

IBM Personal Computer

About Your Software

**Windows NT Workstation 4.0, Applications,
and Support Software**

IBM Personal Computer

About Your Software
Windows NT Workstation 4.0, Applications,
and Support Software



Note

Before using this information and the product it supports, be sure to read the information in Appendix A, "Notices and trademarks" on page 27 and "Viewing the license agreement" on page 9.

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About This Book

This book supplements the information in your computer publications. Keep it with those publications for future reference.

This book contains general information about the preinstalled and other software provided with your computer.

This book is organized as follows:

- Chapter 1, “Overview of your software” on page 1, contains overview information about the preinstalled and software provided with your computer.
- Chapter 2, “Getting started” on page 5, contains information to help you get started using your computer and to understand some of the software features.
- Chapter 3, “Using the Software Selections CD” on page 13, contains information about installing or reinstalling software provided on the *Software Selections* CD.
- Chapter 4, “Software Selections CD applications” on page 15 contains information about the additional software provided with your computer.
- Chapter 5, “Using the IBM Product Recovery CD” on page 21, contains information about reinstalling Windows NT Workstation 4.0 for recovery purposes.
- Chapter 6, “Installing other operating systems” on page 25, contains information about installing other operating systems and support software.
- Appendix A, “Notices and trademarks” on page 27, contains legal notices and trademark information.

Chapter 1. Overview of your software

Your computer comes with Microsoft® Windows® NT¹ and a variety of software, including application programs, diagnostic tools, and device drivers. Some of the software is *preinstalled*.

Important:

The software, other than Microsoft Windows NT, is licensed under the terms of the IBM International License Agreement for Non-Warranted Programs. Use of your computer signifies acceptance of this license agreement. See Appendix A of this booklet for information on viewing the license agreement.

Preinstalled software

In addition to Windows NT, your preinstalled software includes the following:

- Device drivers for factory-installed features.
- ConfigSafe, a program that provides features that make it easier to restore your system if your desktop becomes damaged, unusable, or unstartable.
- The IBM Welcome Center, which is a central location from which you can set up hard disk partitions, register your computer, set the time and date, set up your printer, view online books, read the license agreement and online warranty, start the *Software Selections* CD to install software provided by IBM, and obtain information about IBM products and technical support.
- Windows NT Service Pack, which is a Windows NT update made available to Windows users by Microsoft. IBM has installed Service Pack 4 on your hard disk as a convenience to you. For important information on this software, see page 7.
- Internet Explorer 4.0 is an internet browser installed on your hardisk as a convenience to you.

Additional information about your preinstalled software is in Chapter 2, “Getting started” on page 5.

¹ The Microsoft Certificate of Authenticity is your assurance that the Windows NT software on your computer is legally licensed from Microsoft Corporation.

Important:

No backup diskettes for your preinstalled software are shipped with your computer. However, the *Software Selections* CD contains most of your IBM-preinstalled programs and device drivers.

- In addition, the Windows NT operating system and preinstalled software are provided on the *Product Recovery* CD for backup purposes. Use the *Product Recovery* CD in conjunction with the *Software Selections* CD if you need to reinstall the operating system. (Diskettes for your Windows NT operating system and preinstalled software are not available from IBM.) For more information about reinstalling Windows NT and your preinstalled software, see Chapter 5, “Using the IBM Product Recovery CD” on page 21.
- The device drivers and some programs are also available on the World Wide Web at <http://www.ibm.com/pc/us/files.html>, or on the IBM PC Bulletin Board System (BBS). For the BBS numbers, see the “Getting Help, Service, and Information” chapter in the user guide for your computer. Also, you might find updated device drivers and files on the World Wide Web or BBS.
- Your hard disk has a 2 GB² partition (referred to as drive C). The partition contains Windows NT and the preinstalled software. The remaining hard disk space has been left unformatted, so that you can format it and partition it as you wish. (This remaining hard disk space cannot be used until you partition it.)
- At your earliest opportunity, create the *Microsoft Windows NT Emergency Repair Disk*. This diskette can be used for some recovery purposes. (For instructions on creating the diskette, see the Windows NT publication provided with your computer.)

Software on the Software Selections CD

In addition to your IBM-preinstalled programs and device drivers, additional software is provided on the *Software Selections* CD. You decide which programs to install, based on your needs.

The following is a list of some of the software that is provided on the *Software Selections* CD. Note that the software on the CD is subject to change and might be different from the following list. Software on the *Software Selections* CD is supported for Windows NT Workstation 3.51 and 4.0, Windows 95, and Windows 98. See Chapter 3, “Using the Software

² When referring to hard-disk-drive capacity, GB means 1 000 000 000 bytes; total user-accessible capacity may vary depending on operating environment.

Selections CD” on page 13 for further information about the *Software Selections CD*.

IBM Internet Connection

Software that you can use to establish an internet account and dial into the Internet through the IBM Global Network. You can use this software with the Netscape Navigator browser, which is available on your IBM Software Selections CD.

Lotus SmartSuite

Lotus SmartSuite, a package of award-winning productivity applications, contains powerful applications and everything you need to access the Internet. Your computer comes with either a Lotus SmartSuite CD or a proof of entitlement to receive one free CD-ROM version of Lotus SmartSuite. For further details, see the Lotus SmartSuite brochure that comes with your computer.

Norton AntiVirus for IBM

This is a comprehensive product that protects your computer from harmful viruses. See Chapter 4, “Software Selections CD applications” on page 15 for more information.

Enhanced Diagnostic

Enhanced Diagnostic is a testing program that helps identify hardware related problems. Refer to the user guide for your computer for instructions on creating and starting an *Enhanced Diagnostic* diskette.

ConfigSafe

The ConfigSafe program is a comprehensive configuration tracking and recovery tool. It provides features that make it easier for you (or support personnel) to restore your system if your desktop becomes damaged, unusable, or unstartable. For more information see “Using ConfigSafe” on page 11.

CoSession remote

Your administrator can use this communication tool to diagnose and fix computer problems from a remote location. The connection can be made through a modem or over a LAN.

IBM Netfinity Services

You can use IBM Netfinity Services to view detailed information about your computer hardware and software, browse Desktop Management Interface (DMI) information, set up alerts, monitor a variety of system resources, and manage your asset security. If your computer is connected to a network that has the Netfinity Manager program installed, Netfinity Manager can gather information for asset management and can monitor the operation of your computer.

Netscape Communicator	You can use Netscape Communicator to navigate your company intranet or the World Wide Web. Netscape Communicator provides a full suite of Internet functions, including e-mail, threaded discussion groups (newsgroups), and support for the latest features on the World Wide Web.
PC-Doctor for Windows and PC-Doctor for Windows NT	You can use these diagnostic tools with Windows 95, Windows 98, and Windows NT 4.0. In addition to isolating hardware problems, these tools also provide information about your computer operating environment and some software components. Support documentation is built into the Help system.
Tivoli Lightweight Client Framework	You can use Tivoli Lightweight Client Framework to discover software, distribute software, and retrieve a software inventory from a client system.
ViaVoice 98	You can use ViaVoice 98 to control your computer using your voice and quickly create text for memos, e-mail, and reports. (Some models might include this program on a separate CD.)

Not all software is available for all operating systems. See the *Software Selections* CD to find out which programs are available for your operating system.

Chapter 2. Getting started

This chapter contains information to help you get started using your computer; it explains:

- What you need before and what happens after you start your computer for the first time
- How to:
 - Access information and perform tasks from the IBM Welcome Center
 - View the license agreement
 - Use the online program to register your computer with IBM and then access the complimentary screen savers
 - View online books
 - Use ConfigSafe
 - Safely shut down your computer

Starting your computer for the first time

You must complete the Windows NT Setup procedure before you can access Windows NT for the first time.

Important

Once you start your computer for the first time, you must complete the Setup procedure before you turn off your computer; otherwise, unexpected results might occur.

What you need before you start

Before you start the Windows NT Setup procedure, you need the following:

- The Windows NT manual provided with your computer, in case you need more detailed information than is provided in this chapter
- Microsoft Certificate of Authenticity (attached to the front cover of your Windows NT manual) for the Product ID number
- Network information (if applicable) from your network administrator
- The printer model and port used by the printer, if a printer is attached directly to your computer

Running the Windows NT Setup program

If the Setup program has not already been run, it will appear when you start the computer. The program will prompt you to make choices or type information as required. If you need more detailed information than that which is provided in the following notes, refer to your Windows NT manual.

Notes:

1. The Setup program that appears when you start the computer is slightly different from the one described in your Windows NT manual. Some choices described in your Windows NT manual do not appear because they are preset.
2. During the Setup procedure, you must indicate that you accept the Windows NT license agreement and, when prompted, type the Product ID number from your Certificate of Authenticity. The Certificate of Authenticity is attached to the front cover of your Windows NT manual.
3. After the Setup procedure is completed and the computer is restarted, when prompted, press **Ctrl+Alt+Delete** to display the log-on window. After the log-on procedure is completed, the Windows NT desktop appears. If you have installed Microsoft Internet Explorer 4.0x (refer to page 7), an Internet Explorer window appears on the desktop.
4. Your hard disk has a 2 GB partition (referred to as drive C). This partition contains Windows NT and the other preinstalled software. The remaining hard disk space has been left unformatted, so that you can format and partition it as you wish. (Note that this remaining disk space cannot be used until you partition it.)

The hard disk can be divided (partitioned) into multiple logical drives (such as C, D, and E). If you want to install another operating system, it can be installed into a separate primary partition.

5. At your earliest opportunity, make the *Windows NT Emergency Repair Disk*. It is important that you make this diskette, which can be used for recovery purposes. If you add features to your computer, make a new *Windows NT Emergency Repair Disk* to ensure that the diskette reflects your current system configuration. Additional information about creating and using the diskette is in your Windows NT manual.

Getting acquainted with desktop applications

In addition to standard Windows NT icons and applications, your computer also comes with extra Windows NT operating system enhancements and applications on the desktop that are provided by IBM as a convenience to you. A description of these enhancements and programs follows:

- **Service Pack 4** is a Windows NT update made available to Windows NT users by Microsoft. IBM has installed Service Pack 4 on your hard disk.

Important

To install device drivers without affecting the service pack installation, you must install the device drivers from the I386 directory on drive C. If you install device drivers from any directory or device other than the I386 directory on drive C, you will have to reinstall the service pack after you install the device drivers.

To reinstall Service Pack 4, double-click the **Service Pack 4** icon on the desktop. Then click the **Reinstall Service Pack** icon.

- **Internet Explorer 4.0x** is an updated version of the Internet Explorer. (Some computers may come with Internet Explorer preinstalled instead.) Internet Explorer is a tool that you can use to navigate your company intranet or the World Wide Web.

Note: You must be connected to your company intranet or to the World Wide Web (or both) to be able to use Internet Explorer. For information on connecting to the World Wide Web, as well as further information on Internet Explorer, refer to the Microsoft Windows NT manual provided with your computer.

If you have to reinstall Windows NT, refer to Chapter 5, “Using the IBM Product Recovery CD” on page 21 for information on reinstalling Internet Explorer 4.0x.

- **Set Up Your Network** icon, which is a shortcut to the Microsoft Network Setup Wizard. To begin setting up Windows NT Networking, click the **Set Up Your Network** icon. The computer will ask if you wish to install Windows NT Networking now. To continue with the setup procedure, click the **Yes** button, and the Microsoft Network Setup Wizard will appear. For information about using the Microsoft Network Setup Wizard, see the Windows NT manual.

The desktop on your computer screen also includes the IBM Welcome Center program. Refer to “Using the IBM Welcome Center” on page 8 for detailed information on this program.

Using the IBM Welcome Center

The IBM Welcome Center provides a central location where you can:

- View the IBM International License Agreement for Non-Warranted Programs
- Register your IBM computer
- Start the *Software Selections* CD to install additional software, such as that listed in “Software on the Software Selections CD” on page 2. Also, see Chapter 3, “Using the Software Selections CD” on page 13.
- Perform some system setup tasks, such as:
 - Setting the time and date
 - Reading information about arranging your workspace
- Access IBM Web pages on the World Wide Web, which contain information about IBM products and technical support. Your computer must have an Internet connection with a browser installed to use this option. If your computer does not have an Internet connection, you can link to selected Web pages on your hard disk.
- View online books, such as:
 - *Understanding Your Personal Computer*
 - *Netfinity Services User's Guide*

To access and use the IBM Welcome Center:

1. Double-click the **Start IBM Welcome** icon on the Windows NT desktop.
2. In general, to perform tasks or obtain information using the IBM Welcome Center:
 - a. Click one of the categories listed on the left side of the main window:
 - Welcome
 - Complete your hardware setup
 - Customize your system software
 - Access news, updates, and service information
 - View online books
 - Category-specific information is displayed in the main window.
 - b. In the main window, scroll to and click a selectable topic. (Selectable topics are highlighted and underlined.) When applicable, follow the instructions that appear on the screen.

This chapter contains additional information about performing specific tasks from the IBM Welcome Center. For information about using the Microsoft

Internet Explorer toolbar at the top of the IBM Welcome Center, refer to your Windows NT manual or online Help.

Viewing the license agreement

The IBM International License Agreement for Non-Warranted Programs is viewable in the IBM Welcome Center in your preinstalled software. Use of your computer signifies acceptance of this license agreement. To view the license agreement, do the following:

1. From the Desktop, click **Start IBM Welcome**.
2. Double-click the **IBM International License Agreement for Non-Warranted Programs** icon.

If your preinstalled software is no longer installed in your computer, you can reinstall the online books from the *Software Selections* CD by selecting **Install Online Books** from the list of applications to be installed. See Chapter 3, "Using the Software Selections CD" on page 13 for more information.

Registering your IBM computer

Registering your computer takes only a few minutes. After you complete the product registration procedure, you are given the option to install a complimentary suite of Windows screen savers.

What it means to register your computer

Registering your computer helps IBM provide better service to you. When your registration information is received, it is placed into a central database accessible by IBM technical support representatives. If you need technical assistance, the support representative will already have information about your computer, saving you time on the phone. In addition, your comments about your computer are reviewed by a team dedicated to customer satisfaction and are taken into consideration in making improvements to IBM computers.

How to register

Use the Product Registration program to register your IBM computer. The registration program gathers your name, address, voice and fax telephone numbers, e-mail address, machine type, and machine serial number. Then forward the registration information to IBM using one of these methods:

- Print the information and then mail it to IBM.
- If your computer has a modem, transmit the information directly to IBM.

To register your computer:

1. In the IBM Welcome Center window, click on **Complete your hardware setup**. The related information is displayed. See page 8 for help accessing the IBM Welcome Center.
2. Scroll to and click **Register your computer** in the Register with IBM section; then follow the instructions on the screen.

You can also register your computer through the World Wide Web at <http://www.pc.ibm.com/register>.

Accessing your complimentary screen savers

If you installed the optional screen savers during the product registration procedure, use the following steps to access the new screen savers.

1. Click the Windows **Start** button.
2. Select **Settings**.
3. Click **Control Panel**.
4. Double-click **Display**.
5. Click the **Screen Saver** tab.
6. Click the Screen Saver pull-down menu in the Screen Saver section.
7. Click one of the screen savers to select it.
8. Locate the **Wait** field scroll bar and set the minutes of inactivity that you want to elapse before the screen saver appears.
9. Click **OK**.

Viewing online books

To access and view online books, do the following:

1. In the IBM Welcome Center window, click **View Online Books**.
2. Scroll to and click the name of the book you want to read.

Some of the online books are created using Portable Document Format (PDF). You need to have Adobe Acrobat Reader installed to view these books. For help installing Adobe Acrobat Reader, follow step 1 above and then double-click **PDF Books**, and **Installing Adobe Acrobat Reader**.

Using ConfigSafe

This preinstalled program is a comprehensive configuration tracking and recovery tool. It provides features that make it easier for you (or support personnel) to restore your system if your desktop becomes damaged, unusable, or unstartable.

Highlights of the ConfigSafe program include:

- Menu-driven, graphical interface.
- Snapshot feature that automatically captures and saves your system configuration information the first time your computer is started and there after on a regular schedule. The information includes system files, hardware configuration, file versions, network connections, and registry information.
- Configuration restoration feature that you can use to restore, in just seconds, your system to a previous (or the factory-installed) configuration.
- UNDO feature that you can use to undo the last restored changes and return to the previous configuration.
- Automatic tracking of changes made (knowingly or unknowingly) to your basic system configuration.
- Report feature that you can use to generate (and then view or print) instant reports about system configuration changes. The reports can provide key information, such as a list of changes that occurred within the last week or since the factory-installed configuration.

These reports can be helpful to you in troubleshooting your system, or they can be viewed by or faxed to support personnel for help in resolving problems.

- Ability to work in conjunction with other programs, such as CoSession Remote, for remote assistance.

- Automatic performance of time-consuming tasks, such as backing up configuration information and gathering data.
- A simple way (point and click) to capture current system settings prior to making hardware or software changes. This provides a quick recovery method if problems occur when the changes are made.
- Customizable features to meet specific needs.

ConfigSafe can be a valuable troubleshooting tool, especially if problems develop after you install a new application or adapter. Before you make any changes to your system configuration, use ConfigSafe to take a snapshot of your current, working configuration. Then you can easily return to that configuration if your computer becomes disabled by changes in the configuration files.

If you are unable to solve a problem yourself and you need assistance from an IBM technical-support representative, use ConfigSafe to generate a report about recent changes in your configuration before you call the IBM PC HelpCenter. The IBM technical-support representative will be able to use the information in this report to help you solve the problem.

Shutting down your computer

To help prevent the loss of unsaved data or damage to your programs, always use the shutdown procedure before turning off your computer.

To shut down your computer:

1. Save any data you are working on.
2. Close all open applications.
3. Click the Windows **Start** button.
4. Click **Shut Down**; then click **OK** to confirm the request.

or

1. Save any data you are working on.
2. Close all open applications.
3. Press **Ctrl+Alt+Delete** to display the Windows NT Security menu.
4. Click **Shut Down**; then click **OK** to confirm the request.

Chapter 3. Using the Software Selections CD

Use the information in this chapter if you want to install or reinstall device drivers and other software from the *Software Selections* CD.

Features of the CD

The *Software Selections* CD contains device drivers, diagnostic programs, and other support software for Windows 95, Windows 98, Windows NT 3.51, and Windows NT Workstation 4.0.

Note: Not all software is available for all operating systems. See the *Software Selections* CD to find out which programs are for your operating system.

Important

The *Software Selections* CD does not contain operating systems. Before you can use the CD, your operating system must already be installed in your computer.

You can use the CD to:

- Install some software products directly from the CD on models equipped with a CD-ROM drive.
- Create an image of the *Software Selections* CD on a local area network (LAN) disk and install the software products from that LAN disk.
- Create diskettes for software products that cannot be installed from the CD and install the products from diskette.

The *Software Selections* CD has an easy-to-use, graphical interface and automated installation procedures for most products. It also has a help system that describes the features of the CD.

The products on the *Software Selections* CD are licensed according to the terms and conditions of the IBM International License Agreement for Non-Warranted Programs, which is available through the IBM Welcome Center. (See Appendix A, “Notices and trademarks” on page 27.)

Starting the CD

To use the *Software Selections* CD, insert the *Software Selections* CD into your CD-ROM drive. The Software Selections program starts automatically.

If the auto-run feature is disabled in your computer:

- From the Windows NT Workstation 4.0 desktop, double-click **Start IBM Welcome** → **Customize your system software**
- or
- Click the Windows **Start** button, click **Run**, and then type

`e:\swselect.exe`

where *e* is the CD-ROM drive letter. Press Enter.

When the main menu appears, select the desired option; then follow the instructions on the screen.

After a program is installed, you can access it through the Programs choice on the Windows Start menu. For most programs, you can find help support in the online Help system on your desktop; for some programs, help is also provided within the particular product folder.

Chapter 4. Software Selections CD applications

This section contains information about some important applications available on your *Software Selections* CD, such as Norton AntiVirus for IBM, IBM Enhanced Diagnostic, the IBM Universal Management Agent program. To install these applications, refer to Chapter 3, “Using the Software Selections CD” on page 13.

ConfigSafe

This program is preinstalled. However, it is included on the Software Selections CD and can be reinstalled if necessary. Refer to “Using ConfigSafe” on page 11, for more information.

Norton AntiVirus for IBM

The Norton AntiVirus for IBM program is a comprehensive antivirus product that detects and removes viruses from your computer.

If you want to customize or review the current settings of the program after it is installed:

1. Click the Windows **Start** button.
2. Select **Programs** → **Norton AntiVirus**, and then click **Norton AntiVirus**.
3. In the Norton AntiVirus window, click **Options**.
4. Click the tabs at the top of the screen to review and make any desired changes to the settings. To save changes, click **OK** in each window in which you make changes.
5. Go back to the Norton AntiVirus main window and click the **Scheduler**. If you want to change a Norton AntiVirus setting, double-click the setting (event) you want to change in the window, make any desired changes, and then click **OK**.
6. A new window appears. Click **OK** in this window if you have made any changes and want to save them.

Support documentation is provided online. To access this documentation, click the Windows **Start** button. Then select **Programs, Norton AntiVirus, Norton AntiVirus Guides**. Select **Reference Guide** or **User's Guide**. (Adobe Acrobat Reader might need to be installed first.)

IBM Enhanced Diagnostic

An *IBM Enhanced Diagnostic* diskette image is provided on your hard disk and the *Software Selections* CD. This diagnostic program runs independently of the operating system. The user interface for running the diagnostics and utility programs is provided by Watergate Software's PC-Doctor. (This program is separate from the PC-Doctor plug-in that is part of the Universal Management Agent Plus program.)

You can use this program to test the hardware (and some software) components of your computer. This method of testing is generally used when other methods are not accessible or have not been successful in isolating a problem suspected to be hardware related. For instructions on creating and using the *Enhanced Diagnostic* diskette, see the user guide for your computer.

Management Software

Your computer comes with either System Management Tools or the Universal Management Agent (UMA) program. Both programs are described in this chapter. Read the section relevant to your program.

UMA is a collection of tools designed to manage computers in a network environment. The Universal Management Browser launches and manages each tool from a central interface using ActiveX controls in an Internet or intranet environment. You can use the tools locally on the computer where the Universal Management Agent program is installed or remotely by using the Internet or intranet to access the computer where the Universal Management Agent program is installed.

IBM Universal Management Agent Component

The IBM Universal Management Agent program components include the following:

System Monitors contains Events, Alarms, and Responses (EAR); PC Health; BIOS Error Logging; POST Error Logging; and the Event Log Viewer. You can use these programs to monitor computer hardware status, set up automatic responses to system alerts, schedule events (such as backup operations), and view a history of errors, alerts, and events.

Resource Utilization gathers information about audio, drives, input/output ports, memory, network, system resources, video devices, the battery (mobile computers only), the keyboard, and the mouse.

Advanced Management Tools provides access to Desktop Management Interface (DMI) information.

Inventory Data contains viewable information about the basic hardware, a computer summary report, a software inventory, information about the operating system and associated device drivers, and AssetCare information.

Configuration and Diagnostics contains the User Manager, which is used to configure security features associated with the Universal Management Agent program.

IBM Universal Management Agent Plus

Universal Management Agent Plus is a plug-in program that expands the functions of the Universal Management Agent program. The Universal Management Agent program must be installed before you install Universal Management Agent Plus. Universal Management Agent Plus adds the following plug-ins to your Universal Management Agent setup:

SMART Reaction is a full-function backup, restore, and mirror program. You can use the program to perform routine, scheduled backup and mirror operations or perform emergency backup or mirror operations triggered by Predictive Failure Analysis alerts from SMART hard disk drives.

System Updates provides direct access to the latest information available for your IBM PC by automatically linking to the IBM support Web site for device-driver updates and new system information.

EZ Admin reduces the administrative overhead associated with user-induced problems by hiding or disabling operating system features or limiting user access to specific programs.

CoSession Remote for UMA is a plug-in that network administrators and other user-support personnel can use to access and control a second computer through the UMA interface, using an Internet or intranet connection through either a modem or network. CoSession Remote gives the ability to run programs, reconfigure the computer, and remotely update software. (CoSession is also available on the *Software Selections* CD as a separately installable program.)

PC-Doctor for UMA is a diagnostic tool you can use to run diagnostic tests against major computer components. The UMA implementation of PC-Doctor allows you to run these tests locally or remotely through the Internet or an intranet. (PC-Doctor is also available on the *Software Selections* CD as a separately installable program.)

The UMA program can also integrate into a number of server-based management programs such as IBM Netfinity Manager; enterprise-management systems such as Tivoli TME 10, Tivoli NetView, and Microsoft System Management Server (SMS); and Microsoft Management Console (MMC). Additionally, you can configure the UMA program to forward simple network management protocol (SNMP) traps to workgroup- and enterprise-level network management applications such as Microsoft SMS, Tivoli NetView, and Computer Associates Unicenter.

For more information, visit the Universal Management Agent Web site at <http://www.ibm.com/pc/us/desktop/uma/>.

Installing IBM Universal Management Agent

You can install the Universal Management Agent program from the hard disk, the *Software Selections* CD, or the World Wide Web. The Universal Management Agent Plus program can be installed only from the *Software Selections* CD or the World Wide Web.

For information about installing the Universal Management Agent program and Universal Management Agent Plus, see the *Universal Management Agent Installation Guide* and the *Installation Guide for Universal Management Agent Plus*. These guides are available as online books. See “Viewing online books” on page 11 for information about viewing these online books.

IBM System Management Tools

IBM System Management Tools consist of the following components:

- Desktop Management Interface (DMI) Service Provider 2.0
- Desktop Management (DM) BIOS 2.0 Instrumentation
- IBM PC System Monitor Instrumentation
- IBM AssetCare
- IBM Alert on LAN
- IBM SMART Reaction Client
- Intel® LANDesk® Client Manager 3.1

When you install IBM System Management Tools, all of the components are installed, optionally including or excluding Intel LANDesk Client Manager and IBM SMART Reaction Client.

Note: IBM Alert on LAN requires hardware support. This support is provided with some computer models only.

Components of IBM System Management Tools

A description of each of the components of IBM System Management Tools follows.

DMI Service Provider 2.0 is a program that collects and manages information from software and hardware products on desktop computers, whether they are stand-alone or linked to a network. Each DMI-compliant component registers its information with the DMI Service Provider, and this information is stored in a Management Information Format (MIF) database. The DMI Service Provider handles requests and miscellaneous commands from management applications (such as Intel LANDesk Client Manager), retrieving the requested information from the MIF database, or passing requests on to DMI-compliant products, as needed. Support documentation is built into the DMI Browser's Help system.

DM BIOS 2.0 Instrumentation gathers hardware information that would otherwise be hard to access once a computer is up and running. DM BIOS Instrumentation retrieves information from the computer BIOS and allows this information to be viewed through the DMI Browser. The hardware information reported includes memory configuration, cache size, USB support, product number, system serial number, BIOS version, microprocessor information, system slot information, and more.

IBM PC System Monitor Instrumentation monitors system-board temperatures, system voltages, and fan speeds. It also detects removal of the computer cover. Data is reported to the DMI Service Provider and can be accessed through the DMI Browser or through DMI-compliant system management software. System management software, such as IBM Netfinity Services or Intel LANDesk Client Manager can be used to send an alert to the user or to the system administrator if a problem occurs.

IBM AssetCare is an application that configures and retrieves data from the Enhanced Asset Information Area in your computer. The Enhanced Asset Information Area is an EEPROM that provides component tracking and theft detection capabilities. IBM AssetCare makes it possible to track leasing, warranty, and user and system information, as well as serial numbers for major system components. You can also use IBM AssetCare to create personalized data fields that, with the use of DMI-compliant network management software, provide you with space for customized information. IBM AssetCare can issue a DMI-compliant alert when it detects configuration changes. In addition, you can use a wireless radio frequency reader to access information about your computer provided by IBM AssetCare.

IBM Alert on LAN configures and monitors the Alert on LAN hardware that comes with some computer models. IBM Alert on LAN can be used to

notify a LAN administrator of power-on self-test (POST) failures, operating system problems, environmental problems (such as high system temperatures and system voltage fluctuations), and some security breaches (such as chassis intrusion). Like Wake on LAN, IBM Alert on LAN can function when the computer power switch is turned off. Administrators can monitor IBM Alert on LAN using system management software, such as IBM Netfinity Manager 5.2 or Intel LANDesk Client Manager Administrator 3.3. For further information on IBM Alert on LAN, refer to <http://www.ibm.com/pc/us/desktop/alertonlan> on the World Wide Web.

IBM SMART Reaction Client is a program designed to protect data on computers that have Self-Monitoring, Analysis, and Reporting Technology (SMART) hard disk drives. SMART monitors the status of a hard disk drive and generates predictive failure analysis (PFA) alerts if a potential failure exists within the drive. IBM SMART Reaction Client intercepts these alerts and converts them to useful responses (such as displaying screen messages at the client workstation or alerting additional parties that a specific workstation has a potential hard disk failure). IBM SMART Reaction Client has a full-function backup and restoration program, as well as a mirroring program, which can be used to dynamically “mirror” the contents of up to 64 folders to another hard disk. As source files are saved, the mirror files are automatically updated to contain the same data. IBM SMART Reaction Client also has a built-in scheduler for scheduling backup, restore, and mirror operations. The IBM SMART Reaction Manager program must be installed and running on at least one network computer before IBM SMART Reaction Client can be installed on any client workstation. IBM SMART Reaction Manager, as well as complete documentation on the IBM SMART Reaction program (Client and Manager), is available at <http://www.ibm.com/pc/us/desktop/sr/> on the World Wide Web.

Intel LANDesk Client Manager 3.1 is an application that provides a graphical user interface for accessing all the components of IBM System Management Tools. LANDesk Client Manager also provides self-help diagnostic tools, including a PC health meter and a mechanism for issuing alerts about potential problems. The application automatically polls memory and other hardware to detect potential failure conditions, and it takes periodic snapshots of critical configuration files for change management and restoration. You can use LANDesk Client Manager to manage your own computer, or the program can be used in conjunction with Intel LANDesk Client Manager Administrator to enable a network administrator to remotely monitor your computer. Further information on LANDesk Client Manager Administrator is available at <http://www.ibm.com/pc/us/desktop/> on the World Wide Web.

Chapter 5. Using the IBM Product Recovery CD

The IBM *Product Recovery* CD is provided with your computer so that you can reinstall Windows NT and preinstalled applications and device drivers in case of a hard disk failure or other damage to your Windows NT files.

Warning: The recovery process deletes all the information stored on the primary partition (drive C). If possible, back up your data before starting this process.

The *Product Recovery* CD contains a Windows 98 startable CD image that copies files from the CD to the hard disk. Although the CD initially runs Windows 98 DOS, it installs Windows NT Workstation 4.0.

Your computer was shipped from the factory with a FAT16 primary partition. The *Product Recovery* CD for Windows NT will work correctly only if your primary partition is FAT16. If your primary partition is not FAT16, you will see a message about an invalid partition that needs to be repartitioned with the FDISK command.

To run the FDISK command from the *Product Recovery* CD, type **FDISK** at the command prompt. Delete the primary partition, leave the *Product Recovery* CD in the CD-ROM drive, and restart the computer. The *Product Recovery* CD partitions your hard disk correctly.

Recovering the operating system and support software

Use the following steps to recover the factory-installed operating system and software:

1. Make backup copies of configuration files and any files you created. Any files not backed up will be lost.
2. Insert the IBM *Product Recovery* CD into your CD-ROM drive.
3. The IBM *Product Recovery* CD allows the user to perform:
 - **Full Recovery** reformats your hard disk and restores to original preload image
 - **Partial Recovery** recovers Windows NT and all device drivers. It does not restore any preinstalled applications.
 - **Repair** runs the Windows NT 4.0 emergency repair utility. (For instructions on creating the repair diskettes, see the Windows NT publication provided with your computer.)

4. Restart your computer and follow the instructions on the screen. If your computer does not start from the CD, you need to change your startup sequence. (See “Changing the startup sequence” on page 23.)

Note: The following are tips for successfully using the Windows NT 4.0 Repair utility from the *Software Selections* CD:

- a. Insert repair diskette 1 (of the three diskettes mentioned above)
 - b. Restart your computer with both the *Software Selections* CD and repair diskette 1 in place.
 - c. Follow the directions for diskette 1 and insert diskette 2 when instructed.
 - d. After inserting diskette 2, the Windows NT 4.0 setup screen will appear. Choose the **Repair** option. If you need to reinstall Windows NT 4.0, use the full recovery option. **Warning:** choosing **Install** could cause loss of data.
 - e. Follow the directions for diskette 2 and insert diskette 3 when instructed.
 - f. After inserting diskette 3, Windows NT Setup will compare files on your hard drive. It is likely that several files will not match the original installation. To avoid difficulty restarting your computer, you must choose to replace all of the files.
 - g. When replacing all of the files, error messages will appear for the CRYPT32.DLL and MSOSS.DLL files. Press escape to skip these files. They will be replaced during the required reinstallation of the **Internet Explorer 4.0x** and **Service Pack 4** files.
 - h. Once the repair process is complete, you must reinstall **Internet Explorer 4.0x** and **Service Pack 4**. First reinstall **Internet Explorer 4.0x** by executing the Iesetup.exe from the c:\I386 directory. Choose reinstall Ie4. Choose No to All when asked about replacing a newer file. Next reinstall **Service Pack 4**(see “Getting acquainted with desktop applications” on page 7).
5. When the recovery is complete, remove the IBM *Product Recovery* CD and restart your computer.
 6. If you changed your startup sequence, make sure you change it back immediately.

Changing the startup sequence

If your computer does not start from the CD on the first try, you need to change your startup sequence in the Configuration/Setup Utility program. Follow these steps to change the startup sequence:

1. Turn off your computer and turn the power on again.
2. When the Configuration/Setup Utility program prompt appears in the lower left-hand corner of your screen, press **F1**. (The Configuration/Setup Utility program prompt appears on the screen for only a few seconds. You must press **F1** quickly.)
3. Select **Start Options** from the Configuration/Setup Utility program menu.
4. Select **Startup Sequence** from the Start Options menu.
5. Write down the startup sequence that is shown on the screen. You will need this information to restore your original startup sequence after you complete the recovery process.
6. Change your **First Startup Device** to the CD-ROM drive.
7. Press **Esc** until you return to the Configuration/Setup Utility program menu.
8. Before you exit from the program, select **Save Settings** from the Configuration/Setup Utility program menu and press **Enter**.
9. To exit from the Configuration/Setup Utility program, press **Esc** and follow the instructions on the screen.

Note: Remember to restore your original startup sequence when you have finished using the IBM *Product Recovery* CD.

Chapter 6. Installing other operating systems

If you install (or reinstall) Microsoft Windows NT Workstation 3.51 or 4.0, Microsoft Windows 95, or Microsoft Windows 98 you might need software or device drivers. Hardware-specific support software is available on the *Software Selections* CD. If you experience problems with device drivers installed from the *Software Selections* CD, you can obtain updated device drivers on the World Wide Web at <http://www.ibm.com/pc/us/files.html>, or on the IBM PC Bulletin Board System.

Before installing any operating system, be sure you obtain the latest updates. Contact the operating system manufacturer or, if applicable, check the manufacturer's World Wide Web site to obtain the updates.

To install an operating system, follow the instructions in the documentation provided with the operating system and any updates. Then follow the instructions in Chapter 3, "Using the Software Selections CD" on page 13 to install the support software.

Additional instructions for installing operating systems might be available at <http://www.ibm.com/pc/support/> on the World Wide Web.

Note: Not all software is available for all operating systems. See the *Software Selections* CD to find out which programs are available for your operating system.

Important information about reinstalling Windows NT Workstation 4.0 is in Chapter 5, "Using the IBM Product Recovery CD" on page 21.

Appendix A. Notices and trademarks

This appendix gives legal notice of IBM product availability, patents, and patents pending, as well as trademark information.

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