symantec™

Norton SystemWorks™ 3.0

For Macintosh®

User's Guide

Norton SystemWorks™ for Macintosh®
User's Guide

Documentation Version 3.0

PN: 10067451

Copyright Notice

Trademarks

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

Symantec License and Warranty

IMPORTANT: PLEASE READ THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT CAREFULLY BEFORE USING THE SOFTWARE. SYMANTEC CORPORATION AND/OR ITS SUBSIDIARIES ("SYMANTEC") IS WILLING TO LICENSE THE SOFTWARE TO YOU AS THE INDIVIDUAL, THE COMPANY, OR THE LEGAL ENTITY THAT WILL BE UTILIZING THE SOFTWARE (REFERENCED BELOW AS "YOU OR YOUR") ONLY ON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS OF THIS LICENSE AGREEMENT. THIS IS A LEGAL AND ENFORCEABLE CONTRACT BETWEEN YOU AND SYMANTEC. BY OPENING THIS PACKAGE, BREAKING THE SEAL, CLICKING ON THE "AGREE" OR "YES" BUTTON OR OTHERWISE INDICATING ASSENT ELECTRONICALLY, OR LOADING THE SOFTWARE, YOU AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS AND CONDITIONS, CLICK ON THE "I DO NOT AGREE", "NO" BUTTON, OR OTHERWISE INDICATE REFUSAL, MAKE NO FURTHER USE OF THE SOFTWARE, AND RETURN THE FULL PRODUCT WITH PROOF OF PURCHASE TO THE DEALER FROM WHOM IT WAS ACQUIRED WITHIN SIXTY (60) DAYS OF PURCHASE, AND YOUR MONEY WILL BE REFUNDED.

1. License:

The software which accompanies this license (collectively the "Software") is the property of Symantec or its licensors and is protected by copyright law. While Symantec continues to own the Software, you will have certain rights to use the Software after your acceptance of this license. This license governs any releases, revisions, or enhancements to the Software that Symantec may furnish to you. Except as may be modified by a Symantec license certificate, license coupon, or license key (each a "License Module") which accompanies, precedes, or follows this license, your rights and obligations with respect to the use of this Software are as follows:

You may:

A. use one copy of the Software on a single computer. If a License Module accompanies, precedes, or follows this license, you may make that number of copies of the Software licensed to you by Symantec as provided in your License Module. Your License Module shall constitute proof of your right to make such copies.

B. make one copy of the Software for archival purposes, or copy the Software onto the hard disk of your computer and retain the original for archival purposes;

C. use the Software on a network, provided that you have a licensed copy of the Software for each computer that can access the Software over that network; and

D. after written notice to Symantec, transfer the Software on a permanent basis to another person or entity, provided that you retain no copies of the Software and the transferee agrees to the terms of this license.

You may not:

A. copy the printed documentation which accompanies the Software;

B. sublicense, rent or lease any portion of the Software; reverse engineer, decompile, disassemble, modify, translate, make any attempt to discover the source code of the Software, or create derivative works from the Software;

C. use a previous version or copy of the Software after you have received a disk replacement set or an upgraded version. Upon upgrading the Software, all copies of the prior version must be destroyed;

D. use a later version of the Software than is provided herewith unless you have purchased upgrade insurance or have otherwise separately acquired the right to use such later version;

E. use, if you received the software distributed on media containing multiple Symantec products, any Symantec software on the media for which you have not received a permission in a License Module; or

F. use the Software in any manner not authorized by this license.

2. Content Updates:

Certain Symantec software products utilize content that is updated from time to time (antivirus products utilize updated virus definitions; content filtering products utilize updated URL lists; firewall products utilize updated firewall rules; vulnerability assessment products utilize updated vulnerability data, etc.; collectively, these are referred to as "Content Updates"). You may obtain Content Updates for any period for which you have purchased a subscription for Content Updates for the Software (including any subscription included with your original purchase of the Software), purchased upgrade insurance for the Software, entered into a maintenance agreement that includes Content Updates, or otherwise separately acquired the right to obtain Content Updates. This license does not otherwise permit you to obtain and use Content Updates.

3. Sixty Day Money Back Guarantee:

If you are the original licensee of this copy of the Software and are dissatisfied with it for any reason, you may return the complete product, together with your receipt, to Symantec or an authorized dealer, postage prepaid, for a full refund at any time during the sixty (60) day period following the delivery to you of the Software.

4. Limited Warranty:

Symantec warrants that the media on which the Software is distributed will be free from defects for a period of sixty (60) days from the date of delivery of the Software to you. Your sole remedy in the event of a breach of this warranty will be that Symantec will, at its option, replace any defective media returned to Symantec within the warranty period or refund the money you paid for the Software. Symantec does not warrant that the Software will meet your requirements

or that operation of the Software will be uninterrupted or that the Software will be error-free.

THE ABOVE WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE AND COUNTRY TO COUNTRY.

5. Disclaimer of Damages:

SOME STATES AND COUNTRIES, INCLUDING MEMBER COUNTRIES OF THE EUROPEAN ECONOMIC AREA, DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE BELOW LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW AND REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL SYMANTEC OR ITS LICENSORS BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, INCLUDING ANY LOST PROFITS OR LOST DATA ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE EVEN IF SYMANTEC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IN NO CASE SHALL SYMANTEC'S OR ITS LICENSORS' LIABILITY EXCEED THE PURCHASE PRICE FOR THE SOFTWARE. The disclaimers and limitations set forth above will apply regardless of whether you accept the Software.

6. U.S. Government Restricted Rights:

RESTRICTED RIGHTS LEGEND. All Symantec products and documentation are commercial in nature. The software and software documentation are "Commercial Items", as that term is defined in 48 C.F.R. section 2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as such terms are defined in 48 C.F.R. section 252.227-7014(a)(5) and 48 C.F.R. section 252.227-7014(a)(1), and used in 48 C.F.R. section 12.212 and 48 C.F.R. section 227.7202, as applicable. Consistent with 48 C.F.R. section 12.212, 48 C.F.R. section 252.227-7015, 48 C.F.R. section 227.7202 through 227.7202-4, 48 C.F.R. section 52.227-14, and other relevant sections of the Code of Federal Regulations, as applicable, Symantec's computer software and computer software documentation are licensed to United States Government end users with only those rights as granted to all other end users, according to the terms and conditions contained in this license agreement. Manufacturer is Symantec Corporation, 20330 Stevens Creek Blvd., Cupertino, CA 95014.

7. General:

If You are located in North America or Latin America, this Agreement will be governed by the laws of the State of California, United States of America. Otherwise, this Agreement will be governed by the laws of England. This Agreement and any related License Module is the entire agreement between You and Symantec relating to the Software and: (i) supersedes all prior or contemporaneous oral or written communications, proposals and representations with respect to its subject matter; and (ii) prevails over any conflicting or additional terms of any quote, order, acknowledgment or similar communications between the parties. This Agreement may only be modified by a License Module or by a written document which has been signed by both You and Symantec. This Agreement shall terminate upon Your breach of any term contained herein and You shall cease use of and destroy all copies of the Software. The disclaimers of warranties and damages and limitations on liability shall survive termination. Should you have any questions concerning this Agreement, or if you desire to contact Symantec for any reason, please write: (i) Symantec Customer Service, 555 International Way, Springfield, OR 97477, USA, or (ii) Symantec Customer Service Center, PO BOX 5689, Dublin 15, Ireland.

Contents

Section 1 Getting started

Emergency assistance

Chapter 1 About Norton SystemWorks for Macintosh

Section 2 Norton AntiVirus

Chapter 6 Protecting disks, files, and data from viruses

Chapter 7 What to do if a virus is found

Chapter 8 Customizing Norton AntiVirus

Section 3 Norton Utilities

Chapter 9 Examining, repairing, and recovering disks

Section 5 Appendices

Appendix A Norton Disk Doctor messages

Appendix B Using AppleScript with Norton AntiVirus

Appendix C Using Norton AntiVirus on a network

Appendix D Troubleshooting computer problems

1

Getting started

Emergency assistance

If you have an emergency, read through these recommendations on what to do, and which Norton SystemWorks for Macintosh tool can best solve your problem.

Why you should start from the CD

It's not always best to install Norton SystemWorks if your disk has a problem. Do not install the program on a disk that needs repair or contains lost files. Installing Norton SystemWorks could destroy the data that you want to recover.

See "Before installation" on page 34.

If you purchased Norton SystemWorks to maintain your Macintosh and do not currently have a problem, you can install Norton SystemWorks for Macintosh.

Versions of Norton SystemWorks for Macintosh for both Mac OS 8.1 to 9.x and Mac OS X are included on the CD. Features and procedures for both versions are similar. However, for specific Mac OS 8.1 to 9.x documentation, refer to the PDF on the Norton SystemWorks CD 9 partition of the CD.

See "Start from the CD" on page 17.

If your disk is damaged or contains erased files that you want to recover, you can perform the most effective repairs when you restart from the CD. When you restart from the CD, you can:

- View and examine files and folders using DiskViewer from the Emergency Launcher. See "Use DiskViewer" on page 20.
- Choose from a variety of Norton SystemWorks tools from the Emergency Launcher. Tools include Norton Disk Doctor, Speed Disk, Volume Recover, UnErase, and Wipe Info. See "Explore the Emergency Launcher" on page 19.
- Have Norton Disk Doctor detect and repair problems that can't be fixed if you start normally. See "Examine your startup disk" on page 34.
- Optimize your startup disk. See "Optimize a disk" on page 116.

What tool should you use for your problem?

Each Norton SystemWorks tool helps you solve a specific type of problem. Many recommendations include restarting from the CD. For more information about the Norton SystemWorks tools and their operating environments, see "Protect disks with Norton FileSaver" on page 50.

Problem	Recommendation
Your computer won't start from your normal startup disk, or you see the message, Do You Want To Initialize? after booting from the CD.	In response to the message, click No or Cancel. Restart from the CD and use Norton Disk Doctor to examine the disk and repair the damage or rebuild the disk's directory. See "Start from the CD" on page 17. You can also use Volume Recover to repair or recover the disk. See "When to use Volume Recover" on page 92. If disk damage can't be repaired, you can still recover data with UnErase. See "Recover files with UnErase" on page 107.
You see a folder with a blinking question mark (?).	Use Norton Disk Doctor to examine the disk and repair the damage. If disk damage can't be repaired, you can still recover data with UnErase. See "Recover files with UnErase" on page 107.

Problem	Recommendation
Your disks or files are damaged.	Do not install Norton SystemWorks on a disk that you want to repair, or from which you want to recover data. New files might overwrite the files that you want to recover. Use Norton Disk Doctor to examine and repair the disk. See "When to use Norton Disk Doctor" on page 91.
Your Mac won't start from your normal startup disk.	Restart from the CD. See "Start from the CD" on page 17.
You accidentally reinitialized your hard disk.	Use Volume Recover to restore critical information to your disk. See "Maintenance checklist" on page 51. Or, if you do not have Norton SystemWorks for Macintosh installed, use UnErase. See "Start from the CD" on page 17.
You accidentally deleted a file and emptied the trash.	Use Unerase or Volume Recover. See "Recover files with UnErase" on page 107.
You can't find a file, or you need to rescue files from a damaged disk.	Use UnErase or Volume Recover's Virtual Disk feature to recover files. See "Identify the preferred recovery method" on page 98.
You need to troubleshoot a problem.	See "Troubleshooting computer problems" on page 149.

Start from the CD

See "When disks do not show up in a list" on page 152.

For an emergency situation, start from the CD and use Norton Disk Doctor to detect and repair disk problems.

To start your computer from the CD

- Insert your CD into the CD-ROM drive and do one of the following:
  - While restarting your computer, hold down the **C** key. This will automatically open the Emergency Launcher's Repair Mode window. See "What tool should you use for your problem?" on page 16.
  - While restarting your computer, hold down the **Option** key. A screen will display with icons that include Norton SystemWorks CD X. Select the OS X icon and start your computer from the OS X partition of the CD. When startup is complete, the Emergency Launcher's Repair Mode window displays. See "Use DiskViewer" on page 20.
  - On the Apple menu, click **System Preferences**, **Startup Disk**, and then the Norton SystemWorks CD X icon. The Emergency Launcher's Repair Mode window displays.

Depending on your computer, you may also be able to select the Mac OS 8.1 to 9.x version of Norton SystemWorks. This earlier version of Norton SystemWorks does not include the Emergency Launcher.

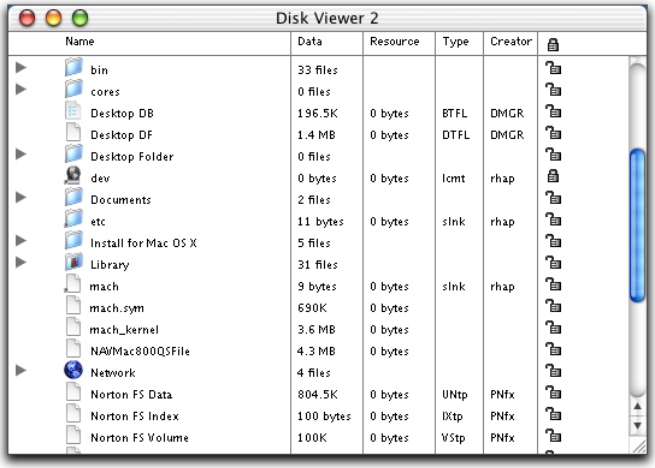
Explore the Emergency Launcher

There are tools in the Emergency Launcher's Repair Mode window that you can use when starting from the CD.

DiskViewer	Use DiskViewer to see which disks are mounted, and view folders and files on those disks. Use it when viewing an advance look at a rebuilt disk with Volume Recover to see what files have been recovered. From this view you can back up files to another disk, such as an external drive. No edits or changes can be performed on files from here. See "Use DiskViewer" on page 20.
Norton Disk Doctor	Finds and repairs disk problems. See "When to use Norton Disk Doctor" on page 91.
Speed Disk	Check, defragment, or optimize the selected disk. See "How Speed Disk optimizes" on page 116.
Volume Recover	Perform a FileSaver Search or use Create and View Virtual Disk on the selected disk. See "When to use Volume Recover" on page 92.
UnErase	Perform an UnErase Quick Search and other searches on the selected disk. See "Recover files with UnErase" on page 107.
Wipe Info	Wipe a file, an entire drive, or unused space on the selected disk. See "When to use Wipe Info" on page 119.
Norton Disk Editor	This is a tool that is provided for use by data recovery experts. Using this tool is sometimes the only way that damaged files or disks can be salvaged or repaired. Do not make modifications to your disk using Norton Disk Editor unless you are a data recovery expert. See "If Norton SystemWorks cannot solve your problems" on page 149.

Use DiskViewer

DiskViewer is used to explore, view, and copy files when you start Norton SystemWorks from the CD.



Navigating and viewing files in DiskViewer

DiskViewer displays all your files after you have started Norton SystemWorks from the CD.

To navigate through DiskViewer

- After clicking DiskViewer in the Launcher's Emergency Mode window, do one of the following:
  - Double-click folders and disks.
  - Click the triangles next to folder and disk names.

To get information about a file or folder in DiskViewer

1. Select the file or folder for which you want information.
2. On the Tasks menu, click **Get Info**.

To adjust the DiskViewer column widths

- Drag the divider between any two column headings.
  The entire DiskViewer window can also be resized vertically or horizontally.

To open a file or folder

❖ Do one of the following:

- Double-click a file name.
- Select a file or folder, then on the File menu, click **Open Selection**.

Opening a file in DiskViewer displays the first 31K of that file in text format. The file may not be formatted correctly and you may see unrecognizable characters. However, it will help you identify the content of the file.

You can have several DiskViewer windows open simultaneously. This makes it easy to focus on the content of different folders without having to scroll between them.

To open multiple DiskViewer windows

❖ Command-double-click a folder in a DiskViewer window to open a new window with that folder opened. Each new DiskViewer window will have a unique number.

Copying and pasting items to other locations within DiskViewer

DiskViewer allows you to copy and paste files and folders to another location within a window or to another DiskViewer window.

To copy and paste files and folders

1. In the DiskViewer window, click an item's name or hold down the **Shift** key to select multiple items.
2. On the Edit menu, click **Copy**.
3. Navigate to another location in the Window, or navigate to a location in another DiskViewer window.
4. On the Edit menu, click **Paste**.

Copying and pasting data from files

DiskViewer allows you to open files and copy text so that you can paste it elsewhere.

To copy text from a file in DiskViewer

1. In the DiskViewer window, double-click a file name or hold down the **Shift** key to select multiple files.
   The first 31K of each file selected is displayed. The files may not be formatted correctly and you may see unrecognizable characters.
2. Select the desired text, then on the Edit menu, click **Copy**.
3. Navigate to another location, then on the Edit menu, click **Paste**.

After working from the CD

After you have used a Norton SystemWorks tool from the Emergency Launcher, you will need to restart your computer.

To restart after using a tool from the CD

- ❖ Quit Norton Launcher.
  Your computer will automatically restart after a few seconds. If your Macintosh does not automatically restart, press **Reset** or hold the Power button for five seconds.

Make sure to quit all other Norton SystemWorks programs before you quit Norton Launcher when running from the CD. If you are running any other programs when you quit Norton Launcher, those programs will be forced to quit.

If you can't start from the CD

See "Explore the Symantec support Web site" on page 54.

The System software included on the CD might not be sufficient to start newer Macintosh models issued after the release of this version of Norton Utilities. To find out if a newer CD or software is available, contact Symantec's Customer Service.

Why use an earlier version of Norton SystemWorks?

Normally you would boot directly into the OS X version of Norton SystemWorks to solve your emergency problems. Like Mac OS 8.1 to 9.x, the newer OS X environment provides you with the tools to diagnose, repair, and maintain your computer directly from the CD in an emergency situation.

OS X provides additional functionality in the Volume Recover feature, letting you create a Virtual Disk to review before rebuilding your directories.

Some Macintosh models will also allow you to boot into the OS 9 bootable partition of the CD. From there, you can run the OS 9 compatible version of Norton SystemWorks. There are some advantages to being able to boot into the older operating system including:

- Access to a *Finder*
- Access to Network Volumes while booted from the CD

For specific Mac OS 8.1 to 9.x documentation, refer to the PDF on the Norton SystemWorks CD 9 partition of the CD.

About Norton SystemWorks for Macintosh

1

If you have an emergency, do not install Norton SystemWorks yet.
See "Emergency assistance" on page 15.

See "Installing Norton SystemWorks for Macintosh" on page 33.

Whenever you send and receive email, insert a CD or floppy disk, open an email attachment, or download a program from a news group or Web site, you risk receiving a virus. Norton SystemWorks for Macintosh provides comprehensive virus prevention, detection, and elimination for your computer. It finds and repairs infected files (files that contain viruses) to keep your data safe and secure.

In addition, there is always the chance that a disk will fail, a file that you need will be lost or unreadable, or your Macintosh will not perform the way that it should. Norton SystemWorks for Macintosh helps you solve and prevent disk problems, repair damaged disks, recover deleted files, and optimize hard disk performance. Plus, you are able to keep Norton SystemWorks up-to-date over the Internet.

What's new in Norton SystemWorks for Macintosh

Norton SystemWorks for Macintosh now includes:

- Complete antivirus protection of both Mac OS X 10.1.5 and later and Mac OS 8.1 to 9.x in one version
- Quarantine of infected files that cannot be repaired
- Scan on mount of removable disks including CD, Zip, and floppy which further extends the security of your data
- Tool drawer which allows customized and maximized access to your antivirus tools

- The Norton QuickMenu from which you can modify Auto-Protect
- Identification and repair of Windows and DOS viruses in files and archives so that hidden PC viruses cannot be planted in your computer and spread to Windows computers
- Scan and repair of files that are inside archives, excluding Stuffit, without user prompt
- Symantec Launcher, a new main window from which you can open all Norton SystemWorks tools as well as other Symantec products that are installed on your computer
- An Emergency Launcher that provides a single screen from which to select available Norton SystemWorks tools when booting directly from the CD
- A new Virtual Disk feature that lets you view and recover files even before you rebuild your directories
- Optional booting from the CD into Mac OS X or Mac OS 9 for most computers, that provides even more repair solutions
- Improved scheduling options that let you designate when you want the Norton FileSaver feature to record data or defragment files, which helps to support disk repair and file recovery
- Increased support and speed for disk repair, recovery, and optimization
- Enhanced file tracking and directory updates

Norton SystemWorks features

Norton SystemWorks for Macintosh combines protection, repair, and prevention features. It protects your data from viruses and other malicious code. It helps you solve and prevent disk problems, recover deleted files, repair damaged disks, and optimize hard disk performance. It also lets you keep your virus protection and program components up-to-date over the Internet.

About Norton AntiVirus

Norton AntiVirus for Macintosh provides comprehensive virus prevention, detection, and elimination software for your computer. It finds and repairs infected files (files that contain viruses) to keep your data safe and secure.

Norton AntiVirus easily updates its *virus definitions* over the Internet to stay prepared for the latest threats.

How viruses work

A computer virus is a parasitic program written intentionally to alter the way your computer operates without your permission or knowledge. A virus attaches copies of itself to other files and, when activated, may damage files, cause erratic system behavior, or display messages.

Computer viruses infect System files, or files stored in the System folder that the Macintosh computer uses to start up and documents created by programs with macro capabilities. Mac OS System files include kernel extensions (programs that load into memory when a Macintosh computer is started), and programs like those in Microsoft Office.

Some computer viruses are programmed specifically to corrupt programs, delete files, or erase your disk.

Macro viruses spread quickly

Macros are simple programs that are used to do things such as automate repetitive tasks in a document or make calculations in a spreadsheet. Macros are written in files created by such programs as Microsoft Word and Microsoft Excel.

Macro viruses are malicious macro programs that are designed to replicate themselves from file to file and can often destroy or change data. Macro viruses can be transferred across platforms and spread whenever you open an infected file.

Trojan horses hide their true purposes

Trojan horses are programs that appear to serve some useful purpose or provide entertainment, which encourages you to run them. But the program also serves a covert purpose, which may be to damage files or place a virus on your computer.

A Trojan horse is not a virus because it does not replicate and spread like a virus. Because Trojan horses are not viruses, files that contain them cannot be repaired. To ensure the safety of your computer, Norton AntiVirus detects Trojan horses so you can delete them from your computer.

Worms take up space

Worms are programs that replicate without infecting other programs. Some worms spread by copying themselves from disk to disk. They search for specific types of files on a hard disk and try to damage or destroy those files. Other worms replicate only in memory, creating myriad copies of themselves, all running simultaneously, which slows down the computer. Like *Trojan horses*, worms are not viruses and therefore cannot be repaired. They must be deleted from your computer.

How viruses spread

A virus is inactive until you launch an infected program, start your computer from a disk that has infected system files, or open an infected document. For example, if a word processing program contains a virus, the virus activates when you run the program. Once a virus is in memory, it usually infects any program you run, including network programs (if you can make changes to network folders or disks).

Viruses behave in different ways. Some viruses stay active in memory until you turn off your computer. Other viruses stay active only as long as the infected program is running. Turning off your computer or exiting the program removes the virus from memory, but does not remove the virus from the infected file or disk. That is, if the virus resides in an operating system file, the virus activates the next time you start your computer from the infected disk. If the virus resides in a program, the virus activates the next time you run the program.

To prevent virus-infected programs from getting onto your computer, scan files with Norton AntiVirus before you copy or run them. This includes programs you download from news groups or Internet Web sites and any email attachments that you receive.

Macintosh computers that are attached to multiplatform networks can potentially be affected by Windows-based viruses. If you store Macintosh files on network servers accessible by Windows-based computers, those files could potentially be attacked by Windows viruses or *worms* programmed to damage files.

About Norton Utilities

Unexpected problems can negatively affect the best protected computer. The logical structures of your hard disk might become corrupted. You might accidentally delete an important file, or an entire folder of important files. A crash might erase startup and configuration settings, making your computer unusable. Norton Utilities provides the best chance of recovering from these problems.

See "Protect disks with Norton FileSaver" on page 50.

Norton FileSaver starts when your computer does and records changes to your disks, including file additions and deletions. This information is used by UnErase, Norton Disk Doctor, and Volume Recover to facilitate disk and file recovery.

Prevent loss and damage of files and documents

Norton Disk Doctor finds and repairs disk problems. Even when your hard disk won't restart, you can restart from the CD and use Norton Disk Doctor and Norton Disk Navigator to make repairs. See "When to use Norton Disk Doctor" on page 91.

Norton FileSaver normally starts when your computer does and saves vital disk directory information that UnErase uses to recover lost files. If one of your disks becomes damaged, you can use Volume Recover to restore the disk using saved FileSaver information. See "How Norton FileSaver protects your disks and files" on page 50.

Speed Disk helps to defragment files and free space, and organizes files on your disks to provide faster performance. Speed Disk Profile Editor lets you customize file arrangements to match your computing activity. See "How Speed Disk optimizes" on page 116.

Wipe Info cleans selected files from your disk, preventing the information that you have deleted from being seen by anyone else. See "When to use Wipe Info" on page 119.

Repair and recover files

Volume Recover works with Norton FileSaver to restore critical information to crashed or accidentally erased disks. It also rebuilds directories for better chances of data recovery. It provides an advance look at recovered directories, which helps to ensure that you are restoring the files that you need. See "When to use Volume Recover" on page 92.

UnErase is used in conjunction with Norton FileSaver. UnErase recovers virtually any deleted file or folder, saving you from recreating lost work or from searching back up disks for lost files. See "When to use UnErase" on page 92.

Norton Disk Editor is a tool provided for use by data recovery experts. Using this tool is sometimes the only way that damaged files and disks can be salvaged or repaired. Do not make modifications to your disk using Norton Disk Editor unless you are a data recovery expert.

Live Update connects to the Symantec Web site and retrieves program updates. See "Update everything now" on page 61.

Norton Scheduler automatically schedules Norton FileSaver, Defragmentation, and LiveUpdate events. See "About Norton Scheduler" on page 63.

Norton Disk Doctor finds disk problems to prevent emergencies. See "When to use Norton Disk Doctor" on page 91.

Wipe Info cleans selected files from your disk, preventing unwanted recovery of information that you have deleted. See "How Wipe Info works" on page 119.

Is my computer protected now?

See "FileSaver snapshots schedule" on page 51.

Once you have installed Norton SystemWorks and restarted your computer, you are safe from viruses. To ensure protection, leave Auto-Protect on so that the program automatically finds viruses. Use LiveUpdate to protect against new viruses.

See "Maintenance checklist" on page 51.

It is up to you to maintain your computer's good condition. Keeping Norton protection active on your system will help you to ensure your data's safety.

The virus definition service stops known viruses

See "Look up virus definitions on the Symantec Web site" on page 84.

The virus definition service consists of files that Norton AntiVirus uses to recognize viruses and intercept their activity. You can look up virus names and access an encyclopedia of virus descriptions on the Symantec Web site.

Bloodhound technology stops unknown viruses

Bloodhound is the scanning technology for detecting new and unknown viruses. It detects viruses by analyzing an *executable file's* structure, behavior, and other attributes such as programming logic, computer instructions, and any data contained in the file.

Auto-Protect keeps you safe

The Auto-Protect feature loads into memory when your computer starts up, and provides constant protection while you work. It eliminates viruses and Trojan horses, including macro viruses, and quarantines and repairs damaged files. It also checks for viruses every time you use software programs on your computer, insert floppy disks or other *removable media*, use the Internet, or copy or save files to your computer.

Norton FileSaver takes snapshots of your data

The Norton FileSaver tool takes its first snapshot of your hard disks within five minutes after you restart your computer. FileSaver continues to update the snapshot of your disk every 24 hours, or after each time you restart your computer. You can also schedule more frequent updates if you choose. Other components of Norton SystemWorks use this information to help recover after a crash.

About other products on the CD

In addition to Norton Utilities and Norton AntiVirus, there are other tools on the Norton SystemWorks for Macintosh CD:

- Retrospect Express Backup from Dantz: Lets you back up your files quickly and easily to a wide range of removable media.
  See "Retrospect Express quick start documentation" on page 125.
- Aladdin Spring Cleaning: Lets you uninstall old programs and their associated files safely and completely, and remove the clutter that is left over from your Internet sessions. See "Spring Cleaning quick start" on page 130.

Prepare for emergencies

It is important that you are prepared in case of data loss or if your computer is infected by a virus.

In addition to running Norton SystemWorks, do the following:

- Back up data files regularly. Keep more than just the most recent backup.
- Make sure that you always have the CD or another external device from which you can start your computer. See "Start from the CD" on page 17.

Installing Norton SystemWorks for Macintosh

2

If you have an emergency, do not install Norton SystemWorks yet.
See "Emergency assistance" on page 15.

Before installing Norton SystemWorks, take a moment to review the system requirements listed in this chapter.

Versions of Norton SystemWorks for both Mac OS X and Mac OS 8.1 to 9.x are included on the CD. For instructions on installing and using Norton SystemWorks for Mac OS 8.1 to 9.x, see the Norton SystemWorks User's Guide PDF in the OS 9 portion of the CD.

System requirements

The following is required to run Norton SystemWorks for Macintosh:

- Macintosh OS X 10.1.5 or later
- Macintosh PowerPC processor, G3 or later
  (Beige G3 and original PowerBook G3 not supported)
- 80 MB of RAM (for Norton SystemWorks)
- 15 MB of RAM (for Aladdin Spring Cleaning)
- 50 MB of RAM (for Dantz Retrospect Express)
- 50 MB of available disk space for installation; 10% of total disk space available for optimization
- Internet connection to *download* program updates
- CD-ROM or DVD-ROM drive

Norton SystemWorks does not support Mac OS X versions 10.0 to 10.1.4, so you must upgrade to version 10.1.5 or later.

Before installation

Before you install Norton SystemWorks:

- Read the Read Me file for Mac OS X.
- Start from the CD and examine your startup disk and other mounted disks for damage. See "Start from the CD" on page 17.

Examining all mounted volumes ensures that Norton Disk Doctor detects any problems before you install.

Read the Read Me file

The Read Me file on the CD contains information that was unavailable at the time that the User's Guide was published.

To read the Read Me file

1. Insert the CD into your CD-ROM drive.
2. Open the folder for the version of Norton SystemWorks that you are installing.
3. Double-click **Norton SystemWorks Read Me**.

Examine your startup disk

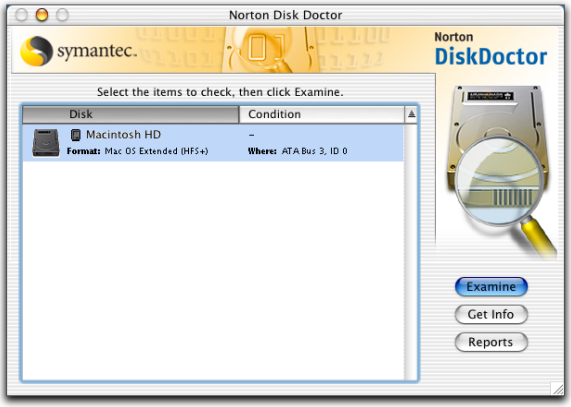
To ensure that your startup disk has no problems, examine it before installing Norton SystemWorks.

To examine your hard disk

See "Start from the CD" on page 17.

1 Start your computer using the CD.

2 In the Norton Emergency Launcher, click **Norton Disk Doctor**.



3 In the Norton Disk Doctor window, select your startup disk.
If a disk doesn't appear in the Norton Disk Doctor window, it might be damaged.

See "If Norton Disk Doctor finds a problem" on page 96.

4 Click **Examine**.
If Norton Disk Doctor finds errors during the examination, it prompts you to fix or skip the repairs. When the examination is complete, the results appear in the Summary window.

5 Click **Done**.

6 Restart your Macintosh before installing Norton SystemWorks.

Installation

Install the program from the CD.

Norton SystemWorks for Mac OS X protects both Mac OS X and Mac Classic.

The installation procedure requires that you enter an Administrator password. If you do not know if your login is an Admin login, you can check it in System Preferences.

To check your login type

1 On the Apple menu, click **System Preferences**.

2 Do one of the following:

- In Mac OS X 2.0 and later, click **Accounts**.
- In Mac OS X 10.1.5, click **Users**.

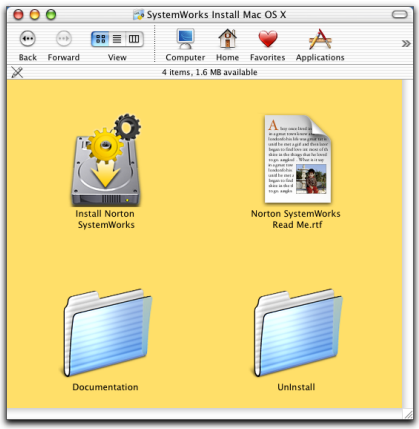
Your login name and type are listed.

To install Norton SystemWorks

1 Restart your Macintosh before installing Norton SystemWorks.

2 Insert the CD into the CD-ROM drive.
If the CD window doesn't open automatically, double-click **Norton SystemWorks CD X**.

3 Double-click **SystemWorks Install Mac OS X**.

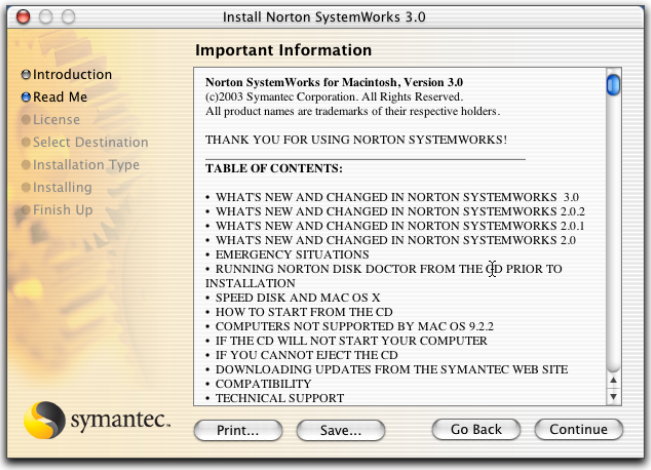


4 Double-click the **Install Norton SystemWorks** icon.

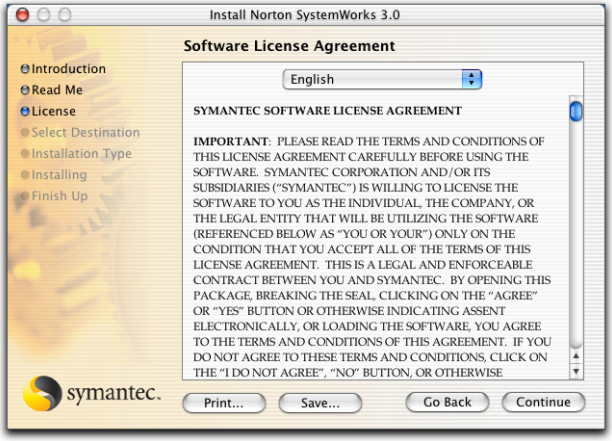
If you are installing Norton SystemWorks on Mac OS X 10.1.5, the Authenticate window does not automatically appear. Click the lock in the lower-left corner of the Authorization window to open the Authenticate window and continue with the rest of the procedure.

5 In the Authenticate window, type your Administrator password, then click **OK**.

6 In the Welcome to the Norton SystemWorks Installer window, click **Continue**.

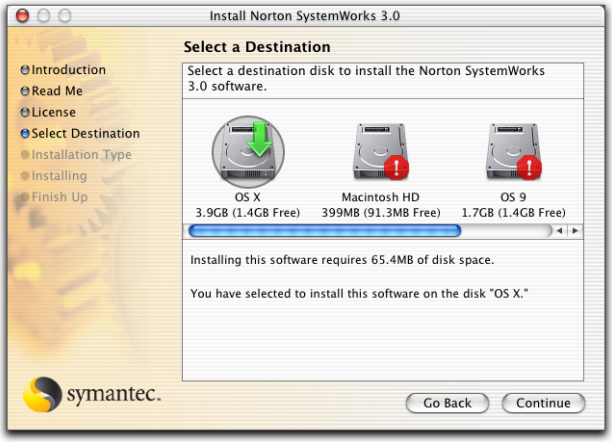


7 Review the Read Me text, then click **Continue**.

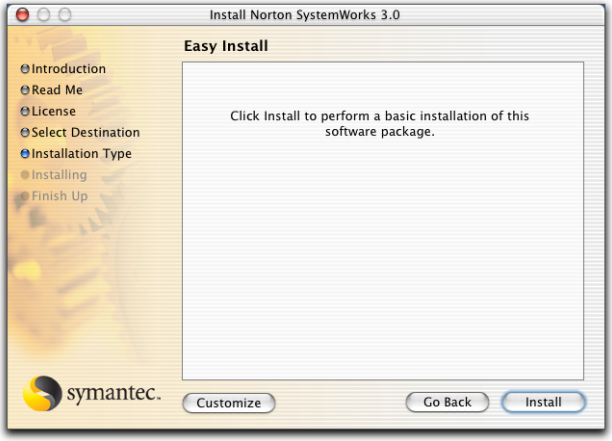


8 In the Software License Agreement window, click **Continue**.

9 In the agreement dialog box that appears, click **Agree**.
If you disagree, you cannot continue with the installation.

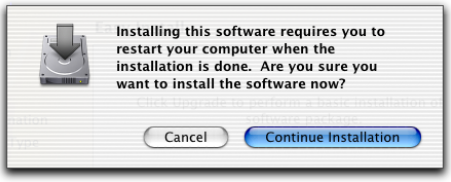


10 Select the disk on which you want to install Norton SystemWorks, then click **Continue**.

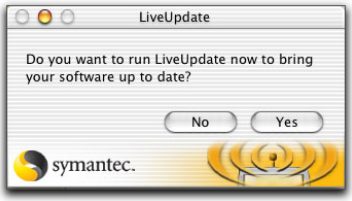


11 In the installation type window, do one of the following:

- For a full installation, click **Install**. If you have other Symantec products installed on your computer, this button may say Upgrade.
- To see a list of components being installed, click **Customize**. When you have finished reviewing the list, click **Install**.

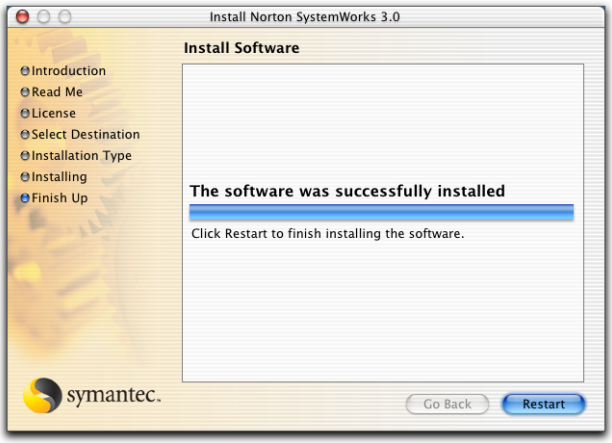


12 In the verification dialog box, click **Continue Installation**.



13 Choose whether or not you want to run LiveUpdate to ensure your software is up-to-date.

If you choose not run LiveUpdate now, it should be done at a later time to ensure that you have the most recent program updates to Norton SystemWorks.



14 When installation is complete, click **Restart**.

Why you should restart your computer immediately

"How Norton FileSaver protects your disks and files" on page 50.

When you restart your Macintosh, the Norton FileSaver tool starts working by taking its first snapshot of your hard disks within five minutes after you restart. Other Norton SystemWorks tools use this snapshot to help you recover after a crash.

After installation

Now that you've installed Norton SystemWorks, you need to complete the following tasks.

Tasks	For more information
Make sure you have restarted your computer.	See "If you cannot eject the CD" on page 41.
Register your software to take advantage of program updates and other benefits.	See "Register Norton SystemWorks" on page 41.

Tasks	For more information
Check for late-breaking news and updates about your new software. Use the Internet link installed in the Norton Solutions folder.	See "For more information" on page 52.
Get information about additional features and programs that are included on the CD.	See "Explore the CD" on page 52.
Make sure that the Norton FileSaver update settings are protecting all of your mounted disks.	See "How Norton FileSaver protects your disks and files" on page 50.
Be sure you have run LiveUpdate to check for the most recent program files.	See "When you should update" on page 58.
Examine all of your disks to make sure that they are problem-free.	See "When to use Norton Disk Doctor" on page 91.
Learn more about Norton Disk Doctor examination messages.	See "About Norton Disk Doctor messages" on page 135.

If you cannot eject the CD

If you have trouble ejecting the CD after you restart your computer, try one of the following:

- Press the CD-ROM drive's eject button when your Macintosh restart chime sounds.
- On a newer Macintosh computer with a slot-loading CD-ROM drive, press the mouse button while starting up.

Register Norton SystemWorks

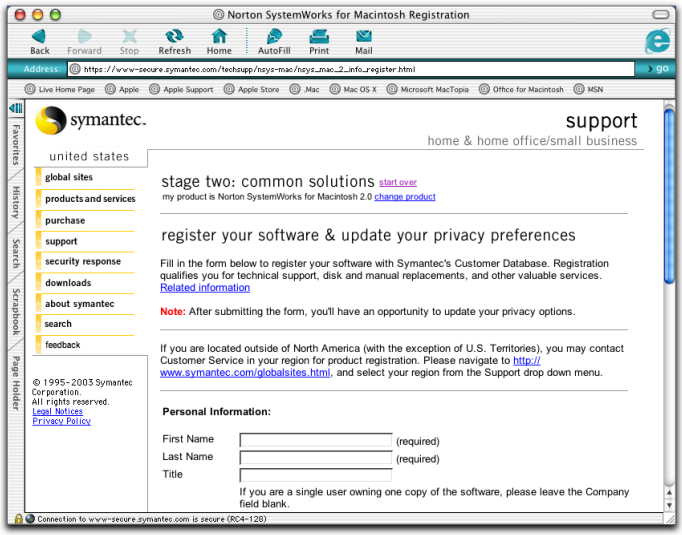
Using your existing Internet connection, you can register Norton SystemWorks via the Internet.

To register via the Internet

See "If you connect to the Internet through America Online" on page 43.

1. Connect to the Internet.
   If you use America Online (AOL) to connect to the Internet, you need to connect to it first.
2. In the Norton Solutions folder, double-click **Register Your Software**.

   Your default Internet browser displays the Symantec support page.
3. On the support page, click **I am a home/small business user**.
4. On the register your software page, click **Norton SystemWorks for Macintosh**.
5. Select the correct version of the product.
6. Click **continue**.



7. On the registration page for Norton SystemWorks for Macintosh, type all of the required information.
8. Click **Submit Registration**.

Read Late Breaking News

Norton SystemWorks for Macintosh installs a Late Breaking News link. Use this link to get the latest information for your installed software.

To read Late Breaking News

1. Connect to the Internet.
   If you use America Online (AOL) to connect to the Internet, see "If you connect to the Internet through America Online" on page 43.
2. In the Norton SystemWorks for Macintosh folder, double-click **Late Breaking News**.

   Your default Internet browser displays the Symantec Late Breaking News Web page for your product.

If you connect to the Internet through America Online

If you use America Online (AOL) as your Internet service provider (ISP), you must connect to AOL before you go to the Symantec software registration page or view the Late Breaking News.

To connect to the Symantec Web site through AOL

1. Log on to AOL.
2. On the AOL Welcome page, click the AOL Internet browser.
3. Move the AOL browser and any other open AOL windows out of the way.
4. In the Norton SystemWorks window, do one of the following:
   - Double-click **Register Your Software**.
     Continue with the registration procedure. See "Register Norton SystemWorks" on page 41.
   - Double-click **Late Breaking News**.
     Continue with the procedure for reading the news. See "Read Late Breaking News" on page 43.
5. Disconnect from AOL.

If you need to uninstall Norton SystemWorks

If you need to remove the program from your computer, use the Symantec Uninstaller on the CD. The process is faster if all other programs are closed before you uninstall the program.

The uninstall procedure requires that you enter an Administrator password. If you do not know if your login is an Admin login, you can check it in System Preferences.

To check your login type

1. On the Apple menu, click **System Preferences**.
2. Do one of the following:
   - In Mac OS X 2.0 and later, click **Accounts**.
   - In Mac OS X 10.1.5, click **Users**.

   Your login name and type are listed.

To uninstall Norton SystemWorks

1. Insert the CD into the CD-ROM drive.
   If the CD window doesn't open automatically, double-click the CD icon to open it.
2. In the CD window, open the **Install for OS X** folder.
3. Double-click **Symantec Uninstaller**.
4. In the Uninstall Symantec Products window, check the products that you want to uninstall.
5. Click **Uninstall**.
6. Confirm that you want to delete the product.
7. In the Authenticate window, type your Administrator password, then click **OK**.
8. In the window that displays the list of deleted items, click **Close**.
9. In the Uninstall Symantec Products window, click **Quit**.

Norton SystemWorks basics

3

Norton SystemWorks basics include general information about how to work with Norton SystemWorks and how to access more information about the tools that are available.

How to start and exit Norton SystemWorks

You don't have to start the Norton SystemWorks program to be protected from viruses if you have Auto-Protect running. You do have to start Norton SystemWorks when you want to:

- Run manual scans of your computer.
- Schedule Norton AntiVirus to run unattended scans.
- Customize virus protection options.

The Norton Launcher is a convenient window from which you can launch the Symantec products that are installed on your computer. Use Norton Launcher to access the features in Norton SystemWorks and any other Symantec product that is installed on your Macintosh.

If you're not certain what a particular tool or program is used for, roll your mouse over the icon and a brief description will display at the bottom of Norton Launcher.

Open Norton Launcher

Norton Launcher is installed in the Norton Applications folder.

To open Norton Launcher

❖ In the Norton Applications folder, double-click **Norton Launcher**.

Open a program

Once you have started Norton Launcher, you can open any available program.

To open a program from Norton Launcher

1 Open Norton Launcher.

2 In the Norton Launcher window, click an icon.

Customize the Norton Launcher toolbar

You can add any icon to the Norton Launcher toolbar, which is located directly above the Launcher. You can also hide or display the toolbar.

Hide or display the Norton Launcher toolbar

If the Norton Launcher toolbar is hidden, you might have to display it before you can customize it.

To hide or display the Norton Launcher toolbar

1. Open Norton Launcher.
2. On the Window menu, select one of the following. Your options are:

Hide Toolbar	Conceals the Norton Launcher toolbar
Show Toolbar	Displays the Norton Launcher toolbar

Add icons to the Norton Launcher toolbar

You can customize the Norton Launcher toolbar by adding, deleting, or rearranging icons.

To add icons to the Norton Launcher toolbar

1. Open Norton Launcher.
2. On the Window menu, click **Customize Toolbar**.
   In the window of available icons, drag an icon to the Norton Launcher toolbar.

You can also add the Norton Launcher to the Dock by dragging its folder icon from the Applications folder to the right-hand side of the Dock.

Customize the Norton QuickMenu

The Norton QuickMenu appears as the yellow-and-black Symantec logo on the right side of the menu bar. If you do not want the Norton QuickMenu to appear on your menu bar, you can hide it. You can also change the items that appear on the menu.

To hide the Norton QuickMenu

1. On the Norton QuickMenu, click **Norton QuickMenu > Preferences**.
2. In the Norton QuickMenu preferences window, uncheck **Enable Norton QuickMenu**.
3. On the System Preferences menu, click **Quit System Preferences**.

To show the Norton QuickMenu

1. On the Apple menu, click **System Preferences**.
2. In the System Preferences window, click **Norton QuickMenu**.
3. In the Norton QuickMenu preferences window, check **Enable Norton QuickMenu**.
4. On the System Preferences menu, click **Quit System Preferences**.

To change what appears on the Norton QuickMenu

1. On the Norton QuickMenu, click **Norton QuickMenu > Preferences**.
2. In the Norton QuickMenu preferences window, uncheck the items that you do not want to appear on the menu.
3. On the System Preferences menu, click **Quit System Preferences**.

Customize your toolbars

Norton SystemWorks lets you customize the toolbars to fit your needs.

The Setup window, Access History log, and Connected Users report all have toolbars that you can customize to suit your needs.

To customize your toolbars

1. Open Norton SystemWorks.
2. Open the window with the toolbar that you want to change.
3. On the Window menu, click **Customize Toolbar**.
4. In the toolbar dialog box, drag the icons into and out of the toolbar at the top of the window until you have the set that you want. You can change the location in which an icon appears by dragging it to the desired location.
5. If you want to return the toolbar to its original appearance, drag the default set of icons at the bottom of the dialog box to the toolbar.
6. To change the default icon descriptions, select one of the following:
   - Icon & Text
   - Icon Only
   - Text Only
7. When the toolbar appears the way that you want it, click **Done**.

Use Norton SystemWorks shortcuts

You can access Norton SystemWorks tools with various drag-and-drop operations.

Use drag-and-drop operations

Drag a disk or volume icon to any of the following Norton SystemWorks program icons.

Program icon	Result of drag-and-drop operation
Norton Disk Doctor	Examine the selected disk.
Speed Disk	Check and defragment or optimize the selected disk.
UnErase	Perform an UnErase Quick Search on the selected disk.
Wipe Info	Wipe unused space on the selected disk.
Volume Recover	Perform FileSaver Searches and Create and View Virtual Disk on selected disk.
Norton Utilities	Open Norton Disk Doctor.
Norton SystemWorks	Start Norton Disk Doctor.
Norton AntiVirus	Scan a volume, file, or folder for viruses.

Enable and disable Norton AntiVirus Auto-Protect

By default, Norton AntiVirus Auto-Protect guards against viruses as soon as your computer starts. It checks programs for viruses as they are run and monitors your computer for any activity that might indicate the presence of a virus. Running a Norton AntiVirus manual scan is not necessary as long as Auto-Protect is left on. Auto-Protect interception prevents viruses from moving to your disk.

Disable Auto-Protect temporarily

To install some programs, you may need to turn off Auto-Protect.

See "Customize the Norton QuickMenu" on page 47.

To disable Auto-Protect temporarily

- On the Norton QuickMenu, click **Norton Auto-Protect > Turn Auto-Protect Off**.

Protect disks with Norton FileSaver

You are less likely to experience problems with your Macintosh when you use Norton SystemWorks for preventive maintenance. Norton FileSaver is an important tool used for disk and file recovery.

How Norton FileSaver protects your disks and files

After you install Norton SystemWorks, Norton FileSaver maintains an updated record of your startup disk's directory and files. The first FileSaver snapshot is taken five minutes after you restart your computer following installation of Norton SystemWorks. It is normally scheduled to take an updated snapshot every day at noon, as well as five minutes after each restart.

This information is used by UnErase, Norton Disk Doctor, and Volume Recover to facilitate disk and file recovery. You can access Norton FileSaver and the Scheduler on the Window menu or from the Symantec Launcher.

Norton FileSaver supports disk repair and file recovery in Norton SystemWorks. It works in the background and takes a snapshot of the disk directory structure. It saves critical disk and directory structure information that Norton Disk Doctor, UnErase, and Volume Recover use to restore a disk.

Using the FileSaver window

In the Norton FileSaver window, you can enable or disable the following type of activity for each disk:

- Update Disk Directory Information.
- Track Deleted Files & Folders.
- Defragment Files. See "About optimization and file fragmentation" on page 115.

Except for the Defragment Files column, FileSaver default settings have each disk and function already selected for best protection. For Defragment Files, check the box for the disk that you wish to optimize. See "Optimize a disk" on page 116.

To maintain the FileSaver tool

1. On the Apple menu, click **System Preferences**.
2. In the System Preferences window, click **Norton FileSaver**.
3. In the Norton FileSaver window, do any of the following:
   - Check box to update disk and directory information for each disk.
   - Check box to track deleted files and folder for each disk.
   - Check box to defragment each disk according to settings in the Norton Scheduler. See "Defragment files" on page 117.
   - Turn FileSaver on or off. Remember that FileSaver will not be updating snapshots of your disks, or tracking deleted files, until you turn it back on.

FileSaver snapshots schedule

See "Schedule FileSaver snapshots" on page 66.

FileSaver is preset to update disk information daily at noon. To change or add to this schedule, use the Norton Scheduler.

Maintenance checklist

With the exception of Norton FileSaver, most Norton SystemWorks tools do not run automatically. To maintain your computer's good condition, perform the following tasks regularly.

Task and benefits	For more information
Run Norton Disk Doctor for a comprehensive check of file-level problems before every back up and before running Speed Disk.	See "When to use Norton Disk Doctor" on page 91.
Run Speed Disk any time that you notice your disk slowing down. This change in performance can be due to excessive fragmentation of files or poor placement of files on the disk.	See "How Speed Disk optimizes" on page 116.
Keep Norton FileSaver enabled to keep track of your files. It also saves critical disk information that can be used by Norton Disk Doctor, Volume Recover, and UnErase to restore your disk or recover your files.	See "How Norton FileSaver protects your disks and files" on page 50.
Run LiveUpdate to keep your program files up-to-date. LiveUpdate downloads and installs the latest program updates to ensure that your product is current.	See "Update procedures" on page 60.

Explore the CD

In addition to the Norton SystemWorks installer and program software, there are other items on the CD.

Documentation folder	Located inside the Install for Mac OS X folder, this Documentation folder contains the User's Guide in PDF format and installation files for Adobe Acrobat Reader. The PDF version of the User's Guide contains additional material and details not found in the printed version.
Norton SystemWorks for OS 8.1 to 9.x	If you are running Mac OS 8.1 to 9.x you can still use Norton SystemWorks. Some computers will allow you to run either this version or the Mac OS X version. Other computers allow you to only run one or the other. The OS 8.1 to 9.x version is located on the OS 9 partition of the CD. See "Start from the CD" on page 17.
SimpleText application	Lets you read the Norton SystemWorks Read Me file in Mac OS 8.1 to 9.x folder.

For more information

Norton SystemWorks provides instructional material in three formats.

User's Guide	The User's Guide provides basic conceptual information and procedures for using all of the features of Norton SystemWorks. Use the printed User's Guide if you cannot access the online material for any reason. Technical terms that are italicized in the User's Guide are defined in the glossary, which is available in both the User's Guide PDF and Help.
Built-in Help	Help includes all the material contained in the User's Guide, plus expanded conceptual information, procedural details, and a glossary for definitions of technical terms. Use Help to answer questions while you are using Norton SystemWorks. See "Access Help" on page 53.
PDF	The PDF is an electronic version of the User's Guide that you can use if you prefer to look for information online in a book-like format or if you want to provide additional copies of the User's Guide. The PDF also includes a glossary for definitions of technical terms. See "Access the User's Guide PDF" on page 53.

In addition to this material, there is a Read Me file on the CD. Check the Read Me file before you install Norton SystemWorks for late-breaking information.

Finally, you can always check the Symantec Web site for information about Norton SystemWorks. You can also use the Web site to subscribe to the Symantec Security Response newsletter, which provides you with the latest information about virus and other *threats* and anti-threat technology.

Access Help

Opening Help in Norton SystemWorks displays the Apple Help Viewer with a list of Help topics. When you open Help in the Launcher, you find a complete list of topics to scroll through that are related to Norton SystemWorks. Accessing Help from a specific feature provides a smaller list of topics.

To access Help

❖ On the Help menu, click **Help**.

Tips for exploring Help:

- To search for a specific topic, in the search field at the top of the Help window, type the related term, then click Ask.
- Terms that are underlined and blue in the text are defined in the glossary. Click the word to go to its definition. Click the left-arrow button to return to the topic.
- You can view the same information whether you access Help from the Launcher or from a specific feature.
- Links to related topics appear at the end of a topic.
- Some topics include links that open the window in which you can begin the task described.

Access the User's Guide PDF

The User's Guide is available in printable Adobe Acrobat PDF format on the CD.

To open the PDF

1. Insert the CD into the CD-ROM drive.
2. In the CD window, double-click the **Install for OS X** folder.

3 In the Install for OS X folder, double-click the **Documentation** folder.

4 Double-click the **Norton SystemWorks User Guide** PDF.

You can also drag the PDF to your hard disk.

Tips for exploring the PDF:

- When you open the PDF, the table of contents appears in the left margin. In the table of contents, click a heading to jump to that topic.
- To search for a specific topic, use the Find command on the Edit menu.
- Italicized terms in the text are defined in the glossary. Click the word to go to its definition. Click Go to Previous View to return to the topic.

Open the Read Me file

The Read Me file contains information that was unavailable at the time that the User's Guide was published. The Read Me file contains information for both the Mac OS 8.1 to 9.x and Mac OS X versions of Norton SystemWorks.

To open the Read Me file

1 Insert the CD into the CD-ROM drive.
If the CD window doesn't open automatically, locate and double-click **Norton SystemWorks CD X**.

2 Double-click **Install for Mac OS X**.

3 Double-click the **Read Me** file.

Additional Read Me files are included in the Applications/Norton Solutions/Read Me Files folder.

Explore the Symantec support Web site

The Symantec support Web site provides extensive information about Norton SystemWorks. You can find updates, patches, Knowledge Base articles, and virus removal tools.

To explore the Symantec support Web site

1 On the Internet, go to www.symantec.com/techsupp

2 On the support Web page, under home/small business, click **continue**.

3 On the home computing and small business Web page, click **start online support**.

4 Follow the instructions on the Web site to get the information you need.

If you cannot find what you are looking for using the online support pages, try searching the Web site.

To search the Symantec support Web site

1 On the left side of any Web page in the Symantec support Web site, click **search**.

2 Type a word or phrase that best represents the information for which you are looking.
For tips on entering your search text, click **help** at the bottom of the page.

3 Check the area of the Web site that you want to search.

4 Click **Search**.

Subscribe to the Symantec Security Response newsletter

Each month, Symantec publishes a free electronic newsletter that is focused on the needs of Internet security customers. It discusses the latest antivirus technology produced by Symantec Security Response, common viruses, trends in virus workings, virus outbreak warnings, and special virus definition releases.

To subscribe to the Symantec Security Response newsletter

1 On the Internet, go to securityresponse.symantec.com

2 On the security response Web page, scroll down to the reference area of the page, then click **Newsletter**.

3 On the security response newsletter Web page, select the language in which you want to receive the newsletter.

4 Under Subscribe, type the information requested, then click **Subscribe**.

Protecting against new threats

4

When you first install your Symantec product and run LiveUpdate, you have the most current versions of the product and any protection-related files, such as the inappropriate Web site list for Norton Internet Security or the *virus definitions* list for Norton AntiVirus.

At any time, new *threats* can be introduced. Also, some operating system updates may necessitate changes to a program. When these events occur, Symantec provides new files to address these issues. You can get these new files by using LiveUpdate.

Using your existing Internet connection, LiveUpdate connects to the Symantec LiveUpdate server, checks for available updates, then *downloads* and installs them.

About program updates

Program updates are minor improvements to your installed product, usually available for *download* from a Web site. These differ from product upgrades, which are newer versions of entire products. Program updates that replace sections of existing software are called patches. Patches are usually created to ensure the compatibility of a program with new versions of operating systems or hardware, adjust a performance issue, or fix bugs.

LiveUpdate automates the process of downloading and installing program updates. It locates and downloads files from an Internet site, then installs them, and deletes the leftover files from your computer.

About protection updates

Protection updates are files available from Symantec by subscription, that keep your Symantec products up-to-date with the latest antithreat technology. The protection updates you receive depend on which products you are using.

Norton AntiVirus, Norton SystemWorks	Users of Norton AntiVirus and Norton SystemWorks receive virus definition service updates, which provide access to the latest virus signatures and other technology from Symantec.
Norton Internet Security	In addition to the virus definition service, users of Norton Internet Security receive protection updates to the lists of Web site addresses and Web site categories that are used to identify inappropriate Web content.

About your subscription

See "Subscription policy" on page 162.

If your Symantec product includes protection updates, the purchase of that product includes a complimentary, limited-time subscription to the updates that are used by your product. When the subscription is due to expire, you are prompted to renew your subscription.

If you do not renew your subscription, you can still use LiveUpdate to obtain program updates. However, you cannot obtain protection updates and will not be protected against newly discovered *threats*.

When you should update

See "Schedule future updates" on page 62.

During installation of your software, you have the option to run LiveUpdate. You should do so to ensure that you have the most up-to-date protection files. After installation, if you have Norton AntiVirus, Norton Personal Firewall, Norton Internet Security, or Norton SystemWorks installed, update at least once a month to ensure that you have the latest *virus definitions* and firewall protection.

Before updating

In some cases there are preparations you must make before running LiveUpdate. For example, if you use America Online (AOL) as your *Internet service provider (ISP)*, you must log on to AOL before you use LiveUpdate.

If you use America Online to connect

If you use America Online (AOL) as your *Internet service provider (ISP)*, you need to log on to AOL before you use LiveUpdate.

To use LiveUpdate with AOL

1. Log on to AOL.
2. On the AOL Welcome page, click the AOL Internet browser.
3. Open LiveUpdate.
4. Follow the instructions in "Update procedures" on page 60.
5. When the LiveUpdate session is complete, close your AOL browser. If your LiveUpdate session requires that you restart your computer, disconnect from AOL before restarting.

If you update on an internal network

If you run LiveUpdate on a Macintosh that is connected to a network that is within a company firewall, your network administrator might set up an internal LiveUpdate server on your network. Once your administrator has configured it, LiveUpdate should find this location automatically.

If you have trouble connecting to an internal LiveUpdate server, contact your network administrator.

If you can't use LiveUpdate

When new updates become available, Symantec posts them on the Symantec Web site. If you can't run LiveUpdate, you can obtain new update files from the Symantec Web site.

Your subscription must be current to obtain new protection updates from the Symantec Web site.

To obtain virus definitions from the Symantec Web site

1. Start your Internet browser and go to the following site:
   securityresponse.symantec.com/avcenter/defs.download.html
   If this page doesn't load, go to securityresponse.symantec.com and click **Download Virus Definitions**, then click **Download Virus Definitions (Intelligent Updater Only)**.
2. On the security response page, select **Norton AntiVirus for Macintosh**.

3 Click **Download Updates**.

4 On the security response page, select the file to download.
Be sure to select files for the appropriate version of your product.
Information about the update is included with the download.

To obtain product updates from the Symantec Web site

1 Open your Internet browser and go to the following site:
securityresponse.symantec.com/downloads/

2 On the downloads page, in the product updates list, select the product for which you want an update.

3 On the support page, select the version of the product.

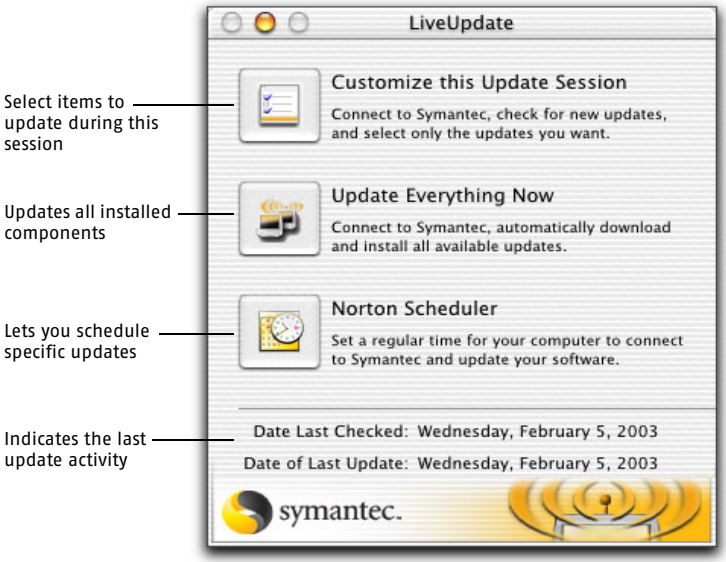
4 Click **continue**.

5 On the product page, select the file to download.
Information about the update is included with the download.

Update procedures

See "Schedule future updates" on page 62.

You can have LiveUpdate look for all updates at once, or select individual items to update. You can also schedule a future LiveUpdate session.



Update everything now

Updating all available files is the fastest method to ensure the latest protection for all your Symantec products.

To update everything now

1. On the Norton Launcher menu bar, click **LiveUpdate**.
2. Click **Update Everything Now**.
   A status dialog box keeps you informed of the file transfer process.

Customize a LiveUpdate session

If you want to update only one or two items, you can select them and omit items that you don't want to update.

To customize a LiveUpdate session

1. In the LiveUpdate window, click **Customize this Update Session**.
   LiveUpdate presents a list of available updates. By default, all are checked for inclusion in this update session. If your files are already up-to-date, no items are available for selection.
2. Uncheck the items that you don't want to update.
3. Click **Update**.
   The file transfer takes a few minutes. When it is complete, the LiveUpdate summary window appears.

See "View the LiveUpdate Summary" on page 61.

After updating

When a LiveUpdate session is complete, the LiveUpdate Summary window displays a list of what was updated, along with brief notes.

View the LiveUpdate Summary

The LiveUpdate Summary dialog box displays a summary of the activity and a list of products updated in this session.

Some updates require that you restart your computer. When this recommendation appears in the summary description, the Restart button is available.

To restart after a LiveUpdate session

- In the LiveUpdate Summary window, click **Restart**.

Empty the Trash after a LiveUpdate session

After you update program files, LiveUpdate moves the older, discarded files to the Trash. If you haven't already restarted after updating, you might get a message that these files are in use. After you restart your computer, you can empty the Trash.

Check product version numbers and dates

The LiveUpdate window displays the version numbers and dates of the most recent updates.

You can also check the version numbers and dates in the product's About box, accessible from the product menu, to verify that you have the latest version.

To view an application's About box

1. Open your product.
2. On the product menu, click **About <product name>**.
   The About box lists the version number and copyright dates.
3. When you've finished viewing the About box, close it.

Schedule future updates

The user who scheduled the event must be logged on for the scheduled event to occur. If this condition is not true, the event occurs the next time the correct user is logged on.

You can set up events to run at a scheduled time, without your participation. If your Macintosh is turned off during the time an event should take place, the event occurs the next time that you start your Macintosh. Before scheduling an update, test it once manually. See "Update everything now" on page 61, and "Customize a LiveUpdate session" on page 61.

For instructions on scheduling future updates, see "Schedule LiveUpdate events" on page 64.

Scheduling future events

5

Use Norton Scheduler to ensure that key tasks are performed regularly to keep your computer and data protected.

About Norton Scheduler

The tasks that are available in Norton Scheduler depend on what products are installed.

If your Macintosh is turned off during the time that an event should take place, the event occurs the next time that you start your Macintosh.

Open Norton Scheduler

You can open Norton Scheduler from your open program.

To open Norton Scheduler from LiveUpdate

See "Update procedures" on page 60.

1. Open LiveUpdate.
2. In the LiveUpdate window, click **Norton Scheduler**.

To open Norton Scheduler from the Norton Launcher

See "How to start and exit Norton SystemWorks" on page 45.

1. Open Norton Launcher.
2. On the Norton Launcher window, click **Norton Scheduler**.

To open Norton Scheduler from Norton FileSaver

1. Open Norton FileSaver.
2. In the Norton FileSaver window, click **Norton Scheduler**.

To open Norton Scheduler from Speed Disk

See "Open Speed Disk" on page 116.

1. Open Speed Disk.
2. On the Utilities menu, click **Norton Scheduler**.

Schedule LiveUpdate events

In Norton Scheduler, LiveUpdate events check for updates to your installed products. If you have Norton AntiVirus installed, a monthly *virus definitions* update is also scheduled.

To add scheduled LiveUpdate events

See "Open Norton Scheduler" on page 63.

1. Open Norton Scheduler.
2. In the Norton Scheduler window, click **New**.
3. Click **Product Update**.
4. Type a descriptive name for the LiveUpdate task, for example, Update Fridays.
5. In the Choose a product to update list, select the item to update. Your options are:

All Products	Updates all installed products.
Virus Definitions	Updates virus definitions.
LiveUpdate	Updates LiveUpdate program files.
<Product Name>	Updates a product that you select. The names of installed Symantec products appear in the list.

6. In the Set a Frequency list, specify when the update should occur. Your options are:

Monthly	Runs the event monthly on the indicated date and time. You can select a date from the first of the month to the twenty-eighth.
Weekly	Updates once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day and time. You can schedule the event up to one year in advance.

7 If you choose a frequency other than Daily, specify the date or day of the week that the update should occur.

See "Set a start time" on page 66.

8 Set a start time for the event.

9 Click **Save**.

Schedule Norton AntiVirus scans

If you have Norton AntiVirus installed, you can add scheduled scans of all or a part of your computer.

To add scheduled Norton AntiVirus scans

See "Open Norton Scheduler" on page 63.

1 Open Norton Scheduler.

2 In the Norton Scheduler window, click **New**.

3 Click **AntiVirus Scan**.

4 In the Add AntiVirus Scan Task window, type a descriptive name for the task, for example, Scan OS X disk.

5 Do one of the following:

- Drag the item you want to scan from the Finder into the Add AntiVirus Scan Task window.
- Click **Browse** to select the item you want to scan.

See "Select an item for a scheduled scan" on page 66.

6 In the Set a Frequency list, specify when the scan should occur. Your options are:

Monthly	Runs the event monthly on the indicated date and time. You can select a date from the first of the month to the twenty-eighth.
Weekly	Updates once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day and time. You can schedule the event up to one year in advance.

7 If you choose a frequency other than Daily, specify the date or day of the week that the scan should occur.

See "Set a start time" on page 66.

8 Set the time of day that the event should occur.

9 Click **Save**.

Select an item for a scheduled scan

You can select a disk, volume, folder, or file to scan.

To select an item to scan

1. In the Add AntiVirus Scan Task window, click **Browse**.
2. In the Select a scan target window, locate the disk, volume, folder, or file.
3. Click **Select**.
4. The item's name and location appear in the Add AntiVirus Scan Task window.

Set a start time

You can set the exact time at which you want a scheduled event to start.

To set a start time

1. In the task window, in the Set the time box, do one of the following:
   - Type the exact time that you want in the hour and minute boxes.
   - Select the hour or minute box, then click the Up Arrow or Down Arrow to change the time that is displayed.
2. If your computer is set to display a 12-hour clock, an AM/PM indicator appears next to the time. Click the indicator to toggle the setting.
3. When you are finished, click **Save**.

Schedule FileSaver snapshots

See "FileSaver snapshots schedule" on page 51.

You can add scheduled FileSaver snapshots. The FileSaver update schedule is preset to update disk information daily at noon. If you have Norton FileSaver installed, you can schedule an event from the Norton FileSaver window.

To add scheduled FileSaver snapshots

1. Open Norton Scheduler.
2. In the Norton Scheduler window, click **New**.
3. Under Choose a task for scheduling, click **FileSaver Snapshot**.
4. In the Add FileSaver Snapshot Task window, type a descriptive name for the task, for example, Update Fridays.

5 In the Set a Frequency list, specify when the task should occur. Your options are:

Monthly	Runs the event monthly on the indicated date and time. You can select a date from the first of the month to the twenty-eighth.
Weekly	Runs once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day and time. You can schedule the event up to one year in advance.

6 If you choose a frequency other than Daily, specify the date or day of the week that the task should occur.

7 Set the time of day that the event should occur.

8 Click **Save**.

Schedule disk defragmentation

You can schedule a task for Speed Disk to defragment the disk or disks you have selected in FileSaver preferences. The disk defragmentation schedule is preset to run at midnight.

Use Speed Disk to optimize any disk before you schedule it for defragmentation.

To add scheduled defragmentation

1 Open Norton Scheduler.

2 In the Norton Scheduler window, click **New**.

3 Click **Defragment Files**.

4 In the task window, type a descriptive name for the task, for example, Defrag Fridays.

5 In the Set a Frequency list, specify when the update should occur. Your options are:

Monthly	Runs the event monthly on the indicated date and time. You can select a date from the first of the month to the twenty-eighth.
Weekly	Updates once a week on the specified day and at the specified time.
Daily	Runs the event daily at the indicated time.
Annually	Runs the event each year on the indicated day and time. You can schedule the event up to one year in advance.

6 If you choose a frequency other than Daily, specify the date or day of the week that the task should occur.

7 Set the time of day that the event should occur.

8 Click **Save**.

Manage scheduled events

You can edit, delete, disable, and reset scheduled events.

Edit scheduled events

You can make changes to the events that you schedule.

To edit a scheduled event

1 Open Norton Scheduler.

2 In the Scheduled Events list, select the scheduled event that you want to change.

3 Click **Edit**.

4 Make your changes.
For a description of the scheduling options, see "Schedule LiveUpdate events" on page 64.

5 To change the event name, type a new name in the name field.

6 Click **Save**.

Delete scheduled events

You can delete scheduled events that you no longer want.

To delete a scheduled event

1. Open Norton Scheduler.
2. In the Scheduled Events list, select the scheduled event that you want to delete.
3. Click **Delete**.
4. In the verification box that appears, click **Delete** to verify that you want to delete the event.

Disable scheduled events

You can disable scheduled events without deleting them in case you want to enable them later.

To disable a scheduled event

1. In the Scheduled Events list, under On, uncheck the event that you want to disable.
2. To enable the event, check it again.

Reset scheduled tasks

You can reset all scheduled tasks to their original installed settings.

Product	Installed settings
Norton Personal Firewall	None.
Norton AntiVirus	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month.
Norton Internet Security	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month.

Product	Installed settings
Norton Utilities	Daily FileSaver snapshot to update your disk directory information. Set to run at noon. Daily Speed Disk defragmentation. Set to run at midnight.
Norton SystemWorks	Monthly LiveUpdate task to check for new virus definitions. Set to run on the first of each month. Daily Speed Disk defragmentation. Set to run at midnight. Daily FileSaver snapshot to update your disk directory information. Set to run at noon.

To reset scheduled tasks

1. On the Norton Scheduler menu, click **Reset Scheduled Tasks**.
2. In the verification window, click **Reset**.

2

Norton AntiVirus

Protecting disks, files, and data from viruses

6

Although Norton AntiVirus Auto-Protect monitors your computer for viruses by scanning files when they are created or copied, and scanning all disks and removable media when they are mounted, Auto-Protect might not catch new viruses. With Norton AntiVirus you can scan any file, folder, or disk for viruses.

Scan disks, folders, and files

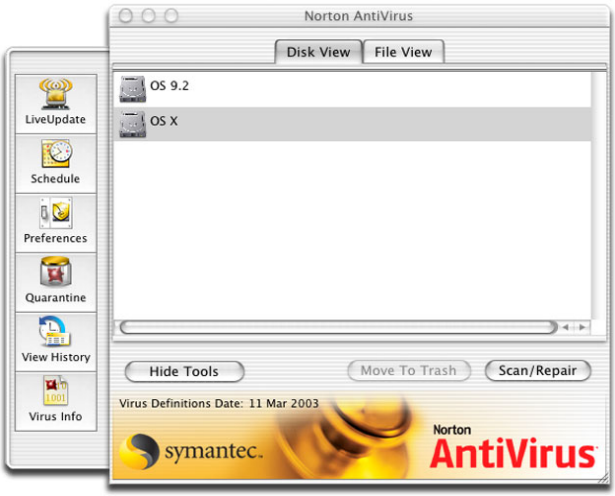
Start the Norton AntiVirus main program to scan your disks.

Norton AntiVirus can scan only those files to which you have access permission. Even if you are logged on as an administrator, there are certain system files and directories that cannot be scanned. Those files can be scanned only if you are logged on with root access. However, unless you log on as root when you work on your computer, there is almost no chance that those files could be infected, as Mac OS X is set by default to have the root account disabled. If you never log on as root, performing scans while logged on as an administrator catches any viruses the computer might have acquired.

You can customize the way Norton AntiVirus performs scans. Norton AntiVirus can check *compressed files* for viruses, but not encrypted files. Encrypted files, which normally require a password to open them, must be decrypted before you scan them.

To scan disks, folders, and files for viruses

1 Open Norton AntiVirus.



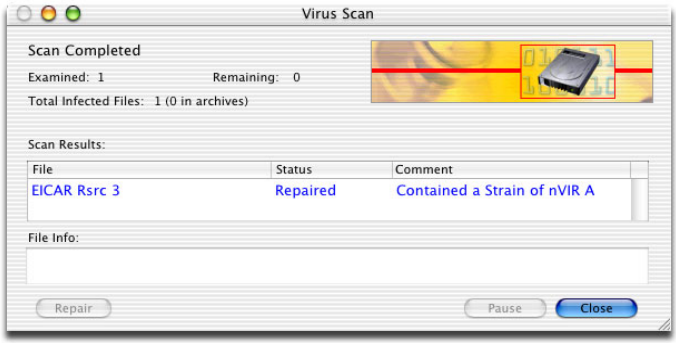
2 In the Norton AntiVirus main window, do one of the following:

- In Disk View, select the disk to scan.
- In File View, select individual folders or files to scan.

3 Click **Scan/Repair**.

4 Click **Pause** to interrupt a scan.
To resume the scan, click **Continue**.

5 To view details of a selected file, look in the Scan Results pane.



6 To view details of a selected file, look in the File Info panel.

If problems are found during a scan

Norton AntiVirus is designed to help keep your computer virus-free. In most cases, an infected file can be repaired automatically. In some cases, you may need to take further action.

In Mac OS X, the file is automatically repaired if you have Automatic Repair On checked on the General tab of the Preferences window.

If the virus is not repaired, the file can be quarantined. Quarantining a file prevents it from reinfecting your computer or damaging other files.

Scan email attachments

See "Set Scan Preferences" on page 87.

Norton AntiVirus Auto-Protect provides automatic scanning of email messages. With Auto-Protect enabled and Scan *compressed files* turned on, scanning of email is fully functional.

Scan and repair in archives

The Norton AntiVirus application automatically scans and repairs inside file archives. For example, if you open a zip file Norton AntiVirus scans and, if needed, repairs files without user action.

Scanning of Stuffit file Archives is limited to the Norton AntiVirus application. Auto-Protect, the command line scanner, Scan on Mount, and scheduled scanning do not scan within Stuffit Archives. All other compressed and archival file formats are scanned.

View and print scan history

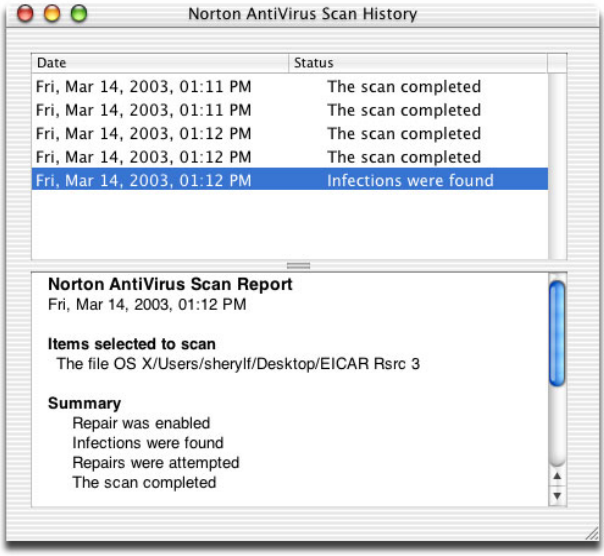
Norton AntiVirus automatically saves a report of each scan. You can view and print these scan results at the end of a scan. You can also review previous scans in the History file.

Save and print scan reports

At the end of a scan, you can save the scan results in a file. You can specify the file format in Preferences. Saving a scan report in a specific file format associates it to a word processing program. You can print a scan report from the Scan Results window or from the Scan History window.

To select a scan report to save or print

1 In the Norton AntiVirus main window, click **View History**.

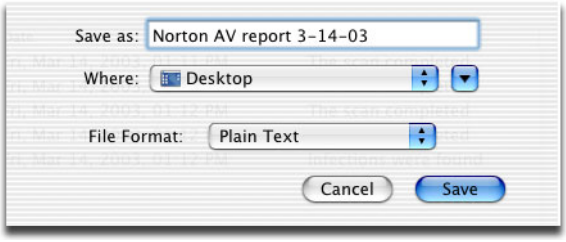


2 In the Norton AntiVirus Scan History window, in the top pane, select the report to view.
The details appear in the lower pane of the window.

To save the selected scan report

1 On the File menu, click **Save Report As**.

2 In the dialog box that appears, specify a name and location for the file.
The default file name is <Untitled Report>.



3 Click **Save**.

To print the selected scan report

1. Do one of the following:
   - If you are still viewing the scan results, click **Print**.
   - If you have selected the report in the Scan History window, on the File menu, click **Print**.
2. In the Print dialog box, select the printing options for the report.
3. Click **Print**.

Perform a scan from the command line

Use the Command Line Scanner to run scans from the command line and to obtain scan reports and save them. Create scripts to be incorporated into other UNIX maintenance scripts.

You can customize the features of the Command Line Scanner to run the scans that you want. Here are a few examples of command line scans you can run:

- navx /
  Scans your system drive with default options
- navx -a -r /Users/steve/
  Scans without repairing, the files in the home folder of user steve, and report the status of all files
- navx -ar /Users/steve/
  Scans without repairing, the files in the home folder of user steve, and report the status of all files
- navx -o ~/myReportFile /tmp
  Scans the files in /tmp, and stores the report in your home folder
- navx -a -o ~/myReportFile /tmp ><filename.log>
  Scans the files in /tmp, and stores the complete report in your home folder, and in a log

To scan a file using the Command Line Scanner

1. Open Terminal.
2. At the prompt, type **navx**.
3. Type the command you want. Your options are:

-a	Reports all files scanned regardless of damage or threat.
-c	Scans inside of compressed files.
-f	Forces the scan to run even if the output file specified with -o cannot be created or opened.
-h	Reports on files that were inaccessible for scanning.
-Q	Quarantines files that can't be repaired.
-r	Does not repair files with defined threats.
-v	Displays the version number.
-o <output filename>	Output appends to the file <output filename>. If -Q is also selected, only the summary appears on the screen, but the full report is appended to <output filename>.

4. Type the name of the file you want to scan.
5. Press **Enter**.

What to do if a virus is found

7

If Norton AntiVirus reports a problem follow the instructions provided for that specific problem.

The message may not be discussed in this chapter. For more information about other messages, see “Troubleshooting computer problems” on page 149.

Auto-Protect finds a virus

Norton AntiVirus Auto-Protect guards against viruses as soon as your computer starts. It checks programs for viruses as they are run and monitors your computer for any activity that might indicate the presence of a virus. Auto-Protect alerts you to any virus activity.

By default, Auto-Protect is turned on. With default settings, Auto-Protect automatically repairs files or quarantines irreparable files.

When a virus is found while Norton AntiVirus Auto-Protect is running, an *alert* displays what happened and what your options are. Read the message carefully to determine whether you need to do anything.

Auto-Protect finds a virus and repairs the file

When Norton AntiVirus Auto-Protect reports that it repaired an infected file, you don't have to do anything.

Even when Auto-Protect has repaired the infected file, ensure that no other viruses exist on your computer by scanning with Norton AntiVirus.

Auto-Protect finds a virus but does not repair the file

See "About User Preferences" on page 86.

If you have set the Auto-Repair Scan preference to Manually repair infected files, Auto-Protect informs you of infected files, but does not repair them.

To manually repair an infected file that has been detected but not repaired

1 Read the entire message.
Look for words that identify the type of problem.

2 Click **Yes**.
If the file cannot be repaired it is automatically quarantined. For more information about quarantine settings, see "About User Preferences" on page 86.

3 Click **OK**.

Auto-Protect finds a virus and cannot repair the file

In a few cases, Auto-Protect may not be able to repair or quarantine an infected file, whether or not you have preferences set to Automatic Repair.

To delete an infected file that has been detected but cannot be repaired

See "Scan disks, folders, and files" on page 73.

- Click **Yes** to run Norton AntiVirus and scan the file or folder containing the virus.
  In the scan window, you can view more details about the infected file. See "If Norton AntiVirus can't repair a file" on page 82.

A virus is found when removable media is inserted

If Auto-Protect finds a virus when *removable media* is connected to your computer, an *alert* displays what happened and what your options are. See "Auto-Protect finds a virus" on page 79 and "A virus is found during a user-initiated scan" on page 81.

Repair, Delete, and Restore in Quarantine

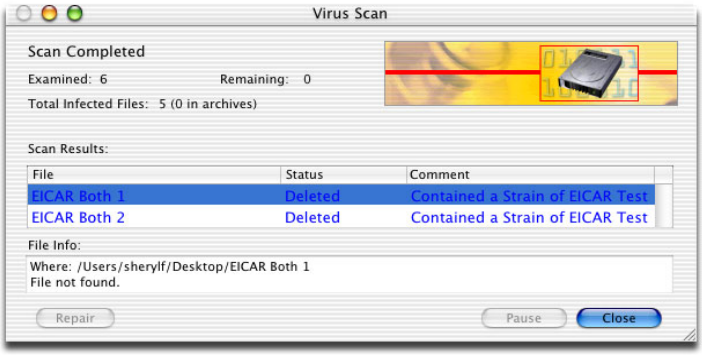
After files have been quarantined you can try to repair, delete, or restore the file.

A virus is found during a user-initiated scan

If you are scanning with Norton AntiVirus and a virus is found, a Problem found *alert* appears in the scan window. Usually, infected files are repaired or quarantined automatically and you don't have to do anything else. To determine if the file was repaired or if you need to take further action, check the status of the file in the scan window.

To check the status of infected files in the scan window

❖ In the Virus Scan window, under Scan Results, select the infected file.



Repair infected files

If an infected file in the scan window was not repaired because Auto-Repair was turned off in Preferences and you have Quarantine files that cannot be repaired unchecked, initiate the repair yourself.

To repair infected files

1. In the scan results list, select the files to repair.
2. Click **Repair**.
3. After repairing all infected files, scan your disks again to verify that there are no other infected files.
4. Check the repaired files to make sure that they function properly. For example, if you repaired a word processing program, start it, edit a file, save a file, and so on to make sure that it has been repaired correctly.

If Norton AntiVirus can't repair a file

See "Check product version numbers and dates" on page 62.

If Norton AntiVirus cannot repair the infected file, first make sure you have scanned with the latest *virus definitions*. If you are not sure that you have the latest definitions, use LiveUpdate. Then scan your hard disk with the latest virus definitions.

If removable media is infected

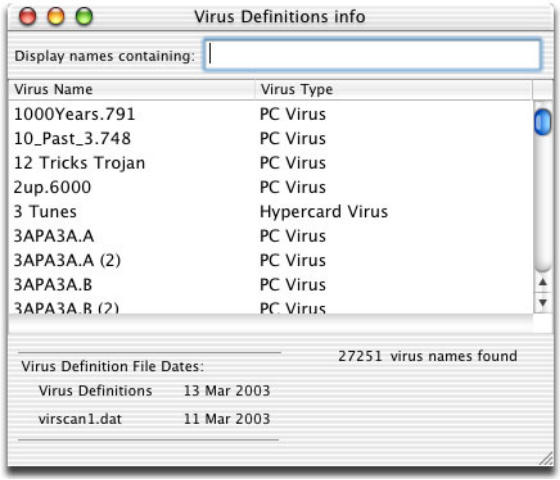
To repair the infected media, use Norton AntiVirus to scan and repair it.

To repair infected removable media

1. Open Norton AntiVirus.
2. In the Norton AntiVirus main window, select the media to scan.
3. Click **Scan/Repair**.

Look up virus names and definitions

You can look up a virus name from within the Norton AntiVirus application. The Virus Definitions Info dialog box lists the viruses in the current *virus definitions* file. To make sure you have the latest virus definitions, run LiveUpdate. You can export the list to a text file. You can also search the list for a specific virus.



To look up virus names

1. On the Tools menu, click **Virus Info**.
2. Type the name or part of the name of the virus.

Look up virus definitions on the Symantec Web site

Because of the large number of viruses, the Virus Definitions Info file does not include descriptions of each virus. The Symantec Security Response Web site contains a complete list of all known viruses and related malicious code, along with descriptions.

To look up virus definitions

1. Point your browser to the Symantec Security Response Web site at: http://securityresponse.symantec.com
2. Click **Expanded Threat List and Virus Encyclopedia**.
3. Do one of the following:
   - Type a virus name for which to search.
   - Scroll through the alphabetical list to locate a virus.
4. Click a virus to read its description.

Customizing Norton AntiVirus

8

Norton AntiVirus provides the best virus detection and removal with default settings left on. If you want to change the default settings because you want to extract data from a file before it is deleted or repaired due to a virus, you can.

There are three types of preferences to set. Your options are:

Scan and Repair	Settings that govern the behavior of the Norton AntiVirus application and settings separate users can specify
Auto-Protect	Settings that govern the behavior of overall antivirus protection and repair for your computer
Reminder	Settings for the Virus Definition Alert preference

About Auto-Protect Preferences

Active Auto-Protect settings provide you with continuous and ceaseless antivirus protection. You can however change automatic antivirus protection settings if you want to manually repair or delete a file or if you want to manually scan *removable media* when it is inserted.

You can change a range of settings for the way Norton AntiVirus Auto-Protect repairs files.

For maximum protection leave Auto-Protect on and do not change default preferences in the Norton Auto-Protect window.

Set Auto-Protect Preferences

Determine how you want Norton Auto-Protect to monitor viruses and repair infected files.

To set Auto-Protect Preferences

1. In the Norton AntiVirus main window, click **Preferences**.
2. In the Preferences window, click the **Auto-Protect** tab.
3. Click **Launch Auto-Protect Preferences**.
4. In the Norton Auto-Protect window, click the lock icon to make changes.
5. In the Authenticate dialog box, type your administrator name and password.
6. Click **OK**.
7. Select the Auto-Protect options that you want. Your options are:

Auto-Protect	Provides automatic virus monitoring. If you turn Auto-Protect off all other automatic options are unavailable.
Automatic Repair	Automatically repairs infected files found.
Quarantine	Automatically quarantines files that cannot be repaired.
Scan Disks when mounted	Automatically scans removable media such as CDs, Zip drives, or an iPod when they are inserted in your computer.
Scan compressed files	Automatically scans compressed files.

8. Close the window to save your changes.

About User Preferences

You can change the preferences that were set up when you installed Norton AntiVirus for Macintosh. Moreover, individual users can specify their Norton AntiVirus settings.

For maximum protection do not change default preferences on the Scan, Repair, and Reminder tabs.

Set Scan Preferences

Determine how you want Norton AntiVirus to scan disks and files.

To set Scan Preferences

1. In the Norton AntiVirus main window, click **Preferences**.
2. In the Preferences window, on the Scan tab, select the options that you want. Your options are:

Scan compressed files	Scan compressed files. Scanning time will be longer if you scan compressed files.
Scan Results	Determine which files you want listed in the Scan Results pane of the Scan window.
Scheduled Scan Alerts	Specify if you want a scan alert always or only when infected files are found.
Report Format	Select the program in which to view saved antivirus reports.

3. Click **Save**.

Set Repair Preferences

Determine how you want Norton AntiVirus to repair infected files found during a manual scan.

To set Repair Preferences

1. In the Norton AntiVirus main window, click **Preferences**.
2. In the Preferences window, click the **Repair** tab.
3. Select the Repair options that you want. Your options are:

Repair	During a manual scan, set to repair infected files found automatically or manually.
Quarantine files that cannot be repaired	During a manual scan, select to automatically quarantine files that cannot be repaired.

4. Click **Save**.

Set a Reminder

You can set Norton AntiVirus to notify you when your *virus definitions* are out-of-date. The latest virus definitions are necessary to keep your computer virus-free.

3

Norton Utilities

Examining, repairing, and recovering disks

9

During its examination process, Norton Disk Doctor runs a series of user-configurable tests. When repairable problems are found, Norton Disk Doctor gives you the option of repairing or ignoring them. Regular examination of your disks is the best way to prevent disk damage and data loss.

Some startup disk repairs can only be performed when your computer is restarted from the CD or another external disk. If you have a damaged or crashed disk, start from the CD to run Norton Disk Doctor.

If Norton Disk Doctor cannot repair a disk, use Volume Recover to restore it or rebuild its directory. If a disk is unrecoverable, recover files and file contents with UnErase.

See "How Norton FileSaver protects your disks and files" on page 50.

Successful repairs to disk and directory information sometimes depend on FileSaver data. Be sure to keep FileSaver files up-to-date.

When to use Norton Disk Doctor

See "Set Norton Disk Doctor test preferences" on page 93.

Examine your disks with Norton Disk Doctor regularly, for example, before you back up your data files and before you run Norton Speed Disk.

Norton Disk Doctor checks your disk for problems by running a series of tests that check the major components of your disk, directories, and files. Exclude any tests that you don't want to run.

See "Run tests with Norton Disk Doctor" on page 94.

Unless you have specified that it repair problems automatically, Norton Disk Doctor requests permission before it performs repairs.

If problems are found during the examination, Norton Disk Doctor displays a Problem Found dialog box. Sometimes Norton Disk Doctor can repair the problems immediately. If not, it can create an *alias* to help you find and fix the problem files when the disk examination is complete.

Depending on the type of damage that is found while running the tests, Norton Disk Doctor might advise you that your options are to run either Volume Recover or UnErase.

When to use Volume Recover

See "Recover damaged disks with Volume Recover" on page 98.

Volume Recover restores data on badly damaged disks. Use Volume Recover in the following situations:

- Your disk is damaged and doesn't appear on the desktop.
- Your disk doesn't appear in the Norton Disk Doctor, UnErase, or Volume Recover window.
- Your disk experiences a problem that Norton Disk Doctor is unable to resolve.
- Your disk has been reinitialized or accidentally erased, or you changed your partition structure using *driver* software.

See "Restore a disk using FileSaver information" on page 104.

Norton Disk Doctor might recommend using Volume Recover if it is unable to solve a problem. Volume Recover should be used if you have accidentally erased so many files that Norton FileSaver does not track them all individually, or if you accidentally deleted a folder that contained many files.

When to use UnErase

See "Recover files with UnErase" on page 107.

If your disk is not damaged, use UnErase to recover files unintentionally thrown away. Chances of recovery are better if you use UnErase as soon as possible after an accidental deletion. You can also use UnErase to try to salvage files from a damaged disk that cannot be repaired by Norton Disk Doctor or Volume Recover.

Chances of recovery are also better if you keep Norton FileSaver files current, and if your disk fragmentation level is low.

Start Norton Disk Doctor

If you are using Norton Disk Doctor to repair a startup disk, restart from the CD before you run Norton Disk Doctor. See "Get information about disks, folders, and files" on page 105.

Make sure you quit all other applications that are running before using Norton Disk Doctor to examine a disk.

See "When disks do not show up in a list" on page 152.

To open Norton Disk Doctor

1. Open Norton SystemWorks.
2. In the Norton SystemWorks window, click **Norton Disk Doctor**.

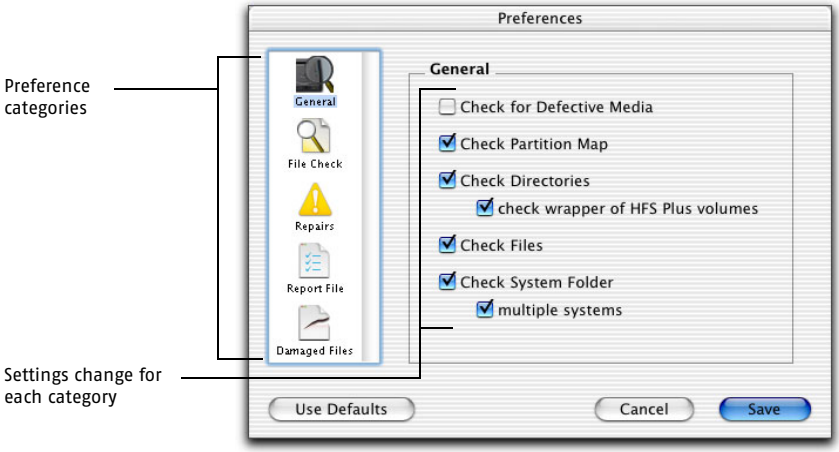
Set Norton Disk Doctor test preferences

Although the default settings are appropriate for most testing, Norton Disk Doctor tests can be configured to reflect your work needs or test situations. For example, to have Norton Disk Doctor diagnose but not repair a disk, specify the options in the Repair Preferences.

The Preferences dialog box displays a list of categories that are represented by icons. Each category has detailed subcategories.

To set Norton Disk Doctor test preferences

1. Open Norton Disk Doctor.
2. On the Norton Disk Doctor menu, click **Preferences**.



3 In the list of preference categories, click a category icon.

4 Continue selecting categories and setting preferences.

5 Click **Save**.
The changes take effect the next time that you examine a disk.

Reset Norton Disk Doctor test preferences

If you have made preference changes, you can reset Norton Disk Doctor back to the original default settings.

To reset Norton Disk Doctor test preferences

1 Open Norton Disk Doctor.

2 On the Norton Disk Doctor menu, click **Preferences**.

3 Click **Use Defaults**.

Select the disks to examine

When you open Norton Disk Doctor, the disks that are available for examination appear in the list. In the disk column, the name of the disk and an icon representing its type appear.

The small icons to the right of the disk icons indicate each disk's potential for examination and repair.

Macintosh icon		The disk contains the active System file of your Macintosh.
Application icon		The disk contains the Norton Disk Doctor application.
Lock icon		The disk is write-protected and Norton Disk Doctor can examine the disk, but cannot perform any repairs on it.

Run tests with Norton Disk Doctor

During the disk examination, Norton Disk Doctor checks every area of your disk, looking for problems that need immediate attention as well as conditions that could create future problems. A hard disk examination might take time, but Norton Disk Doctor keeps you informed and provides suggestions to help you decide how to handle problems.

If you are unsure about a repair decision, skip it. After the examination, print the Norton Disk Doctor Report and refer to it when you examine the disk again.

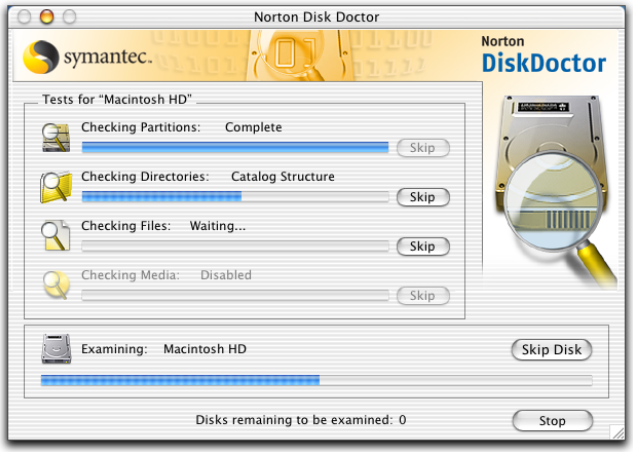
Examine disks

See "Examine your startup disk" on page 34.

If major problems are found on your startup disk, restart your computer from the CD and run Norton Disk Doctor to repair the problems.

To examine a disk

1. In the Norton Disk Doctor main window, select one or more disks. If the disk is a floppy disk or other type of removable media, insert it now.
2. Click **Examine**.



This window shows the progress of Norton Disk Doctor as it runs its series of tests on each disk.

3. You can select any of the following during an examination. Your options are:

Skip	Skip a test.
Skip Disk	Skip the remaining tests for this disk. If another disk is selected, Norton Disk Doctor proceeds to examine it.
Stop	Stop examining all disks.

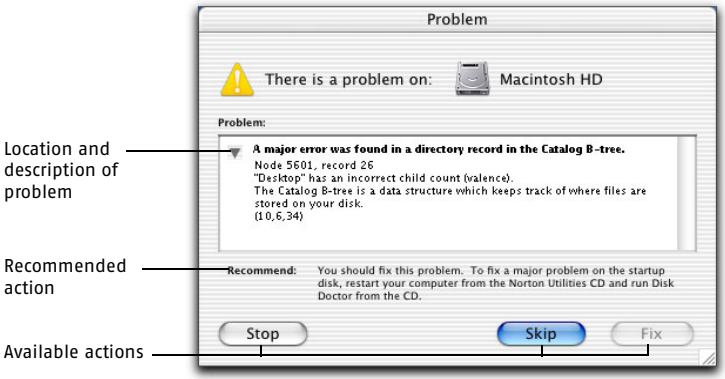
If your disk is damaged severely and you choose not to fix problems, Norton Disk Doctor might be unable to finish diagnosing the disk. Norton Disk Doctor informs you when it cannot continue.

When Norton Disk Doctor is finished, it displays the results for each disk tested in a report window.

An error found might be caused by the disk directory changing during the examination process. To determine whether a reported problem is a false error, you can run Norton Disk Doctor again from your hard drive to see whether the error appears again. If it does not appear again, then you can safely ignore it.

If Norton Disk Doctor finds a problem

When Norton Disk Doctor encounters a problem, it displays an *alert*.



The Problem dialog box describes the type of error and the files or other disk elements that are affected:

- If the problem can be fixed, Norton Disk Doctor displays the recommended action and lets you decide whether to fix it.
- If Norton Disk Doctor cannot fix the problem, it makes a recommendation. See "About Norton Disk Doctor messages" on page 135.
- If Norton Disk Doctor detects damage it cannot repair, Volume Recover may be recommended. See "Recover damaged disks with Volume Recover" on page 98.

To respond to alerts

❖ Select one of the following:

- Fix
  Repair the problem in the selected file and continue with the rest of the tests.
- Fix All
  Repair the problem in all of the listed files.
- Continue
  Skip the repair and continue examining the disk.
- Stop
  Stop the disk examination.

You might need to restart your computer before the repairs take effect.

If a disk was not originally mounted on the Desktop, Norton Disk Doctor will attempt to remount the disk when the examination is finished.

If Norton Disk Doctor can't complete the examination

"When to use Volume Recover" on page 92

If an unexpected problem occurs and Norton Disk Doctor is unable to complete the examination, try running the examination again. If that fails, try to solve the problem using Volume Recover.

If Norton Disk Doctor can't repair a problem

See "Recover files with UnErase" on page 107.

Occasionally, a disk or file is so severely damaged that no software program can fix it. If a disk is badly damaged, Norton Disk Doctor displays a dialog box that tells you to back up and reformat the disk. If a file is badly damaged, try to recover its contents with UnErase.

For more information, see the online Help.

Recover damaged disks with Volume Recover

The Volume Recover feature restores your disk in one of two ways:

Function	For more information
Using the Create and View Virtual Disk function, Volume Recover will create a Virtual Disk - an advance look of the rebuilt disk that you can compare with the original damaged disk. From this Virtual Disk, you can copy files and documents to another volume for backup purposes, or you can choose to rebuild the original disk to the state of the Virtual Disk.	See "Use the Create and View Virtual Disk function" on page 100.
Using the FileSaver Search, existing FileSaver files can be used to recreate a damaged disk to the state that it was in when Norton FileSaver recorded the information. FileSaver files contain critical information that identifies the structure of a disk. By restoring this information, you might be able to return the disk to a condition that Norton Disk Doctor can repair.	See "How Norton FileSaver protects your disks and files" on page 50.

What Volume Recover can't do

Volume Recover cannot recover a hard disk that has been low-level formatted, as this type of initialization completely erases all information on the disk.

See "What tool should you use for your problem?" on page 16.

Volume Recover does not recover data to your Startup Disk. On a locked disk, you can create a Virtual Disk, but you cannot save the Virtual Disk or change the original disk's directory.

Identify the preferred recovery method

Both the Create and View Virtual Disk and FileSaver Search features provide efficient ways to recover your data. To help you choose a method, use the following table.

Condition	Recommended action
You have just purchased this product because you have lost or damaged files.	Create and View Virtual Disk
The FileSaver information is older than the files you wish to recover.	Create and View Virtual Disk

Condition	Recommended action
You know that Norton FileSaver was not active for the damaged disk or the information on the disk is damaged.	Create and View Virtual Disk
You are not sure which search to perform.	Create and View Virtual Disk
FileSaver is running and it captured a snapshot of your data before it was lost or damaged.	FileSaver Search

When FileSaver information is out-of-date, restoring old FileSaver data can make future data recovery efforts difficult. An exception to this is a case in which you have not used your computer for an extended period of time, meaning that you haven't updated or changed your files simply because your computer has not been used. In this situation, FileSaver data might prove useful.

Select the disk to recover

See "When disks do not show up in a list" on page 152.

Volume Recover scans for disks. The available disks appear in the Volume Recover main window.

To open Volume Recover

1 In the Norton Launcher, click **Volume Recover**.

2 In the Volume Recover main window, select the volume or disk whose information you want to recover.

If you don't see the disk that you're looking for

Your disk's name may appear different, or be unrecognizable, due to damage to the disk's structures. You may be able to recognize it from information such as the size or location of the disk provided in the Get Info dialog box.

Use the Create and View Virtual Disk function

If missing files are not listed in a disk's directory because damage to the directory prevents the corresponding directory entries from being found, you can use the Create and View Virtual Disk function.

You can use the Create and View Virtual Disk function to rebuild damaged or missing directory data even if there is no FileSaver data for the disk. Get Info also lets you change the names of files and folders.

Volume Recover scavenges the damaged disk for directory information and rebuilds the structure according to the file records and other information found.

Using Create and View Virtual Disk allows you to scan the hard disk for all file records and creates a Virtual Disk of the rebuilt disk that contains those records. After you have examined the Virtual Disk, you can choose to have Volume Recover permanently write the rebuilt directory to your disk. If you prefer, you can backup data onto another disk, such as an external drive, without altering the original disk. If your disk is badly damaged, the Create and View Virtual Disk function might need to search the entire disk to ensure that all data exists.

The recovery of any additional files found by this search might result in the loss of other valid files, if the additional files have the same names as the more recent files. This is particularly true when the directories on the disk are *fragmented*. If the disk was recently optimized with Speed Disk, there is little risk of file loss.

If you are running Mac Classic

In order to open Classic applications while in Explore Mode, you will need to set the Classic preference. When this preference is set, the Explore Mode screen background will not appear, but you will still be in Explore Mode.

To set the Classic preference

1 On the Volume Recover menu, click **Preferences**.

2 Click the box to run programs in Mac Classic during Explore Mode.

3 Click **OK**.

Create the Virtual Disk

Starting the Create and View Virtual Disk function is the first step to rebuilding your disk.

To create the virtual disk

1 In the Volume Recover main window, select the disk to recover.

2 Click **Create & View Virtual Disk**.
After files are located, your computer screen will appear in Explore Mode and display your original disk and the Virtual Disk.
Explore Mode means that you are viewing an advance look of the rebuilt disk (the Virtual Disk) and have not yet decided to rebuild your directory.
In Explore Mode, both the Virtual Disk and the original disk are read-only and your screen background will have a different pattern to it. No edits or changes can be performed on files from these two disks at this time.

You can now compare the original disk and the Virtual Disk in Explore Mode unless the original disk is so badly damaged that it cannot be mounted.

3 If there are any files on the Virtual Disk that you wish to back up immediately, drag the icon of the desired file from the Virtual Disk onto another disk, such as an external drive. These files will now be backed up on the disk to which you have copied them.

4 If the Rebuild Options screen does not display automatically, click **Continue**.

Rebuilding your disk is permanent. If you did not find the files that you were looking for, or if you have fewer files on your Virtual Disk than on your original disk, do not rebuild your disk at this time. Instead, click **Search More** to continue searching for files.

5 In the Rebuild Options window, select the action that you want to take. Your options are:

Rebuild Disk	If the Virtual Disk is acceptable, choose this option to rebuild your original disk to the state of the Virtual Disk.
Search More	If the Virtual Disk is incomplete, choose this option to search for more files. This process may take a long time. A message will display asking if you wish to search the entire device. To continue searching, click Proceed.
Quit & Don't Save	To return to the main Volume Recover window, choose this option. The Virtual Disk is unmounted and will not be saved. At this point, you will exit Explore Mode. If you have backed up files from the Virtual Disk onto another drive (other than the original disk), your files will be available to you on the disk to which you copied. However, you will still need to rebuild or initialize your original disk at some time in the future. If you have not backed up any files that appear on the Virtual Disk, those files will not be recovered or saved when you choose this option.

Find deleted files using the Create and View Virtual Disk function

Create and View Virtual Disk also lets you search for deleted files. However, only a small percentage of deleted files are located using this method. This option may also result in unwanted files and documents being restored.

To set the Deleted Files preference

1 Be sure that you have exited Explore Mode.

2 On the Volume Recover menu, select **Preferences**.

3 Check the box to look for deleted files.

4 Click **OK**.

5 Click **Create and View Virtual Disk**.

Prepare the rebuilt disk for use

The rebuilt disk replaces the original disk immediately.

To prepare the recovered disk for use

1. As a precaution, copy any critical files from your computer's rebuilt disk to another disk.
2. Run Norton Disk Doctor to examine and further repair the disk with the newly restored directory information.

See "Examine disks" on page 95.

Perform a FileSaver Search

Before proceeding with FileSaver Search, be aware of the following:

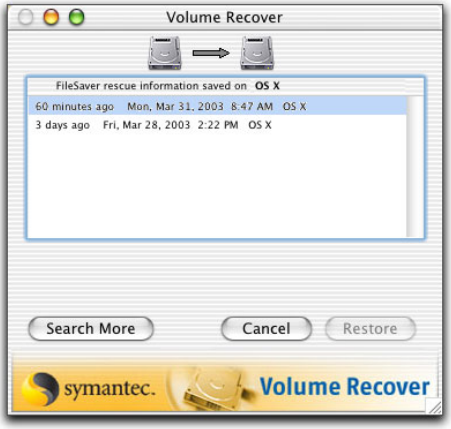
- Any files that were created after the most recent FileSaver information file are not recovered.
- Any file that was modified or deleted after the FileSaver information files were last saved is recovered but might be damaged.
- You cannot undo the Volume Recover process.

If you do not have FileSaver turned on, or if Norton SystemWorks was not installed when your disk became damaged, do not use this feature. Instead, use the Create and View Virtual Disk function.

When you have located the disk that you want to recover, search for FileSaver information.

To search for FileSaver information

1. In the Volume Recover main window, select the disk to recover.
2. Click **FileSaver Search**.
   Volume Recover searches your drive for information stored by FileSaver to recover your disk.

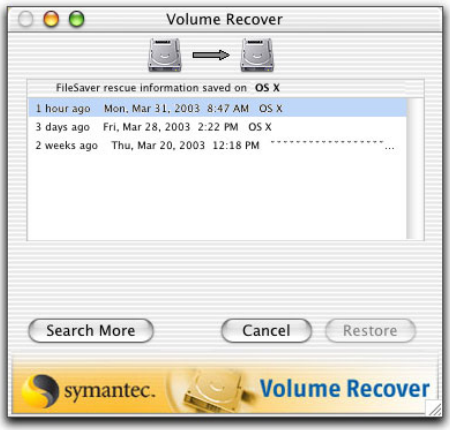


If an expected FileSaver file isn't found

If the located FileSaver information is not for the volume that you want to recover, or if you think there is more recent FileSaver information for the volume, Volume Recover can search for more FileSaver files.

To search for more files

1 In the Volume Recover search results window, click **Search More**. If FileSaver information is still not found, Volume Recover scans the partition.



2 To scan the entire physical device, click **Search More** again.

See "Use the Create and View Virtual Disk function" on page 100.

If Volume Recover still can't find FileSaver information, or the FileSaver information is more than one week old, try using the Create and View Virtual Disk function.

See "How Norton FileSaver protects your disks and files" on page 50.

If no suitable FileSaver files are found, be sure that for the future Norton FileSaver is configured to protect your files and volumes.

Restore a disk using FileSaver information

After starting Volume Recover and locating a FileSaver file using FileSaver Search, complete the restoration of your disk. Always select the most recent FileSaver file, unless you know that your disk was damaged before the date and time that the file was saved.

To restore a disk using FileSaver information

1. Select a FileSaver file.
2. Click **Restore**.
   Volume Recover informs you that the disk's directory information will be replaced by the FileSaver information.
3. Click **Proceed** to recover the FileSaver information to the selected volume.

Prepare the recovered disk for use

If recovery with the FileSaver file is successful, you must restart your computer to complete the recovery.

To prepare the recovered disk for use

1. Restart your computer.
   After you restart, the restored FileSaver information takes the place of the current disk information.
2. As a precaution, copy any critical files from your computer's restored disk to another disk.
3. Run Norton Disk Doctor to examine and further repair the disk with the newly restored directory and partition information.

See "Examine disks" on page 95.

If recovery is not successful

If Volume Recover is unable to restore your disk, try the UnErase feature to recover files.

See "Recover files with UnErase" on page 107.

Get information about disks, folders, and files

The Get Info feature lets you view information about disks, folders, and files. If a disk or file doesn't have an icon or name, use Get Info to identify it. In a Get Info window, you can change the Finder flag, *File type* and Creator codes, and the name of a selected item.

View file, folder, and disk information

The Get Info feature lets you view and change Finder flags, File type and creator information for disks, applications, files, and folders. Changes that are made in the Get Info windows are permanent and will remain until you or the System changes them.

Editing Finder flags, Creator, and Type characteristics requires technical expertise. Do not change them unless it is absolutely necessary.

To view information for a disk, file, or folder

1. Open Norton Disk Doctor, Volume Recover, or Norton Disk Editor X.
2. Do one of the following:
   - On the File menu, click **Get Info For** and select the disk for which you want information.
   - Click **Get Info**.
3. Change the desired options, if needed.
4. Click the close box.

See "Access Help" on page 53.

For more information about Get Info windows, see the online Help.

Recovering missing or erased files

10

If you have accidentally deleted files, if files are missing, or if Norton Disk Doctor reports that a disk is irreparably damaged, use UnErase to recover the files or data and move them to a safe location.

Recover files with UnErase

UnErase provides powerful search and data-recovery capabilities. The basic Quick Search operation is simple, almost completely automatic, and uses the method most likely to succeed.

UnErase search methods

Unerase uses the following process:

- Unerase tries a Quick Search first. This uses File Saver information, if available and combines this search with a Catalog Search for erased files.
- If no FileSaver information is found, the Quick Search returns the results of a Catalog Search for erased files only.
- If this first Quick Search is unsuccessful, start a Customized Search and select File Pattern Search or Text Search.
- If you are looking for files that are missing due to directory damage, rather than files that have been thrown away, start a Customized Search and select Catalog Search, looking for both real and erased files.
  See "Perform Catalog, File Type, and Text searches" on page 113.

Before using UnErase

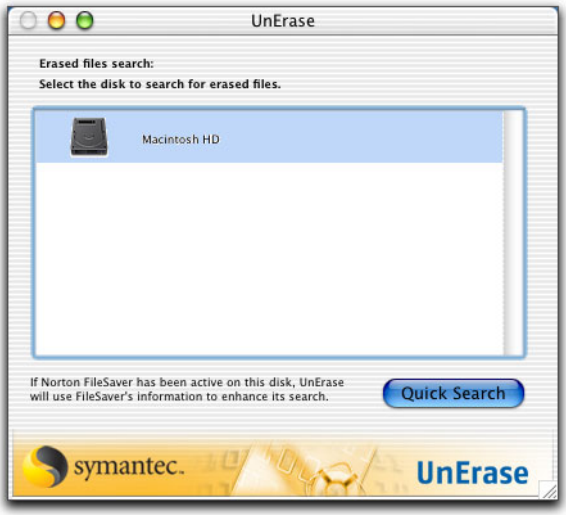
See "When to use Norton Disk Doctor" on page 91.

If files or folders have unexpectedly disappeared, there might be a problem with your directory. Run Norton Disk Doctor before searching with UnErase. Norton Disk Doctor might be able to repair a damaged directory. Before using UnErase, double-check the Trash for the missing files or folders.

Open UnErase

When you open UnErase, disks appear in the UnErase list.

There are contextual menu and drag and drop shortcuts that you can use with UnErase.



To open UnErase

- In the Norton SystemWorks main window, click **UnErase**.

Use Quick Search

See "Sort or filter UnErase search results" on page 110.

After you have started UnErase, select the disk on which the missing file was located and perform a Quick Search.

To perform a Quick Search

1 In the UnErase window, select the disk that contains the erased file.

2 Click **Quick Search**.
UnErase searches the selected disk for erased files and displays the results in the UnErase Search window.

If the file isn't found by Quick Search

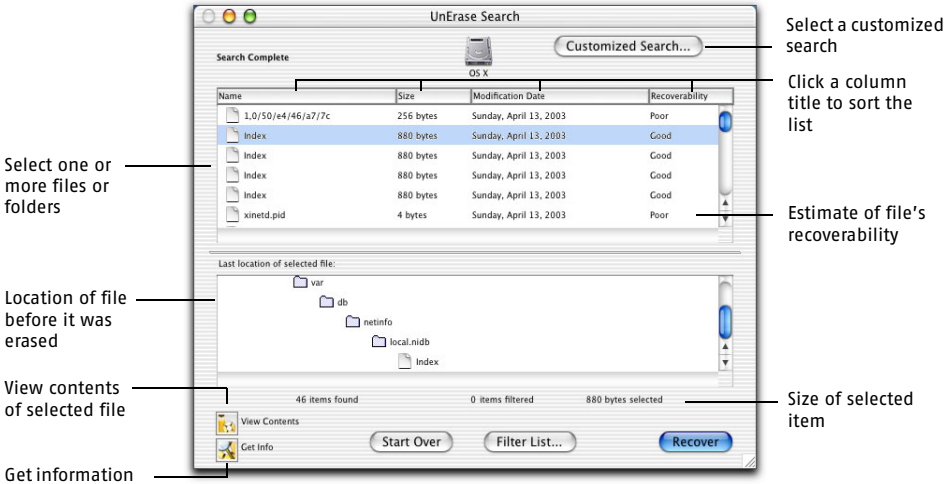
If a missing file doesn't appear after a Quick Search, it might be on a different disk or need a more customized search.

Use the following options to continue searching:

- If the file might be on another disk, select that disk and perform another Quick Search.
- If you know that the missing file was on the disk that you searched, try a Customized Search. See "Perform Catalog, File Type, and Text searches" on page 113.

Manage UnErase search results

After performing a Quick Search, UnErase displays the results in the UnErase Search results window, along with an estimate of the file's recoverability.



If it is obtainable, the selected file's last location appears in the bottom pane of the UnErase Search window.

Sort or filter UnErase search results

When UnErase searches for erased files, it might display many files and folders that you don't want to see. You can sort the files in ascending or descending order by column. You can also apply a filter to hide unwanted files and folders in the display. If the recoverability estimate is low, you can select a filter to limit the time that UnErase spends searching for the file. You can also examine a file's contents to determine if it is worth recovering.

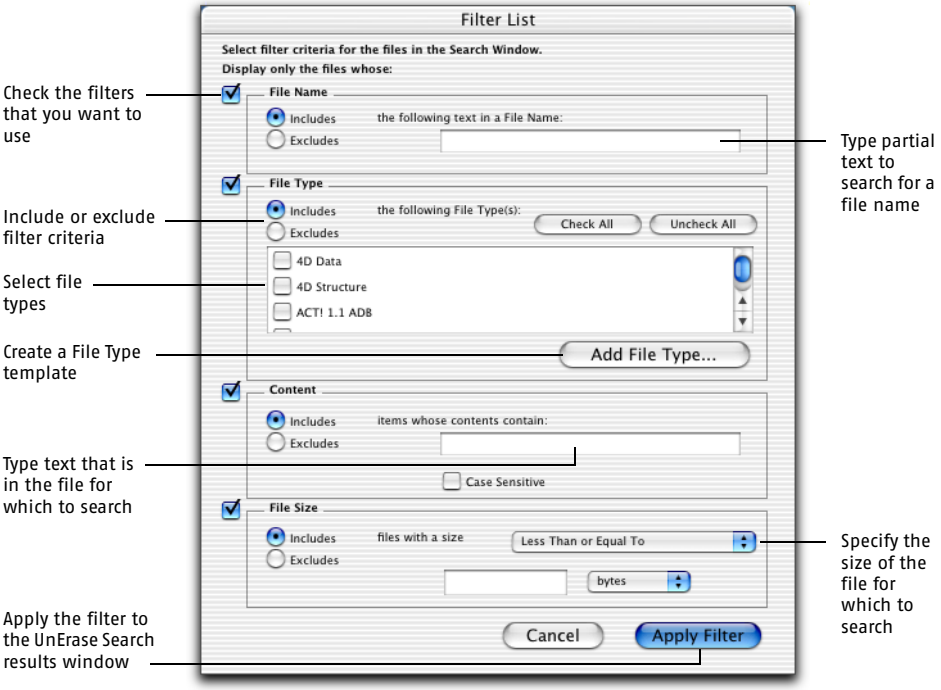
To sort the found files

❖ In the UnErase Search results window, click any column title.
The highlighted column title indicates the current sort order.

Use a filter to hide unwanted file and folder types in the UnErase Search results list.

To filter the list of found files

1 In the UnErase Search window, click **Filter List**.
This option is available when Hide Unrecoverable Files is unchecked.



2 In the Filter List dialog box, check the filters that you want to use.

3 Click **Apply Filter**.

When you no longer need a filter, remove it from the UnErase search.

To remove a filter

❖ In the UnErase Search window, click **Remove Filter**.

To change an active filter

1 In the UnErase Search window, click **Filter List**.

2 Make changes to the filter criteria.

3 Click **Apply Filter**.

View a file's information or contents

In the UnErase Search results window, you can view more information about a file, or its contents.

For more information, see the online Help.

Recover a file or folder

When you have identified a file to recover, select a destination for the recovered file. Although you can recover an erased file to the same disk, it is safer to specify a Zip disk or other removable media, a network disk, or another hard disk if you have one. When you recover to the same disk, you jeopardize your chances of recovering other erased files.

To recover a file or folder

1 In the UnErase Search results list, select one or more items.

2 Click **Recover**.

3 Select a disk on which to save the recovered files.
If the destination disk doesn't have enough space, UnErase splits the file.

4 Click **Recover**.
UnErase recovers the files and displays a status message.

When UnErase recovers a file using a Quick Search or Catalog Search, it creates a folder with the same hierarchy and name as the last folder in which the file resided. This folder is placed within a folder called Recovered Files.

If you have previously dragged a file to the Trash and then emptied the Trash, UnErase attempts to determine the folder from which the file was originally taken. However, if necessary, UnErase creates a .Trashes folder inside of the Recovered Files folder. Do not confuse this folder with the original Trash.

Restore recovered files

Some files need additional treatment before they are fully restored. You might need to join a file's data and resource forks on some file types or rejoin segments of a large file that was split into segments during recovery.

Recovered files will have your permissions rather than the file's original permissions. These permissions allow you to examine the file. You may want to change the permissions after recovery.

Join data and resource forks

When you recover an erased file that has a resource fork and a data fork, you might have to rejoin the two parts to restore the file to its original condition. In a File Type search, UnErase lists each fork as a separate file.

For more information, see the online Help.

To restore the order in which files were found

- In the search results list, press **Option** and click any column heading. This removes any sorting from the list.

Once you have located matching data and resource forks, you can join them.

To join previously recovered resource and data forks

1. Open UnErase.
2. On the Tools menu, click **Join Forks**.
3. In the Join Forks dialog box, click the first **Select File** button.
4. Locate the Recovered Files folder, then select the data fork.
5. Click **Open**.
   The file name appears next to the first Select File button.

6 Click the second **Select File** button.

7 Locate the Recovered Files folder, then select the resource fork.

8 Click **Open**.
The file name appears next to the second Select File button.

9 Click the third **Select File** button.

10 Select a location, then type a name for the joined file.

11 Click **Save**.

12 Click **Join**.
UnErase displays the status of the joined file.
You should now be able to open the file using the program that created it.

If you are unable to join forks

If you are not successful in joining resource and data forks, save the data from the data fork by copying it to another file.

Perform customized searches

A customized search might find erased files that are not found through a Quick Search. Available options in customized searches include Catalog, File Type, and Text searches.

If the first customized search method is unsuccessful, try another, or combine them.

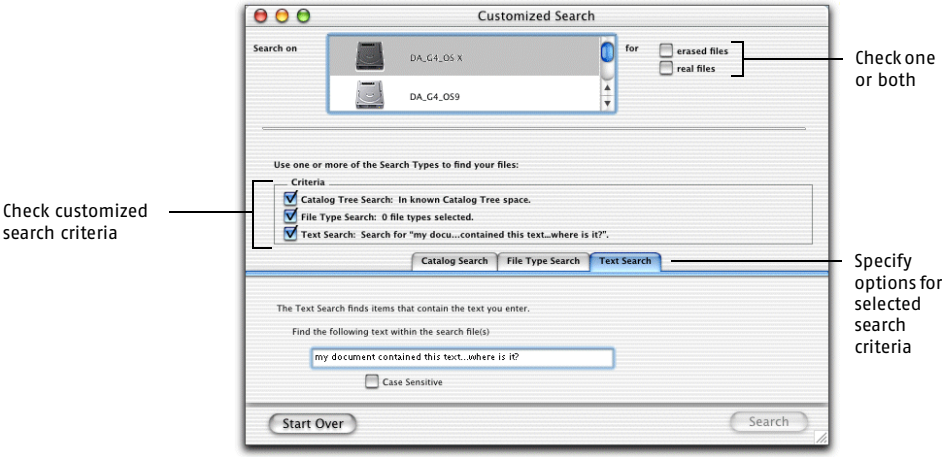
Perform Catalog, File Type, and Text searches

If using the Catalog Search function is unsuccessful but you know which program was used to create a lost file, try a File Type Search, or use a Text Search to search for specific text within a file.

To perform a customized search

1 Do one of the following:

- In the Search Results window, click **Customized Search**.
- On the Tools menu, click **Customized Search**.



2 Select the disk on which to search.

3 Check the types of files to include. Your options are:

Erased files	UnErase searches for files in the unused and erased files area of your disk. If your disk is healthy, this is the best choice.
Real files	UnErase searches currently used areas of your hard disk. If your disk directory information has been damaged, check both real files and erased files for best results.

4 Under Criteria, check the search options for this search.

5 On the search tabs, specify the details for your customized search.

6 Click **Search**.

For more information, see the online Help.

Enhancing performance and security

11

Norton SystemWorks includes productivity-enhancing features that improve performance, test your computer's performance against standardized benchmarks, and assist with security and confidentiality.

Improve a computer's performance

Speed Disk is a powerful optimization utility that defragments files and free space and organizes files on the disk to provide faster performance. It lets you customize file arrangement to match your computing activity.

Performing a complete optimization of your disk is the only way to provide defragmentation of the directory, improving both the performance and security of your disk.

For more information see the online Help.

About optimization and file fragmentation

The terms defragmentation and optimization are often used interchangeably, but they are not the same.

- Defragmentation is the process of arranging the way that files are organized on a disk so that the data that comprises each file is stored in adjacent blocks.
- Optimization is the process of arranging the way that files are organized on a disk so that frequently used files and file types can be accessed easily.

How Speed Disk optimizes

Speed Disk optimizes your disk by placing files on the disk according to file type. For example, system files are placed together where they can be accessed efficiently. Desktop files, documents, and other frequently used files are placed adjacent to free space where they have room to grow with minimal fragmentation.

For more information see the online Help.

Open Speed Disk

If you want to optimize your startup disk, you must start from the CD or another disk.

To open Speed Disk

1. In the Norton SystemWorks main window, click **Speed Disk**.
2. In the dialog box that appears, read the cautionary message.
3. To prevent the dialog box from appearing again, check **Don't show this alert again**.

   If you have booted from the CD, it is not possible to prevent the dialog box from appearing.
4. Click **OK**.
   When you open Speed Disk, the available disks appear in the window. On the selected disk's map, used areas appear in black and free areas in white.

Optimize a disk

When you have identified the disk that you want to optimize, you can proceed. To optimize your startup disk, you must be restarted from the CD.

To optimize a disk

1. In the Speed Disk window, select a disk.
2. To analyze the disk before performing the optimization, click **Check Disk**.

3 Click **Optimize**.
Speed Disk starts optimizing the selected disk.

4 If bad blocks are found, run Norton Disk Doctor Media Check to correct them or mark them to prevent further use.
Marking bad blocks does not eliminate them from the disk. To ensure future data integrity, back up disks containing bad blocks and reformat them using the disk's formatting software.

When optimization is complete, Speed Disk has defragmented files and arranged file types for optimal use.

If you want to optimize a startup disk

See "Start from the CD" on page 17.

To optimize your startup disk, restart your computer from another disk or from the CD.

Defragment files

The optimization process can't work with files that are open or in use, locked disks, or unmountable partitions. Your startup disk always has open files, so you must start from the CD or another designated disk to optimize your startup disk. You can still defragment files on disks that have files in use.

To view and defragment selected files

1 In the Speed Disk window, select a disk.

2 On the Explore menu, click **Show Fragmented Files**.
The Fragmented Files dialog box lists all of the fragmented files, their sizes, and the number of fragments.
Some files can't be defragmented. The reasons for their unavailability are listed in the Note column.

3 To sort the list, click any of the column headings. To reverse the order of the sort, click the triangular icon to the right of the Note column heading.

4 In the Fragmented File dialog box, do one of the following:

- Select one or more files to defragment.
- To select all files, press **Command-A**.

5 Click **Defragment Selected Files**.

Schedule defragmentation of files

Use the Norton Scheduler to schedule your computer for file defragmentation during times that are most convenient for you.

It is recommended that you completely optimize your disk with Speed Disk before performing the defragmentation process. Otherwise, defragmentation will take longer to complete.

See "Using the FileSaver window" on page 50.

Scheduled defragmentation can take place only when the disk is checked in the FileSaver window. However, you can defragment files with Speed Disk at any time, regardless of settings in the FileSaver window.

Set Speed Disk preferences

You can customize the optimization process. You can specify the degree of file and data verification that you want Speed Disk to use during optimization, and how you want Speed Disk to notify you when it is finished optimizing. Speed Disk can launch Wipe Info to remove residual data from free space.

To set Speed Disk preferences

1. Open Speed Disk.
2. On the Options menu, check the options that you want Speed Disk to perform during optimization.
3. Repeat the process to choose another option.
   Your selections take effect immediately.

Customize optimization

See "Set Speed Disk preferences" on page 118.

Speed Disk comes with predefined profiles that define how file types are arranged on a disk during optimization. For example, if you work with a lot of multimedia files, you can select the Multimedia profile, and Speed Disk optimizes your disk according to the typical activities of multimedia file users. If no built-in profile meets your needs, you can design your own with the Speed Disk Profile Editor.

For more information see the online Help.

Select a Speed Disk profile

Speed Disk normally runs with the General Use profile. This setting usually provides the best performance, and doesn't need to be changed unless your files require special consideration. Other built-in profiles are designed for CD mastering, heavy multimedia use, and consolidating free space.

To select a Speed Disk profile

1. Open Speed Disk.
2. On the Options menu, select a profile from the Optimize For submenu.

To search for other Speed Disk Profile Editor documents

1. Open Speed Disk.
2. On the Options menu, on the Optimize For submenu, click **Add Profiles**.
3. Search for and select a folder that contains Speed Disk Profile Editor documents.
4. Click **Choose**.

Remove data permanently

Wipe Info is used to delete data that you do not want anyone to ever see. It will permanently remove any evidence of the data from your computer.

When to use Wipe Info

You can use Wipe Info to permanently delete information, to clean unused disk space, and to ensure that no sensitive information that was inside of invisible, temporary files still exists in unallocated fragments.

How Wipe Info works

When you empty the Trash or erase a disk, only the bookkeeping information about the disk is modified. The data in erased files remains on the disk, even though the file names no longer appear in any folder, until the space is needed to store other files. This poses a security risk for sensitive and confidential documents.

Wipe Info permanently removes the file data along with the entire allocation block where the data is stored.

Open Wipe Info

Open Wipe Info when you have restarted from the CD.

The Wipe Info main window contains three disk wiping operations: Wipe File/Folder, Wipe Disk, and Wipe Unused Space. A fourth option, Wipe Entire Device, is available from the Wipe menu. There are contextual menus and drag-and-drop shortcuts that you can use with Wipe Info.

To open Wipe Info

1. Open Norton SystemWorks.
2. On the Norton Launcher, click **Wipe Info**.

Wipe items on your disks

Wipe Info can eradicate a single file or a folder that is filled with files.

To wipe a file or folder

1. In the Wipe Info main window, click **Wipe File/Folder**.
2. Select a file or folder to delete.
3. Click **Wipe**.
   You are asked to confirm the deletion.
4. Click **Wipe**.
   Wipe Info erases the selected file or folder permanently.

To wipe an entire disk

1 In the Wipe Info main window, click **Wipe Disk**.

2 In the drive selection dialog box, select a disk drive.

3 Click **Wipe Disk**.

4 When prompted, type a new name for the disk.

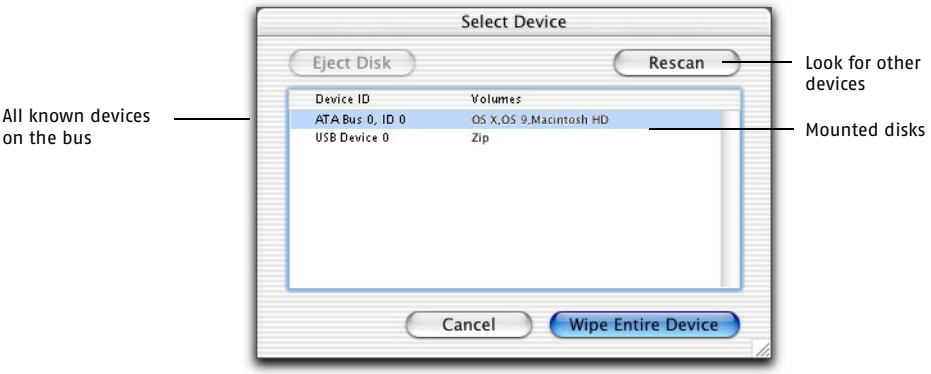
5 Click **Wipe**.
Wipe Info erases the entire selected disk permanently.

You can wipe any USB, SCSI, FireWire, or IDE device, such as a Zip drive, as well as internal or external hard disks. If the device is large, the wiping process might require a significant amount of time to complete.

To wipe a device

1 Open Wipe Info.

2 On the Wipe menu, click **Wipe Entire Device**.
The Select Device window lists available devices.



3 If the device that you want to wipe does not appear, recheck all cables and power to the device, and click **Rescan**.

4 Select a device in the list.

5 Click **Wipe Entire Device**.

6 When prompted, click **Wipe**.
Wipe Info erases the selected device.

After erasing the device, you will need to reformat it with a compatible formatting software program such as the Apple Disk Utility, FWB Hard Disk Toolkit or a similar disk tool that is designed to work with the device make and model.

To wipe unused disk space

1. In the Wipe Info main window, click **Wipe Unused Space**.
2. Select the device whose unused space you want to delete.
3. In the Selection dialog box, click **Wipe Unused Space**.
4. When prompted, click **Wipe**.

4

Norton SystemWorks featured products

Norton SystemWorks featured products

12

The Norton SystemWorks CD includes the following products from other manufacturers:

- Dantz Retrospect Express: Lets you create backups of your disks and files quickly and easily. Retrospect Express works with a wide range of removable media, including Zip disks, Jaz drives, CD-R/RWs, DVD-R/RWs, and hard drives.
- Aladdin Spring Cleaning: Mac OS 8.1 to 9.x and Mac OS X versions of a utility that removes unwanted files from your hard drive.

Retrospect Express quick start documentation

The CD includes the *Retrospect Express User's Guide* and *Retrospect Express Tutorials Quick Start* PDFs in the Retrospect Express 5.0 folder. These PDFs were written for Retrospect Express version 4.3, and do not fully document the features of Retrospect Express 5.0 for Mac OS X.

See "Access the Retrospect Express PDFs and Read Me" on page 128.

The Retrospect Express Read Me file includes information that was not available when the *Retrospect Express User's Guide* PDF was finalized. It includes late-breaking information, issues with specific types of hardware and backup media, and platform-specific advice.

The Dantz Web site is constantly updated with the most recent support information for Retrospect Express. Point your browser to the following Web page:
http://www.dantz.com

What's new in Retrospect Express

This version of Retrospect Express has the following features:

- Support for Mac OS 9 and Mac OS X
- Support for UNIX ownership and permissions
- Ability to restore volumes in Mac OS X
- Backup capability for files that are larger than 2 GB
- Support for file backup sets that exceed 70,000 files
- Support for large file backup sets that are not constrained by Mac OS resource fork size limitations
- Support for automated scripts that can launch Retrospect Express with no dependency on a user login ID
- Support for DVD-R, DVD-RW, and Apple SuperDrive as backup media devices
- Live Restore for Mac OS X

Retrospect Express system requirements

Retrospect Express requires the following backup computer hardware and software:

- PowerPC-based Macintosh computer (G3 or later in Mac OS X)
- Mac OS 9.0 or later, or Mac OS X version 10.1.2 or later
- For Mac OS 9: Minimum 64 MB of RAM (128 MB recommended)
- For Mac OS X: Minimum 128 MB of RAM (256 MB recommended)
- Hard disk drive with a minimum of 50 MB free space

Install Retrospect Express

See "To check your login type" on page 36.

In Mac OS X, the Retrospect Express installer requires an administrator login and password for authentication.

To install Retrospect Express

1. Insert the CD into your CD-ROM drive.
2. Open the **Retrospect Express 5.0** folder.
3. Double-click **Install Retrospect Express**.
4. In the Authenticate dialog box, type an administrator password.

5 Click **Continue**.

6 In the Licence Agreement window, click **Agree**.
If you click Disagree, the installer quits.

7 Click **Install**.
You can change from Easy Install to Custom Install to select the Retrospect Express documentation as well as the application.

8 Follow the on-screen instructions to complete the installation.

The program files are installed in the Applications folder, in a folder named Retrospect Express 5.0.

Remove Retrospect Express

If you need to remove Retrospect Express from your computer, delete files from their installed locations.

To remove Retrospect Express

❖ Drag the following items to the Trash:

- /Applications/Retrospect Express 5.0/ (Mac OS 9 and X)
- /Library/Preferences/Retrospect/ (Mac OS X)
- /Library/StartupItems/RetroRunHelper/ (Mac OS X)
- /System/Preferences/Retrospect/ (Mac OS 9)

In Mac OS X, you must restart your computer before you can empty the Trash.

Start Retrospect Express

See "To check your login type" on page 44.

The first time that you open Retrospect Express in Mac OS X, you need to enter an administrator login ID and password.

To start Retrospect Express in Mac OS X

1 In the Applications folder, double-click the **Retrospect Express 5.0** folder.

2 Double-click **Retrospect**.

3 In the Retrospect Backup registration dialog box, select one of the following:

- Already Registered
- Register Later
- Register Now

4 At the prompt, type an administrator password.

To avoid this prompt, uncheck **Always require authentication**. You can also specify your security login preference in the Retrospect Express Preferences.

See the Retrospect Express User's Guide on the CD.

Access the Retrospect Express PDFs and Read Me

The *Retrospect Express User's Guide* contains detailed information on how to use Retrospect Express version 5.0. The Retrospect Express Read Me file contains late-breaking information that was not available when the *Retrospect Express User's Guide* PDF was produced. Check the Dantz Web site for updates to this documentation.

If you don't have Adobe Acrobat Reader installed, you can install it from the CD.

To open the Retrospect Express PDFs

1 Insert the CD into the CD-ROM drive.

2 Double-click the **Install Retrospect Express** folder.

3 Select one of the following:

- Retrospect Express Quick Start: This PDF includes instructions for installing and using Retrospect Express in Windows and Macintosh operating systems.
- Retrospect Express User's Guide: This PDF includes detailed instructions for using Retrospect Express.
- Retrospect Express Read Me: This opens the Retrospect Express.html file.

About backup devices

See "Contacting Dantz Development Corporation" on page 168.

The Dantz Web site has a list of backup devices that are supported by Retrospect Express. If your drive is not listed, it might not be supported. If you have questions about support for your drive, contact Dantz Technical Support.

Determine your drive's firmware

Certain drives require specific versions of firmware, the drive's built-in controlling software.

To determine your drive's firmware version

1. On the Retrospect Express Configure tab, click **Devices**.
2. Click **Device Status** and look under the Version column.
   If your firmware is an earlier version than is required, contact your drive vendor.

Optical or cartridge drive issues

Retrospect Express supports all drives that appear as volumes on the Desktop. This includes removable cartridge drives from Iomega, Imation's SuperDisk, DVD-RAM drives from Hitachi, Panasonic, and Toshiba, and magneto-optical drives from Epson, Fujitsu, Mitsubishi Chemical, Olympus, Philips, Pinnacle, Ricoh, Sony, and others.

The Retrospect Express storage devices window shows removable disk drives with mounted media. When it shows a local hard disk, the formatter that was used to format the hard disk informed the Mac OS that the fixed hard disk is removable or ejectable. Contact the formatter's vendor to find out how to configure your hard disk so that it does not appear ejectable to the Mac OS.

If your formatting software makes a hard disk appear ejectable and you are backing up to removable disks, be careful not to accidentally select the hard disk as a backup destination.

FireWire/IDE/USB removable drive issues

For best results with a non-SCSI removable cartridge drive such as FireWire, IDE, or USB, before using it with Retrospect Express, use the drive's latest software to format the cartridge. This ensures that your Macintosh can mount cartridges from the drive after a disaster when your normal startup drive is down and you have to start your Macintosh from the CD to recover.

Unsupported devices

The following drives may include Retrospect Express software at the time of purchase, but they do not operate under Mac OS X and cannot be used with Retrospect Express 5.0:

- Seagate USB Travan TR4 (USB 1.1)
- Seagate USB Travan TR5 (USB 1.1)
- OnStream USB-30

Spring Cleaning quick start

Aladdin Spring Cleaning is an uninstaller program that helps you recover disk space by letting you remove and manage your files and programs. For more comprehensive documentation, see the *Spring Cleaning User's Guide* PDF in the Spring Cleaning folder on the CD.

Spring Cleaning system requirements

Spring Cleaning has the following system requirements:

- Power Macintosh computer
- Mac OS 8.6 or later, with CarbonLib 1.5 or later
- Mac OS 8.1 requires Navigation 1.0.1 or later
- 4 MB free RAM
- 13 MB of disk space

Install Spring Cleaning

You can install the Spring Cleaning program from the CD by first copying the Spring Cleaning installer icon to your computer's hard disk.

To install Spring Cleaning in Mac OS X

1. Copy the Spring Cleaning installer icon from the CD to your computer.
2. Double-click the Spring Cleaning installer on your disk and continue from step 3 of "To install Spring Cleaning."

To install Spring Cleaning

1. In the CD window, double-click **Install Spring Cleaning**.
2. Double-click **Spring Cleaning 5.0 Installer**.
3. In the Welcome window, click **Continue**.

4 Read the installation instructions, then click **Continue**.

5 To save the instructions, click **Save**.

6 To print the instructions, click **Print**.

7 In the Software License Agreement window, click **Agree**.
If you disagree, the installation is cancelled.

8 Click **Install**.

9 In the Select Location window, select the location in which to install Spring Cleaning.
If you do not want to install Spring Cleaning to the default location, navigate to another folder.

10 Click **Install** to finish the installation.

Now you are ready to use Spring Cleaning. See "Use Spring Cleaning" on page 131.

Uninstall Spring Cleaning

If you need to remove an installed version of Spring Cleaning from your computer, use the Norton SystemWorks for Macintosh CD Installer. The process is faster if all other programs are closed before you uninstall Spring Cleaning.

To uninstall Spring Cleaning

1 Follow steps 1-6 of the installation procedure.

2 On the pop-up menu, click **Uninstall**.

3 Check **Standard Installation**.

4 Click **Uninstall**.

5 Locate and select the Spring Cleaning 3.5.1 folder.

6 At the bottom of the window, click **Select <folder name>**.

7 Click **Quit**.

Use Spring Cleaning

Spring Cleaning performs searches to find files that you want to remove from your computer. It displays a list of files that you might want to remove, so that you can perform actions on individual items or groups of items. Such actions include deleting files and programs or moving them to a StuffIt archive or removable disk. You can return some items to their original locations using the Restore command.

Spring Cleaning displays its 16 searches in the Search Type window. Each search finds items based on criteria that you specify. Each search serves a specific purpose and is described in detail in the User's Guide.

If there are items in the Trash that meet the search criteria, they appear in the Search Results window. Empty the Trash before performing a search.

To use Spring Cleaning

1. In the Spring Cleaning folder on your disk, click **Spring Cleaning**.
2. In the Search Type window, select the search that you want to perform.
   You may select only one search at a time.
3. Click **Next**.
4. If you have more than one disk or partition mounted, select the disks that you want to search.
5. Click **Next**.
   Depending on the search that you selected, you may be prompted to provide additional information.

5

Appendices

Norton Disk Doctor messages

A

Norton Disk Doctor displays status and error messages when it encounters problems or issues during a disk examination. Some messages appear when Norton Disk Doctor is examining a disk in any Mac OS environment, and other messages are specific to Mac OS X file and disk operations.

About Norton Disk Doctor messages

There are several types of messages in Norton Disk Doctor. In most cases, Norton Disk Doctor provides recommendations along with error messages. This section lists the most common messages, with general explanations.

Driver Descriptor Map and Partition Map messages

The Driver Descriptor Map and Partition Map structures contain information about the drivers that control a hard drive as well as a listing of the locations and sizes of the volumes on a drive.

The signature [block size / block count / driver count / driver start / driver size /driver type] is invalid.

These problems can prevent volumes from being available.

No partitions found.

The physical start block [signature / block count / logical data start / data count / partition type] is invalid [or incorrect].

These problems can prevent volumes from being available.

Master Directory Block and Volume Header Block messages

The Master Directory Block (MDB), located at sector 2 on an HFS-formatted volume, or the Volume Header Block (VHB) on an HFS Plus disk, contains essential bookkeeping information about a volume. This includes the number of files and folders on the disk, the amount of free disk space, the allocation block size, and the sizes and locations of such structures as the Volume Bitmap or Allocation File, the Catalog B-Tree, and the Extents B-Tree.

While the MDB or VHB is a vital structure, it is modified frequently and damage is not uncommon. In most cases, Norton Disk Doctor can easily repair problems in these areas.

The most common MDB or VHB errors are identified by these messages:

Message	Description
The Free block count is incorrect.	This is commonly associated with errors in the Volume Bitmap or Allocation File, since these structures keep track of free blocks on a volume.
The contents of the allocation file/bitmap do not agree with the locations of all files as shown in the Catalog.	These problems should be repaired whenever they occur, as they can lead to file damage through cross-linked files.
The signature is incorrect. The attributes are incorrect. The creation date [or modification date] is invalid.	These messages usually indicate that the structure is damaged.
The total file count [total directory count] is incorrect. The allocation block size [count of allocation blocks] is incorrect.	These messages indicate that the structure of the volume is incorrect and files might be inaccessible.
The next available file ID is incorrect. The Extents [or Catalog] B-Tree clump size is invalid. The physical size of the Extents [or Catalog] B-Tree is incorrect. Invalid extents are specified for the Extents [or Catalog] B-Tree.	These messages might indicate that the directories have been damaged.

B-Tree node messages

A B-Tree node is a sector or group of sectors in the Catalog or Extents B-Tree. These sectors contain important data about files on a volume. The following messages indicate problems with nodes in any B-Tree. If you see one of the following messages, you might have found some files or folders to have been inaccessible.

The node has an incorrect [forward link / backward link / type / depth / record count].
The node is on an incorrect level.
The node has incorrect offsets.

These error messages indicate that there is damage to a disk directory.

B-Tree header messages

The B-Tree header nodes contain important information about the structure of the Catalog and Extents B-Trees, which contain information about the files on a volume. If you see one of the following messages, you might have found some files or folders to have been inaccessible.

The tree depth [node size / key length / tree attribute flags] is / are incorrect.
The number of nodes [free node count / tree bitmap / root node number / first leaf node number / last leaf node number / leaf record count / tree header structure] is incorrect.

These messages are caused by problems with any B-Tree header. They indicate damage to your disk directories and they might cause problems if you're trying to mount a disk.

Catalog tree messages

The Catalog tree contains essential bookkeeping information, including the physical locations, names, and sizes of files and folders. It also contains data such as file types and creators, and the number of files contained by a folder. The following are Catalog tree messages.

General tree error.

When this error occurs, you might have seen a message that the disk cannot be mounted because it cannot be found.

There is no root directory.

This error indicates that an important part of the Catalog B-Tree is damaged or missing.

Record messages.

This error indicates damage to your directories.

The record has an incorrect key length [incorrect key / incorrect length].
The record is out of order.
The record key is duplicated.
The leaf record has an incorrect type.
The index record has an incorrect downlink.

These errors can cause files to disappear or be inaccessible.

Catalog tree leaf node messages

A leaf node is a node in the Catalog B-Tree or Extents B-Tree that contains file records or extents records. File records contain information about files that are stored on a disk, including their sizes, types and creators, attributes, and the physical locations of their data. Extents records contain the physical locations of those portions of fragmented files that are not tracked in the Catalog tree. The following are Catalog tree leaf node error messages.

The leaf record has an invalid name.
<filename> has a duplicated ID.
No thread record found for <filename>.
No parent directory found for <filename>.
The leaf record has an incorrect Parent ID.

These errors can cause files to disappear or folders to appear empty.

Catalog tree file record messages

The following are Catalog tree file record messages.

<filename> has an incorrect clump size [extent starting block number /extent length / data (or resource) starting block number / logical length / physical length].

<filename> has an empty extent descriptor.

These errors cause files to be damaged.

Directory and file thread record messages

If you see directory and file thread record messages, it might mean that some folders might be empty or can't be opened. File thread record errors are not as serious as directory thread records, but should be fixed. The following are directory and file thread record messages.

Thread record <filename> has an invalid target Parent ID.
The thread record has an invalid target name.
Thread record <filename> has an invalid reserved byte.
No directory [or file] found for thread record <filename>.
The thread record does not point to its associated file [associated directory].
Thread record <filename> points to a file [or directory].
The file thread flag for <filename> is off but should be on [on but should be off].

These errors indicate that there is damage to a disk directory.

The thread record is unnecessarily large, and is wasting space.

This message does not indicate damage, but should be fixed.

Extents tree messages

The Extents B-Tree keeps track of extents (fragments) of fragmented files that are not stored in the Catalog B-Tree. The following are Extents tree messages.

The extent record does not match a known file.
The extent record has an invalid fork ID.
The extent record has an empty descriptor.
The extent record has an incorrect key [starting block number / block count].

These messages usually indicate that some files are damaged or lost.

File messages

File errors affect only the files that are listed and do not otherwise affect the validity of the structures of your disk.

If System files are causing malfunctions or you suspect that they are causing problems, delete them. Damaged System files or applications might cause your computer's operation to be affected. However, some files might contain irregularities that can cause Norton Disk Doctor to flag them as damaged, even when they are functioning normally. The following are file messages.

File messages	Description
The files are crosslinked and might be damaged.	A cross-linked file shares at least part of its space on a disk with another file, which damages one or both files. Examine all files after fixing them. If the files cannot be fixed or are damaged, delete them from your disk.
The file names begin with a period.	Many files use this convention, and you should not fix this problem if Norton Disk Doctor alerts you.
The bundle bit is off, but should be on [on, but should be off]. The custom icon bit is off, but should be on [on, but should be off].	These types of messages might indicate that a file's icon is incorrectly displayed in the Finder.
The file names contain a colon, which is an illegal character. The files have damaged resource forks. The files have bad creation dates [modification dates / backup dates].	Fixing these problems sets the incorrect date to match other correct dates or the current date in the file record.
The Finder information is incorrect.	This indicates a corruption of the flags that control how the Finder displays a file.
The file names contain a NUL (ASCII zero) character.	The NUL character can't be typed on the keyboard.

Hardlink messages

Hardlinks are used in Mac OS X to make files appear in more than one folder. A hardlink is similar to an *alias*. It lets the same file be accessed from multiple locations. Like UNIX, Mac OS X lets you create hardlinks to existing files.

When you create a hardlink, the following process occurs:

- Your original file is renamed as inode###, where the ### symbols indicate a randomly generated ID.
- This renamed file is moved to an invisible directory named HFS+ Private Data at the root of your drive.
- Mac OS X creates hardlink files that use the original file's name at your original file's location and wherever you create a hardlink. There is no limit to the number of hardlink files. The inode file keeps track of them all.

Opening a hardlink file is the same as opening the original file. If you delete a hardlink file, the system changes the hardlink count in the inode file. When you delete the last hardlink file, the count goes to zero, and the original file (the inode file) is also deleted.

Norton Disk Doctor displays the following messages if hardlink problems are found.

Message	Description
No hardlink files reference the indirect files.	If no hardlink files to your original file (the inode file) exist, you can't access your original file. This situation can arise if you accidentally delete hardlink files while your computer is started in Mac OS 9.x, or if there is directory corruption. Norton Disk Doctor repairs this by creating a new hardlink file for the inode. The new hardlink file is placed in the Lost and Found folder created by Norton Disk Doctor.
The indirect files have incorrect hardlink reference counts.	If the inode file's count of the number of hardlinks is incorrect, the Mac OS X Finder can experience trouble when it tries to keep track of the hardlinks. This situation can arise if you accidentally delete or duplicate hardlink files while your computer is started in Mac OS 9.x, or if a directory was corrupted. Norton Disk Doctor repairs this problem by adjusting the inode reference count to match the number of hardlinks that are found on the drive.

Message	Description
No target files were found for the hardlink files.	If there is no target (inode) file for a hardlink, the hardlink has no data to access and is useless. This situation arises if you accidentally delete inode files while your computer is started in Mac OS 9.x, or if there is directory corruption. Norton Disk Doctor helps eliminate these useless files by letting you delete them.
The BSD mode for the files is incorrect.	BSD flag bits help Mac OS X classify files and folders. In order for file hardlinks to work properly if the item is a file, the file being linked to must have its BSD mode properly set. This problem can arise through directory corruption and can prevent hardlinks from working. Norton Disk Doctor can fix this by resetting the BSD mode. The current version of Mac OS X does not use the BSD file bit except when files are hardlinked, and so, for any nonhardlinked file, the file mode should be zero. The Mac OS X Finder can experience problems if the BSD mode is set to an invalid value. This problem can arise through directory corruption. Norton Disk Doctor can fix this by resetting the BSD mode.

Using AppleScript with Norton AntiVirus

B

Norton AntiVirus for Macintosh lets you use your AppleScript to run certain features. To use this scriptable component, you must write an AppleScript script. Information on creating scripts is available on your Macintosh OS CD. AppleScript is not supported by Symantec Technical Support.

Scripting is not available on Norton AntiVirus for Mac OS X. However, the Command Line Scanner can be called with UNIX shell scripts.

Script commands

The following commands are available for use with Norton AntiVirus for Macintosh:

Script command	Description
scan	Scan the given files and folders for viruses.
load antivirus	Load the Norton AntiVirus Library and Norton AntiVirus Macro Scan Lib.
unload antivirus	Unload the Norton AntiVirus Library and the Norton AntiVirus Macro Scan Library.
get file of	Extract the file object from a report object.
get viruses of	Get the list of viruses that infect the file of the report.

Script command	Description
get repaired status of	Get the status of the repair from a given report.
Class scan result	The result of a scan, including the total number of files scanned, and the reports of all irregular (damaged or infected) files.

Within the scripting, you can cause Norton AntiVirus for Macintosh to display or hide its progress during scans. The script-initiated scan results, including the discovery and repair of infected files, can be saved in a text file. The Norton AntiVirus for Macintosh scriptable component does not handle compressed files.

Using Norton AntiVirus on a network

You can run Norton AntiVirus on any AppleTalk Transaction Protocol server such as AppleShare or TOPS.

Notes to the administrator

Set up Norton AntiVirus the following way in a networking environment:

- Run Norton AntiVirus Auto-Protect and the Norton AntiVirus application on the system administrator's computer.
- Make sure Norton AntiVirus Auto-Protect is run on all workstation Macintosh computers.
- Use the Scheduler command from the Norton AntiVirus Tools menu to schedule periodic scans of all network drives.

Scanning network drives

When you are scanning network drives from a workstation, the server slows down for other users. If others are creating, deleting, or moving files on a network drive while Norton AntiVirus is scanning, all files may not get scanned.

To prevent files from not getting scanned, do the following:

- Make sure that you are the only one logged on to the server when scanning network drives.
- Shut down the server, restart, reinstall Norton AntiVirus, and then perform the scan.

Preparing an emergency response plan

To be fully prepared in case of a virus attack on a workstation, be sure to have a detailed emergency response plan written and distributed within your networking group before a problem arises. This maintains order and prevents panic in case of an infection.

Complete your plan based on the dynamics and needs of your organization.

Before a virus is detected

Conduct an informational meeting with your network users to discuss the basic nature and behavior of computer viruses. Stress that while having a computer virus on your system is reason to take immediate action, there is no need to panic. Emphasize that many viruses spread from illegal software copies, and prohibit the use of such software in your organization. Finally, explain how you've configured Norton AntiVirus to respond to a virus.

Instruct your users to:

- Scan all software before using it. This includes programs downloaded from the Internet as well as new software.
- Watch for warning signs such as frequent system crashes, lost data, screen interference, or suddenly unreliable programs.
- Keep a current store of virus-free program backups.
- Avoid running programs from unscanned removable media.
- Write-protect removable media before using it in someone else's computer.

To protect the workstations:

- Scan each workstation to make sure that it is virus-free.
- Train your users to use a file backup utility on a regular basis.
- Train your users to update the virus definitions file when it becomes available.

To protect the network:

- Password-protect all network executable directories so that only the administrator has write access to them.
- Scan for viruses on new and rented computers before using them.
- Schedule periodic scans of all network servers.
- If you are using Novell NetWare or Windows NT servers, use Norton AntiVirus Enterprise Solution components to protect servers from virus infections.

If a virus is detected

If a virus is detected on your network, remove it from all computers attached to the network.

To remove a virus

1. Physically disconnect the workstation from the network.
2. Eradicate the virus on the workstation before reconnecting to the network.
3. Notify other users on the network to scan for viruses immediately.
4. Scan your network servers for viruses.

Troubleshooting computer problems

D

For a comprehensive list of the latest troubleshooting tips, see the Symantec Service and Support Web site at: www.symantec.com/techsupp/

If Norton SystemWorks cannot solve your problems

If Norton Disk Doctor, Volume Recover, and UnErase cannot solve your problems, try the following suggestions.

Suggestion	For more information
Check all cables for loose connections.	See "Check all cables" on page 150.
Reset the PRAM by restarting and pressing Command-Option-P-R.	See "Zap the PRAM (reset Parameter RAM)" on page 157.
Disconnect all external devices.	See "Have you added anything new lately?" on page 151.
Update your device drivers with the latest formatting software. See the device manufacturer's documentation.	See "Replace damaged System files" on page 158.
Your device might need an installed extension, or Norton Disk Doctor, UnErase, or Volume Recover might not recognize the device.	See "If you don't see the disk that you're looking for" on page 100.

Prepare your computer

Often, problems are easier to find and fix if you can first isolate the problem. Disconnect all external devices other than the one that you are examining. This saves time and prevents accidents from happening to trouble-free equipment.

When you are troubleshooting, use an Apple keyboard and standard Apple mouse. Third-party input devices sometimes use custom drivers that are unavailable on the CD.

Check all cables

Your Macintosh or the hard disk might not be getting power, or they may not be communicating with each other properly due to a faulty cable connection.

Do the following to check your cables:

- Start with the computer turned off. While it is turned off, check all of its power cords, peripheral cables, and connections.
- Make sure that your Macintosh and its peripherals are plugged into a grounded electrical outlet, and that they are connected to each other. If the computer is too close to a wall, the cable connectors might be loose or the cables might be crimped and the connection not properly made.
- If you are using a device that has a cable with the same type of connectors on each end, it might make a difference which end is connected to your Macintosh.
- Do not substitute cables for different types of devices even if they look exactly alike. The wiring inside of the cable might be different.
- If the computer doesn't start, check the power strip or wall outlet with an item that is known to work.
- When you are certain that power is available to all devices and that all connections are snug, turn the computer on. If your computer does not start, you might have a hardware problem. See "Is it a hardware problem?" on page 151.

Have you added anything new lately?

The two top reasons for startup disk problems are adding a new external device and installing software that modifies your Mac OS System software.

If your problem occurred right after you added a hard disk or other peripheral device, check for device conflicts.

Sometimes removing certain kernel extensions can cause your Macintosh to freeze during startup. If this occurs, you may need to startup by holding the shift key down, which prevents third party kernel extensions from loading. The order in which you disable third party kernel extensions may also effect computer performance. It might be necessary to remove some kernel extensions and some startup items, and then restart.

Is it a hardware problem?

If you are having a hard disk problem that Norton Disk Doctor can't fix, you might have a hardware problem. Compared to software problems, hardware failures are relatively uncommon. In the unlikely event that it happens, utility software can't fix it, and you need to see a qualified technician.

Most internal or external hard disks display the following symptoms.

Type of drive	Symptom
Internal and external drives	The access or busy LED might suddenly stop working or flash repeatedly. The sound that the hard disk makes when it spins up and recalibrates might have changed or gone away. Sometimes drives experience a problem known as stiction. This is when the read/write assembly gets stuck to the point that the platter no longer spins. If the drive is external, sometimes a gentle thump can free it long enough for you to perform a backup. This procedure is not recommended nor is it a long-term solution. When you turn off the drive and turn it on again, the problem will probably return.

Type of drive	Symptom
External drives	The power LED or the hard disk indicator light doesn't light up. This can happen when the hard drive's power supply fails. Your data might be intact on the disk. Have a technician investigate.
Floppy disk drives and other removable media devices	Macintosh floppy disk drive heads can become dirty to the point that they no longer recognize an inserted floppy disk. Drive cleaning kits are not a complete solution to this problem. If you experience this problem, ask your technician if your drive can be cleaned. If a floppy disk gets stuck in a drive, take great care in removing it. The read/write head assembly is delicate and most damage that occurs here is not covered by the Apple warranty. Other removable media drives might require special cleaning procedures. Refer to your manufacturer's instructions.

When disks do not show up in a list

If a disk that you want to recover does not show up in a list while using Norton SystemWorks, there are a number of things you can do.

Be careful not to accidentally erase or initialize your disk while attempting to solve this problem.

Possible Problem	Action you can take
Information in your computer's memory has interfered with disk recognition.	Restart your computer.
OS X does not recognize disk.	Try booting into OS 9 on the same computer or a different computer. Double-click the Norton SystemWorks CD 9 partition of the CD.

Possible Problem	Action you can take
Damage to data structures on the physical disk prevents volumes from being located.	In the case where you have lost access to a single partition on a drive, you can start from the CD and run Volume Recover's FileSaver Search on another partition. This may restore data structures on the physical disk and bring back the missing partition. See "Perform a FileSaver Search" on page 103. If you are a data recovery expert, you can run Norton Disk Editor X to open the disk as a physical drive for examination. See the *Norton Disk Editor X Reference Guide* PDF on the CD.
Norton SystemWorks may not be installed correctly.	Uninstall the product and reinstall. See "Installation" on page 35.
Cable or port connection is faulty.	Connect with a different cable and/or connect to different computer. This only applies if the disk that does not display in the list is external.
The port may not be supplying adequate power to run the disk.	Connect to a different computer. Or, use an optional external power supply, if available. This only applies if the disk that does not display in the list is external.
The internal drive or internal cable is faulty.	Try removing and installing the drive into another computer.
The FireWire bridge or power supply of a drive has failed.	Check with your FireWire drive's vendor to see if your drive can be repaired with the data intact. You may be able to remove the FireWire drive from its case and use it as a regular ATA drive (this may save you costly data recovery charges). Before considering this, check to see if the drive is still under warranty, as in most cases opening the case will void the warranty.
Unidentified problem.	Try using other available tools such as Apple's Disk Utility.

If all of these options prove unsuccessful, it's quite possible that your drive is physically, mechanically, or electronically damaged. If you do not have a current backup copy, contact a data recovery service for consultation on what may be done to recover your data.

Problems with Norton AntiVirus

The problems discussed are not directly related to virus activity. If you cannot resolve your problem, consult the Read Me file on the Norton SystemWorks CD.

Norton AntiVirus Auto-Protect fails to load when I start my Macintosh

If Auto-Protect fails to load, make sure that all engine files and virus definitions are installed. Norton AntiVirus Auto-Protect does not run without them.

Norton AntiVirus reports that a file is invalid when trying to launch or scan, or at startup

This is an indication that one of the files making up the *virus definitions* is damaged or otherwise invalid.

To repair a damaged virus definitions file in Mac OS X

1. Uninstall Norton SystemWorks.
2. Reinstall Norton SystemWorks.
3. Run LiveUpdate and update your virus definitions.
   This restores the current versions of the items in the Norton AntiVirus Additions folder.

Norton AntiVirus cannot create an alias

If you did not install Norton SystemWorks, you cannot create an alias to it because of the access permissions established in Mac OS X. Have the person who installed the software create an alias and place the alias in an area to which you have access. You can then drag the alias to the location that you want.

Norton AntiVirus Messages

The following messages might be encountered when you are running Norton AntiVirus and Norton AntiVirus Auto-Protect.

Norton AntiVirus uses available memory to store items for the scan report. If you have many files, you will not be able to record all items to scan. You can change the Report Preferences to record infected files only.

Auto-Protect error message

If you experience problems with the scan engine error message, you might still have incompatible files from a previous version of Norton AntiVirus for Macintosh. Uninstall and then reinstall Norton AntiVirus.

Password and administrator messages

The entered subscription code is not valid. Please retype in the 9 character subscription code again.

You entered a virus definitions subscription code incorrectly. Try typing the number again.

The passwords did not match. Please try again.

The second password you typed does not match the first one.

That password is incorrect. Please try again.

You typed an incorrect password. If you forgot your password, see "Installation" on page 35.

The software to be installed requires Administrator or higher level access privileges.

Enter your administrator password.

Protection problems

A file on the disk may be damaged, or Norton SystemWorks ran out of memory, or some other error occurred during scanning.

To determine if a file is causing the problem

1. Open Norton AntiVirus.
2. On the File View tab, click the drive triangle to display the folders inside.
3. Scan the folders one at a time to determine where the problem is occurring.
4. Scan your disk again from the Norton AntiVirus main window. You may also want to examine the disk using a program such as Norton Disk Doctor (part of Norton Utilities for Macintosh).

Scanning and account access privileges

Norton AntiVirus scans only those files for which your account has access privileges. If you ever log on and work as root, run the scan while logged on as root. If you do not log on as root, running the scan while logged on as an Administrator scans all files that could be infected while using that logon. If you do not want to see the list of files that could not be scanned because of denied access, check Do not list permissions errors when scanning in Preferences.

Rescan files that have already been scanned

The Norton AntiVirus QuickScan file records whether you have already scanned a file using the currently installed virus definitions and libraries. If not, the file is scanned. If you want all files to be scanned regardless, you can use Norton AntiVirus to delete the QuickScan file at the root of each disk. The file is named NAVMac800QSFile.

To remove the QuickScan file

1. In the Norton AntiVirus window, on the File View tab, ensure that Show Invisible Files is checked.
2. Select your hard disk.
3. Click the **QuickScan** file.
   If there are QuickScan files from previous versions of Norton AntiVirus, select them as well.
4. Click **Move To Trash**.
5. Click **OK**.
6. Quit Norton AntiVirus.
7. In the Finder, click **Empty Trash**.

After you have deleted the QuickScan file, the first scan with the new *virus definitions* will be slower.

Trouble updating virus definitions using LiveUpdate

In some rare cases such as immediately after the emergence of a new virus, the LiveUpdate servers may be very busy and it may be difficult to get a connection. In such cases, keep making connection attempts and you should eventually be successful.

When using LiveUpdate, make sure that your Internet connection is working by testing the connection with an application, such as your Web browser.

Norton AntiVirus cannot find the Norton AntiVirus virus definitions file

Reinstall Norton SystemWorks.

Zap the PRAM (reset Parameter RAM)

The PRAM (Parameter RAM) is an area of RAM that is used to store information about your Macintosh. Your Macintosh computer needs part of the information that is stored in the PRAM in order to locate the current startup device.

Because this information is needed each time that you use your Macintosh, it is stored even when your Macintosh is turned off (a battery supplies power to this memory when you shut down your Macintosh). If the information in the PRAM becomes corrupted, you can clear the information and replace it with new information.

If your computer consistently does not retain the current date and time when you turn the computer off, your PRAM battery might need to be replaced.

Some System settings such as disk *cache*, mouse speed, menu blinking, time zone, and others must be reconfigured after you reset the PRAM.

To reset the PRAM

1. Restart your computer while pressing **Command**, **Option**, **P**, and **R**. As the computer begins to restart, you will hear the startup chime repeat. Continue pressing the keys until the chime has sounded three or more times.
2. Release the keys and the startup should complete.

Replace damaged System files

When you replace System files, you first need to perform a clean System install.

To replace System files

- Using your Mac OS System CD, perform a clean System install. Consult your Macintosh User's Guide and follow the procedures for performing a clean System install.

Recover files before sending a disk to a technician

See "Before using UnErase" on page 108.

If you are still unable to start your Macintosh using your startup disk, you might have a hardware problem that only a qualified service technician can fix. It might still be possible to recover files from the volume even though you can't start from it. Before you send the disk to a technician, try using UnErase to recover data.

Reformat your hard disk

See "Using Norton Disk Editor" on page 159.

A hard disk can accumulate bad or weak sectors, known collectively as bad blocks. When this happens, some sectors can no longer be accessed unless the hard disk is physically reformatted or low-level formatted.

Reformat your hard disk only if you have exhausted all repair options, including a professional data recovery service. Because reformatting the hard disk destroys all existing information that is contained on the disk, recover as much information as possible from your damaged volume before you begin reformatting. If you have a recent backup, recover only the new files and files that have changed since the last backup.

Almost all hard disk formatting applications deal with bad blocks differently. Some remap the blocks using spare or unused sectors during the format process while others require that a specific procedure be run before or after formatting. For instructions on reformatting your hard disk, see the documentation that came with the formatting software.

Do not format your hard disk unless you have a backup of the damaged hard disk or have successfully recovered all of the files using UnErase. See "Before using UnErase" on page 108.

More information is available in the Support section of the Symantec Web site. See "Service and support solutions" on page 161.

Using Norton Disk Editor

Norton Disk Editor, a powerful program for advanced users, provides an alternative method of recovering data and repairing crashed disks. Use it only if you are unable to fix the problems using Norton SystemWorks tools.

For more information, see the PDF documentation for Norton Disk Editor on your CD. Use Norton Disk Editor with extreme caution and at your own risk.

Service and support solutions

The Service & Support Web site at http://service.symantec.com supports Symantec products. Customer Service helps with nontechnical issues such as orders, upgrades, replacements, and rebates. Technical Support helps with technical issues such as installing, configuring, or troubleshooting Symantec products.

Methods of technical support and customer service can vary by region. For information on support offerings in your region, check the appropriate Web site listed in the sections that follow.

If you received this product when you purchased your computer, your computer manufacturer may be responsible for providing your support.

Customer service

The Service & Support Web site at http://service.symantec.com tells you how to:

- Subscribe to Symantec newsletters.
- Locate resellers and consultants in your area.
- Replace defective CD-ROMs and manuals.
- Update your product registration.
- Find out about orders, returns, or a rebate status.
- Access Customer Service FAQs.
- Post a question to a Customer Service representative.
- Obtain product information, literature, or trialware.

For upgrade orders, visit the Symantec Store at:
http://www.symantecstore.com

Technical support

Symantec offers two technical support options for help with installing, configuring, or troubleshooting Symantec products:

- Online Service and Support

  Connect to the Symantec Service & Support Web site at http://service.symantec.com, select your user type, and then select your product and version. You can access hot topics, Knowledge Base articles, tutorials, contact options, and more. You can also post a question to an online Technical Support representative.

- PriorityCare telephone support

  This fee-based (in most areas) telephone support is available to all registered customers. Find the phone number for your product at the Service & Support Web site. You'll be led through the online options first, and then to the telephone contact options.

Support for old and discontinued versions

When Symantec announces that a product will no longer be marketed or sold, telephone support is discontinued 60 days later. Technical information may still be available through the Service & Support Web site at:
http://service.symantec.com

Subscription policy

If your Symantec product includes virus, firewall, or Web content protection, you may be entitled to receive updates via LiveUpdate. Subscription length varies by Symantec product.

After your initial subscription ends, you must renew it before you can update your virus, firewall, or Web content protection. Without these updates, you will be vulnerable to attacks.

When you run LiveUpdate near the end of your subscription period, you are prompted to subscribe for a nominal charge. Simply follow the instructions on the screen.

Worldwide service and support

Technical support and customer service solutions vary by country. For Symantec and International Partner locations outside of the United States, contact one of the service and support offices listed below, or connect to http://service.symantec.com and select your region under Global Service and Support.

Service and support offices

North America

Symantec Corporation
555 International Way
Springfield, OR 97477
U.S.A.

http://www.symantec.com/

Australia and New Zealand

Symantec Australia
Level 2, 1 Julius Avenue
North Ryde, NSW 2113
Sydney
Australia

http://www.symantec.com/region/reg_ap/
+61 (2) 8879-1000
Fax: +61 (2) 8879-1001

Europe, Middle East, and Africa

Symantec Authorized Service Center
Postbus 1029
3600 BA Maarssen,
The Netherlands

http://www.symantec.com/region/reg_eu/
+353 (1) 811 8032

Latin America

Symantec Brasil
Market Place Tower
Av. Dr. Chucri Zaidan, 920
12 andar
São Paulo - SP
CEP: 04583-904
Brasil, SA

Portuguese:
http://www.service.symantec.com/br
Spanish:
http://www.service.symantec.com/mx
Brazil: +55 (11) 5189-6300
Mexico: +52 55 5322 3681 (Mexico DF)
01 800 711 8443 (Interior)
Argentina: +54 (11) 5382-3802

Every effort has been made to ensure the accuracy of this information. However, the information contained herein is subject to change without notice. Symantec Corporation reserves the right for such change without prior notice.

April 2, 2003

Aladdin Systems technical support

The User's Guide should answer all of your questions. There is also online technical support help at www.aladdinsys.com/support

Registering Spring Cleaning and iClean

Free technical support is available to all registered users, so be sure to register your copy of Spring Cleaning and iClean. After registering, you will be notified of upgrades, new products, and special offers from Aladdin.

There are four ways to register:

- Register online at www.aladdinsys.com/register/index.html
- On the iClean iSupport menu, click Software Registration.
- Fill out the postage-paid registration card and mail it to Aladdin.
- Call Aladdin customer service at (831) 761-6200.

Requesting technical support

Registered users may also contact Aladdin technical support via our online support service, phone, fax, or mail. Please be sure to have the following information available prior to calling, or include it in your email, fax, or letter.

Write down your questions or have a clear idea of the problem.

Be prepared to duplicate the problem. Write down the steps you took that caused the problem.

Be prepared to give the following information:

- Any error messages
- Your computer model
- Your Mac OS version (system version)
- The amount of RAM installed on your machine
- Your Spring Cleaning or iClean version number and registration number

Contacting Aladdin Systems

You can contact Aladdin Systems through the Internet, by fax, by phone, or through the postal system.

Web	www.aladdinsys.com/support
email	service@aladdinsys.com
Fax	(831) 761-6206
Phone	(831) 761-6200
Mail	Aladdin Systems, Inc. 245 Westridge Drive Watsonville, CA 95076

Dantz Development Corporation technical support

For information on technical support options, please call Dantz at 800-225-4880, or visit the Dantz Web site: www.dantz.com/support

Customers outside the United States, Canada, and Latin America should contact technical support as detailed below or visit the Dantz Web site to find contact information for the authorized distributor in your area.

- United Kingdom:
  Phone: +0800 169 77 64
  Fax: +33 1 55 33 02 09
  Email: eurosupport@dantz.com
- All other European countries:
  Phone: +33 1 55 33 02 10
  Fax: +33 1 55 33 02 09
  Email: eurosupport@dantz.com
- United States and rest of world:
  Standard Technical Support:
  Phone: 925 253 3050
  Fax: 925 253 9099
  Email: customerservice@dantz.com

Contacting Dantz Development Corporation

- North America
  4 Orinda Way, Building C
  Orinda, CA 94563 USA
  Phone: 925 253 3000
  Fax: 925 253 9099
  info@dantz.com (automated response)
  customer_service@dantz.com
  www.dantz.com
- Dantz Europe
  77, rue du Faubourg St-Denis
  75010 Paris - France
  Phone: +33 1 55 33 02 00
  Fax: +33 1 55 33 02 09
  europe@dantz.com

Glossary

access privileges	The types of operations that a user can perform on a system resource. For example, a user can have the ability to access a certain directory and open, modify, or delete its contents.
ActiveSync	The synchronization software for Microsoft Windows-based Pocket PCs.
ActiveX	A method of embedding interactive programs into Web pages. The programs, which are called controls, run when you view the page.
alert	A message that appears to signal that an error has occurred or that there is a task that requires immediate attention, such as a system crash or a Virus Alert.
alias	A shortcut icon that points to an original object such as a file, folder, or disk.
AppleTalk	A protocol that is used by some network devices such as printers and servers to communicate.
attack signature	A data pattern that is characteristic of an Internet attack. Intrusion Detection uses attack signatures to distinguish attacks from legitimate traffic.
beam	To transfer certain programs and data between two handheld devices using built-in infrared technology.

boot record	A sector at the start of a disk that describes the disk (sector size, cluster size, and so on). On startup disks, the boot record also has a program that loads the operating system.
bootable disk	A disk that can be used to start a computer.
cache	A location on your disk in which data is stored for reuse. A Web browser cache stores Web pages and files (such as graphics) as you view them.
cache file	A file that is used to improve the performance of Windows.
compressed file	A file whose content has been made smaller so that the resulting data occupies less physical space on the disk.
connection-based protocol	A protocol that requires a connection before information packets are transmitted.
connectionless protocol	A protocol that sends a transmission to a destination address on a network without establishing a connection.
cookie	A file that some Web servers put on your disk when you view pages from those servers. Cookies store preferences, create online shopping carts, and identify repeat visitors.
denial-of-service attack	A user or program that takes up all of the system resources by launching a multitude of requests, leaving no resources, and thereby denying service to other users.
DHCP (Dynamic Host Configuration Protocol)	A TCP/IP protocol that assigns a temporary IP address to each device on a network. DSL and cable routers use DHCP to allow multiple computers to share a single Internet connection.
dial-up	A connection in which a computer calls a server and operates as a local workstation on the network.
DNS (Domain Name System)	The naming system used on the Internet. DNS translates domain names (such as www.symantec.com) into IP addresses that computers understand (such as 206.204.212.71).

DNS server (Domain Name System server)	A computer that maps domain names to IP addresses. When you visit www.symantec.com, your computer contacts a DNS server that translates the domain name into an IP address (206.204.212.71).
domain	The common Internet address for a single company or organization (such as symantec.com). See also host name.
DOS window	A method of accessing the MS-DOS operating system to execute DOS programs through the Windows graphical environment.
download	To transfer a copy of a file or program from the Internet, a server, or computer system to another server or computer.
driver	Software instructions for interpreting commands for transfer to and from peripheral devices and a computer.
encryption	Encoding data in such a way that only a person with the correct password or cryptographic key can read it. This prevents unauthorized users from viewing or tampering with the data.
Ethernet	A common method of networking computers in a LAN (local area network). Ethernet cables, which look like oversized phone cables, carry data at 10M bps or 100M bps.
executable file	A file containing program code that can be run. Generally includes any file that is a program, extension, or system files whose names end with .bat, .exe, or .com.
extension	The three-letter ending on a file name that associates the file with an activity or program. Examples include .txt (text) and .exe (executable program).
FAT (file allocation table)	A system table (used primarily by DOS and Windows 9x/Me) that organizes the exact location of the files on the hard drive.
file type	A code that associates the file with a program or activity, often appearing as the file name extension, such as .txt or .jpeg.

Finder	The program that manages your Macintosh disk and file activity and display.
firewall rule	Parameters that define how a firewall reacts to specific data or network communications. A firewall rule usually contains a data pattern and an action to take if the pattern is found.
fragmented	When the data that makes up a file is stored in noncontiguous clusters across a disk. A fragmented file takes longer to read from the disk than an unfragmented file.
fragmented IP packet	An IP packet that has been split into parts. Packets are fragmented if they exceed a network's maximum packet size, but malicious users also fragment them to hide Internet attacks.
FTP (File Transfer Protocol)	An application protocol used for transferring files between computers over TCP/IP networks such as the Internet.
hidden attribute	A file attribute that makes files harder to access and more difficult to delete than other files. It also prevents them from appearing in a DOS or Windows directory list.
host name	The name by which most users refer to a Web site. For example, www.symantec.com is the host name for the Symantec Web site. Host names are translated to IP addresses by the DNS.
HotSync	The synchronization software for Palm OS handheld devices.
HTML (Hypertext Markup Language)	The language used to create Web pages.
ICMP (Internet Control Message Protocol)	An extension to the basic Internet Protocol (IP) that provides feedback about network problems.
IGMP (Internet Group Management Protocol)	An extension to the basic Internet Protocol (IP) that is used to broadcast multimedia over the Internet.

IMAP4 (Internet Message Access Protocol version 4)	One of the two most popular protocols for receiving email. IMAP makes messages available to read and manage without downloading them to your computer.
infrared (IR) port	A communication port on a handheld device for interfacing with an infrared-capable device. Infrared ports do not use cables.
IP (Internet Protocol)	The protocol that underlies most Internet traffic. IP determines how data flows from one computer to another. Computers on the Internet have IP addresses that uniquely identify them.
IP address (Internet Protocol address)	A numeric identifier that uniquely identifies a computer on the Internet. IP addresses are usually shown as four groups of numbers separated by periods. For example, 206.204.52.71.
ISP (Internet service provider)	A company that supplies Internet access to individuals and companies. Most ISPs offer additional Internet connectivity services, such as Web site hosting.
Java	A programming language used to create small programs called applets. Java applets can be used to create interactive content on Web pages.
JavaScript	A scripting language used to enhance Web pages. Most sites use JavaScript to add simple interactivity to pages, but some use it to open pop-up ads and reset visitors' homepages.
macro	A simple software program that can be started by a specific keystroke or a series of keystrokes. Macros can be used to automate repetitive tasks.
NAT (network address translation)	A method of mapping private IP addresses to a single public IP address. NAT allows multiple computers to share a single public IP address. Most DSL and cable routers support NAT.
network address	The portion of an IP address that is shared by all computers on a network or subnet. For example, 10.0.1.1 and 10.0.1.8 are part of the network address 10.0.1.0.

NTFS (NTFS file system)	A system table (used primarily by Windows 2000/XP) that organizes the exact location of all the files on the hard drive.
packet	The basic unit of data on the Internet. Along with the data, each packet includes a header that describes the packet's destination and how the data should be processed.
partition	A portion of a disk that is prepared and set aside by a special disk utility to function as a separate disk.
POP3 (Post Office Protocol version 3)	One of the two most popular protocols for receiving email. POP3 requires that you download messages to read them.
port	A connection between two computers. TCP/IP and UDP use ports to indicate the type of server program that should handle a connection. Each port is identified by a number.
port number	A number used to identify a particular Internet service. Internet packets include the port number to help recipient computers decide which program should handle the data.
PPP (Point-to-Point Protocol)	A protocol for communication between two computers using a dial-up connection. PPP provides error-checking features.
protocol	A set of rules governing the communication and transfer of data between computers. Examples of protocols include HTTP and FTP.
proxy	A computer or program that redirects incoming and outgoing traffic between computers or networks. Proxies are often used to protect computers and networks from outside threats.
registry	A category of data stored in the Windows registry that describes user preferences, hardware settings, and other configuration information. Registry data is accessed using registry keys.
removable media	Disks that can be removed, as opposed to those that cannot. Some examples of removable media are floppy disks, CDs, DVDs, and Zip disks.

router	A device that forwards information between computers and networks. Routers are used to manage the paths that data takes over a network. Many cable and DSL modems include routers.
script	A program, written in a scripting language such as VBScript or JavaScript, that consists of a set of instructions that can run without user interaction.
service	General term for the process of offering information access to other computers. Common services include Web service and FTP service. Computers offering services are called servers.
SSL (Secure Sockets Layer)	A protocol for secure online communication. Messages sent using SSL are encrypted to prevent unauthorized viewing. SSL is often used to protect financial information.
subnet	A local area network that is part of a larger intranet or the Internet.
subnet mask	A code, in the form of an IP address, that computers use to determine which part of an IP address identifies the subnet and which part identifies an individual computer on that subnet.
synchronize	The process by which a handheld device and computer compare files to ensure that they contain the same data.
sync	The process of transferring programs and data from a computer to a handheld device.
TCP/IP (Transmission Control Protocol/ Internet Protocol)	Standard protocols used for most Internet communication. TCP establishes connections between computers and verifies that data is properly received. IP determines how the data is routed.
threat	A program with the potential to cause damage to a computer by destruction, disclosure, modification of data, or denial of service.
Trojan horse	A program containing malicious code that is disguised as or hiding in something benign, such as a game or utility.

UDP (User Datagram Protocol)	A protocol commonly used for streaming media. Unlike TCP, UDP does not establish a connection before sending data and it does not verify that the data is properly received.
virus definition	Virus information that an antivirus program uses to identify and alert you to the presence of a specific virus.
wildcard characters	Special characters (like *, $, and ?) that act as placeholders for one or more characters. Wildcards let you match several items with a single specification.
worm	A program that replicates without infecting other programs. Some worms spread by copying themselves from disk to disk, while others replicate only in memory to slow a computer down. So far, worms do not exist in the Macintosh world.

Index

D

E

F

G

H

I

K

L

M

N

O

P

R

S

T

U

V

W

Z

Norton SystemWorks™ for Macintosh®

CD Replacement Form

CD REPLACEMENT: After your 60-Day Limited Warranty, if your CD becomes unusable, fill out and return 1) this form, 2) your damaged CD, and 3) your payment (see pricing below, add sales tax if applicable), to the address below to receive replacement CD. DURING THE 60-DAY LIMITED WARRANTY PERIOD, THIS SERVICE IS FREE. You must be a registered customer in order to receive CD replacements.

If your Symantec product was installed on your computer when you purchased it, contact your hardware manufacturer for CD replacement information.

FOR CD REPLACEMENT

Please send me: _____ CD Replacement

Name _____

Company Name _____

Street Address (No P.O. Boxes, Please) _____

City _____ State _____ Zip/Postal Code _____

Country* _____ Daytime Phone _____

Software Purchase Date _____

*This offer limited to U.S., Canada, and Mexico. Outside North America, contact your local Symantec office or distributor.

Briefly describe the problem: _____

CD Replacement Price	$ 10.00
Sales Tax (See Table)	_____
Shipping & Handling	$ 9.95
TOTAL DUE	_____

SALES TAX TABLE: AZ (5%), CA (7.25%), CO (3%), CT (6%), DC (5.75%), FL (6%), GA (4%), IA (5%), IL (6.25%), IN (5%), KS (4.9%), LA (4%), MA (5%), MD (5%), ME (6%), MI (6%), MN (6.5%), MO (4.225%), NC (6%), NJ (6%), NY (4%), OH (5%), OK (4.5%), PA (6%), SC (5%), TN (6%), TX (6.25%), VA (4.5%), WA (6.5%), WI (5%).
Please add local sales tax (as well as state sales tax) in AZ, CA, FL, GA, MO, NY, OH, OK, SC, TN, TX, WA, WI.

FORM OF PAYMENT ** (Check One):

___ Check (Payable to Symantec) Amount Enclosed $ _____ _____Visa ____ Mastercard ____ AMEX

Credit Card Number _____Expires _____

Name on Card (please print) _____ Signature _____

**U.S. Dollars. Payment must be made in U.S. dollars drawn on a U.S. bank.

MAIL YOUR CD REPLACEMENT ORDER TO:

Symantec Corporation
Attention: Order Processing
555 International Way
Springfield, OR 97477 (800) 441-7234
Please allow 2-3 weeks for delivery within the U.S.

symantec™