

DIGITAL Personal Workstation

System Software

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Digital Equipment Corporation

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Preface **P**

Introduction

This guide describes the initial system power on, the system software installed on your DIGITAL Personal Workstation, and how to restore system software using the supplied operating system and system software CD-ROMs.

Audience

This guide is written specifically for anyone responsible for configuring and expanding your DIGITAL Personal Workstation.

Related Material

A *Quick Setup* guide is available as a supplement to this *System Software* guide. This guide describes how to initially setup your computer.

A *Systems Solutions* manual is available to help you troubleshoot your computer should it fail to operate after initial setup or after installing optional devices.

A *System Reference* manual describes how to operate, configure, and upgrade your DIGITAL Personal Workstation. The information presented will help to familiarize you with all aspects of your computer and provide a reference tool for questions you might have in the future.

Preface

A *Warranty and Service Information* booklet is supplied with your computer. This booklet provides warranty information and a listing of phone numbers for technical support.

README files come with the factory installed software and on the supplied CD-ROM disk. This information can help you setup, configure, and operate your computer. **DIGITAL recommends that you read this information first.**

Windows NT Workstation documentation is provided as an on-line help file and in printed form.

Latest Product Information and Updates

You can access product information and download the latest BIOS, device drivers, and software updates using the Internet at:

<http://www.workstation.digital.com>

1. Choose Firmware/Drivers.
2. Choose your workstation model from the displayed list.
3. Choose the file to download.

Getting Started **1**

Introduction

Your computer comes with the Windows NT Workstation operating system and pre-installed system management software, utilities, and online information. All system software and device drivers needed for your system configuration are also supplied on the CD-ROMs included with the system documentation in your accessories box. Keep these CD-ROMs and all system information in a safe place in case you ever need to reload your operating system and related system software.

This chapter describes:

- Initial system startup and user registration
- Configuring system parameters
- The location and description of system software and online documentation.
- The operating system software kit
- The System Software CD

Initial System Startup

The first time that you power on your computer, run Windows Setup. You will be prompted to make some important selections and input various user registration information. After these steps, you will not see the questions again unless you reload the system software from the supplied operating system and system software CD-ROMs.



NOTE: The first time you turn on your computer, have the supplied Microsoft Windows software kit available to enter the unique Certificate of Authenticity (COA) number when prompted. If you are not familiar with Windows NT you may want to also review the software operating system manual to help you get started.

Configuring System Parameters

Although your computer is ready to operate, you may need to change the video configuration or configure a network. You may also want to add some additional hardware. The available software can help you with these tasks, as explained in the following sections.

Configuring Video

Your DIGITAL Personal Workstation supports Display Data Channel (DDC 1/2b) specifications. DDC technology offers true auto-configuration by providing a direct communications link between the monitor, onboard video circuitry, and the operating system. Full DDC capability requires DDC support by all computer components. DDC will automatically set the video parameters for optimum monitor resolution. If your monitor does not include DDC support, then you may need to change the default video settings.

If you need to change the default settings, use the Control Panel Display option. However, before changing the resolution or resetting your monitor type, please check your monitor documentation. You must make your selections based on what settings your monitor can support. Choosing one of the Factory Preset Resolutions listed in your monitor manual allows you to change the resolution without having to adjust the monitor.

Refer to the Windows NT Workstation Installation Guide and any related on-line help for configuration information.

For models equipped with an AGP graphics card, please refer to the online AGP documentation provided on the AGP card manufacturer's CD-ROM included with your system. Screen resolution and supported graphics modes as well as AGP product documentation are available on this CD.

Configuring Networking

If your computer has onboard network capability, configuration information is available to you on the System Software CD. See the CD-INFO.TXT file on the System Software CD for configuration and installation information.

Configuring Additional Hardware

When you add hardware to your DIGITAL Personal Workstation, Windows NT requires that you configure your computer resources, such as IRQ and DMA settings. The ISA Configuration Utility (ICU) can help you determine the available resources.

The ISA Configuration Utility (ICU)

The ICU is a useful tool that helps you install and configure expansion boards. The ICU also provides advanced features including:

- Enabling and disabling of functions on PCI and ISA cards.
- Locking the configuration of PCI and ISA cards.
- Modifying the configuration of ISA cards.

Before installing a new card in your workstation, run the ICU to determine available system resources. The ICU provides a database of configuration information for many popular ISA cards. If your card is not in the database, the ICU can still help you determine a working configuration for the card. In this case, consult the documentation that came with your ISA card to determine valid configuration values.

A diskette image for creating an ICU diskette is included on the DIGITAL System Software CD. See the CD-INFO.TXT file on the DIGITAL System Software CD for information about creating the ICU diskette.

See the ICU on-line help for complete instructions.

DIGITAL Supplied Software



NOTE: Not all software is supported in all languages for all countries. If software is not preloaded, then DIGITAL does not support using the System Software CD to install an English (or a Non-English) application or utility on non-matching language variations of Microsoft operating systems.

Included with your DIGITAL Personal Workstation are software applications, utilities, and online documentation that make your computer easier to manage and use. Some of the software, such as the operating system, comes fully installed and ready to run. Other software comes only on the System Software CD supplied with your Personal Workstation. (See the section “DIGITAL System Software CD” for more information.)

Other software, including applications and on-line documentation, is loaded into the hard disk drive in a compressed format, but not fully installed. Before you can use it, you must specifically activate it. (Pre-loading software requiring customer activation speeds up the initial Windows Setup and allows you to conserve disk space by using only the software that you want.)

An easy-to-use HTML-based interface is provided to guide you through the installation of these applications.

Follow the steps below to install the customer activated options.

1. From the Start menu, click Programs.
2. From the Programs list, click Digital, then click on Installable Options.
3. The Main Menu appears. Click on the application you want to install.
4. Follow the on-screen instructions to completely install the application onto your hard disk drive.

Applications

The following table provides the location and description of the applications provided with your system by DIGITAL. Note that Windows NT instructions all begin from the Start button in the Task Bar.



NOTE: Depending on the DIGITAL Personal Workstation you purchased, the applications may vary from the tables presented in this guide.

Getting Started

| Applications | Location | Description |
|-------------------------------|---|---|
| Alta Vista Personal Search | Select Programs, Digital, then Installable Options. | DIGITAL's powerful and comprehensive search engine allows you to search all files on your workstation's hard disk drive. |
| Adobe Acrobat Reader | Select Programs, Digital, then Installable Options. | The Adobe Acrobat Reader software allows you to read and print electronic documents. |
| AMI Diagnostics | Can be run from the DIGITAL System Software CD. | Diagnostic software that can help troubleshoot your computer, even if you are unable to access the hard disk drive. In addition to being able to run AMI Diagnostics from the CD, diskette images have been provided so you can create a set of diagnostic diskettes. (See the section "Using Diagnostics.") |
| ClientWORKS | Select Programs, Digital, then Installable Options. | DIGITAL's client management software designed to help network administrators lower the total cost of ownership by automating asset management tasks and managing computers remotely. |
| Desktop Wellness | Select Programs, Digital, then Desktop Wellness. | A tutorial that contains ergonomic information to help you work comfortably. This tutorial can be used to find aspects of your tasks and work environment that can be adjusted to suit your needs. |

Continued

| Applications | Location | Description |
|-------------------------|-------------------------------------|--|
| Zero Administration Kit | System Software CD. | A set of tools for managing Windows NT. The Zero Administration Kit greatly reduces the amount of time that end users must spend in such “house keeping” chores. |
| Video Utilities | Select Control Panel, then Display. | Refresh utilities allow you to set the refresh rate of the display. |

DIGITAL On-Line Documentation

DIGITAL provides an on-line resource library for all available product information. The resource library may include HTML-based help files, electronic reference guides, and Readme files. Electronic reference guides are available in Adobe Portable Document Format (PDF). These documents can be displayed and printed exactly as the original. The Adobe Acrobat Reader is provided on your computer’s hard disk drive as a customer-activated option.



NOTE: If the PDF files installed on your computer are not in your language, check the System Software CD. Translated versions of the referenced PDF files might be located there.

The following table lists the on-line documentation available for your computer. These files are supplied on the hard disk drive and can also be installed from the DIGITAL System Software CD, using the instructions in the section “DIGITAL System Software CD Installation Program.”

| On-Line Documentation | Description |
|-------------------------|--|
| README.TXT | README.TXT files help you set up, operate, and configure your computer. DIGITAL recommends that you read this information first. |
| <i>System Reference</i> | The on-line System Reference guide describes how to operate, upgrade, and configure your computer. |

Getting Started

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|--|--|
| | You can view and print the <i>System Reference</i> using the Adobe Acrobat Reader. |
| <i>Your DIGITAL Personal Workstation</i> | HTML-based on-line help files that describe your computer's features. |
| CD-INFO.TXT | This text file provides details about what files are on the System Software CD, and how to install these items onto your computer's hard disk drive. |

Other on-line documentation files are available, many of which relate to specific applications. Check the application program folder. Also check the applications themselves for the on-line help that is integrated into the applications.

Operating System Kit

Your computer comes with Windows NT installed on your hard drive and with the Windows NT Workstation kit. The Windows NT Workstation kit consists of :

- The Windows NT Workstation CD-ROM
- Setup diskettes
- Software license
- The *Microsoft Windows NT Installation Guide*



NOTE: The CD-ROM and setup diskettes are for restoring your operating system. Be sure to put them away in a safe place.

The *Microsoft Windows NT Installation Guide* describes how to install and use Windows NT, including information about additional networking services that you can install.

DIGITAL System Software CD

Included in your accessories kit is the DIGITAL System Software CD. This CD-ROM is a *bootable* CD-ROM and capable of being used to boot a workstation on which the hard disk drive has failed. It contains all of the applications, drivers and files necessary to restore DIGITAL-supplied system software in the event of a hard disk drive failure. It also contains expanded diagnostics and device drivers not included on the operating system CD-ROM. This CD-ROM does not contain the operating system.



NOTE: If your computer does not have an installed CD-ROM drive, please ask your Network Administrator about accessing the DIGITAL System Software CD via the network.

This DIGITAL System Software CD contains the following items:

| Item | Description |
|-------------------------------|--|
| DIGITAL on-line documentation | User guides, on-line help, and text files that explain how to operate your computer. |
| Software applications | Software products that will help you to obtain the most benefit from your DIGITAL computer. |
| Device drivers | Drivers that are needed for proper computer functions. |
| Troubleshooting utilities | Utilities (such as AMI Diagnostics) that aid in troubleshooting the computer when it's experiencing problems. See "Using Diagnostics" for more information.. |
| Diagnostic diskette images | Images to create AMI Diagnostic diskettes that can then be used in the event that your computer fails to boot. |

Use the instructions in the section "DIGITAL System Software CD Installation Program" to install the applications, utilities, documentation, and drivers on the hard disk drive.

Getting Started

Most of the device drivers you need are installed at the factory. However, you may need to install additional device drivers for options that were not factory installed. DIGITAL provides all the factory-installed device drivers and additional device drivers on the System Software CD. IDE, CD-ROM, and video device drivers are some of the drivers available for Windows NT.



NOTE: Not all device drivers on the CD-ROM are supported by DIGITAL. These device drivers are supplied for your convenience only.

See CD-INFO.TXT on the DIGITAL System Software CD-ROM for configuration and installation information.

Using System Software **2**

Introduction

As described in the previous chapter, a variety of software applications are provided with your DIGITAL Personal Workstation.

This chapter describes:

- Integrated desktop manageability applications
- Power management capabilities
- How to use the provided diagnostic utilities

ClientWORKS

ClientWORKS, DIGITAL's client management software, contains a powerful set of utilities designed to help you get the most out of your networking environment. Based on the Desktop Management Interface (DMI) industry-standard, ClientWORKS reduces total cost of ownership and makes DIGITAL Personal Workstations more manageable than the competition. Included, at no charge, with all new DIGITAL Personal Workstations, ClientWORKS saves MIS personnel time, reduces travel costs when diagnosing remote computers, and improves accuracy of analysis of clients on the network.

ClientWORKS includes:

- Enhanced 32-bit DMI service layers for Windows 9x and Windows NT, and a 16-bit service layer for Windows for Workgroups.
- DIGITAL's enhanced system Management Information Format (MIF) file for industry-standard desktop management.
- Enhanced ClientWORKS browser, offering identification of DMI components, both locally and remotely.
- SNMP agent software, including a MIF-to-MIB converter for powerful remote management in heterogeneous environments.
- MIFMAKER, DIGITAL's unique utility designed to make DMI data available to Microsoft Systems Management Server (SMS).
- Diagnostics for enhanced system troubleshooting.

For installation instructions, refer to the ClientWORKS online help and user documentation. A System Administrator's guide is also provided in PDF file format in the ClientWORKS directory.

For additional information, including last-minute release notes, please see the README.TXT file provided with ClientWORKS..

Power Management

Workstations running Windows NT Workstation are equipped with the Power Panel application. Power Panel settings control which power management features are implemented and how. It is accessed from the Windows Program menu.

Using Diagnostics

Several software diagnostic products are provided with your DIGITAL Personal Workstation. You can use any of the following applications to troubleshoot problems on your computer.

- Windows NT Diagnostics
- AMI Diagnostics

Windows NT Diagnostics

Windows NT diagnostics is included with the Windows NT Workstation operating system. You can use this software to troubleshoot your computer by choosing Administrative Tools from the Programs menu and then selecting the Windows NT icon. See your Windows NT documentation for more information about Windows NT diagnostics.

DOS-based Diagnostics

Your diagnostic options also include AMI Diagnostics, a DOS-based diagnostic application, on the DIGITAL System Software CD.

AMI Diagnostics on CD-ROM

In the event of a hard disk drive failure, your system can be booted from the DIGITAL System Software CD. The AMI Diagnostics can then be used to examine the computer's current configuration, locate faulty components, and troubleshoot problems. If the hard disk drive fails to boot or you are unable to access the diagnostic software from Windows NT Workstation, proceed as follows.

1. Insert the DIGITAL System Software CD into the CD-ROM drive and power on your computer.



NOTE: If the computer boots from a diskette or hard disk drive instead of the CD-ROM drive, run the BIOS Setup utility to change the boot sequence. In the Boot menu, make the CD-ROM drive the first entry in the boot priority list, save your changes, then restart the computer.

For more information about using the BIOS Setup utility, see the *System Reference* manual included with your DIGITAL Personal Workstation.

2. After your computer boots, the startup menu appears. Select "Run Diagnostics" and follow the instructions displayed on your monitor screen.
3. The DOS-based diagnostics program will launch and your workstation can be tested. For more detailed instructions about using this application, refer to the online help within the program.

AMI Diagnostics on Diskettes

Diskette images of AMI Diagnostics are provided on the DIGITAL System Software CD. If you would prefer to boot from diskette instead of the System Software CD, DIGITAL recommends that you create diskettes as soon as possible. For detailed instructions on doing this, see the CD-INFO.TXT file on the DIGITAL System Software CD. The AMI Diagnostic diskette images, stored on the System Software CD, consist of the following:

| Title | Description |
|--|--|
| AMI Diagnostic Diskette #1 | This diskette contains the base diagnostics and the Install program to install AMI Diagnostics on the hard disk drive. This is a bootable diskette image. |
| DIGITAL Vendor Extended Test Diskettes | These diskettes contain additional diagnostics for specific features or options. These are bootable diskette images. |

See the applicable README.TXT file on each of the diagnostics diskettes for installation instructions and additional information.

Creating the Diagnostic Diskettes

To create AMI Diagnostic diskettes, follow the steps below:

1. Before beginning, be sure you have several blank 1.44 MB diskettes available.
2. Insert the System Software CD into your workstation's CD-ROM drive.
3. The System Software CD will autorun. If you are prompted to choose an operating system, select Windows NT.
4. At the System Software Main Menu, you'll be presented with a menu of software applications from which to choose.
5. Click Diagnostics and follow the instructions for creating and labeling the diagnostic diskettes.

Using the Diagnostic Diskettes

To boot from AMI Diagnostics Diskette #1, insert the diskette into the floppy disk drive and power on your computer. After the program begins, follow the instructions displayed on your monitor screen.



NOTE: If the computer boots from the hard disk drive instead of the diskette drive, run the BIOS Setup utility to change the boot sequence. In the Boot menu, make the diskette drive the first entry in the boot priority list, save your changes, then restart the computer.

For more information about using the BIOS Setup utility, see the System Reference manual included with your DIGITAL Personal Workstation.

For more information about each of the diskette images and their use, see the README.TXT file which is included on each diagnostic diskette. Each has detailed information about the diagnostics and its test parameters.

Using System Software

Restoring System Software

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Restoring Your Software

In the event of a hard disk failure, you will need to reinstall your operating system, device drivers, and any other utilities or applications that were on your hard disk drive. At other times you may only need to replace a driver or an application that was accidentally deleted or corrupted.

Before you begin the installation, make sure you have the operating system kit supplied with your computer, the DIGITAL System Software CD, and any other applications that were installed on your computer.

The following instructions are for a complete restoration of your computer software.

1. If possible, back up data and any applications.
2. Reformat the hard disk drive, if necessary. You need to reformat your hard disk drive if it failed completely or if you replaced it with a new one.
3. Install the operating system.

Refer to the supplied Windows NT Workstation documentation for additional information.

Restoring System Software

4. Install the necessary device drivers (see the section “DIGITAL System Software CD Installation Program”).

For additional installation and configuration information, refer to the CD-INFO.TXT file on the DIGITAL System Software CD.



NOTE: Device drivers are subject to change. You can find the latest device drivers using the Internet (See "Latest Product Information and Updates").

5. Install the DIGITAL supplied applications, such as ClientWORKS. These applications are located on the DIGITAL System Software CD (see the section “DIGITAL System Software CD Installation Program”).
6. Install your applications.

If you only need to reinstall a device driver or an application, you can do so by following step 4 or 5 as appropriate.

DIGITAL System Software CD Installation Program

The DIGITAL System Software CD includes an easy-to-use installation program that allows you to install the supplied applications and drivers onto your computer's hard disk drive.

To launch the installation program:

1. Insert the DIGITAL System Software CD into the CD-ROM drive. It should autorun and launch your Internet browser to display your choices.
2. If you are prompted to choose an operating system, select Windows NT.
3. A screen listing the installable applications and utilities appears. Select the item you want to install and follow the instructions on the screen.

If the DIGITAL System Software CD does not run automatically:

1. Click Start, then click Run.
2. Type D:\SETUP.HTM in the Open box (where D:\ is your CD-ROM drive).
3. Click OK.
4. The installation program will launch and you can select what items on the System Software CD you want to install.



NOTE: If your computer does not have an installed CD-ROM drive, please ask your Network Administrator about accessing the DIGITAL System Software CD via the network.

Restoring System Software