface section tests the requirements for the `write()` call to block until writes can be accepted (when the `0_NONBLOCK` flag is cleared). The failure of the this test causes the process running section 7.1.1_42 of the POSIX test suite to exit. The POSIX test hang occurs as the process attempts to exit.

Highest Resolution Not Available on Systems with 1MB Display Memory for Cirrus Adapters

Tracking Number

TAR 1–39833

Problem

If your system contains only 1MB of display memory for Cirrus adapters (either on the motherboard or on a PCI card), the highest resolution you are able to use is 1024x768 mode. SMIT allows you to select a higher mode (1280x1024), but your system does not support it and defaults to 1024x768 resolution mode.

Workaround

If you must use a higher resolution than 1024x768 mode, you need to add display memory or add a card with more than 1MB of display memory to your system.

Floppy Drives Do Not Detect Disk Density

Tracking Number

TAR 1-44804

Problem

Floppy disk drives included in Motorola AIX systems support only 144Mb floppy media. The drives are not able to distinguish between low density (720Kb) and high density (1.44Mb) disks. If the **fdformat** command is run without the **-h** option, the system will try to format the high density disk as a low density floppy. This will put the floppy drive in a state where it cannot be accessed until the system is rebooted.

Workaround:

Always use the **fdformat** command in the following fashion.

```
fdformat /dev/fd0 -h
```

System Boot Appears to Halt with stop timed out error

Tracking Number

TAR 1-48971

Problem

System boots slowly. If you have pinned the debugger, you will see an error message similar to:

```
Stop timed out: devp=06CB5000 unit=1
```

This problem most likely reflects a networking error. It is generally caused by the network attempting to configure an AUI style port when the board doesn't have an interface for AUI. This occurs when the interface type is set to auto and the system is unable to recognize the network device (when a cable has been dropped, for example).The driver looks in the SROM, tries the specified combinations, and if it doesn't find any activity, it tries to guess at the configuration. Frequently, the system assumes an AUI interface, because they are notoriously hard to identify. Once the system configures itself for an AUI interface, the DEC chip no longer has a clock, and is thus prevented from entering the stopped state which the driver requires during initialization. Thereafter, the system periodically attempts to autosense the attached medium. This process, which can take several seconds, occurs with interrupts off, and thus gives the appearance of a dead system.

Workaround

Reattach the cable to a live hub.

Or

Change the network configuration from auto to tx by using the CD-ROM maintenance mode or by doing a non-networked service boot.

Uniprocessor Floating Point Interrupt Problem

Tracking Number

None.

Problem

A problem exists in the floating point unavailable interrupt handling of AIX 4.2.0 when running on uniprocessor systems. The problem is only known to occur when a floating point unavailable interrupt is handled in the AIX kernel while performing an extended precision math operation, which executes a specific sequence of instructions. The result could be an undetected error in the extended math operation. This problem does not occur on symmetric multiprocessor systems.

Workaround:

Contact your distributor or VAR for appropriate PTFs.

Known Problems Filed with the Vendor

Motorola's AIX 4.1 operating system release is based on IBM's AIX 4.1 release.

The following problems have been filed with IBM. Resolutions of these problems are pending fixes from IBM.

Table 4-1. TARs Filed with IBM

TAR Number	Description
1-43408	`makestack` has hard-coded list of tape devices.

Documentation Changes 5

Overview

This chapter documents changes and corrections to various books and InfoExplorer documents in the AIX 4.2 documentation set.

Location of schedtune Command Incorrect in InfoExplorer Libraries

The following correction applies to the InfoExplorer version of *Tuning VMM Memory Load Control.*

InfoExplorer says that the schedtune command is located in the **/usr/lpp/bos/samples** directory. However, the command is located in the **/usr/samples/kernel** directory.

xmemout() Man Page Incorrect

The man page and InfoExplorer entries incorrectly state that `xmemout()` kernel service can be called from the process environment only. The purpose of `xmemout()`, however, is to allow interrupt routines and other kernel processes to access a user's buffers.

The man page and InfoExplorer entries in upcoming releases will read: "The `xmemout()` kernel service can be called from the process environment **or** the interrupt environment."

AIX Version 4 Installing and Configuring NCDware

The following corrections apply to the *AIX Version 4 Installing and Configuring NCDware* guide:

- In step 5 on page 8-4 and step 8 on page 8-6 of *AIX 4.1 Installing and Configuring NCDware*, the file path is listed incorrectly. The correct file path should be:

  `/etc/inetd.conf`

- In step 2 on page 8-6 of *AIX Version 4 Installing and Configuring NCDware*, the directory is listed incorrectly. The correct command should be:

  `cd /usr/ncd/terminals/usr/lib/X11/ncd/configs`

AIX Version 4 System Management Guide: Communications and Network

The procedure for configuring Serial Line Internet Protocol (SLIP) over a null modem cable is incorrectly documented in the soft copy (InfoExplorer) version of the *AIX Version 4 System Management Guide: Communications and Network*, available in InfoExplorer. The procedure is correctly documented in the hard copy version of this guide.

In addition the procedure for deactivating a Serial Line Internet Protocol (SLIP) connection is incorrectly documented. The paragraph beginning, "If `slattach` is accidentally killed with a `-9` flag..." should read:

"If `slattach` is accidentally killed with a `-9` flag, a slip lock may remain in `/etc/locks`. Delete this lock file to clean up after `slattach`."

The sample program on this page is also incorrect. Disregard this example.

You can also deactivate the SLIP connection, using SMIT instead of the `kill` command. Follow this procedure:

1. Enter:

   `smit chinet`

2. Select the SLIP interface (for example, `sl0`).
3. Select the `Current STATE` field and view your choices.
4. Select either `down` or `detach`.
5. Confirm your selection to deactivate the SLIP connection.

Configuring NIS Documentation Error

The *System Management Guide: Communications and Networks* incorrectly documents how to configuring NIS. The guide tells you to add the pattern '`+:0:0:::`' as the last line of the local `/etc/passwd` file. This is incorrect. Instead, you must add this pattern:

```
+::0:0:::
```

to the local `/etc/passwd` file in order for the NIS `/var/yp/passwd` to be checked for user entries.

If you do not do this no one is able to log in if they are not in the local `/etc/passwd` file.

AIX Version 4 Commands Reference

The following corrections apply to the *AIX Version 4 Commands Reference*:

- The *AIX Version 4.1 Commands Reference* describes a feature of the `bellmail` command that has been changed. The `bellmail` command no longer allows the `-d` option to specify an alternate mail directory.
- The use of the `mbuf` subcommand with `crash` is incorrectly documented in the *AIX 4.1 Commands Reference*. The new syntax for the `mbuf` subcommand is:

  `mbuf` *Address*

  This subcommand displays the system `mbuf` structures at the specified *Address*.
- The `mkfs -o` and `crfs -a` commands are incorrectly documented in the *AIX Version 4.1 Commands Reference*. The specifier for the file system fragment size is listed as `fragment`. The correct specifier is `frag`.

AIX Version 4 AIXwindows Programming Guide

The hardcopy version of the *AIX Version 4 AIXwindows Programming Guide* is not current as of Service Level AOS1.3. InfoExplorer does contain a current version of this guide, however. The current version on InfoExplorer contains a new Appendix E, “Display Power Management.”