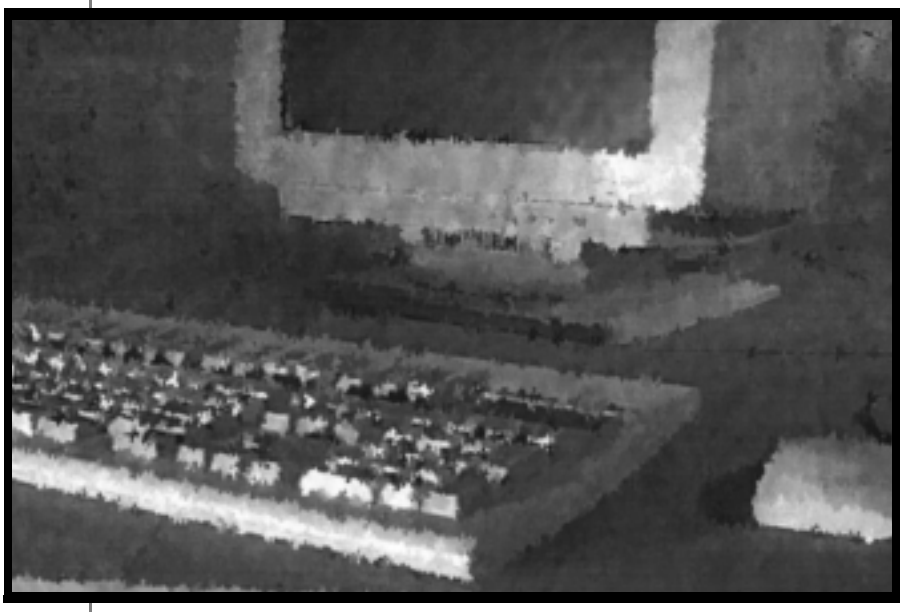
Dell OptiPlex® GX1and NX1

DOCUMENTATION UPDATE



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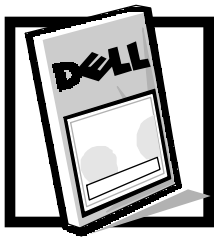

Dell® OptiPlex® GX1 and NX1 Documentation Update

This document updates information contained in your Dell OptiPlex GX1 and NX1 system documentation. It describes the following features:

- Reinstallation of DirectX and video drivers
- Proper configuration of network drivers if you have a 3Com® PCI 3C905b Ethernet network interface controller (NIC)
- Reinstallation of the Microsoft®-updated Advanced Technology Attachment Packet Interface (ATAPI) driver for the Microsoft Windows NT® 4.0 operating system
- New online documentation
- New System Setup options
- System board layout for new OptiPlex systems
- New microprocessor option

Reinstalling DirectX and Video Drivers

If you ever need to reinstall the Microsoft Windows® 95 operating system, you should also reinstall the software drivers and utilities that came with your Dell system. This section specifically describes how to reinstall DirectX drivers and video drivers. Your online *System User's Guide* or *Network Administrator's Guide* describes how to install other types of drivers and utilities.

DirectX is a group of technologies designed to enhance application programs that are rich in multimedia elements such as full-color graphics, video, 3D animation, and surround sound. The presence of DirectX drivers on your system also ensures accelerated-graphics port (AGP) support.

To reinstall DirectX drivers and any other drivers and utilities that came with your system, you need a set of diskettes that contain the software. If your computer is *not* part of a centrally managed network, such as a network that connects computer workstations in an office environment, you should create a set of program diskettes using the Dell Program Diskette Maker. The program diskettes contain installation programs for the drivers and utilities needed by your system. To access the Program

Diskette Maker, click the **Start** button and point to **Programs**. Then point to **Dell Accessories** and click **Program Diskette Maker**. If your computer is part of a centrally managed network, check with your network administrator for information on reinstalling drivers and utilities.

If you are a network administrator and you received the Network Administrator's Kit, Dell provides drivers and utilities for Windows 95 on diskettes. Normally, you should install the drivers on the managing server and then use Intel® LANDesk® Configuration Manager to download and install the drivers on an OptiPlex GX1 Managed PC system or an OptiPlex NX1 Net PC system. See your online *Network Administrator's Guide* for information on downloading and installing drivers over the network.

To reinstall DirectX drivers locally on a system with a diskette drive, follow these steps:

1. If you have not done so already, create a program diskette set of drivers as described previously. Or, if you received the Network Administrator's Kit, locate the diskettes containing drivers and utilities.
2. If you reinstalled Windows 95, make sure Universal Serial Bus (USB) support was reinstalled along with the operating system.

   USB support is enabled when Windows 95 is installed by Dell. However, if you need to reinstall the operating system, USB support should also be reinstalled. See your system's *Reference and Installation Guide* or your online *Network Administrator's Guide* for more information.
3. Save any work and close all application programs, because you will need to restart the computer at the end of this procedure to complete the installation.
4. Insert the *DX5 Drivers Diskette 1* into the diskette drive.
5. Click the **Start** button and then click **Run**.
6. Type `a:\setup.exe` and click **OK**.
7. Follow the instructions on your screen, and insert the *DX5 Drivers Diskette 2* when prompted.

   When the **setup.exe** program is complete, a message appears prompting you to run another program.
8. Click the **Start** button and then click **Run**. Type `c:\windows\ dx5core.exe` and click **OK**.
9. Follow the instructions on your screen to complete the DirectX drivers installation and restart the system when prompted.
10. After the system restarts, insert the video drivers diskette into the diskette drive.
11. Click the **Start** button and then click **Run**.
12. Type `a:\setup.exe` and click **OK**.

13. Follow the instructions on your screen to reinstall the primary video drivers.

    When Windows 95 restarts, you can change the display resolution and color depth. See the operating system documentation for more information.

NOTE: If you change the display resolution, you may need to adjust the refresh rate for optimum viewing.

Configuring a 3Com PCI 3C905b NIC

The following subsections describe how to manually set the network frame type for an Internetwork Packet Exchange/Sequenced Packet Exchange (IPX/SPX)-compatible network protocol and which version of 3Com EtherDisk® XL drivers and utilities you should use.

Setting the Network Frame Type

If your system is connected to a network, verify the following network protocol settings:

1. Right-click the **Network Neighborhood** icon on the Windows desktop, and then select **Properties** from the pop-up menu.
2. Under the **Configuration** tab in the **Network** window, click **IPX/SPX-Compatible Protocol** if it is not already highlighted.
3. Click the **Properties** button to open the **IPX/SPX-Compatible Protocol Properties** window.
4. Click the **Advanced** tab, and then select **Frame Type** from the **Property** list.
5. Select the appropriate frame type from the **Value** menu, according to your network requirements.
6. Follow the instructions on your screen to complete the configuration.

Using 3Com EtherDisk XL Version 3.01 Diskettes

The 3Com EtherDisk XL version 3.01 diskettes provided by Dell are compatible with the 3C905 family of NICs. If you purchased a 3Com 3C905-based NIC separately, do not attempt to use the 3Com EtherDisk XL diskettes that came with the NIC. Use only the 3Com EtherDisk XL version 3.01 diskettes that were provided by Dell.

For more information on NIC drivers and utilities, see your system's *Reference and Installation Guide* or your online *Network Administrator's Guide*.

Microsoft-Updated ATAPI Driver

If you purchased Microsoft Windows NT 4.0 with your computer, your system is equipped with the Microsoft-updated ATAPI driver.

Dell has installed the Microsoft-updated ATAPI driver for your operating system, and it is operative when you receive your computer. No further installation or configuration is needed.

NOTE: If Windows NT 4.0 is reinstalled, the Microsoft-updated ATAPI driver must also be reinstalled.

The driver for Windows NT 4.0 has also been copied to your hard-disk drive in diskette-image form. If you need to reinstall or remove this driver, you can do so as described in the following subsections.

Reinstalling the Windows NT 4.0 Microsoft-Updated ATAPI Driver

NOTE: To install the Microsoft-updated ATAPI driver for Windows NT 4.0, you must have a mouse connected to the system and Windows NT 4.0 must already be installed on the hard-disk drive connected to the primary enhanced integrated drive electronics (EIDE) channel.

To reinstall the Microsoft-updated ATAPI driver for Windows NT 4.0, follow these steps:

1. If you have not already done so, use the Program Diskette Maker to make a diskette copy of the Dell Microsoft-updated ATAPI driver diskette image on your hard-disk drive.

   The Program Diskette Maker is available through the **Dell Accessories** program folder. For more information, refer to the online help provided in the Program Diskette Maker.

2. Start Windows NT. If you are already running Windows NT, close any open documents or application programs.

3. Insert the Microsoft-updated ATAPI driver diskette into drive A.

4. Click the **Start** button and click **Run.** Type `a:\setup.bat` in the **Run** window, and then click **OK**.

   A black screen quickly appears and disappears, indicating that the driver file has been loaded. Setup automatically saves the existing **atapi.sys** driver as **atapi.000** and loads the new driver into the **system32\drivers** subdirectory in the Windows NT directory.

5. Remove the diskette from drive A. Then restart the system.

*NOTE: To enable or disable direct memory access (DMA) while using the Microsoft-updated ATAPI driver, run **dmacheck.exe** from **\support\utils\i386** on the* Microsoft Windows NT Service Pack 3 *CD-ROM.*

Removing the Windows NT 4.0 Microsoft-Updated ATAPI Driver

To remove the Microsoft-updated ATAPI driver, follow these steps:

1. Start Windows NT. If you are already running Windows NT, close any open documents or application programs.
2. Use Windows NT Explorer to open the **system32\drivers** subdirectory in the Windows NT directory.
3. Rename the existing **atapi.sys** file to **atapi.bak**.
4. Rename the **atapi.000** file to **atapi.sys**.
5. Restart the computer.

Accessing Online Documentation

In addition to the online *System User's Guide*, your system also includes online versions of the *Reference and Installation Guide* and the *Diagnostics and Troubleshooting Guide* in portable document format (PDF) files on the hard-disk drive. These documents are located in the **Dell Accessories** folder.

System Setup Options

The following subsections provide updated infromation about some of the options on the System Setup screen. Page 1 of the System Setup screen includes new fields for **DAC Snoop** and **ACPI** and reports primary drives and chassis intrusion differently than before (see Figure 1-1). Use of the **Setup Password** (reported on page 2 of the System Setup screen) has also changed.

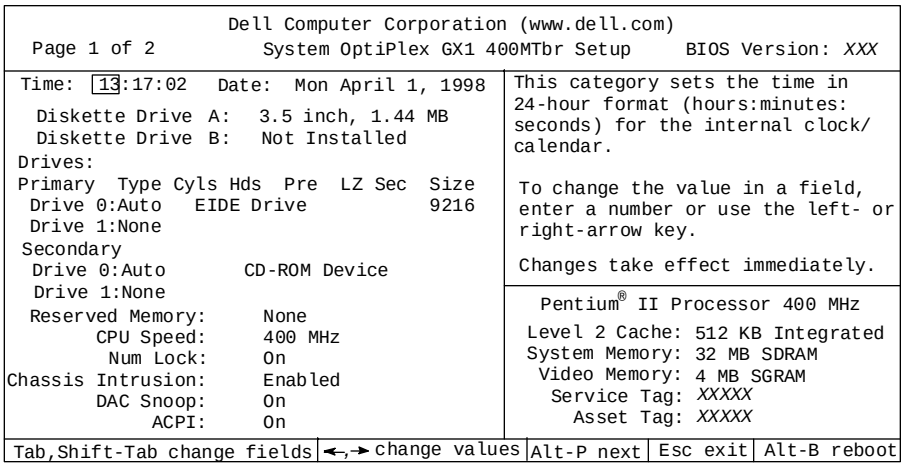

Figure 1-1. System Setup Screen, Page 1

Drives: Primary and Secondary

System Setup reports hard-disk drives in one of two ways:

- Newer hard-disk drives and all hard-disk drives over 8 gigabytes (GB) are reported as an **EIDE Drive**, without details on type, cylinders, heads, cylinder numbers, and sectors. See Figure 1-1 for an example.
- Older hard-disk drives are reported with full details about type, cylinders, heads, cylinder numbers, sectors, and size.

*NOTE: For all Dell-installed hard-disk drives, set the appropriate **Drive** option to **Auto**.*

Use one of the following options if you have an older EIDE hard-disk drive not shipped with the system from Dell and with less than 528 megabytes (MB) in capacity:

- A specific drive-type number
- **Usr1** or **Usr2**

For each drive, you can choose the seven parameters as a group by drive-type number or you can enter the parameters individually from the keyboard. A *drive-type number* specifies the parameters of a hard-disk drive, based on a table recorded in the system's basic input/output system (BIOS).

NOTE: Operating systems that bypass the system BIOS may not obtain optimum hard-disk drive performance.

If you choose the **Usr1** or **Usr2** option, you must supply the following parameters for the drive:

- **Type** is the drive-type number for the selected hard-disk drive (in this case, **Usr1** or **Usr2**).
- **Cyls** is the number of logical cylinders.
- **Hds** indicates the number of logical heads in the drive.
- **Pre** (*precompensation cylinder*) is the cylinder number at which the electrical current for the drive head changes to compensate for differences in data density across the disk surface (this parameter has no effect for EIDE drives).
- **Lz** is the cylinder number that is used as the drive's landing zone for the heads when the drive is not in use.
- **Sec** is the number of logical sectors per track.
- **Size** (automatically calculated by the system) indicates the number of millions of bytes of storage provided by the drive.

Chassis Intrusion

Chassis Intrusion displays the status of the system chassis intrusion monitor and can be set to **Enabled**, **Enabled-Silent**, or **Disabled**. The default is **Enabled**.

If the computer cover is removed while the intrusion monitor is set to **Enabled**, the setting changes to **Detected**, and the following message appears during the boot sequence at the next system start-up:

```
Alert! Cover was previously removed.
```

If the computer cover is removed while the intrusion monitor is set to **Enabled-Silent**, the setting changes to **Detected**, but the alert message is not displayed during the boot sequence at the next system start-up.

If the intrusion monitor is set to **Disabled**, no intrusion monitoring occurs and no messages are displayed.

To reset the **Detected** setting, enter the System Setup program during the system's power-on self-test (POST). At the **Chassis Intrusion** option, press any edit key to reset the setting, and then choose **Enabled**, **Enabled-Silent**, or **Disabled**.

*NOTE: When the setup password is enabled, the setup password is required to reset the **Chassis Intrusion** option.*

DAC Snoop

DAC Snoop lets you correct video problems that may occur when certain video expansion cards are used. The default is **Off**. If you are using a video expansion card and problems such as incorrect colors or blank windows occur, set **DAC Snoop** to **On**.

ACPI

This option controls the operation of the system's Advanced Configuration and Power Interface (ACPI) feature. The default is **On**.

When **ACPI** is set to **On**, momentarily pressing the power button places the system in a power-saving mode. To turn the system off completely, press the power button for more than four seconds. When **ACPI** is set to **On**, interrupt request (IRQ) line 9 is not available for use by an expansion card.

When **ACPI** is set to **Off**, momentarily pressing the power button turns off the system completely. With this setting, IRQ9 is available for use by an expansion card.

Operating With a Setup Password Enabled

If **Setup Password** is set to **Enabled**, you must enter the correct setup password before you can modify the majority of the System Setup options. If you do not enter the correct password in three tries, the system lets you view, but not modify, the System Setup screen, with one exception: if **Password Status** is **Unlocked**, you may modify the system password.

System Board and Connectors

New OptiPlex GX1 and NX1 systems contain the system board shown in Figure 1-2.

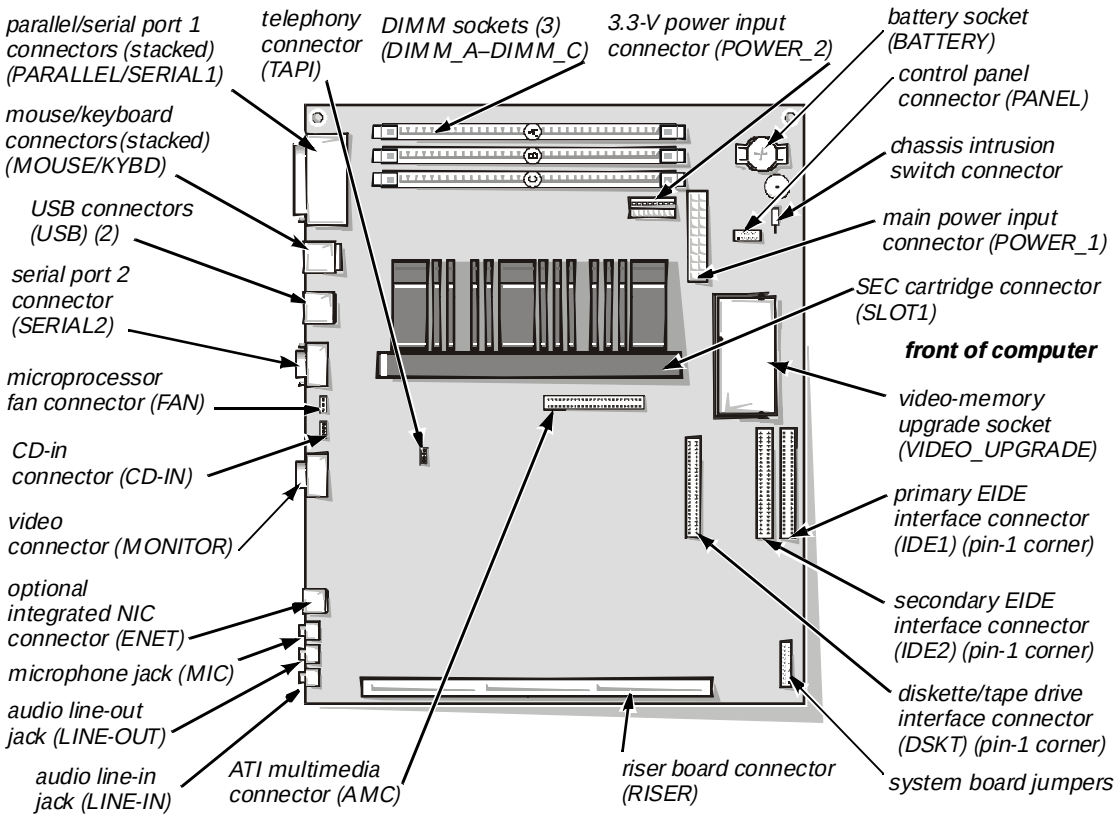

Figure 1-2. System Board Features

Microprocessor Option

The OptiPlex GX1 and NX1 systems now offer the Intel® Pentium® II microprocessor with an internal speed of 450 megahertz (MHz), an external speed of 100 MHz, and a 512-kilobyte (KB) level 2 (L2) cache.

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