

TDZ 2000 GX1

System Setup

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INTERGRAPH
COMPUTER SYSTEMS

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FCC/DOC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If the equipment is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, try to correct the interference as follows: reorient or relocate the affected device; increase the separation between this equipment and the affected device; connect this equipment to an outlet on a circuit different from the circuit to which the affected device is connected; consult a dealer or an experienced radio/television technician for help.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Warnings

To reduce the risk of electrical shock, do not attempt to open the equipment unless instructed. Do not use a tool for purposes other than instructed.

There is a danger of explosion if the battery is incorrectly replaced. Replace the battery only with the same or equivalent type as recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

There are no user serviceable parts within the power supply. In the event of failure, the power supply must be replaced by qualified service personnel. Use Intergraph power supplies only.

Changes or modifications made to the system that are not approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with FCC Class B limits, you must use shielded cables with this device.

Notes

This device is designed and manufactured to comply with approved safety standards for information processing and business equipment.

Read all operating instructions before using this device. Keep these instructions for future reference. Follow all warnings on the device or in the operating instructions.

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Preface

TDZ 2000 GX1 System Setup describes setting up and configuring your TDZ 2000 GX1 system for use. This document also provides information on operating the system, troubleshooting, and reinstalling system software.

About This Document

TDZ 2000 GX1 System Setup is organized as follows:

- ◆ Chapter 1, “Setting Up the Hardware,” describes how to set up the system hardware.
- ◆ Chapter 2, “Setting Up the Software,” describes how to set up the operating system and associated system software.
- ◆ Chapter 3, “Configuring the System,” describes how to configure the system for use.
- ◆ Chapter 4, “Operating Notes,” describes how to use essential system features and provides other important information.
- ◆ Chapter 5, “Troubleshooting,” describes how to resolve common system problems.
- ◆ Chapter 6, “Installing System Software,” describes how to install the operating system and associated system software, if required.

Document Conventions

Bold	Commands, words, or characters that you key in literally.
<i>Italic</i>	Variable values that you supply, or cross-references.
Monospace	Output displayed on the screen.
SMALL CAPS	Key names on the keyboard, such as D, ALT or F3; names of files and directories. You can type filenames and directory names in the dialog boxes or the command line in lowercase unless directed otherwise.
CTRL+D	Press a key while simultaneously pressing another key; for example, press CTRL and D simultaneously.

Finding Operating System Information

For more detailed information on the operating system, see the printed and online Microsoft documentation delivered with the system.

See the *Late-Breaking News* shipped with your system for important software and hardware documentation information not covered in this document.

Finding System Hardware Information

An online introduction to your new system is provided in the *System Introduction*, which covers subjects such as the following:

- ◆ System features
- ◆ System controls and connections
- ◆ Intergraph customer support

You can display the *System Introduction* by using the InterSite Welcome dialog or by opening the SYSINTRO.HLP file on your system.

Detailed reference information for your new system is provided in the *System Reference*, which covers subjects such as the following:

- ◆ Opening and closing the unit
- ◆ Precautions against electrostatic discharges
- ◆ Replacing system components
- ◆ Installing expansion cards
- ◆ Power supply information

See the *Late-Breaking News* shipped with your system for important hardware and documentation details not covered in this document.

A *System Board Manual* document is shipped with each system, and provides detailed information about the following:

- ◆ System board diagram (including ports and connectors)
- ◆ Replacing and upgrading system components
- ◆ System interrupt requests (IRQs)
- ◆ Using the BIOS Setup program

Learning About System Ergonomics

Please read the *Ergonomics Guide* included with your Intergraph computer system. This document provides valuable information on ways to minimize repetitive stress injuries for persons working with a computer.

Customer Support

Intergraph Computer Systems offers an assortment of customer support options.

Hardware and Software Support Services

Intergraph Computer Systems provides a variety of hardware services for Intergraph and third-party equipment. Services include warranty upgrades, repair depot service, on-site hardware maintenance, system administration, and network consulting. Hardware purchased from Intergraph Computer Systems includes a factory warranty ranging from 30 days to three years. A detailed warranty description is available on the World Wide Web; see the Support pages at <http://www.intergraph.com/ics>.

Intergraph Computer Systems provides complimentary software support for 30 or 90 days following shipment of a hardware or software product. This includes World Wide Web access, Intergraph Bulletin Board Service access, FAXLink service, and telephone (Help Desk) support. At the end of the complimentary support period, you can purchase other levels of software support.

World Wide Web

You can visit Intergraph Computer Systems on the World Wide Web at <http://www.intergraph.com/ics>. On these pages, you can get news and product information, technical support information, software updates and fixes, and more.

Intergraph Bulletin Board Service

On the Intergraph Bulletin Board Service (IBBS), you can get technical support information, software updates and fixes, and more.

To connect to the IBBS:

1. Set your system's communications protocol for eight (8) data bits, no parity, one (1) stop bit, and any baud rate up to 14,400.

2. Using a modem, call 1-256-730-8786. Outside the United States, call one of the mirror sites listed on World Wide Web; see the Software Support pages at **<http://www.intergraph.com>**.
3. At the login prompt, key in your user ID. If you have not connected before, key in **new** to create a user ID.
4. Follow the menus to find what you need. The IBBS provides choices and online help.

If you have trouble connecting to or using the IBBS, call the Customer Response Center at 1-800-633-7248 (product entry IBBS) or leave a message for the IBBS System Operator at 1-256-730-1413.

FAXLink

To use the FAXLink:

- ◆ Call 1-800-240-4300 for information on how to get technical support information using the FAXLink.
- ◆ Call 1-256-730-9000 to get documents (up to five per call).

Telephone

To get customer support by telephone:

- ◆ In the United States, call 1-800-633-7248 between the hours of 7:00 a.m. and 7:00 p.m. Central Time, Monday through Friday (except holidays).
- ◆ Outside the United States, contact your local Intergraph Computer Systems subsidiary or distributor.

Have the following information available when you call:

- ◆ Your service number, which identifies your site to Intergraph Computer Systems. You use your service number for warranty or maintenance calls.
- ◆ Your Customer Personal Identification Number (CPIN). You get a CPIN the first time you call the Customer Response Center; it is associated with your service number for future call logging.
- ◆ The product's name or model number.
- ◆ The product's serial number. Software product serial numbers are included in the product packaging. Hardware product serial numbers are on a sticker affixed to the hardware product.
- ◆ Your name and telephone number.
- ◆ A brief description of the question or problem.

More Support Options

To get information on more customer support options:

- ◆ Visit the Support pages on the World Wide Web at **<http://www.intergraph.com/ics>**.
- ◆ For hardware support questions in the United States, call 1-800-763-0242.
- ◆ For software support questions in the United States, call 1-800-345-4856.
- ◆ Outside the United States, contact your local Intergraph Computer Systems subsidiary or distributor.

1 Setting Up the Hardware

Follow the instructions in this chapter to set up the hardware for your TDZ 2000 GX1 workstation.

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Unpacking the System

CAUTION Do not use the bottom portion of the face panel or the lip at the top rear of the unit as a hand hold when moving the system. Equipment damage and personal injury can result.

CAUTION Carefully remove items from packaging. Do not drop any items on a hard surface, or damage may result. You may need a helper to assist you in removing and placing heavy items.

Remove everything from the shipping cartons, then look for the following items:

- ◆ A monitor with video cable, power cord, and documentation (if purchased from Intergraph Computer Systems)
- ◆ Workstation and power cord
- ◆ Keyboard and mouse
- ◆ Intergraph Computer Systems documentation
- ◆ Operating system software (CD-ROM and diskettes) and documentation
- ◆ InterSite software (CD-ROM)

NOTE If any of these items were not delivered, call the Customer Response Center immediately at 1-800-633-7248.

Save the packaging materials. If you need to return equipment for repair, it must be in its original packaging for you to get warranty service.

If you have already unpacked and connected the peripherals to the system, review the rest of this chapter and then go to Chapter 2 to begin software setup.

Placing System Components

CAUTION Do not use the bottom portion of the face panel or the lip at the top rear of the unit as a hand hold when moving the system. Equipment damage and personal injury can result.

When placing the system's components, remember these guidelines:

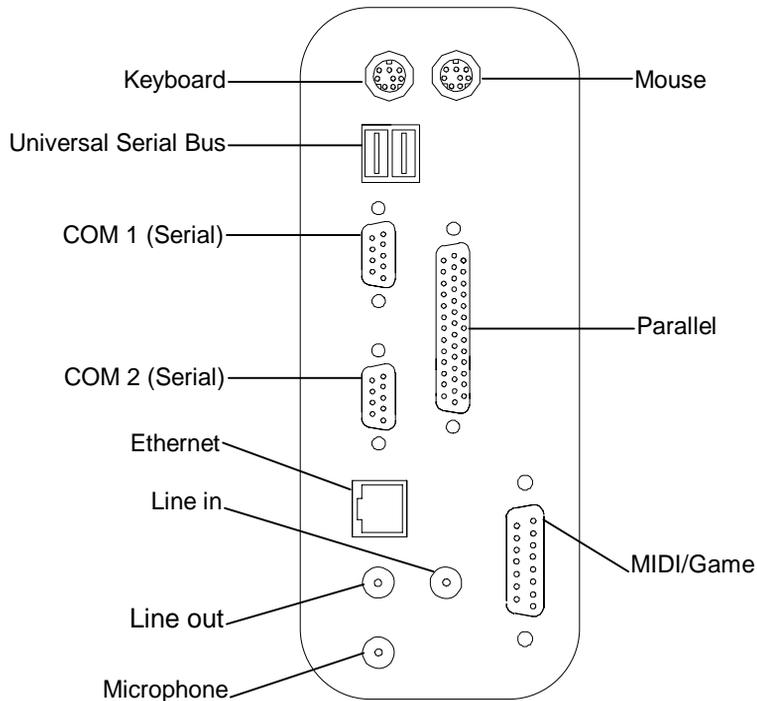
- ◆ Move and place the base unit and monitor carefully.
- ◆ Place the base unit in a location where air can circulate freely around it. The front and back panels should each have at least a 3-inch clearance.
- ◆ Avoid exposing the system to high levels of dust, smoke, or moisture.

- ◆ Maintain a temperature range of 10 °C to 26 °C (50 °F to 80 °F); the optimum operating temperature is 21 °C (70 °F).
- ◆ Maintain a humidity range from 20 percent to 80 percent (non-condensing); the optimum humidity level is 50 percent.

CAUTION Do not move the base unit without first shutting down the system and turning off the power, or damage to internal components may result. See Chapter 4 for instructions on properly shutting down and powering off the system.

Setting Up the System

Before you connect any cables to the back of the TDZ 2000 GX1, note the connector locations in the following illustration.



See the *System Reference* for technical details on each port.

To set up the system:

1. Arrange the system base unit, monitor, keyboard, and other peripherals in your workspace.
2. Connect the cables from the various peripherals to the ports on the back of the system.

<u>Connect the cable from this....</u>	<u>To the port labeled....</u>	<u>For this connector....</u>
Mouse		Mouse port
Keyboard		Keyboard port
Modem, printer, or other device	 ¹  ²	Serial (COM) port 1 or 2
Printer or other device		Parallel port
Network		Ethernet port
Universal Serial Bus device		Universal Serial Bus port
Stereo speakers or headphones		Line out port
External stereo cassette or CD player; radio or other device		Line in port
Microphone		Microphone port
Game joystick or MIDI device		MIDI/Game port
Monitor		Video Out port
External SCSI device		SCSI port

WARNING If you do not use cables supplied by Intergraph Computer Systems, you must use shielded cables to prevent excessive electromagnetic interference (EMI). Intergraph Computer Systems cables are designed to reduce the amount of EMI produced by the system.

3. If the system includes a multimedia option, connect the speakers and microphone to the audio ports. See “Connecting Speakers and a Microphone” later in this chapter for details.
4. Connect external SCSI devices to the SCSI port on the Wide Ultra2 expansion card.
5. Make sure that the AC voltage switch on the back panel of the base unit is set to the proper line voltage for your location. If your location uses 115 volts, make sure the number **115** is visible on the switch. If your location uses 230 volts, make sure the number **230** is visible on the switch. See the previous figure.

WARNING If you do not set the AC voltage switch correctly, serious equipment damage may result when you turn on power to the system.

6. Connect the power cords from the monitor, system, and any external optional peripherals to receptacles on a grounded, three-prong AC wall outlet.
7. Open and stow the door on the front of the computer by doing the following:
 - Grasp the lip at the bottom of the door, pull forward slightly, and lift up until the door is even with the top of the system
 - Push the door into the system until the door stops

Expansion Card Slots

Expansion cards are installed in the Accelerated Graphics Port (AGP), Peripheral Component Interconnect (PCI), and Industry Standard Architecture (ISA) expansion slots in the base unit. If you purchased expansion cards from Intergraph Computer Systems, they are installed in specific slots as follows.

<u>Slot</u>	<u>Type</u>	<u>Expansion Card</u>
Top	AGP	Video display adapter
	PCI	Video display adapter (optional; for multi-screen)
	PCI	Video display adapter (optional; for multi-screen)
	PCI	Video display adapter (optional; for multi-screen)
		Wide Ultra2 (LVDS) SCSI adapter
	PCI	Network adapter (optional) External SCSI adapter (optional)
Bottom	PCI or ISA	PC Card adapter (optional; no external connection)
	(shared)	Network adapter (optional)
		56K modem (optional)

Connecting Speakers and a Microphone

If the system includes separate powered speakers and a microphone, connect the speakers to the Line out port on the back panel, and connect the microphone to the Microphone port on the back panel. Connect the speaker power AC adapter to the appropriate speaker(s), and then to a grounded, three-prong AC wall outlet. See the *System Board Manual* delivered with the system for more detailed connection information.

Connecting an External SCSI Device

You can add Wide Ultra2 (also referred to as Low Voltage Differential Signaling, or LVDS) SCSI drives to the system by connecting them to a SCSI port on the back of the system. The TDZ 2000 GX1 features a Wide Ultra2 (LVDS) SCSI adapter. See the section “Setting Up the System” earlier in this chapter for a figure of port locations.

Before you connect external SCSI devices to your system, read the following sections carefully.

CAUTION Because the SCSI BIOS can be accessed during system startup, the potential exists for data to be damaged or lost through careless use or misuse of the setup utility. To protect against such damage, configure the system’s BIOS to require a password before the system can be used. For information on setting up a password, see the BIOS information in the *System Board Manual*.

NOTE Most SCSI adapters do not recognize a hard disk drive that was formatted using a different brand of adapter. For example, a hard disk drive formatted with an Adaptec SCSI adapter will not work with a Symbios SCSI adapter. You must use only Symbios-formatted hard disk drives with a Symbios SCSI adapter.

CAUTION Using a non-compliant SCSI-1 device with your system may cause your system to stop working or lead to other unpredictable results.

CAUTION Make sure you shut down the system and unplug the power cord from the AC wall receptacle before connecting or disconnecting any peripherals, including external SCSI devices.

NOTE See the *System Reference* for additional details on installing SCSI devices.

SCSI Cable Length Guidelines

The number of drives and length of the cables used to connect the drives is a factor when using SCSI-2, and Ultra SCSI drives. SCSI-2 and Ultra SCSI impose shorter cable restrictions than SCSI-1. The total length of the SCSI cabling must not exceed the following:

<u>Drives</u>	<u>SCSI-1</u>	<u>SCSI-2</u>	<u>Ultra SCSI</u>	<u>Wide Ultra2 SCSI</u>
1 to 4	6 meters	3 meters	3 meters	12 meters
5 to 7	6 meters	3 meters	1.5 meters	12 meters
8 to 15	N/A	N/A	N/A	12 meters

NOTE The SCSI controller (on the system board or an adapter card) counts as one device.

The total length of the SCSI cabling is the sum of the following:

- ◆ Ultra SCSI cable inside the system—14 inches (35.5 cm)
- ◆ SCSI cable inside each device—average 8 inches (20 cm)
- ◆ SCSI cable between the system and the first device
- ◆ SCSI cable between each device

SCSI Cable Quality Guidelines

To ensure data integrity and optimum performance, do the following:

- ◆ Use only Intergraph Computer Systems SCSI cables. Cables from other vendors may not provide adequate shielding.
- ◆ Use the shortest cables possible to connect SCSI devices to the system and to each other.

Make sure the last device on a chain of external SCSI devices has an active SCSI terminator connected to the open SCSI port. All other external SCSI devices must have SCSI termination disabled or removed.

Connecting the Device

To add an external SCSI device:

1. If necessary, connect one end of an external SCSI cable to the external Wide Ultra2 SCSI port.
2. Connect the other end of the cable to the SCSI device.
3. Set the SCSI ID of the device to an unused number.
4. If the SCSI device is:
 - the *last* or *only* device on the SCSI chain, *enable* SCSI termination
 - NOT the *last* or *only* device on the SCSI chain, *disable* SCSI termination
5. Ensure that the power switch on the device is in the off position, and then connect the power cord to the device and then to an AC receptacle.

6. Turn on the power to the device and any other devices on the SCSI chain.
7. Start the system. If necessary, install the software drivers and configure the drive according to the vendor's instructions.

What's Next?

Intergraph Computer Systems installs the operating system through Phase I of the process. From here, you can do either of the following:

- ◆ Continue the installation. See Chapter 2, "Setting Up the Software," for instructions on setting up the operating system and associated system software.
- ◆ Reinstall the operating system. See Chapter 6, "Installing System Software," for instructions to install the software completely from CD-ROM.

NOTE Before starting the system for the first time, you may want to learn more about system power, startup, and shutdown. See Chapter 4, "Operating Notes," for this information.

2 Setting Up the Software

Follow the instructions in this chapter to set up the operating system and associated system software on your TDZ 2000 GX1 workstation.

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Preparing for Setup

Your system's primary system disk drive and any additional disk drives were formatted and partitioned before shipment. In Explorer or My Computer, you can right-click a disk drive and click Properties to display the drive's partition size and file system format. To view partition and format information for all disk drives, use Disk Administrator. See the operating system documentation and Help for more information on these tools.

Pre-Installed Software

The operating system and associated system software is pre-installed on the primary hard disk drive. Intergraph Computer Systems installed the following system software:

- ◆ Driver software for the installed video display adapter
- ◆ Driver software for the on-board sound adapter
- ◆ Driver software for the installed SCSI adapter
- ◆ Driver software for the on-board networking adapter
- ◆ Core network software and NetBEUI protocol
- ◆ InterSite software

Before You Start Setup

Intergraph Computer Systems installs the operating system through Phase I of the process. You must follow the operating system Setup process to prepare Microsoft Windows NT for use. Before you go through Setup, have the following documents available:

- ◆ Microsoft's *Start Here*
- ◆ Documents delivered with any expansion cards or additional peripheral devices purchased from Intergraph Computer Systems

Get and record the following information:

- ◆ Your name, and the name of your company or organization: _____
- ◆ For a system running Windows NT, the CD key from the Windows NT CD case, or the Product ID Number from *Start Here* or the registration card: _____
- ◆ A username for setting up a user account: _____

If the system is connected to a network, get and record the following general information from your network administrator:

- ◆ Computer name for your system: _____
- ◆ Workgroup name (if the system will be part of a workgroup): _____
- ◆ Domain name (if the system will be part of a Windows NT domain): _____

If the system is connected to a network that uses the Transmission Control Protocol/Internet Protocol (TCP/IP), get and record the following TCP/IP information from your network administrator:

- ◆ Internet Protocol (IP) address for your system: _____
- ◆ IP subnet mask for your system: _____
- ◆ IP domain name for your network: _____
- ◆ IP address for your network's default gateway: _____
- ◆ IP addresses for your network's Domain Name System (DNS) servers, if any: _____
- ◆ IP addresses for your network's Windows Internet Name Service (WINS) servers, if any: _____

Have several blank, formatted diskettes available to create backup diskettes containing drivers and system software.

The Windows NT delivery media contain software and drivers for both Reduced Instruction Set Computing (RISC)- and Intel-based systems. When installing Windows NT distribution files, make sure you install them from the \i386 directory (the Intel software directory) on the delivery media. For example, if you are installing a device driver from the Windows NT CD-ROM, key in the following when prompted for the path:

*drive:***\i386**

where *drive* is the drive letter for the CD-ROM drive.

Starting Operating System Setup

The first time you start the system, it boots to an End-User License Agreement screen. After reviewing and accepting the terms of the agreement, follow the instructions to continue operating system Setup. Take the default settings provided by Setup, except as noted in the following text. You can set up a user account and join a workgroup or domain after you configure the video display, the sound processor, and networking.

To start the computer and set up the operating system software:

1. Turn on the monitor by pressing its power switch.
2. Open the system's front panel door and press the power button. The system starts and the EULA screen displays.
3. Enter the Product Identification Number, found on the Certificate of Authenticity included with your operating system documentation.

NOTE

You must enter the Product Identification Number before you can continue Setup. You cannot complete Setup if you do not enter the number.

4. Follow the instructions displayed on-screen to complete the Setup process.

When setting up the operating system software, remember the following:

- ◆ Specify the SCSI and network adapter drivers manually, instead of letting Setup automatically detect them. Have the appropriate driver diskettes ready for this purpose.
- ◆ When prompted to create an Emergency Repair Disk, do so.
- ◆ If you do not set up a user account during Setup, press ENTER or select OK at the logon dialog to log on to the operating system.

After you configure the video display, the sound processor, and networking, you can set up a user account and join a workgroup or domain. See Windows NT Help for details on setting up a user account and joining a workgroup or domain.

For more information on operating system Setup, and on using the interface features of the operating system, see the operating system documentation and Help.

Finishing System Setup

After operating system Setup is completed, a *Press to finish setup* icon displays on the operating system desktop. Double-click this icon to access InterSite Welcome, or select Programs/InterSite/Welcome from the operating system Start menu, to display InterSite Welcome.

InterSite Welcome helps you do the following:

- ◆ Create a repair disk for the operating system.
- ◆ Create backup diskettes of device driver software and other system software products.
- ◆ Display an online *System Introduction* for your system.
- ◆ Learn about Intergraph Computer Systems customer support.

You should take advantage of the tools provided by InterSite Welcome to ensure that your system is fully ready for use. See InterSite Welcome for more information. Also see the following sections for information on creating a repair disk and creating backup diskettes.

Creating a Repair Disk

If you did not create an Emergency Repair Disk during Setup, use the tools provided by InterSite Welcome to do so. The files on these diskettes can restore the original contents of a damaged operating system Registry (that is, at the time the operating system was installed), along with the standard operating system drivers. You should also update an Emergency Repair Disk after you finish configuring the system. See the operating system documentation and Help for more information.

Creating System Software Backup Diskettes

Backup diskettes for some device driver software and system software products are not delivered with the system. Use InterSite Version Manager, available through InterSite Welcome, to create system software backup diskettes.

Version Manager lets you create backup diskettes containing device driver software and system software products that were installed on the system before shipment, and which are not available on the operating system CD-ROM. You may need these backup diskettes later -- for example, if you have to reinstall a device driver or the operating system.

WARNING You must create system software backup diskettes after you set up the system hardware and complete the operating system Setup program. If you do not do this, you may not be able to reinstall critical system software or the operating system if needed.

NOTE You may not have to create backup diskettes for all system software. If Version Manager does not list drivers or other system software products, they are available on the operating system software CD-ROM or on backup diskettes delivered with expansion cards.

See Version Manager Help for information on creating system software backup diskettes. Visit the Intergraph Computer Systems site on the World Wide Web and vendor bulletin boards for new and updated drivers.

What's Next?

See the online information on system features and controls. See Chapter 3, “Configuring the System,” for information on configuring the system for use.

3 Configuring the System

Follow the instructions in this chapter to configure your TDZ 2000 GX1 for use. This chapter covers items required for basic operation.

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Configuring the Video Display Driver

The first time you start the system, your monitor displays at 1024 x 768 screen resolution. For the system to use the installed video adapter at other display resolutions, you must configure the video display driver as described in this section.

About RealizM II Video Display Adapters

RealizM II video display adapters are 3D graphics accelerators. These graphics accelerators provide a number of advanced graphics features, including hardware acceleration of OpenGL and Windows NT graphics features, texture processing, and geometry acceleration. For more information about RealizM II graphics, see the video display adapter documentation delivered with the system.

Using the Display Properties Dialog Box

Open Display in the Control Panel to configure the video display driver. Use the Settings tab in the Display Properties dialog box to change the color depth, desktop size, font size, refresh rate, and display type. To determine which video display adapter is installed on your system, click the Display Type button. Use the controls on the Hardware Settings tab to change the monitor type, screen display, and preferences.

For detailed information on configuring the video display driver, see the video display adapter documentation and Help delivered with the system, and the README.TXT files delivered with the video display drivers.

3D Display Performance and Full Drag (RealizM II)

If you use 3D applications with the RealizM II video display driver, the video display may update slowly when you drag objects across it. To avoid this inconvenience, turn off full drag before using 3D applications with these video drivers.

To turn off full drag:

1. Open Display in Control Panel.
2. Click the Plus! tab.
3. Click to deselect the Show Window Contents While Dragging checkbox.
4. Click OK.

OpenGL Performance and Custom Cursors

Windows NT features custom cursors, such as decorated or animated cursors, in place of the standard cursor. If you use a custom cursor while running an OpenGL program, performance may decrease whenever you position the cursor in that program's window. For optimum performance of OpenGL programs, Intergraph Computer Systems recommends that you use only the standard cursors.

Multiple Screen Display

If your system is set up for multiple screen display, the video display driver treats the combined display area as a single canvas that covers all screens. In this Full Canvas style, windows centered on the canvas are split between screens. This includes most system dialog boxes. For details, see the video display adapter documentation and Help delivered with the system, and the README.TXT files delivered with the video display drivers.

RenderGL Run-Time Library

The RenderGL run-time library is delivered with your TDZ 2000 GX1. This library is delivered as a Dynamic Link Library (DLL) file. If you run an application that requires or uses the RenderGL run-time library, you need to install the RenderGL DLL on your system.

The RenderGL DLL is delivered as follows:

- Your system may have been delivered with a diskette containing the RenderGL DLL. If so, see the README.TXT file on the diskette for installation instructions.
- If your system was not delivered with a diskette containing the RenderGL DLL, you can use the InterSite Version Manager to create the diskette. Run Version Manager from the Welcome dialog that displays after you set up the operating system. After you create the diskette, see the README.TXT file on the diskette for installation instructions.

For more information on the RenderGL run-time library, point your web browser to <http://www.intergraph.com> and follow the links to the Digital Media home page. See "Finding Intergraph Computer Systems on the Internet" in the Preface of this document for further details.

Configuring RealizM II Support for Heidi Graphics

The RealizM II graphics accelerators support Heidi graphics for 3D Studio MAX. The Heidi device driver, which operates in conjunction with the RealizM II video display driver, provides the support.

The Heidi device driver is installed during installation of the RealizM II video display driver. After you install 3D Studio MAX on your system, copy the Heidi device driver file GLZIHDD.HDI from the \SYSTEM32 directory to the \3DSMAX\DRIVER directory.

NOTE Use the version of the Heidi device driver that matches the version of the RealizM II video display driver.

See the README.TXT file delivered with the Heidi Device Driver for detailed instructions on the driver and any associated files.

Correcting Video Display Problems

If the system's video display is black, not synchronized, or distorted after you restart the system, you may have a video configuration problem. Do not press CTRL+ALT+DELETE to log on to the Windows NT operating system. Instead, try to correct the problem by using the Last Known Good option to return the system to the last known good configuration recorded by Windows NT.

To use the Last Known Good option:

1. Restart the system.
2. Press the space bar at the following prompt:

Press space bar NOW to invoke the Last Known Good Menu

If using the Last Known Good option fails to correct the video display problems, you can obtain a functional video resolution by restarting the system in VGA mode.

To restart the system in VGA mode:

1. Restart the system.
2. At the boot screen, select the VGA mode option appropriate for your system.

After logging on to Windows NT in VGA mode, check for the following common configuration problems and solutions.

- ◆ A multi-sync monitor is connected to the system, but a multi-sync monitor type is not selected, and the display driver cannot determine this by querying the monitor. Select an appropriate multi-sync monitor type.
- ◆ A selected resolution, depth, or refresh rate is not supported by the multi-sync monitor. Try using different video display settings.
- ◆ The Dual Screen option is selected, but only one video board is detected. Deselect the Dual Screen option.

- ◆ A multi-sync monitor is selected, but a monitor with different video timing (such as an InterVue monitor) is connected to the system. Select the monitor that is connected to the system.
- ◆ The monitor selection is inappropriate for the multi-sync monitor attached to the system. Restart the system in VGA mode, then select a new monitor as described previously.
- ◆ A graphics resolution and color depth has been selected that exceeds installed display memory. Restart the system in VGA mode, then open Display in the Control Panel to reinstall and configure the display driver as described in the video display adapter documentation delivered with the system.

Restart the system to use the reconfigured video display driver. If problems persist, contact the Customer Response Center for help.

Configuring a Modem

If you purchased a modem with your system, you must ensure the BIOS settings and modem jumpers are set appropriately, depending on which operating system and COM port you want to use with the modem.

To configure the modem:

1. Set the COM port jumper pins on the modem to a free COM port.
2. In the PCI/PnP menu in BIOS Setup, set the Boot to PnP Operating System parameter to No.
3. The modem requires a specific COM port. You must free system resources for use with the modem in BIOS Setup. Set one of the Onboard Serial Port parameters to Disabled in the Advanced menu in BIOS Setup, according to the following table:

<u>Modem COM Port</u>	<u>Disable Onboard Serial Port</u>
COM1	COM1
COM2	COM2
COM3	COM1
COM4	COM2

4. Set the remaining Onboard Serial Port parameter to Auto and restart the system, saving your changes.

Double-click the modem icon in Control Panel. Use the Install New Modem window to automatically detect the installed modem. Windows NT lists the name of the modem found.

If the listed modem is incorrect, you must install the appropriate driver for your modem, located on the CD-ROM or floppy diskette media that accompanied the modem. Click the Change button, then click the Have Disk button, and insert the driver media into the appropriate drive. Follow the prompts to install the new driver.

Configuring Audio

The system is equipped with an on-board Crystal sound processor. If the system has a microphone and speakers, you can configure the microphone and speaker audio levels also by using the Master Out volume control utility, available as a speaker icon on the Taskbar. For more information on using the sound control programs, see the operating system documentation and Help.

Configuring Networking

The system is equipped with an on-board Ethernet network adapter. Before you configure networking, ensure that the system is connected to the network.

If you did not install networking during Setup, you must install the network adapter driver from a backup diskette to enable network operation. Use InterSite Version Manager to create a backup diskette that contains the network adapter driver. See the README.TXT file on the diskette for detailed installation instructions.

To configure Networking, open Network in the Control Panel. Follow the instructions in the dialog boxes to set up the system to use a network. Be sure to set up the appropriate network protocols, such as TCP/IP for the network to which the system is connected. After installing network protocols, be sure to reinstall Windows NT 4.0 Service Pack 3 software as recommended by Microsoft.

See the operating system documentation and Help for detailed information on setting up the operating system to use a network.

Configuring SCSI Peripherals

You may need to use the SCSI BIOS setup utility to configure your SCSI peripherals. The SCSI BIOS initializes during system startup, at which time you can run the setup utility.

CAUTION Because the SCSI BIOS can be accessed during system startup, the potential exists for data to be damaged or lost through careless use or misuse of the setup utility. To protect against such damage, configure the system's BIOS to require a password before the system can be used. For information on setting up a password, see the BIOS information in the *System Board Manual*.

The SCSI BIOS allows you to configure the Symbios SCSI host adapters, perform a low-level format on a SCSI hard disk drive, select boot order, verify media, and change the synchronous data transfer rate parameter. This parameter defines the rate at which data is transferred among SCSI devices; for example, 80 MB per second (default).

Change the SCSI host parameters on a per-device basis under the following conditions:

- ◆ If you are advised to do so by Intergraph technical support or instructed to do so by the vendor documentation supplied with the SCSI device.
- ◆ If the SCSI device does not negotiate properly with the controller. This is common on older drives.
- ◆ If you exceed the total cable length for connecting SCSI devices to the system, as specified in the section, "Understanding SCSI Guidelines," in Chapter 1.

NOTE Most SCSI adapters do not recognize a hard disk drive that was formatted using a different brand of adapter. For example, a hard disk drive formatted with an Adaptec SCSI adapter will not work with a Symbios SCSI adapter. You must use only Symbios-formatted hard disk drives with a Symbios SCSI adapter.

Modifying the SCSI BIOS

NOTE Change the synchronous data transfer rate or the data width parameters for an individual device only. Do not change the parameters for the SCSI host adapter itself. Changes to the SCSI host adapter affect all devices on its bus.

When modifying the SCSI BIOS, remember the following keyboard tips:

- ◆ Press the up or down arrow keys to move about in the menus.
- ◆ Press ENTER to confirm a menu selection.
- ◆ Press ESC to cancel a selection.
- ◆ Select Help to display a Help screen with instructions and details.

To change the synchronous data transfer rate:

1. From the Start menu, click Shut Down. The Shut Down Windows dialog box displays.
2. Click Restart and then click OK. The system restarts.
3. Press CTRL+C at the prompt to run the SCSI BIOS setup utility.

4. From the main menu, select the SCSI host adapter that you want to configure and press ENTER.
5. From the adapter menu, select Device Selections and press ENTER.
6. From the devices menu, select a SCSI device to configure and press ENTER.

NOTE Only eight SCSI devices are listed at a time. Select Devices 8-15 to list the next eight SCSI devices.

7. Select Sync Rate (MBytes/sec) and press ENTER.
8. Select the appropriate rate (Off, 10, 20, 40, or 80) and press ENTER.

NOTE To select a rate of 80, the Width setting must be 16. If Width is set to 8, the maximum Sync Rate (Megabytes/sec) is 40.

9. Select Exit This Menu, and then press ENTER.
10. From the Device Selections menu, select Exit this menu and press ENTER.
11. From the Utilities menu, select Exit this menu and press ENTER. The main menu displays.
12. Select Quit and press ENTER.
13. Eject the diskette from the floppy drive and press any key to restart the system.

Getting Operating System Updates

Microsoft Service Packs contain the latest improvements and system fixes for Microsoft operating systems. Service Packs are created by Microsoft for post-release support. You can get Service Packs from the Microsoft World Wide Web and FTP sites free of charge.

CAUTION If Intergraph Computer Systems provides a Service Pack through the IBBS or with a product or system, it has been certified against Intergraph Computer Systems hardware as described in the announcement of its availability. If you obtain a Service Pack from any other source, be aware that it may not be certified against your Intergraph Computer Systems hardware.

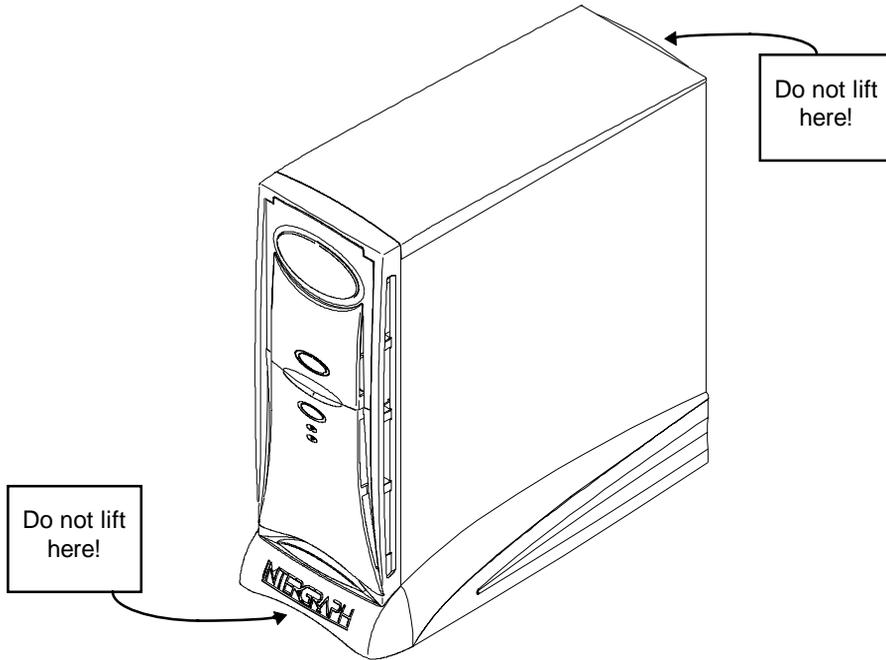
4 Operating Notes

This chapter contains important, basic information on using the TDZ 2000 GX1. See the online *System Introduction* for details on system features and functions.

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Moving the System

WARNING Do not use the bottom portion of the face panel or the lip at the top rear of the unit as a hand hold when moving the system. Equipment damage and personal injury can result.



Opening and Closing the Door

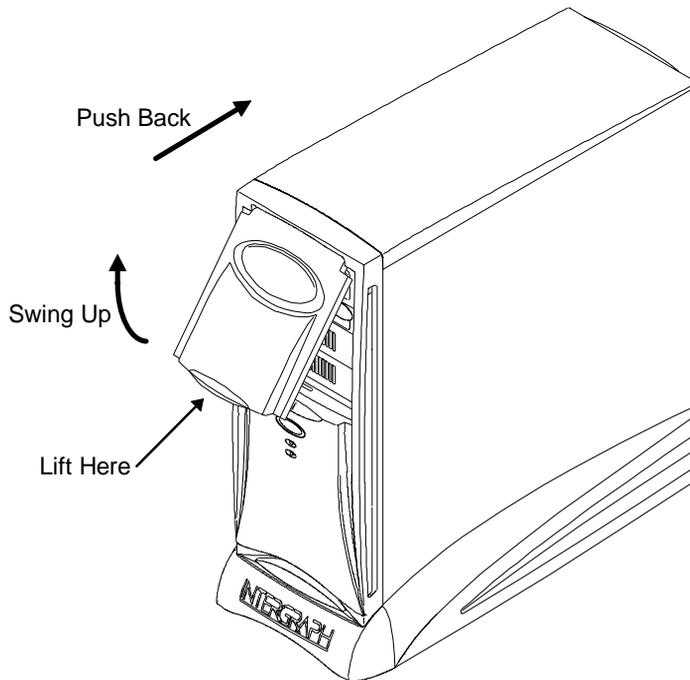
Open the door on the face panel to access the floppy drive, CD-ROM, and any optional device installed in the external bay. You can use your system with the door in the open or in the closed position.

To open and stow the door:

1. Grasp the lip at the bottom of the door and lift up until the door is even with the top of the unit.
2. Push the door into the case until the door stops.

To close the door:

1. Grasp the door and pull it straight out of the case until it stops.
2. Lower the door until it stops and then press gently until the door clicks into the closed position.

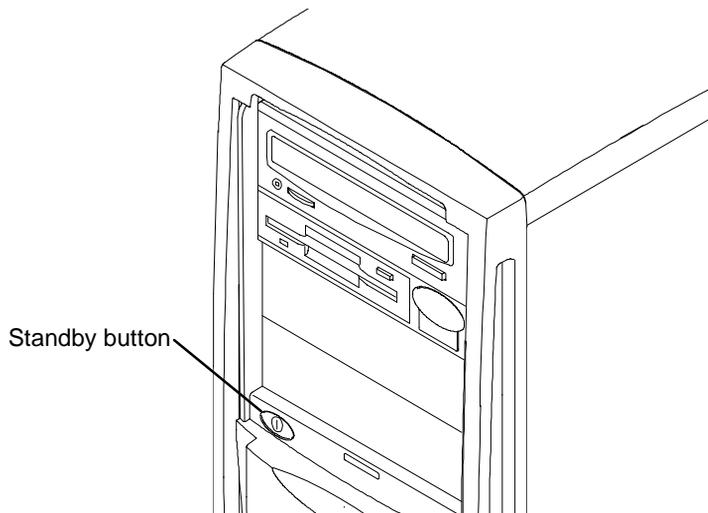


System Power, Startup, and Shutdown

When you connect the power cord from the system to an AC power outlet, auxiliary power is applied to the system. This auxiliary power is available for the system to monitor, among other things, the power button.

Using the Power Button

The power button is on the front left side of the system, just below the external drive bay. Open the door to access the Power button.



The power button is a momentary contact switch, changing system states every time the button is pressed.

Use the power button to:

- ◆ start the system from a powered-down state, by pressing the power button momentarily. The system powers on and loads the operating system.
- ◆ power down the system, by pressing the power button after selecting the shutdown option from Shut Down on the Start menu. The system powers down all devices and shuts off the operating system.

CAUTION Be sure to select Shut Down from the Start menu, and then select the shutdown option, before powering off the system with the power button. Powering off the system simply by using the power button can cause data loss and/or file corruption.

Starting and Shutting Down the System

After you complete Setup and start the system for the first time, you can start and stop the system as needed.

To start the operating system:

1. Turn on power to the system. The boot menu displays.
2. Select Windows NT and then press enter.

To log on to the operating system:

1. If the logon dialog does not display, press CTRL+ALT+DELETE to display it.
2. Type a username and password into the appropriate boxes.
3. If appropriate, type a domain name.
4. Select OK or press ENTER.

To log off, restart, shut down, or power down the system:

1. Click the Start button, and then select Shut Down.
2. To log off the operating system, select the Close all programs and log in as a different user radio button.
To restart the system, select the Restart the computer radio button.
To shut down the system, select the Shut down the computer radio button.
To power down the system, press the power button when prompt displays after the Shut down procedure completes.
3. Click the Yes button; the chosen shutdown option activates

Using InterSite Programs

TDZ-2000 GX1 systems ship with the following InterSite programs:

- ◆ InterSite Diskeeper Lite, which manually defragments Windows NT file systems, thus restoring performance. By using InterSite Diskeeper Lite, disk fragmentation can be kept to a minimum, improving file creation and access times.
- ◆ InterSite Welcome, which displays an introductory guide to your Intergraph system and provides support information, such as phone numbers and web addresses. It also tells you how to create Emergency Repair or Startup disks, critical to restoring a failed system. From the Welcome Utility you can connect to the InterSite Manager to access the full line of InterSite products.

- ◆ InterSite Version Manager is a tool for creating system software backup diskettes, and for updating device drivers and other system software products installed on the system.
- ◆ InterSite Manager, the common starting point for all the InterSite products. This utility integrates InterSite components by centralizing them in an easy-to-use point-and-click display. You can familiarize yourself with an InterSite component before invoking it, by reading its description, conveniently placed by its launch button.
- ◆ InterSite DMI Console gives easy access to the system's status and configuration information. The Console is based on the Desktop Management Interface (DMI), through a window containing a graphical information tree view pane, a service provider component information pane, and a message pane. DMI Console works with the Desktop Management Interface (DMI), a technology standard that enables the effective management of personal computers (PCs).
- ◆ InterSite Watchdog is a system monitoring tool with remote monitoring capabilities. You can install Watchdog on a system running the Windows NT, and use it to monitor workstations and servers also running Windows NT.
- ◆ InterSite SmartDrive, a kernel-level driver that supports self-monitoring, analysis, and reporting technology. SmartDrive system compliance is displayed via a tab on the Hardware Monitor. Each system disk is listed on the tab, along with its serial number and Smart System compliance information. For more information, refer to InterSite Hardware Monitor's online help.

From the operating system Start menu, go to Programs/InterSite to find the InterSite programs on your system. See the online Help for each InterSite program for more information on how to use the program.

Ensuring PC Card Support and Operation

The optional PC Card adapter is used with devices based on standards developed by the Personal Computer Memory Card International Association (PCMCIA). See the operating system documentation and Help for more information on PC Card device support.

To ensure proper operation of PC Card devices with a system running Windows NT, make sure the device drivers that control PC Card device operation are set to start correctly. Do this before using the PC Card adapter, or anomalous behavior may result. Go to Devices in the Control Panel and do the following:

- ◆ Set the Pcmcia device to start as a Boot device.
- ◆ Set the Atdisk device to start as a System device.

Restart the system after making these changes.

Using Hardware Security Features

The TDZ 2000 GX1 provides you with several security features designed to help prevent unauthorized tampering with the internal components.

A security tab is located at the top left of the chassis under the top cover. You can place a small padlock or a security seal in the hole on the tab to prevent removal of the left side panel.

A tamper-indicating Factory Quality Seal is affixed to the main chassis and left side panel security tab. The seal is your assurance that the unit has not been opened since it left the factory. When removed, the word “VOID” appears on the seal. Removing the seal does not void your warranty.

See the *System Reference* for details on removing the top cover.

Finding Serial and Model Numbers

The system’s serial number is on a permanent label affixed under the top cover at the front left of the chassis.

The system’s model number is on a permanent label affixed on the back panel near the top.

PCI Devices

The system’s PCI expansion slots comply with the PCI 2.1 specification. Devices that comply with the PCI 2.1 specification are fully plug-and-play. You do not have to configure them after installation.

Some older PCI device drivers cannot share an interrupt, which is a violation of the PCI 2.1 specification. If you install a device that uses such a driver, you must free an IRQ for the device to work in the system.

Freeing IRQs

To free IRQs for use by an ISA device or a PCI device that uses drivers that do not comply with the PCI 2.1 specification, you can use the system BIOS to disable unused system ports.

To disable an unused system port:

1. Restart the system and press F2 when prompted to enter Setup.
2. Select Advanced Setup, and then select Peripheral Configuration.
3. Select the port you want to disable (Serial port A, Serial port B, or Parallel port).
4. Change the value of the setting to Disabled.
5. Save the changes and exit from BIOS Setup.

5 Troubleshooting

Use this chapter to help identify the causes of problems that can occur with your TDZ 2000 GX1.

See the *System Reference* or the *System Board Manual* for information on opening the case and working with internal components. If you cannot resolve the problem or if the instructions direct you to call the Customer Response Center, contact Intergraph Computer Systems. See the Preface of this document for details.

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System Power

ERROR - Fails to power on.

<u>Reason</u>	<u>Solution</u>
Power cord not connected properly.	Verify that the power cord is properly connected to the power receptacle.
Power not available at the outlet.	Verify power to the outlet has not been interrupted. Test the outlet with a known working appliance.
Power not available from the UPS.	Verify the UPS is connected and operating properly.
Internal power cables not connected.	Open case and ensure all power cables are connected properly.
Faulty power cord.	Replace power cord.

System Boot

ERROR - Does not boot from the expected boot device.

<u>Reason</u>	<u>Solution</u>
Boot sequence not correctly set.	Change the boot sequence. See the <i>System Board Manual</i> .
Operating system not on the system drive.	Install the operating system as described in Chapter 6.

ERROR - Does not boot from drive A.

<u>Reason</u>	<u>Solution</u>
Corrupt boot disk, or boot disk does not have correct boot utilities.	Replace the boot disk. See the <i>System Board Manual</i> .
Corrupt BIOS on the flash EPROM.	Reprogram the BIOS. See the <i>System Board Manual</i> .

ERROR - Series of beeps and error message displays.

Message	Explanation and Solution
Refresh Failure	Bad memory refresh circuitry on the system board. Remove and reinstall DIMM(s). If error persists, replace the DIMM(s).
Parity Error	Parity error in the first 64 KB block of memory. Remove and reinstall DIMM(s). If error persists, replace DIMM(s).
Base 64 KB Memory Error	Memory failure in the first 64 KB. Remove and reinstall the DIMM(s). If error persists, replace the DIMM(s).
Timer Not Operational	Memory failure in the first 64 KB, or Timer 1 on the system board is not functioning. Call the Customer Response Center.
Processor Error	The CPU on the system board generated an error. Call the Customer Response Center.
8042 - Gate A20 Failure	The BIOS cannot switch to protected mode. Call the Customer Response Center.
Processor Exception Interrupt	The CPU generated an exception interrupt. Call the Customer Response Center.
Display Memory Read/Write Error	The sound controller is faulty. Call the Customer Response Center.
ROM Checksum Error	The ROM checksum value does not match the value encoded in the BIOS. Call the Customer Response Center.
CMOS Shutdown Register Read/Write Error	The shutdown register for CMOS RAM failed. Call the Customer Response Center.
Cache Error/External Cache Bad	The external cache is faulty. Call the Customer Response Center.

ERROR - CD-ROM drive is not recognized.

Reason	Solution
CD-ROM drive power cable not attached.	Open the case and ensure the power cable is properly attached. See the <i>System Reference</i> .
CD-ROM drive cable not attached.	Open the case and ensure the cable is properly attached. See the <i>System Reference</i> .

ERROR - System hard disk drive not recognized.

Reason	Solution
Hard disk drive power cable not attached.	Open the case and ensure the power cable is properly attached. See the <i>System Reference</i> .
Hard disk drive SCSI cable not attached.	Open the case. Ensure the SCSI cable is properly attached at both ends. See the <i>System Reference</i> .
A SCSI address conflict exists between the hard disk drive you installed and another SCSI device.	Remove the hard disk drive and change SCSI ID to an unused setting. See the documentation shipped with the hard disk drive.
SCSI termination is enabled on the hard disk drive you installed.	Disable the SCSI termination. See the documentation shipped with the hard disk drive.
Some viruses cause the system to not recognize hard disk drives.	Run a virus scan program that checks the Master Boot Record. Clear any viruses detected by the program.

ERROR - “Invalid configuration information for SLOT XX” message displays.

Reason	Solution
System is not properly configured to recognize the new ISA option board.	Use the BIOS Setup to reserve system resources for the board. See the <i>System Board Manual</i> .

ERROR - Total amount of memory does not display.

Reason	Solution
Faulty DIMM(s).	Identify faulty DIMM(s) by swapping DIMM(s) until the faulty one is found. See the <i>System Reference</i> .
DIMM(s) not properly seated into socket(s).	Ensure DIMM(s) are properly installed. See the <i>System Reference</i> .

ERROR - I/O card parity error message displays.

Reason	Solution
Faulty option board is installed in ISA slot.	Remove ISA board, then restart the system. See the <i>System Reference</i> .

Sound

ERROR - Sound cannot be heard.

Reason	Solution
Volume of speakers is low or off.	Adjust volume up and/or release the Mute button.
Speaker cable is not properly connected.	Verify cable is properly connected.
Volume is turned off in the volume control program.	Double-click the speaker icon in the taskbar tray and increase the master volume.
Headphones are plugged into the output jack.	Unplug the headphones.

Video

ERROR - System powered on, but screen remains blank.

Reason	Solution
Monitor not powered on.	Turn on power to the monitor.
Monitor power cord not connected.	Connect monitor power cord to AC outlet and monitor.
Video cable not properly installed.	Ensure video cable is connected to monitor and case.
Graphics card not seated properly.	Open case and re-seat graphics card. See the <i>System Reference</i> .
Selected resolution is not supported by the monitor.	Select a supported resolution. See the video card documentation and README.TXT file for resolution details.
Improper video display driver installed.	Remove the driver and install a valid driver. See Chapter 3.

Miscellaneous Hardware

ERROR - CD-ROM drive LED does not light.

Reason	Solution
CD-ROM drive power cable not attached.	Open the case and ensure the power cable is properly attached. See the <i>System Reference</i> .

ERROR - Floppy disk drive LED does not light.

Reason	Solution
Floppy disk drive power cable not attached.	Open the case and ensure the power cable is properly attached. See the <i>System Reference</i> .

ERROR - Arrow keys or numbers do not work on keyboard number pad.

Reason	Solution
NUM LOCK disabled.	Press the NUM LOCK key.

Network

ERROR - Cannot connect to other systems on LAN.

Reason	Solution
Ethernet cable disconnected.	Reconnect Ethernet cable and ensure proper connection. If cable is properly connected, notify your System Administrator.
Incorrect software configuration.	Notify your System Administrator.

ERROR - Cannot plot to network plotter on LAN.

Reason	Solution
Ethernet cable disconnected.	Reconnect Ethernet cable, ensure proper connection.
Plotter not added to Print Manager on your system.	Notify your System Administrator.
Plot node does not recognize your system.	Notify your System Administrator.

6 Installing System Software

Follow the instructions in this chapter if you need to reinstall the operating system and associated system software on your TDZ 2000 GX1. Before you reinstall the software, ensure that you read and understand this entire chapter.

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Before You Begin

Have the following items available:

- ◆ The information that you recorded in Chapter 2, “Setting Up the Software.”
- ◆ Windows NT operating system software CD-ROM, Windows NT Service Pack CD-ROM, associated diskettes, and documentation. Make sure you have the Setup diskettes delivered with the operating system.
- ◆ Backup diskettes you created according to instructions in Chapter 2, “Setting Up the Software.” You can also create backup diskettes by inserting the Intergraph System CD-ROM into any computer running Windows NT, Windows 95, or Windows 98 and running InterSite Version Manager. Create backup diskettes for the products listed under “System Software Products” in this chapter.
- ◆ Backup diskettes and documentation delivered with any expansion boards or additional peripheral devices purchased from Intergraph Computer Systems.
- ◆ The *Late-Breaking News* document delivered with the system.

You can find the system software on backup diskettes that you created, on the Intergraph System CD-ROM, on diskettes provided by Intergraph Computer Systems, or on the operating system CD-ROM. If you did not create backup diskettes of drivers or other system software products, you can create them from the Intergraph System CD-ROM as described above. System software is also probably available on the operating system CD-ROM or on backup diskettes delivered with expansion boards.

NOTE

You must install certain drivers from backup or other diskettes. The correct driver versions may not be on the operating system CD-ROM. If a driver version is delivered on backup diskette or in Version Manager, that version should be used instead of what is available on the operating system CD-ROM.

Driver software is routinely improved and updated. User InterSite Version Manager, or visit the Intergraph Computer Systems site on the World Wide Web and vendor bulletin boards for new and updated drivers.

Review the *Late-Breaking News* document delivered with your system for any additional tasks you may have to perform during reinstallation.

System Software Products

The following table lists drivers and other system software products installed on various configurations of TDZ 2000 GX1 systems. Products available for your system, but not listed here, are available on an operating system software CD-ROM or are delivered with an expansion card or additional peripheral device.

Product	Description
MILL2DRVNT	Matrox Millennium II video driver
INTENSEDRV	Intense 3D Pro 2200s video driver
REALIZMDRV	Intergraph RealizM II
ACCEL2DRVNT	AccelGraphics AccelStar II video driver
DIGIDTOP	Matrox DigiDesktop
CRYSTALNTDRV	Crystal sound adapter driver
2940SCSIDRV	Adaptec 2940 SCSI adapter driver
SYMSCSI	Symbios SCSI adapter driver
IKONPCIDRV	IKON PCI driver
3COM3C90X	3COM SCSI adapter driver
PCITOKRNG	OLICOM Token Ring network adapter driver
INTELPRO100+	Intel EtherExpress PRO/100+ network adapter driver
RNSFDDI	RNS FDDI driver
56KMODEM	56KB modem driver
RENDERGL	Render GL Libraries
WELCOME	InterSite Welcome
VERMANAGER	InterSite Version Manager
DKLITE	InterSite Diskeeper Lite
DMI	InterSite DMI Console
IM	InterSite Manager
WATCHDOG	InterSite Watchdog
SMARTDRV	SMART Drive driver
QFE_NTENG	Quick-Fix Engineering Update
DGXSYSIN	<i>System Introduction</i>
FLASHGX	BIOS and Flash Program Utility (available online)

Installing Windows NT Workstation 4.0

System Software

Depending on your system's configuration, you will need some or all of the following system software during the installation process:

- ◆ SCSI driver
- ◆ Video display driver
- ◆ Network adapter driver
- ◆ Sound processor driver
- ◆ QFE update software

Installation Guidelines

Follow the instructions in *Start Here* to install Windows NT.

Do the following *during* installation of the operating system:

- ◆ When prompted, install the Intel network driver for the on-board 82558-based PCI adapter from backup diskette instead of from the operating system software CD-ROM.
- ◆ Select Custom Setup when prompted to select a Setup type.
- ◆ On a system with internal SCSI disk drives and a SCSI adapter(s), press the **S** key to install the SCSI adapter driver from backup diskette. Select Other (Requires disk provided by a hardware manufacturer) from the list and press ENTER. Insert the diskette with the SCSI adapter driver into the floppy disk drive, and then press ENTER. Repeat as necessary for each installed SCSI adapter.
- ◆ To specify a driver for an IDE CD-ROM drive (if necessary), press the **S** key and then select IDE CD-ROM (ATAPI 1.2)/ PCI IDE Controller from the list.
- ◆ Do not select automatic detection of network driver. Allow Setup to configure the network only if the system is connected to the network.
- ◆ Create an Emergency Repair Disk when prompted to do so.

Do the following *after* installation of the operating system:

- ◆ Install drivers—including those for video and sound—and other system software from backup diskettes. System software on backup diskette is usually more current than system software on the operating system CD-ROM.

- ◆ Install the latest Windows NT Service Pack software from CD-ROM to update the operating system. See “Getting Operating System Updates” later in this chapter for details.
- ◆ Complete additional installation tasks in this chapter as necessary.
- ◆ Configure the system as described in Chapter 3, “Configuring the System.”

Do the following *after* you install the Windows NT Service Pack:

- ◆ If you created a Quick-Fix Engineering (QFE) backup diskette from Version Manager during any previous initial system configuration, install the QFE update software. See the README.TXT file on the QFE diskette for more information.

Installing QFE Software

Quick-Fix Engineering (QFE) update software contains fixes for operating system problems or limitations. If a system requires Quick-Fix Engineering (QFE) update software, it is installed on the system before it leaves the factory. If QFE update software is installed on the system, you can (and should) create a QFE backup diskette using InterSite Version Manager.

If you reinstall the Windows NT 4.0 operating system and the Service Pack software, be sure to reinstall the QFE update software as well. Install the QFE update software after you reinstall Service Pack software. QFE update software contains post-Service Pack fixes.

Reassigning Hard Disk Drive Letters

If you have more than one hard disk drive, you may need to reassign system drive letters. You can also reassign the CD-ROM drive letter, if needed.

To change drive letters:

1. From the Start menu, click Programs, Administrative Tools, and then Disk Administrator.
2. Select a hard disk drive.
3. From the Tools menu, click Assign Drive Letter.

NOTE

If you select the current drive or an otherwise locked drive, you must restart the system to complete the drive letter reassignment.

4. Select a new drive letter to assign to the hard disk drive from the list. Click OK, and then click Yes to continue.
5. If necessary, click OK, and then click Yes.
6. Repeat steps 2 through 4 for each hard disk drive letter assignment that you want to change.

7. Click Partition, then click Exit. If necessary, restart the system to complete the drive letter reassignments.

Changing Virtual Memory Settings

If you have more than one hard disk drive, you may need to change size and location of your virtual memory page file. See Windows NT Help for more information.

Consider the following before changing page file settings:

- ◆ The size of the page file. If your system is equipped with a large amount of RAM, Setup might create a page file that is unnecessarily large.
- ◆ Drive letter reassignments. If you reassigned your drive letters, you may find it necessary to adjust your page file settings.

To change the size and location of the virtual memory page file:

1. From Start, click Settings, and then click Control Panel.
2. Double-click the System icon.
3. Click the Performance tab and then click Change.
4. Click a drive letter in the list, and then type new values in the Initial Size and Maximum Size text boxes.
5. Click Set.
6. Repeat steps 4 and 5 for any additional drives in the list.
7. Click Close, then click OK. An alert box displays.
8. Do one of the following:
 - Click Yes to restart the system with the new settings
 - Click No to continue with other tasks and use the new settings the next time you restart the system

Configuring SCSI Host Adapter Settings

If you previously used the SCSI BIOS setup utility to change SCSI host adapter settings, you must restore those settings after installing the Windows NT operating system and the Service Pack.

See Chapter 3 for information on configuring SCSI peripherals.

CAUTION Because the SCSI BIOS can be accessed during system startup, the potential exists for data to be damaged or lost through careless use or misuse of the setup utility. To protect against such damage, configure the system's BIOS to require a password before the system can be used. For information on setting up a password, see the BIOS information in the *System Board Manual*.

Configuring the Sound Driver

If you reinstall Windows NT and the associated system software and have an MPU-401 device or a joystick, you must also install the appropriate drivers.

To install a compatible MPU-401 device driver:

1. Click Start, click Settings, and then click Control Panel.
2. Double-click Multimedia and click the Devices tab.
3. Click Add. The Add Driver dialog box displays.
4. In the list, click MPU-401 Compatible Driver and click OK. The Install Driver dialog box displays.
5. Insert the Windows NT operating system installation CD in the CD-ROM drive.
6. Change the drive letter, if needed, to the drive letter of your CD-ROM drive and click OK. The driver is installed and the Generic MPU-401 dialog box displays.
7. Click OK to accept the default values. An alert box displays.
8. Click Restart Now. The system restarts.

To install a compatible joystick driver:

1. Click Start, click Settings, and then click Control Panel.
2. Double-click Multimedia and click the Devices tab.
3. Click Add. The Add Driver dialog box displays.
4. In the list, click Unlisted or Updated Driver and click OK. The Install Driver dialog box displays.
5. Insert the Windows NT operating system installation CD in the CD-ROM drive.
6. Type `\DRVLIB\MULTIMED\JOYSTICK\X86` in the Path text box and click OK. The driver is installed.
7. Restart the system.

Getting Operating System Updates

Microsoft Service Packs contain the latest improvements and system fixes for Microsoft operating systems. Service Packs are created by Microsoft for post-release support. You can get Service Packs from the Microsoft World Wide Web and FTP sites free of charge.

CAUTION If Intergraph provides a Service Pack through its online services or with a product or system, it has been certified against Intergraph hardware as described in the announcement of its availability. If you obtain a Service Pack from any other source, be aware that it may not be certified against your Intergraph hardware.

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Returned Goods Authorization (RGA) Form

Date Returned _____ Base Serial No. _____

(On white bar code ID plate on back of base unit)

RGA No. _____ (From Intergraph Customer Response Center)

From Customer Name _____

Customer Contact _____ Phone _____

Mail Address _____

Reason for Return _____

NOTE All returned equipment **MUST** be shipped in original Intergraph packaging to obtain warranty service.

WARNING **Back up disk drives before returning equipment. Intergraph is not responsible for data lost in shipping or repair process.**

Warranty Procedure

Some malfunctioning equipment cannot be repaired in the field, and you must return it to Intergraph for repair. Follow these steps to obtain a Returned Goods Authorization (RGA) log number and return the malfunctioning equipment.

1. Determine the serial number of the system. The serial number is located on the white bar code identification label on the back of the base unit.
2. Call the Intergraph Customer Response Center at 1-800-633-7248, and identify your call to the operator as a Warranty Call. After giving the operator the serial number of the system, you will be assigned a RGA log number.
3. Complete the RGA Form on the previous page, entering the RGA log number obtained from the Customer Response Center. Ensure that the address in the From section is the location to which you want the equipment to be returned.
4. Place the RGA form in the box containing the equipment. This form must accompany returned equipment.
5. Secure a Repair Depot address label from the next page to the box containing the equipment.
6. Ship the box containing the equipment to Intergraph.

When the service activity has been completed by Intergraph, the repaired or replaced equipment will be shipped to the address listed on the RGA Form.

NOTE Parts damaged during shipping and parts not covered by the warranty are liable for repair charges.

TO Repair Depot RGA No. _____
Intergraph Corporation
9805 Kellner Road
Huntsville AL 35894

TO Repair Depot RGA No. _____
Intergraph Corporation
9805 Kellner Road
Huntsville AL 35894

TO Repair Depot RGA No. _____
Intergraph Corporation
9805 Kellner Road
Huntsville AL 35894
