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This portion of the README file provides information specific to the Prioris HX 6000 server.

6.1 Server-Specific Contents

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## 7.0 QUICK LAUNCH SOFTWARE

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### 7.1 Minimum BIOS & System Configuration Utility (SCU) Levels

This version of Quick Launch requires the following minimum system software:

BIOS: 2.00

SCU: 2.00

BIOS and SCU updates are available on the BBS, refer to section 1.0.

### 7.2 BIOS Upgrade Jumper

The BIOS Upgrade jumper (SW1-1) on the main logic board has a default setting of enabled (on) to allow the BIOS to be upgraded from Quick Launch.

To prevent unauthorized personnel from loading a new server BIOS, you must set this switch to disabled (off). Loading a new server BIOS might allow someone to override other server security features or introduce a virus into your server.

## 8.0 OPERATING SYSTEMS

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### 8.1 NetWare 3.12

#### 8.1.1 NetWare 3.12 Single Processor Installations

For NetWare 3.12 installations on 1P systems, using either the Express installation or Conventional installation, you must run the SCU to disable the APIC & MP Table parameter in the Advanced Control Group. Neglecting to disable this parameter may result in "Spurious Interrupt" messages on the NetWare server console.

This parameter will need to be reset to its default value (MP1.4) prior to installing any other operating system on this system.

### 8.2 SCO

#### 8.1.2 More on Installing SCO UNIX Products

(1) Installing AHS and Kernel link failure:

Once the operating system is installed using the Adaptec driver diskette, installing the AHS from the CD will overwrite this later driver with an older one. During the installation of the AHS, the install will halt and display the following:

The UNIX operating system will now be rebuilt.  
This will take a few minutes. Please wait.

Root for this build is /  
/etc/conf/bin/idmknod: Driver alad is not a character special device kslgen: Cannot determine major/minor number of node /dev/inet/udp.

ERROR: kernel link failed  
ERROR STACK: kernel link failed

Please enter one of the follow:

'r' to retry the operation  
'i' to ignore the error and continue  
'ca' to cancel

Select 'i' to ignore the error and continue installing the AHS. Once the installation has finished, reboot the system in single-user mode, run "installpkg," and reinstall the driver from the Adaptec 1.3 driver kit.

NOTE: To avoid issues such as this one and to conserve disk space, it is best to install ONLY the drivers and updates that will be required by the operating system, hardware, and applications. Consult the software and any update documentations for details.

(2) Excessive floppy read errors:

If the diskette drive gets an abnormal amount of use, floppy read errors may occur. If this is the case, the diskette driver in OpenServer 5.x can be modified to enable FIFO. This will require an experienced UNIX person to apply the change.

(3) Embedded Ethernet driver:

The driver for the embedded 21142 fast ethernet can be used for all of the Digital ethernet and fast ethernet cards (DE450).

However, third party ethernet and fast ethernet drivers cannot be used in conjunction with the Digital card(s).

(4) Network Interface Card (NIC) installation note:

The UNIX NIC installation program may not automatically recognize the product you are attempting to install. If this is the case, a manual configuration will be necessary. In this process, the user will need to know the "bus, device, and function" of the slot the NIC is installed in. These parameters usually start at 0 and range to some higher number. In the Prioris HX 6000 servers, these values start at 1. This ranging disparity appears to have no adverse effect on the functionality of the NIC.

- (5) "Some\_number system drive(s) are offline"  
message from Mylex mdacinit:

If multiple Mylex RAID controllers are used, once the second and subsequent boards and drives are configured, messages similar to the following will be seen during SCO OpenServer 5.x boot time, while displaying the hardware configuration.

```
...
%eisarom - - - eisa (1.3.0)
%adapter 0x7000-0x7043 11 - type=mdac (v4.04) 2-chnl 16-ids ha=0
*** 983040 system drive(s) are off line
%adapter 0x7080-0x70C3 5 - type=mdac (v4.04) 2-chnl 16-ids ha=1
*** 65536 system drive(s) are off line
%adapter 0x7C00-0x7C43 15 - type=mdac (v4.04) 2-chnl 16-ids ha=2
*** 3276800 system drive(s) are off line
%adapter 0x7400-0x74FF 14 - type=alad ... (etc.)
...
```

These messages can be safely ignored.

## 9.0 SERVER CONFIGURATION

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### 9.1 Integrated Ethernet Controller (Digital 2114X)

The NetWare and SCO Unix drivers for the integrated Ethernet controller (Digital 2114X) default to the twisted-pair (RJ-45) connector.

To configure the ThinWire (BNC) or Thickwire (AUI) media for NetWare ports, it is necessary to add the following keyword to the command line used to load the driver:

MEDIA=BNC or MEDIA=AUI

Examples:

```
LOAD DC21X4 SLOT=10001 MEDIA=BNC
(for ThinWire connections)
```

```
LOAD DC21X4 SLOT=10001 MEDIA=AUI
(for thickwire connections)
```

For NetWare, the media type will need to be specified when the driver is loaded.

For SCO Open Desktop, the driver space.c file will need to be modified to specify the media port.

In SCO OpenServer 5.x, the port can be switched to the AUI port or the BNC connector through the "netconfig" utility. Follow the example below:

1. Run "netconfig."
2. Press Tab and down arrow key to highlight "HW Digital DC2114X PCI Ethernet and Fast Ethernet Controller." Then, press the space bar to mark the entry with "\*".
3. Press Tab to go back to "Hardware," press Enter and down arrow to "Modify hardware configuration."
4. Press Tab four times to "Advance options" in the upper-right corner of the screen.
5. The default media setting is SROM\_default. If desired, you can modify this setting by pressing the down arrow key until your desired port is highlighted.
6. Exit the utility gracefully. The kernel will rebuild. On the next boot, the hardware display will read as follows:

For BNC: type=dc2114x/BNC addr=xxxxxxx

For AUI: type=dc2114x/AUI addr=xxxxxxx

## 9.2 Graphics Resolution

In order to increase the graphics resolution to a maximum of 1024x768, 256 color, you must have "root" priviledges. Then, use either 'mkdev graphics' or 'scoadmin video' and follow these selections:

Modify

Scroll to "Number 9 Gxe 64."

Select OK.

Scroll to the correct monitor specification,  
i.e.: Other 15 inch

Select the resolution and frequency specification based on your monitors scan and refresh rates.

Consult your documentation if necessary.

### 9.3 Power Supply

#### 9.3.1 Installing a Second Power Supply

Your Digital Prioris HX 6000 Series Server includes one 450 watt power supply. A second power supply may be purchased as an option (FR-PCSPS-AA).

When installing a second power supply, make sure you disconnect FAN 5 on the MLB.

When two power supply are installed, be sure to connect both supplies to AC power. Failure to plug in one supply or the other will result in a P/S failure message on the OCP panel during system power up.

### 9.4 System Configuration Utility (SCU)

#### 9.4.1 Interrupt (IRQ) Assignments

The System BIOS will reassign interrupts (IRQs) whenever the system configuration is changed by adding or deleting option cards. The SCU should be run to verify that the IRQs assigned are valid and supported by the option card and that there are no conflicts with other boards.

In some instances, when the SCU is run after removing an option card from the system, a message reports that the board removed is embedded. This message incorrectly reports the option board as an embedded device and may be safely ignored.

#### 9.4.2 Option ROM Address Resources

This version of the System Configuration Utility (SCU) does not allow viewing, setting, or locking of the PCI option ROM address resources. All PCI option BIOS' are configured automatically by the system BIOS.

This implies the following:

1. The SCU does not allow the user to view or edit option ROM address resources for PCI cards. The SCU will report the address resources for PCI cards as "available." The address space will be automatically configured when the option cards are scanned by the system BIOS in the boot time.
2. The boot device in the system will be determined by the SCU setting. You can choose:
  - o PCI slots,
  - o On board 7880 channel A, or
  - o On board 7880 channel B.The default is PCI slots. If there is no boot device on the PCI slot controller, the system will boot from on board 7880 channel A.  
  
The highest boot priority for PCI options is PCI Slot 1. The lowest priority is PCI Slot 6. Refer to Chapter 8 in the User's Guide for a description of the server bus scan order.
3. Disabling PCI options that cannot be configured will be controlled entirely by the system BIOS during PCI auto-configuration.

## 9.5 On-Board SCSI

### 9.5.1 Disable Secondary SCSI Channel if Not Used

Disable the on-board secondary 7880 (CH B) in the SCU if either of the following are true:

- o CH B 7880 is connected to the lower half of the split backplane, but no drives are installed in those drive bays.
- o No cable is connected to the CH B 7880.

Procedure:

1. Create an SCU diskette.
2. Run the SCU.
3. Select "Configure Computer."
4. Select "View or Edit Details."
5. Set "Embedded PCI SCSI Channel B" to "Not Installed."
6. Save and exit SCU.



### 9.5.2 Setting ID of On-Board SCSI

Setting SCSI ID of the CD-ROM to "5" is a quick solution to boot from Quick Launch, but if another CD-ROM or a tape drive is installed as SCSI ID 6, Quick Launch cannot boot the system again.

### 9.6 Setting Termination of Channel A

Channel A has two types of connectors, wide and narrow. The default has the narrow cable connected to a narrow device, like the CD-ROM. Use the following procedure to set the bus termination for SCSI Channel A:

1. When the Adaptec BIOS banner appears during the boot process and before the end of the device information, press Ctrl-A.
2. Select the first Bus:Device listed.
3. Select "Configure/View Host Adapter Settings."
4. Select "Host Adapter SCSI Termination" and set the low/high switches:

	Termination	
	Low	High
Wide cable of Channel A not connected to backplane	On	On
Wide cable of Channel A connected to backplane	Off	On

### 9.7 Updating the BIOS with Video Option Card Installed

When updating the BIOS, you must remove any video option cards and enable the onboard VGA. In the rare event that you may need to use the recovery diskette, the system will require that the onboard VGA be used in this mode.

### 9.8 EISA Master Request Delay Issue

According to an Intel chipset errata, certain EISA cards that use Intel BMIC 82355 chips need to delay one cycle for the chipset to work correctly. The HX 6000 provides jumpers for EISA slots 4 and 5. If the EISA card has this chipset, move the jumper from the 1-2 position to

the 2-3 position. (The default setting is pins 1-2.)

Note: The Proteon P1990+ Token Ring network card must be installed in either slot 4 or 5, and you need move the jumper from the 1-2 position to the 2-3 position for the slot in which the card is installed.

#### 9.9 PCI Bus Parity Function

The Parity function can be enabled or disabled through the SCU. The default setting is enabled. This function needs to be set to "disabled" for PCI cards that do not implement the PCI parity function.

Note: With the Proteon Token Ring EISA network card, you also need to use the SCU to disable PCI Parity Checking.

#### 9.10 3.3V Support on PCI Slots

PCI slots 1 through 3 do not support 3.3V. If your PCI card needs 3.3V, plug it into PCI slot 4 through 6.

#### 9.11 Memory Troubleshooting

The power-on self test (POST) now provides additional information, which includes the SIMM size (zz) in MB and the SIMM type. The SIMM type can be either Fast-Page memory (FPM) or Extended Data Out (EDO) memory. The memory error message format is:

<Type of error> <Location> <Size> <Type>

Examples for a single bit memory error:

Correctable Error : J8/J9 zz MB FPM SIMM's

Correctable Error : J10/J11 zz MB EDO SIMM's

Examples for multiple bits memory error:

Uncorrectable Error : J12/J13 zz MB FPM SIMM's

Uncorrectable Error : J14/J15 zz MB EDO SIMM's

#### 9.12 CPU Compatibility

At this time, this Prioris server uses only two production steppings of the Pentium Pro chip; therefore, there are no known issues about mixing them in a multiprocessor environment.

### 10.0 OPTIONS

#### 10.1 Znyx PCI Ethernet (ZX312)

The Znyx PCI Ethernet card cannot be used in the system under SCO UNIX operating systems when the integrated Ethernet controller (Digital 2114X) is enabled.

## 10.2 Locking Resources

The SCU allows you to lock "saved" resources for any EISA/PCI expansion board installed in the server. If you are adding options, make sure you check to see if the resources are locked. Use the Advanced Menu in the SCU.

NOTE: Every time you change settings in the SCU, you need to save them. To change a locked resource, unlock it, make the change, then save and exit the SCU. Reboot and then lock the resource, if desired. You can only lock resources that have been previously saved.