Ontrack

SystemSuite™ 2000

User's Guide

05-00060-000

Notice to Users

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ABOUT THIS MANUAL

This manual uses a number of conventions that make it easier to read and understand, including the following:

- **This font denotes button and field names**
- **This font denotes menus and menu paths**

1. You will see this 123 graphic any time there are numbered steps or instructions.

Notes contain additional information that may not directly relate to the current text, but is important to know.

Warnings contain important information that you must be aware of to avoid possible system problems.

The term “click,” as in “Click **Next** to continue” means that you move the mouse pointer over the specified area on your screen, and click with the left mouse button.

The term “right-click”, as in “Right-click on the tray icon” means that you move the mouse pointer over the specified location and click the right mouse button.

SYSTEM REQUIREMENTS

To install Ontrack SystemSuite 2000, you need the following:

- A 486, Pentium or faster PC (Pentium or faster is recommended).
- Windows 95, 98, NT 4.0 or above, or Windows 2000.
- 16 Megabytes RAM (16 Megabytes RAM for Windows NT)
- CD-ROM drive.
- 3.5" diskette drive (to create a System Rescue Disk and/or EasyRecovery™ disks...not required for installation).
- At least 35 megabytes of free space on your hard disk for SystemSuite 2000 (may vary depending on installed components). Additional space is required for delete file protection and other utilities.
- At least 25 additional megabytes of free space for PowerDesk® (optional).

WHAT YOU'LL FIND IN THIS PACKAGE

When you open the SystemSuite 2000 package, check to be sure you have everything. If your package is missing anything (it shouldn't be), call the Customer Service number on the back of this manual and let your customer representative know immediately. The package should include:

- SystemSuite 2000 CD (includes PowerDesk)
- Registration card
- User Guide
- SystemSuite 2000 System Rescue Disk

GETTING HELP

THIS MANUAL

This manual will get you started installing and using SystemSuite 2000. It provides an introduction and explanation of the tools in SystemSuite 2000, and describes how to use each one.

ONLINE HELP

The SystemSuite 2000 online help system is available by several access methods:

- Select the Help Topics item from the **Help** menu.
- At any dialog box, click on the help button.
- At any dialog box, move the mouse pointer over the field in question. Most fields will pop up a yellow text box describing that field.

ONTRACK WEB SITE

At the Ontrack Web Site (*www.ontrack.com*), you can send email to our customer support team or order other Ontrack products.

TECHNICAL/CUSTOMER SUPPORT

Free technical support is available for 90 days from the date you purchase SystemSuite 2000. Please contact us if you have any SystemSuite 2000 or PowerDesk® Utilities questions or problems. We would also be pleased to hear from you if you have suggestions or special requests regarding any of our products.

You may email our support staff at *support@mijenix.com*.

For SystemSuite 2000 questions: Our support staff is available by telephone M-F from 8:00 am to 5:00 pm Mountain Standard Time at (303) 245-8000. Our fax number is (303) 245-8111.

For EasyRecovery™ or Remote Data Recovery™ questions: The data recovery support center is open from 8:00 am to 7:00 pm CST at (612) 937-2121. You can also access the Ontrack web site at *www.ontrack.com* for more data recovery technical support information. Data Recovery support staff is also available by email at *tech@ontrack.com*.

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Chapter 1: Welcome to Ontrack SystemSuite™ 2000

ABOUT ONTRACK SYSTEMSUITE™ 2000

Welcome to Ontrack SystemSuite 2000! You have purchased the best set of PC utilities on the market, and the only major PC utilities designed to work on Windows 95, 98, NT *and* 2000; on FAT, FAT32 and NTFS. Ontrack SystemSuite 2000 is a revolutionary system for maintaining, tweaking and optimizing your Windows system. With Ontrack SystemSuite installed, you can do the following:

- Clean and optimize your hard drive
- Get rid of Internet junk, unused files, and old programs
- Optimize your registry files
- Detect and eliminate viruses
- Save hours of work by crash-proofing your system
- Create emergency boot disks (Windows 95/98)
- Enter a DOS-like prompt during the boot process (Windows NT/2000)
- Check and correct for Year 2000 readiness
- Track your computer's resources, and warn you when there is a problem
- Recover deleted files
- Reconstruct trashed boot sectors and other system data
- Customize your Windows environment
- Diagnose your hardware
- Gather information about your system
- Know what to do in case of real hard drive disaster
- ...and more!

WHY MAINTAIN YOUR PC?

If everything always worked as it should, you would never need to worry about PC maintenance or about what to do if your PC crashes. But unfortunately, computers crash. They also freeze up for no apparent reason, develop hard drive and software problems, and generally become difficult. It seems that deadlines, critical projects, and noticeable stress on your part will all inspire a computer to develop problems.

Ontrack SystemSuite 2000 is designed to detect and even eliminate many potential problems on a PC. It also tunes your PC for optimum performance, and keeps an eye on system resources for you. Furthermore, you can customize your Windows environment, diagnose system hardware, and tune the Registry.

GETTING STARTED IF YOUR SYSTEM IS IN TROUBLE (WINDOWS 95/98)

If you have a computer that has crashed and won't boot up, or if you suspect a virus has infected it, you can't install Ontrack SystemSuite 2000 on your system until the problem has been fixed. Here's what to do:

Your most important priority at this point is probably to clean your system (if there is a virus), to get back up and running as quickly as possible, and to make sure you haven't lost any data. You may want to save data to a floppy or other removable medium. Then you will want to make sure your system is bootable.

1. First make sure your computer has been turned off.
2. Insert the System Rescue Disk included with Ontrack SystemSuite 2000 into the floppy disk drive, and turn your computer on.
3. Your computer will use the System Rescue Disk as its boot disk. You will see a graphical DOS menu once the computer boots, with a number of options. The **HELP** option displays a special text file that can assist you in determining what to do. This menu will be a little different from

the menu you would see if this were a System Rescue Disk created from your computer.

4. **If your mouse doesn't work:** Since your mouse driver is a Windows-based program, a DOS program like the Rescue Disk software has to have its own generic mouse driver. This driver works on most (but not all) mouses on the market. If your mouse does not work, you can either find and use a more generic mouse, or use the keyboard commands, which are shown on the Rescue Disk menu buttons.

5. **If you suspect a virus**, run the Virus Scanner option immediately. This scans just the boot sector and RAM for known viruses. If it should find a virus, it will pop up a window informing you of the virus and give you several options as to what to do. Once the boot sector and RAM are virus-free, and you have booted into Windows, you should run Virus Scanner from Ontrack SystemSuite in order to check for and clean out other viruses.

   If your system is infected, chances are high that many files are infected. You must clean them all or the virus will simply re-infect your system.

6. Use the available options to recover your data and diagnose your computer. See "Booting from a System Rescue Disk" on page 195 for detailed information about the System Rescue Disk tools.

7. Some problems simply cannot be fixed by even the best rescue programs. If the problem is caused by a hardware malfunction, you may need to have the computer serviced by a technician. However, the DOS prompt may help you retrieve and save critical data to a diskette. If your system remains unbootable, you can call the Ontrack data recovery tech support line for information.

8. Once the computer has been repaired and it boots normally, you can install Ontrack SystemSuite 2000.

9. **Be sure to create a custom System Rescue Disk set as soon as possible.** The System Rescue Disk set created from your computer is much more effective than a generic System Rescue Disk can ever be. We highly recommend creating the 2-disk set (the custom 1-disk Rescue Disk does not contain the DOS-level Virus Scanner).

Make sure you create a new System Rescue Disk set every time you use EasyUpdate™ to update the virus definitions.

If all else fails go to the Crisis Center.

GETTING STARTED IF YOUR SYSTEM IS IN TROUBLE (WINDOWS NT/2000)

Since the System Rescue Disk only works for Windows 95/98, fixing a Windows NT/2000 system that won't boot up is more problematic.

If your system won't boot up and you haven't yet installed Ontrack SystemSuite, you have a couple of choices in this case:

If you have a FAT32 system, you can sometimes use the System Rescue Disk to boot to the DOS command prompt. From there you can move/remove/rename files that you suspect may be causing the problem.

INSTALLING ONTRACK SYSTEMSUITE 2000 ON A HEALTHY SYSTEM

If you already have Fix-It Utilities 99 or Fix-It Utilities 2000 installed: Ontrack SystemSuite 2000 will be installed *over* Fix-It. This should not be a problem as Ontrack SystemSuite has all of the features that Fix-It does, and more.

When you install Ontrack SystemSuite, you are presented with a number of options to set up some of the utilities. Even if you say no to them, you can always change your mind and set them up at a later date.

1. Insert the Ontrack SystemSuite 2000 CD into the CD Drive.
2. The Installation program will start automatically. If it does not (if you have a previous version of Ontrack SystemSuite 2000 or certain setup options are not in place, it may not start automatically), click the **Start**

menu and select **Run**. In the text box, type *E:\setup.exe* (where E: is your CD-ROM drive letter) and click **OK**.

3. Follow the instructions on the screen to install Ontrack SystemSuite 2000. You will see the following checkboxes (note that whether you say no or yes to any of these, you can change your mind any time in the future):

   - **Take a snapshot of important disk information every time you boot up:** If checked: this option runs Disk Snapshot every time you boot to Windows.
   - **Run CrashProof™ in the background:** If checked: this option starts up CrashProof whenever you boot to Windows.

4. You also have the option to install PowerDesk® Utilities from the main setup window. This is a powerful utility that enhances your Windows desktop, helps you manage files and conserve disk space, and provides a viewer for many types of graphics and other files. See the PowerDesk manual for more information.

5. **Be sure to create a System Rescue Disk set as soon as possible.** A System Rescue Disk set created from your computer is much more effective than a generic System Rescue Disk can ever be. We highly recommend creating the 2-disk set, which contains the DOS-based Virus Scanner. *You should create a new System Rescue Disk set every time you update your virus definitions via EasyUpdate as well.*

STARTING ONTRACK SYSTEMSUITE 2000

The installation process created a Ontrack SystemSuite 2000 icon in the Program Files menu. To start up Ontrack SystemSuite 2000, do the following:

1. From your Windows or NT desktop, select

   Start → Programs → Ontrack SystemSuite 2000 → Ontrack SystemSuite 2000.

   or

Double-click on the Ontrack SystemSuite icon on the desktop.

or

Select the Ontrack SystemSuite 2000 option directly from the Windows Start menu.

When Ontrack SystemSuite 2000 starts up, you see the home window

From the main Ontrack SystemSuite 2000 window, you can click on any of the program buttons on the left side to access the tools. You can also access the Ontrack Web site.

THE FIRST TIME YOU START ONTRACK SYSTEMSUITE...

The best way to head off potential disaster is to prepare for it, assuming that the worst can happen (it can). Here are some things you should do as soon as you install and start up Ontrack SystemSuite 2000, so if your computer develops problems, you will be as prepared as possible:

- **Run EasyUpdate™** to update both your Ontrack SystemSuite software and the virus information database. New virus information and program patches are often available even if you have just bought Ontrack SystemSuite. See "Updating your Software (EasyUpdate™)" on page 8.
- **Create a Rescue Disk set (Windows 95/98 only).** You should create a System Rescue Disk set as soon as you install Ontrack SystemSuite 2000. The generic System Rescue Disk that comes with Ontrack SystemSuite 2000 will work if you have not yet created your own System Rescue Disk, but is still not as effective as one created on your computer. See "System Rescue Disk (Windows 95/98 only)" on page 128 for more information.
- **Set up the System LifeLine (Windows NT/2000 only).** This handy utility allows you to interrupt the NT boot process in an early stage, and gives you DOS-like commands for moving, deleting, copying, and more. This could be very useful if there is one file that you know is interfering with the boot process.

- **Set up DiskSnapshot, CrashProof™, and IntelliCluster** so they start up when you turn your computer on or restart Windows. If you didn't say yes to starting these options up during installation, you may want to set them up now. These are all utilities designed to See "Setting up DiskSnapshot, CrashProof™ and IntelliCluster" in the next section.
- **Set up a regular system maintenance schedule.** Run FixWizard™ regularly to scan and defragment your hard drive and check for system problems and viruses. You can use the **SystemScheduler** to assist you in running Ontrack SystemSuite regularly too. See "Scheduling Maintenance (SystemScheduler™)" on page 124.
- **Back up important data regularly.** We cannot stress how important it is to back up your data, particularly files you're currently working on. This means at least once a week. Back up *new* data daily, so that even in the worst situation you never lose more than a day's worth of work. "Backing up" means copying data to another medium such as a diskette, zip disk or tape (not the same hard drive it is already on). It also implies that you *store backup media somewhere safe...*don't just leave it sitting in the drive! You can use PowerDesk to assist you in copying important files to the backup media.

SETTING UP DISKSNAPSHOT, CRASHPROOF™ AND INTELLICLUSTER

These three items can all be set up at once, via Ontrack SystemSuite Properties.

CrashProof helps halt Windows program crashes, often allowing you to save your data.

Disk Snapshot takes a "picture" of critical boot files and stores them in another area of your disk drive. Both the System Rescue Disk and the FileUndeleter™ utilities use Disk Snapshot data.

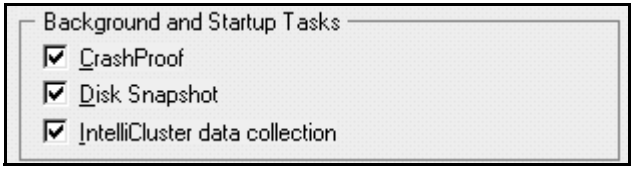
IntelliCluster is a proprietary Ontrack program that keeps track of the programs you run and the files that those programs load. DefragPlus™ uses this information when defragmenting and optimizing the hard drive...it can

then place files that will most likely be used together in the same area of the hard drive.

The most efficient way to run IntelliCluster is to start it up, then open the applications you use the most often, and shut them down. Then stop IntelliCluster. DefragPlus will now have information about the most commonly-used programs. When ever you install new software that you plan to use a lot, you should clear out the IntelliCluster data and go through this process.

1. From the Ontrack SystemSuite home window, click on the **Properties** button at the top of the window.

2. Ontrack SystemSuite displays the Global Properties window. Make sure the checkboxes for CrashProof, DiskSnapshot and IntelliCluster data collection are checked if you want to have those utilities running in the background every time you boot up your computer.



3. Click **OK** to return to the main window.

UPDATING YOUR SOFTWARE (EASYUPDATE™)

Ontrack periodically improves Ontrack SystemSuite 2000 and PowerDesk—adding features, making changes based on customer requests, and fixing problems. We also regularly update the virus information database. Virus updates are free for one year after you purchase Ontrack SystemSuite 2000. Programming updates (also known as patches) are also available to you via the Internet, and are free for 90 days after purchase. EasyUpdate allows you

to download and install both the virus information updates and program patches in minutes.

If there are multiple components for updating, EasyUpdate provides you with a list of options...you can update everything, or select a subset of options.

We recommend running EasyUpdate as soon as you purchase and install Ontrack SystemSuite 2000, just in case there is a program patch that was not included with your version, and to get the latest anti-virus information.

To run EasyUpdate, do the following:

1. Make sure you are connected to the Internet. If you access the Internet via modem, you should already be dialed in, or your browser should be set up to automatically dial in.
2. Start Ontrack SystemSuite 2000.
3. Click on the **EasyUpdate** option in the Program Menu, or click on the **EasyUpdate** button in the Disk and Files window:

OR

4. At the EasyUpdate window, click **Next** to continue.
5. This connects to the Ontrack server. You will see a list of the items available for download. Checked items will be downloaded to your computer.
6. Continue to follow the instructions to download and then install the new data and software.
7. When it is completely finished, click **Done** to exit EasyUpdate.
8. You may be requested to restart Windows.
9. Once you have restarted Windows (if necessary), the changes will appear in Ontrack SystemSuite 2000 the next time you run it.

Chapter 2: A Quick Tour

Ontrack SystemSuite 2000 is comprised of several utilities and groups of tools. (The PowerDesk® Utilities program, which is included on the Ontrack SystemSuite 2000 CD, is described in a separate manual.)

FIXWIZARD™

Want to do it the easy way? **FixWizard** cleans up your system, scans and defragments the hard disk(s), and performs other maintenance tasks that can speed up your computer and lengthen its life. Running FixWizard regularly is a simple way to perform regular optimization and maintenance routines to keep your computer running as smoothly as possible.

DISK AND FILES

This suite of utilities is for optimizing, fixing, and caring for your disks and files. It consists of the following:

- **DiskFixer™**: This tool repairs disks, both hard disks and removable disks. It also checks that your file allocation table is correct.
- **Disk Verifier™:** This handy utility is for floppy disks, zip disks and CDs. It verifies that every file on the media is readable. Very useful if you are sending a critical disk out for someone else to use.
- **FileUndeleter™**: FileUndeleter recovers files you have deleted, if they are still on your disk.
- **EasyUpdate™:** EasyUpdate is the way to keep current on the latest software releases and anti-virus information. This option opens your

browser, shows you the items that you might want to update, then allows you to choose which ones.

- **DefragPlus™**: This tool defragments and optimizes your hard drives. It uses the proprietary IntelliCluster technology, which tracks program use and determines how to arrange the files on your drive most efficiently according to the way you use your computer.
- **Disk Snapshot**: This option takes a snapshot of system data such as the File Allocation Table and boot sector. This snapshot is used for system recovery and file recovery.
- **SystemSaver™**: This option saves or restores system files such as the registry to/from another area of your hard drive.
- **SizeManager™:** The Size Manager is a powerful utility designed to show you where and how the space on your disk drives is being used. Size Manager makes it easy to graphically display oversized folders and files.

SYSTEM REGISTRY

Your system registry is a group of files that Windows depends on for critical information. The System Registry tools back up, optimize and clean out the system registry. They also help you customize your Windows desktop.

- **RegistryFixer™:** This tool fixes system registry errors.
- **Registry Cleaner:** The Registry Cleaner removes unnecessary file references and options from your registry, such as the Documents Find list, or time zones for every area of the world.
- **Registry Editor:** Invokes the RegistryMagic editor developed by Ontrack.
- **Registry Defrag™:** This tool defragments your System Registry, making registry access faster and more efficient.
- **WinCustomizer™:** The Windows Customizer is a powerful tool that helps you change and customize the way your Windows looks, including the startup/shutdown logos, icons, window behavior and more.

SYSTEM DIAGNOSTICS

The Diagnostics tools help you find problems and potential problems with your system. Even if your computer seems to be running smoothly, it's a good idea to run diagnostics occasionally.

- **PC Diagnostics™:** This diagnostic tool pinpoints errors in your hardware.
- **Year 2000:** TheYear 2000 Diagnostics tests your computer's year 2000 readiness.
- **System Explorer™:** You can take a tour of your computer's hardware and software with this tool.
- **SystemMonitors™:** This is a special, "stand-alone" program that constantly monitors your computer's resources. It warns you when monitored resources reach critical levels. This program can be configured to automatically start up when you boot up your computer.

SYSTEM PROTECTION

The System Protection utilities guard your system, your files (and potentially your stress level) with a watchful eye:

- **CrashProof™:** CrashProof monitors program crashes and, when possible, interrupts the crash process so you can save your data. This program can be configured to start up when you boot up your computer. It runs "behind the scenes" while your computer is running.
- **SystemScheduler™:** The SystemScheduler allows you to schedule Ontrack SystemSuite tools to run once, or on a regular basis. It runs in the "background," checking periodically to see if it's time to run something.
- **System Rescue Disk:** Creates a System Rescue Disk set, which helps you boot up your computer and restore your hard drive if the worst should happen.

- **Undo-It:** The Undo-It tool lets you "undo" or reverse changes made to your system by many Ontrack SystemSuite 2000 actions.
- **SystemLog:** This keeps track of Ontrack SystemSuite messages. Check it to see when you last ran a tool, and its result.
- **System Lifeline™ (NT users only):** System Lifeline is an NT-only boot rescue utility. This allows you to interrupt the NT boot process and boot to a DOS-like command line. You then have access to commands such as Move, Copy, Delete, and Rename.

CRISIS CENTER™

- **Crisis Information:** This option provides information, FAQs, and technical support contacts for those times when you're really in trouble—i.e. severe data loss, system files corrupted, and worse.
- **EasyRecovery:** This do-it-yourself software can analyze your hard drive and help you recover files you thought you had lost. There are two versions: EasyRecovery Lite (provided with Ontrack SystemSuite) and EasyRecovery full version (a download from Ontrack's web site).
- **RemoteRecovery:** This option provides access to Ontrack's Remote Data Recovery™ service
- **In-Lab Data Recovery:** There are times when the only way to assure the This option contains information about Ontrack's premier in-lab data recovery services, which are available to SystemSuite customers at a discount.

ZIPMAGIC® WIZARDS

- The ZipMagic wizards provide easy, step-by-step dialogs for performing common (and not-so-common) zip, unzip, convert, backup and email tasks.

EASYUNINSTALL™

This group of wizards helps you clean out unwanted files and programs cleanly and efficiently.

CLEANUP

These wizards provide tools to get rid of Internet junk and downloaded files (since you download files from the Internet every time you browse). There are also several wizards that also help you clean the rest of your disk of unused files.

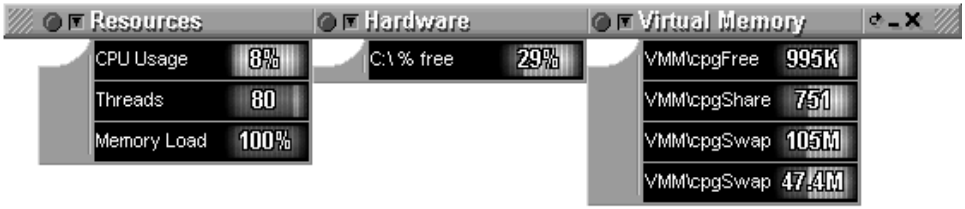
ANTI-VIRUS

The Anti-Virus wizards give you lots of options for cleaning viruses from your system.

THE SYSTEMMONITORS™

The SystemMonitors is a group of "sensors" that continually track and display your system resources, including hardware, disk space, RAM usage, page faulting, network resources, etc., continuously while your computer is running. Although SystemMonitors is first displayed with some default

resources, it is fully customizable. The SystemMonitors displays the current resource levels, and can warn you if resources reach or exceed critical levels.



Although they are really a part of the System Diagnostics group of utilities, they have their own chapter in this manual because of their uniqueness and usefulness.

You can configure the SystemMonitors utility so that it automatically starts up when your computer boots up, or you can just run it manually .

Chapter 3: FixWizard™

If computers are a mystery to you and you'd just like to have Ontrack SystemSuite 2000 maintain and fix your system without worrying about the details, **FixWizard** is for you. Depending on how you configure it, FixWizard can perform a complete system check-up, cleaning and optimization all in one step. You can keep your computer clean and functional just by running FixWizard regularly (once a week is usually adequate for heavy users).

FixWizard runs the core Ontrack SystemSuite utilities, locating and fixing problems as it goes. You choose which of the Ontrack SystemSuite utilities you want FixWizard to run. It can *optimize* your system, which means that it defragments the hard disk so that programs run faster and crash less. It can check and repair critical system files and data.

FixWizard runs through any or all of the following processes, depending on which ones you have chosen:

- Scan for viruses
- Check for and fix Year 2000 readiness issues
- Back up system files (including the registry)
- Create a backup image of the FAT (file allocation tables)
- Clean up unused files
- Scan for errors on the hard drive
- Clean the system registry
- Fix broken registry entries
- Defragment hard drives

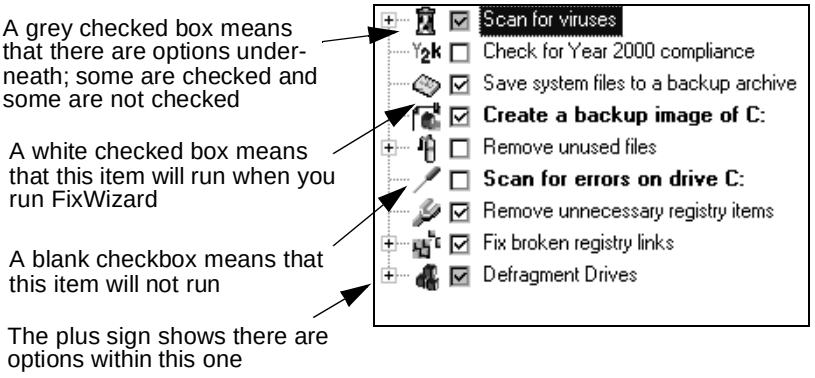
Of course, you can pick and choose which of these procedures you want FixWizard to perform, and you configure each one to run the way you want.

Once you have configured FixWizard to run the way you want it to, you may never need or want to do anything to your system other than run FixWizard.

RUNNING FIXWIZARD

To run FixWizard, do the following:

1. From the home window, click on the **FixWizard** program button. This takes you to the FixWizard main window.
2. Click on the **FixWizard** button.
3. Check the options you want performed, and set up FixWizard so it runs the way you want it to run (see "FixWizard Setup Options" on page 19 for more information on this):



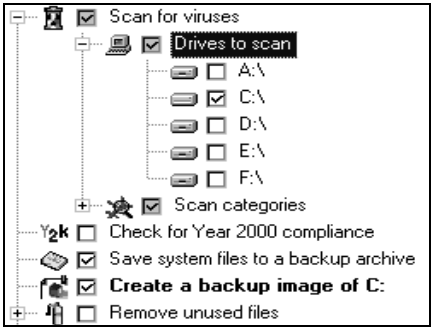
4. Once you have configured each of the tools to run, click **Next** to continue. The configuration you established will be retained until you change it again.

Then just sit back and wait for FixWizard to do its job. FixWizard displays a report at the end of the process that details any errors it found and offers to fix them for you.

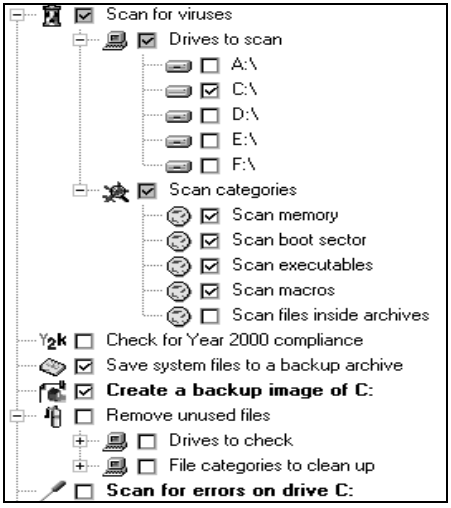
At any time during the process you can click on the **Stop** button to halt FixWizard. You then have the option to resume FixWizard, or cancel it altogether.

FIXWIZARD SETUP OPTIONS

Notice that some of these options have a plus ("+") sign next to them. That means that there is some setup information you can modify for those options. If you click on the plus sign, you will see an expanded list of options. For example, in the following picture, we clicked on the plus sign next to **Scan for viruses,** and then again on the **Drives to scan option**:,



Often, expanded options also have plus signs. Click on those plus signs to show the list of options under those categories:

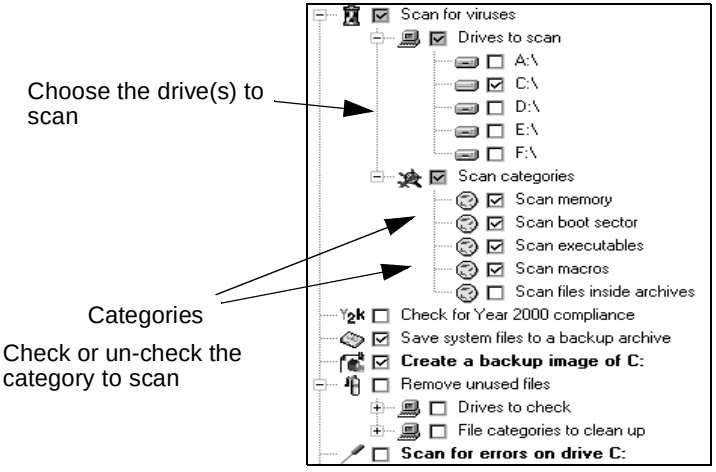


The first time you run FixWizard, you will notice that some boxes are already checked...these are the default options.

If you checkmark an item with a "+" sign, then all of the items contained within that item are also automatically checked. This way you can check and un-check items in groups.

NOTE: The options you see in these illustrations may be a little different from the options your version of FixWizard displays.

VIRUSSCANNER™ SETUP

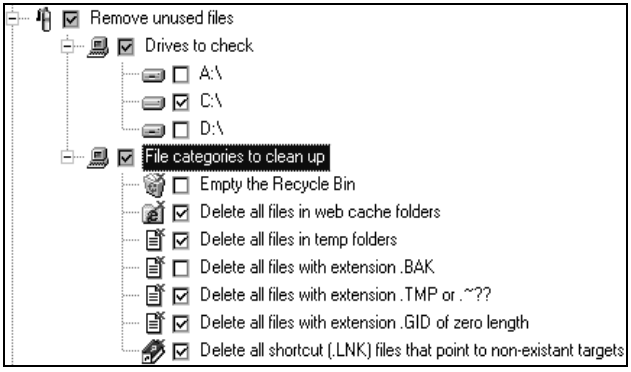


REMOVE UNUSED FILES (DISKCLEANER) SETUP

The FixWizard version of DiskCleaner actually cleans only "safe" files from your system. If you would like to have more categories, or you would like to create your own categories, run DiskCleaner manually from **Disk and Files**.

Select the categories for DiskCleaner to search.

Notice that disk cleaner only allows the delete option--you cannot move or archive when you run DiskCleaner from FixWizard.



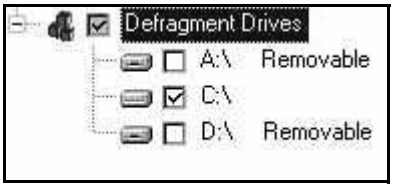
FIX BROKEN REGISTRY LINKS (REGISTRYFIXER™) SETUP

Select the categories you want to scan and repair.

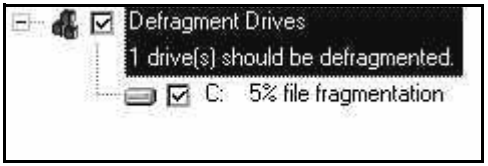
The FixWizard version of RegistryFixer repairs only "safe" items; if you wish to view and fix items that are flagged as "caution," run RegistryFixer manually from the System Registry utility set.

DEFRAGMENT DRIVES (DEFRAGPLUS™) SETUP

Select the fixed drive(s) you wish to defragment.



The disk defragmenter as run from FixWizard performs an analysis of your drive. Once the analysis is done, it displays a recommendation as to whether you should defragment your hard drive, as shown in the following figure:



When you click **Next**, the defragmentation procedure will begin.

Once it has completed, you can see a summary of the defragmentation results, then click **Done** to return to the main window.

Chapter 4: Disk and Files

Even when your system is running without noticeable errors, it may seem slow or hesitant. When this happens, there may be trouble brewing. **Disk and Files** is the best way to stop trouble before it happens. This set of tools restores lost disk space, optimizes your disk for fastest data retrieval and storage, and could potentially extend the life of your hard drive. The Disk and Files tools can also help you when your system is in real trouble, such as if you can't boot up the computer.

WHAT CAN GO WRONG WITH A HARD DRIVE?

There are two general types of damage to a disk:

- **Physical damage**: This may be a piece of dust or a tiny scratch on the disk. Physical damage is reported as *bad clusters* on the disk. Although no repair program can retrieve the data that was originally in the bad clusters, DiskFixer can set those clusters aside and ensure they are never used again. If it is critical that data from a bad cluster be recovered, see Chapter 9:"Crisis Center™" on page 131..
- **Data damage**: Although most programs behave themselves, some renegade (or badly designed) programs may overwrite critical files such as the boot sector, the system registry, or the File Allocation Table. If this happens, your computer may not boot up without the System Rescue Disk. It may also crash before you realize what happened.

As with most hardware, the best defense is a good offense. In other words, if you maintain your system with Ontrack SystemSuite, you extend its life, increase its performance and decrease the risk of serious problems. You also have the tools to help you get the system back up and running in case of serious problems.

MAINTAINING YOUR HARD DRIVE (DISKFIXER™)

DiskFixer is a great maintenance tool for your hard drive. It can perform the following tests:

- **Partition tables check:** Check the individual partition boot records and header data structures against the master boot record.
- **Boot records:** Check boot records for valid information and structure.
- **File allocation tables:** Look for invalid entries in the FAT (FAT/FAT32 systems only). If possible, fixes them.
- **Files:** Verify the directory structure, looking for invalid directory contents and file sizes. Also makes sure that the entries refer to valid data and checks that two files don't both refer to the same data (cross-linked files).
- **Dates and times:** Verify that every file is stamped with a valid date and time. Any files with invalid information are given the current date and time.
- **File names:** Verify that every file has a valid file name. Occasionally a corrupted file may contain invalid characters in its name, making it inaccessible to the operating system. This test locates these files and fixes them.
- **Lost cluster chains:** Locate lost clusters and either recycle them as free space or make them into files so you can review the data.

By default, DiskFixer runs all of these options. To customize these options, change the DiskFixer properties (see "DiskFixer™ Properties" on page 211). You can also have DiskFixer automatically fix all of the problems it finds, or notify you about each problem individually so you decide what to do on a problem-by-problem basis.

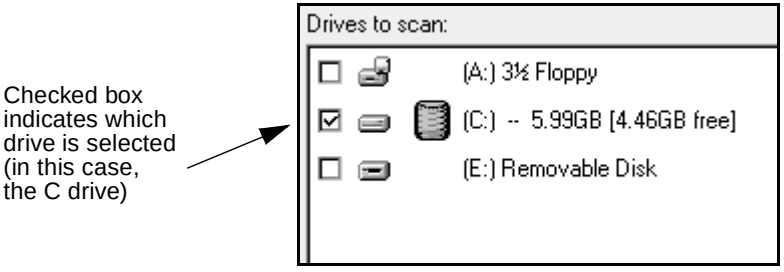
Optionally, DiskFixer performs a complete check of the entire disk surface, reading each sector to verify its quality.

DiskFixer performs many of the same functions as the Microsoft product ScanDisk. However, it goes several steps further:

- DiskFixer is faster than ScanDisk.
- DiskFixer does a more complete and thorough analysis of partition tables and boot sectors.
- DiskFixer catches and fixes many minor file errors.
- You can specify multiple drives; not just one.
- DiskFixer can notify you each time it finds a problem, allowing you to address each problem or issue individually.

To run DiskFixer:

1. At the Ontrack SystemSuite 2000 home window, click on **Disk and Files**.
2. Click on the **DiskFixer** button.
3. Select the disk you want repaired. To do this, check the box next to the disk (just click on it). For any removable media, you must have the disk in the drive before you check the box.



4. You can have DiskFixer automatically fix problems by checking the first checkbox at the bottom of the window:

If you don't check this box, DiskFixer will ask before fixing any problems it finds.

5. You can set up the Undo-It information to give you the ability to undo any DiskFixer changes:

6. Optionally, you can have DiskFixer perform a complete scan of the hard drive (this takes a while) to make sure each cluster is readable and writable, by checking the checkbox at the bottom of the window:

7. Click **Next** to continue.
8. DiskFixer then checks and repairs the disk. It displays its progress on a disk map.
9. If you elected *not* to have DiskFixer automatically fix problems, it displays a list of the problems it found, and asks whether to fix each one.
10. When it is complete, click **Done** to continue.
11. If you asked for the disk surface scan, DiskFixer goes through the complete scan, verifying that each sector of the disk is readable and writable. This process takes some time to complete.
12. When DiskFixer is finished, you see the "Done" window. Click the **Done** button to return to the home window.

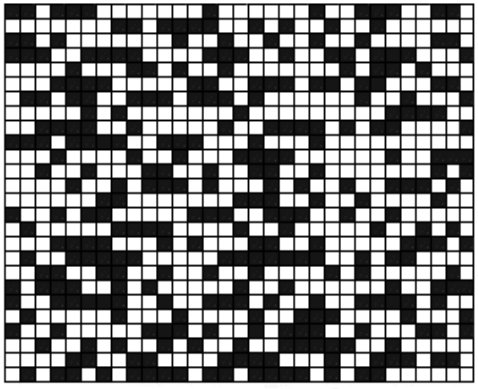
DEFRAGMENTING YOUR DISK (DEFRAGPLUS™)

As you read from the hard drive and write to it, your computer has built-in processes that allocate and de-allocate hard drive space as needed. When you write a new file to the disk, space is allocated for the new file. If there is not a chunk of space big enough, the file may use several non-contiguous smaller

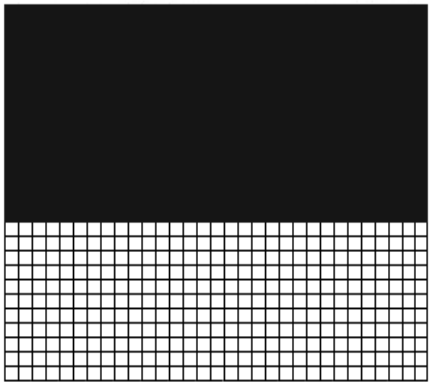
chunks of space. When you delete a file, the space the file used is returned to the system as free space.

As time goes by and you add and delete files from the hard drive, the available disk space becomes more and more fragmented. Files may become scattered across the disk. This makes the reading and writing of files take longer, potentially shortening the life of the hard drive motor.

The following diagram shows a simplified concept of a fragmented disk, and what it looks like after being defragmented. The dark area represents data; the light area represents free space:



A fragmented disk



A defragmented disk

DefragPlus defragments the hard disk, combining the chunks and fragments of available space into one contiguous free space area, and moving files and other data into another area of the disk. When it runs, it first scans the disk to make sure it's "healthy;" that is, it checks that the file tables are indexed into the disk correctly and that there are no broken indices.

The first time you run DefragPlus, the process may take a long time, particularly if your disk has never been defragmented before. Be patient...it will be much faster the next time around.

IntelliCluster is an Ontrack technology that brings disk defragmentation into the new millennium. If you enable it, it keeps track of the programs you run, how often you run them, and all of the associated files that programs call while launching or running (the exact cluster loading sequence). This information is then used during the defragmentation, and clusters are aligned according to the loading sequence, thereby dramatically improving I/O throughput and reducing random disk access. NOTE: IntelliCluster operates in a similar manner to the Windows 98 defragmenter.

To enable IntelliCluster, click on the Properties button at the top of the window. At the Ontrack SystemSuite Properties window, make sure the **IntelliCluster data collection** box is checked.

The best way to use IntelliCluster is to enable it, then open and close all of the programs you use the most, opening the most-used program first, and so on. Once you have done this, disable IntelliCluster. Whenever you install new software, you should Reset IntelliCluster and go through this process again.
See “DefragPlus™ Properties” on page 212 for more information.

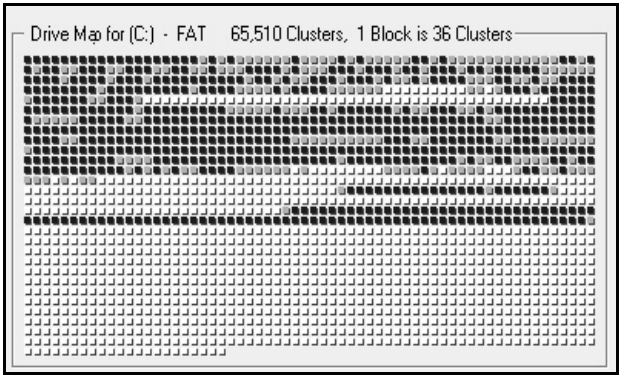
Our goal is to increase the performance of your computer. The programs you run most often should start up more quickly, and the system in general should be more responsive than before the defragmentation.

Ontrack SystemSuite’s DefragPlus significantly improves the overall storage system performance. It shortens the time it takes for software applications to load from the hard disk drive.

*Do NOT reboot your computer or turn off the power during DefragPlus! If you wish to stop the defrag, click the **Stop** button instead.*

To run DefragPlus, do the following:

1. Click on **Disk and Files** from the Ontrack SystemSuite 2000 home window.
2. Click on the **DefragPlus** button.
3. Select the drive(s) you would like defragmented by putting a checkmark in the box next to them.
4. If you would like to see a disk map and a Drive Analysis Details window showing the current disk fragmentation, check the box labeled **Analyze Drive**. This displays a disk map similar to the following:



5. Click on the **Legend** button to show a legend of the colors in the disk map.
6. **NT users only:** You can click on **Boot Defrag** to schedule a defragmentation of the paging files and registry files during the next system reboot. These cannot be defragmented while the operating system is running.
7. Click **Next** to continue.

8. DefragPlus now defragments your hard drive(s). If you selected more than one drive, it defragments the drives one at a time, in the order in which they appear on the screen. When it is finished, click **Done** to return to the home window.

   The **Process Priority** slider tells the system how high the priority the defrag process is compared with other tasks running on the system. The **Low** setting leaves the system more responsive during the defrag. The **High** setting makes the defrag run faster if other processes are also running, but anything else you are running may be sluggish.

9. When it is finished, click **Done** to return to the home window.

DISK SNAPSHOT

Disk Snapshot obtains an *image* (a type of copy) of the File Allocation Table (FAT), boot sectors, and other critical disk structure information on your system. Running Disk Snapshot regularly ensures that if you have to rescue your computer after a crash, the recovery will be as easy as possible. It also increases the likelihood of success when recovering files with FileUndeleter.

The image is stored in another area on your hard drive. If you run Disk Snapshot multiple times, it replaces previous images with the current image.

You can configure your system to automatically run Disk Snapshot whenever you restart Windows. See “Disk Snapshot Properties” on page 214 for more information.

To run Disk Snapshot:

1. At the home window, click on the **Disk and Files** menu button.
2. Click on **Disk Snapshot**.
3. Select the disk(s) to be imaged (generally your main hard drive) and click **Next**.
4. Ontrack SystemSuite saves the disk files to its own default folder for safekeeping. Click **Done** to return to the main window.

Don’t forget: FixWizard can run Disk Snapshot for you as well.

SYSTEM SAVE/RESTORE (SYSTEMSAVER™)

The **SystemSaver** utility allows you to:

- Make a copy of your critical system files and store them on another part of your hard drive. System Saver keeps several versions of these backed-up files.
- Select other files you would like backed up with the system files.
- Restore the backed-up files as your active files (you choose which files and which version to restore).
- Furthermore, if your system files become damaged, the System Rescue Disk can locate a recent, undamaged version of your system files from the System Saver backups and replace the damaged files.

Windows 95/98 files backed up are:

- *autoexec.bat*
- *config.sys*
- *system.ini*
- *win.ini*
- *drvspace.ini*
- *dblspace.bin*
- *protocol.ini*
- System registry information
- You can also choose other files you want backed up with the System Saver utility.

Windows NT files backed up are:

- *Autoexec.nt*
- *Config.nt*
- *Setup.log*
- System registry information

- You can also choose other files you want backed up with the System Saver utility.

You can add notes to the backup session.

You can configure the System Saver utility to do the following:

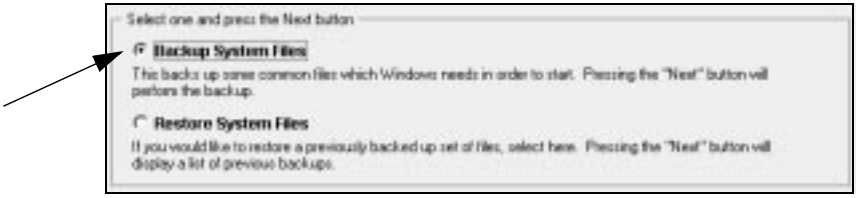
- Specify the number of backup copies.
- Specify custom files to include in the backup.

For more information, see “System Saver Properties” on page 215.

BACKING UP SYSTEM FILES

To back up your system files:

1. At the home window, click on the **Disk and Files** program button.
2. Click on **System Saver**.
3. At the next screen, select **System Saver Files**:



4. Click **Next**.
5. System Saver displays the list of files that will be backed up. You can add to this list via the **Custom Files** button if you wish.
6. You can add comments (notes) to each backup if you like. Just click in the right hand pane, which is labeled **Enter notes for this backup archive,** and type them in. Click **Next** to continue.
7. System Saver now backs up your system files. Click **Done** to return to the home window.

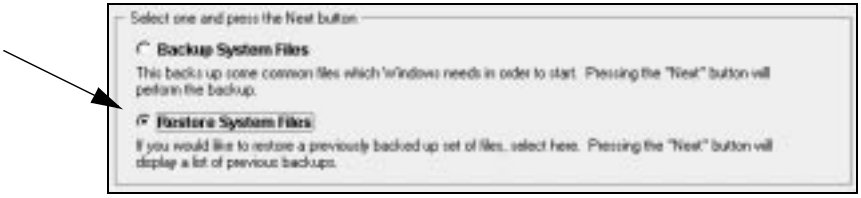
RESTORING SYSTEM FILES

Since the registry files change every time you boot up your computer, and any changes to your system are reflected in the registry, it is not advisable to restore the registry files unless your system is truly in trouble.

If the current system files are so damaged that you can't boot your computer, you will need to use the System Rescue Disk instead of System Saver to restore system files.

To restore system files:

1. At the home window, click on the **Disk and Files** menu button.
2. Click on **System Saver.**
3. At the next screen, select **Restore System Files**:



4. Click **Next**.

5. The next display shows a list of the backups you have made. Select the one you want, and click **Next**.

Selected backup

6. You can click on the **View Full Notes** button to see the rest of the text and make changes to the comments, if you like.

Do not restore system files unless it is absolutely necessary, especially the registry files. Registry files change constantly, and it is best to leave them alone if your system is working.

7. The next window displays a list of the files available for restoration. Check the boxes of the ones you would like to restore and click **Next**.

8. The last screen shows a report of the success of the restore operation. You may need to scroll down to see the entire report. Click **Done** to return to the home window. You may be asked to restart your computer.

RECOVERING LOST DATA (FILEUNDELETER™)

Sometimes, after a file is deleted, you may realize that you want it back. If you want to recover a file you have deleted, **FileUndeleter** may be able to restore it for you. This is possible because deleted files are not actually removed from the disk. The area on disk occupied by that file becomes available to be overwritten (but until that happens, the old data remains).

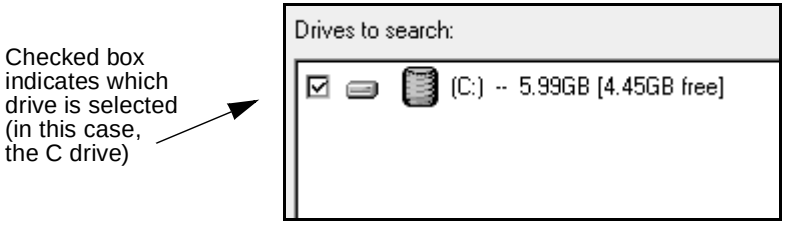
When you delete a file through Windows, it is actually moved to the Windows Recycle Bin. When you clean out the Windows Recycle Bin, or delete files in other ways, the deleted files can be moved to the Ontrack SystemSuite Deleted Files Bin. This is a small "cache" or receptacle that is a last-chance place for deleted files. Once they have been removed from the Deleted Files Bin, the space those files occupy on disk may be overwritten by other data any time. (For information about the Deleted Files Bin, see "About the Deleted Files Bin" on page 39).

Because of this, you should run FileUndeleter *as soon as* you know you want to recover a file.

Windows automatically renames files that are emptied from the Windows Recycle Bin to the Ontrack SystemSuite Deleted Files Bin, although it usually keeps the same extension (.doc, .bmp, etc.). When searching for deleted files, you should keep this in mind.

To recover a deleted file, do the following:

1. At the Main Window, click on **Disk and Files**.
2. Click on the **FileUndeleter** button.
3. Select the drive from which to recover the file, and click on the **Next** button:



4. The next window shows you all of the files in the Windows Recycle Bin and the Ontrack SystemSuite Deleted Files Bin. Look for your file here first; if it is in this list, it's 100% recoverable.

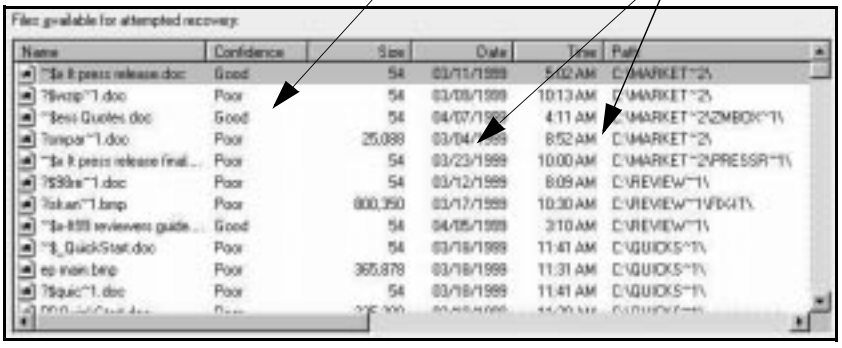
5. The next window gives you another chance to look for the files. If you know anything about the file name, enter a pattern for which the FileUndeleter program will search. The more you know about the file, the better. If you know the entire file name, enter that. Since deleted files are renamed when they are moved from the Windows Recycle Bin to the Deleted Files Bin, you may also want to hedge your bet by entering a "wild card" name such as *.bmp. You can enter multiple patterns, separated by semi-colons. Click on the **Next** button when you are ready:

The file name match pattern can be a partial name, full name, or a partial name using asterisks as wild card characters

6. The next window displays the contents of the Windows Recycle Bin, the Ontrack SystemSuite Deleted Files Bin, plus any deleted files that are still on the disk, that match your search criteria. If your file is in either the Recycle Bin or the Deleted Files Bin, they are 100% recoverable. If they are on the disk but not in either of the bins, they may not be completely recoverable. If it is there, select the file(s) to be recovered, and click on the **Recover** button:

Confidence indicates how likely it is that the whole file will be recovered.

The date and time the files were deleted



7. Ontrack SystemSuite then recovers all of the data it can, and puts recovered files into their original locations.
8. You can return to the FileUndeleter window and select more files to recover. Just click on another file to be recovered, and click on the **Recover** button.
9. Click **Done** when you're finished.

Be aware that the FileUndeleter program can only recover data that is still on the disk. If it has been overwritten, then a file is probably not recoverable.

The best way to assist FileUndeleter in recovering files is to run Disk Snapshot regularly and often and use the Deleted Files Bin. Don't forget that FixWizard can run Disk Snapshot for you.

ABOUT THE DELETED FILES BIN

Although there is no menu item that refers to the **Deleted Files Bin**, this is a feature that temporarily stores your deleted files once you have emptied the Windows Recycle Bin.

You can activate the Deleted Files bin, and change the maximum size via the Properties (see "FileUndeleter™ Properties" on page 216). When it fills up, the oldest files in the Deleted Files Bin are removed as other files are added.

This feature increases the chances of recovering deleted files. Any files that are in either the Windows Recycle Bin or the Deleted Files Bin are 100% recoverable.

Windows automatically renames files that are emptied from the Windows Recycle Bin to the Ontrack SystemSuite Deleted Files Bin, although it usually keeps the same extension (.doc, .bmp, etc.). When searching for deleted files, you should keep this in mind.

DISK VERIFIER™

If you ever need to send out a disk or CD and want to be sure that the files you are sending are readable, Disk Verifier can help you. Disk Verifier is especially designed for removable disks such as 3 ½-inch diskettes ("floppies"), CD-ROMs, and zip disks.

It reads every directory and file on the disk to make sure that all data on the disk is accessible. This is especially useful if you have a critical project and are sending a disk out for someone else to use. There is nothing more frustrating than having that disk prove to be unreadable when the recipient tries to retrieve the data.

To run Disk Verifier:

1. Click on the **Disk and Files** button from the main window.
2. Click on the **Disk Verifier** button. You will see the first dialog box.
3. Make sure that the disk to be verified is in the drive. Put a checkmark in the box next to the drive to be checked and click Next.
4. Disk Verifier then reads every directory and file on the disk and ensures that it can be read into memory without any errors. When it's complete, you will see a results dialog showing whether it succeeded or failed.

In case the Disk Verifier failed, it will attempt to explain the cause of the problem in the Results dialog. However, you should re-create the data on another disk and re-run Disk Verifier on the new disk to ensure its integrity.

SIZE MANAGER™

Size Manager is a utility that displays disk usage on your computer system. Size Manager presents an instant graphic view of where space is being consumed on your computer, making it easy to locate oversized folders and files. Size Manager helps you determine which files are cluttering up your system.

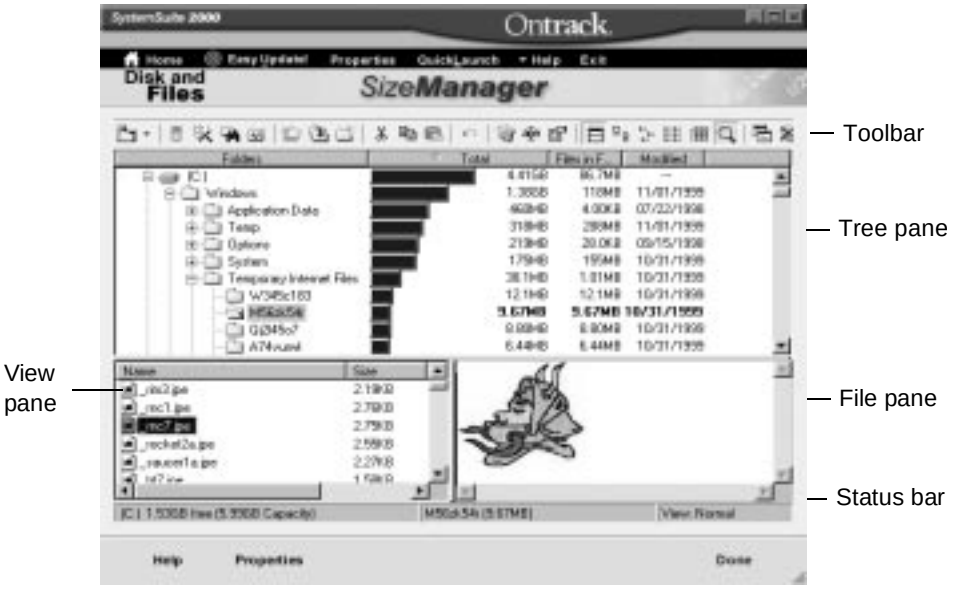
RUNNING SIZE MANAGER

To run Size Manager:

1. From the Ontrack SystemSuite home window, click the **Disk and Files** program button.
2. Click the **Size Manager** button.

SIZE MANAGER WINDOW COMPONENTS

The Size Manager window shares many of the same features of the Windows Explorer window, such as the main window pane, the Toolbar, and the status bar, so you don't have to learn an entirely new interface. The Size Manager window shown in the following illustration is configured to display all possible components.



The Size Manager window

THE MENUS

The menus provide access to the commands for most of Size Manager's features. Each of the menu commands are discussed in this chapter. Menus are opened by clicking the **Show Menus** button on the far left edge of the toolbar.

THE TOOLBAR

The toolbar provides quick access to many of the most popular features and options. You can customize the toolbar to add whatever buttons you want, in whatever order. See "Customizing the Toolbar" on page 44 for more detail.

THE TREE PANE

The Tree pane displays a tree list, or hierarchy of resources available on your system. The root of the tree list is the My Computer icon. For detailed information on the Tree pane, see *Operating the Tree Pane* on page 47.

THE FILE PANE

The File pane displays the contents of the drive or folder selected in the Tree pane. The File pane typically contains a list of folders and files, but may also contain shortcuts to files, applications, and printers.

To display the File pane:

- Click the **Show Menus** button  , and then select **View** → **Show/Hide** → **File Pane**.

From the File pane, you can drag and drop items (files, folders shortcuts, etc.) for file and archive management, launch applications, delete files and folders, and much more. To hide the File pane, select the **File Pane** command again.

You can display the contents of many different types of files (including word processing documents and graphics) in the File pane without opening the associated application.

To display the contents of a file:

1. Select the file in the File pane.
2. Click the **Show Menus** button  , and then select **View** → **View File**.

   The contents of the file will display on the right side of the window.

THE STATUS BAR

The status bar provides information about the current selection or operation.

To display the status bar:

- Click the **Show Menus** button  , and then select **View → Show/Hide → Status Bar**.

To hide the status bar, select the command again.

SETTING CLUSTER SIZES FOR NETWORK DRIVES

Size Manager cannot determine the cluster size of network drives. This makes it impossible to calculate the total size of folders on a network. Consequently, when you connect to a network drive, you are prompted for the network cluster size. You may need to consult your system administrator for the cluster size.

To set (or reset) a network drive's cluster size:

1. Click the **Show Menus** button  , and then select **File → Set Cluster Size**.
2. Type the cluster size and click **OK**.

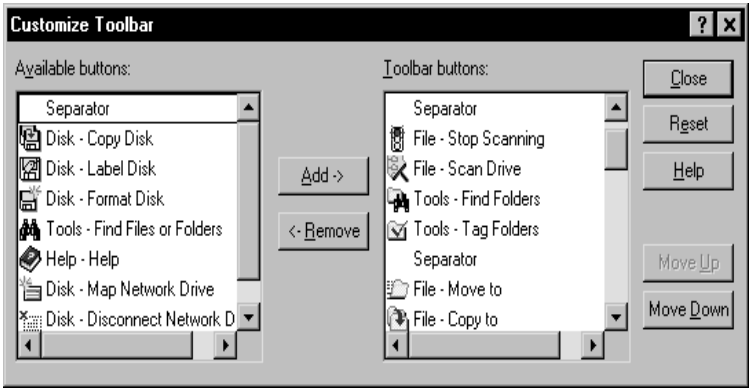
CUSTOMIZING THE TOOLBAR

You can customize the toolbar to include or exclude any of the available tools and you can rearrange the order in which the tools display.

To customize the toolbar:

1. Click the **Show Menus** button  , and then select **View → Customize Toolbar**.

The Customize Toolbar dialog box displays. The **Available buttons** list displays all the buttons that can be placed on the toolbar. The **Toolbar buttons** list displays all the buttons currently on the toolbar.



2. To add or remove buttons, do the following:

   - To add a button to the toolbar, select the button in the **Available buttons** list, and then click **Add**.
   - To remove a button from the toolbar, select the button in the **Toolbar buttons** list, and then click **Remove**.

   Separators can also be added to or removed from the toolbar. Separators are short vertical lines that group buttons together.

3. To reorder the display of buttons and separators, do the following:

   - To move an item up in the display order, select the button from the **Toolbar buttons** list and click the **Move Up** button.
   - To move an item down in the display order, select the button from the **Toolbar buttons** list and click the **Move Down** button.

   The top-to-bottom order of the buttons in the **Toolbar buttons** list reflects the left-to-right order the buttons will have in actual toolbar.

4. Click **OK**.

To reset the list to the default settings, click the **Reset** button in the Customize Toolbar dialog box.

SCANNING DRIVES

To display a size graph for the folders on your computer, Size Manager scans your drive(s). This is done when you first start Size Manager, but if you stopped the startup scan, or if your folders changed since the startup scan, you can begin another scan. To set which drives are scanned, see "Size Manager™ Properties" on page 218.

To start a scan:

1. Do one of the following:
   - If you want to scan a folder, select the folder and proceed to step 2.
   - If you only have one hard drive, skip to step 2.
   - If you have more than one hard drive, select the drive you want scanned and continue with step 2.
2. Click the **Show Menus** button  , and then select **File → Scan Drive**.
3. Do one of the following:
   - If you selected a drive, skip to step 4.
   - If you selected folder, select the **Current Folder** button. If you select want all the subfolders in the folder scanned, select the **Include all subfolders** check box.
4. Click **Scan**.

To stop a scan:

- Click the **Show Menus** button  , and then select **File → Stop Scanning**.

OPERATING THE TREE PANE

You can display folder information in the Tree pane in several different ways. You can display file sizes in different formats, display folder details, and expand and collapse programs. To set which drives are displayed, see "Size Manager™ Properties" on page 218.

DISPLAYING FILE SIZES

The byte is the basic unit of storage size. Files have a certain size in bytes, and their size is normally reported in bytes, kilobytes (1,024 bytes), megabytes (1,024 kilobytes), or gigabytes (1,024 megabytes)—whichever is the most appropriate. By default, Size Manager selects the most appropriate unit.

To display file sizes:

- Click the **Show Menus** button  , and then select **View → Sizes → Reported Size**.

  When this option is selected, Size Manager computes file size based on the amount of data stored in the file.

Because of the way data is stored on a disk drive, files actually take up a different amount of disk space, usually more.

To display how much disk space files actually occupy:

- Click the **Show Menus** button  , and then select **View → Sizes → Actual Size on Disk**.

  When this option is selected, Size Manager computes file size based on the amount of space on the disk used by the file.

To display file sizes in bytes:

- Click the **Show Menus** button  , and then select **View → Sizes → Sizes in Bytes**.

When this option is selected, Size Manager shows the precise size of the folder or file instead of rounding it off to the nearest unit.

DISPLAYING FOLDER DETAILS

The Tree pane can be customized to display different combinations of details about folders.

To customize the Tree pane:

1. Click the **Properties** button at the bottom of the Size Manager window.
2. Click the **Organize Details** button.
3. In the Organize Details dialog box, select every detail that you want to include in the details view of the Tree pane. To rearrange the order in which details are displayed, drag-and-drop each checked detail to the location where you want it. The order from the top to the bottom of the list will be the order from left to right in the Tree pane.
4. Click the **Total** button and modify the settings; the settings in the dialog box control the display of the Total column in the **Folder Details** window. The Total column displays the cumulative size of all the files in the folder, including the subfolders. The following settings are available:

   - **Display Properties** controls how file sizes are displayed. Sizes can be set to display in bytes, to be hidden if the file size is zero, and to display as a percentage of the size of the parent.
   - **Graph Options** control whether size graphs are displayed.
   - **Graph Scale** controls how the graphs are displayed.

   The **Auto Scale** option scales the graphs logarithmically with respect to the capacity of the drive. The benefit of auto scale graphs is that they are usually large enough to see, and yet small enough to fit within the space provided. The drawback, however, is that relative sizes are only roughly indicated. The auto scale option, therefore, is most useful when highly visible graphs are more important than accurate, relative folder sizes.

   The **Fixed Scale** option scales the graph linearly with respect to the capacity of the drive. That means the width of the graph column

represents the capacity of the drive, and the width of a folder's graph directly reflects the percentage of disk drive space that the folder occupies. For example, a graph spanning *half* the column signifies that the folder occupies 50% of the storage drive's capacity.

The size of the graphs can be enlarged by entering a multiplier in the text box below the **Fixed Scale** button. If, for example, the number was set to 3, then a folder that occupies 5% of the storage drive's capacity would have a graph that spans 15% (3 x 5%=15%) of the column, which makes it much easier to see. The benefit of fixed scale graphs is that they represent relative sizes in a clear, straightforward manner—a graph twice as long means the folder is twice as large. The drawback of fixed scale graphs, however, is that graphs are often too small to compare with other folders. Fixed scale graphs, therefore, are most useful when relative folder sizes are more important than visible graphs, and when the folders being compared have similar sizes.

- **Column Width**. Enter the width for the column.

5. Click the **Files in Folders** button and modify the settings. The settings in the dialog box control the display of the Files in Folders column in the **Folder Details** window. The Files in Folders column contains the cumulative size of the files in the selected folder, exclusive of any subfolders. See the previous step for an explanation of the settings.
6. Click the **Modified** button and enter the width for the Modified column. The settings in this dialog box control the width of the Modified column in the **Folder Details** window. Click the up or down arrows in the list box to increment or decrement the value, or type the value that you want used.
7. When finished, click **OK** in any of the dialog boxes.

EXPANDING AND COLLAPSING FOLDERS

To expand or collapse branches in folders, do the following:

- To expand one level, press CTRL +. This expands the drive or folder to display the next level of subfolders.
- To expand all levels, press CTRL *. This expands the drive or folder to display all of the subsequent levels of subfolders.

- To collapse one level, press CTRL -. This collapses the current folder or drive, hiding all of its subsequent subfolders. If the branch is expanded again, all subsequent levels will be displayed.
- To collapse all levels, press CTRL /. This Collapses the current folder or drive, hiding all of its subsequent subfolders. If the branch is expanded again, only the next level of subfolders will be displayed.

REFRESHING THE TREE PANE

If the files on your system undergo change when the Size Manager is running, it is best to refresh Size Manager to reflect those changes.

To refresh the Tree view:

- Select the **Show Menus** button  , and then select **View** → **Refresh**.

FOLDER TAGS

Tagging folders displays the folders that meet certain criteria in a specific color. Size Manager tags folders by displaying the folder details in a different color. For details on setting the colors, see "Size Manager™ Properties" on page 218.

TAGGING FOLDERS

To tag folders, follow these steps:

1. Click the **Show Menus** button  , and then select **Edit** → **Tag Folders**.
2. Click the **Folder Size** button. Select one of the following:
   - **Ignore folder size**. Select this button if you do not want the folder size used to tag folders.
   - **Folders which match the following sizes**. Select this button if you want folders of a specific size tagged. Select Equal to, Larger than, Smaller than, or Between, to tag files larger than, smaller

than, equal to, or between two different sizes. Then make the appropriate selections from the remaining boxes.

3. Click the **Folder Name** button. Select one of the following:

   - **Ignore folder name**. Select this button if you do not want folder names used to tag folders.
   - **Folders whose name match**. Select this button if you want to tag folders based on the folder name. Type one or more names in the text box, separating each with a semicolon. For instance, you could tag all folders that contain the string *big* and *luke* by typing **big*;*luke**. Size Manager also stores previous search strings, which you can display and select from by clicking the down arrow in the text box.

4. Click the Folder Date/Time tab. Select one of the following:

   - **Ignore Folder Date and Time**. Select this button if you do not want folders tagged by date or time.
   - **Folders which were**. Select this button if you want to tag folders that were Accessed, Modified, or Created during a specific time period. Then select or type the appropriate time period from the **Within the last** text boxes.
   - **Folders which were not**. Select this button if you want to tag folders that were *not* Accessed, Modified, or Created during a specific time period. Then select or type the appropriate time period from the **Within the last** text boxes.

5. Click **OK**.

   Size Manager will then tag the matching folders by displaying their details in color.

CLEARING TAGS

To clear all tags, do the following:

- Click the **Show Menus** button  , and then select **Edit → Clear All Tags**.

When you exit Size Manager, all tags are also cleared.

FINDING FOLDERS

Finding folders uses the same process as tagging folders. Instead of tagging matching files in the Tree pane, only the matching folders are displayed in the Tree pane.

To find folders:

1. Click the **Show Menus** button  , and then select **Edit** → **Find Folders**.
2. Click the **Search** button.
   - In the Location section, select search all the drives, search the current drive, or search the current folder (each of which is listed).
   - In the Display Options section, select display as a tree or display as a list.
   - To combine the search results with the previous search, select the **Merge with results from last find** check box.
3. Click the **Folder Size** button and select the folder size that you want searched. See step 2 in the previous section, *Tagging Folders.*
4. Click the **Folder Name** button and select a folder name that you want searched. See step 3 in the previous section, *Tagging Folders.*
5. Click the **Folder Date/Time** button and select the date and time you want used in the search. See step 4 in the previous section, *Tagging Folders*.
6. Click **OK**.

   Size Manager will then display the matching folders. To return to the Tree pane, click the **Back** button at the bottom of the main window. To return to the Find Results window from the Tree pane, click the **Next** button at the bottom of the main window.

PRINTING THE TREE LIST

You can print the contents of the Tree pane. The entire tree or a selected branch can be printed.

To print the tree list:

1. Click the **Show Menus** button  , and then select **File → Print Tree**.
2. Select one of the following:
   - **Entire Tree**. Select this button to print the entire tree.
   - **Selected branch only**. Select this button to only print the branch currently selected in the tree. If you only want to print the displayed folders in the selected branch, and not all of the folders, select the **Only displayed folders** check box.
3. Click **OK**.

EXPORTING THE TREE LIST

You can export the tree list to a text file, and then open and view it in another application.

To export the tree list:

1. Click the **Show Menus** button  , and then select **File → Export to file**.
2. Navigate to the location where you want the file saved and type a File name.
3. Select one of the following:
   - **Entire Tree**. Select this button to export the entire tree.
   - **Selected branch only**. Select this button to only export the branch currently selected in the tree. If you only want to export the displayed folders in the selected branch, and not all of the folders, select the **Only displayed folders** check box.

4. Click **Save**.

DISPLAYING DRIVE INFORMATION

You can display miscellaneous information about a drive, including the drive type, bytes per sector, sectors per cluster, cluster size, number of clusters, capacity, free space, and used space. To set the drives that display in Size Manager, see "Size Manager™ Properties" on page 218.

To display drive information:

1. In the Tree view, select the drive for which you want to display information.

2. Click the **Show Menus** button  , and then select **File → Drive Info**.

ADDING AND REMOVING PROGRAMS

You can use Size Manager to run the Windows install and uninstall applications.

To Add/Remove programs:

1. Click the **Show Menus** button  , and then select **Clean → Add/Remove Programs**.

   The Add/Remove Program Properties dialog box displays.

2. In the Install/Uninstall tab, do one of the following:

   - Click the **Install** button to install a new program from a floppy disk or CD-ROM.
   - Click the **Add/Remove** button to add or remove a program from your disk drive.

3. Follow the on-screen instructions.

FILE OPERATIONS

The **File** menu contains a group of folder, disk, and network commands. Folder operations include moving, copying, recycling, deleting, renaming, and creating folders, and displaying folder properties. All of the folder commands can also be applied to files. Disk operations include copying, labelling, and formatting a disk. Network operations include mapping network drives and disconnecting network drives.

COPYING AND MOVING FOLDERS/FILES

Folders/files can be copied or moved in three different ways:

- Using the Copy or Cut, and Paste commands.
- Using the Copy or Move dialog box.
- Dragging and dropping the item.

USING COMMANDS

To use the menu commands to copy or move items, follow these steps:

1. Select one or more items to copy or move.
2. Click the **Show Menus** button  , and then select **Edit** → **Copy** to copy the item, or **Edit** → **Cut** to move the item.
3. Select or open the folder where you want to move or copy the item(s).
4. Click the **Show Menus** button  , and then select **Edit** → **Paste**.

USING THE COPY OR MOVE DIALOG BOXES

To use the Copy or Move dialog box, follow these steps:

1. Select one or more items to copy or move.

2. Click the **Show Menus** button  , and then select
   File → **Folder** → **Copy to** to copy the item(s), or
   File → **Folder** → **Move to** to move the item(s).

   The Copy to or Move to dialog box displays.

3. In the right pane, navigate to the folder where you want to copy or move the item(s).
4. (Optional) Change the operation from Copy to Move or from Move to Copy by selecting the appropriate button in the Operation section.
5. Click **OK**.

USING THE DRAG AND DROP METHOD

Drag and drop refers to using the mouse to drag a folder icon from one location to another. You can drag and drop an item to a different position in the same list or to a different window. Among other operations, drag-and-drop can be used to copy and to move items.

To copy or move a file or folder using drag and drop, follow these steps:

1. Select one or more items.
2. Open the destination folder for the item. Make sure that the source and the destination are both visible on the screen.
3. Move the mouse pointer to one of the selected items. If you drag a file to a folder on the same disk, it will be moved. If you drag it to a folder on another disk, it will be copied.

   Alternately, you can press and hold down the right mouse button to copy the item(s), or press and hold the left mouse button to move the items.

4. Move the mouse to the destination folder.
5. Release the mouse button.

CREATING NEW FOLDERS

The basic way to organize data on your computer is by separating data files into folders. A new folder can be created in a few short steps.

To create a new folder:

1. Open the folder, or select the drive in which you will make the new folder.

2. Click the **Show Menus** button  , and then select **File → Folder → Create Folder**.

3. Type the name of the new folder in the **New Folder** text box.

   If you want to place the folder into a folder that is different than the currently selected one, type a different path, including the name of the new folder, such as *c:\documents\letters*. Click **Browse** to locate and select the new folder location.

4. Click **OK**.

DELETING FOLDERS/FILES

You may want to delete one or more folders/files from your system. Folders/files can be deleted in two ways:

- Using the Recycle Bin.
- Performing a full delete (bypasses the Recycle Bin).

DELETING FOLDERS/FILES USING THE RECYCLE BIN

Normally, when you delete a folder/file, it is moved to the Recycle Bin where it can later be recovered to its original state or be permanently deleted. While a folder/file is in the Recycle Bin, the folder/file still occupies disk space.

To delete items and send them to the Recycle Bin:

1. Select one or more items from either the Tree pane or the File pane.

2. Click the **Show Menus** button  , and then select **File** → **Folder** → **Recycle** or **File** → **File** → **Recycle**. Alternatively, press the Delete key.

   Later, the files can be permanently deleted by selecting **Clean** → **Empty Recycle Bin**.

DELETING FILES USING PERMANENT DELETE

Sometimes you will may to permanently delete a file, bypassing the Recycle Bin.

To permanently delete a folder/file:

1. Select one or more folders/files from either the Tree pane or the File pane.

2. Click the **Show Menus** button  , and then select **File** → **Folder** → **Delete** or **File** → **File** → **Delete**. Alternatively, press Shift+Del.

Be careful when using this option because the selected items will be deleted immediately, and cannot be recovered from the Recycle Bin.

UNDOING DELETIONS

You can restore any files/folders that were removed to the Recycle Bin using the Undo Deleted Items command. This command reverses the most recent deletion.

To restore a deleted folder/file:

- Click the **Show Menus** button  , and then select **Edit → Undo Deleted Items**.

RENAMING FOLDERS/FILES

Renaming a folder/file is easy in Size Manager.

To rename a folder/file:

1. Select a folder/file.
2. Click the **Show Menus** button  , and then select **File → Folder → Rename**. Alternatively, right-click the mouse and select **Rename** from the context menu.
3. Type the new name. Click with the mouse outside of the box around the name when you are finished typing the name.

DISPLAYING FOLDER/FILE PROPERTIES

It is often useful to determine specific information about a folder/file. Folder/file properties provide information about the folder/file such as the creation date, the size of the items, item attributes (read-only, system, hidden, and archive), version information, and more. Size Manager displays detailed property information about any item.

To view property information:

1. Select the items.
2. Click the **Show Menus** button  , and then select **File → Folder → Properties**. Alternatively, right-click one of the items, and then select **Properties** from the context menu.
3. Click **OK**.

DISK OPERATIONS

Disk operations in Size Manager include copying, labeling, and formatting disks.

COPYING DISKS

Size Manager can be used to copy the contents of a removable disk to another disk.

To copy a disk:

1. Click the **Show Menus** button  , and then select **File → Disk → Copy Disk**.
2. Select the disk you are copying from and the disk you are copying to, and click the **Start** button.

LABELLING DISKS

The disk label is an identifying name for the drive. The disk label can be changed at any time.

To label a disk:

1. Click the **Show Menus** button  , and then select **File → Disk → Label Disk**.
2. Select the disk you want to label and click **OK**.
3. In the Properties dialog box, type a label and then click **OK**.

FORMATTING DISKS

Size Manager can be used to format a removable disk for any of your drives.

To format a disk:

1. Insert the disk into its drive.

2. Click the **Show Menus** button  , and then select **File → Disk → Format Disk**.
3. Select the disk you want to format, and click **OK**.
4. Select the format type and enter a disk label.
5. Click **Start**.

NETWORK OPERATIONS

Network operations in Size Manager include mapping a network drive and disconnecting a network drive.

MAPPING A NETWORK DRIVE

Mapping a network drive assigns a drive letter to a network computer or folder.

To map a network drive:

1. Click the **Show Menus** button  , and then select **File → Disk → Map Network Drive**.
2. In the **Drive** text box, specify the drive letter that will be used to map to the network computer. Windows automatically selects the next available drive letter. To specify a different drive letter, type the letter or select one in the list.
3. In the **Path** text box, specify the path of the shared folder you want to connect to. In most cases, type the path in the following format:

   \\computername\foldername

   To select a shared folder that you connected to recently, select one from the drop-down list.
4. Click **OK**.

DISCONNECTING A NETWORK DRIVE:

Disconnecting a network drive unmaps one or more network drive assignments for your computer.

To disconnect from a network drive:

1. Click the **Show Menus** button  , and then select **File → Disk → Disconnect Network Drive**.
2. In the Drive list box, select the resource whose drive-letter assignment you want to remove.
3. Click **OK**.

Disconnecting from a network drive unmaps the drive letter, but does not log you off your server. You will still have access to your network drive(s) through Network Neighborhood.

MANAGING THE RECYCLE BIN

Your Windows Recycle Bin can be configured and emptied using Size Manager. The Recycle Bin is where deleted files are stored.

To configure the Recycle Bin:

1. Click the **Show Menus** button  , and then select **Clean → Configure Recycle Bin**.
2. Click the Global tab.
3. Select one of the following:
   - **Configure files independently**. Select this button if you want the Recycle Bin properties to be different for each drive. Then click the tab for each drive and make the appropriate settings.

- **Use one setting for all drives**. Select this button if you want the Recycle Bin properties to be same for each drive. The properties specified on the Global tab will be used for all drives.

4. If you want files immediately deleted and not moved to the Recycle Bin, select the **Do not move files to the Recycle Bin** check box.
5. Move the slider bar to set the maximum size of the Recycle Bin. Space on your disk drive can be conserved by reducing the size of the Recycle Bin.
6. If you want a confirmation message displayed when the files are deleted from the Recycle Bin, select the **Display delete confirmation dialog box** check box. This can help prevent you from accidentally deleting files that you want to keep. If the **Do not move files to the Recycle Bin setting is selected,** the setting cannot be changed.
7. Click **OK**.

To empty the Recycle Bin:

Click the **Show Menus** button  , and then select **Clean → Empty Recycle Bin**.

Chapter 5: System Registry

The system registry is a special set of files that Windows needs to run. The registry tells Windows how to display icons and windows on the desktop, and how to run programs, including the programs that start up automatically when you boot your computer. It also contains information about how the mouse and other hardware work.

Your system registry also contains a list of many of the programs installed on your system. Most programs "register" themselves with the system registry, and when you uninstall programs, ideally they should "unregister" themselves as well.

Your computer is constantly accessing, searching through, and updating the system registry. The registry is constantly changing.

The System Registry tools work just as well on Windows 95, 98 and NT, including FAT, FAT32 and NTFS.

Things that can Go Wrong with the Registry

- **The registry can become fragmented.** At first, a new registry's information is contiguous data — placed sequentially on the disk. After a short while of deleting, adding and updating the registry data, the data becomes fragmented, with data and free space intermingled. This makes registry access slow and increases the likelihood of problems.
- **The registry can become corrupt.** If the registry happens to be sitting on a bad cluster, part of it will be unreadable. Also, if the computer crashed while it was writing data to the registry, the registry may become corrupt.
- **The registry can contain invalid links.** Often uninstall programs may neglect to completely remove links in the system registry. Occasionally,

updating software can cause invalid links. Sometimes a registry link will point to an incorrect file because of software conflicts. Also, if you have a habit of just deleting program files rather than using the uninstaller to remove them, you have probably created some invalid links in your system registry.

If you receive a lot of email containing attached files, you are probably creating invalid links in your system registry if you view the attachments directly from the email program. The attachment is registered as a "most recent document," even though the email program deletes the temporary file after you have viewed it.

Sometimes users will run low on space on one hard drive, and will move a program from that drive to a different hard drive with more space. When that happens, the system registry link to that program becomes invalid. In many cases, this may prevent the program from running at all.

Some invalid links are harmless, and don't affect the registry. Other invalid links cause major system problems, preventing application programs or even Windows from functioning properly.

As a policy, you should always uninstall, then reinstall a program in order to move it.

If a registry has become corrupt or invalid, your computer will either not boot up at all, or it will run improperly.

A corrupt registry is not the only thing that can go wrong, so if your computer is not working properly, it doesn't necessarily mean that the registry is corrupt.

If your registry is corrupt, you must restore it from a backed-up version. RegistryFixer cannot fix a corrupt registry; however, **System Saver** can replace a corrupted registry with a recent backup.

PREVENTING REGISTRY PROBLEMS

To be safe, you should back up your system registry every time you boot up your computer. It is also a good idea to back it up before and after you install, remove, or upgrade software. The **System Saver** program in the **Disk and Files** toolset does this (and more).

Windows (and Windows NT) automatically backs up the system registry every day, but we urge you to run System Saver regularly anyway so you have more than just one backup copy.

The System Saver tool can keep several saved versions of your registry on the disk, just in case a recently backed-up registry is corrupt. To change the number of saved copies or to include other files in the backup, see "System Saver Properties" on page 215.

Don't forget, FixWizard can run System Saver for you, and the SystemScheduler can also run System Saver automatically at regular intervals.

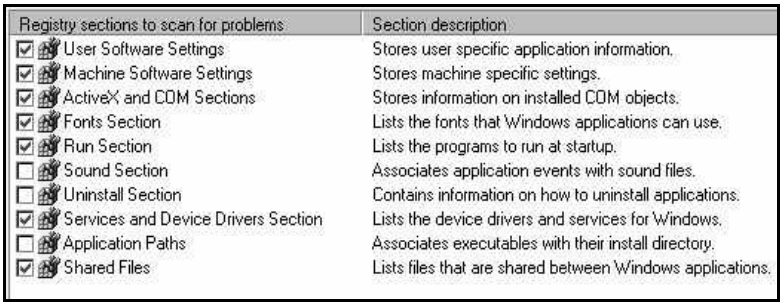
REPAIRING A REGISTRY (REGISTRYFIXER™)

RegistryFixer searches the registry for invalid links and can either repair or remove them.

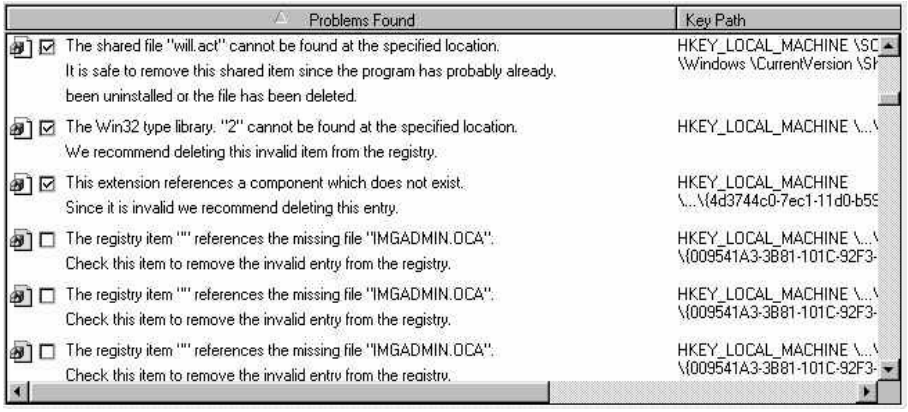
To run RegistryFixer:

1. From the Ontrack SystemSuite home window, click on **System Registry**.
2. Click on the **RegistryFixer** button.

3. Select the sections of the registry that you would like RegistryFixer to scan, and click **Next** to continue.



4. RegistryFixer then scans the checked areas of the registry for invalid links, and displays a list of all of the problems it found.



5. **VERY IMPORTANT:** Notice that the icons have either a white, yellow or red background. A white background indicates that the registry entry is safe to remove. A yellow or red background denotes varying degrees of warning and danger, and removing one of these entries could cause system problems. If you are not sure, do not remove the entry. White-background entries are automatically selected for removal.

6. When you click **Apply**, RegistryFixer fixes the selected items, then displays a summary report.

Click **Done** when you're finished.

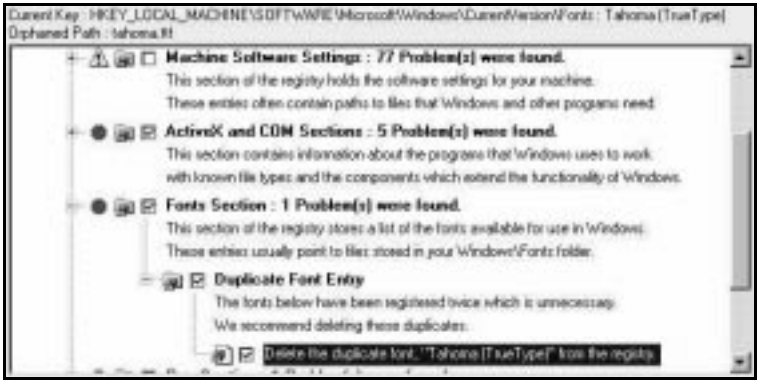
It is safe to remove any items with a white background, but you should be familiar with the registry in order to delete yellow or red items! If there is any uncertainty, it is safer to leave the item in the registry.

ABOUT THE REGISTRYFIXER DISPLAY

Show as Tree/Show as List button: this button flip-flops between display types. This allows you to display the registry items either as a non-hierarchical list, or as a tree structure. If you display the items in the tree

structure, you can click on the plus and minus signs to show and hide the tree levels. The following figure shows each type of display:

List View of RegistryFixer Items



Tree View of RegistryFixer Items

Notice that the list view, which is organized by Registry category, shows several different icons. The green octagon indicates that all items in that category are safe to remove. A yellow warning triangle means that at least one of the sub-items in that category contains a broken registry item that *may* not be safe to remove.

The **Show Key** button: This button opens a separate window with the selected Registry entry highlighted.

CLEANING THE REGISTRY (REGISTRY CLEANER)

Registry Cleaner removes unwanted items from your registry. These items come pre-installed with your system registry or are added via the day to day operations of your computer. Many are unnecessary for the operation of your computer. When you run Registry Cleaner, you individually select the items to be removed.

The **Advanced** mode gives you access to more items in the registry; however, you should not remove any items in this section unless you absolutely know what you are doing.

With the Advanced mode, you can seriously affect your computer's operation by removing the wrong items from the registry!

To run Registry Cleaner:

1. From the Ontrack SystemSuite home window, click on **System Registry**.
2. Click on the **Registry Cleaner** button.
3. Select the items you wish to have cleaned out of your registry:
   - **Recent documents list:** If you go to the Start menu in Windows, and move the cursor to the Documents menu item, you will see a list of the documents you have opened recently. This option cleans out that list.
   - **Tip of the day:** If you want to get rid of the Windows Tip of the Day, which appears when you boot up your computer, check this box.
   - **Find computer list:** (for networks) If you go to the Start menu in Windows, and select **Find→Computer**, and then click on the drop down button in the **Named** box, you will see a pulldown list of computers you have recently searched for on your network. This option cleans out that list.

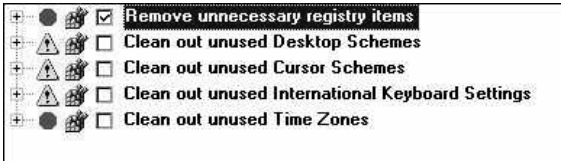
- **Run list:** If you go to the Start menu in Windows, and select Run..., you see a dialog box. If you click on the down-arrow, it drops down a list of the programs you have recently run using this menu item. This option cleans out that list.
- **Documents find list:** If you go to the Start menu in Windows, and select **Find→Files or Folders**, you see a dialog box where you can display a list of files you have recently looked for, either from this point or from the Windows Explorer. This option cleans out that list.

4. If you wish to run the Advanced options, click on the **Advanced** button. The Advanced options should be used with care, because you can potentially cause harm. See the section "Advanced Options for Registry Cleaner" for detailed information on these.
5. Once you have selected your options, click **Next** to continue.

Registry Cleaner cleans out the items you have specified, then produces a summary report.

You will not see the effects of Registry Cleaner until you reboot your computer.

ADVANCED OPTIONS FOR REGISTRY CLEANER



Each advanced option has a green, yellow or red icon next to it; green indicates that you can check this option with no negative consequences, while yellow or red indicates that you should be careful—you could potentially do harm!

- **Remove unnecessary registry items:** This option cleans out the Start Menu "Recent Documents" list, the Find Computer history list, the Start Menu "Run" history list, and the Find Files & Folders history list.
- **Clean out unused DeskTop Schemes:** This is the group of colors and background patterns Windows uses to display your DeskTop. DeskTop Schemes can be changed from the Display icon in the Control Panel. You may wish to get rid of some schemes you know you will never need; just be sure not to delete all of them.
- **Clean out unused Cursor Schemes:** This is the set of cursor shapes that Windows uses in various situations. Just be sure not to delete all of them.
- **Clean out unused International Keyboard Settings:** These settings give you the ability to map your keyboard to other countries' standard settings. Just be sure not to delete *your* settings.
- **Clean out unused Time Zones:** Windows comes with a list of every time zone around the world. If you're sure that you will never visit certain time zones with your computer, you can remove those time zones. Be sure not to delete your own time zone, or any time zone where you and your computer might go.

EDITING THE REGISTRY (REGISTRY EDITOR)

This tool executes the Ontrack RegistryMagic program, which edits specific parts of the Windows system registry. You should be an advanced user with a complete knowledge of the registry before using this program, which operates in a similar manner to the Windows command, RegEdit.

DEFRAGMENTING THE REGISTRY (REGISTRY DEFRAG™)

The system registry is a complex and sophisticated part of the Windows operating system, and your computer accesses it constantly, updating, adding and changing data. After a while, the registry becomes fragmented, with empty gaps and randomly-placed registry entries. Registry Defrag reorganizes the system registry to remove the gaps and reorganize the entries.

To defragment your system registry:

1. Close all running programs except Ontrack SystemSuite
2. From the Ontrack SystemSuite home window, click on **System Registry**.
3. Click on the **Registry Defrag** button.
4. The next screen verifies that you have closed all programs. Make sure all programs have been closed, and click **Next** to continue.
5. Click **Yes** at the popup dialog box to re-verify that all programs have been closed.
6. (**Windows 95/98 only**) Registry Defrag now analyzes the fragmentation of your registry. If the fragmentation is relatively high, it recommends that you continue with the defragmentation. To continue the defragmentation, click **Next** once more. To cancel the process, click **Cancel**.
7. Once Registry Defrag is complete, it displays a final message telling you it is finished. Click **Done** to restart Windows.

CUSTOMIZING WINDOWS (WINCUSTOMIZER™)

WinCustomizer is a one-stop location where you can tailor many of the features and attributes of Windows without having to directly modify internal Windows controls and settings. It makes it easy to personalize the overall appearance and behavior of your Windows system.

With WinCustomizer you can change:

- The look and feel of your desktop.
- Startup file and system settings.
- Startup and shutdown bitmaps.
- The way the desktop looks and behaves.
- The appearance of icons on your DeskTop and in the Windows Explorer.
- The items listed in **My Computer**.
- The click speed and other attributes of your mouse or pointing device.
- Windows boot-up information.
- Windows context (right-click) menus
- ...and more.

To run WinCustomizer:

1. From the Ontrack SystemSuite home window, click on **System Registry**.
2. Click on the **WinCustomizer** button.
3. Select the category of items you'd like to customize from the list of buttons by clicking on that button.

The following list describes each of the categories. Details on each button, drop-down menu, slider and checkbox are available through the online help for each of the windows by clicking on the **Help** button for that window. You can also see a brief help description by moving the cursor over each field.

GENERAL

This window allows you to adjust general preferences about your computer, such as:

- menu speed (how quickly sub-menus are displayed)
- window settings (automatic refresh, scroll speed, etc.)
- The ability to view all file types using QuickView
- Whether to play CDs automatically when they are inserted into the drive
- Mouse controls: Adjust the speed, click characteristics, the icon that represents the mouse cursor, and more.
- Special folders (locations)

For information on each dialog box or field, you can:

- read the instructions that are part of the dialog box, or
- click the help button, or
- move the mouse pointer over that field and wait for the Tool Tip text box to pop up.

LOGOS

You can change/customize the bitmaps displayed when the computer boots up and shuts down. You can customize:

- The display startup logo
- The display shutdown logo
- The display poweroff logo

You can:

- Completely disable these logos,
- Customize these logos using a paint program, or

- Add your own favorite bitmap. Ontrack SystemSuite can convert many different graphics formats to the bitmap format required, including .jpg, .bmp, and others.

If you disable both the display shutdown logo and the display powerdown logo, the computer shuts down to a DOS prompt at exit. From there you can turn off the computer.

CHOOSING THE LOGO

The three buttons to the left of the window allow you to choose the logo:

- Click on **Startup** for the startup logo (when the computer is booting up)
- Click on **Shutdown** for the shutdown logo
- Click on **Poweroff** for the logo displayed (usually this says "It's now safe to turn off your computer.")

IF YOU JUST WANT TO DISABLE THE LOGO

Un-check the checkbox. For example, if you don't want to see the Windows startup logo at all, uncheck the **Display startup logo** checkbox.

CUSTOMIZING THE DISPLAYED LOGO

Once the desired logo is displayed, click on one of the following buttons to customize it:

- **Change...**: To use a different bitmap in place of the logo, click on **Change...**. This displays an Open File dialog box where you can browse for and select the bitmap you would like to use. If the bitmap is not of a size and/or type suitable for this purpose, you will have the opportunity to convert it.
- **Edit...**: To make a change to the displayed bitmap/logo, click on the **Edit...** button. This opens the bitmap in your default Paint utility so you can edit it. When finished, be sure to save your changes. The new bitmap

with your changes will be displayed in the window once you save and exit the Paint program.

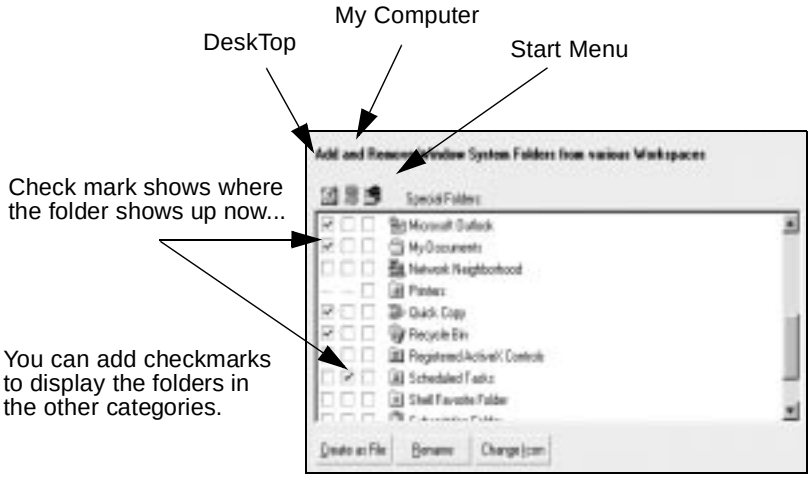
- **Restore Default...**: This button restores the Windows default bitmap.
- **Preview...**: This button presents you with a full-screen preview of how the bitmap will appear at startup/shutdown. To exit this preview, press any key on the keyboard, or the left mouse button.

Changes go into effect when you click on **Apply**.

DESKTOP

This option allows you to add or remove *special* folders on the DeskTop, My Computer, and the Start Menu. Special folders are created by Windows, and cannot be manipulated like standard Windows folders.

When you click on **DeskTop**, you see a list of the special folders on your system and the locations in which they are currently displayed:

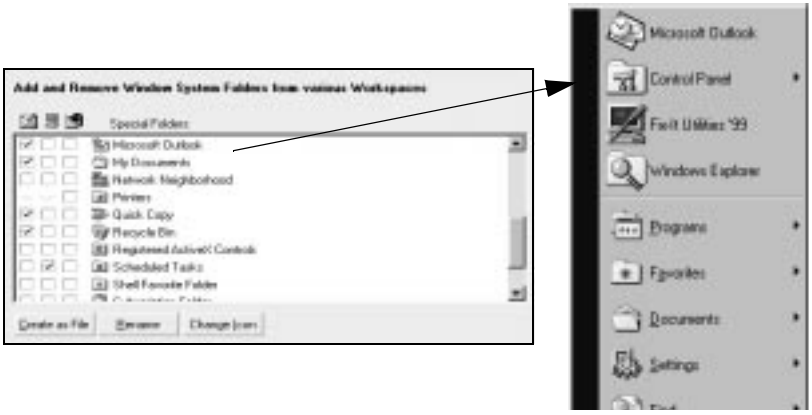


For example, if you want to see the Windows Briefcase displayed in My Computer, you put a check into that box. The next time you display My Computer, it will contain the Briefcase as well.

You can also change Special Folder icons if you wish. Just double-click on the icon, and you will see a dialog box giving you a choice of icons for that folder. Select the icon you want and click **OK**.

PUTTING ICONS IN YOUR START MENU

You can add any of the icons you see in this display to your Start Menu:



If you want any of the icons that you see on this display added to your Start Menu, just check the start menu box.

CREATING AS FILE

This button creates the selected item as a folder, in which you can place other files and information.

RENAMING A SPECIAL FOLDER

To change the text of a Special Folder, select the folder and do one of the following:

- Click on the Rename button, or
- Double-click on the text and enter the new information.

CHANGING A SPECIAL FOLDER ICON

To use a different icon for a special folder, do one of the following:

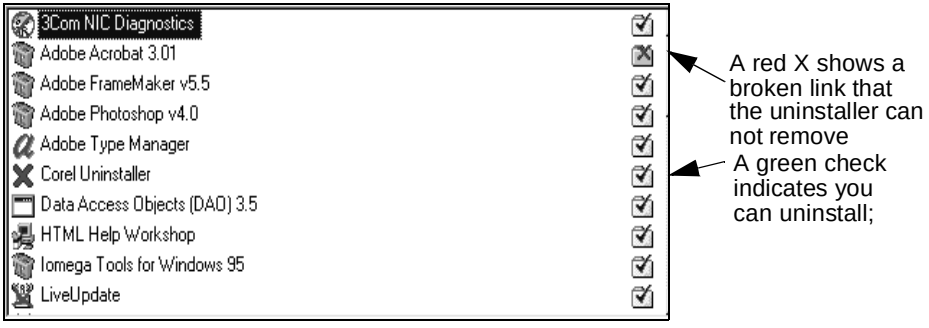
- Click on the **Change Icon** button and select a new icon, or
- Double-click on the icon to be changed, and select a new icon.

ADD/REMOVE

This option provides a way to inspect and modify the entries in Add/Remove Programs, which is available from the Control Panel.

Over time, the list of items in the Add/Remove Programs dialog can become inaccurate. This can happen if you uninstall a program by deleting the files manually instead of using the program's own Uninstall. It can also happen if the location of the uninstall information has inadvertently changed (changed directory names, moved files, etc.). The Windows link to the uninstall information becomes invalid.

When you click on the **Add/Remove** button, you see a list of the programs in the Add/Remove Programs dialog:



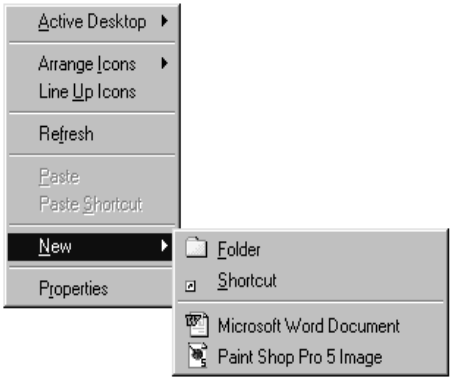
- If there is a red X, indicating a broken link, you can browse for the missing file and re-establish the link.
- The **Remove** button allows you to remove any items from the Uninstall list. This is especially useful for broken links.

- The **Edit** button allows you to edit the current uninstall information—a useful feature if a program has been moved to another folder or directory, and you need to point the Uninstaller to the correct location.
- The **New** button gives you a way to add a new item to the Uninstaller without having to re-install a program.

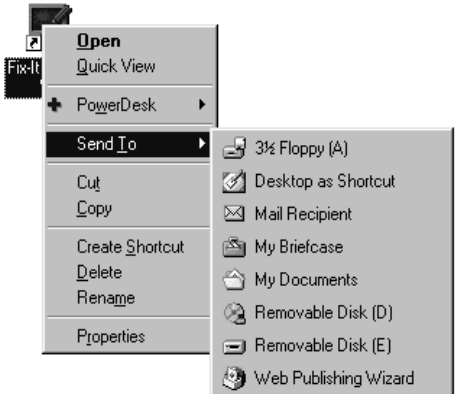
NEW/SEND TO

These options allow you to add and remove items from the **New** and **Send To** submenus.

About the **New** submenu: When you right-click on a blank area of the DeskTop, you see a popup menu that contains several options, including New. This option gives you a list of different types of files—document, graphics, spreadsheet and other types of files on your system—to create.



About the **Send To** submenu: When you right-click on a desktop icon, or any file or folder, you see a popup menu that contains several options including Send To. This option can send the file to any new location you specify.



When you click on the **New/Send To** button, you see a window showing both the New menu items and the Send To menu items. Any checked item is in the respective menu; any item not checked is not on the respective menu.

Make any changes you want, and click on **OK** or **Apply**.

MY COMPUTER

This option lets you customize the contents of **My Computer**:

This does not affect your PowerDesk® or Windows Explorer display.

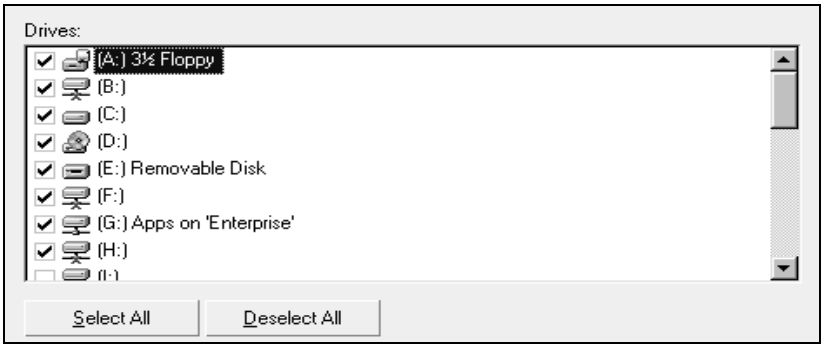
You can:

- decide which drives are displayed in the My Computer window
- change the text for the drives
- change the icons representing the drives

Logical drive letters (shown with a red "X") are not on the local computer and cannot be customized.

If you want to add icons to My Computer, see "DeskTop" on page 78.

When you click on the **My Computer** button, you can select and deselect drives that normally appear on the My Computer display:



You can click on the **Select All** button to check all boxes, or click on the **Deselect All** button to un-check all boxes.

Changing the Drives to be Displayed

Put a check in the box next to any drive that you want to display. Uncheck the box next to any drive you do not want displayed.

Changing the Text

To change the text for a drive, you can either:

- Select the drive, then click on the **Change Text** button, or
- Double-click on the text you want to change.

Then type in the new text.

CHANGING THE ICON

To change icons for a drive, you can either:

- Select the drive, then click on the **Change Icon** button. This brings up a dialog box where you can select the new icon.
- Double-click on the drive icon. Again, this brings up a dialog box where you can select the new icon.

RESTORING THE DEFAULT SETTINGS

You can return all My Computer settings to their original default settings by clicking on the **Defaults** button. This removes all custom icons and text and restores the default display.

ICONS

This option allows you to customize your desktop icons. You can change the following:

- **Icon overlays:** When you have a DeskTop shortcut, the icon for that program has a little *overlaid* graphic to show that it is a shortcut. The Windows default is a small arrow, as shown:


Netscape icon for program


Netscape icon with shortcut overlay

  You can change the overlay to one of several other possibilities. This program shows you the "before" (without icon overlay) and "after" (with icon overlay) images.

- **"Shortcut to" prefix:** By default, whenever you create a Windows shortcut, the new shortcut has the same name as the original file, but with the prefix "Shortcut to." You can change this option so that new shortcuts do not have the prefix.

  Un-check the checkbox labeled "Prefix 'shortcut to' on new shortcuts" to keep new shortcuts from having the prefix.

Click the button labeled **Remove prefix on current icons** to have Ontrack SystemSuite searches for all files and icons with that prefix, and remove the prefix.

- **Display Bitmaps as Icons:** Gives you a thumbnail preview of bitmaps, shown as an icon.
- **Display Iconic Preview of .DLL and .CPL files:** If the file contains an icon image, displays the first icon in the file rather than the Windows standard icon for that file type.
- **Icon Cache Size:** If you have a lot of icons on your DeskTop, increasing the cache size may improve your system's performance. We recommend that you *do not* reduce the cache size to less than 512 bytes.
- **Rebuild Icons:** If your icons seem to be displayed incorrectly either on the DeskTop or within Windows Explorer, this option rebuilds both the DeskTop and Windows Explorer icons so they display correctly.

BOOT

There are a number of things that happen when your computer boots up, and this option allows you to make changes to that process.

This option gives you the following choices:

- Whether to boot to Windows
- Whether to show a boot menu at startup
- How long the boot menu will be displayed
- Enable special hot-keys (or shortcut keys) at startup
- How long the special hot-keys are enabled
- Whether to boot into Safe mode, in Windows or to the network
- Whether to eliminate the (sometimes bloated) *bootlog.txt* file
- Whether to run ScanDisk automatically at startup

SECURITY

This option allows you to clear out all historical information that is normally kept by Windows. This includes:

- Document history: recently opened documents
- Find computer history: computers recently searched for
- Find files history: files recently searched for
- Internet Explorer history: Web sites recently accessed via I.E.
- Last user history: recent system users
- Run history: programs most recently run

This option also allows you, at login, to enter your user name and password to log the computer *onto the network* automatically at startup (this is not the same password as the Windows Password feature from the Control Panel).

AUTORUN (ADVANCED USERS ONLY)

This option allows you to add, remove or modify items in the Windows system startup files. This is the group of items automatically loaded each time you boot your computer.

Be aware that some changes could affect your computer's operation negatively; If in doubt, do not delete or modify items in Windows system startup files.

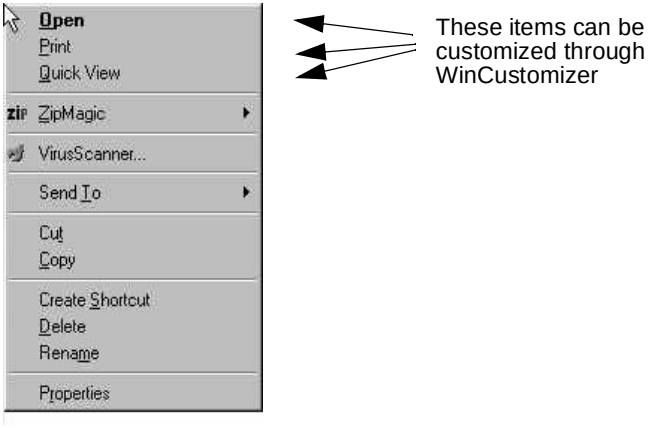
CONTEXT MENU

The Context Menu tab allows you to customize parts of the Windows context menus. A context menu is pop-up menu that appears when you right-click on an item while in Windows Explorer, PowerDesk, or on the Desktop. Through WinCustomizer, you can modify some items on your context menu.

About Context Menus

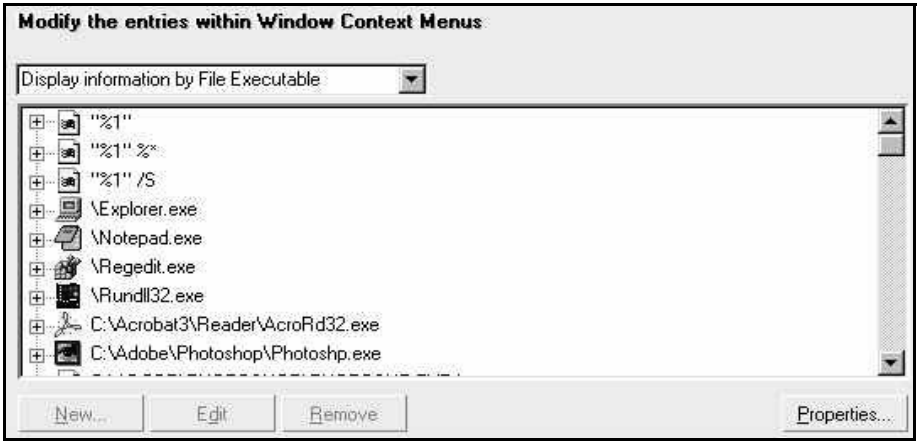
A context menu contains three categories of items: Common items, Dynamic items and Static items. WinCustomizer allows you to change only Static items, which are contained in the Windows system registry, and are routinely added and removed by different software applications. Common static items are **Open**, **Print**, **New**, and **View**.

In general, each item on the context menu has some command associated with it so when you select it, its associated program is invoked. The following figure shows a typical context menu:



About the WinCustomizer Context Menu Tab

When you select the Context Menu tab in WinCustomizer, you see a window similar to the following:

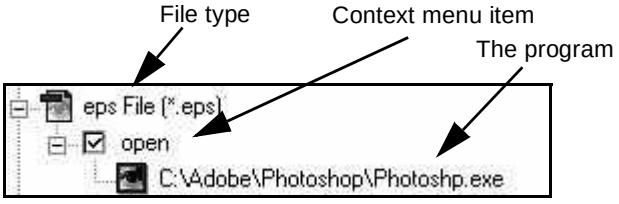


Some characters define certain file types that are known internally to Windows (.exe, .com, etc.), and rely only upon command-line arguments for specific functionality. For example, the characters "%1 /S" are command line arguments. Only expert users should modify these, as invalid commands will result in undesirable or unpredictable effects.

There are two modes to this display:

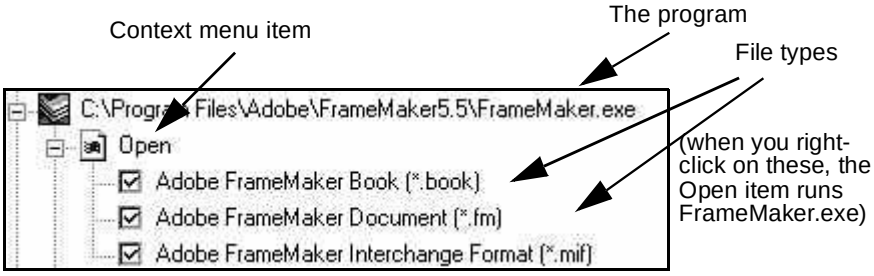
- **Display information by file extension:** This displays registered file extensions for which modification of context menu commands is possible. If you click on the plus sign next to a file extension, you then see the context menu commands that will show up when you right-click on this item (i.e. **Open**, **Print**, **View**). If you click on the plus sign next to Open, you see the name and location of the program that is run when the

user selects Open from the Context menu. The following figure shows this information for EPS files:



(when you right-click on an eps file, the Open item runs PhotoShop.exe)

- **Display information by file executable:** This displays a list of registered context menu executables (programs) on your system. When you click on the plus sign next to the program name, you see the context menu commands. If you click on the plus sign next to the context menu command, you then see all of the file types that use both this command and program within a context menu. The following figure shows how this works for FrameMaker files:



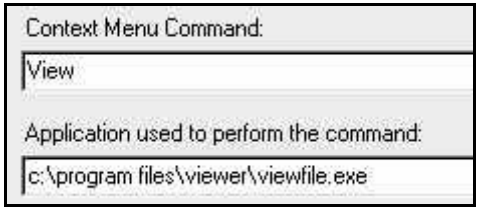
When displaying information by File Executable, you will often see items that begin with "RunDll32.exe...". These indicate that the executable information is contained within a Dynamic Link Library rather than an executable file.

ADDING AN ITEM TO THE CONTEXT MENU

You can add new items to the context menu. This section shows an example situation where we will add a "View" item for all bitmap (.bmp) files, which links to a fictitious viewer program.

1. Make sure items are displayed by File Extension.
2. Locate the .bmp file item and select it.

3. Click on the New button.
4. In the dialog box that pops up, enter View in the Context menu command field.
5. Enter the name of the viewer (we'll enter a fictitious viewer called ViewFile.exe).



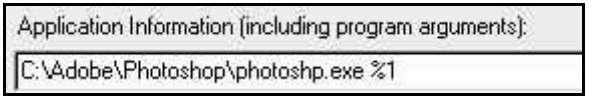
6. Click **OK** to continue.
7. You will then see the new item in the list (and on your context menu):

EDITING AN ITEM IN THE CONTEXT MENU

The Edit feature can be used for editing file type descriptions and commands, as well as for changing the name of the called executable program. In this

example, we change the executable that is called when you select Open from the context menu for bitmap (.bmp) files. To do this:

1. Make sure items are displayed by File Extension.
2. Locate the .bmp file item. Click on the plus sign for the .bmp file and click again on the plus sign for the Edit item. Select the program. (selecting any other item and clicking Edit allows you to change the description).
3. Click on the **Edit** button.
4. In the dialog box that pops up, enter the name and location of the new graphics program, as in the following example:



5. Click **OK**.

REMOVING AN ITEM FROM THE CONTEXT MENU LIST

If you actually remove an item from the display, you will have to re-install the program to get it back. If all you want to do is remove it from the context menu, it may be easier just to un-check that item.

To permanently remove an item from the list of context menu items:

1. Make sure items are displayed by File Extension.
2. Locate the .bmp file item. Click on the plus sign for the .bmp file and select the Edit item.
3. Click on the **Delete** button. You will see a dialog box:

4. Click **OK** if you are sure you wish to delete this item. As mentioned earlier, if you just want to take the item off the context menu, you can easily un-check that item instead.

Chapter 6: System Diagnostics

Just like any machine, your computer can develop problems. The System Diagnostics tools help you find the problem as quickly as possible.

- It checks your installed hardware for problems
- It performs year-2000 checking to locate problems and potential problems
- System Explorer looks through your system and returns a complete list of system statistics
- SystemMonitors keeps an eye on your system resources and notifies you if there is a problem or potential problem.

HARDWARE (PC DIAGNOSTICS™)

PC Diagnostics tells you how (and whether) your computer's hardware is working. If you run the diagnostics regularly, you will begin to see when your computer performs well versus when it does not, and you can also track changes in performance over time. If PC Diagnostics locates a hardware problem, it offers one or more possible causes.

PC Diagnostics checks and reports on the following:

- System memory
- Hard drive(s)
- Floppy drive(s)
- CD-ROM drives
- Serial and parallel ports
- Video
- Keyboard

- Mouse
- Modem
- Sound card
- Multimedia capabilities
- System (mother) board and central processing unit (CPU)

You can set up your own "test groups." A test group is a recorded combination of hardware diagnostics, which you create, name, and run any time. Ontrack SystemSuite comes with some default test groups, and you can also create your own.

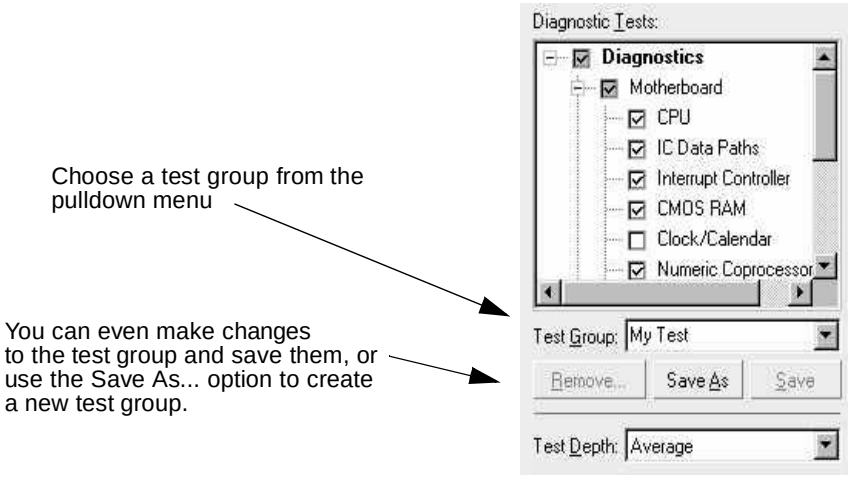
You can specify exactly which hardware shows up in the PC Diagnostics window. See "PC Diagnostics™ Properties" on page 220 for more information.

RUNNING PC DIAGNOSTICS

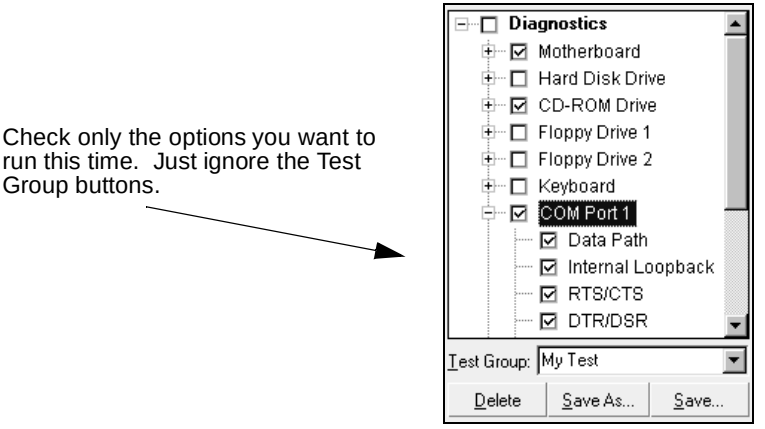
To run PC Diagnostics, do the following:

1. From the Ontrack SystemSuite home window, click on the **System Diagnostics** button.
2. Click on **PC Diagnostics**.
3. At the PC Diagnostics window, you can do one of the following:
    - Select/create a test group: You can either select an existing test group or you can create a new test group with the diagnostics you

want to run. Click on **Save** to save the new changes to the old test group, or click on **Save As...** to create a new test group.

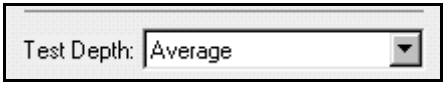


- Select your own diagnostics individually. You can select the diagnostics to run, then run them without using a test group.



4. Select the **Test Depth**: The test depth is the level of thorough-ness of the group of tests. If you select **Shallow**, the tests perform a quick, cursory check of each device. If you select **Average**, the tests are more

complete and thorough. **Deep** tests are extremely thorough and take much more time.



5. Once you have selected the diagnostics, click **Next**.
6. Diagnostics then runs through the tests you have requested. When it is finished, click **Next**.
7. The summary report describes the test results. Successful results have a green heading; Tests that failed or had mixed results have a red heading.

DIAGNOSTICS NEEDING LOOPBACK CONNECTORS

Some diagnostics require a loopback connector in order to run. These include some of the Com port and printer tests. A loopback connector is just a connector that you plug into the serial and/or parallel ports in the back of your computer. The wiring inside the loopback connector allows the diagnostic to send and receive signals, verifying that the port is working.

The diagram in Appendix B: "Loopback Testing" of this manual shows the wiring connections required for loopback connectors, should you plan to use them.

Loopback connectors can be found at a variety of electronic parts stores, such as JDR Microdevices, at (800) 538-5000 (www.jdr.com), or at Roger Systems Specialists (www.rogerssystems.com)*.

(*This information is accurate at the time of print)

ABOUT THE VIDEO DIAGNOSTICS

The video diagnostics may surprise you by the way they display patterns, colors and images on the screen. Several of the video diagnostics are interactive—they request you to respond each time one is complete.

For example, the Red diagnostic test displays only red pixels on the screen, then asks you to press one key if the test is successful, and another key if not. In this case, if the screen is entirely red, the test was successful.

INTERACTIVE TESTS

Several of the PC Diagnostic tests require some interaction by you. The CD ROM test requires you to load a CD, then re-load it. The video test asks you to verify each of the display tests by pressing a key. If a test is interactive, the text describing it in the right pane of the window will tell you it is interactive.

YEAR 2000

For years, programmers have been abbreviating dates to represent just the last two digits of the year (i.e. 10/18/58). Originally, this was done to save disk space and RAM, which were very expensive and limited at the time.

Saving two digits doesn't seem like much of a gain unless you look at, say, a government database with millions of records. Each of those records could contain one or more dates (birth date, marriage date, naturalization date, etc.). Suddenly, saving two digits becomes very important. Using *021574* instead of *02151974* in a date field saved significant disk space.

This convention became a universal standard of programming. Because of this, computer programs assume *1974* in place of *74*. However, that assumption is going to get us in trouble because the year 2000 is so close. Many computers still have programs that will assume that if they see 02/15/00, that date will really mean 02/15/1900. Not a good thing if your baby is born in the year 2000, and a computer assumes that he/she was born in 1900. Or if your health insurance expires in 2001, the computer thinks it expired back in 1901.

The government and many companies are working hard to fix those potentially serious problems. Personal computers are now being built to be year 2000 compliant.

But how can you be sure that your computer is year 2000 compliant?

HOW YEAR 2000 WORKS (WINDOWS 95/98)

Your computer has several internal clocks. The main clocks are the BIOS clock, the RTC clock, and the Windows clock.

- The real time clock (RTC) maintains accurate time even when the computer is turned off.
- The BIOS clock interacts between the hardware and the operating system.
- The Windows clock gets the time from the BIOS clock. Most Windows software gets the date and time from the Windows clock. The clock on your Windows desktop also gets its time from the Windows clock.

Year 2000 checks all three of these clocks for Year 2000 readiness. If there is a problem, it can install a repair program that intercepts requests to the BIOS clock for the date, and returns the correct date. This automatically fixes the Windows and RTC clocks as well.

How Year 2000 Works (Windows NT)

The latest versions of the Windows NT operating system are now year 2000 compliant, so the program just checks to make sure you have these versions.

They are:

- NT 4.0 Service Pack 4
- IE 4.01
- Microsoft Data Access Components 2.02 Service Pack 1

If it finds that you do not have one or more of these, it allows you to download them or install them from your Service Pack 4 CD.

Running Year 2000

To check for year 2000 readiness:

1. From the Ontrack SystemSuite home window, click on **System Diagnostics**.
2. Click on **Year 2000**.
3. At the next window, click **Next** to begin diagnosing your system for Year 2000 readiness. The program goes through each of the diagnostics.

(Windows 95/98) Just because your computer fails one or two of the tests does not mean you have a problem. For example, almost every computer fails the RTC clock test for rolling over from December 31, 1999 to January 1, 2000. This is not a problem as long as the other clocks pass.

4. Notice that the last window displays a Web site link; this links to the Ontrack Year 2000 Resource Center, which contains Y2K information and useful links to other Y2K sources.

WHICH DATES DOES IT CHECK? (WINDOWS 95/98)

Ontrack SystemSuite does not just check the first day of the year 2000; researchers and analysts have pinpointed a number of other dates as well. The Year 2000 Checker looks at the following dates:

01/01/2000 (of course)

The big day will be when the clocks roll over from 12/31/1999 to 01/01/2000. Ontrack SystemSuite performs a test to see whether the system clocks transition correctly. It also makes sure that the computer hardware can store the date correctly.

02/28/2000 to 02/29/2000

Many computers will not realize that the year 2000 is a leap year, since the year 1900 was not a leap year. The Year 2000 Checker verifies that the date rolls correctly.

02/28/2001 to 03/01/2001

Experts claim that many computers will assume that every year after the year 2000 is a leap year. Therefore the Year 2000 Checker tests the rollover from the last day of February to the first day of March in 2001 to be sure that it transitions correctly.

01/01/1980

This is widely assumed to be the date when PCs actually came into existence. Even if your computer fails this test, the chances of this causing a problem are very low.

9/8/99 to 9/9/99

Traditionally, the date 9/9/99 has been used in software programs to represent infinity. Some analysts feel that some software may have problems because

of this date. However, even if your computer fails this test, it is unlikely that there will be any problems because of it.

Windows Settings

Ontrack SystemSuite also sets the Windows date to show the year as four digits. A few software programs may have trouble with this....you need to check each of your programs for year 2000 readiness, and call the vendor for an updated version if they are not compliant.

WHAT TO DO IF YOUR COMPUTER FAILS (WINDOWS 95/98)

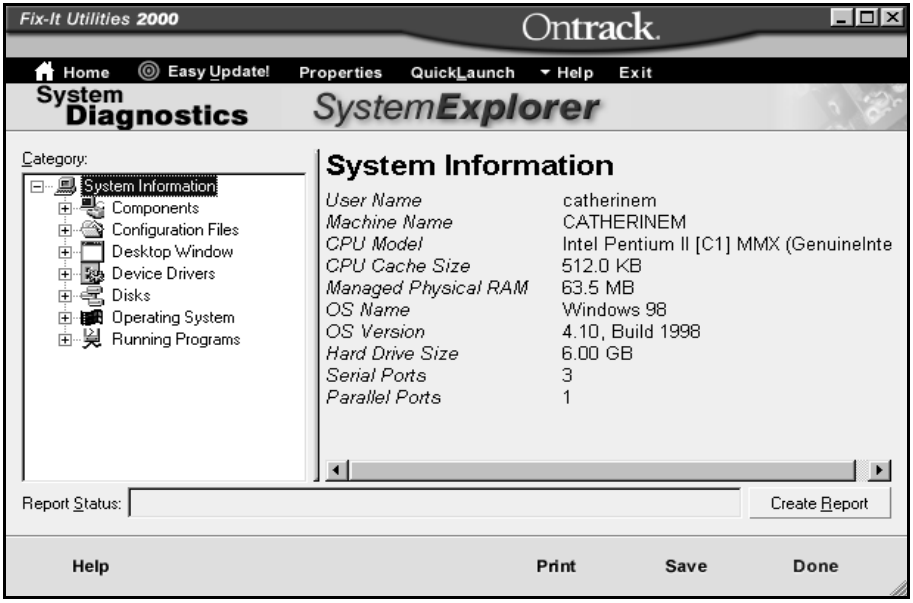
If your computer fails the rollover from 1999 to 2000, the BIOS needs to be corrected. In this case, the Year 2000 program installs a small program that starts up each time your computer boots up and corrects the BIOS clock.

Once the year 2000 comes, do NOT remove this program from your computer.

IF YOU ARE ON A NETWORK...

If your computer is attached to a network, be sure that the network has been upgraded to year 2000 readiness. Network programs regularly update the computers on the network with date and time, and could remove the Year 2000 changes you made.

SYSTEM EXPLORER™



System Explorer provides a way to view essential information about your computer. This feature displays:

- User information
- Hard disk space—total and amount available
- RAM
- Details on installed hardware (printers, CD ROM, etc.)
- File swapping information
- ...and more.

THE SYSTEM EXPLORER BUTTON

You may have noticed the **Create Report** button. This button is a way of expanding the description you see on the right side of the window. If you

click on an item that has "child" items under it and click on the Create Report button, you will see information for that item and all of the items under it.

For example, if you click on Printers, you see information about the print queues. If you then click on **Create Report**, you see detailed report information about each printer.

There is one exception to the **Create Report** button: you cannot use this button for the Desktop Windows category. This category is so large that the resulting text would be too unwieldy.

To access the System Information, do the following:

1. From the Ontrack SystemSuite home window, click on **System Diagnostics**.
2. Click on the **System Explorer** button.
3. This displays the System Explorer window. To view information, click on the "+" sign next to the category in the left pane.
4. If necessary, continue to click on the "+" signs until you reach the category you wish to see.
5. Click on the device or category name. This displays the system information in the right pane.

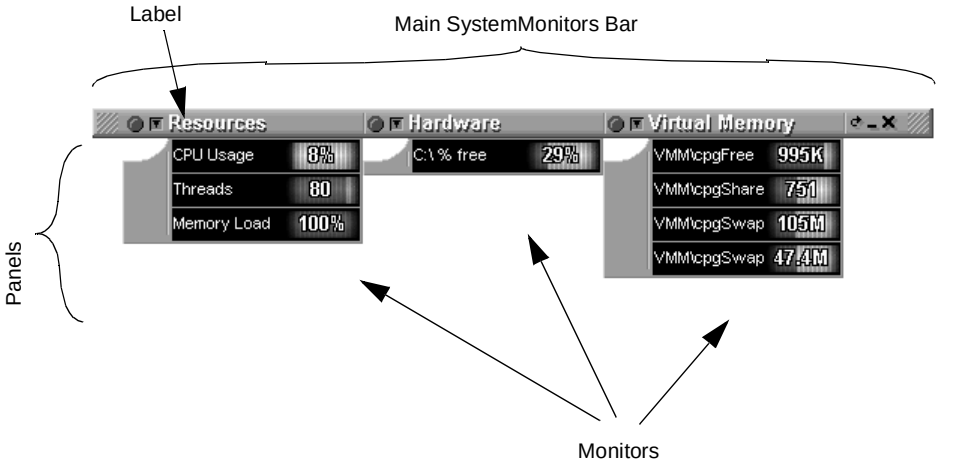
Chapter 7: The SystemMonitors™

The SystemMonitors constantly monitor your computer system, keeping a watchful eye on your system resources and warning you if one of the monitored resources reaches or exceeds a specified limit.

SystemMonitors is completely customizable; you decide how often you want SystemMonitors to update the displayed information; what resources to display; what the "exceed" alarm levels are, and more. You can even choose the type of alarm you will see when resource levels are exceeded—a diode light, or a more intrusive and noticeable pop-up message box.

THE PARTS OF THE SYSTEMMONITORS

The SystemMonitors run separately from the rest of Ontrack SystemSuite, and look like this:



With the panels rolled up, SystemMonitors is a slim bar that takes up a minimum of DeskTop space and looks like this:

If you are really in need of DeskTop space, you can "dock" or "edge snap" the SystemMonitors to the edge of the screen, and you can also put it on *Auto-Hide*, which makes it "slide off" the edge of the screen when not being actively viewed, leaving just a slim line to show its location. It reappears when you move your cursor to the screen edge. See "SystemMonitors Properties" on page 111 for more information.

STARTING THE SYSTEMMONITORS

You can start up SystemMonitors in any of the following ways:

- You can set it up to start up every time you boot your computer. See "Auto-Starting the SystemMonitors" on page 113.
- You can start it up manually from Ontrack SystemSuite. To do this:
  - At the Ontrack SystemSuite home window, click on **System Diagnostics**.
  - Click on **SystemMonitors**.
  - Click on **Launch SystemMonitors**.
  - SystemMonitors launches immediately.
- You can start it up manually from the Windows Startup menu. To do this:
  - Click on **Start** at the bottom of the Windows DeskTop.
  - Select **Programs → Ontrack SystemSuite 2000 → Utilities → SystemMonitors**.
  - Click on **Launch SystemMonitors**.
  - That's all. SystemMonitors launches right away.

If you are running more than one program of this type, the programs may clash with each other, showing inaccurate information.

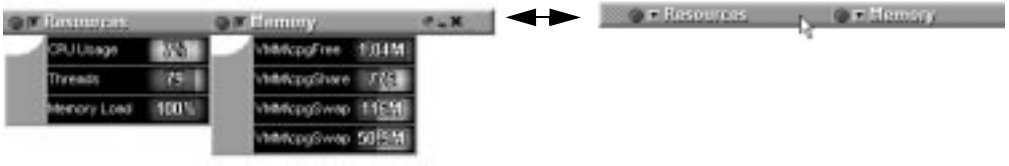
USING THE SYSTEMMONITORS

READING THE DISPLAY

SystemMonitors displays information about available system resources. This displays the current resource level. The display shows a visual graph of the current resource level, as well as the exact number.

ROLLING UP/ROLLING DOWN THE PANELS

To roll up the panels, just click on the panel label. To roll down a panel, click on the label again.



■

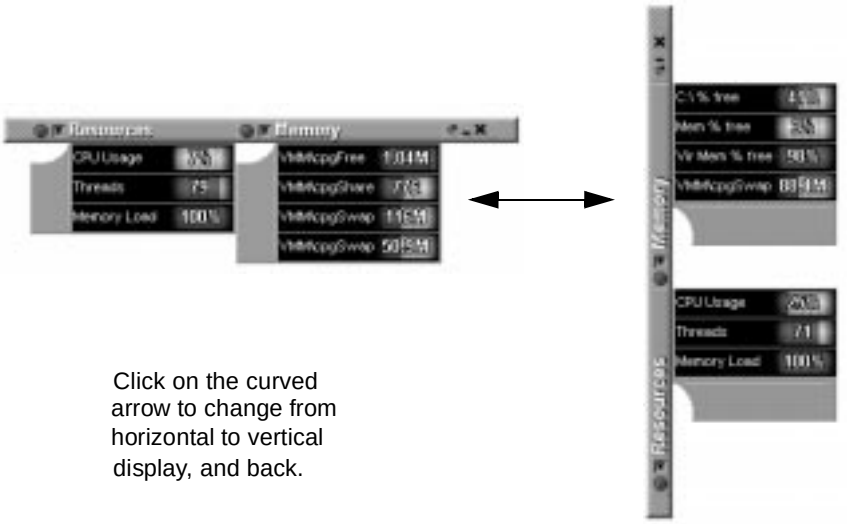
NT users: *To get data for the Performance Data/LogicalDisk and Performance Data/PhysicalDisk monitors, type:*

diskperf -y

at the command prompt and reboot your system.

CHANGING THE HORIZONTAL/VERTICAL DISPLAY

You can change SystemMonitors from a horizontal display to a vertical display. Just click on the curved arrow:



Click on the curved arrow to change from horizontal to vertical display, and back.

The SystemMonitors changes to vertical display. Click on the curved arrow again to change it back to horizontal.

MOVING THE SYSTEMMONITORS

To move the SystemMonitors display to another area of the screen, just click anywhere on the SystemMonitors bar and "drag" it into place. Let up on the left mouse button when the SystemMonitors is in the right place:

Click and drag to move the System Monitors display.

CLOSING THE SYSTEMMONITORS

To exit the SystemMonitors, click on the "X":

REARRANGING THE MONITORS

You can re-order the monitors within a panel or move monitors from one panel to another merely by clicking on each monitor and dragging it to the desired location.

ADDING NEW PANELS

To add a new panel and label it, do the following:

1. Right-click on the SystemMonitors.
2. Select **Add Panel** from the popup menu.
3. Enter the label (Name of Panel) and click **OK**.
4. The new panel with its label will show up as part of the main bar. Once you have created it, you can add monitors (see "Adding Monitors" on page 111)

CHANGING A LABEL

To change the text of a label, do the following:

1. Right-click on the panel label or a blank area of the panel.
2. Select **Rename Panel** from the popup menu.
3. Enter the new label in the dialog box, and click **OK**.

ADDING MONITORS

1. Right-click on the panel label or a blank area of the panel.
2. Select **Add Monitor to Panel**.
3. Select the monitor from the list that pops up and click **OK**. You can use the **Ctrl** or **Shift** key to select multiple monitors.
4. Once you have added a new monitor, you may want to view and modify its properties (see "Changing Monitor Properties" on page 114).

REMOVING MONITORS

1. To remove a monitor from the panel, right-click on that monitor.
2. Select **Remove Monitor** from the popup menu.

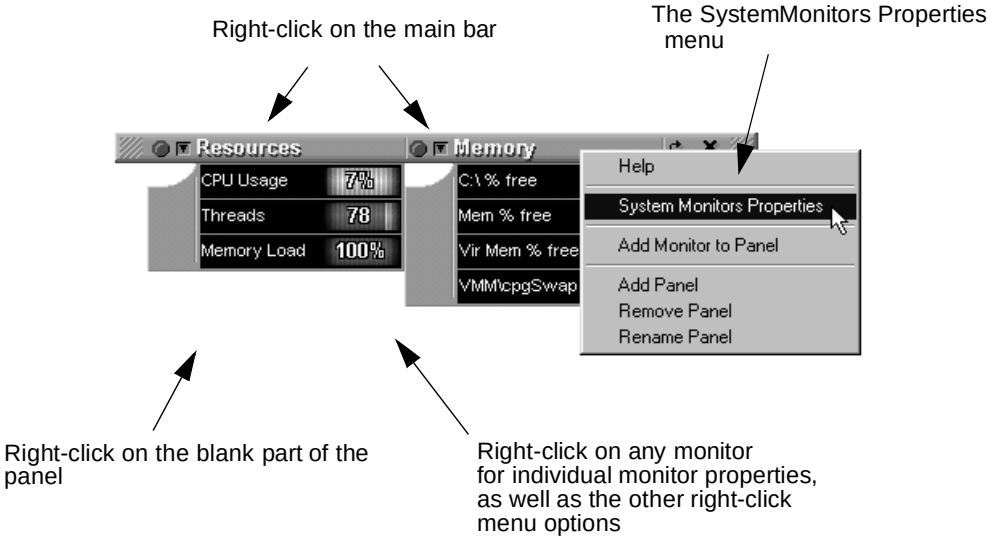
SYSTEMMONITORS PROPERTIES

SystemMonitors initially sets up a default group of devices and resources to monitor, depending on your system configuration. However, you can change these so that SystemMonitors tracks only the resources you want, and monitors the thresholds you specify. You can also change the labels on the main bar, add new panels or remove panels.

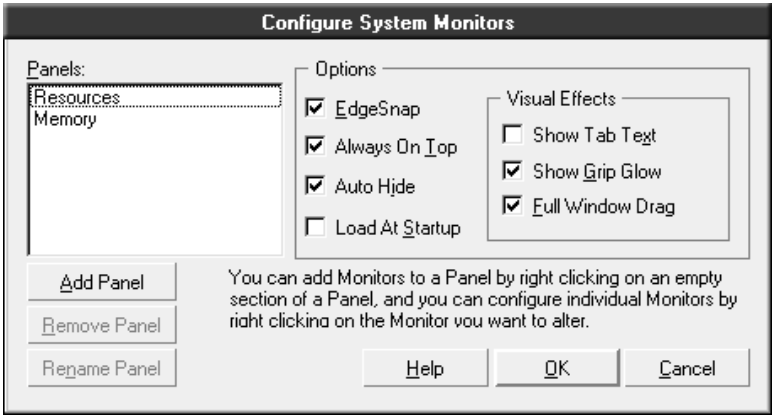
There are two levels of properties:

- General SystemMonitors properties
- Individual monitor Properties

To access SystemMonitors properties, *right-click* any part of the SystemMonitors display and select **SystemMonitors Properties** from the popup menu:



The SystemMonitors Properties dialog will appear:



The following sections describe how to use the SystemMonitors Properties dialog to configure the SystemMonitors

AUTO-STARTING THE SYSTEMMONITORS

To automatically start up the SystemMonitors every time you boot your computer:

Make sure the checkbox labeled **Load at Startup** is checked.

DOCKING (EDGE-SNAPPING) THE SYSTEMMONITORS

You may want the SystemMonitors to "snap to" or dock at the top or side edge of the screen whenever you move it close to the edge. To make SystemMonitors do this:

In the Configure SystemMonitors dialog box, make sure that the checkbox labeled **EdgeSnap** is checked.

Click **OK** to save the change.

Test the docking feature: drag the SystemMonitors close to an edge of the screen and release it. It should immediately snap to the edge. If you have **Auto Hide** also checked, the monitors will slide off the edge of the screen, leaving only a thin line to show where they are. If it does not edge-snap, try moving the SystemMonitors a little closer.

AUTO-HIDING THE SYSTEMMONITORS

You can set up the SystemMonitors so that when it is not being actively viewed and there are no warnings, it slides off the edge of the screen. This feature works best if you also have the Docking (Edge-Snap) feature turned on, because the monitor has to be lined up perfectly with the edge of the display or it won't auto-hide. With Edge Snap turned on, you can move the Monitors close to the edge, and it will snap to the edge and then auto-hide.

When it auto-hides, you will see only a thin line at the edge to show its location. To view the SystemMonitors, just move the cursor to the edge and the SystemMonitors will re-display.

To set up auto-hiding:

In the Configure SystemMonitors dialog box, make sure that the checkbox labeled **Auto Hide** is checked.

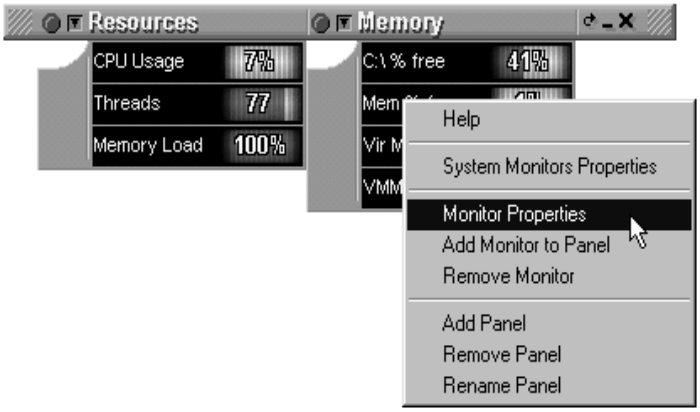
Click **OK** to save the change.

Now, when you move the SystemMonitors to the edge, it slides off, leaving a thin line showing its location.

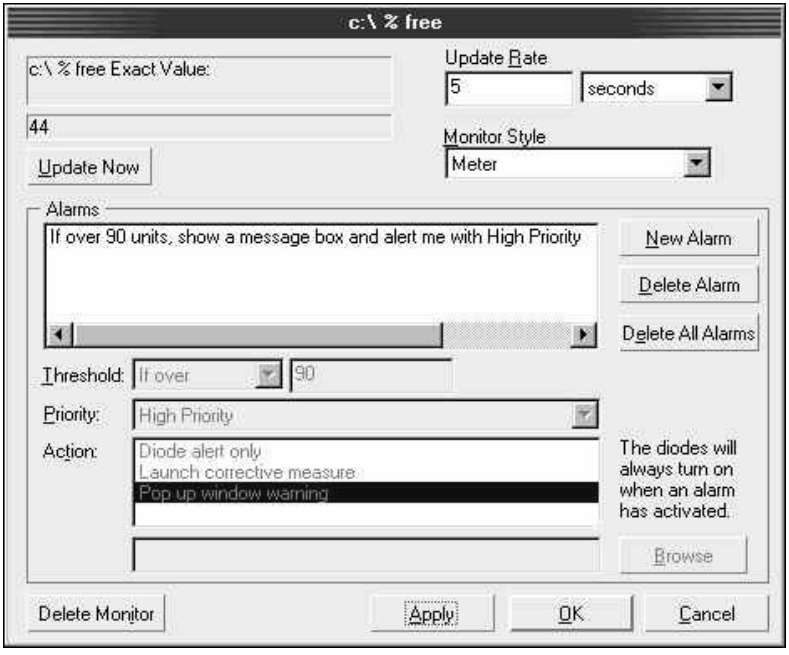
CHANGING MONITOR PROPERTIES

To change the properties for an individual monitor:

1. Right-click on the monitor in question.
2. Select **Monitor Properties** from the popup menu.



3. The Monitor Properties dialog will appear, where you can make the changes you need to:



4. At the Monitor Properties dialog, make the changes you want and click **OK** to finish.

The following sections explain how to modify properties for individual monitors:

SETTING ALARMS

You can create one or more alarms for each monitor, so that there is a warning when system resources reach or exceed a certain threshold.

1. At the Monitor Properties dialog box, click on **New Alarm**.
2. Click on the alarm to select it. Once you do that, the other fields in the dialog box become active.
3. Select **If Over** or **If Under** from the Threshold drop-down list.

4. Enter the threshold level. The units are always the same as the monitor display. For example, if the monitor displays units as a percentage, then you can assume that the threshold is also a percentage.
5. Select the priority (low, med, high) from the drop-down list.
6. Select the action to take. The **Diode alert only** action just turns the diode display red. The **Pop up window warning** action pops up a dialog with the warning information if the resource exceeds the specified level. If you select **Launch corrective measure**, you will be asked for a program name. This would be used if you have previously installed a program to run. For example, if the level of available disk space becomes low, you may want to run a DiskCleaner program that deletes unneeded files.
7. Click **OK** to save your change. The SystemMonitors will now display its warnings based on the new threshold information.

There is more detailed information about the Monitor Properties dialog box in the online help.

KEEPING TRACK OF TWO THRESHOLDS FOR ONE RESOURCE

This is an example of when you might want to keep track of two thresholds, or alarm levels, for one resource. Let's say that you want to receive a medium-level warning when available disk space is at 20%, and a high-level warning when available disk space is at 10%.

1. First, create a new monitor for c:\ % free.
2. Right-click on the new monitor and select Monitor Properties.
3. Click on **New Alarm**.
4. Set up the new alarm with the threshold information. Change the threshold to say "if under", and change the amount to be "20".
5. Set the alarm level to "Medium."
6. Set the Action as "Diode alert only," and click **Apply**.

7. Click on **New Alarm** again.
8. Set up the new alarm with the next level of threshold information. For example, change the threshold to say "if under", and change the amount to be "10."
9. Set the Priority to "High Priority."
10. Set the action as "Pop up window warning."
11. Click **OK** to save the new monitor information.

Chapter 8: System Protection

The System Protection tools are in place to help you guard your system against unexpected disaster.

CRASHPROOF™

There are two major ways that an application can stop functioning:

It can *crash*: For those who have not experienced it, *crashing* is when an application simply terminates, sometimes with error messages. Programs can crash for any number of reasons: data conflicts, memory problems, bugs in the software, problems with the hardware or hardware drivers, and more.

It can *hang*: When an application *hangs*, it just freezes up. Suddenly you have no keyboard or mouse control, and no control whatsoever over the application; and Windows reports the application as "not responding" when you press the Ctrl-Alt-Del keys or NT Task Manager application tab.

STARTING CRASHPROOF

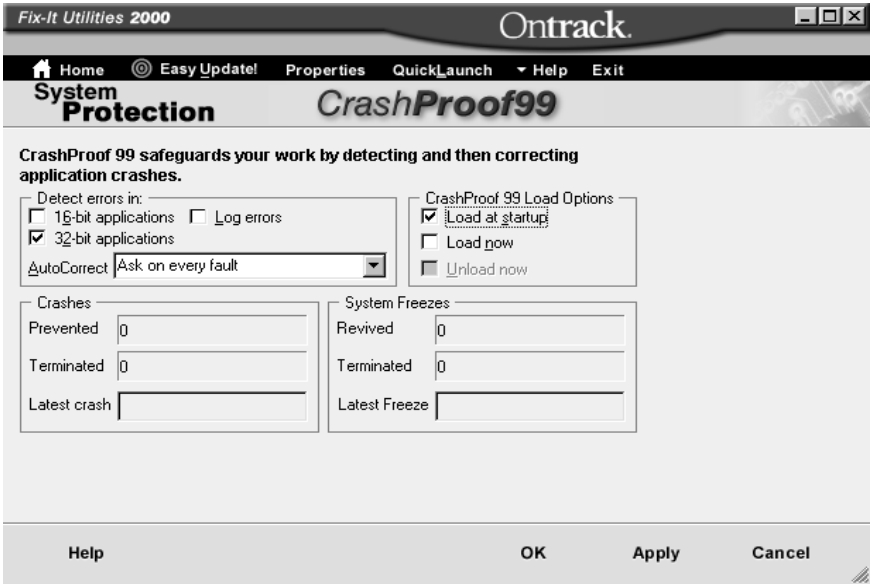
We highly recommend that you set up CrashProof so that it starts up every time you start up your computer. It cannot catch program crashes if it's not running. You can activate that option in the Ontrack SystemSuite Properties global dialog (See "General Settings" on page 210), or from the CrashProof dialog.

You can start up CrashProof manually in any of the following ways:

- From the Ontrack SystemSuite home window, click on **System Protection** and click on **CrashProof**. Check the **Load CrashProof Now** checkbox and click **OK** to continue.

- You can auto-load CrashProof at system startup. To do this from the Ontrack SystemSuite home window, click on **System Protection** and click on **CrashProof**. Check the **Load CrashProof at Startup** checkbox and click **OK** to continue. You can also do this from "General Settings" on page 210.

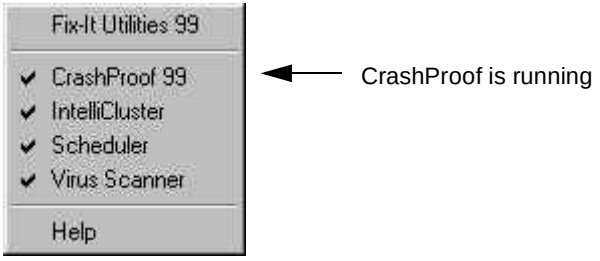
When you click on the CrashProof button, you see the CrashProof dialog box. Enter the necessary information into the dialog box and click **Apply** to apply new options. Click on the **Help** button for details.



How Do I Know When CrashProof is Running?

You will see the Ontrack SystemSuite icon, shaped like a hammer and screwdriver, in the system tray at the bottom right corner of your screen.

Right-click on this icon and look at the pop-up menu. If CrashProof is checked, then it is running:



WHAT HAPPENS IF AN APPLICATION CRASHES?

It depends: CrashProof cannot catch *all* system or program crashes. There are some Windows crashes that it cannot detect (the infamous Blue Screen of Death or BSOD, for instance). However, CrashProof can catch most common types of Windows program crashes.

When CrashProof detects a program crash, the **Autocorrect** field in the CrashProof dialog determines what happens. If you selected "Automatically correct all faults," you may never know when CrashProof interrupts a program crash, since it all happens in the background. CrashProof just catches the crash, fixes the problem, and the program continues to run. (This is *not* recommended, for reasons specified later)

If you selected "Ask on every fault," you will see a CrashProof dialog box that tells you that your program has just terminated. It gives you several options, allowing you to save your data and continue.

If you selected any of the options in between the above two options, you may or may not see the dialog box, depending on the severity of the problem causing the crash.

We recommend that you leave the setting as "Ask on every fault." The reason for this is that when CrashProof catches and halts a program crash, it installs a temporary "fix" that keeps the program afloat for a while. However, to be safe, you should first save your data, then exit and restart the program.

FOR CRASHES

CrashProof is an application that runs behind the scenes, sensing when an application is about to crash. It interrupts the crash. At this point it is important for you to save any work in progress. Depending on the options you have selected in the CrashProof Properties, it may notify you when a program crashes. *You should always save your data, then exit and restart the program that crashed*.

FOR HANGS

Windows 95/98: If an application freezes up, or hangs, you have the option of correcting the problem. Press the **Ctrl-Alt-Del** keyboard keys. When the Close Program dialog appears, highlight the program that is not responding. Then the **Revive** button will activate. This is a Ontrack SystemSuite button. Click on this button, and CrashProof will then report the level of success. If it was able to revive the program, you should save your data, then exit and restart the program.

Windows NT: Right-click on the Ontrack SystemSuite tray icon. Select CrashProof from the popup menu. In the Properties dialog, highlight the program that is "not responding," and click on the **Revive** button. CrashProof will then report the level of success. If it was able to revive the program, you should save your data, then exit and restart the program.

CHANGING CRASHPROOF PROPERTIES

You can change CrashProof properties while CrashProof is running. The changes you make are effective immediately—you don't have to restart CrashProof.

If CrashProof is running, you can right-click on the wrench icon at the bottom of your screen and select **CrashProof**. This brings up the dialog containing the settings.

If you want to start up CrashProof or change the settings from the Ontrack SystemSuite main window, do the following:

1. From the Ontrack SystemSuite home window, click on **System Protection.**

2. Click on **CrashProof**.
3. Make any changes to the settings you want, then click **OK**.

STOPPING CRASHPROOF

If you have CrashProof running and you would like to stop it, just right-click the wrench icon at the bottom of your screen, select **CrashProof**, and check the **Unload Now** option in the CrashProof dialog box.

SCHEDULING MAINTENANCE (SYSTEMSCHEDULER™)

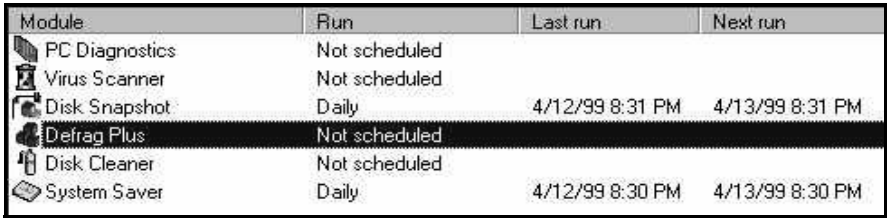
The **SystemScheduler** lets you automatically schedule Ontrack SystemSuite tools to maintain and tune your computer either on a regular basis, or one time only.

You schedule each tool individually. For example, you can schedule Virus Scanner to run at 2:00 am daily, and schedule the Registry Cleaner to run at 4:00 am on Tuesdays.

- The scheduler is a separate program that you can automatically launch when you boot up your computer or restart Windows.
- You do not have to be running the main Ontrack SystemSuite program for the SystemScheduler to execute programs at their appointed times. The scheduler runs in the background, separate from Ontrack SystemSuite.
- Once launched, the SystemScheduler runs in the background, checking every now and then to see if it needs to run something.
- You can view the results of the tools run by clicking on the **View Results** button.

To schedule Ontrack SystemSuite tools:

1. From the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on **SystemScheduler**.
3. At the SystemScheduler window, select the first tool to schedule, as in the example:



4. Then click on the **Schedule** button. (**Shortcut**: you can double-click on the item instead)

5. The Scheduler Module Settings dialog shows:
   - The tool settings. You can check/un-check the settings in the list to configure the tool for the scheduled run.
   - The frequency, time, and start date.

6. Check the Run box if it is blank. Click on the down-arrow of the Run frequency and select a frequency.

7. Select the **Start Time**. To select the time, select the hours first, and click on the up-or-down arrows to change the hour. Then select the minutes and click on the up-or-down arrow to change the minutes. You can also click on the Now button to re-enter the current date and time:

In this case, the hour is selected. If you click on the arrow keys, the hour changes.

8. Choose the start date to begin running the tool. To do this, click on the down-arrow next to the date. You will see a calendar, where you can click on any day to make that day the start day:

As you can see, the circled date indicates today's date, while the day you select is shown in blue (the 13th in this case).

9. Click **OK** to return to the Scheduler window.

10. Repeat this process for each item you want to schedule.

11. Once you have scheduled an item, SystemScheduler automatically starts up every time you start your computer.

VIEWING SYSTEMSCHEDULER RESULTS

The SystemScheduler saves the results of all processes in a special Results Log (this is different from the SystemLog). The Results Log is available from the SystemScheduler. Just click on the **View scheduler results...** button, and select, in the top pane, the item you wish to view. The details of that item are displayed in the bottom pane.

You can print out the details by clicking on the **Print** button.

Click **Done** when you have finished viewing results.

UNDOING CHANGES (UNDO-IT™)

The **Undo-It**™ feature allows you to undo the results of *some* Ontrack SystemSuite programs (not all). It looks at the Ontrack SystemSuite log, determines which actions you have run that can be reversed, and displays a list of those actions.

Once you select which tools you wish to undo, you can perform the Undo action.

To run Undo-It:

1. From the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on **Undo-It**.
3. Click on the button of the utility you wish to undo.
4. Select the items to be backed out.
5. Click **Next** to continue. Undo-It displays a report showing the results of the Undo operation.

VIEWING THE SYSTEMLOG

Ontrack SystemSuite keeps track of all of the Ontrack SystemSuite utilities messages.

To view the SystemLog, do the following:

1. From the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on **SystemLog**.
3. When you have finished reviewing the log, click **Done** to return to the Ontrack SystemSuite home window.

SYSTEM RESCUE DISK (WINDOWS 95/98 ONLY)

Ontrack SystemSuite comes with a generic System Rescue Disk, so that even if you are having problems with your computer before you install Ontrack SystemSuite, you may be able to boot from the System Rescue Disk if your computer won't otherwise boot up. If this is the case, see "Getting Started if Your System is in Trouble (Windows 95/98)" on page 2, and see "Booting from a System Rescue Disk" on page 195.

However, it is much better to create a System Rescue Disk from your own computer for use when your system is in trouble.

When you create a System Rescue Disk, Ontrack SystemSuite does the following:

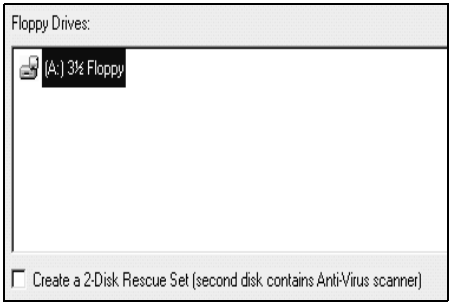
- Backs up your system registry, boot sector, and FAT to another area of the hard drive so Ontrack SystemSuite can find them if you ever need to recover your system using the System Rescue Disk.
- Backs up your CD-ROM driver if possible, to make it possible to re-install Windows from your Windows CD even when the computer is having problems.
- Copies master boot records, including the partition table, to the diskette.
- If you are using disk compression software on your hard drive, backs up the driver files that know how to read the compressed disk.
- Copies some special programs supplied by Ontrack SystemSuite, including a mini-operating system, DiskFixer, undelete tool, and some diagnostic tools, to the System Rescue Disk.

Because a System Rescue Disk created on your computer is customized for your computer, you should create your own System Rescue Disk as soon as you install Ontrack SystemSuite.

1. From the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on the **Rescue Disk** button.
3. The next window displays some detailed information about Rescue Disk. Click **Next** when you are ready to continue.

4. Insert a formatted disk into the floppy drive you would like to use. Click on the drive name:

The A: drive, selected



5. Rescue Disk deletes all files from the disk and copies the Rescue Disk files to it. Click **Done** to return to the home window.

6. Remove the System Rescue Disk from the drive. Label it and store it in a safe place.

Chapter 9: Crisis Center™

Even if you've had the worst possible disaster happen to your computer, you may still be able to get the data from it. Ontrack has experience recovering data resulting from severe software corruption, hard drive failures, viruses, user error, and natural disasters including floods, fires, and earthquakes. So if you're reading this chapter because your computer is in real trouble, the first thing to remember is *Don't panic*! Even in the worst of circumstances, data can often be recovered from a damaged disk.

Of course, making regular backups of your critical data is very important. Even with DefragPlus™, DiskCleaner™, and the other tools that clean, optimize, and reorganize your disk, a computer can be subjected to unforeseen and uncontrollable events. If you back up your data regularly, you may lose only a few hours to a few days' worth of work, in the worst case. However, even if the worst should happen, Crisis Center provides tools and services that can help you recover from your data loss situation.

Crisis Center has several levels of data rescue and recovery:

- **Level 1: Free tech support and information.** This level provides free technical support on the use of Ontrack SystemSuite to recover from data loss problems.
- **Level 2: EasyRecovery™.** This do-it-yourself software allows you to recover data on your own. A little techie, but it works well for those cases where an engineer is not required.
- **Level 3: Remote Data Recovery™ services.** Many software related data loss situations can be solved remotely. This includes situations where the computer's operating system will not even boot. Through an Internet or modem connection, a professional data recovery engineer will diagnose and repair severe data loss corruption.
- **Level 4: In-Lab Data Recovery services.** This service is the right choice for the toughest, most intensive data recovery problems, including

hard drives that have suffered from mechanical failure. This also includes severe software corruption, water damage, and fire damage.

WHAT IF THERE IS SERIOUS PHYSICAL DAMAGE?

If you ever find your computer hard drive making unusual noises, submerged in water, buried under rubble (say from an earthquake), sitting amongst the wreckage of a fire, or otherwise physically compromised, the first course of action should be to contact a professional data recovery service. Never assume that lost data is unrecoverable, because in most cases it can be retrieved. Ontrack engineers have vast experience recovering lost or corrupted data from damaged storage media.

HELP! MY DISK IS DEAD!!

"Now what do I do? I can't afford to have my computer down, or worse yet, lose all the information on my PC!"

You may be surprised to learn that just because a hard drive is not working or your system won't boot, you still have a good chance of at least recovering your data. This chapter, along with all of the supporting information and web site links provided through the Crisis Center, is a tutorial on data recovery and how to go about it. Your data may still be recoverable, and we'll step you through the various data recovery methods from the easiest and free services all the way to Ontrack's premier data recovery services.

FIRST, EVALUATE THE LEVEL OF DAMAGE

There are varying levels of data recovery situations, from accidentally deleting an important file, to losing critical disk information such as a File Allocation Table (Windows 95/98) or NTFS Master File Table (Windows NT), all the way to severe physical disk damage.

If you seem to have lost data or even your operating system, but the disk itself seems to be spinning correctly (no strange noises when the computer is running), the chances of recovering data at a minimum of cost are very good.

On the other hand, if your disk has obvious physical damage, then you must send the disk into a data recovery service that has cleanroom facilities to clean the disk and can recover as much data as possible.

NEXT, GET ALL THE INFORMATION YOU CAN

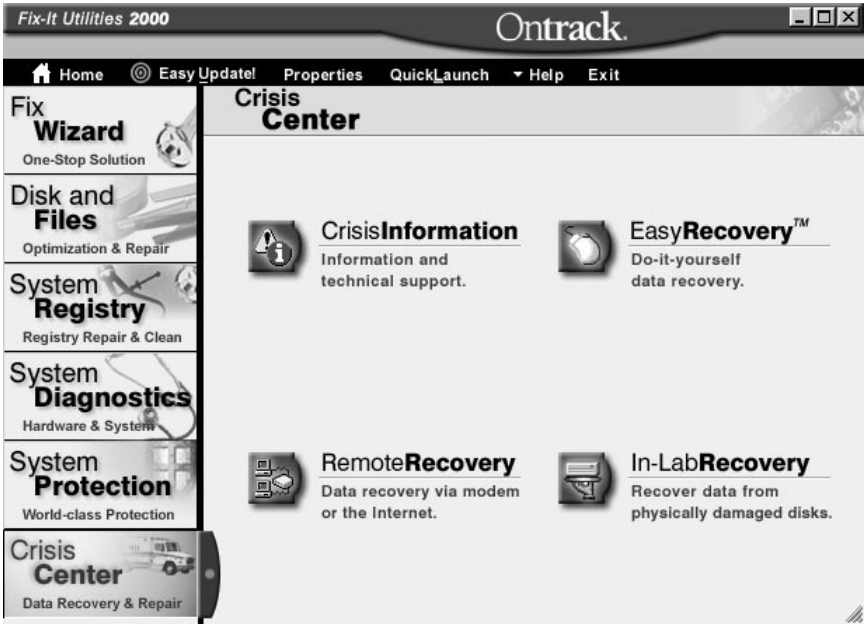
Ontrack has been recovering data from all kinds of damage situations for years. Their trained technical support staff can help you evaluate the damage and determine the most effective way for you to recover the data. If your system is still bootable to Windows, click on the Technical Support button in the Crisis Center window to open the Technical Support and Information window. This is an information center that provides, among other things, a telephone number for free technical support, FAQs for those who have specific questions, and links to helpful Web sites. If you can't boot your system, call Ontrack's technical support representatives at 303-245-8000

CREATE A PLAN OF ACTION

The information center should have given you some viable options; we suggest that if you have a choice, you begin with the least expensive option that meets your needs. Read on for more details.

RUNNING CRISIS CENTER

When you first open the Crisis Center, you see the four buttons showing the different levels of information and software:



You can click on any of these buttons to see more information.

LEVEL 1: CRISIS INFORMATION: FREE CUSTOMER SERVICE SUPPORT/INFORMATION

This level provides access to free technical support, plus links to more information. If you are running Crisis Center from Windows (not the rescue disk), there is a link to the Ontrack computer clinic on the Web, which contains tips on installing hardware, replacing parts, and fixing your computer. There are also answers to the most frequently-asked questions (FAQs). Technical support and data recovery questions can also be submitted

electronically by visiting the technical support section of Ontrack's website. Technical support for Ontrack SystemSuite can also be obtained by calling 303-245-8000.

LEVEL 2: EASYRECOVERY™

EasyRecovery is a program that can help you recover your data on your own. Not all types of data loss require the assistance of an engineer. EasyRecovery is a low-cost, do-it-yourself data recovery solution capable of capturing lost or inaccessible data from your drive and re-constructing the file system (including from drives larger than 8.4gb). Unlike some recovery utilities, which put your data at risk by attempting to repair corruption (this probably is not good here, since this is what Ontrack SystemSuite does), EasyRecovery never writes to the original drive. Instead, it rebuilds the file table in memory to facilitate the safe transfer of data to another device.

It can help when the drive has:

- been hit by a virus
- been formatted
- been 'fdisk'ed
- been damaged by applications
- corrupt or missing Master Boot Record
- corrupt or missing partition tables
- corrupt or missing FAT
- corrupt or missing root directory

EasyRecovery cannot recover from hardware problems

When you run EasyRecovery, it identifies all recoverable files, and the

EasyRecovery Lite supplied as part of Ontrack SystemSuite can recover up to 10 files at a time.

For technical support on EasyRecovery, call 612-937-2121.

OVERVIEW

EasyRecovery is non-destructive and read only. The analysis process does not put any data onto your crashed drive. Recovered data is restored to another destination (disk, diskette, network). It is recommended that another IDE hard drive be used as a destination option.

Be aware of strange noises coming from your hard drive. If you hear a strange noise or grinding sound, turn off your computer immediately and call Ontrack. Further operation may damage your hard drive beyond repair or cause irretrievable data loss.
If you have mission critical data on a drive with hardware damage we recommend using in-lab data recovery services rather than any software.

EasyRecovery can recover data from drives without readable boot sectors, readable FATs or readable directories. It can recover data if you are unable to start Novell's SERVER.EXE. It can also handle drives that are no longer recognized by the operating system.

Unlike some recovery utilities, which put data at risk by attempting to repair and rewrite the corruptions on the original drive, EasyRecovery never writes on the original drive and its evaluations are non-invasive.

The extensive use of sophisticated pattern recognition technology enables EasyRecovery to put the right pieces of data together again. Even disks with very little administrative information left can still yield files of high quality.

HOW IT WORKS

When a suspected data loss occurs, you can automatically create the EasyRecovery diskettes, either from your computer (if it still boots), or from

another computer, using the EasyRecovery wizard button in Crisis Center. You then reboot the computer with the EasyRecovery diskette in the drive and choose the "recover" option to begin hard drive analysis. Once EasyRecovery has gone through a complete drive analysis (this will take quite a while), it presents a DOS-based list showing your directory structure. You can see exactly which files are recoverable and select the files desired for recovery, which are then copied to a safe location. With the data recovery complete, you can then make any necessary repairs to the original system.

This virtual drive looks like a normal file manager. In it you can see the lost directories and files from your crashed drive. Files and directories can be viewed and copied to a safe medium, such as another partition, a different drive, a network drive, a zip disk, or a floppy disk. Be sure that there is enough room on this medium to hold the files you wish to recover. Never use the drive with data problems as the copy destination.

EASYRECOVERY LITE

EasyRecovery Lite is supplied with Ontrack SystemSuite, and does everything that EasyRecovery full version does, except that you can recover a maximum of 10 files per session. EasyRecovery Lite supports DOS, Windows 3.n, and Windows 95/98/NT.

EASYRECOVERY FULL VERSION

There are a number of EasyRecovery full-version programs, each for a different operating system or disk structure. Each version of EasyRecovery is an independent program available for download from the Ontrack web site. All basic documentation is included with the downloadable file; however additional FAQ's are also on the web site. Refer to www.ontrack.com for special pricing information for Ontrack SystemSuite 2000 customers.

EasyRecovery can help you recover files from DOS, Windows 3.x, Windows 95/98, Windows NT, or Novell. It is not recommended that EasyRecovery be used in a DOS box within Windows.

EasyRecovery for FAT16 works on DOS and Windows 3.x and Windows 95, 98 and NT partitions that use FAT 16. All files will be recovered, however, long filenames will be truncated to DOS 8.3 characters.

EasyRecovery for FAT32 works on WIN95B or Windows 98 platforms with 32-bit FAT. EasyRecovery for FAT32 only works on 32-bit FAT systems. EasyRecovery for FAT 32 supports recovery of long file names.

EasyRecovery for NTFS works on any Windows NT system on NTFS only, workstation or server platforms. EasyRecovery will copy files compressed with native NTFS compression.

Please note that EasyRecovery is a DOS program and cannot copy to an NTFS destination. Files must be copied to a FAT or FAT32 partition, or a network drive.

EasyRecovery for NOVELL works on NOVELL 3.XX and 4.XX only, with and without file compression. Please note that EasyRecovery is a DOS program and cannot copy to a Novell volume. Files must be copied to a FAT or FAT32 partition, or a network drive.

EasyRecovery for ZIP drives is similar to EasyRecovery for FAT 16, but recovers files from ZIP or JAZ drives.

Your version of Ontrack SystemSuite comes with an online manual that describes how to use EasyRecovery. The manual is on the CD in both PDF (viewable with Acrobat Reader) and DOC (Word) format. If you have not printed it out, you should print or view it in order to understand how to run EasyRecovery. You can print it or view it from another computer system if your computer is non-functional.

RUNNING EASYRECOVERY

This process creates the EasyRecovery disks. Once the disks are create, you reboot your system and start the drive analysis.

1. From the Crisis Center main window, select the EasyRecovery button.
2. Follow the instructions to create the EasyRecovery diskettes.
3. Once the diskettes are created, shut down your computer.

4. Put one of the EasyRecovery disks in the floppy drive and reboot the computer.
5. Follow the instructions to perform an analysis of your disk. Once the analysis is complete, the disk structure will be displayed and you can search for the files you wish to recover.
6. EasyRecovery Lite allows you to recover up to 10 files; If you wish, you can purchase the full version of EasyRecovery from Ontrack's web site instead to be able to recover more files.
7. Recovering files: You cannot save files to the same partition you are recovering. You can save them to a different partition, the floppy drive, or another hard drive.

LEVEL 3: REMOTE DATA RECOVERY™

While EasyRecovery is a powerful tool, there are cases where the expertise of an engineer is required. For those cases, Ontrack provides other solutions, including its Remote Data Recovery service.

RDR™ is an Ontrack service in which Ontrack engineers perform data recovery services modem-to- modem or over your Internet connection. The cost of the RDR service depends on the nature and severity of your data loss situation. With RDR, users often get their data back within a few hours.

If you are not sure you need this service, you can go to the Ontrack web site (www.ontrack.com) and use the Data Recovery Help Wizard (which also allows you to request a price quote for this service), or call Ontrack directly at (612) 937-2121 to speak with a technical support representative.

WHEN WOULD I USE RDR™?

The following is a list of situations in which you might consider RDR. Don't forget...EasyRecovery or EasyRecovery Lite can also recover lost data in some of these situations (EasyRecovery Lite comes free with Ontrack SystemSuite).

- Unbootable operating system
- Deleted files
- Reformats/repartitions
- Invalid boot sectors
- Invalid volume tables/definitions
- Deleted partitions
- Virus damage
- FDISK'ed drives
- Damaged file tables (File Allocation Table, Master File Table)
- Drives damaged by software

HOW DOES IT WORK?

Armed with a suite of advanced tools and techniques, an RDR engineer can repair damaged data on your disk drive through a modem or Internet connection. RDR is possible to use even if you can't boot your system. The only requirement is that the computer and hard disk drive are not damaged or malfunctioning.

The first step in the process is to install and setup the communications software. Ontrack SystemSuite comes with free RDR QuickStart™ communications software that will quickly get you connected with an Ontrack lab. RDR QuickStart is a small Windows program that takes over the Windows system. To run RDR QuickStart, Windows must be working and bootable. If you cannot boot to Windows, contact Ontrack to obtain a free version of the software that does not require Windows to be bootable.

When the RDR QuickStart program is first run, the software will perform a quick diagnostic check of your hardware to ensure it is functioning correctly, and then connects the computer to an Ontrack lab through the chosen communication method (Internet or modem). Once connected, the RDR

engineer will then perform an in-depth analysis of the data loss problem.

RDR Over Telephone Line

For RDR to work modem-to-modem, your system must:

- be running DOS, Windows 3.x, 95, 98, NT, Netware, or Linux (the operating system does not have to be functioning properly or bootable).
- have no obvious hardware problems.
- have modem or Internet access.

RDR Over the Internet

To use the Internet capabilities of RDR, you must meet the qualifications in the previous section, plus you must:

- have a system that is bootable to Windows.
- have Windows 95/98/NT operating system.
- have more than one drive partition. In addition, the inaccessible data cannot be located on the boot partition (therefore users with only one partition cannot qualify for Internet-based service).
- have Internet access.

Will My Data be Secure?

While Remote Data Recovery services take place via the Internet or modem, Ontrack has taken steps to secure the data. Ontrack secures data transferred using a proprietary communication protocol, encryption for Internet communication, and secure Ontrack lab facilities. Minimal information is sent across the communication medium. The only information accessed by Ontrack engineers is information required to repair the system. Typically the only data transferred is file structure information.

RDR technology also has an "undo" feature that allows engineers to roll back any changes made to the system during the recovery process if an unforeseen

problem should arise. Security features like these will help protect your system and data throughout the recovery process.

WHAT ABOUT THE COST?

RDR does cost extra. Standard pricing begins at $400US and goes up from there. The RDR engineer must evaluate the extent of the data damage and the amount of time it will take to recover it, then she will give you a price estimate. The reason for the extra cost is that this is a premier data recovery service that can only be safely accomplished by highly trained data recovery engineers using specially designed software and hardware. When contacting Ontrack, identify yourself as a Ontrack SystemSuite customer in need of data recovery services.

RUNNING RDR

Although everyone's situation is different, here is a standard set of guidelines for getting started with Remote Data Recovery services.

1. If you have lost data, but are still able to boot your computer or you still have a running system, start up Ontrack SystemSuite's Crisis Center, and click on the Remote Data Recovery button.
2. Click on the main Remote Data Recovery wizard button to begin the Data Recovery process.
3. Follow the on-screen instructions.

HOW CAN I GET MY OTHER QUESTIONS ANSWERED?

There are Frequently-Asked Questions (FAQs) available at Ontrack's web site, as well as through the Ontrack SystemSuite 2000 online help system. If you have a question that is not answered in either of these locations, please feel free to call tech support at (612) 937-2121 and speak to a representative.

LEVEL 4: IN-LAB DATA RECOVERY

In the most serious of data loss situations, you may need to send the hard drive into a data recovery lab. Hard drives that are malfunctioning, physically damaged, or have been exposed to a disaster (flood, fire, power surges/spikes) would require this level of service. Severe software damage that cannot be solved using other levels of service would also qualify for in-lab data recovery.

Once the hard drive has been sent in for a data recovery, an Ontrack engineer will utilize the most advanced software and hardware tools available to recover the data. This includes the use of one of Ontrack's many Class 100 clean rooms.

You can take your computer to a standard computer repair shop, which can probably fix the hardware; however, repair shops generally do not guarantee the safety of your data. If the data is critical, you should use a data recovery service before having the computer repaired.

To find out more about how and whether to send in your hard drive for data recovery services, contact an Ontrack customer service representative at (612) 937-2121 for more information and pricing.

DISASTER RECOVERY

FLOOD DAMAGE

Computer data storage media submerged in water suffers not as much from the water itself as from all of the impurities found in the water. If it is suspected that computer equipment has been contaminated with water, the data must be recovered in a clean room, where the contaminants can be removed by a data recovery professional in a particle-free environment. Once the media is completely cleaned the data recover process can begin.

If your data has been damaged by water, it is important to get your media into the hands of professionals as quickly as possible.

FIRE DAMAGE

File damages data storage media when the internal components are contaminated with airborne smoke particles. Storage media can be further damaged by the water used to extinguish the file. If it is suspected that computer equipment has been contaminated, the data must be recovered in a clean room, where the contaminants can be removed by a data recovery professional in a particle-free environment. Once the media is completely cleaned the data recovery process begins.

EARTHQUAKE DAMAGE

Earthquakes can not only shake computer data storage media components out of alignment, they can trigger additional disasters as well, including fire- and water-related damage. When water or smoke particles find their way into data storage devices and contaminate the surface the data is stored on, data integrity can be compromised.

If it is suspected that computer equipment has been contaminated, the data must be recovered in a clean room, where the contaminants can be removed by a data recovery professional in a particle-free environment. Once the media is completely cleaned the data recovery process begins.

LIGHTENING STRIKE DAMAGE

Electrical storms can cause considerable damage when lightening strikes result in electrical surge. If the electrical surge reaches a computer terminal, it can wipe out the internal electronics of the computer data storage media. If this happens, and the computer is subsequently powered up, the media can malfunction and render data inaccessible. Lightening can also trigger other catastrophic events such as fire, the smoke particles from which can reach the inside of a computer and contaminate the area where the data is stored.

If it is suspected that computer equipment has been contaminated the data must be recovered in a clean room, where the contaminants can be removed by a data recovery professional in a particle-free environment. Once the media is completely cleaned the data recovery process begins.

CLEANUP TIPS

The following tips have been put together by data recovery professionals to assist you in the recovery of damaged media:

- Never assume the data is unrecoverable, no matter what it has been through.
- Send the media to a professional data recovery facility as soon as possible.
- Do not attempt to power up your system if you suspect there was an electrical surge, as internal or external electronic failures could result in data storage device malfunction.
- Do not use storage media that may have been exposed to heat, moisture or soot. The media may be irreversibly damaged if not treated and recovered in an air- and static-controlled room by data recovery professionals.
- Do not shake the media, or in the case of hard disk drives, remove the cover of the assembly.
- Do not attempt to dry water-damaged media by opening it or exposing it to heat.
- Do not attempt to freeze dry media.
- Do not attempt to operate visibly damaged media, or media that has been exposed to water. Caution: waiting for the media to dry out and them operating it on you own is the worst thing you can do.
- Do not attempt to clean the media yourself without using proper solutions applied in a clean room environment. Contaminated media requires immediate and thorough cleaning. In fact, we prefer to receive media in the clean room before it has had a chance to dry out.
- Do not attempt to recover data with commonly available software utility programs.

- Hard drives flooded in salt water require special treatment. Because data can be damaged quicker due to salt oxidizing on the media, the drive should be express-shipped in an airtight container to a professional data recovery facility. To reduce the risk of further damage, drives can be "bathed" in distilled or fresh water, although they should not be agitated.

Chapter 10: ZipMagic® Wizards

Each ZipMagic Wizard has a complete set of online help information, which you can access by clicking on the **Help** button at any screen. If you have any questions about the screen you are viewing, or you are just plain confused, click the **Help** button.

To view all of the wizards, just click on the Wizards button on the launchbar of ZipWindow. This displays the Wizards Window.

Once you click on a Wizard button, it takes you through a series of steps to accomplish the goal. At any point you can click on a **Help** button for details.

THE ZIPEXTRACT WIZARD

This wizard takes you through the process of extracting files from a zip file and placing them on disk (or where ever you'd like). When we say "extract" we mean that you locate a zip file, select one or more files inside the zip file, expand or "unzip" them and copy the expanded version to disk.

With this wizard, you locate the zip file, select the files to extract, and the wizard does the rest.

THE SELFEXTRACT WIZARD

This wizard helps you create a self-extracting executable and add files to it. A self-extracting executable is a zip file that "knows" how to unzip itself. It contains the software necessary to extract the files inside it. Self-extracting executables are useful if you are sending zipped files to someone who may not have a zip program. They will be a little larger than standard zip files because of the extra software.

THE ZIPCREATE WIZARD

This wizard takes you through the steps of creating a zip file and adding files to it.

THE ZIP&BACKUP WIZARD

If you would like to create backup "sets" that ZipMagic keeps track of for you, this wizard is an easy way to accomplish this.

Backup sets are really sets of files that are compressed into a specific zip file. Zip&Backup allows you to create and name sets that you know you will back up often. Then all you have to do is specify that set.

THE ZIPCONVERT WIZARD

This is an easy way to convert an existing zip file to a self-extracting executable. You may want to do this if you're a software vendor and want to give your customers a choice of downloads; or if you just want to send a zipped file to a friend who may not have a zip program.

THE ZIP&MAIL WIZARD

Zip files and email them to your acquaintances in one step.

THE ZIPREPAIR WIZARD

Sometimes zip files can get damaged and become unreadable. This wizard assists you in analyzing the problem, and does its best to fix it.

THE EASYUPDATE WIZARD

This is the way to check for new software releases and updates. EasyUpdate connects with the software FTP site, detects and new versions of your software, and offers to download them for you.

Once downloaded, EasyUpdate installs the new components, and you are back up and running in a hurry.

Chapter 11: EasyUninstall™

Applications are programs that help you accomplish specific tasks, such as a word processing program or a spreadsheet program. EasyUninstall contains several wizards that help you to easily uninstall and manage your applications.

UNINSTALLING APPLICATIONS (UNINSTALL WIZARD)

When an application is installed, the setup program places files in different locations on your hard drive. In addition to the executable files, various Windows system files may be added, and changes may be made to configuration files. The Uninstall Wizard attempts to remove all files and settings from your computer used exclusively by an application, including the following: executable files, registry settings, related *.ini* files, commands and settings in the *autoexec.bat* and *config.sys* files, DLLs, items in the **Start** menu, and shortcuts on the desktop. Data files created by the application are retained, unless you select them to be deleted.

The Uninstall Wizard can remove applications that were installed prior to installing EasyUninstall. To ensure removal of all related files, use the Monitor Installation tool when you first install an application. For details, see “Monitoring Installations” on page 164.

To uninstall an application:

1. From the EasyUninstall window, click the **Uninstall** button.

   The Select Applications dialog box displays with a list of all applications EasyUninstall detected on your system. The Size, Installation Directory, and Executable Name displays adjacent to each

application. A status bar shows the total number of applications selected and the combined size of the applications.

When you select an application, the lower view pane shows detailed program information, such as file sizes, creation dates, dependencies, full path information, advice on uninstalling the file, and more. To hide the view pane, select **Hide Details Window** from the list box in the upper right corner of the window.

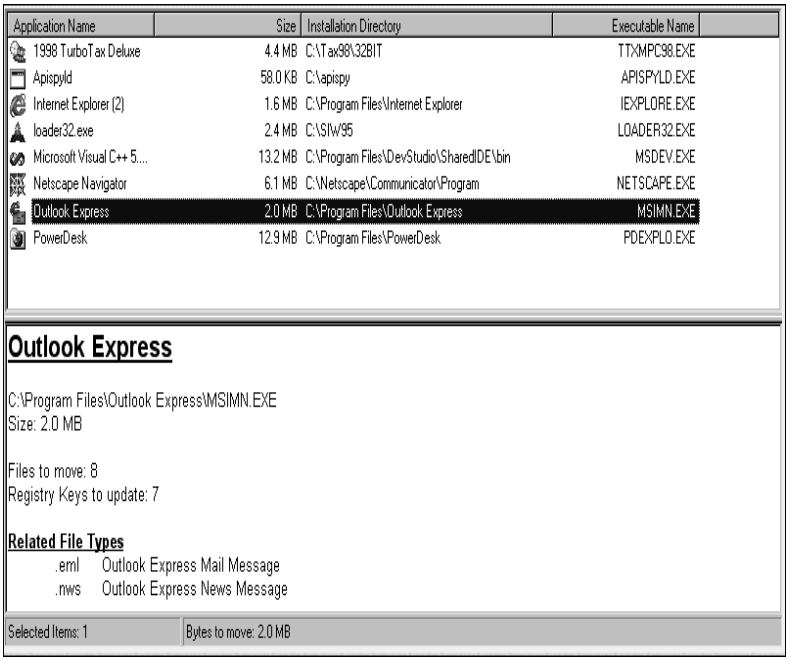
You can display the applications in several different ways:

- **Desktop**. Click this button to display only the applications that have shortcuts on your desktop. This is the default view.
- **Start Menu**. Click this button to display only the applications listed in your Windows **Start** menu. This view displays the executable files in a Tree view. Just click the plus (+) sign next an application to display the list of files in that category.
- **Executables**. Click this button to display all executable files on your system.

- **Monitored.** Click this button to display all applications that were installed using the EasyUninstall Monitor Installation tool.

List of applications

File view pane



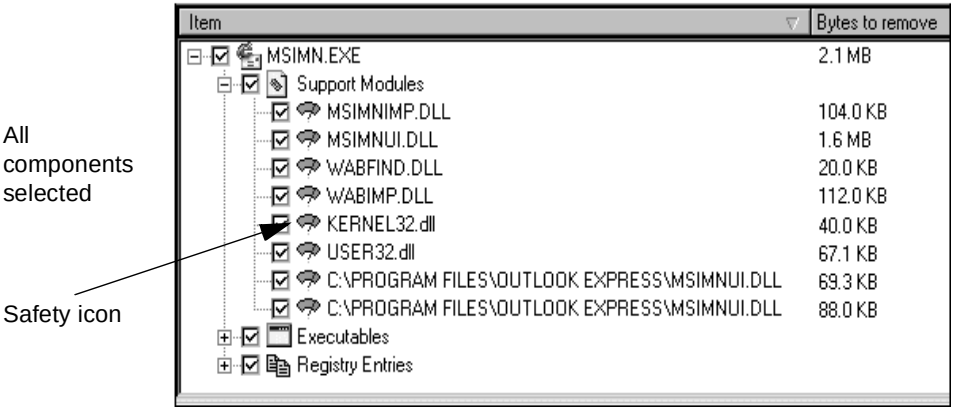
Desktop view

2. Select the application(s) you want uninstalled.

For multiple applications, use the CTRL-click combination to select the files. Some applications contain several executable files. In the Start Menu view, you can just select the application name and all the executable files will be included, or you can select individual executable files.

3. Click **Next**.

The Component Selection dialog box displays. This dialog box is used to mark the categories of files you want uninstalled for each application you selected.



Component Selection

When you select a component, the lower view pane shows detailed file information, such as file size, creation date, dependencies, full path, and more. To hide the component information, select **Hide Details Window** from the drop-down list box in the upper right corner of the window.

The following categories are listed:

- **Executables**. These are the executable files that run the application.
- **Support Modules**. These are system files used to run the application such as *.dll* and *.ini* files.
- **Document Files**. These are files you created using the application.
- **Other Files**. These are miscellaneous files such as readme text files, desktop shortcuts, **Start** menu entries, etc.
- **Registry Entries**. These are the registry settings.
- **User Files**. These are files that you might have added to the application.

Each item is marked with color-coded icon, indicating how safe it is to remove the item. Green indicates the item is safe to remove, yellow indicates the item should be deleted with caution, and red indicates the

item cannot be removed. A “meter” on each icon shows the relative assurance or confidence in the safety rating.

By default, items marked with yellow icons cannot be deleted. If you want to delete an item marked with a yellow icon, clear the **Safe Select** check box at the bottom of the dialog box. To clear the Safe Select feature for all future uses of the wizard, you can check this in the EasyUninstall Properties.

4. Select the components you want removed for each application you selected.

   You can individually select components, or select all the components in a category by selecting the category itself. Click the **Select All** button to select all components, or click the **Deselect All** button to cancel the selection of components.

   If you want to add a file that is not on the list, click the **Add Files** button and select the file from the Browse dialog box that displays.

5. Click **Next**.

   A dialog box displays showing the progress as the files are removed.

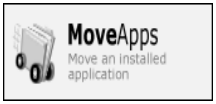
   Although not recommended, you can click the **Stop** button to stop the operation. This will not reverse the operation, but will stop any further progress.

   When the uninstall is completed, the Summary Screen displays. This dialog box summarizes the Uninstall operations. From this dialog box you can do the following:

   - Click **Save** to save the results to a text file. Specify a location and name for the file.
   - Click **Print** to print the results.

6. When finished, click **Done**.

MOVING APPLICATIONS (MOVE WIZARD)



The Move Wizard moves a selected application to a different partition or drive on the same machine, or on a server. You might want to do this if you are running out of disk space on your computer and obtain a new disk drive. Normally you would need to uninstall the application and then reinstall it in the new location, and download all the update patches again. With the Move Wizard, you can just move the application to the new location in a few easy steps and save yourself the time and effort of deleting and reinstalling the application.

The Move Wizard moves the files, and changes the registry settings, the related *.ini* file, commands and settings in the *autoexec.bat* and *config.sys* files, DLLs, and desktop shortcuts.

To move an application:

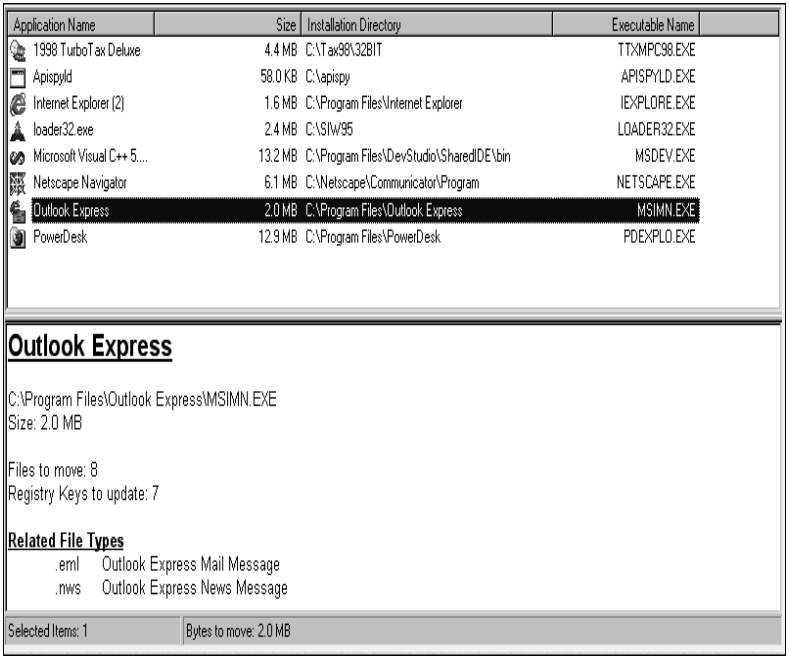
1. From the EasyUninstall window, click the **Move** wizard button.
2. The Select Applications dialog box displays with a list of all applications EasyUninstall detected on your system. The Size, Installation Directory, and Executable Name displays adjacent to each application. A status bar shows the total number of applications selected and the combined size of the applications.

   When you select an application, the lower view pane shows detailed program information, such as file sizes, creation dates, dependencies, full path information, and more. To hide the view pane, select **Hide**

Details Window from the list box in the upper right corner of the dialog box.

List of applications

File View pane



Desktop view

You can display the applications in several different ways:

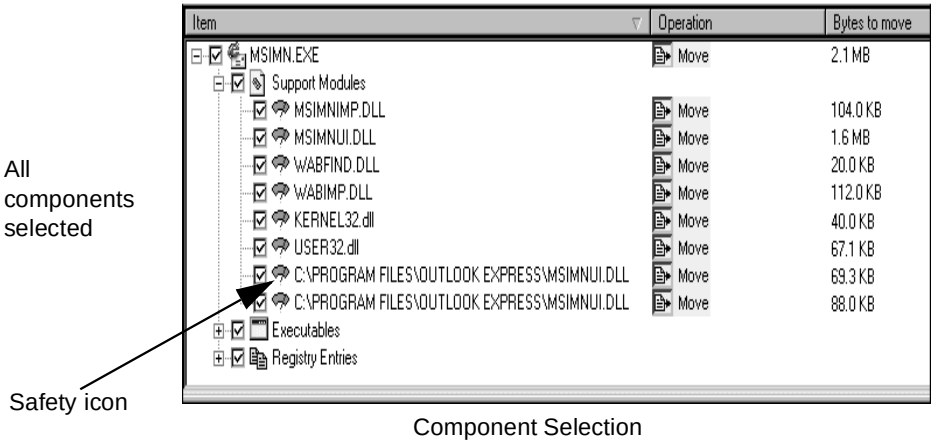
- **Desktop**. Click this button to display only the applications that have shortcuts on your desktop. This is the default view.
- **Start Menu**. Click this button to display only the applications listed in your Windows **Start** menu. This view displays the executable files in a Tree view. Just click the plus (+) sign next an application to display the list of files in that category.
- **Executables**. Click this button to display all executable files on your system.
- **Monitored**. Click this button to display all applications that were installed using the EasyUninstall Monitor Installation tool.

3. Select the application(s) you want moved.

For multiple applications, use the CTRL-click key combination to select the files. Some applications contain several executable files. In the Start Menu view, you can just select the application name and all the executable files will be included, or you can select individual executable files.

4. Click **Next**.

The Component Selection dialog box displays. This dialog box is used to mark the individual files you want moved for each application you selected.



Component Selection

The Move wizard determines whether the component can be safely moved, or whether a copy should be left in the initial location. Some system files may be used by other applications, and moving the files might cause the other applications to stop working. Each file is therefore marked Move or Copy. Move simply moves the file, and Copy makes a copy of the file and then moves it. You should not change these settings unless you are an advanced user.

When you select a component, the lower view pane shows detailed file information, such as file size, creation date, dependencies, full path, advice on removing the file, and more. To hide the component information, select **Hide Details Window** from the drop-down list box in the upper right corner of the dialog box.

Each item is marked with a color-coded icon, indicating how safe it is to remove the item. Green indicates the item is safe to remove, yellow indicates the item should be deleted with caution, and red indicates the item cannot be removed. A "meter" on each icon shows the relative assurance or confidence in the safety rating.

By default, items marked with yellow icons cannot be deleted. If you want to delete an item marked with a yellow icon, clear the **Safe Select** check box at the bottom of the dialog box.

You can select any or all of the following components:

- **Executables**. These are the executable files that run the application.
- **Support Modules**. These are system files used to run the application such as *.dll* and *.ini* files.
- **Document Files**. These are files you created using the application.
- **Other Files**. These are miscellaneous files such as readme text files, desktop shortcuts, **Start** menu entries, etc.
- **Registry Entries**. These are the registry settings.
- **User Files**. These are files that you might have added to the application.

5. Select the components you want moved for each application you selected.

   You can individually select components, or select all the components in a category by selecting the category itself. Click the **Select All** button to select all components, or click the **Deselect All** button to cancel the selection of components.

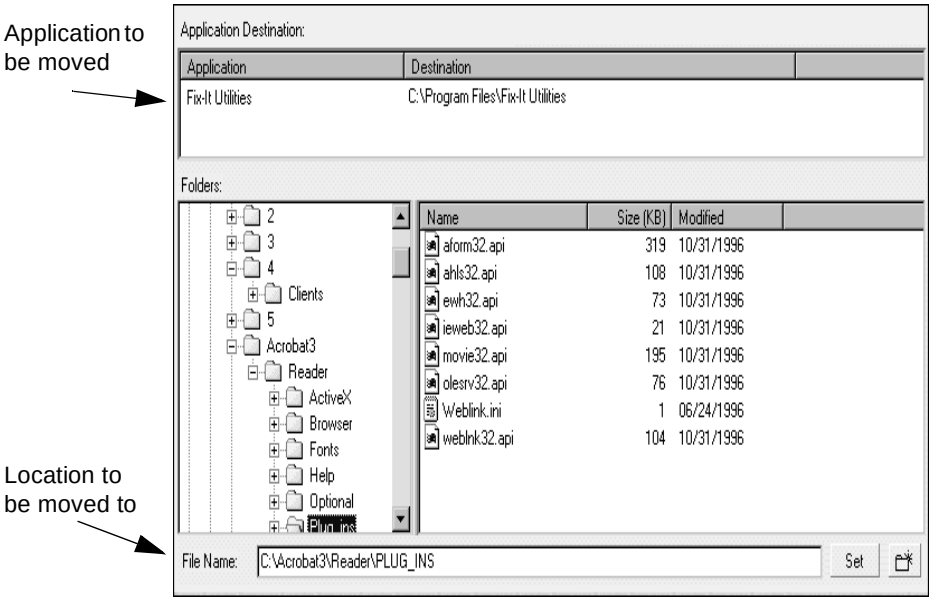
   For advanced users, you can change the operation from Move or Copy (which copies and moves the item) by clicking the **Move** or **Copy** check box.

   If you want to add a file that is not on the list, click the **Add Files** button and select the file from the Browse dialog box that displays.

6. Click **Next**.

The Destination dialog box displays. The application files you selected to move display at the top of the dialog box with the destination to which they will be moved; the current location is used as the default destination.

The lower part of the dialog box is similar to the Windows Explorer and shows the files on your system. When a file is selected, it displays at the bottom of the dialog box in the **File Name** text box.



7. Select an application, and then select the location where you want the application moved. Click the **Set** button in the lower right corner of the dialog box to use the location you select.

If you want to create a new directory to use for a destination, click the  button, select the location, and type the new folder name.

8. Repeat step 7 to select the location for any other applications you want to move.

9. Click **Next**.

The Progress dialog box displays and shows the progress of the move operation. Items get checked as they are moved.

Although not recommended, you can click the **Stop** button to stop the operation. This will not reverse the operation, but will stop any further progress.

When the move is completed, the summary screen displays with a detailed summary about the operations. From this window, you can do the following:

- Click **Save** to save the results to a text file. Specify a location and name for the file.
- Click **Print** to print the results.

10. When you are finished, click **Done**.

BACKING UP APPLICATIONS (BACKUP WIZARD)

The Backup Wizard saves a copy of an application on your computer to a specified location in a compressed format. You might want to back up an application so that if you want to reinstall it at a later time, you don't lose any customizations that you set in the application, or any updates to the software. When you install an application from "scratch," you lose those customizations and updates. Backing up an application also offers you some protection if you misplace the original installation disks.

All of the files necessary to run the application are stored in the backup. Data files created by the application are not copied, unless you indicate that you would like to back them up with the rest of the application. Back up files are stored in a compressed format.

To restore an application that was previously backed up, use the Restore Wizard.

To back up an application:

1. From the EasyUninstall window, click the **Backup** button.

The Select Applications dialog box displays with a list of all applications EasyUninstall detected on your system. The Size, Installation Directory, and Executable Name displays adjacent to each application. A status bar shows the total number of applications selected and the combined size of the applications.

2. Continue with step 2 of "Moving Applications" on page156.

ARCHIVING APPLICATIONS (ARCHIVE WIZARD)

The Archive Wizard uninstalls an application *and* creates a backup of the application in the location that you specify. The backup is stored in a compressed format. For details on each procedure, see "Uninstalling Applications" on pag e151 and "Backing up Applications" on page161.

(To restore an application that was archived, use the Restore Wizard.)

To archive an application:

1. From the EasyUninstall window, click the **Archive** button.

   The Select Applications dialog box displays with a list of all applications EasyUninstall detected on your system. The Size, Installation Directory, and Executable Name displays adjacent to each application. A status bar shows the total number of applications selected and the combined size of the applications.

2. Continue with step 2 in "Moving Applications" on pag e156.

TRANSPORTING APPLICATIONS (TRANSPORT WIZARD)

The Transport Wizard is similar to the Backup Wizard, but the wizard copies the files necessary to install the application on a new machine that might have different settings or operating system (for example, Windows NT vs.

Windows 98). The Transport Wizard creates a self-extracting executable file so you can easily install the application at the new location. A self-extracting file is a zip file that contains the software necessary to extract the zipped files inside it. The Transport Wizard does not remove the application from your machine.

To transport an application:

1. From the EasyUninstall window, click the **Transport** button.

   The Select Applications dialog box displays with a list of all applications EasyUninstall detected on your system. The Size, Installation Directory, and Executable Name displays adjacent to each application. A status bar shows the total number of applications selected and the combined size of the applications.

2. Continue with step 2 in “Moving Applications” on pag e156.

RESTORING APPLICATIONS (RESTORE WIZARD)

The Restore Wizard recovers and reinstalls a previously backed up application. The application can be reinstalled to the same or new location. If you reinstall the application in a new location, the Restore Wizard makes all the necessary corrections to the configuration files, system registry, and any desktop shortcuts.

To restore an application:

1. From the EasyUninstall window, click the **Restore** button.

   The Select Applications dialog box displays with a list of all previously backed up applications on your system using the EasyUninstall Backup or Archive Wizards. The Size, Installation Directory, and Executable Name displays adjacent to each application. A status bar shows the total number of applications selected and the combined size of the applications.

2. Continue with step 2 in “Moving Applications” on pag e156.

MONITORING INSTALLATIONS

Unused files are often left on a disk drive when software is uninstalled. These files can take up a lot of extra space on your disk drive and potentially degrade system performance.

The Monitor Installation tool keeps track of the files copied onto your computer and the changes made to configuration files when you install an application. The tool also keeps track of any files that are replaced. When you use the Monitor Installation tool to install a new application, you can be sure that all the application-related files can be completely removed when you uninstall the application using EasyUninstall.

To monitor an installation:

1. Select **Start → Programs → SystemSuite 2000 → EasyUninstall → Monitor Installation**.

   The Monitor Installation dialog box displays.

2. In the **Application Name** text box, type an identifying name for the application.

   This is the name that will display in the Monitored view of the Application Wizards.

3. Click the **Start** button.

   A dialog box displays indicating the monitor status.

4. Follow the application's setup instructions to install the application.
5. When the application is finished installing, click the **Installation Complete** button in the Monitor dialog box.

Chapter 12: CleanUp

As you work with your internet browser, several types of files are downloaded and stored on your disk drive. These files don't harm your computer, but they can take up a lot of extra space on the disk and possibly degrade system performance.

The wizards in the Internet utility group remove these files and free up space on your disk drive. The wizards search your disk drive for internet-related files, and display a list of those files for deletion. You select the files you want deleted, and the files are permanently removed from your computer. Don't worry about accidentally deleting internet files that you might need to view a web site—the next time you visit the site, the files will be automatically downloaded to your disk drive.

The wizards in the Internet utility group can be used to delete history files, internet cache files, ActiveX controls, cookies, and plugins. These are each discussed in the following section.

INTERNET HISTORY

When you view a web page on the internet, your web browser stores the location (also called the URL or internet address) on your disk drive. The History folder contains the links to web pages that you visited.

Pages in the History folder are usually set by your internet browser to expire after a set amount of time. They are saved on your computer's disk drive until the expiration date, at which time they are deleted. Removing the web pages from the History folder will free up disk space on your computer. With the HistoryCleanup Wizard, you can remove any URLs that you no longer want on your system before the expiration date.

INTERNET CACHE

The Internet Cache is an area on your disk drive where the web pages that you visit are temporarily stored while you are running your web browser. This is done so that your computer does not have to continually reload the web pages as you navigate through web sites, thus increasing the speed of load time for individual web pages.

Over time, these files can occupy a significant amount of space on your disk drive. Your browser usually has a maximum setting for the size of the internet cache, but you may want to delete the files and free up space on your computer. With the CacheCleanup Wizard, any pages that you no longer want stored on your computer can be easily removed.

If you have more than one internet browser on your computer, the CacheCleanup Wizard searches for cache files created by all browsers.

INTERNET ACTIVEX

ActiveX is a technology used to make web pages interactive. ActiveX controls make web pages look and behave like computer programs, rather than static pages that can only be viewed. With ActiveX, you can enter view animated objects and text, use drop-down menus, view movies, enter information into a web page, use push buttons, and interact in other ways with the web page. ActiveX controls are only used by the Internet Explorer web browser.

ActiveX controls are automatically downloaded onto your system's disk drive (if the security options allow it). Removing these ActiveX controls can free up space on your disk drive. With the ActiveXCleanup Wizard, any ActiveX controls that you no longer want on your system can be easily removed. Once the controls are removed, they can be installed by revisiting the original web page.

INTERNET COOKIES

A cookie is a set of data that a web site sends to your browser the first time you visit the site. This information is saved on your disk drive and is used the next time you visit the web site. Cookies might contain information such as login or registration information, online "shopping cart" information, user preferences, etc. Cookies help a web site retain a "context" between each of your visits.

The next time you visit the same web site, your browser sends the cookie to the web server. The server can use this information to present you with custom web pages. So, for example, instead of seeing just a generic welcome page you might see a welcome page with your name on it.

Cookies are usually set to expire after a set amount of time and are saved on your computer's disk drive until the expiration date. With the CookieCleanup Wizard, you can easily remove any cookies that you no longer want on your computer before the expiration date.

INTERNET PLUGINS

Plugins are accessory programs that add specific features or services to your browser, such as the ability to display different types of audio or video messages. Plugins load a small piece of software into your browser. When you close the browser, the plugins remain on your disk drive. Removing them can free valuable disk space. With the PluginCleanup Wizard, plugins that you no longer want on your system can be easily removed.

REMOVING INTERNET ITEMS AND FILES

To remove internet items or files:

1. From the CleanUp Window, select one of the following:
   - To remove history items, select the **InternetHistory** button.
   - To remove cache files, select the **InternetCache** button.
   - To remove ActiveX controls, select the **InternetActiveX** button.
   - To remove cookies, select the **InternetCookies** button.
   - To remove plugins, select the **InternetPlugins** button.

   A dialog box displays with a listing of internet items or files that the wizard found on your computer.

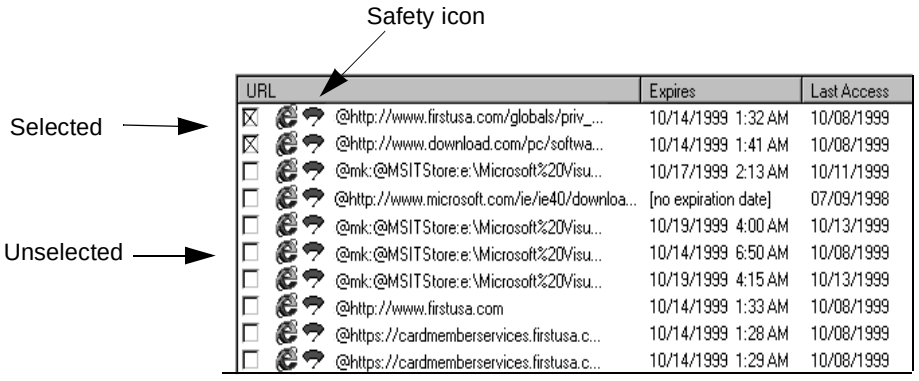
   When you select a history item, the details about the page display at the bottom of the dialog box in a view pane. To hide the details, select **Hide Details Window** from the drop-down list box in the upper right corner.

   When you select an internet file, the actual file contents display in the view pane. To display the file details, select **Show Details Window** from the drop-down list box. Select **Hide Info Window** to hide all file information.

   Each item or file is marked with color-coded icon indicating how safe it is to remove the item. Green indicates the item is probably safe to remove, yellow indicates the item should be removed with caution, and red indicates it is dangerous to remove the item. A “meter” displays in each icon showing the relative degree of confidence or assurance in the safety rating.

2. Select the check box adjacent to items you want deleted.

   Click the **Select All** button to select all of the items or click the **Deselect All** button to cancel the selections.



3. Click **Next**.

   A report displays listing the items to be deleted and the amount of estimated space that will be saved.

   Items are not sent to the Recycle Bin, but are permanently removed from your computer. Additionally, they cannot be restored using Ontrack SystemSuite's Undo-It feature. If you decide you do not want some of the items deleted, click the **Back** button and cancel the selections.

4. If you are satisfied with your selections, click **Next**.

   The items are deleted and a Final Report displays. The Final Report lists the items that were actually deleted and the amount of space that was gained by the deletions. From this window, you can print the report.

5. Click **Done**.

6. Repeat steps 2-6 for any other type of internet files you want removed.

REMOVING UNUSED FILES

Unused files are often left on your disk drive when software is uninstalled, programs crash, or just from normal daily use. These files usually don't do direct harm to your disk drive, but they can take up a lot of extra space on the disk and degrade system performance. The three FileClean utilities can search all your hard disks for unnecessary files, and then delete them.

- With the QuickFileClean, you select the categories of files to be deleted and QuickFileClean automatically deletes them in one easy step.
- With AdvancedFileClean, you select from additional categories of files you want deleted. You can permanently delete files, or make a compressed backup of the files before they are deleted. The AdvancedFileClean color-codes the files to help you determine which files are probably safe to remove.
- With CustomFileClean, you can create new categories of files to be searched for and deleted. As with the AdvancedFileClean, you can permanently delete files, or make a compressed backup of the files before they are deleted. The CustomFileClean color-codes the files to help you determine which files are probably safe to remove.

The CleanUp utilities try to determine which files are safe to remove, but the final choice is really up to you. DiskCleaner cannot determine which files will cause system problems if removed—it can only tell you which are old, which haven't been used for a long time, and so on. However, one person's junk file may be another person's valuable data. You should be careful to review any files to be deleted and don't just use the DiskCleaner evaluation that a file is safe to remove. DiskCleaner does not move files to the Recycle Bin—they are permanently removed from your computer (unless you choose to back them up first).

To restore files that were backed up before deletion, use the Undo-It tool in the System Protection category.

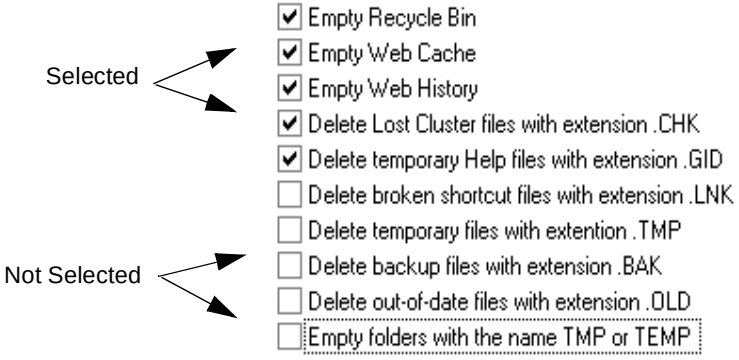
REMOVING FILES IN ONE-STEP (QUICKFILECLEAN)

To remove files from your system in one step:

1. From the CleanUp window, click the **QuickFileClean** button. A dialog box displays listing the categories of files that can be removed. QuickFileClean automatically searches all fixed drives.

2. Select the categories of files you want removed.

   QuickFileClean uses your selections as criteria for locating unused files. If the categories listed don't meet your needs, create your own categories using the CustomFileClean.



3. Click **Next**. QuickFileClean removes all files in the categories you selected, and displays a summary report. The summary report includes the drives that were searched, the categories that were deleted, how may files were deleted, and the total amount of recovered space. From the report window, you can do the following:

   - To print the results, click the **Print** button.
   - To save the results in a file, click the **Save** button. Specify a location and name for the file.

4. Click **Done**.

SELECTIVELY REMOVING FILES (ADVANCEDFILECLEAN)

AdvancedFileClean works similar to QuickFileClean, except that you select from additional categories for deleting files, and files are displayed for your viewing and selection. You decide which individual files you want deleted. AdvancedFileClean color-codes the files to help you determine which files are safe to remove.

To run AdvancedFileClean:

1. From the CleanUp window, click the **AdvancedFileClean** button.

   A dialog box displays with a list of configurations. The AdvancedFileClean uses small programs called configurations or scripts to search for files with specific criteria.

   The following table provides details on the scripts included with the AdvancedFileClean.

File type	Explanation	Examples
Left-over installation files	Files that are commonly included to install an application, but are no longer needed once the application is installed.	*Readme* and *setup.exe* files.
Archive files	Files that may have been downloaded or e-mailed, and then extracted.	Files with the extension *.cab*, *.zip*, *.lzh*, *.lha*, *.arj*, *.arc*, *.rar*, *.tar*, *.z*, *.gz*, *.pac*, *.pak*, and *.zoo*.
Zero-length files	Files that may have been created and then not deleted due to programming design or system crash.	

File type	Explanation	Examples
Old files	Files that have not been written to or accessed in several years.	
Temp files	Temporary files not included in QuickFileClean.	Files with the extension .~*.
Multi-media files	Files that may have been downloaded or e-mailed. Once viewed, they are no longer needed.	Files with the extension *.gif*, *.jpg*, *.avi*, *.mpg*, *.wav*, *.img*, *.ras*, *.bmp*, *.tif*, *.pcx*, *.ext*, *.wmf*, *.psd*, and many more.
Intermediate development files	Files that accumulate on machines of software developers.	Files with the extension *.csm*, *.map*, *.obj*, *.pch*, *.pdb*, *.ilk*, *.exp*, *.idb*, *.ncb*, and *.res*.
Old configuration files	Files that are automatically generated by installation programs when they modify system files.	*autoexec.** and *config.** in the root directory, excluding the *autoexec.bat* and *config.sys* files. Also **.dos* and **.nt*.
Demo files	Files that are known to be demo files.	Files with the extension **.wpd* (WordPerfect)
Old fax files	Fax files older than one month.	Files with the extension *.fax*.

2. Select the categories (configurations) of files that you want searched.

   The AdvancedFileClean uses your selections to locate the specified category files. If the categories listed don't meet your needs, create your own using the CustomFileClean **(**see "Creating Categories for Deletion" on page 176).

3. Click **Next** to generate a list of files found in each category.

The AdvancedFileClean displays the list of files found on your system. The display is similar to the Windows Explorer. Just click the plus (+) sign next to the category name to display the list of files in that category.

Files located in the search are marked with a color-coded icon. Green means that the file is probably safe to remove. Removing it will not do damage to your system. Yellow means the file may be dangerous to remove and could harm your system. A "meter" shows the relative confidence or assurance in the safety rating.

Each file has a check box adjacent to it, indicating the delete or backup action. Files are marked by default for deletion or backup according to the action that was specified in the script.

 This icon is used to mark files to be deleted.

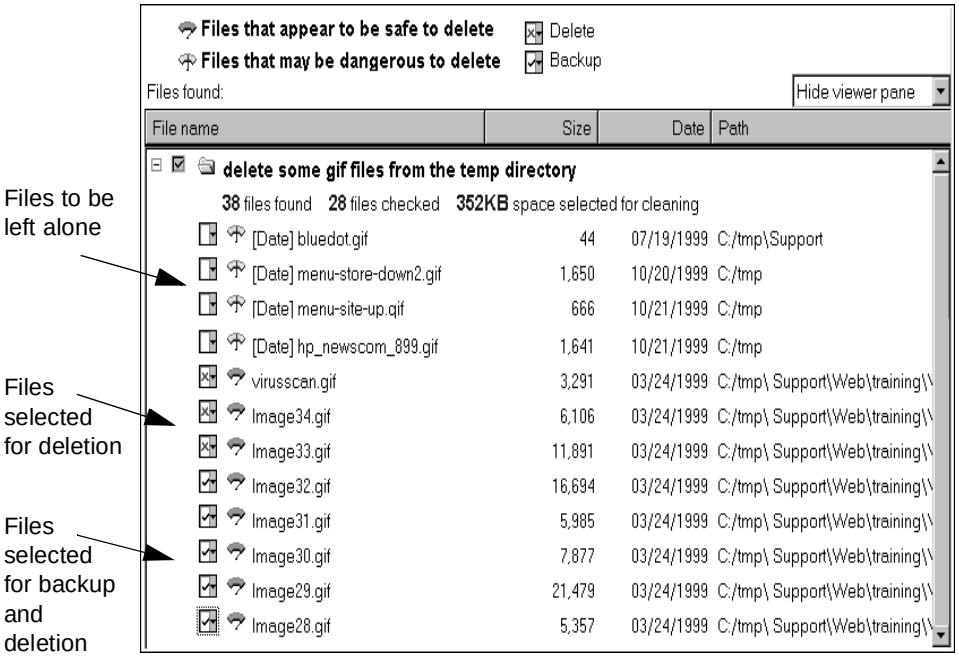
 This icon is used to mark files to be backed up before they are deleted.

When you select a file, the file contents automatically display in a view pane at the bottom of the dialog box. To display the file details instead, select **Show Details Pane** from the drop-down list box in the upper right corner of the window. Select **Hide Viewer Pane** to hide all file information.

4. Make sure the files are marked for deletion the way you want. To change the action for a file, just click the check box until the symbol representing the action displays.

   You can select a category of files and all the files in the category will be deleted, or backed up first and then deleted, or you can select individual files within a category

.



Files that are permanently deleted cannot be restored. Files that are marked for back up are compressed and stored in a subdirectory under the main *EasyUninstall 2000* directory, and are then deleted. To change the location where these files are stored, click the **Properties** button and select a new location (files backed up in the CustomFileClean will be stored in the same location).

To restore files that were backed up, use the EasyUninstal l2000 Undo-It tool.

5. When finished, click **Next** to continue.

The files are deleted. Files marked for backup are stored with a new name indicating the date and time of backup. You can see the old names in the Undo-It log.

6. Click **Done** to return to the home window.

CREATING CATEGORIES FOR DELETION (CUSTOMFILECLEAN)

If you would like to find and remove files in a category that does not exist, you can create your own category. CustomFileClean is used to create new categories and delete files in those categories. CustomFileClean uses a script, or configuration, that contains the folders or drives you want searched, the filter criteria you want applied to the folders, and the action you want taken. Two actions are possible: create a compressed backup of the files and then delete the files, or just delete the files.

To name the configuration and specify the type of deletion:

1. From the CleanUp window, click the **CustomFileClean** button.

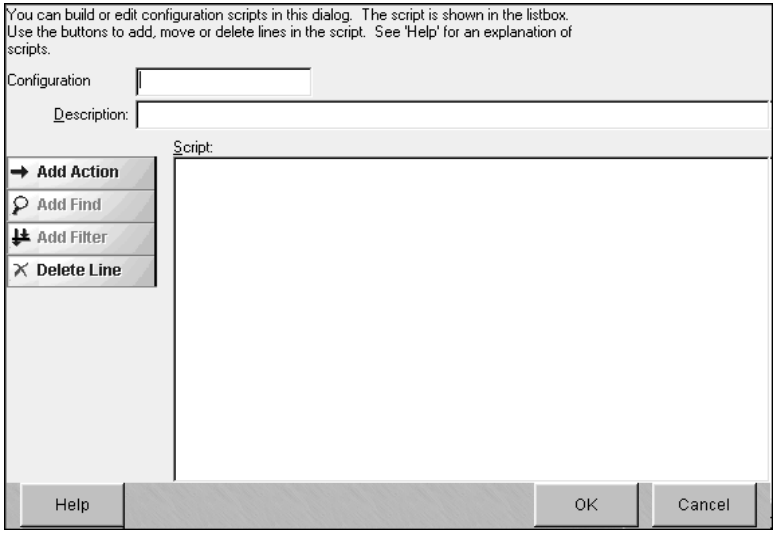
   The main Configuration dialog box displays with a list of defined configurations. When you select a configuration, the script details display at the bottom of the dialog box.

2. Click the **Add** button.

   The Configuration dialog box displays. The upper part of the dialog box contains the name and description for the configuration, and the lower part of the dialog box is used to define the script for the configuration.

   The script is the actual “program” that searches for files that you specify and then either backs them up and deletes them, or just deletes them. You define the script by first selecting an Action (Backup or

Delete), selecting the disks or folders to be searched, and specifying filter criteria.



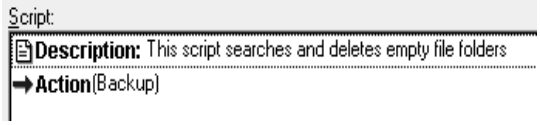
3. In the **Configuration** text box, type a name for the configuration.
4. In the **Description** text box, type a description for the configuration.
5. Click the **Add Action** button.

   A dialog box displays with the following prompt:

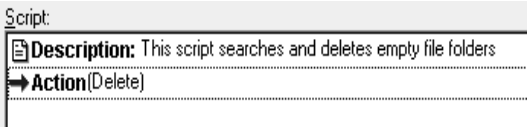
   Do you want the default Action to be Backup the files?
   Otherwise the default will be Delete.

6. Do one of the following:

   - Click **Yes** if you want the files backed up before they are deleted. Action(Backup) displays in the Script box.



- Click **No** if you want the files permanently deleted without a back up being made. Action(Delete) displays in the Script box.



7. Repeat steps 6 and 7 for any additional actions.

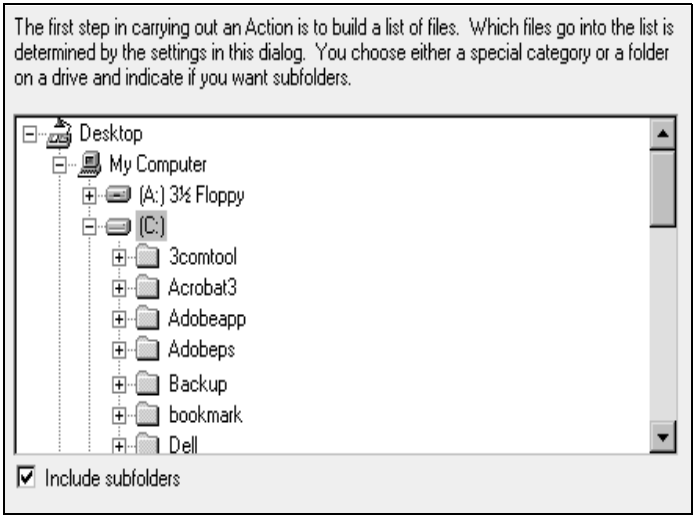
To delete a line, select it and click the **Delete Line** button. If you delete an "Action" line, the Action and all the associated Finds and Filters are also deleted.

To select the folders or drive you want searched:

1. Click the **Add Find** button to select the files you want the Action to effect. If you created multiple Actions, you must select the Action before the **Add Find** button is activated.

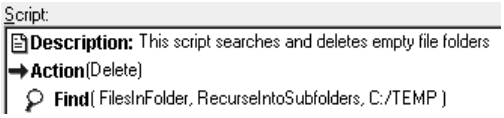
The Disk Cleaner—Add Find dialog box displays.

The C drive is selected in this example.



2. Select the folder or drive you want searched. Select the **Include subfolders** check box to include all the folders below the folder or drive you select. Otherwise, the subfolders are not included. Then click **OK**.

The drive or folder you selected now displays in the Script box. For example, if you select the folder *temp* on the C: drive, and select the **Include subfolders** check box, the following displays in the Script box:



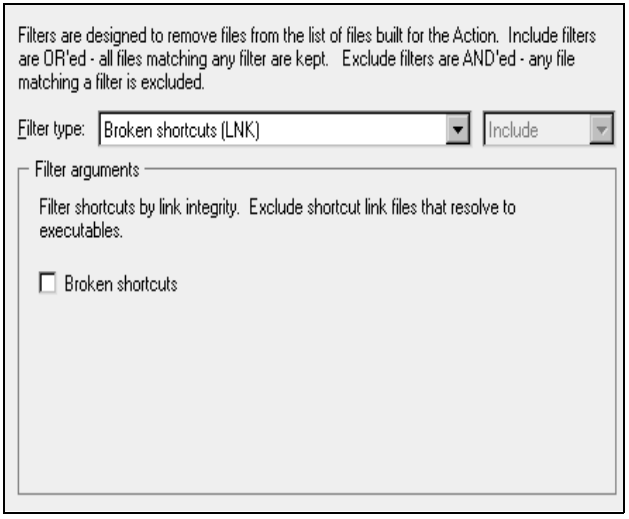
3. Repeat steps 1 and 2 for any additional folders or drives you want searched.

   Each Find displays on a separate line in the script.

To add the filter:

1. Click the **Add Filter** button to specify the filter criteria to be used on the selected disks or folders. If you created multiple Actions, you must first select the action for the files before the **Add Filter** button is activated.

   The Filter dialog box displays. The dialog box is used to create filters that are then applied to the file list that you created (when you selected the **Add Find** button). Filters are used to remove files from your file list.



2. From the **Filter type** list box, select the type of filter you want to apply to the file list. When you select a filter type, the parameters required to define the filter display in the lower part of the dialog box. Filter types include the following:

   - Broken shortcuts (LNK). Filters by whether a shortcut has a broken link (include filter only).

     Parameters: Select the **Shortcuts** check box to locate shortcuts with broken links. Shortcuts that have valid links are excluded from deletion.

   - File attributes. Filters by whether the file is read-only, archived, hidden, or a system file.

     Parameters: Select the attributes you want used as filter criteria. Read-only files are files that can only be viewed and not modified. Archived files are files that have been modified since the last backup. Hidden files are files that can only located if you search for the file by file name. System files are files needed to operate Windows.

   - File last access date. Filters by the last date the file was opened.

     Parameters: Specify the date you want used. Select Newer than to locate files that were accessed since the specified date. Select Older than to locate files that were accessed before the specified date. Click the down arrow to display a calendar from which you can select a date.

   - File modify date. Filters by the date the file was modified.

     Parameters: Specify the date you want used. Select Newer than to locate files that were modified since the specified date. Select Older than to locate files that were modified before the specified date. Click the down arrow to display a calendar from which you can select a date.

   - File name. Filters by file name.

     Parameters: Type the file names you want located. You can type a list of files, but names must be separated by a semicolon (;). Wild cards are allowed; use the asterisk (*) as a wild card.

Examples:

*.doc	All files with the extension *.doc*.
*.doc; *.tmp	All files with the extensions *.doc* or *.tmp*.
vac*.*	All files beginning with the letters "*vac*".

- File size. Filters by file size.

  Parameters: Specify the size of file you want located. Select Greater than, or Less than or equal to. Type a file size in the **KB** text box (kilobyte) or click the arrow to increment or decrement the size. To find zero length files, select Less than or equal to and enter 0 in the **KB** box.

- Is dependent, has dependents. Filters by whether the file is dependent on other files or has other files dependent on it, such as a DLL (exclude filter only).

  Parameters: Select the **Dependent** check box to exclude files dependent on other files.

- Location. Filters by where a file is located (exclude filter only).

  Parameters: From the directory tree that displays, select the folders or drive you want searched. Files found in the selected folders or drive are excluded.

- Special system files. Filters by whether a file is a system file (files needed to run Windows) (exclude filter only).

  Parameters: This filter is used to prevent files from accidentally being deleted. You cannot remove any files from this pre-set list, but you can add other files to the list if you want.

- Version information. Filters by version information for the file.

  Parameters: Select the version information that you want searched for. Select a version number, comment string, file description, Legal Company, Product, or Name. Type a string to search for (version numbers should be entered with commas instead of decimals). Only certain types of files have version information, such as DLLs.

3. Select or enter the appropriate settings for the filter parameters. Parameters for each filter are described in the previous step.

4. Select Include or Exclude from the drop-down list box.

   The Include filter includes all files that meet the filter criteria from the file list. The Exclude filter excludes all files that meet the filter criteria from the file list. Some filter types may only have one option available.

   When you run the script, a large list of files may exist after the Find operations are executed. The Include filters are then run, leaving only files that match all include filters. The exclude filters are then run to further narrow the list of files. The end result is a refined list of files that are candidates for removal.

5. Click **OK** in the Filters dialog box.

6. Repeat steps 1 to 5 to add any additional filters.

7. When you are finished creating the script, click **OK**.

   The script now displays in the Configurations list.

8. To run the script, continue with step 3 in the previous procedure “Selectively Removing Files” on pag e173.

EDITING A CONFIGURATION

You can easily make changes to a configuration after it has been created.

To edit a configuration:

1. In the main Configurations dialog box, select the configuration you want to modify.

2. Click the **Edit** button.

   The Configuration dialog box displays.

3. Make your changes and click **OK**.

   See “Creating Categories for Deletion” on pa ge176 for details on configurations.

COPYING A CONFIGURATION

If you have created a configuration that is similar to one you would like to use, you can copy the configuration and then make the modifications to it that you want. This saves you the time of creating a new configuration from "scratch."

To copy a configuration:

1. In the main Configurations dialog box, select the configuration you want to copy.
2. Click the **Copy** button.
3. Type a new name for the configuration.
4. Modify the configuration and click **OK**.

DELETING A CONFIGURATION

To delete a configuration:

1. In the main Configurations dialog box, select the configuration you want to delete.
2. Click the **Delete** button.

Chapter 13: Anti-Virus

VIRUS SCANNER™

Viruses are the bane of the computer world. People with few scruples and far too much free time write programs that are designed to hurt you. Viruses can destroy or corrupt files, wipe off hard drives, slow your computer down, and do other really obnoxious and destructive things.

Most viruses won't even tell you they are on your system. They arrive hidden on diskettes or in legitimate files such as word processing or spreadsheet files, waiting to infect your computer and propagate themselves. Once your computer is infected, the best way to remove a virus is with a good antivirus program.

Virus Scanner has "signatures" (definitions) for all viruses known to be in the world, and this number grows every time you download new virus information via **EasyUpdate**.

Since new viruses are discovered all the time (some estimates say that there are 200 new viruses every month), you should run EasyUpdate regularly to get the latest virus information, so that Virus Scanner has the most up-to-date anti-virus information possible.

TYPES OF VIRUSES

Viruses are categorized by the way they infect your computer, the types of files they attach themselves to, and their method of propagation. The following list describes some of the most common types of viruses:

- **Boot Sector Viruses:** Boot sector viruses operate on the first sector of a disk or a diskette on which critical system information is saved. A boot sector virus writes over the existing boot sector with its own code. The

original boot sector is moved elsewhere and is executed after the virus code is loaded into memory, thereby allowing the booting process to proceed normally. The virus copies itself to the highest memory location and reroutes some BIOS interrupts. From this stage onwards, the virus controls all activity on the disk and infects any boot sector that is not yet infected.

- **Master Boot Sector Viruses:** The Master Boot Record (MBR) is the first physical section on the hard disk, and is executed when the computer boots up. Master boot sector viruses infect the computer when it is booted from a disk containing a virus. The Master Boot sector is a common hiding place for Boot viruses.
- **Destructive Viruses:** These are viruses that schedule the destruction of data for a specific date or event. When active, these viruses destroy data in files or on hard disks.
- **File Viruses:** These viruses attach themselves to executable programs. In some cases they modify the programs every time the program is executed, while in other cases they only modify the infected program once. Before an infected program is executed, it loads into memory like any other program. The virus code executes first, prior to the execution of the program, then intercepts all function calls and proceeds to attach itself to other programs when they execute.
- **Macro Viruses:** Macro viruses infect and damage files created by MS Word and MS Excel. They can be transmitted within Word or Excel files that contain macros, and they propagate when the file is edited and the macro runs.
- **Trojan Horse:** This is a program that pretends to perform a certain function, but instead causes severe damage when executed. Unlike a regular virus, it doesn't infect other files.

The AntiVirus wizard buttons allow you to perform any type of virus scan on files that you wish:

QUICKSCAN

This utility scans the boot sector and memory for viruses. If these are not infected, it also scans files on the root of the boot drive and files in the Windows directory.

FILESCAN

FileScan first checks memory and boot sector for viruses, then allows you to select certain files to scan. This is useful if you know you have a clean disk and have just copied some questionable files to it. It is also useful for scanning files before they have been copied to your hard drive.

DEEPSCAN

DeepScan first checks memory and boot sector for viruses, then scans all fixed drives for all known types of viruses, including files inside archives (compressed files).

FASTSCAN

FastScan first checks memory and boot sector for viruses, then scans all fixed drives macro and program viruses. It does not scan data files or scan into archives (compressed files).

FLOPPYSCAN

The FloppyScan first checks memory and boot sector for viruses, then scans selected removable media for known viruses. It checks all files, including data files and files inside archives.

CUSTOMSCAN

This is a customizable scan that offers all of the options available in the other wizards, but allows you to select what files and types of viruses to scan for. It always checks memory first, then scans according to the selected options.

See the online documentation for details on these Anti-Virus scan options.

HOW DOES VIRUS SCANNER WORK?

Virus Scanner has several modes:

- **On Demand:** You can run Virus Scanner at any time to check the files on a disk. You can run Virus Scanner on demand using any of the following methods:
  - **The Anti-Virus Wizards:** These wizards are available for you to run the type of scan you wish, without spending time trying to fiddle with or customize the scanner. There is a customizable scan wizard as well if none of the other wizards meet your needs.
  - **Context Menu:** You can run Virus Scanner manually from the Virus Scanner context menu dialog (see "Running Virus Scanner on Demand" on page 189).
  - **Scheduled:** You can set up the SystemScheduler to run Virus Scanner regularly, so that you don't have to worry about remembering to do it yourself (see "Scheduling the On Demand Virus Scanner" on page 192).

- **FixWizard:** FixWizard can also run Virus Scanner for you (see "FixWizard™" on page 11)

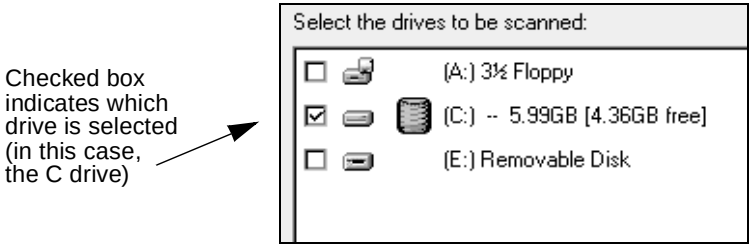
Each of the on-demand methods has its own customizable setup options. This way, you could set up the FixWizard Virus Scanner to check the most commonly infected files such as executable programs and macros, but have the On Demand mode perform a complete sweep and check *all* files on your disk that could contain a virus.

- **Context Menu:** You can select the Virus Scanner from the context menu (the right-click menu) while in Windows Explorer or in PowerDesk. This is similar to the On Demand scanner, but only scans selected files, folders and sub-folders.
- **DOS scanner (Windows 95/98/NT/2000)** (this is on the System Rescue Disk): This Virus Scanner scans the boot sector and startup files for viruses. Its main purpose is to check critical system files for viruses and clean them, allowing you to boot up your computer and run the Virus Scanner from Ontrack SystemSuite.

RUNNING VIRUS SCANNER ON DEMAND

To run Virus Scanner once:

1. From the Ontrack SystemSuite home window, click on **Anti-Virus**.
2. Click on one of the Wizard buttons, depending on your needs.
3. For floppy and custom scans, select the drive(s) to be scanned and click **Next**:



4. You may need to select the folder to scan, depending on the wizard.
5. Virus Scanner then scans the selected drive(s) for viruses. If it finds a virus, it notifies you about the virus and offers to fix the virus if it can.
6. When it is finished, click **Done** to return to the Ontrack SystemSuite home window.

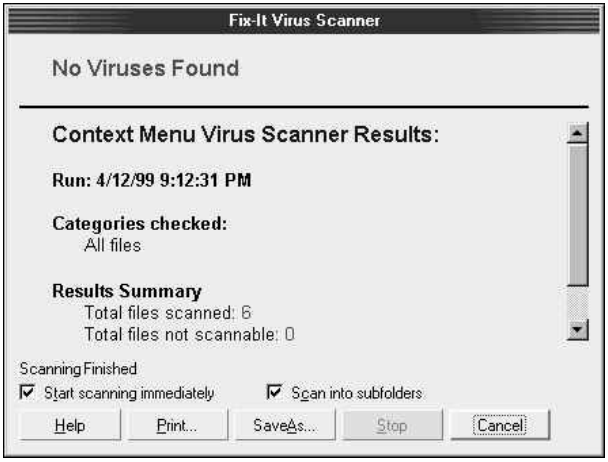
RUNNING VIRUS SCANNER FROM THE CONTEXT MENU

1. In the Windows Explorer or PowerDesk (PowerDesk is an Ontrack application included free with Ontrack SystemSuite), right-click on the file or folder to be scanned.
2. You will see a pop-up menu, known as the Context menu. It may look something like the following:

The Ontrack SystemSuite Virus from the Windows Context menu

3. Select the Virus Scanner from the menu.
4. The Virus Scanner, depending on its settings, will scan immediately for viruses. If you selected a folder, it scans all files in the folder. If you

selected a single or multiple files, it scans the selected files. When it is finished, you will see the results dialog:



5. Besides showing the results of the scan, this dialog allows you to change the settings for the *next* Context menu scan.

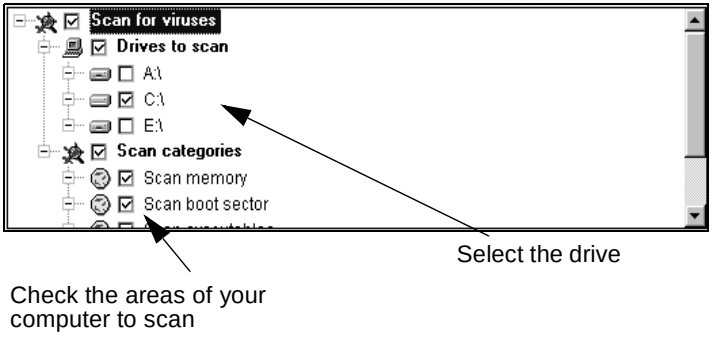
6. The **Start scan immediately checkbox** defines whether to begin scanning as soon as you click on the Virus Scanner item, or to wait until you click on a **Start** button.

7. The **Scan into subdirectories checkbox** defines whether to scan sub-folders (and their sub-folders and so on) if you have elected to scan a folder.

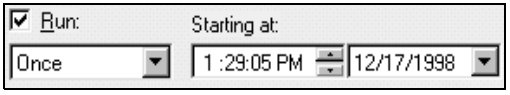
SCHEDULING THE ON DEMAND VIRUS SCANNER

With the SystemScheduler, you can schedule automatic virus scans of your drive(s). To do this:

1. From the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on **SystemScheduler**.
3. Select **Virus Scanner** and click **Edit**. (shortcut: you can just double-click on **Virus Scanner**)
4. Select the Virus Scanner parameters:



5. Enter the scheduling information (frequency and time and date to start):



6. Click **OK** to return to the main screen.
7. Click on **Start SystemScheduler Now** if you want to start up the scheduler immediately.
8. Click on **Start Scheduler at startup** if you want to wait until the next time you restart Windows to start up the Scheduler.
9. Click on **Done** to save your changes and return to the home window.

RUNNING VIRUSSCANNER™ FROM FIXWIZARD™

To run the Virus Scanner from FixWizard:

1. From the Ontrack SystemSuite home window, click on **FixWizard**.
2. Click on the **FixWizard** button.
3. Make sure the **Scan for viruses** box is checked (along with any other tools to run).
4. Expand the tree (click on the "+" sign) to verify the settings for drives to scan and scanner options are set correctly.
5. Click **Next** to run FixWizard.
6. If the Virus Scanner finds any viruses on your system, it stops FixWizard and displays a message describing the virus and offering to fix it. When FixWizard is finished, click **Next** to see the results of the scan.

VIRUS INFORMATION

You can click on the "Virupedia" link in the CustomScan wizard to visit our web site's virus encyclopedia page. There you can find information about viruses.

Chapter 14: Booting from a System Rescue Disk

(**Windows 95/98 only**) The System Rescue Disk is primarily intended for use if you can not even boot your computer into the Windows Safe mode.

If you're a Windows NT user, you may be able to use a few System Rescue Disk options.. However, there is hope—see "NT System Lifeline™" on page 201 .

If your computer refuses to boot up, it may have any of a number of problems. The System Rescue Disk can fix some of these; others may require the services of a computer technician. In any case, the System Rescue Disk may help you recover important files, restore system files from the latest System Saver, and check for viruses.

The Rescue Disk program is designed to do everything possible to help you restore your system so you can boot it up normally once again.

To boot your computer from the System Rescue Disk:

1. Turn the computer off.
2. Insert the System Rescue Disk into the floppy disk drive.
3. Turn the computer on. Make sure the monitor is also on.
4. The first thing you will see is a graphical menu with some options.
5. Note that the Anti-Virus button is only present if you created a 2-disk Rescue Disk set.
6. The first thing to check is the hardware information at the top of the display. If this information is wrong, that means that the rescue disk is

getting incorrect information from the system, indicating that you might have a hardware error.

7. Click on the **Help** button (or press Alt-H on your keyboard). This displays a complete document describing the features of the System Rescue Disk.

The System Rescue Disk installs a generic mouse driver that allows most users access to their mouse. If your mouse does not seem to be working, it may be that the driver is incompatible with it. In this case, you will have to use only keyboard commands. Notice that each button also has its keyboard command on the button label.

THE RESCUE DISK MENU

HELP

This option displays the System Rescue Disk help file. Reading through this file will give you much of the information you need to successfully restore your computer.

DISKFIXER™

This application works best on FAT–based file systems, including Windows 95, Windows 98, and FAT–based Windows NT. It cannot access NTFS disk partitions.

DiskFixer scans your hard drive and fixes consistency errors. It also locates and reports on any errors it cannot fix.

FDISK

FDISK is a very powerful Microsoft program that changes the partitions on your hard drive.

Running FDISK and changing hard drive partitions will destroy all data on your disk! This is only to be used on new hard drives that have not been formatted, and on older drives that have completely failed and cannot be fixed any other way.

FORMAT

The Format program is a very powerful Microsoft program that formats your hard drive or hard drive partition, deleting all existing data on that partition, including the Windows or Windows NT operating system files.

Running Format will destroy all data on your disk/disk partition! This is only to be used on new hard drives that have not been formatted, and on older drives that have completely failed and cannot be fixed any other way.

ANTI-VIRUS

This option is only available if you created a 2-disk System Rescue Disk set, or if you are booting from the generic System Rescue Disk.

This option provides the ability to scan some or all files on the disk, including boot sector and other system files, for known viruses. When you click on this button, you will see a number of options that allow you to scan only boot sector files, only program files, all files on disk, etc.

Select the option to run. You can run as many options as you wish.

UNDELETE

Use this option to recover deleted files. This program has the same capabilities as the FileUndeleter application you can run from Ontrack SystemSuite 2000 in Windows. You can retrieve files from the Windows Recycle Bin, the Ontrack SystemSuite Deleted Files Bin, or directly from the disk if they have not been over-written.

Don't forget that deleted files that have been emptied from the Windows Recycle Bin into the Ontrack SystemSuite Deleted Files Bin will most likely have been renamed.

SYS RESTORE

The Sys Restore function retrieves the latest system file backups taken by System Saver. This function will *not* be available if you have never taken a system backup (via System Saver) and you are booting from the generic System Rescue Disk. If you are booting from your own System Rescue Disk but have never run System Saver, there will be a limited set of files Sys Restore can recover.

EDIT

This option opens text files for you to edit or review. This is handy for editing Windows startup files such as *config.sys* or *win.ini*.

DOS

The DOS option exits the Rescue Disk menu and displays the DOS prompt. You can use the DOS commands to explore the directory, and if necessary, copy some files to a floppy disk. To return to the menu, enter the command *Exit*.

DISK EDITOR

(*Advanced users only*) This option starts up fixit dlodr.exe. allows you to view and edit individual sectors on the disk. Although this is a powerful utility, it must be used with caution by an expert.

EXIT

This command exits the Rescue Disk program and displays the DOS prompt.

RECOVERING DATA

Depending on your situation, your first priority may be to recover any important files you have worked on. The DOS Prompt button and the Undelete button can both help you with this.

In order to find files you want to rescue, you need to know where they are on the disk. This requires some advanced knowledge of what directories are and how to find them using DOS commands.

When you boot from the System Rescue Disk, you will see a main menu of options.

1. From the menu, select the **DOS Prompt** option.
2. At the DOS prompt, use the `cd` (change directory) command to navigate to the location where the files are. For example, if you know your files are in the directory *c:\my documents\newfiles*, use the command:

   ```
   cd "c:\my documents\newfiles"
   ```

   Notice that if you use the double-quotation marks, you can specify full path names without truncating directory and file names to 8 characters.
3. You can click on the **Help** button for a detailed explanation of recovery procedures.

4. Don't forget that DOS only allows 8 characters in directory and file names, and it truncates longer names. It also removes spaces from the names. The `dir` command will show you how it is representing directory and file names.
5. Put a new disk into your floppy drive or zip drive.
6. Use the copy command to copy the files you need to a new floppy disk. For example:

   ```
   copy *.doc a:\
   ```

   ...copies all files in the local directory with the extension *.doc* to the A: floppy drive.

RELOADING THE WINDOWS OPERATING SYSTEM

There may be times when your computer has failed so completely that you will want to re-install Windows. If this is the case, you will need the use of your CD-ROM drive.

The System Rescue Disk comes with a generic CD-ROM driver that works with most IDE/ATAPI CD-ROM drives. This is the most common type of CD-ROM drive; if yours is different, you may have to call the manufacturer to find out how to install the driver.

1. Put the CD into the drive and let it spin up to speed. At the DOS prompt, type *d:* (or the letter denoting the CD drive) and press **Enter**.
2. Enter the DOS command *dir* to should see all of the files and folders in the CD home directory. In most cases, you can enter the command *setup* and press **Enter** to begin installing Windows.

Chapter 15: NT System Lifeline™

Until now, there has been very little recourse for an NT user with a crashed system. If you couldn't boot your system, even if you knew exactly what file was causing the problem, you had to go through a very painful process to restore the system. Often this meant reinstalling Windows NT on another partition of the drive. This also meant lost time, lost productivity, and possibly lost sense of humor.

Now there is a new Ontrack SystemSuite Utility that provides a "lifeline" for NT users. Called *System Lifeline*, it provides a method for starting up a DOS-like environment during the NT boot process. Now you can interrupt the boot process, display a "DOS" prompt, and enter commands that allow you to navigate through the directory structure; copy, move and delete files; and perform other DOS-like commands. This is actually a DOS environment emulator, designed for NT.

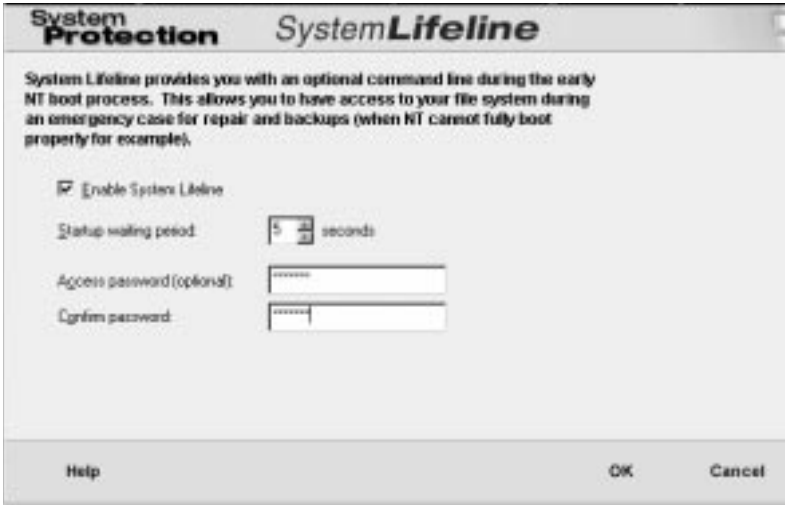
Although the commands are simple and don't have as many options as in the real DOS environment, they are designed to provide the basic necessities to get you out of serious trouble without having to re-install the operating system, wire two hard drives together, or do any other terrible things just to get back up and running.

SETTING UP SYSTEM LIFELINE

In order to use System Lifeline, you *must* set it up correctly.

1. In the Ontrack SystemSuite home window, click on **System Protection**.
2. Click on the **System Lifeline** button.

3. You will see a dialog box with some options:



4. To have System Lifeline available during the NT boot process, check the **Enable System Lifeline** box.

5. The **Startup waiting period** defaults to 5 seconds; this means that you will have 5 seconds within the boot process to activate System Lifeline, once the prompt is displayed.

6. If you wish to restrict the user of the System Lifeline capabilities, enter (and confirm) a password. You will need this password if you want to run System Lifeline during the boot process, so you should make sure it is one you won't forget.

7. Click **OK** when ready. Now, whenever you reboot your system, you will see the System Lifeline prompt during the boot process.

USING SYSTEM LIFELINE TO RESTORE YOUR SYSTEM

When you see the System Lifeline prompt during the boot process, you have a specified number of seconds to press the spacebar and activate System Lifeline.

Once you activate it, you see a DOS prompt such as the following:

C:\>

Enter “help” and press **Enter** to see a list of available commands.

Here are some hints about the files you may want to restore:

If you boot into the System Lifeline DOS prompt, you have access to your directory structure and your files. If any system files are corrupt, you may want to replace them. System Saver backs up your system files (including registry files) to the following location:

C:\Ontrack SystemSuite\BACKUP\mxb.mxb* [where C is the drive on which Ontrack SystemSuite is installed, and * is a sequence number. The highest number is for the most recent backup]. Each of the .mxb locations is a folder (not a file) containing the following files:

- autoexec.nt
- config.nt
- mxfiles.lst
- notes.txt
- Ntuser.mxr
- Sam.mxr
- software.MXR
- system.MXR

mxfiles.lst contains the original path names for autoexec.nt and config.nt and is viewable from SystemLifeline by typing "TYPE T" from C:\Ontrack SystemSuite\BACKUP\mxb*.mxb

You can use these path names to copy *autoexec.nt* and *config.nt* to their original locations (use the COPY command in System Lifeline).

Ntuser.mxr should be copied to the NT User Profile Directory and renamed Ntuser.dat

Sam.mxr, software.mxr and **system.mxr** are three files that can be copied to the WinNT\system32\config\ directory [where WinNT is a place holder for the name given during the NT install] and renamed as *Sam.*, *software.*, and *system.* (no extensions).

Chapter 16: Troubleshooting

Problem/Symptoms	Possible Causes	What to Do
Computer seems slow, sluggish.	The hard drive is either very fragmented, or getting full. The program you were running needs more RAM than your computer has.	Run FixWizard to clean and optimize. You may also want to run DiskFixer to locate and fix any problems on the hard disk. Run DefragPlus to optimize the hard drive. Check to see that you aren't starting up too many programs at boot time.
Computer freezes, or *hangs*. No mouse or keyboard control.	The program you were running encountered an internal error. The program you were running needs more RAM than your computer has.	Press Ctrl-Alt-Del to bring up the Close Program dialog. If available, click on the Revive button, which brings up another dialog showing the likelihood of fixing the program. Select the appropriate option. Otherwise, shut down the program. If you have an older computer, you may need to install more RAM.
The "blue screen of death" appears, with the message that your program crashed.	Usually caused by a fault in a driver file.	This is a Windows crash, which crash protectors usually can't catch. You usually have to reboot your system.

Problem/Symptoms	Possible Causes	What to Do
The computer won't boot up.	Missing or corrupted system file(s). Corrupted registry. Potential hardware problem.	Boot your computer from the System Rescue disk and back up any files you need. You may need to restore the system files. Try rebooting. If you can't reboot, you may need a computer technician to look at the system. Ontrack's data recovery experts may be able to help.
The computer is exhibiting erratic, unpredictable behavior.	Possible virus. Possible corrupted file allocation table.	Run FixWizard with all options. This will fix system files and check for viruses.
Your disk drive is making an unusual grinding noise.	The drive bearings or other part of the drive may be going bad.	Back up everything important to floppies or other removable media, NOW, then turn off the computer. Get the computer checked out by a good hardware technician. May have to replace the hard drive.
Your Word files are being saved as .dot files.	This is a known virus.	Run Virus Scanner.
Your program crashes a lot, especially when certain graphics are displayed.	You may have the wrong driver for your video card. You may have the right driver, but the wrong settings for the type of monitor.	Call your computer company and get the latest video driver. Make sure your settings are correct.
You try running a program that you have run before, but the system can not find it.	Did you move the program to a new location? Possible invalid registry link.	Run RegistryFixer. May need to delete program files and re-install the program.
Not enough room to install new software	Low disk space.	Run DiskCleaner. Also, you may want to zip up any large files you aren't using. PowerDesk can help you increase your disk space.

Problem/Symptoms	Possible Causes	What to Do
Not enough room for programs that write to temp files to run successfully	Low disk space.	Run DiskCleaner. Also, you may want to zip any large files you aren't using.
Files left over on disk after uninstalling an application	The application's uninstall program did not completely remove all files.	Run DiskCleaner to remove unused/ temporary files.
Unwanted files left in the cache after a web browsing session		Run DiskCleaner to remove unused/ temporary files.
Old files, especially intermediate files, left around when changing to a new directory or project, e.g. compiler intermediate files		Run DiskCleaner to remove unused/ temporary files.
Old files that are no longer needed or wanted accumulate because they are forgotten, buried in never accessed folders		Run DiskCleaner to remove unused/ temporary files.
Duplicate files accumulated when applications are moved or re-installed		Run DiskCleaner to remove unused/ temporary files.

Chapter 17: Setting Ontrack System-Suite Properties

When you first install Ontrack SystemSuite, there are a number of setup options and properties that are initially given default values.

Once you become familiar with Ontrack SystemSuite, or if you are already an advanced computer user, you may want to review and change the default properties.

To open the Properties dialog box, click on **Properties** at the top of the Ontrack SystemSuite window. This opens the Properties window, in which you can change any setup options and other properties for Ontrack SystemSuite:

The properties of the SystemMonitors are different from the other tools. *See "SystemMonitors Properties" on page 111.*

GENERAL SETTINGS

When you first launch **Properties**, you see the global program settings:

- **Show Tooltips:** Tooltips are those little (usually yellow) pop-up text boxes that appear when you move the mouse pointer over a field. If you want to disable them, un-check this box. You can check this box any time to re-activate Tooltips.

Background and Startup Tasks: These checkboxes determine whether their associated programs are started up every time you boot into Windows.

- **CrashProof:** Check this box if you would like to have CrashProof running in the background at all times.
- **Disk Snapshot:** Check this box to have Disk Snapshot make a copy of critical system files every time you boot up.
- **IntelliCluster data collection:** IntelliCluster is an Ontrack program that tracks the programs you run most often, as well as the files those programs load. That information is given to DefragPlus, which uses it to optimize your disk drive and place the files you use most often in the "fast access" zones of your hard drive.

Tray Icon: The system "tray" is the set of icons that are located by default in the bottom right of your screen. Ontrack SystemSuite has its own icon, which by default is only shown when you are running one of the Ontrack SystemSuite programs.

- **Always show tray icon:** If you check this box, the tray icon will be displayed whether you're running Ontrack SystemSuite programs or not.
- **Only show tray icon when a Ontrack SystemSuite task is running:** If you check this box, the icon will only be visible if a Ontrack SystemSuite program is running.

DISKFIXER™ PROPERTIES

DiskFixer settings are as follows:

TESTS

This list determines which tests DiskFixer performs when you run it. Check any tests you want performed; un-check tests you don't want performed.

- **Partition Tables:** Perform a thorough analysis of the disk partition table entries and fix invalid entries.
- **Boot Records:** Check the individual partition boot records and header data structures against the master boot record.
- **File Allocation Tables (FAT or FAT32):** Look for invalid entries in the FAT.
- **Files:** Verify the directory structure, looking for invalid dates and file names. Also makes sure that the entries refer to valid data and checks that two files don't both refer to the same data (cross-linked files).
- **Dates and times:** Verify that every file is stamped with a valid date and time. Any files with invalid information are given the current date and time.
- **File names:** Verify that every file has a valid file name. Occasionally a corrupted file may contain invalid characters in its name, making it

inaccessible to the operating system. This test locates these files and fixes them.

- **Lost Cluster Chains:** Locate lost clusters and either recycle them as free space or make them into files so you can review the data.

AUTOFIX

- Cross-linked Files: When DiskFixer finds cross-linked files, this setting tells DiskFixer how to handle it. The default is to make a duplicate for later examination. You can also tell DiskFixer to delete or ignore cross-linked files.
- Lost Cluster Chains: When DiskFixer finds chains representing lost clusters, the default is to delete the chain(s). You can change this to save the lost clusters as files, in case you wish to check the contents for lost data.

SURFACE SCAN

Optionally, DiskFixer can perform a complete check of the entire disk surface, reading and writing each sector to verify its quality. You can choose the areas to scan:

- **Scan System Information Areas:** These are boot sectors, reserved sectors and FATs.
- **Scan File Areas:** These are clusters that are in use for storage of files and directories.
- **Scan Unused Areas:** Areas of the drive not currently in use.

DEFRAGPLUS™ PROPERTIES

DRIVE OPTIMIZATION METHOD

For each type of disk, you can choose one of the following options.

- Full Optimization: Perform a complete drive optimization, including disk defragmentation and free space consolidation.
- Unfragment Files only: Just defragment the files without necessarily moving all files into one area and all free space into another.
- Consolidate Free Space: This option moves as much free space into a contiguous area of the drive as possible, without completely defragmenting the drive.

FULL OPTIMIZATION OPTIONS:

There are four "zones" on the hard drive that determine where files are placed. The more efficiently files are placed in these zones, depending on their frequency of access and update, the faster data access will be.

- There is an "IntelliCluster" zone, which is reserved for defrag information.
- There is a zone for frequently accessed files. This is in the area that is the fastest for retrieval of information, but not necessarily the best for modifying files.
- There is a zone for common files that don't fall into either of the "frequently" categories.
- There is a zone for frequently modified files. Frequently modified files are placed next to the free space on the disk so that they can use up more space without getting fragmented as rapidly.

Files that fall into both the Frequently Accessed and Frequently Modified categories are placed into the fourth zone, in the part of the zone that is fastest to access.

Rarely accessed files age limit: The default is 60 days. Enter the number of days that defines rarely accessed files (any files with access dates beyond this number are considered to be rarely accessed). Any file that has not been accessed in the past 60 days (or whatever number you enter) will be moved out of the four zones and placed in the slowest-access area of the drive.

Frequently modified files age limit: The default is 30 days. Frequently modified files are placed in a zone that is fastest for updating. Any files

modified within the last 30 days (or whatever number you enter) are moved to the "Frequently modified files" zone.

OPTIMIZE SWAP FILE

(Windows 95/98 only) You can defragment and optimize the special file known as the *swap file*, if you like. The swap file is used by the system as an extension of your RAM, so if RAM fills up the computer offloads some of the RAM data into the swap file. The swap file can become fragmented just like any other file.

ENABLE EVENT LOGGING

If you would like to see the messages and status information from DefragPlus in the SystemLog, make sure this box is checked.

SHOW DETAILS AFTER ANALYSIS

When you run DefragPlus, you can click a checkbox labeled Analyze Drive. If you do, DefragPlus analyzes the fragmentation of your drive first. This option determines whether the details of the analysis pop up automatically, or you have to click on the **Details** button to see them.

DISK SNAPSHOT PROPERTIES

Create snapshots on startup: Checking this option means that every time Windows starts up, there will be a new snapshot of the important system files on disk. Checking this option gives the FileUndeleter feature a higher likelihood of success at recovering deleted files.

Be sure that the drive(s) containing system files are checked in the **Drives to Snapshot** window.

ZIP AV PROPERTIES

You can use your own virus scanner software to automatically scan files that are being zipped and unzipped. This feature is only available for anti-virus scanners that provide a command-line command.

Look up this command in your virus scanner manual, and enter it in the Anti Virus Command Line field. Be sure the text and all parameters are correct.

SYSTEM SAVER PROPERTIES

ADDING OTHER FILES TO THE SYSTEM SAVER

The System Saver utility backs up the critical system files to another area on disk in case the files ever become damaged or inaccessible. The properties allows you to customize System Saver to back up other files of your choice. Since this utility is designed for system files, it should not be used to back up your whole disk. However, if your system has certain critical files not included in the default backup list, you may want to add them via the Properties.

To add other files to the System Saver backup:

1. Click on the **Add File** button.
2. Browse to the location and the file you wish to include.
3. Double-click on the file or select it and click **Open**.
4. The file name and location will be displayed in the Properties dialog box.

You can remove files by selecting them in the Properties dialog box and clicking the **Remove File** button.

NUMBER OF BACKUPS

Change the default number of backups kept on disk by entering a new number in this box.

FILEUNDELETER™ PROPERTIES

The FileUndeleter settings allow you to set up a portion of your drive reserved for deleted files. This area is called the *Deleted Files Bin*. If the Deleted Files Bin is enabled, files will be moved to this bin when you do any of the following:

- Empty the Windows Recycle Bin
- Delete files from DOS
- Delete files from a program
- Delete files in any way that bypasses the Windows Recycle Bin.

DRIVE SETTINGS

Select the drive you want to configure.

To see (and modify) the list of file types that will not go into the Deleted Files Bin when they are deleted, click on the File Types button. This displays the following dialog:

This image shows the default file types; you can add/remove file types if you wish.

In the FileUndeleter properties window, use the slider to allocate the percentage of your drive to be reserved for deleted files. If you do not want to activate the Deleted Files Bin at all, simply un-check all drives.

Max preserved file count: You can change the maximum number of preserved files. The deleted files kept in the Deleted Files Bin will never exceed the percentage of the drive allocated for that purpose, but you can also

limit the total number of files in case there are a lot of very small or zero-length files deleted.

SIZE MANAGER™ PROPERTIES

Size Manager properties control startup settings, including the drives scanned at startup, the drives displayed in Size Manager, and the colors used to display graphs and details.

To change Size Manager properties:

1. On the Ontrack SystemSuite program menu, click the **Properties** icon.
2. Click the **SizeManager** button.
3. Click the **Scan Drives** button.

   The available drives on your system display.
4. Select the drives that you want scanned at Startup.

   You can select the Floppy, Fixed, Network, or Others check boxes for Size Manager to automatically select the appropriate drives. Others includes drives such as the CD ROM drive.
5. Click the **Show Drives** button.
6. Select the drives that you want Size Manager to display while it is running.

   You can select the Floppy, Fixed, Network, or Others check boxes for Size Manager to automatically select the appropriate drives. Others includes drives such as the CD ROM drive.
7. Click the **Set Colors** button.

   The color used for tagged folders displays in the **Tagged Folders Color** box, and the colors used for graphs display in the **Graph Colors** box. The Bar Color is the basic graph color and the OverRun Color is the color used for graphs wider than the graph column can display.

8. To change any of the colors, click the button to the right of the color, select a color in the color table, and then click **OK**.
9. Click **OK** in any of the dialog boxes to close the window and save the new settings.

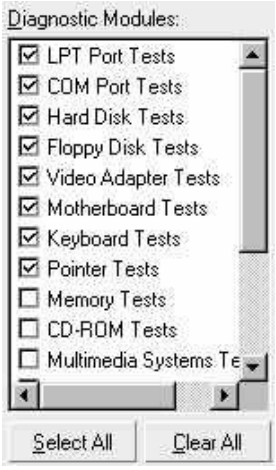
REGISTRYFIXER™ PROPERTIES

The RegistryFixer settings tell RegistryFixer how to handle broken system registry links.

- **Scan my hard drive(s)....:** Checking this option causes RegistryFixer to locate broken links and try to find the correct associated files on the hard drive. If it finds the files, it repairs the links.
- **Check references to files on network drives...:** Checking this option causes RegistryFixer to verify that all links to files on network drives are valid. This option only works when the computer is attached to the network and the network is up.

PC DIAGNOSTICS™ PROPERTIES

This is where you define which diagnostic modules are displayed when you run PC Diagnostics. When you display the PC Diagnostics properties window, you see a current list of modules:



Any checked items appear on the PC Diagnostics list of modules to evaluate; unchecked items do not appear on the list. If you make any changes in this dialog, you must close PC Diagnostics (if it is running) and restart it.

If a checked item does not exist on your system, that diagnostic module does not get loaded.

SYSTEMLOG PROPERTIES

The SystemLog is a text file that contains the warning messages, error message and other communications from Ontrack SystemSuite.

If you are running Windows NT, you can also specify that the warnings and errors be recorded in the NT Event Log.

- **Log File Name:** The name and location of the log file. You can change this or leave the default.
- **Echo messages....:** (Windows NT only) Check this box to echo the warning and error messages in the Windows NT Event Log into the SystemLog.

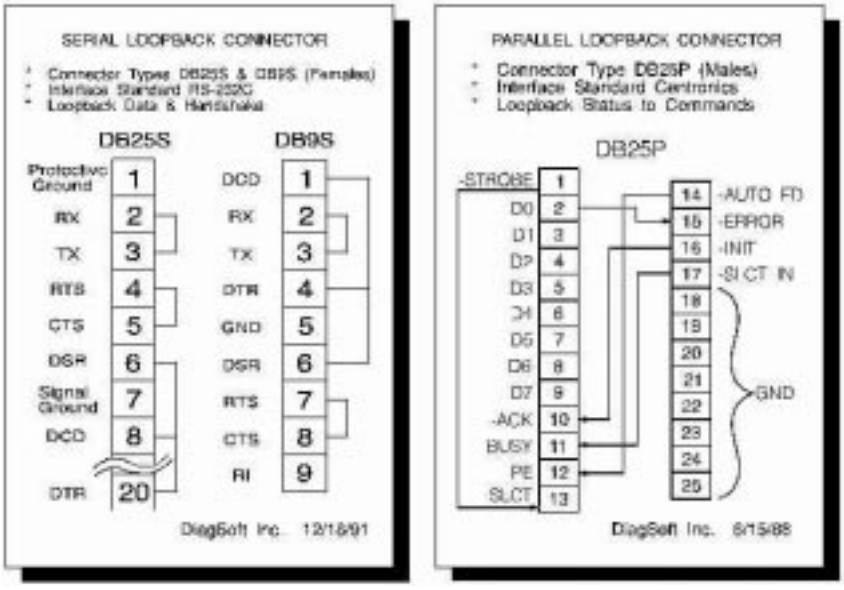
Appendix A: Glossary

Boot	To start up your computer.
Boot Record	This performs the job of a partition table, if there is no partition table on the system. The boot record's main function is the loader routine, which initially boots the system into operation and then loads the larger operating system.
Cluster	DOS allocates space to files in units called clusters. Each cluster contains from two to eight sectors, depending on the type and size of the disk. A cluster is the smallest unit of disk space that can be allocated for use.
Cross-linked files	Two files that both refer to the same data.
Directory	This is an index into the files on your disk. It acts as a hierarchy, and you will see them represented in Windows looking like manila folders.
DOS	Disk Operating System. A micro-computer operating system developed by Microsoft.
FAT	See File Allocation Table
FAT32	See File Allocation Table
File	A collection of data grouped into one unit on disk.
File Allocation Table	(FAT or FAT32) DOS uses the FAT to manage the disk data area. The FAT tells DOS which portions of the disk belong to each file. The FAT links together all of the clusters belonging to each file, no matter where they are on disk. The FAT is a critical file; you should be sure to back it up regularly.

Lost cluster chain	This is a cluster on disk that is not registered as free memory, but does not have any known data in it.
NTFS	Windows NT File System
Partition Table	The partition table describes to the operating system how the hard disk is divided. Each partition on a disk has a corresponding entry in the partition table. If there is no partition table, its place is taken by the boot record.
Path	A location of a file. The path consists of directory or folder names, beginning with the highest-level directory or disk name and ending with the lowest-level directory name. example: c:\mydir\documents\legal
Sector	The tracks on a disk are divided into sectors. Clusters contain from 2 to 8 sectors.
System Registry	This is a database that contains and maintains information about the hardware, software, network, and general system details. The system updates the registry every time you add new hardware or a new program to your system. When the registry becomes "broken," it can cause serious system problems.
Virus	A virus is a program written to cause mischief or damage to a computer system. A mild virus might only be a slight nuisance, or even amusing. However, most viruses do damage, whether to your files, your registry, or even your hardware. Viruses are hard to detect, easy to propagate, and difficult to remove. Your computer can pick up a virus when you copy a seemingly normal file from a diskette or download it from the Internet.

Appendix B: Loopback Testing

The following diagram shows the required loopback connector hardware connections for doing loopback testing:



Loopback connectors can be found at a variety of electronic parts stores, such as JDR Microdevices, at (800) 538-5000 (www.jdr.com), or at Roger Systems Specialists (www.rogerssystems.com)*.

(*This information is accurate as of the time of print)

Appendix B: Loopback Testing

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