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Network Associates, Inc.

# 2000 Toolbox User's Guide

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Thank you for purchasing 2000 Toolbox. With 2000 Toolbox, you can create a recovery disk and image snapshots of critical sectors of your hard drives; automatically or interactively create backup sets; back up to a protected volume file which makes your data recoverable when it otherwise would not be; and ensure that your PC meets Year 2000 hardware compliancy. 2000 Toolbox also places a wealth of information about your PC system at your fingertips with Discover.

## What you're about to learn:

- What utilities are included with 2000 Toolbox and what you can do with each one
- What you need before starting
- How to install 2000 Toolbox software and create a recovery disk (see 2000 Toolbox Quick Install)
- How to start the 2000 Toolbox utilities

## 2000 Toolbox Overview

2000 Toolbox contains the following utility programs:

- **2000 Toolbox** tests your PC for Year 2000 hardware and software compliancy. It provides a resident program (Y2Kfixer.com) that can fix problems with your PC's date handling at the transition to 01-01-2000 and beyond.
- **Discover** displays hardware and software information about your PC. You can run benchmark tests to see how your PC's performance measures up against a comparable computer.
- **McAfee Image** saves an image copy of critical disk information in a special file, and restore that image later if your system becomes damaged.
- **Registry Backup and Restore** lets you back up and later restore copies of the registry.
- **WinGauge Lite** constantly monitors your use of Windows and your applications, and alerts you to potential problems before they become serious.
- **Instant Update** connects to the Internet and checks the Network Associates website to see if your copy of 2000 Toolbox needs updating.

## Before You Start

This section describes what your McAfee 2000 Toolbox package should contain and prerequisites for using this software.

## What This Package Contains

Your 2000 Toolbox software package should include:

- One 2000 Toolbox CD-ROM disc

If your PC does not have a CD-ROM drive, you can obtain a set of 3.5-inch disks from our Customer Service department.

- This *2000 Toolbox User's Guide*
- A Registration card

Please fill out and return your Registration card to receive technical support and new product and product upgrade information.

## What You Need Before Starting

To use 2000 Toolbox, you need:

- 2000 Toolbox software (on CD-ROM disc)
- A PC with a 386 or above CPU (central processing unit)
- Microsoft Windows 95 or Windows 98
- 4 MB (megabytes) of RAM (random access memory)
- One 3.5-inch disk drive
- 18 MB of available hard drive space
- A CD-ROM drive
- A 16-color VGA monitor that supports 640 x 480 pixels (or better)

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**NOTE:** This guide assumes you know the basics of using Microsoft Windows. You should know how to point, click, double-click and drag. You should also know how to choose commands from menus, select options in dialog boxes, and enter, select and edit text. See your *Microsoft Windows User's Guide* or online Help for details.

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# Getting Started

This section offers Quick Install and Quick Start procedures to help you install and start 2000 Toolbox. You'll also find information about getting online Help.

## 2000 Toolbox Quick Install

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**To install 2000 Toolbox:**

1. Insert the 2000 Toolbox CD into the CD-ROM drive.  
  
The 2000 Toolbox Installer should autoplay (go to step 3), but if it doesn't go to step 2.
2. Double-click the My Computer icon, the 2000 Toolbox icon and the Setup.exe or Setup icon.
3. Follow the on-screen instructions.
4. Insert a blank 3.5-inch disk in the drive to use as a recovery disk when the Rescue Disk wizard appears, and then click Next.
5. Click Finish to exit setup.

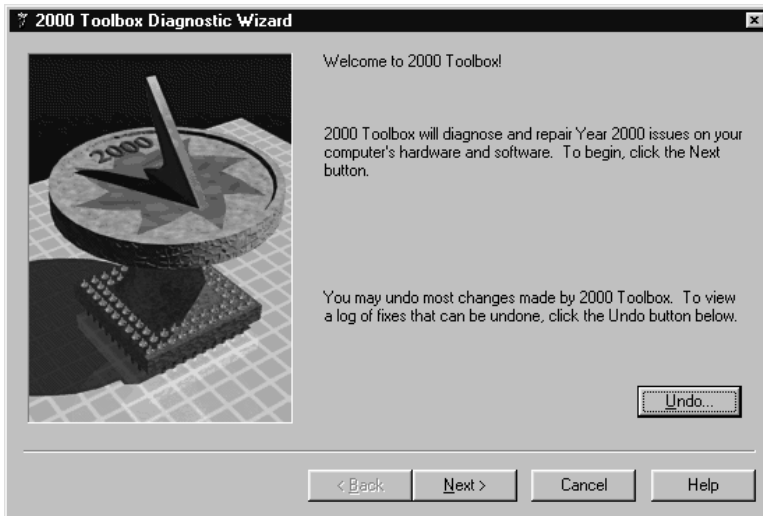
# 2000 Toolbox Quick Start

## To start 2000 Toolbox:



1. Click the Start button on the taskbar, point to Programs, 2000 Toolbox, and then choose 2000 Toolbox.

The 2000 Toolbox Diagnostic Wizard appears.



## Getting Help

2000 Toolbox provides online Help to give you procedures and detailed information about the windows, dialog boxes and options available in 2000 Toolbox. There are two ways to access 2000 Toolbox's online Help:

- Click the ? button in 2000 Toolbox.
- Click the Help button in any of the 2000 Toolbox windows.

Rescue Disk lets you create an emergency boot disk that you can use to restart your PC if you encounter a problem that prevents you from starting the computer from the system hard drive. The *system hard drive* is the hard drive that contains your Windows directory or folder.

You can use the Rescue disk that is created by default. Or if you are an advanced user, you can customize your Rescue disk to add the most important files that you may want to use when recovering a failed hard drive. For example, you might want to add your CD drive's driver software so you can also access that drive during the recovery process.

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## To create a Rescue Disk:

1. Click the Next button in the Rescue Disk Wizard.
2. Do one of the following:
  - Go to step 3 if you want to use the default Rescue disk.
  - Click Advanced if you are an advanced user and want to add additional files to (or remove them from) the Rescue disk.
3. Click Next, and then click Finish.
4. Insert a disk into drive A, and then click OK.

Rescue Disk formats the disk and copies critical startup files to it, as well as any files you added. When the process is complete, Rescue Disk exits and returns to the desktop.

## Using a Rescue Disk

Insert your Rescue disk into drive A and restart your computer. If your system doesn't start, access CMOS and make sure the Booting From Floppy option is enabled. Then follow the on-screen instructions.

## Disk Minder in DOS

Disk Minder in DOS lets you repair disks even if you cannot start Windows. It resolves most disk-related problems such as missing drives, inability to access drives, or errors accessing drives.

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### To use Disk Minder in DOS:

1. Type the following, and then press **ENTER**.

```
C:\WINDOWS\DMDOS
```

Disk Minder searches your PC for drives and then asks you to select the drives you want to check from the Drives list.

2. Press the **TAB** key to change the drives that are currently selected to be scanned. Selected drives have an x beside them in the list.
3. Press the **UP ARROW** and **DOWN ARROW** keys to highlight a drive and press **ENTER** to select it.
4. Press the **RIGHT ARROW** key to move the cursor back to the buttons.

You can select Disk Minder options if you like. Your options are:

- **Fix Errors Automatically**—fixes any data or disk errors automatically. This is the same as selecting the Fix Errors Automatically Using Default Values check box in the Disk Minder window. If you deselect this check box, Disk Minder will let you fix errors interactively.
- **Test Drive Surface**—performs read/write tests of the recordable surface media on a disk. This process may take some time because the entire disk is read and then rewritten. If a sector is damaged, Disk Minder relocates the information, saving it elsewhere on the disk so you can try to recover the information later. Then it maps out the bad sector so it won't be used for storing data in the future.
- **Check DxSpace Host Drive First**—checks the physical drive where DriveSpace or DoubleSpace compressed volume files are stored. Then it checks the compressed volume files, or logical disks.
- **Check for Valid File Names**—verifies that filenames use acceptable characters. Valid characters for filenames are numbers 0-9, letters A-Z, and basic symbols excluding the backslash ( \ ), greater than ( > ), less than ( < ), colon ( : ), double quotations ( “ ” ), and bar or pipe ( | ). Disk Minder also checks long filenames as well as short filenames that follow the 8.3 filename convention.
- **Check for Duplicate File Names**—checks the selected drives for duplicate filenames (files with the same name in the same directory).
- **Check Reserved Attribute Bits**—flags files that have any of the unused (by Windows/DOS) file attribute bits set. These bits may be set on a drive that is shared by OS/2, but otherwise you should most likely leave this option deselected.



- **Display Summary for Each Drive**—The Summary report tells you how many errors were found on the scanned drive. It also gives you complete information about the status of clusters (the smallest storage units of information on a PC drive) on the drive.

5. Select Start and press **ENTER** to start checking the drives.

Disk Minder displays a screen showing the kind of data it is checking and the options in effect. If the Display Summary for Each Drive option is set, Disk Minder displays a summary message showing the total number of errors found on each drive, if any. It also shows information about the clusters on the drive.

## Image/Restore in DOS

Image/Restore can recover from drives that have been accidentally formatted or completely erased, if Image was recently run.

## SysRecover

SysRecover can restore several of the Windows 95/98 startup files, such as SYSTEM.INI and the Windows Registry. You should choose this option only if Disk Minder finds no problems on your drives and you cannot start Windows even in Safe mode.

## Recover Backup

Recover Backup can restore files from protected volumes file backup sets on drives that have been damaged, erased or accidentally formatted.

## Unformat

Unformat can restore entire drives that have been recently formatted.

## Undelete

Undelete is a DOS program like the Windows counterpart that lets you undelete files even after you have deleted them from your hard drive using the DOS delete command.



2000 Toolbox Diagnostic Wizard tests your PC for Year 2000 hardware and software compliancy, as well as Year 2000-specific viruses. The 2000 Toolbox Diagnostic Wizard lets you test the following:

- **Application Compliance:** Searches your PC for programs that have Year 2000 issues and displays information about what those issues are. If available, it also provides an Internet address where you can go to see more information.
- **Database and Spreadsheet Analyzer:** Looks at your database and spreadsheet files on your hard drive and checks and repairs any file that may have Year 2000 incompatibility.
- **Hardware Checker:** Checks your RTC, BIOS, DOS, and Windows clocks to see how they transition through four critical dates. It provides a resident program (Y2Kfixer.com) that can fix problems with your PC's date handling at the transition to 01-01-2000 and beyond.
- **Viruses:** Uses proven McAfee VirusScanner technology to scan your hard drive for any viruses, including Year 2000-specific viruses.

## What is the Year 2000 Problem?

For nearly a millennia, we have been abbreviating the year to simply two digits in date notations. Almost universally, people understand that 12/01/98 means December 1, 1998. Unfortunately, most computers and software followed suit.

The problem in a nutshell is simple math (which is the language of computers). Computers and software most often allocate two digits for the year, both when storing the information and when displaying it on the screen. Starting in the year 2000, our data will span two centuries. For that reason, four digits must be used to accurately sort, calculate and compare years in the 1900s and 2000s.

The human eye can instantly recognize that 00 means the year 2000 and 95 means 1995. Therefore on screen displays, dates are likely to still only show two-digit years. But the underlying storage and calculation of dates must change.

Using two digits for the year works fine when all the dates are in the same century. However, when dates span centuries, calculation problems can arise unless computers use four-digit years. For instance, when subtracting 06/01/95 from 06/01/05 to determine a person's age, a computer using two digits would produce an incorrect result of -90 instead of 10 (the accurate result).

## Why is the Y2K Issue so Urgent?

The year 2000 is the beginning of the Gregorian calendar year that culminates with the start of a new century and a new millennium. It is also the year whose first tick of our clock's second hand will test the date handling of computers and software worldwide. What makes this issue urgent is that the deadline for bringing computers and software into Year 2000 (Y2K) compliancy is fixed. We simply cannot turn back the clock and still have meaningful data.

So will our computers and software accurately handle this transition from dates in the 1900s to dates in the 2000s? Or will our computers suddenly miscalculate the date and reset computer clocks to some date only meaningful to the developers, such as January 1, 1990 or January 4, 1980? Or worse yet, will our computer systems stop working entirely? These situations are all possible. And the Y2K problem is massive, affecting governments, private sector business and home users alike.

For this reason, U.S. Government agencies estimate they will spend \$2.3 billion between the 1996 and 2000 fiscal years bringing government computer systems into compliancy before the beginning of the year 2000. Solving the Y2K issue is the most massive example of human cooperation and teamwork to date. In that respect, achieving total compliance before 2000 will be something to celebrate in itself.

## Why Do We Have Y2K Problems With Our Computers?

The Year 2000 issue is a problem now, because of design decisions made two or more decades ago by engineers and programmers. These people knew that the turn of the century loomed only 20 years in the future. However, they were confident that their products would only have a five to ten year life span. Hardware wears out, and software is enhanced (at that time approximately once every year a new release of software was made available).

There were other factors involved in those early decisions to use a two-digit year. The display area on the computer screen has always been a precious commodity. Also, the standard method of noting dates by hand and in printed forms used only the last two digits of the year. For these reasons, and for reasons associated with the storage space needed to store dates, developers opted to go with only two digits to represent the year (that is, 93 is 1993, 86 is 1986, and so on).

These developers were confident that their products would be out-dated long before the next century commenced. What these developers did not predict was that the standard methods of storing dates that they defined would become "etched in stone." They did not foresee that their hardware and software, although long out of production, might remain in use long into the future due to replacement costs. Neither did they expect that using two-digit years would start a chain reaction of backward compatibility and design stasis that has caused developers to find and fix every occurrence of Y2K non-compliance in hardware and software alike.

# Testing Application Compliance

The Application Compliance option in 2000 Toolbox Diagnostic Wizard searches your PC for programs that have Year 2000 issues and displays information about what those issues are. If available, it also provides an Internet address where you can go to see more information.

You need to verify that the software you use is Y2K compliant. Also, check with your computer vendors for Year 2000 compliance in all new products or updates you acquire. If you are using older software, it is an excellent idea to update it.

If you have custom software, its programmers must examine the source code, looking for not only two-digit dates, but also for obscure times when dates, week counts, or even day of the week calculations are performed. If an inaccurate calculation of leap years is made, even the day of the week can be thrown off.

If your PC is connected to a LAN, be aware that networking software synchronizes the server clock with your PC's clock whenever you connect to a server. This means that LAN servers must be accurate, or they could update workstation clocks resetting them all to the wrong date.

---

## To test application compliance

1. Click the Start button, Point to Programs, point to 2000 Toolbox, and then choose 2000 Toolbox.

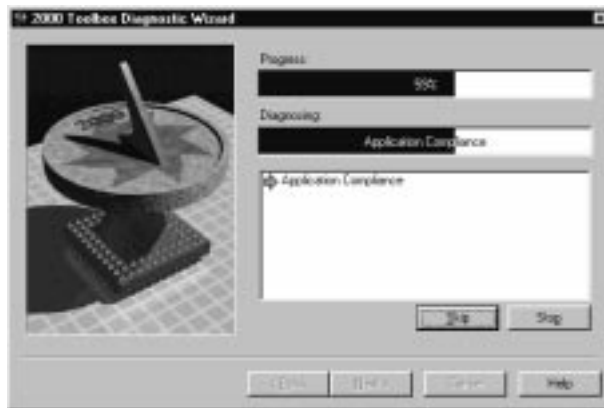
The 2000 Toolbox Diagnostic Wizard appears.

2. Click Next.

The diagnostic panel of the Wizard appears.



3. Select Application Compliance (clear the other options), and then click Next.  
The progress panel of the Wizard appears.



4. Click Skip to skip a particular set of diagnostics, or Stop to stop diagnostics altogether.

Once testing is complete, a message appears stating that all checks are complete.

5. Click OK.

If problems were detected, the problems panel of the Wizard appears.

6. To see more information about a problem, select the problem and click Explain or Summary. You can print problem summaries. Click Close to close the Summary dialog box.
7. Select the check box next to the problems you wish to fix.
8. Click Fix to choose a solution for each problem.

A progress panel appears, notifying you when the fix process is finished.



9. Click Next.

A results panel appears, summarizing the tests performed, problems found, and problems fixed.

10. Click Finish to exit 2000 Toolbox Diagnostic Wizard.

## Using the Database and Spreadsheet Analyzer

The Database and Spreadsheet Analyzer option in the 2000 Toolbox Diagnostic Wizard looks at your database and spreadsheet files on your hard drive and checks and repairs any file that may have Year 2000 incompatibility.

---

### To analyze databases and spreadsheets

1. Click the Start button, Point to Programs, point to 2000 Toolbox, and then choose 2000 Toolbox.

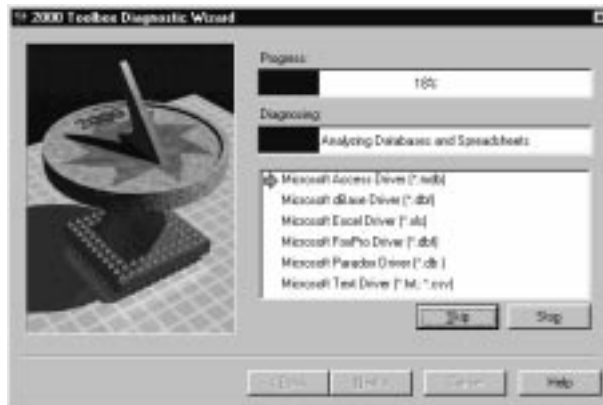
The 2000 Toolbox Diagnostic Wizard appears.

2. Click Next.

The diagnostic panel of the Wizard appears.

3. Select Database and Spreadsheet Analyzer (clear the other options), and then click Next.

The progress panel of the Wizard appears.



4. Click Skip to skip a particular set of diagnostics, or Stop to stop diagnostics altogether.

Once testing is complete, a message appears stating that all checks are complete.

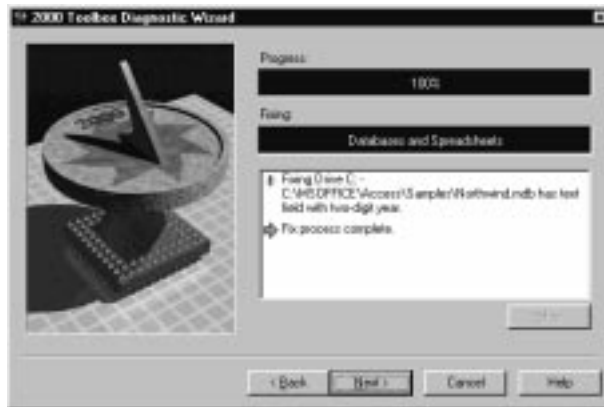
5. Click OK.

If problems were detected, the problems panel of the Wizard appears.



6. To see more information about a problem, select the problem and click Explain or Summary. You can print problem summaries. Click Close to close the Summary dialog box.
7. Select the check box next to the problems you wish to fix.
8. Click Fix to choose a solution for each problem.

A progress panel appears, notifying you when the fix process is finished.



9. Click Next. A results panel appears, summarizing the tests performed, problems found, and problems fixed.
10. Click Finish to exit 2000 Toolbox Diagnostic Wizard.

## Using the Hardware Checker

The Hardware Checker checks your RTC, BIOS, DOS, and Windows clocks to see how they transition through four critical dates. It provides a resident program (Y2Kfixer.com) that can fix problems with your PC's date handling at the transition to 01-01-2000 and beyond.

### What are the RTC, BIOS, DOS, and Windows Clocks?

The *RTC (Real Time Clock)* is a device in your computer that maintains the time (measuring elapsed time) even when you turn off or unplug your PC. Accurate time measurement is needed on your PC, and not just so that you can use your computer as a timepiece either. Your PC uses accurate time to perform a flow of computing tasks. The RTC clock gives your computer the ability to perform tasks in order.

The *BIOS (Basic Input/Output System) clock* is stored in firmware, such as PROM (Programmable Read Only Memory) or EPROM (Erasable Programmable Read Only Memory). When you start your computer, the BIOS reads the date and time from the RTC. The BIOS is your PC's "traffic cop," which dictates how software interacts with all the peripheral devices in your computer, including the RTC clock. Most software gets the date and time from the BIOS, DOS, or Windows clocks. Non-compliant BIOS clocks have reset themselves from 12/31/1999 to 01/01/1900 when the year 2000 begins.

The *DOS (Disk Operating System) clock* gets its date and time from the BIOS clock, and then makes the current date and time available to you or to any application that requests it. You can change the DOS date and time in an MS-DOS Prompt window using the DATE or TIME commands. Non-compliant DOS clocks have reset themselves from 12/31/1999 to 01/04/1980 (the date when DOS was originally released, and before which it did not need to support a current date).

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**NOTE:** Although seemingly transparent, MS-DOS still runs underneath Windows 95, so the Year 2000 Checker fixes the DOS date if it is non-compliant.

---

The *Windows clock* gets its information from the DOS clock, and makes the date and time available to Windows applications, or to you via the Date/Time control panel. Non-compliant Windows clocks have also reset themselves from 12/31/1999 to 01/04/1980.

## How to Ensure Y2K Compliancy of Your PC's Clocks

The Hardware Checker can instantly determine exactly what the four primary clocks on your computer will do on certain milestone dates without some form of correction or intervention. It can also bring these clocks into compliancy by installing the Y2Kfixer.com program, and adding a line to your AUTOEXEC.BAT file that causes this program to run each time you start your computer. Even if you un-install 2000 Toolbox, the Y2Kfixer.com program remains on your system so it continues to be Y2K compliant.

## What Dates Does Hardware Checker Test and Why?

The Hardware Checker tests each of the four clocks for the following dates. In each case, it starts the tests a few seconds before the date and verifies that the transition to the next day's date is accurate.

### 01/01/2000

This date is the 2000 rollover. In some applications that perform forecasting or handle future dates, this date will be reached before the actual calendar date. Examples of this include banking, accounting and project management software. In many cases, these programs may begin using 01/01/2000 when the previous year begins on 01/01/1999 or even earlier. The Hardware Checker tests to make sure that all four clocks transition accurately from a few seconds before 01/01/2000 into the next day.

### 02/29/2000

The year 2000 is a leap year, so the Hardware Checker verifies that this date is accurate.

The rule for determining leap years is:

- Years divisible by 4 are leap years except for years ending in 00.
- Years ending in 00 that are divisible by 400 are leap years.

Reports have been made of computers failing to accurately consider 2000 a leap year (and instead making the year 2001 a leap year).

### 03/01/2000

Some BIOS clocks go correctly to February 29, 2000 but then continue to an inaccurate date of 02/30/2000. So the Hardware Checker tests not only 02/29/2000, but also that it then moves accurately to the first day of March (03/01/2000).

01/01/2002

The Hardware Checker tests 01/01/2002 to ensure that farther down the road your clocks are still handling dates accurately. It also confirms that the clocks do not consider the year 2002 to be a leap year.

---

### To test PC hardware compliance

1. Click the Start button, Point to Programs, point to 2000 Toolbox, and then choose 2000 Toolbox.

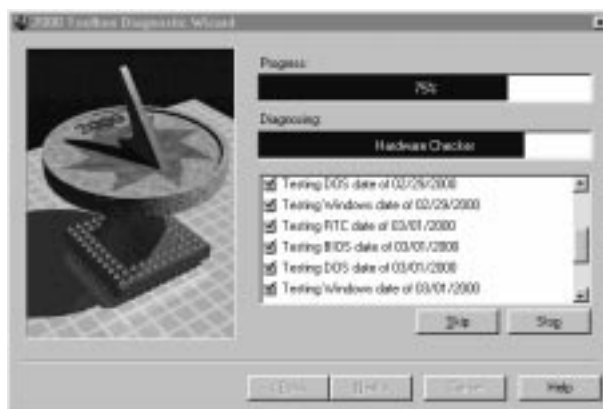
The 2000 Toolbox Diagnostic Wizard appears.

2. Click Next.

The diagnostic panel of the Wizard appears.

3. Select Hardware Checker (clear the other options), and then click Next.

The progress panel of the Wizard appears.



4. Click Skip to skip a particular set of diagnostics, or Stop to stop diagnostics altogether.

Once testing is complete, a message appears stating that all checks are complete.

5. Click OK.

If problems were detected, the problems panel of the Wizard appears.

6. To see more information about a problem, select the problem and click Explain or Summary. You can print problem summaries. Click Close to close the Summary dialog box.

7. Select the check box next to the problems you wish to fix.

8. Click Fix to choose a solution for each problem.

A progress panel appears, notifying you when the fix process is finished.

9. Click Next.

A results panel appears, summarizing the tests performed, problems found, and problems fixed.

10. Click Finish to exit 2000 Toolbox Diagnostic Wizard.

## Checking for Year 2000 Viruses

The Viruses option in 2000 Toolbox Diagnostic Wizard uses proven McAfee VirusScanner technology to scan your hard drive for any viruses, including Year 2000-specific viruses.

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### To check for viruses

1. Click the Start button, Point to Programs, point to 2000 Toolbox, and then choose 2000 Toolbox.

The 2000 Toolbox Diagnostic Wizard appears.

2. Click Next.

The diagnostic panel of the Wizard appears.

3. Select Viruses (clear the other options), and then click Next.

The progress panel of the Wizard appears.



4. Click Skip to skip a particular set of diagnostics, or Stop to stop diagnostics altogether.

Once testing is complete, a message appears stating that all checks are complete.

5. Click OK.

If problems were detected, the problems panel of the Wizard appears.

6. To see more information about a problem, select the problem and click Explain or Summary. You can print problem summaries. Click Close to close the Summary dialog box.

7. Select the check box next to the problems you wish to fix.

8. Click Fix to choose a solution for each problem.

A progress panel appears, notifying you when the fix process is finished.

9. Click Next.

A results panel appears, summarizing the tests performed, problems found, and problems fixed.

10. Click Finish to exit 2000 Toolbox Diagnostic Wizard.





With Registry Backup and Restore, you have the following two options:

- Back-up your registry: This backs up your current registry.
- Restore your registry: If you select Restore, a list of registry backups appear. The registry that setup backed up originally is called Original.

## Backing Up Your Registry

Use the following procedure to back up your registry.

---

### To back-up your registry

1. From the Start taskbar menu, point to Programs, 2000 Toolbox, and then choose Registry Backup and restore.

The Registry Backup & Restore Wizard appears.



2. Click Next.

The next panel of the Registry Backup & Restore Wizard appears.



3. Select Backup and click Next.

The next panel of the Registry Backup & Restore window appears.



4. Type a comment in the textbox, and then click Finish to complete the backup process.

## Restoring Your Registry

Use the following procedure to restore your registry, using a backup.

---

### To back-up your registry

1. From the Start taskbar menu, point to Programs, 2000 Toolbox, and then choose Registry Backup and restore.

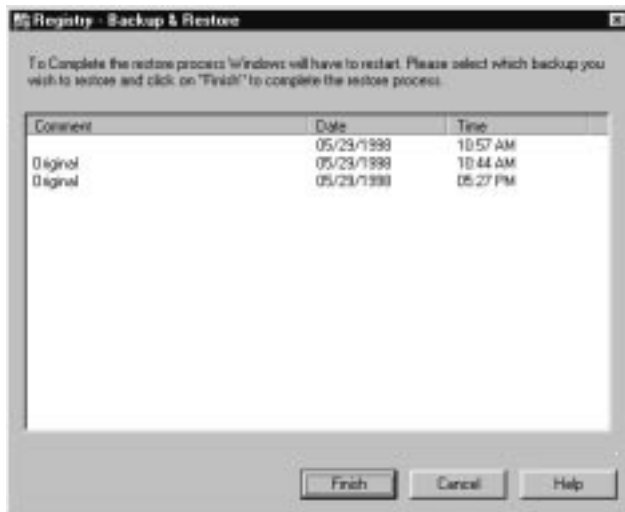
The Registry Backup & Restore Wizard appears.

2. Click Next.

The next panel of the Registry Backup & Restore Wizard appears.

3. Select Restore and click Next.

The next panel of the Registry Backup & Restore window appears.



4. Select a backup you want to restore, and then click Finish to complete the restore process.





Rescue Disk saves information that you'll need if your hard disk ever fails, including the boot record, partition tables and FAT information. It's a good idea to run Rescue Disk daily, as well as whenever you've reorganized a disk's files using a defragmenter. This ensures that you can use Image's Restore option to restore the latest states of your files and folders (or directories). Image stores its information in a file on your hard drive. This file is stored using a special, patent-pending method that allows the file to be recovered even if the hardware is severely damaged.

Data stored on a hard drive can become damaged in several ways. For example, the electric company may be working down the street and accidentally send a spike, or power surge, to your PC. Even if you use a surge protector and connect all the computer's power cords and the modem's phone line to a surge protector (instead of connecting them directly to wall connectors), power surges can still reach your PC and cause lost or corrupted data.

An important step in preventing disaster is using McAfee Image to make a "snapshot" of the most critical areas on your hard drives. Since even a recent backup copy is still not as good as recovering your current data, you'll want to try to recover the latest data first if anything goes wrong. If you use Image to make a snapshot of the most crucial information on your drives, then if a drive becomes corrupted, you can use Restore to restore the most current version of your data.

---

**NOTE:** Set the Image Properties sheet option to run Image automatically each time you start Windows. Image will examine your system and update the image only if needed. Doing this ensures you always have the latest data saved for your disks.

---

## Creating an Image of Your Disks

Creating an image copy of your hard disks as a file (`nbimage.dat`) only takes a moment. You should create a new image file any time you've rearranged files or added many new files to your hard drive.

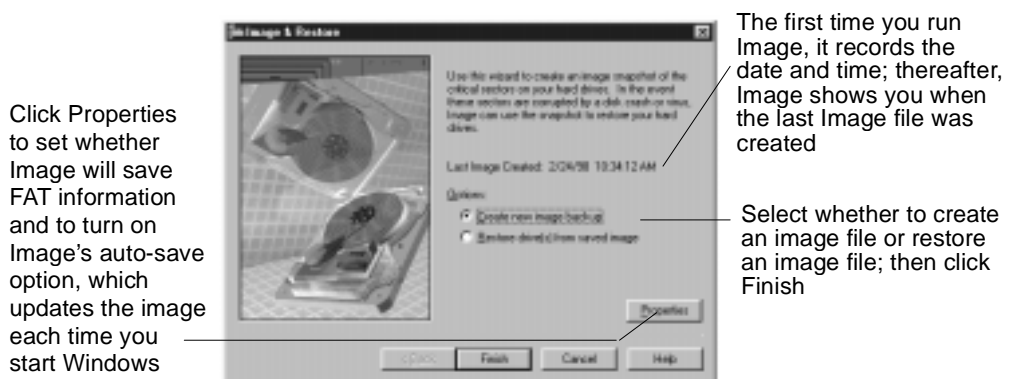
---

### To create an image of your hard drives:

1. From the Start menu, point to Programs, 2000 Toolbox, and then choose McAfee Image.

The McAfee Image Wizard appears.

2. Select the Create a New Image Backup option and click Finish.



3. Image saves the `nbimage.dat` file on your system hard drive, and displays a message letting you know the process is complete.
4. Click OK.

Be sure to create a Rescue disk using 2000 Toolbox's Rescue Disk. Rescue Disk places some Image information on your 3.5-inch disk.

## Setting Image Properties

You can set Image Properties to specify whether Image saves the *File Allocation Tables* (FAT), which is a roadmap or index to where all the pieces of files on a disk drive are located. Most likely, you'll want to keep this check box selected. You can also have Image create a new image copy of your hard disks each time you start Windows (recommended).

## Restoring Drives From an Image File

When all else fails, you can restore the critical information on one or more drives from an image file. Restoring an image file *does NOT* recover deleted files. If you have deleted data files that you need, you can restore a copy of them from your last backup set (protected volume file or directory).

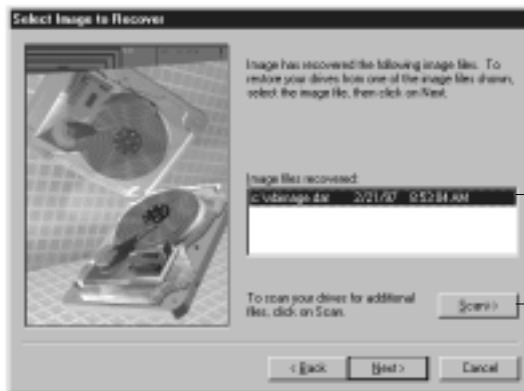
### To restore one or more drives from an image file:

1. From the Start menu, point to Programs, 2000 Toolbox, and then choose McAfee Image Image.

The McAfee Image Wizard appears.

2. Select the Restore Drive(s) From Saved Image option, and then click Finish.

The Select Image to Recover window appears.



Select an image file from the list and click Next to begin restoring your hard disks

Click Scan to locate image files stored on any disk drive on your PC; you can restore image files from any drive, even damaged hard drives

3. Do one of the following and click the Next button:
  - Select an image file to use for restoring your drives from the list of those found on your system hard drive.
  - Click the Scan button to look for additional image files if you don't see the one you want to use. Image scans your hard drives for image files. Select one of them and click Next.
4. Select the hard drives you want to restore and click Next.
5. Select the kinds of information you want to restore.

Image defaults to restoring the master boot sector, partitions and the File Allocation Tables. In most cases, you should use the Image default settings. If you are an advanced user, you may want to only restore one or two of the options:

- **Master boot sector**—Select this option if you cannot start the PC from your system hard drive. The master boot sector is the sector on your system hard disk that contains boot information with instructions for starting up your PC.
- **Partitions**—Select this option if you cannot find a logical drive on your PC. *Partitions* subdivide a physical drive into multiple logical drives. Each partition has its own drive letter.
- **File allocation tables**—Select this option if your files are corrupted and you have been unable to repair them using Disk Minder. Often much or all of your data may be intact on the disk, but the file allocation tables (FATs) may be damaged. By restoring the most current copy of a disk's FAT, you can often recover files that would otherwise be lost.

6. Click Finish to restore the drives with the specified kinds of data.

---

**NOTE:** If your Image file is more than a day or two old, or if you have optimized your hard disk and have not run Image, try using Disk Minder to repair the hard drive first.

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This topic shows you how to use Discover, a unique utility that lets you view a wealth of system information, as well as perform benchmark tests. Discover is your complete system analysis tool. It can help you understand PC hardware and software configurations, and is designed to help you use, analyze, and configure your PC. It provides all the information you need to make optimum use of all available memory.

Unlike other system information tools, Discover doesn't simply display information that it obtained from Windows. Discover actually tests and measures the hardware and software in your system.

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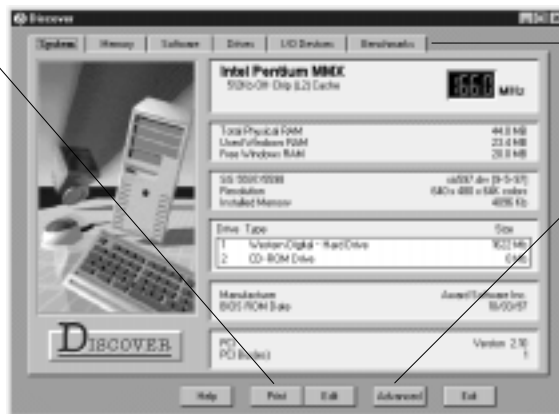
**NOTE:** You should have general knowledge of DOS and Windows memory architectures and terminology. See “Understanding Windows Memory” in the online Help.

---

## The Discover Window

Discover is easy to use and most windows are self-explanatory. Click the Help button for context-sensitive help from any window.

Click Print to display the Print dialog box where you can decide which screens to print to your printer or save in a text file



Click a tab to bring it to the front, making it active

Click Advanced to view the Advanced window for the active tab, which shows details about that aspect of your system

Click Edit to edit an INI file

Discover lets you view information about your hardware and software. Each tab in the Discover window covers a specific aspect of your PC, ranging from a general overview of your system configuration through software to benchmark tests. You can click the Advanced button at any time to obtain a far more detailed analysis of the current tab's topic. Then click the Summary button to return to the Summary view illustrated above.

- **System tab**—shows information about the most critical hardware components of your system, including your CPU, RAM, video, hard drives, BIOS ROM and PCI Bus. You can confirm that your CPU conforms to the manufacturer's specifications; check your physical, used and free RAM; and confirm your video board type, resolution and installed video memory.
- **Memory tab**—gives information on Windows's usage of your PC's memory, via easy-to-understand pie charts and tables. You can identify RAM and resource usage for each application and task; view your physical RAM, User and GDI Resources free; and so on. Note that Discover reports on the actual physical memory (RAM) used by programs.
- **Software tab**—offers information about the software you are currently running and the software components of Windows, such as the numbers of virtual machines, threads, tasks, virtual device drivers and modules. It also shows whether tasks, or programs, are 16-bit or 32-bit, and gives details on your DOS program segments and bytes used.
- **Drives tab**—gives you a complete summary of any drive installed on your system and of all the directories (or folders) and files on that drive. You can immediately see the total size of each drive, the amount of free space, fragmentation levels and the size of your drive's file slack. An easy-to-understand pie chart gives you a visual overview of your drive's contents and free space.
- **I/O Devices tab**—shows information on the secondary and optional hardware devices installed on your PC, such as sound devices, serial and parallel ports, printers (including fax/modems) and network data including network type, driver, specification, version and user name.
- **Benchmarks tab**—an easy-to-use method to benchmark the performance of your CPU and compare it to average benchmarks for three other "commonly configured" PCs.

## Working With Advanced Information

You can view detailed information about any of the tabs in the Discover window.

---

### To work with advanced information:

1. Click a tab to bring it to the front.

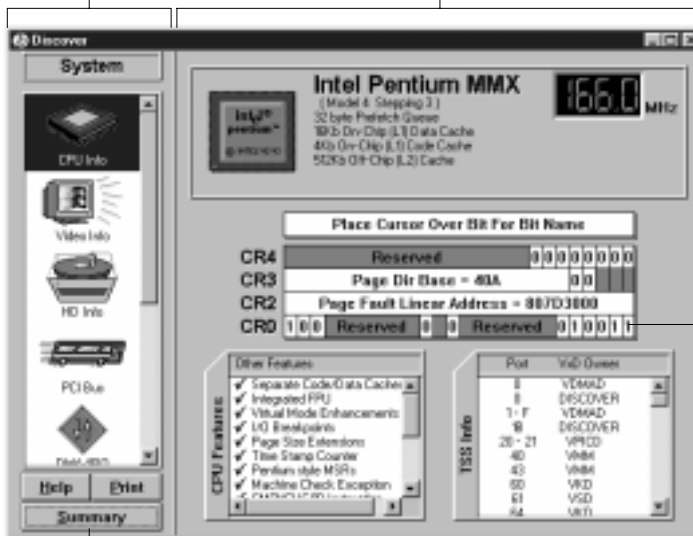
2. Click the Advanced button.

Discover displays the Advanced window for the active tab. All the Advanced windows have these elements in common:

- **Icon Panel**—Click any of the icons in the panel at the left to view that type of information in the panel at the right.
- **Detail Information Panel**—The detail information shown in the panel at the right is for the category indicated by the currently selected icon. The detail information is mostly self-explanatory with scrolling lists and buttons you can click to obtain additional information or perform related tasks, such as running or stopping benchmark tests.

**TIP:** In several of the detail information panels, you'll see legends with small color boxes showing the kind of information that is graphically represented in that color. If you click a Color box, the Color Change dialog box appears where you can select a different color to use for that legend item.

Click an icon here . . . . . and Discover changes the panel here.



Click Summary to go back to the Discover summary window

Point to a bit (bits are ones or zeros) to see its name





WinGauge Lite is a dynamic reporting tool that constantly monitors your use of Windows and your applications, to alert you to potential problems before they become serious. Information about your system is displayed to you in the form of gauges. You select what to monitor, the threshold at which warnings will occur, and the refresh interval.

You can choose to have one, a few or many gauges active at any one time—with each gauge reporting on the status of your system.

By using WinGauge Lite, you will be warned about potential problems well in time to take the necessary preventative steps. WinGauge Lite alerts you so that you can, for example, save your data, close programs or take other actions to prevent your system from slowing down, crashing, or locking-up.

## WinGauge Lite Gauges

WinGauge Lite is a real-time monitoring program that can be configured to watch the following:

### Physical Memory

This allows you to monitor Physical Memory use on your system. If this warning goes on all the time, it's an indication that you may need to buy more memory (i.e. SIMMS, SDRAM) or close down some applications.

### Resources

Enabling this setting allows you to monitor Windows resources and enable an alarm at a specified threshold. If your resources get too low resources, try closing some applications. If this does not make the warning go away, this may indicate a memory leak. This means that a program that you are running is not freeing memory and can cause Windows to crash.

### Fragmentation

Enabling this setting allows you to monitor the fragmentation level of your fixed hard drives and enable the alarm at a specified threshold.

### Disk Space

Enabling this setting allows you to monitor when your fixed hard drives are running low of free space.

## SMART hard drives

Uses S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) to monitor if an impending device failure is detected. This is only active if you are using a hard drive that uses SMART technology. Please refer to your hard drive manual for details about your hard drive.

## Wingauge Lite Properties

The Properties screen displays the current settings for WinGauge Lite.

### System

- Physical Memory - Setting this check box enables monitoring of Physical Memory. A Warning dialogue box will show when Physical Memory usage is equal to or greater than the threshold setting. The frequency of checks can be entered by entering the number of minutes in the box directly to the right of the word “min.”.
- Resources - Setting this checkbook enables monitoring of Windows Resources. A Warning dialogue box will show when Resource usage is equal to or greater than the threshold setting. The frequency of checks can be entered by entering the number of minutes in the box directly to the right of the word “min.”.

### Hard Drives

- Fragmentation - Setting this checkbook enables monitoring of Hard drive fragmentation level. A Warning dialogue box will show when fragmentation of any of your physical drive is equal to or greater than the threshold setting. The frequency of checks can be entered by entering the number of minutes in the box directly to the right of the word “min.”.
- Disk Space - Setting this checkbook enables monitoring of disk space usage of all your fixed hard drives. A Warning dialogue box will show when any of the fixed hard drives usage is equal to or greater than the threshold setting. The frequency of checks can be entered by entering the number of minutes in the box directly to the right of the word “min.”.
- SMART Check - Setting this checkbook enables monitoring of all your SMART supported drives. A Warning dialogue box will show when a drive is possibly failing. The frequency of checks can be entered by entering the number of minutes in the box directly to the right of the word “min.”.

### Run WinGauge Lite on Startup

Select this check box if you wish to execute WinGauge Lite automatically on Startup. Clear this check box to prevent WinGauge Lite from automatically loading on Startup.

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