Symantec AntiVirus™ Corporate Edition Client Guide

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Technical support

As part of Symantec Security Response, the Symantec global Technical Support group maintains support centers throughout the world. The Technical Support group's primary role is to respond to specific questions on product feature/function, installation, and configuration, as well as to author content for our Web-accessible Knowledge Base. The Technical Support group works collaboratively with the other functional areas within Symantec to answer your questions in a timely fashion. For example, the Technical Support group works with Product Engineering as well as Symantec Security Response to provide Alerting Services and Virus Definition Updates for virus outbreaks and security alerts.

Symantec technical support offerings include:

- A range of support options that give you the flexibility to select the right amount of service for any size organization
- Telephone and Web support components that provide rapid response and up-to-the-minute information
- Upgrade insurance that delivers automatic software upgrade protection
- Content Updates for virus definitions and security signatures that ensure the highest level of protection
- Global support from Symantec Security Response experts, which is available 24 hours a day, 7 days a week worldwide in a variety of languages for those customers enrolled in the Platinum Support Program
- Advanced features, such as the Symantec Alerting Service and Technical Account Manager role, offer enhanced response and proactive security support

Please visit our Web site for current information on Support Programs. The specific features available may vary based on the level of support purchased and the specific product that you are using.

Licensing and registration

If the product that you are implementing requires registration and/or a license key, the fastest and easiest way to register your service is to access the Symantec licensing and registration site at www.symantec.com/certificate. Alternatively, you may go to www.symantec.com/techsupp/ent/enterprise.html, select the product that you wish to register, and from the Product Home Page, select the Licensing and Registration link.

Contacting Technical Support

Customers with a current support agreement may contact the Technical Support group via phone or online at www.symantec.com/techsupp.

Customers with Platinum support agreements may contact Platinum Technical Support via the Platinum Web site at www-secure.symantec.com/platinum/.

When contacting the Technical Support group, please have the following:

- Product release level
- Hardware information
- Available memory, disk space, NIC information
- Operating system
- Version and patch level
- Network topology
- Router, gateway, and IP address information
- Problem description
  - Error messages/log files
  - Troubleshooting performed prior to contacting Symantec
  - Recent software configuration changes and/or network changes

Customer Service

To contact Enterprise Customer Service online, go to www.symantec.com, select the appropriate Global Site for your country, then choose Service and Support. Customer Service is available to assist with the following types of issues:

- Questions regarding product licensing or serialization
- Product registration updates such as address or name changes
- General product information (features, language availability, local dealers)
- Latest information on product updates and upgrades
- Information on upgrade insurance and maintenance contracts
- Information on Symantec Value License Program
- Advice on Symantec's technical support options
- Nontechnical presales questions
- Missing or defective CD-ROMs or manuals

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Chapter 1

Introducing Symantec AntiVirus

This chapter includes the following topics:

About Symantec AntiVirus

You can install Symantec AntiVirus™ virus and security risk protection as either a stand-alone or an administrator-managed installation. A stand-alone installation means that your Symantec AntiVirus software is not managed by a network administrator.

If you manage your own computer, it must be one of the following types:

- A stand-alone computer that is not connected to a network, such as a home computer or a laptop stand-alone, with a Symantec AntiVirus installation that uses either the default option settings or administrator-preset options settings
- A remote computer that connects to your corporate network that must meet security requirements before connecting

The default settings for Symantec AntiVirus provide virus and security risk protection for your computer. However, you may want to adjust them to suit your company's needs, to optimize system performance, and to disable options that do not apply.

If your installation is managed by your administrator, some options may be locked or unavailable, or may not appear at all, depending upon your administrator's security policy. Your administrator runs scans on your computer and can set up scheduled scans.

Your administrator can advise you as to what tasks you should perform by using Symantec AntiVirus.

Note: Options that display a padlock icon are not available because they have been locked by your administrator. You cannot change these options unless the administrator unlocks them.

About updating stand-alone computers

Stand-alone computers may be connected to the Internet. In Symantec AntiVirus documentation, the term stand-alone takes on an added dimension. Stand-alone computers are not connected to a server; thus they do not receive virus and security risk definitions updates from the server, and cannot be managed by the Symantec System Center administrator program.

If you installed Symantec AntiVirus on a stand-alone computer, you are responsible for updating the virus and security risk definitions. New definitions files are available several times each month from Symantec. You will be alerted when definitions files need replacing.

You can update the virus and security risk definitions files with LiveUpdate™. LiveUpdate retrieves the new definitions files from a Symantec site, and then replaces the old definitions files in the Symantec AntiVirus directory. A modem or Internet connection is required.

See "Updating protection immediately with LiveUpdate" on page 35.

About remote computers that connect to a corporate network

Remote computers that connect to a corporate network can receive virus and security risk definitions, and can be managed by the Symantec System Center administrator program.

System administrators may require remote computers that connect to a corporate network to meet some security requirements. For example, the computer may have to run Symantec AntiVirus with the most up-to-date virus and security risk definitions before it can connect to the network. The computer may be denied access to the network until it meets the security requirements.

About viruses

A *virus* is a computer program that attaches a copy of itself to another computer program or document when it runs. Whenever the infected program runs or a user opens a document containing a macro virus, the attached virus program activates and attaches itself to other programs and documents.

Viruses generally deliver a payload, such as displaying a message on a particular date. Some viruses specifically damage data by corrupting programs, deleting files, or reformatting disks.

A *worm* is a special type of virus that replicates itself from one computer to another and can use memory. Worms generally exist inside other files, such as Microsoft® Word or Excel documents. A worm may release a document that already has the worm macro inside of it.

A *blended threat* combines the characteristics of viruses, worms, Trojan horses, and malicious code with server and Internet vulnerabilities to initiate, transmit, and spread an attack. Blended threats use multiple methods and techniques to propagate and attack, and cause widespread damage throughout a network.

In the context of Symantec AntiVirus, the term virus is used to cover all threats that work in a virus-like manner. Symantec AntiVirus can detect, delete, and quarantine viruses, and repair the side effects of viruses.

A *security risk* is a known program, in a category such as adware or spyware, that may or may not present a risk to the security of a computer. Symantec AntiVirus can detect, quarantine, and repair the side effects of risks in these security risk categories.

See "About security risks" on page 14.

How viruses spread

Viruses can spread through any network, modem, or magnetic medium. Most boot viruses can only spread by way of floppy disks. Multipartite viruses are especially elusive because they can travel as file viruses, infect boot sectors, and be transmitted through floppy disks.

The growth of LAN, Internet, and global email connectivity has accelerated the rate at which viruses can spread. A localized virus outbreak can quickly spread to another part of a company or the world when infected files are sent through email. The primary threat of virus infection comes from files that are shared, and then opened and used.

Virus types

Viruses are classified by what they infect and how they attempt to evade detection. The basic virus types are defined by the area of the computer that they infect, such as boot viruses, file viruses, and macro viruses.

Other types of destructive code include worms and Trojan horses. These types of destructive code are different than viruses because they don't replicate.

Boot viruses

Boot viruses insert instructions into the boot sectors of floppy disks, or the boot sector or master boot record (partition sector) of a hard disk. Boot viruses are some of the most successful viruses.

When the computer starts from an infected floppy disk, the virus infects the hard disk and loads its code into memory. The floppy disk does not have to be a startup disk for the virus to spread. The virus remains memory-resident and infects any floppy disks that are accessed. A floppy disk or hard disk with an infected boot sector won't infect any files unless the virus is also multipartite. A true boot virus can't spread to a server or over the network.

See "About the master boot record" on page 13.

File viruses

File viruses attach to executable files such as .com, .exe, and .dll files by inserting instructions into the execution sequence. When the infected file runs, the inserted instructions execute the virus code. After the code finishes executing, the file continues with its normal execution sequence. This happens so quickly that you're not aware that the virus executed.

There are three subclassifications of file viruses:

- Memory-resident: Stay in memory as terminate-stay-resident (TSR) programs and typically infect all executed files.
- Direct action: Execute, infect other files, and unload.
- Companion: Associate themselves with executable files without modifying them. For example, the virus might create a companion file, Word.com, and attach it to the Word.exe file. When the Word program opens, the infected Word.com file executes, performs the virus activities, and then executes the Word.exe file.

The damage that is caused by file viruses ranges from irritating, such as displaying screen messages, to data destroying.

Macro viruses

Unlike other viruses, macro viruses do not infect program files; they infect documents. Common targets for many macro viruses are word processors such as Microsoft Word and Lotus AmiPro®, and spreadsheets like Microsoft Excel.

Word uses macros to perform actions such as formatting text and opening or closing a document. Macro viruses can modify macros that are defined by the Word application to perform malicious actions such as overwriting or redefining default definitions in Word.

The damage that is caused by macro viruses can range from inserting unwanted text into documents to significantly reducing the functionality of a computer.

Macro viruses that infect Word commonly target the macros that are associated with the Normal.dot template. This template is global, so all of your Word files can be infected.

About the master boot record

The master boot record is contained on the first sector of a hard drive. Part of the process of starting a computer includes giving control to the hard disk. Also, a program is located in the first sector of the hard disk that enables the operating system to load into random access memory (RAM).

Boot viruses can damage the master boot record by moving, overwriting, or deleting it. For example, the Monkey virus moves the master boot record to the hard drive's third sector, and then places its own code in the first sector. Moving the master boot record makes starting from the hard drive impossible.

See "Boot viruses" on page 12.

About security risks

Security risks are classified by the behavior in which they engage and the purpose for which they appear to be designed. Unlike viruses and worms, security risks do not self-replicate.

Symantec AntiVirus can detect, quarantine, delete, and remove or repair the side effects of security risks in the following categories:

- *Spyware*: Stand-alone programs that can secretly monitor system activity and detect information like passwords and other confidential information and relay the information back to another computer.
  Spyware can be unknowingly downloaded from Web sites (typically in shareware or freeware), email messages, and instant messenger software. You may unknowingly download spyware by accepting an End User License Agreement from a software program.
- *Adware*: Stand-alone or appended programs that can secretly gather personal information through the Internet and relay it back to another computer. Adware may track browsing habits for advertising purposes. Adware can also deliver advertising content.
  Adware can be unknowingly downloaded from Web sites (typically in shareware or freeware), email messages, and instant messenger software. You may unknowingly download adware by accepting an End User License Agreement from a software program.
- *Dialers*: Programs that use a computer, without your permission or knowledge, to dial out through the Internet to a 900 number or FTP site, typically to accrue charges.
- *Hack tools*: Programs that are used by a hacker to gain unauthorized access to your computer. For example, one hack tool is a keystroke logger, which tracks and records individual keystrokes and can send this information back to the hacker. The hacker can then perform port scans or vulnerability scans. Hack tools may also be used to create tools for virus creation.
- *Joke programs*: Programs that can alter or interrupt the operation of a computer in a way that is intended to be humorous or frightening. For example, a program can be downloaded from Web sites (typically in shareware or freeware), email messages, or instant messenger software. It can then move the trash can away from the mouse when you attempt to delete or cause the mouse to click in reverse.
- *Other*: Security risks that do not conform to any other security risk category, but that may present a security risk to your computer and its data.

- *Remote access*: Programs that allow access over the Internet from another computer to gain information or to attack or alter your computer. For example, you may install a program, or it may be installed as part of some other process without your knowledge. The program can be used for malicious purposes with or without modification of the original remote access program.
- *Trackware*: Stand-alone or appended applications that trace a user's path on the Internet and send information to a target system. For example, the application can be downloaded from Web sites, email messages, or instant messenger software. It can then obtain confidential information regarding user behavior.

By default, all Symantec AntiVirus scans, including Auto-Protect scans, check for viruses, Trojan horses, worms, and all categories of security risks.

See "Using Auto-Protect" on page 43.

See "Initiating manual scans" on page 52.

The Symantec™ Security Response Web site provides the latest information about threats and security risks. The Web site also contains extensive reference information, such as white papers and detailed information about viruses and security risks.

Figure 1-1 shows information about a hack tool and how Symantec Security Response suggests that you handle it.

Figure 1-1 Symantec Security Response security risk description

See “Accessing the Symantec Security Response Web site” on page 38.

How Symantec AntiVirus responds to viruses and security risks

Symantec AntiVirus safeguards computers from viruses and security risks no matter what the source. Computers are protected from viruses and security risks that spread from hard drives and floppy disks, and others that travel across networks. Computers are also protected from viruses and security risks that spread through email attachments or some other means. For example, a security risk may install itself on your computer without your knowledge when you access the Internet.

Files within compressed files are scanned and cleaned of viruses and security risks. No separate programs or options changes are necessary for Internet-borne viruses. Auto-Protect scans uncompressed program and document files automatically as they are downloaded.

Symantec AntiVirus responds to files that are infected by viruses or by security risks with first actions and second actions.

When a virus is detected during a scan, Symantec AntiVirus, by default, attempts to clean the virus from the infected file and repair the effects of the virus. If the file is cleaned, the virus is successfully and completely removed. If for some reason Symantec AntiVirus cannot clean the file, Symantec AntiVirus attempts the second action, moving the infected file to the Quarantine so that the virus cannot spread.

When your virus protection is updated, Symantec AntiVirus automatically checks to see if any files are stored in the Quarantine and gives you the option of scanning them using the new protection information.

Note: Your administrator may choose to scan files in the Quarantine automatically.

By default, for security risks, Symantec AntiVirus quarantines the infected files and returns the system information that the security risk has changed to its previous state. Some security risks cannot be completely removed without causing another program on your computer, such as a Web browser, to fail. If Symantec AntiVirus is not configured to handle the risk automatically, it prompts you before it stops a process or restarts your computer. Alternatively, you can configure Symantec AntiVirus to use the log only action for security risks.

When Symantec AntiVirus discovers security risks, it also presents a link in the scan window to Symantec Security Response, where you can learn more about the security risk. Your system administrator may also send a customized message.

How Symantec AntiVirus protects your computer

Virus infections can be avoided. Viruses that are quickly detected and removed from your computer cannot spread to other files and cause damage. The effects of viruses and security risks can be repaired. When a virus or a security risk is detected, by default Symantec AntiVirus notifies you that one or more of your files is affected. If you do not want to be notified, you or your administrator can configure Symantec AntiVirus to handle the risk automatically.

Symantec AntiVirus provides these types of protection:

- Auto-Protect: Constantly monitors activity on your computer by looking for viruses and security risks when a file is executed or opened, and when modifications have been made to a file, such as renaming, saving, moving, or copying a file to and from folders.
- Signature-based scanning: Searches for residual virus signatures in infected files, and for the signatures of security risks in infected files and system information. This search is called a *scan*. Depending on how your computer is managed, you and your company's administrator can initiate signature-based or pattern-based scans to systematically check the files on your computer for viruses and security risks, such as adware or spyware. Scans can be run on demand, scheduled to run unattended, or run automatically at system startup.
- Advanced heuristics: Analyzes a program's structure, its behavior, and other attributes for virus-like characteristics. In many cases it can protect against threats such as mass-mailing worms and macro viruses, if you encounter them before updating your virus definitions. Advanced heuristics looks for script-based threats in HTML, VBScript, and JavaScript files.

What keeps Symantec AntiVirus protection current

Symantec engineers track reported outbreaks of computer viruses to identify new viruses. They also track new security risks, such as adware and spyware. After a virus or security risk is identified, a *signature* (information about the virus or security risk) is stored in a *definitions file*, which contains the necessary information to detect, eliminate, and repair the effects of the virus or security risk. When Symantec AntiVirus scans for viruses and security risks, it is searching for these types of signatures.

Symantec makes updated definitions available on an ongoing basis. Definitions are updated daily on the Symantec Security Response Web site. New definitions are made available at least weekly for delivery using LiveUpdate, and whenever a destructive new virus appears.

When new viruses and security risks are so complex that issuing new definitions files for them isn't sufficient, Symantec engineers can update the AntiVirus Engine with the latest detection and repair components. When necessary, AntiVirus Engine updates are included with the definitions files.

About the role of Symantec Security Response

The strength behind Symantec AntiVirus is Symantec Security Response. The increasing number of computer viruses and security risks requires great effort to track, identify, and analyze, and to develop new technologies to protect your computer.

Symantec Security Response researchers disassemble each virus and security risk sample to discover its identifying features and behavior. With this information, they develop definitions that Symantec products use to detect, eliminate, and repair the effects of new viruses and security risks during scans.

Because of the speed at which new viruses spread, particularly over the Internet, Symantec Security Response has developed automated software analysis tools. With direct submissions over the Internet of infected files from your Central Quarantine to Symantec Security Response, the time from discovery to analysis to cure is shrinking from days to hours, and in the near future, to minutes.

Symantec Security Response researchers also research and produce technologies to protect computers from security risks such as spyware, adware, and hack tools.

Symantec Security Response maintains an encyclopedia that provides detailed information about viruses and security risks. In necessary cases, they provide information about removing or uninstalling the risk. The encyclopedia is located on the Symantec Security Response Web site.

See "Accessing the Symantec Security Response Web site" on page 38.

How virus and security risk protection is updated

Your administrator determines how your virus and security risk definitions are updated. You may not have to do anything to receive new definitions.

The LiveUpdate feature in Symantec AntiVirus can be set up by your administrator to make sure that your virus and security risk protection remains current. With LiveUpdate, Symantec AntiVirus connects automatically to a special Web site, determines if your files need updating, downloads the proper files, and installs them in the proper location.

See "Keeping virus and security risk protection current" on page 33.

Chapter 2

Symantec AntiVirus basics

This chapter includes the following topics:

About content licensing

A content license is a grant by Symantec Corporation to update computers using Symantec software. Content licensing ensures that Symantec products receive the latest updates for a specified period of time. Content updates include virus and security risk definitions.

A content license must be allocated to or installed on each computer that is running Symantec AntiVirus.

Note: In some enterprises, Symantec content updates are governed by a site license. In these cases, content licenses are not applied and you do not need to refer to this section.

Symantec clients can receive one content update without a content license. This ensures that newly installed software can provide the most current protection while giving you time to request a content license from Symantec for future updates. Thereafter, computers without valid content licenses do not receive content updates.

Content licenses are installed in the following ways:

- For clients managed through Symantec System Center, a client receives its license seat automatically when it checks in with its parent server. You do not have to do anything to install a content license.
- For clients managed with third-party distribution tools, your administrator will ensure that your client receives a license automatically. You do not have to do anything to install a content license.
- For unmanaged clients, where Symantec System Center is not used, you install the content license file. Your administrator will either provide a content license file or notify you of the location of the content license file for installation.

Installing a content license to an unmanaged client

Your administrator will provide a content license file in one of the following ways:

- Send you the content license file by email.
- Place the content license file on a network drive and notify you of the location.

To install a content license to an unmanaged client

1. In Symantec AntiVirus, click **View** > **License**.
2. In the right pane, click **Install License**.
3. In Step 1 of the License Install Wizard, click **Browse** to locate the content license file, and then click **Next**.
4. In Step 2 of the License Install Wizard, confirm the license information, and then click **Next**.
5. To close the License Install Wizard, click **Finish**.

Opening Symantec AntiVirus

You can open Symantec AntiVirus in several ways.

To open Symantec AntiVirus

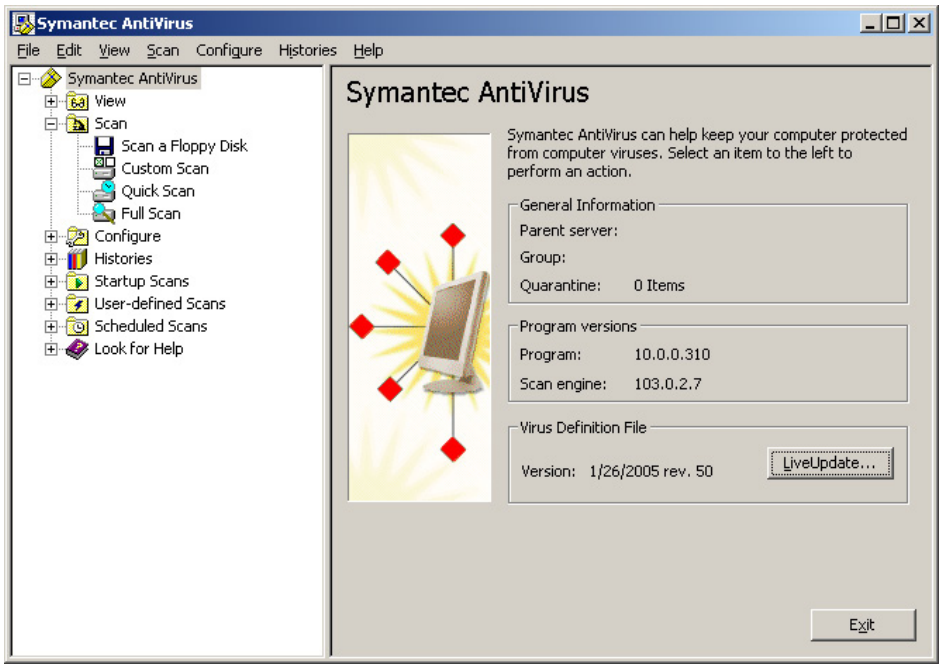
- Do one of the following:
  - On the Windows® taskbar, double-click the Symantec AntiVirus icon.

    Your administrator determines whether this icon appears on the taskbar.
  - On the Windows or Windows XP taskbar, click **Start** > **Programs** > **Symantec Client Security** > **Symantec AntiVirus** or **Start** > **More Programs** > **Symantec Client Security** > **Symantec AntiVirus**, as appropriate.

Navigating in the Symantec AntiVirus main window

The Symantec AntiVirus main window is divided into two panes. The left pane groups activities that you can perform into categories. For example, Scan a Floppy Disk, Custom Scan, Quick Scan, and Full Scan are tasks in the Scan category. Individual icons represent each category in the left pane. When you select categories and other items in the left pane, the right pane displays the information that you need to perform a task.



To navigate in the Symantec AntiVirus main window

- In the left pane, do any of the following:
  - Click a plus sign to expand a folder.
  - Click a minus sign to collapse a folder.
  - Select an item to access the information in the right pane.

Viewing Symantec AntiVirus categories

The activities that you can perform using Symantec AntiVirus are organized into several main categories. Each category has a number of options that you can set.

The following tables do not discuss the individual options that you can change, but give a general description of what they do and how you can find them. For specific information about an option, see the online Help.

View category

You can use the View category to keep track of antivirus and security risk activities.

Table 2-1 View category

Option	Description
Auto-Protect Scan Statistics	View statistics about the status of Auto-Protect scans, including the last file that was scanned (even if it wasn't infected).
Scheduled Scans	View the list of all scheduled scans created to run on your computer, including the name of the scan, when it is scheduled to run, and who created it. A scheduled scan may be created by you or your company's administrator.
Quarantine	Manage infected files that have been isolated to prevent the spread of viruses or the effects of security risks. See "Rescanning files in the Quarantine for viruses" on page 79.

Table 2-1 View category

Option	Description
Backup Items	Delete backup copies of infected files. As a data safety precaution, Symantec AntiVirus makes a backup copy of infected items before attempting a repair. After verifying that Symantec AntiVirus cleaned an item infected by a virus, you should delete the copy in Backup Items. Symantec AntiVirus backs up files that are infected by security risks when the files are put into Quarantine. It also keeps copies of the registry settings and system load points that are affected by security risks such as spyware and adware. System load points are areas of software that are particularly vulnerable to security risks. **Note:** In some cases, deleting a security risk can cause applications to lose functionality. Make sure that you do not need the security risk item to run any applications before you delete it to free up disk space. See "Clearing Backup Items" on page 82.
Repaired Items	Items that have been cleaned or repaired, and whose original locations are no longer available, such as a network drive. For example, an infected attachment may have been stripped from an email message and quarantined. After the item is cleaned in the Quarantine and moved to Repaired Items, you must restore the item from Repaired Items and specify the location to which to restore it.
License Applies only to content licenses; item does not appear in menu if using a site license.	View information about the current license. Current license information includes the license status, serial number, and start and expiration dates. You can start the license installation wizard.

Scan category

You can use the Scan category to perform a manual scan of your computer.

Table 2-2 Scan category

Option	Description
Scan a Floppy Disk	Scan floppy disks and other removable media.

Table 2-2 Scan category

Option	Description
Custom Scan	Perform a manual scan of a file, folder, drive, or entire computer at any time. See "Initiating manual scans" on page 52.
Quick Scan	Perform a very rapid scan of system memory and all of the common virus and security risk locations on the computer.
Full Scan	Perform a full scan of your system, including the boot sector and system memory. A password might be required to scan network drives.

Configure category

You can use the Configure category to set up Auto-Protect to monitor your files and email attachments (for supported email clients) and to set up Tamper Protection to protect Symantec applications from tampering.

Table 2-3 Configure category

Option	Description
File System Auto-Protect	Whenever you access, copy, save, move, or open a file, it is examined to ensure that it is not infected by a virus or security risk. Auto-Protect includes the SmartScan feature which, when enabled, can determine a file's type even when a virus changes the file's extension. See "Using Auto-Protect" on page 43.
Internet E-mail Auto-Protect Lotus Notes® Auto-Protect Microsoft® Exchange Auto-Protect	For groupware email clients (Lotus Notes and Microsoft Exchange/Microsoft Outlook® clients), Symantec AntiVirus includes additional protection for email. For Internet E-mail clients, Symantec AntiVirus protects incoming and outgoing email messages that use the POP3 or SMTP communications protocol.
Tamper Protection	Tamper Protection protects Symantec applications from tampering by unauthorized sources.

Histories category

You can use the Histories category to track information about the scans that run on your computer, and virus infections and security risks that are found.

Table 2-4 Histories category

Option	Description
Risk History	View a list of the following items: ■ The viruses that have infected your computer, with additional relevant information about the infection. ■ The security risks, such as adware and spyware, that Symantec AntiVirus detected and logged, or quarantined and repaired, or deleted on your computer. The Risk History for security risks includes a link to the Symantec Security Response Web page that provides additional information.
Scan Histories	Keep track of the scans that have occurred on your computer over time. Scans are displayed with additional relevant information about the scans.
Event Log	View a log of activities on your computer that are related to viruses and security risks, including configuration changes, errors, and definitions file information.
Tamper History	View a list of the attempts to tamper with the Symantec applications on your computer that have been thwarted by Tamper Protection.

Startup Scans category

You can use the Startup Scans category to create and configure scans to run when you start your computer.

Table 2-5 Startup Scans category

Option	Description
New Startup Scan	Some users supplement a scheduled scan with an automatic scan whenever they start their computers. Often, a startup scan is restricted to critical, high-risk folders, such as the Windows folder and folders that store Microsoft Word and Excel templates. See "Creating startup scans" on page 57.

Table 2-5 Startup Scans category

Option	Description
Auto-Generated QuickScan	This scan checks the files in memory and other common infection points on the computer for viruses and security risks each time that a user logs on to the computer. You can configure this scan in the same way that you can configure any manual scan, except that you cannot stop it from scanning the files in memory and other common infection points on the computer. **Note:** This type of scan is available only on unmanaged clients.

User-defined Scans category

You can use the User-defined Scans category to create preconfigured scans that you can run manually.

Table 2-6 User-defined Scans category

Option	Description
New User-defined Scan	If you regularly scan the same set of files or folders, you can create a scan that is restricted to those items. At any time, you can quickly verify that the specified files and folders are free of viruses and security risks. See "Creating user-defined scans" on page 59.

Scheduled Scans category

You can use the Scheduled Scans category to create preconfigured scans that run automatically at the times that you specify.

Table 2-7 Scheduled Scans category

Option	Description
New Scheduled Scan	Schedule a scan of your hard disks that runs at least once a week. A scheduled scan confirms that your computer remains free of viruses and security risks. See "Creating scheduled scans" on page 55.

Enabling and disabling Auto-Protect

If you have not changed the default option settings, Auto-Protect loads when you start your computer to guard against viruses and security risks. It checks programs for viruses and security risks as they run and monitors your computer for any activity that might indicate the presence of a virus or security risk. When a virus, *virus-like activity* (an event that could be the work of a virus), or security risk is detected, Auto-Protect alerts you.

In some cases, Auto-Protect may warn you about a virus-like activity that you know is not the work of a virus. For example, this might occur when you are installing new computer programs. If you will be performing such an activity and want to avoid the warning, you can temporarily disable Auto-Protect. Be sure to enable Auto-Protect when you have completed your task to ensure that your computer remains protected.

Your administrator might lock Auto-Protect so that you cannot disable it for any reason, or specify that File Auto-Protect can be disabled temporarily, but reenables automatically after a specified amount of time.

Enable and disable File System Auto-Protect

The Symantec AntiVirus icon is displayed on the taskbar in the lower-right corner of your Windows desktop. In some configurations, the icon is not displayed.

The Symantec AntiVirus icon appears as a full shield. When you right-click the icon, a check mark appears next to Enable Auto-Protect when File System Auto-Protect is enabled.

The Symantec AntiVirus icon is covered by a universal no sign, a red circle with a diagonal slash, when File System Auto-Protect is disabled.

To enable and disable File System Auto-Protect from the taskbar

- On the Windows desktop, in the system tray, right-click the Symantec AntiVirus icon, and then click **Enable Auto-Protect**.

To enable and disable File System Auto-Protect from Symantec AntiVirus

1. In Symantec AntiVirus, in the left pane, click **Configure**.
2. In the right pane, click **File System Auto-Protect**.
3. Check or uncheck **Enable Auto-Protect**.
4. Click **OK**.
   The current File System Auto-Protect status updates dynamically to the right of the check box.

Pausing and delaying scans

The Pause feature lets you stop a scan at any point during the scan and resume it at another time. You can pause any scan that you initiate. Your network administrator determines whether you can pause an administrator-scheduled scan.

For scheduled scans that your network administrator initiates, you may also be allowed to delay the scan. If your administrator has enabled the Snooze feature, you can delay an administrator-scheduled scan for a set interval of time. When the scan resumes, it restarts from the beginning.

Pause the scan if you're planning on resuming it after a temporary break. Use the Snooze feature to delay the scan for a longer period of time during which you don't want to be interrupted, for example, if you're in the middle of a presentation.

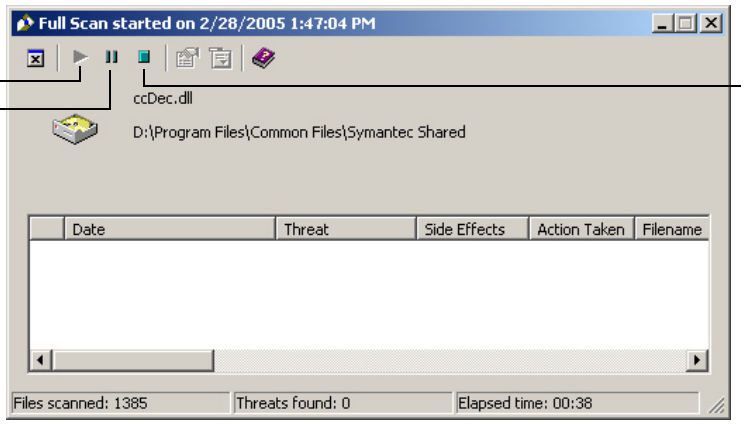
Pause or delay a scan

Use the following procedures to pause a scan initiated by you or delay an administrator-scheduled scan. If the Pause the Scan button is not available, your network administrator has disabled the Pause feature.

Note: If Symantec AntiVirus is scanning a compressed file when you choose to pause a scan, it may take several minutes to respond.

To pause a scan

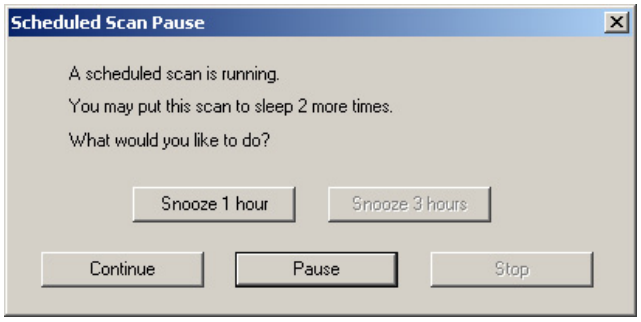
1 When the scan runs, in the scan dialog box, click the pause icon.



The buttons that display in a scan dialog box are the same whether it's a scan that you initiate or an administrator-initiated scan

If it's a scan that you initiated, the scan stops where it is and the scan dialog box remains open until you start the scan again.

If it's an administrator-scheduled scan, the Scheduled Scan Pause dialog box appears.



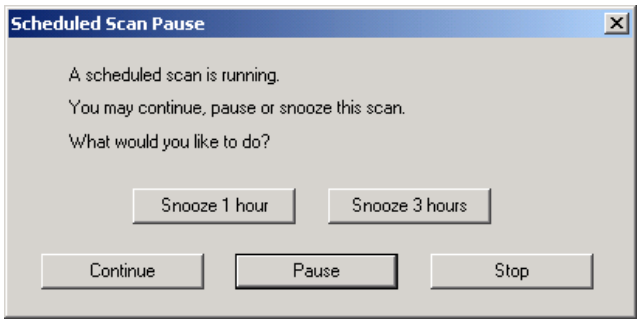
2 In the Scheduled Scan Pause dialog box, click **Pause**.
The administrator-scheduled scan stops where it is and the scan dialog box remains open until you start the scan again.

3 In the scan dialog box, click the start icon to continue the scan.

To delay an administrator-scheduled scan

1 When the administrator-scheduled scan runs, in the scan dialog box, click **Pause the Scan**.

2 In the Scheduled Scan Pause dialog box, click **Snooze 1 hour** or **Snooze 3 hours**.



Your administrator specifies the period of time that you're allowed to delay the scan. When you've reached that set period of time, the scan restarts from the beginning. Your administrator specifies the number of times that you can delay the scheduled scan before this feature is disabled.

Keeping virus and security risk protection current

Symantec AntiVirus relies on up-to-date information to detect, eliminate, and repair the effects of viruses and security risks. One of the most common reasons that virus or security risk problems occur is that definitions files are not updated after installation. The definitions files contain the necessary detection and repair information about all newly discovered viruses and security risks.

Symantec supplies updated definitions files weekly through LiveUpdate and daily through Intelligent Updater files posted to the Symantec Security Response Web site. Updates are also issued whenever a new high-risk virus threat emerges. Make it a practice to update definitions once a week at a minimum. Scheduling LiveUpdate to run automatically is the easiest way not to forget. Always update immediately if a new virus scare is reported.

With LiveUpdate, Symantec AntiVirus connects automatically to a special Symantec Web site, and determines if virus and security risk definitions need to be updated. If so, it downloads the proper files and installs them in the proper location. Generally, you do not have to do anything to configure LiveUpdate. The only requirement is an Internet connection.

Note: Your administrator may have specified a maximum number of days that the virus and security risk definitions can be out of date. After exceeding the maximum number of days, Symantec AntiVirus automatically runs LiveUpdate when an Internet connection is detected.

Scheduling updates with LiveUpdate

By default LiveUpdate is scheduled to run automatically every Friday at 8 p.m. When the scheduled update runs, your computer must be running and have access to the Internet.

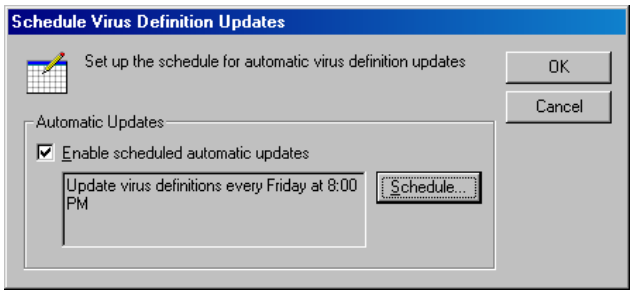
Schedule updates with LiveUpdate

You can change the LiveUpdate frequency and time to fit your needs.

Note: In a centrally managed network, your administrator may distribute updated virus and security risk definitions to workstations. In this case, you do not have to do anything.

To enable scheduled LiveUpdate

1 In Symantec AntiVirus, on the File menu, click **Schedule Updates**.



2 In the Schedule Virus Definition Updates dialog box, check **Enable scheduled automatic updates**.

Note: This updates both virus and security risk definitions.

3 Click **OK**.

To set LiveUpdate schedule options

1 In the Schedule Virus Definition Updates dialog box, click **Schedule**.

2 In the Virus Definition Update Schedule dialog box, specify the frequency, day, and time that you want LiveUpdate to run.

3 Click **OK** until you return to the main Symantec AntiVirus window.

To set advanced LiveUpdate schedule options

1 On the File menu, click **Schedule Updates**.

2 In the Schedule Virus Definition Updates dialog box, click **Schedule**.

3 In the Virus Definition Update Schedule dialog box, click **Advanced**.

4 In the Advanced Schedule Options dialog box, do any of the following:

- To set up Symantec AntiVirus so that scheduled LiveUpdate events that are missed run at a later time, check **Handle Missed Events Within** and set the days.
- To set up Symantec AntiVirus so that scheduled LiveUpdate events run within a specified time range rather than at a set time, select the type of randomization method that you want to use and set the minutes, days of the week interval, or number of days of the month to use.

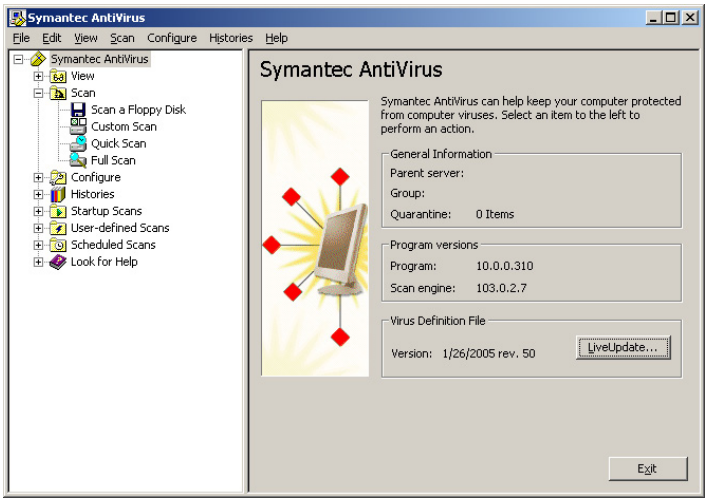
5 Click **OK** until you return to the main Symantec AntiVirus window.

Updating protection immediately with LiveUpdate

When a new virus is reported, do not wait for your next scheduled update. You should update virus and security risk protection immediately.

To update virus protection immediately with LiveUpdate

1 In Symantec AntiVirus, in the left pane, click **Symantec AntiVirus**.



2 In the right pane, click **LiveUpdate**.

3 If necessary, in the LiveUpdate dialog box, click **Options** > **Configure** to customize your Internet connection for LiveUpdate.
You can change your Internet service provider connection or how your computer connects through a proxy server to the Internet.
For more information, use the online Help from LiveUpdate.

4 Click **Next** to start the automatic update.

Updating without LiveUpdate

Symantec supplies a special program called Intelligent Updater as an alternative to LiveUpdate. You can download the updates from the Symantec Security Response Web site.

See "Accessing the Symantec Security Response Web site" on page 38.

To update without LiveUpdate

1. Download the Intelligent Updater program to any folder on your computer.
2. In a My Computer or Windows Explorer window, locate and then double-click the Intelligent Updater program.
3. Follow all prompts displayed by the update program.
   The Intelligent Updater program searches your computer for Symantec AntiVirus, and then installs the new virus and security risk definitions files in the proper folder automatically.
4. Scan your computer to make sure that newly discovered viruses and security risks are detected.

Using Symantec AntiVirus with Windows Security Center

If you are using Windows Security Center (WSC) running on Windows XP Service Pack 2 to monitor security status, you can see Symantec AntiVirus status in WSC.

Table 2-8 shows the protection status reporting in WSC.

Table 2-8 WSC protection status reporting

Symantec product condition	Protection status
Symantec AntiVirus is not installed	NOT FOUND (red)
Symantec AntiVirus is installed with full protection	ON (green)
Symantec AntiVirus is installed, and virus and security risk definitions are out of date	OUT OF DATE (red)
Symantec AntiVirus is installed and File System Auto-Protect is not enabled	OFF (red)
Symantec AntiVirus is installed, File System Auto-Protect is not enabled, and virus and security risk definitions are out of date	OFF (red)
Symantec AntiVirus is installed and Rtvscan is turned off manually	OFF (red)

For more information

If you need more information about Symantec AntiVirus, you can access the online Help. In addition, information about viruses and security risks can be obtained from the Symantec Web site.

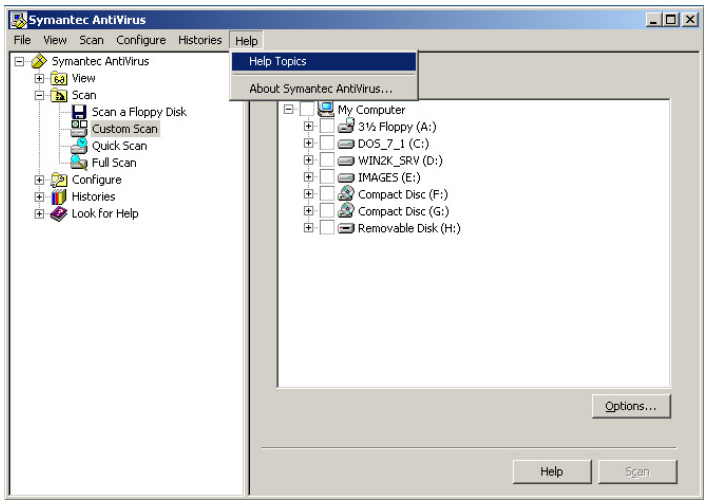
Accessing online Help

The Symantec AntiVirus online Help system has general information and step-by-step procedures to help you keep your computer safe from viruses and security risks.

Note: Your administrator may have elected not to install the Help files.

To get help using Symantec AntiVirus

- In Symantec AntiVirus, do one of the following:
  - On the Help menu, click **Help Topics**.
  - In the right pane, click **Help**.
    Context-sensitive Help is available only in screens on which you can perform actions.



Accessing the Symantec Security Response Web site

If you are connected to the Internet, you can visit the Symantec Security Response Web site to view items such as the following:

- The Virus Encyclopedia, which contains information about all known viruses
- Information about virus hoaxes
- White papers about viruses and virus threats in general
- General and detailed information about security risks

To access the Symantec Security Response Web site

- In your Internet browser, type the following Web address: **securityresponse.symantec.com**

Chapter 3

Protecting your computer from viruses and security risks

This chapter includes the following topics:

About the antivirus and security risk policy

Symantec AntiVirus comes preset with an antivirus and security risk policy that is appropriate for most users. You can change settings based on your personal needs. You can separately customize policy settings for Auto-Protect, manual, scheduled, startup, and user-defined scans.

An antivirus and security risk policy determines:

- What to scan
- What to do if a virus or a security risk is detected

What to scan

Symantec AntiVirus Auto-Protect scans all file types by default. Manual, scheduled, startup, and user-defined scans also examine all file types by default.

Auto-Protect includes SmartScan, which scans files with the extensions included in the Program File Extensions List. SmartScan also scans all executable files and Microsoft® Office documents whether or not the extensions are listed in the Program File Extensions List.

See "Modifying Auto-Protect and using SmartScan" on page 46.

You can choose to scan files by file extension or by type of file (documents and programs), but your protection from viruses and security risks is reduced.

You can also choose to exclude specific files from scanning. For example, if a file that you know is not infected triggers a virus alert during a scan, you prevent further warnings by excluding the file from your subsequent scans.

Scanning by file types or extensions

Symantec AntiVirus can scan your computer by file types or by extensions. Scanning by file types enables Symantec AntiVirus to determine the file's type, regardless of its extension. Because viruses are known to infect only certain types of files, this is a useful scanning method that ensures that all files that are subject to viruses are scanned.

Scanning by file types enables Symantec AntiVirus to scan files that have been renamed by a malicious virus. However, this option is slower than scanning by extensions.

You can choose from the following types of files:

- Document files: Include Microsoft Word and Excel documents, and template files associated with those documents. Symantec AntiVirus searches document files for macro virus infections.
- Program files: Include dynamic-link libraries (.dll), batch files (.bat), communication files (.com), executable files (.exe), and other program files. Symantec AntiVirus searches program files to look for file virus infections.

Scan by file types or extensions

Symantec AntiVirus can scan your computer by file types or by extensions.

To select file types to scan

1. In Symantec AntiVirus, in the left pane, select the scan that you want to change.
   - If you selected a scan from the Scan category, click **Options**.
   - If you selected a startup, user-defined, or scheduled scan, click the specific scan you want, click **Edit**, and then click **Options**.
     Changes will apply only to the specific scan that you select.
2. Click **Selected file types**, and then click **Types**.
3. Select one or both of the following file types:
   - Document files: Include Word and Excel documents, and template files associated with those documents.
   - Program files: Include dynamic-link libraries (.dll), batch files (.bat), communication files (.com), executable files (.exe), and other program files.
4. If you want to use these actions for all subsequent scans, click **Save Settings**.
5. Click **OK**.

To add file extensions to the scan list

1. In Symantec AntiVirus, in the left pane, select the scan that you want to change.
   - If you selected a from the Scan category, click **Options**.
   - If you selected a startup, user-defined, or scheduled scan, click the name of the scan to change, click **Edit**, and then click **Options**.
     Changes apply only to the specific scan that you select.
   - If you selected Auto-Protect, go to step 2.
2. Click **Selected file extensions**, and then click **Extensions**.
3. Type the extension to add, and then click **Add.**
4. Repeat step 3 as needed.
5. Click **OK**.

About scanning all file types

Symantec AntiVirus can scan all of the files on your computer, regardless of extension or file type. Scanning all file types ensures the most thorough scan, because this option enables Symantec AntiVirus to detect viruses and security risks in files that might not otherwise be searched. Scanning by all file types is more time consuming than scanning by selected file types or scanning by file extensions, but it's also more thorough.

If a short scan is important to you, you should set up Auto-Protect scans or idle scans (when available) to scan by extension, and then configure a scheduled scan at least once a week to thoroughly check your computer.

About preventing macro virus infections

The Symantec AntiVirus scanner automatically detects and removes most Microsoft Word and Excel macro viruses. By regularly running scheduled scans, startup scans, or Auto-Protect, you can protect your computer from macro virus infections. Symantec AntiVirus regularly searches and cleans any macro viruses that it detects.

To best prevent macro virus infections, do the following:

- Enable Auto-Protect. Auto-Protect constantly scans files that have been accessed (for example, file execute or file open) or modified (for example, file rename, file modify, file create, file copy, or file moves to a location).
- Run Auto-Protect for your email, if available.
- Set all scan options to scan by All types.
- Protect your global template files by disabling automacros.

What to do if a virus or security risk is detected

Symantec AntiVirus responds to files that are infected by viruses or security risks with a first action and a second action. By default, when a virus is detected by Auto-Protect or during a scan, Symantec AntiVirus attempts to clean the virus from the infected file. If Symantec AntiVirus cannot clean the file, the second action is to log the failed cleaning attempt and move the infected file to the Quarantine so that the virus cannot spread, which denies you further access to the file.

Depending on your antivirus policy, you can change these settings to delete an infected file on detection or leave it alone (log only). For Auto-Protect, you can also choose to deny access. In addition, you can set different actions for macro and nonmacro viruses for each scan type separately.

By default, when a security risk is detected by Auto-Protect or during a scan, Symantec AntiVirus quarantines the infected files and attempts to remove or repair the changes that the security risk has made on the computer. Quarantining the security risk ensures that the security risk is no longer active on your computer, and also ensures that Symantec AntiVirus can reverse the changes, if necessary. If Symantec AntiVirus cannot do this, the second action is to log the risk and leave it alone.

For each scan type, you can change these settings, and set different actions for each category of security risk and for individual security risks as well.

Note: In some instances, you might unknowingly install an application that includes a security risk such as adware or spyware. To avoid leaving the computer in an unstable state, Symantec AntiVirus waits until the application installation is complete before it quarantines the risk. It then removes or repairs the risk's effects.

Using Auto-Protect

Auto-Protect is your best defense against virus attack. Whenever you access, copy, save, move, or open a file, Auto-Protect scans the file to ensure that a virus has not attached itself.

Auto-Protect includes SmartScan, which scans a group of file extensions that contain executable code and all .exe and .doc files. SmartScan can determine a file's type even when a virus changes the file's extension. For example, it scans .doc files even when a virus changes the file extension to one that is different from the file extensions that SmartScan has been configured to scan.

About Auto-Protect and security risks

By default, Auto-Protect scans for security risks such as adware and spyware, quarantines the infected files, and removes or repairs the side effects of the security risks. You can disable scanning for security risks in Auto-Protect.

See "Disabling and enabling security risk scanning in Auto-Protect" on page 46.

About Auto-Protect and email scanning

To supplement Auto-Protect, Symantec AntiVirus detects at installation whether you use a supported groupware email client and adds Auto-Protect for email. Protection is provided for the following email clients:

- Lotus Notes 4.5x, 4.6, 5.0, and 6.x
- Microsoft Outlook 98/2000/2002/2003 (MAPI and Internet)
- Microsoft Exchange client 5.0 and 5.5

Note: E-mail Auto-Protect works on your supported email client only. It does not protect email servers.

Symantec AntiVirus also includes Auto-Protect scanning for additional Internet email programs by monitoring all traffic that uses the POP3 or SMTP communications protocols. You can configure Symantec AntiVirus to scan incoming messages for threats and security risks, as well as outgoing messages for known heuristics by using Bloodhound™ Virus Detection. Scanning outgoing email helps to prevent the spread of threats such as worms that can use email clients to replicate and distribute themselves across a network.

Note: Internet email scanning is not supported for 64-bit computers.

For Lotus Notes and Microsoft Exchange email scanning, Symantec AntiVirus scans only the attachments that are associated with email. For Internet email scanning of messages that use the POP3 or SMTP protocols, Symantec AntiVirus scans both the body of the message and any attachments that are included.

When Auto-Protect is enabled for a supported email client and you open a message with an attachment, the attachment is immediately downloaded to your computer and scanned. Over a slow connection, downloading messages with large attachments affects mail performance. You may want to disable this feature if you regularly receive large attachments.

There are times, such as during the installation of new software, that you must temporarily disable Auto-Protect.

See "Enabling and disabling Auto-Protect" on page 30.

Note: If a virus is detected as you open email, your email may take several seconds to open while Symantec AntiVirus completes its scan.

Email scanning does not support the following email clients:

- IMAP clients
- AOL® clients
- POP3 that uses Secure Sockets Layer (SSL)
- Web-based email such as Hotmail® and Yahoo!® Mail

Disabling email scanning if you use SSL connections

If your Internet service provider uses the SSL protocol, you might have problems sending email messages when Symantec AntiVirus email scanning is enabled. In this case, you might need to disable Symantec AntiVirus email scanning.

File System Auto-Protect continues to protect your computer from viruses and security risks in attachments even after you disable Internet E-mail client scanning. File System Auto-Protect scans email attachments when you save the attachments to the hard drive.

After you disable the email scanner, be sure that Auto-Protect is enabled, and run LiveUpdate regularly to ensure that Auto-Protect has been optimally configured. Auto-Protect provides real-time virus protection from any source, including the Internet, and automatically scans email attachments whenever they are accessed.

To disable email scanning

1. In Symantec AntiVirus, in the left pane, click **Configure**.
2. In the right pane, click **<Email> Auto-Protect**.
3. Uncheck **Enable <Email> Auto-Protect**.
4. Click **OK**.

Viewing Auto-Protect Scan Statistics

Auto-Protect Scan Statistics displays the status of the last Auto-Protect scan, the last file that was scanned, and virus infection and security risk information.

To view Auto-Protect Scan Statistics

- In Symantec AntiVirus, on the View menu, click **Auto-Protect Scan Statistics**.

Modifying Auto-Protect and using SmartScan

Auto-Protect is preset to scan all files. Scanning all files and using SmartScan offers the most protection from viruses and security risks. SmartScan is enabled by default.

Symantec AntiVirus may complete scans faster by scanning only files with selected extensions, such as .exe, .com, .dll, .doc, and .xls. Although this method offers less protection, it is an efficient way to scan for viruses because viruses affect only certain file types. The default list of extensions represents those files that are commonly at risk of infection by viruses.

To modify Auto-Protect and use SmartScan

1. In Symantec AntiVirus, in the left pane, click **Configure**.
2. In the right pane, click **File System Auto-Protect**.
3. In the File Types group box, do one of the following:
   - Click **All Types** to scan all files.
   - Click **Selected** to scan only those files that match the listed file extensions, and then click **Extensions** to change the default list of file extensions.
   - Ensure that SmartScan is checked to scan using this feature.
4. Click **OK** to save your settings.

Disabling and enabling security risk scanning in Auto-Protect

By default, Auto-Protect scans for security risks such as adware and spyware, quarantines infected files, and attempts to remove or repair the effects of the security risk. From time to time, however, you might need to temporarily disable scanning for security risks in File System Auto-Protect, and then reenable it.

Note: Your administrator might lock this setting.

To disable and enable security risk scanning in Auto-Protect

1. In Symantec AntiVirus, in the left pane, click **Configure**.
2. In the right pane, click **File System Auto-Protect**.
3. Under Options, check or uncheck **Scan for Security Risks**.
4. Click **OK**.

Using Tamper Protection

Tamper Protection protects Symantec applications from tampering by worms, Trojan horses, viruses, and security risks.

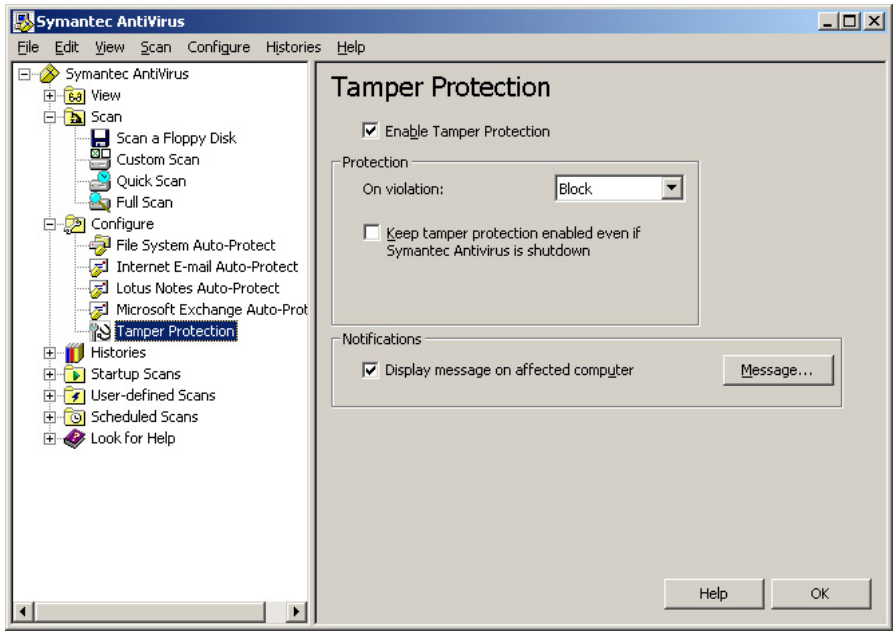
Enabling, disabling, and configuring Tamper Protection

When Tamper Protection is enabled, you can configure Symantec AntiVirus to block or log attempts to modify Symantec applications. You can also configure a message to appear on your computer when Symantec AntiVirus detects a tampering attempt.

Note: If an administrator manages your computer, and the Tamper Protection options display a padlock icon, you cannot change these options because your administrator has locked them.

To enable, disable, and configure Tamper Protection

1 In Symantec AntiVirus, in the left pane, click **Tamper Protection**.



2 In the right pane, check or uncheck **Enable Tamper Protection**.

3 If you enabled Tamper Protection, then under Protection, in the drop-down list, do one of the following:
   - To block unauthorized activity, click **Block**.
   - To log unauthorized activity but allow the activity to take place, click **Log Only**.
4 Check or uncheck **Keep Tamper Protection enabled even if Symantec AntiVirus is shut down**.
5 Under Notifications, check or uncheck **Display message on affected computer**.
6 Click **OK**.

Creating Tamper Protection messages

Tamper Protection lets you create a message that appears when Tamper Protection detects attacks against Symantec processes. The message that you create can contain a mix of text that you type and fields that you select. The fields that you select are variables that are populated by values that identify characteristics of the attack.

Table 3-1 describes the fields that you can select.

Table 3-1 Tamper Protection message field names and descriptions

Field	Description
Filename	The name of the file that attacked protected processes.
PathAndFilename	The complete path and name of the file that attacked protected processes.
Location	The area of the computer hardware or software that was protected from tampering. For Tamper Protection messages, this is Symantec applications.
Computer	The name of the computer that was attacked.
User	The name of the logged on user when the attack occurred.
DateFound	The date on which the attack occurred.
Action Taken	The action that Tamper Protection performed to respond to the attack.
System Event	The type of tampering that occurred.
Entity Type	The type of target that the process attacked.

Table 3-1 Tamper Protection message field names and descriptions

Field	Description
Actor Process ID	The ID number of the process that attacked a Symantec application.
Actor Process Name	The name of the process that attacked a Symantec application.
Target Pathname	The location of the target that the process attacked.
Target Process ID	The process ID of the target that the process attacked.
Target Terminal Session ID	The ID of the terminal session on which the event occurred.

Use the following format to create messages:

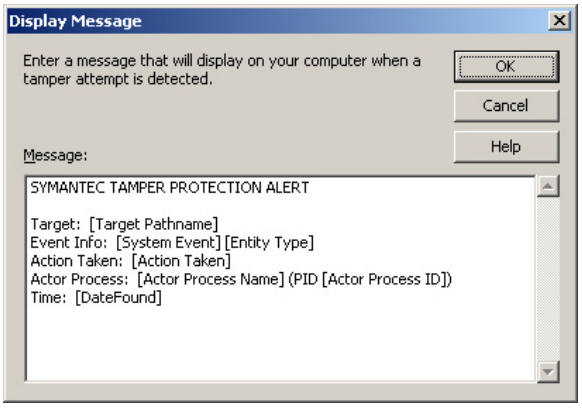
```
Text that you type: [Field Name 1] [Field Name 2] (Optional and
additional text that you type [Field Name x])
```

The following example illustrates a message that tells you which process attempted to take which action and when:

```
Date: [DateFound]
Process Located At: [PathAndFilename] (Named: [Actor Process Name])
Attacked: [Target Pathname] [Target Process ID]
```

To create Tamper Protection messages

1. In Symantec AntiVirus, in the left pane, click **Tamper Protection**.
2. In the right pane, under Notifications, ensure that **Display message on affected computer** is checked, and then click **Message**.



3. In the Message box, click to insert a cursor.

4 Use your keyboard to move the cursor, add rows, and type and delete text.

5 Move the cursor to a position in which you want to insert a field, right-click, click **Insert Field**, and then select the field to insert.
See "Tamper Protection message field names and descriptions" on page 48.

6 Repeat steps 4 and 5 as necessary.

7 In the field, right-click, and then select Cut, Copy, Paste, Clear, or Undo.

8 Click **OK**.

Scanning for viruses and security risks

In addition to Auto-Protect, which is your most powerful defense against virus infection and security risks, Symantec AntiVirus supplies several different types of scans to provide additional protection. Available scans include the following:

- Custom Scan: Scan a file, folder, drive, or entire computer at any time. You select the parts of the computer to scan.
- Quick Scan: Quickly scan system memory and locations that viruses and security risks commonly attack.
- Full Scan: Scan the entire computer, including the boot sector and system memory. You might need to enter a password to scan network drives.
- Scheduled scans: Run unattended at a specified frequency.
- Startup scans: Run every time you start your computer and Windows loads.
- User-defined scans: Scan specified file sets at any time.

A daily Quick Scan and a single, weekly scheduled scan of all files is generally sufficient protection, as long as Auto-Protect is always running. If your computer is frequently attacked by viruses, consider adding a full scan at startup or daily scheduled scan. Another good habit is to always scan floppy disks when first used, particularly if they have been circulating among users.

How Symantec AntiVirus detects viruses and security risks

Symantec AntiVirus prevents virus infections on a computer by scanning the computer's boot sector, memory, and files for viruses and security risks. The Symantec AntiVirus Scan Engine uses virus and security risk signatures that are found in definitions files to do an exhaustive search for known viruses that are inside executable files. Symantec AntiVirus searches the executable parts of document files to find macro viruses.

You can perform a scan while you wait or schedule a scan for when you are away from your desk.

What happens during a scan

During a scan, Symantec AntiVirus searches the computer's memory, boot sector, and selected drives for virus and security risk signatures that identify an infection or the presence of a risk.

Computer memory

Symantec AntiVirus searches the computer's memory. Any file virus, boot sector virus, or macro virus may be memory-resident. Viruses that are memory-resident have copied themselves into a computer's memory. In memory, a virus can hide until a trigger event occurs. Then the virus can spread to a floppy disk in the disk drive, or to the hard drive. There is no known way to clean viruses that find their way to memory. However, you can remove a virus from memory by restarting your computer when prompted.

Boot sector

Symantec AntiVirus checks the computer's boot sector for boot viruses. Two items are checked: the partition tables and the master boot record.

Floppy drive

A common way for a virus to spread is through floppy disks that are left in a disk drive when a computer is being turned on or off. If a floppy disk is in the disk drive when a scan is started, Symantec AntiVirus searches the boot sector and partition tables of the floppy drive. If a floppy disk is in the disk drive when you turn off your computer, you are prompted to remove the disk to prevent possible infection.

Selected files

Symantec AntiVirus scans individual files. For most types of scans, you select the files that you want scanned. Symantec AntiVirus uses pattern-based scanning to search for traces of viruses, called patterns or signatures, within files. Each file is compared to the innocuous signatures that are contained in a virus definitions file, as a way of identifying specific viruses. If a virus is found, by default Symantec AntiVirus attempts to clean the virus from the file. If the file cannot be cleaned, Symantec AntiVirus quarantines the file to prevent further infection of your computer.

Symantec AntiVirus also uses pattern-based scanning to search for signs of security risks within files and registry keys. If a security risk is found, by default Symantec AntiVirus quarantines the infected files and repairs the risk's effects. If this cannot be done, it logs the attempt.

At the end of the scan, results are listed.

About definitions files

Virus files include bits of code that, when broken down, display certain patterns (also called signatures). These virus patterns can be traced in infected files. Security risks, such as adware and spyware, also have recognizable patterns or signatures.

The definitions file contains a list of known virus patterns or signatures, without the harmful virus code, and known signatures for security risks. The scanner searches for known patterns that are found in the definitions file within files on your computer. If a virus match is found, the file is infected. Symantec AntiVirus uses the definitions file to determine which virus caused the infection and to repair its side effects. If a security risk is found, Symantec AntiVirus uses the definitions file to quarantine it and repair its side effects.

Because new viruses and security risks are introduced into the computer community almost every day, definitions files must be updated regularly to ensure that Symantec AntiVirus can detect and clean even the most recent viruses and security risks.

About scanning compressed and encoded files

Symantec AntiVirus scans within compressed and encoded files, for example, .zip files. Your administrator can specify scanning up to 10 levels deep for compressed files that contain compressed files. Check with your administrator for the types of compressed file scans that are supported.

If Auto-Protect is enabled, any file that is removed from a compressed file is scanned, thereby protecting your computer.

Initiating manual scans

You can manually scan for viruses and security risks, such as adware and spyware, at any time. Select anything to scan from a single file to a floppy disk to your entire computer. Manual scans include the Quick Scan and Full Scan.

Initiate manual scans

You can initiate scans from the My Computer window, the Windows Explorer window, or the Symantec AntiVirus main window.

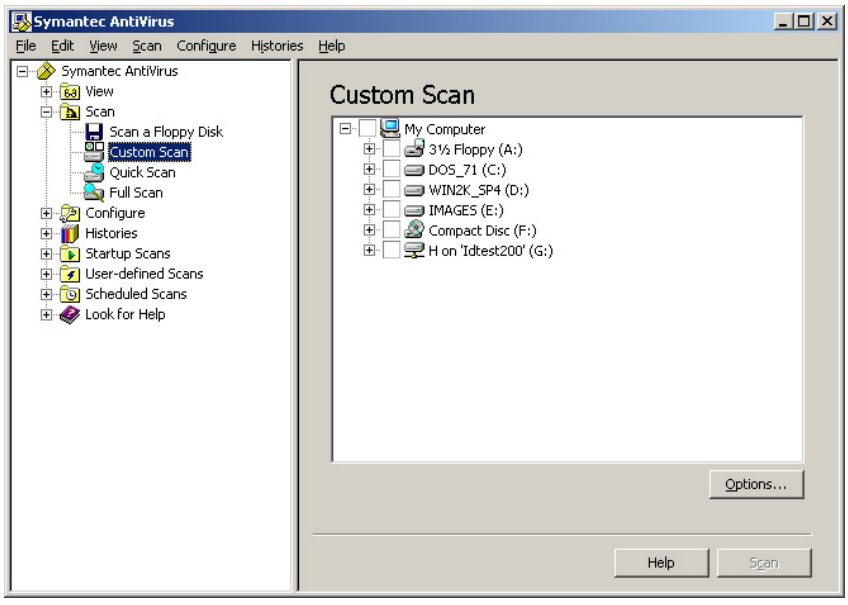
To initiate a manual scan from Windows

- In a My Computer window or Windows Explorer window, right-click a file, folder, or drive, and then click **Scan For Viruses**.

Note: This feature is not supported on 64-bit operating systems.

To initiate a manual scan within Symantec AntiVirus

1. In Symantec AntiVirus, in the left pane, expand **Scan**.
2. In the left pane, select one of the following:
   - Scan a Floppy Disk
     This option is available only when a floppy disk drive is present.
   - Custom Scan
   - Quick Scan
   - Full Scan



3 If you selected Scan a Floppy Disk or Custom Scan, in the right pane, do the following:

- Double-click a drive or folder to open or close it.
- Check or uncheck items that you want to scan.
  The symbols mean the following:


The file, drive, or folder is not selected. If the item is a drive or folder, the folders and files in it are also not selected.


The individual file or folder is selected.


The individual folder or drive is selected. All items within the folder or drive are also selected.


The individual folder or drive is not selected, but one or more items within the folder or drive are selected.

4 For all manual scans, click **Options** to change the default settings for what is scanned and how to respond if a virus or security risk is detected.
The default settings are as follows:

- The default setting is to scan all files.
- For viruses, the default settings for actions are to clean the virus from an infected file and repair its effects, and quarantine the infected file if the virus cannot be removed.
- For security risks, the default settings for actions are to quarantine the security risk and repair its side effects, or log the risk if it cannot be quarantined and repaired.

To apply the modified settings only to the current scan, click **OK**. To apply the settings to all future scans, click **Save Settings**.

5 Click **Advanced** to configure a scan progress dialog box to appear during the scheduled scan.

6 In the Scan Advanced Options dialog box, under Dialog options, in the drop-down list, click **Show scan progress**, and then click **OK**.

7 In the Scan Options dialog box, click **OK**.

8 In the Symantec AntiVirus main window, click **Scan**.
Symantec AntiVirus begins the scan and reports the results.

Configuring scanning

You can configure several different kinds of scans to protect your computer against viruses and security risks.

Creating scheduled scans

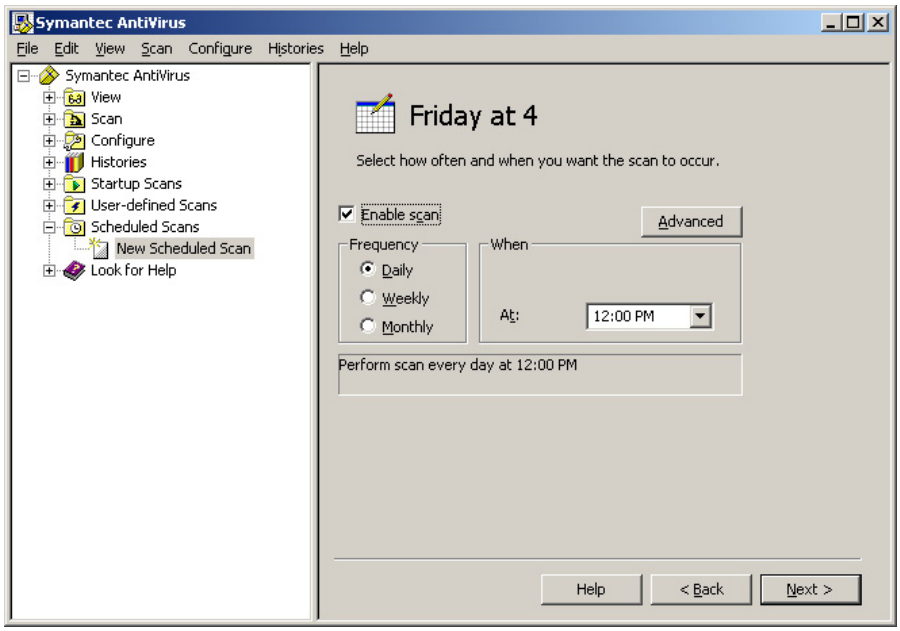
A scheduled scan is an important component of threat and security risk protection. At the very least, schedule a scan to run once a week to ensure that your computer remains free of viruses and security risks, such as adware and spyware.

Note: If your network administrator has created a scheduled scan for you, it appears in the Scheduled Scans area of the View folder, not in the Scheduled Scans folder. The Scheduled Scans folder only displays scans that you've scheduled.

To create a scheduled scan

1. In Symantec AntiVirus, in the left pane, click **Scheduled Scans**.
2. In the right pane, click **New Scheduled Scan**.
3. Select one of the following types of scan to schedule:
   - Quick Scan
   - Full Scan
   - Custom Scan
4. Click **Next**.
5. Type a name and description for the scan.
   For example, call the scan "Friday at 4."
6. Click **Next**.

7 Specify the frequency and when to scan, and then click **Next**.



8 If you selected Custom Scan, then in the right pane, check the appropriate check boxes to specify where to scan.
You can check anything from the entire computer to a single file.
See "Initiating manual scans" on page 52.

9 Click **Options** to change the default settings for what is scanned and how to respond if a virus or security risk is detected.
The default settings are as follows:

- The default setting is to scan all files.
- For viruses, the default settings for actions are to clean the virus from an infected file and repair its effects, and quarantine the infected file if the virus cannot be removed.
- For security risks, the default settings for actions are to quarantine the security risk and remove or repair its side effects, or log the risk if it cannot be quarantined and repaired.

To apply the modified settings only to the current scan, click **OK**. To apply the settings to all future scans, click **Save Settings**.

10 Click **Advanced** to configure a scan progress dialog box to appear during the scheduled scan.

11 In the Scan Advanced Options dialog box, under Dialog options, in the drop-down list, click **Show scan progress**, and then click **OK**.

12 In the Scan Options dialog box, click **OK**.

13 In the Symantec AntiVirus main window, click **Save**.
Your computer must be turned on and Symantec AntiVirus Services must be loaded when the scan is scheduled to take place. By default, Symantec AntiVirus Services are loaded when you start your computer.
The new scan is added to the list in the Scheduled Scans folder.

About creating multiple scheduled scans

If you schedule multiple scans to occur on the same computer beginning at the same time of day, the computer may experience reduced CPU utilization, or one or more of the scheduled scans may fail to begin. For example, if you scheduled three separate scans on your computer to occur at 1:00 p.m., one scan occurring on drive C, one on drive D, and one on drive E, one or more of these scans could fail to start. In this example, a better solution is to create one scheduled scan that scans drives C, D, and E.

Creating startup scans

Some users supplement a scheduled scan with an automatic scan whenever they start their computers. Often, a startup scan is restricted to critical, high-risk folders, such as the Windows folder and folders that store Microsoft Word and Excel templates.

Note: If you create more than one startup scan, the scans will run sequentially in the order in which they were created.

Symantec AntiVirus also supplies a startup scan called the Auto-Generated Quick Scan for unmanaged clients only. This scan checks the files in memory and other common infection points on the computer for viruses and security risks each time that a user logs on to the computer. You can configure this scan in the same way that you can configure any manual scan, except that you cannot stop it from scanning the files in memory and other common infection points on the computer.

To create a startup scan

1 In Symantec AntiVirus, in the left pane, click **Startup Scans**.

2 In the right pane, click **New Startup Scan**.

3 Select one of the following types of scan to schedule:
   - Quick Scan
   - Full Scan
   - Custom Scan

4 Click **Next**.

5 Type a name and description for the scan.

6 Click **Next**.

7 If you selected Custom Scan, then in the right pane, check the appropriate check boxes to specify where to scan.
   You can check anything from the entire computer to a single file.
   See "Initiating manual scans" on page 52.

8 Click **Options** to change the default settings for what is scanned and how to respond if a virus or a security risk is detected.
   The default settings are as follows:
   - The default setting is to scan all files.
   - For viruses, the default settings for actions are to clean the virus from an infected file and repair its effects, and quarantine the infected file if the virus cannot be removed.
   - For security risks, the default settings for actions are to quarantine the security risk and remove or repair its side effects, and log the risk if it cannot be quarantined and repaired.

   To apply the modified settings only to the current scan, click **OK**. To apply the settings to all future scans, click **Save Settings**.

9 Click **Advanced** to configure a scan progress dialog box to appear during the startup scan.

10 In the Scan Advanced Options dialog box, under Dialog options, in the drop-down list, click **Show scan progress**, and then click **OK**.

11 In the Scan Options dialog box, click **OK**.

12 In the Symantec AntiVirus main window, click **Save**.
   The scan runs every time that you start your computer and Windows loads.

Creating user-defined scans

If you regularly scan the same set of files or folders, you can create a user-defined scan that is restricted to just those items. At any time, you can quickly verify that the specified files and folders are free from viruses and security risks.

Create user-defined scans

You can create a user-defined scan that can be run manually at any time.

To create a user-defined scan

1. In Symantec AntiVirus, in the left pane, click **User-defined Scans**.
2. In the right pane, click **New User-defined Scan**.
3. Select one of the following types of scan to schedule:
   - Quick Scan
   - Full Scan
   - Custom Scan
4. Click **Next**.
5. Type a name and description for the scan.
6. Click **Next**.
7. If you selected Custom Scan, then in the right pane, check the appropriate check boxes to specify where to scan.
   You can check anything from the entire computer to a single file.
   See "Initiating manual scans" on page 52.
8. Click **Options** to change the default settings for what is scanned and how to respond if a virus or security risk is detected.
   The default settings are as follows:
   - The default setting is to scan all files.
   - For viruses, the default settings for actions are to clean the virus from an infected file and remove or repair its effects, and quarantine the infected file if the virus cannot be removed.
   - For security risks, the default settings for actions are to quarantine the security risk and remove or repair its side effects, and log the risk if it cannot be quarantined and repaired.

   To apply the modified settings only to the current scan, click **OK**. To apply the settings to all future scans, click **Save Settings**.
9. Click **Advanced** to configure a scan progress dialog box to appear during the scheduled scan.

10 In the Scan Advanced Options dialog box, under Dialog options, in the drop-down list, click **Show scan progress**, and then click **OK**.

11 In the Scan Options dialog box, click **OK**.

12 In the Symantec AntiVirus main window, click **Save**.

To run a user-defined scan

1 In Symantec AntiVirus, in the left pane, expand **User-defined Scans**.

2 Double-click the saved user-defined scan.

Editing and deleting startup, user-defined, and scheduled scans

You can reconfigure existing scans at any time. You can also delete scans, if necessary.

Edit and delete scans

You can edit and delete existing startup, user-defined, and scheduled scans. Certain options may be grayed out if they are not configurable for a particular type of scan.

To edit a scan

1 In Symantec AntiVirus, in the left pane, select the scan to edit.

2 Click **Edit**.

3 Do any of the following:

- If it is a user-defined scan, then on the Files tab, select the files, folders, or drives to scan.
- If it is a scheduled scan, then on the Schedule tab, select a new scan frequency, and a scan date and time.
- On the Name/Description tab, edit the name and description of the scan.

4 If necessary, click **Options** to change any of the following scan options:

- File types: Scan either by file extensions or file types
- Scan enhancements: Scan program files loaded into memory, scan common infection locations, scan for traces of well-known viruses and security risks before scanning selected files and folders
- File and folder exclusions
- Advanced scan options: Compressed files, storage migration, and so on
- Actions that are performed when a virus or security risk is found

- Throttling options
- Notifications: Detection Options allow you to construct a message to display when a virus or security risk is found. Remediation Options allow you to configure whether or not you want to be notified before remediation actions, such as stopping a service, are going to occur.

5 Click **OK** until you return to the Symantec AntiVirus main window.

To delete a scan

- In Symantec AntiVirus, in the left pane, right-click the scan to delete, and then click **Delete**.

Configuring actions for viruses and security risks

An important part of scanning for both viruses and security risks is to configure the actions that you want Symantec AntiVirus to take when it detects a virus or security risk. You can configure a first action and a second action to take if the first action fails.

Note: If an administrator manages your computer, and these options display a padlock icon, you cannot change these options because your administrator has locked them.

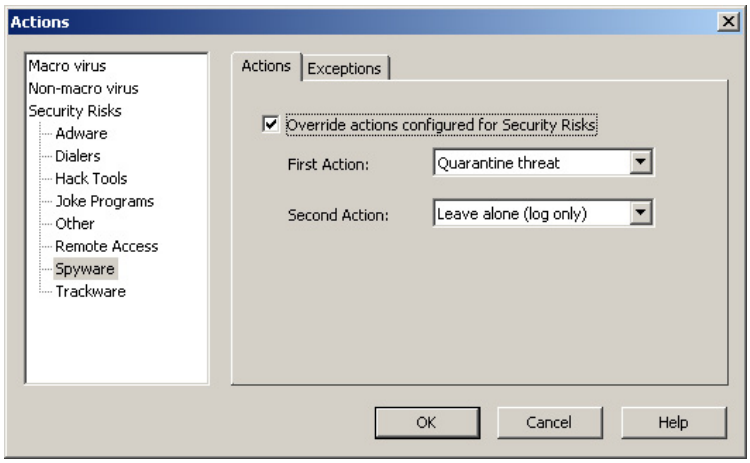
This procedure uses configuring a Full Scan as an example, but you can configure actions for viruses, security risk items, and categories in the same way when you configure other scans.

To configure actions for viruses and security risks

1 In the left pane, expand **Scan**, and then click **Full Scan**.

2 In the right pane, click **Options**.

3 In the Scan Options window, click **Actions**.



4 In the Actions dialog box, in the tree, select a type of virus or security risk.
By default, each security risk subcategory, such as Spyware, is automatically configured to use the actions that are set at the top level for the entire Security Risks category.
To configure a category or specific instances of a category to use different actions, check **Override actions configured for Security Risks**, and then set the actions for that category only.

5 Select a first and second action from the following options:

Clean threat

Removes the virus from the infected file. This is the default first action for viruses.

Note: This action is not available for security risks.

Cleaning should always be the first action for viruses. If Symantec AntiVirus successfully cleans a virus from a file, you don't need to take any other action. Your computer is free of viruses and is no longer susceptible to the spread of that virus into other areas of your computer.

When Symantec AntiVirus cleans a file, it removes the virus from the infected file, boot sector, or partition tables, and eliminates the ability of the virus to spread. Symantec AntiVirus can usually find and clean a virus before it causes damage to your computer.

In some instances, however, depending on the amount of damage that a virus has already caused, the cleaned file might not be usable. This is a result of the virus infection, and not a result of the clean action.

Some infected files cannot be cleaned.

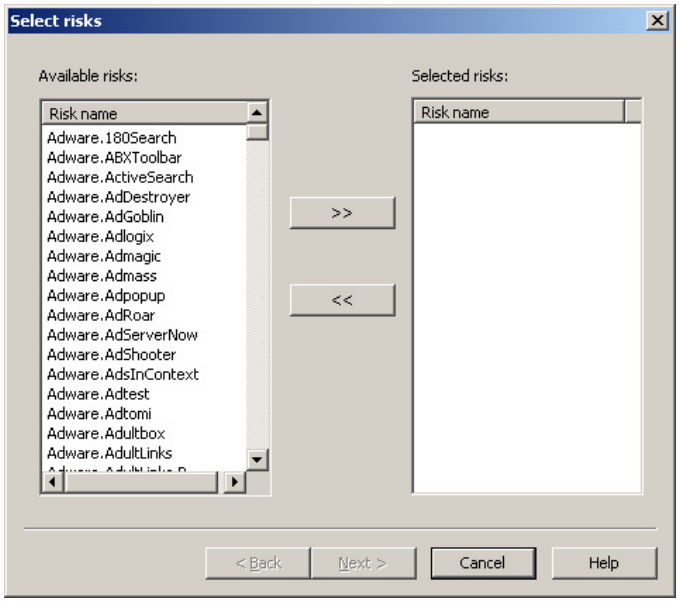
Quarantine risk	Does one of the following: ■ For viruses, moves the infected file from its original location to the Quarantine. Infected files within the Quarantine cannot spread viruses. This is the default second action for viruses. ■ For security risks, moves the infected files from their original location to the Quarantine and attempts to remove or repair any side effects. This is the default first action for security risks. Quarantine contains a record of all actions that were performed so that if needed, you can return the computer to the state that existed before Symantec AntiVirus removed the risk.
Delete risk	Deletes the infected file from your computer's hard drive. If Symantec AntiVirus cannot delete a file, additional information about the action that Symantec AntiVirus took appears in the Notification dialog box and the Event Log. Use this action only if you can replace the file with a backup copy that is free of viruses or security risks, because the file is permanently deleted and cannot be recovered from the Recycle Bin. **Note:** Use this action with caution when you configure actions for security risks, because in some cases, deleting security risks can cause applications to lose functionality.
Leave alone (log only)	Does one of the following: ■ For viruses, leaves the infected file as is. The virus remains in the file, capable of spreading the infection to other parts of your computer. An entry is placed in the Risk History to keep a record of the infected file. You can use Leave alone (log only) as a second action for both macro and non-macro viruses. Do not select this action when you perform large-scale, automated scans such as scheduled scans unless you intend to view the scan results and take an additional action later, such as moving the file to the Quarantine. ■ For security risks, leaves the infected file as is and places an entry in the Risk History to keep a record of the risk. Use this option to take manual control of how Symantec AntiVirus handles a security risk. This is the default second action for security risks. Your system administrator might send a customized message that explains how to respond.

See "Tips for assigning second actions for viruses" on page 65.
See "Tips for assigning second actions for security risks" on page 66.

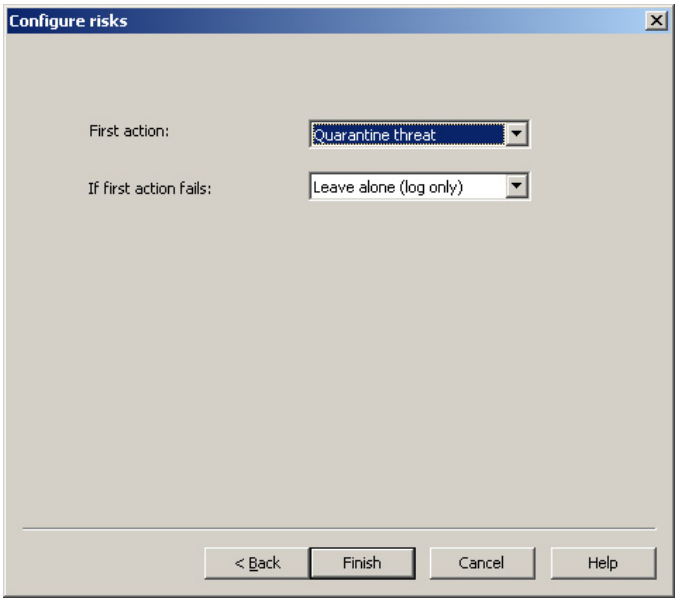
6 Repeat steps 4 and 5 for each category for which you want to set specific actions.

7 If you selected a security risk category in the tree, you can click the Exceptions tab to configure custom actions for one or more specific instances of that security risk category.

8 Click **Add**.



9 In the Select risks dialog box, in the list, select the specific risks for which you want to configure custom actions, and then click **Next**.



10 In the Configure risks dialog box, select the first and second actions that you want Symantec AntiVirus to take when it detects the risks that you selected, and then click **Finish**.

11 Repeat steps 8 through 10 for each security risk for which you want to set specific actions.

12 Click **OK** until you return to the Symantec AntiVirus main window.

Tips for assigning second actions for viruses

When you select a second action for viruses, consider the following:

- The level of control that you need to have over your files
  If you store important files on your computer without backing them up, you should not use actions like Delete threat. Though you may delete a virus this way, you could lose important data.
  Another consideration is your system files. Because some of your system files have executable extensions, they could potentially be attacked by file viruses. Though somewhat inconvenient, it's a good idea to use the Leave alone (log only) or Quarantine threat action so that you can check which files have been infected. For example, if Command.com were infected by a file virus and Symantec AntiVirus were unable to clean an infection, you might not be able to restore the file. However, using the Leave alone (log

only) command could save you additional trouble caused by not restoring Command.com before turning off your computer.

- The type of virus that has infected your computer
  Different types of viruses target different areas of your computer for infection. Boot viruses infect boot sectors, partition tables, master boot records, and sometimes memory. When boot viruses are multipartite, they may also infect executable files, and the infection can be treated similarly to a file virus. File viruses typically infect executable files that have .exe, .com, or .dll extensions. Macro viruses infect document files and macros associated with those documents. Select actions based on the types of files that you might need to recover.
- The type of scan that is being performed
  All scans perform actions automatically without your consent. If you do not change the actions before a scan, the default actions are used. As a result, the default second actions are designed to give you control of a virus outbreak situation. For scans that work automatically such as scheduled scans, idle scans (on 32-bit computers), and Auto-Protect scans, do not assign second actions that have permanent effects. For example, limit the Delete threat and Clean threat or Delete threat actions to a manual scan that you perform when you already know that a file is infected.

Tips for assigning second actions for security risks

When you select a second action for security risks, consider the level of control that you need to have over your files. If you store important files on your computer without backing them up, you should not use the Delete risk action. Though you might delete a security risk this way, you could potentially cause another application on your computer to stop working. Use the Quarantine risk action instead so that you can reverse the changes that Symantec AntiVirus makes, if necessary.

Configuring notifications for viruses and security risks

By default, you are notified when a Symantec AntiVirus scan find a virus or security risk. By default, you are also notified when Symantec AntiVirus needs to terminate services or stop processes to remove or repair the effects of virus or security risk.

You can configure the following notifications for scans:

Detection Options	Construct the message that you want to appear when Symantec AntiVirus finds a virus or a security risk on your computer. If you are configuring File System Auto-Protect, you can select an additional option to display a dialog box that contains the results when Auto-Protect finds viruses and security risks on your computer.
Remediation Options	Configure whether or not you want to be notified when Symantec AntiVirus finds a virus or a security risk, and needs to terminate a process or stop a service to finish removing or repairing a risk.

You can construct the detection message that you want to appear on your computer by typing directly in the message field to add your own text, and you can right-click in the message field to select variables.

Table 3-2 describes the variable fields that are available for notifications messages.

Table 3-2 Notifications message variable fields

Field	Description
VirusName	The name of the virus or security risk that was found.
ActionTaken	The action that was taken in response to detecting the virus or security risk. This can be either the first action or second action that was configured.
Status	The state of the file: Infected, Not Infected, or Deleted. This message variable is not used by default. To display this information, manually add this variable to the message.
Filename	The name of the file that the virus or security risk infected.
PathAndFilename	The complete path and name of the file that the virus or security risk infected.

Table 3-2 Notifications message variable fields

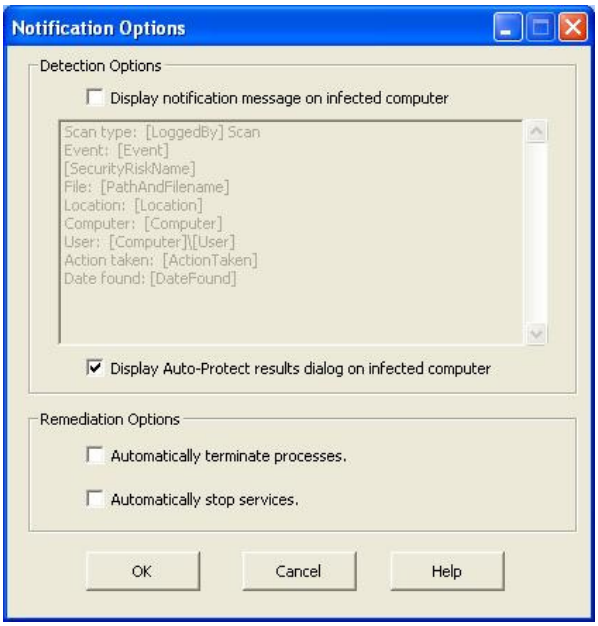
Field	Description
Location	The drive on the computer on which the virus or security risk was located.
Computer	The name of the computer on which the virus or security risk was found.
User	The name of the user who was logged on when the virus or security risk occurred.
Event	The type of event, such as “Risk Found.”
LoggedBy	The type of scan, manual, scheduled, and so on, that detected the virus or security risk.
DateFound	The date on which the virus or security risk was found.
StorageName	The affected area of the application, for example, File System Auto-Protect or Lotus Notes Auto-Protect.
ActionDescription	A full description of the actions that were taken in response to detecting the virus or security risk.

This procedure uses configuring a Full Scan as an example, but you can also configure notifications in the same way when you configure other scans.

To configure notifications for viruses and security risks

1. In the left pane, expand **Scan**, and then click **Full Scan**.
2. In the right pane, click **Options**.

3 In the Scan Options window, click **Notifications**.



4 In the Notifications Options window, under Detection Options, check **Display notification message on infected computer** if you want a message to appear on your computer when the scan finds a virus or security risk.

5 In the message box, do any or all of the following to construct the message that you want:

- Click to type or edit text.
- Right-click, click **Insert Field**, and then select the variable field that you want to insert.
- Right-click, and then select Cut, Copy, Paste, Clear, or Undo.

6 If you are configuring notifications for File System Auto-Protect, then under the message box, there is an extra option. Uncheck **Display Auto-Protect results dialog on infected computer** if you want to suppress the dialog box that contains results when Auto-Protect finds viruses and security risks.

7 Under Remediation Options, check the options that you want to set. Your options are as follows:

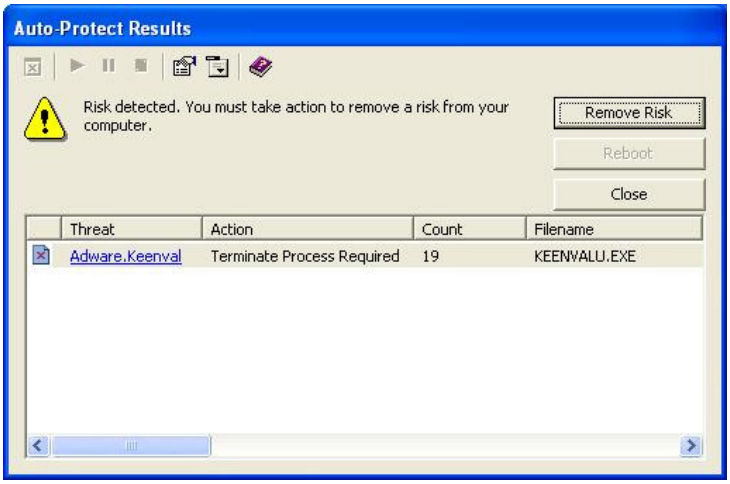
Automatically terminate processes	If checked, Symantec AntiVirus automatically terminates processes when it needs to do so to remove or repair a virus or security risk. You will not be prompted to save data before Symantec AntiVirus terminates the processes.

Automatically stop services	If checked, Symantec AntiVirus automatically stops services when it needs to do so to remove or repair a virus or security risk. You will not be prompted to save data before Symantec AntiVirus stops the services.

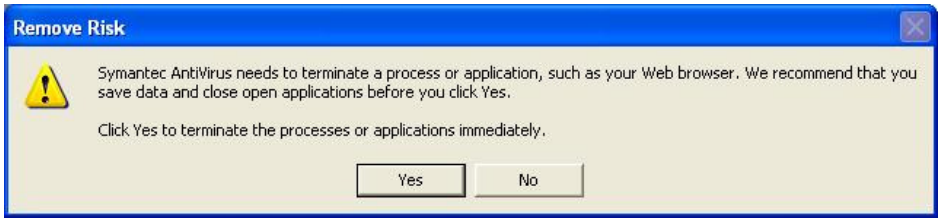
8 Click **OK** until you return to the Symantec AntiVirus main window, and then click **Scan**.

Interaction with notifications

If you leave the defaults, then you are notified when Symantec AntiVirus finds a virus or a security risk. The Auto-Protect Results dialog box appears:



If Symantec AntiVirus needs to terminate a process or application or stop a service, the Remove Risk button is active. When you click Remove Risk, the following message appears:

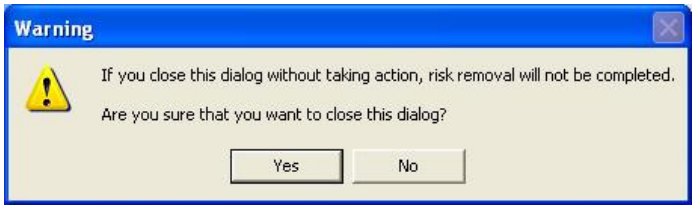


This gives you the opportunity to save your work and close open applications, if you haven't already done so. After saving your data, you can return to this message box and click Yes to complete the removal or repair.

If Symantec AntiVirus needs to restart the computer to complete the removal or repair, the Reboot button is active. When you click Reboot, the following message appears:

This gives you the opportunity to save your work and close open applications, if you haven't already done so. After saving your data, you can return to this message box and click Yes to restart your computer. If you click No and close the message box without restarting, the removal or repair will not be complete until you restart your computer the next time.

And finally, if you opt to close the message box without taking an action needed to complete the removal or repair, the following message appears:



If you click Yes and closes the dialog without taking any action, the risk can be removed or repaired at a later time in the following ways:

- You can open the Risk History, right-click the risk, and then take an action.
- You can run a scan to redetect the risk and reopen the results dialog box.

The actions that can be taken depend on the actions that were configured for the particular type of virus or security risk that was found.

If you click No, you are returned to the results dialog box so that you can take the appropriate action.

Interpreting scan results

Whenever a manual, scheduled, startup, or user-defined scan runs, Symantec AntiVirus can display a scan progress dialog box to report progress, but you must configure it to do so.

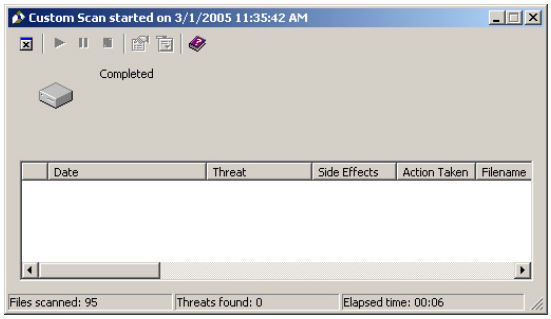
See "Initiating manual scans" on page 52.

See “Creating scheduled scans” on page 55.

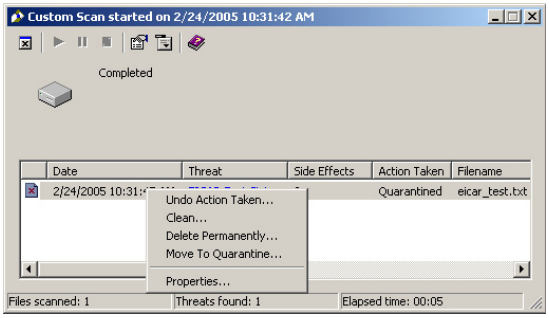
See “Creating startup scans” on page 57.

See “Creating user-defined scans” on page 59.

If you configure Symantec AntiVirus to display a scan progress dialog box, you can pause, restart, or stop the scan. When the scan is completed, results appear in the list. If no viruses or security risks are detected, the list remains empty and the status is completed.



If viruses or security risks are detected during the scan, the scan progress dialog box includes the names of the infected files, the names of the viruses or security risks, and the actions taken. By default, you are notified whenever a virus or security risk is detected.



See “Acting on infected files” on page 75.

Note: In a centrally managed network, the scan progress dialog box may not appear for administrator-initiated scans. Similarly, your administrator may choose not to display alerts when a virus or security risk is detected.

Excluding files from scans

Rarely, a file that does not contain a virus is detected as infected. This might happen because a particular virus definition is designed to catch every possible variation of the virus. Because the virus definition must be necessarily broad, Symantec AntiVirus sometimes reports that a clean file is infected.

If Symantec AntiVirus continues to report a clean file as infected, you can exclude the file from scans. Exclusions are items that you don't want or need to include in scans.

You can also exclude folders if they contain software that can be detected as a security risk, such as adware, and your corporate security policy allows you to run the software.

See "About security risks" on page 14.

Set exclusions separately for each type of scan: Auto-Protect, startup, user-defined, scheduled, or manual, including Custom Scan, Quick Scan, or a Full Scan. The procedure, however, is the same.

Warning: Be careful with exclusions. If you exclude a file from a scan, no action will be taken to clean it if the file later becomes infected. This could be a potential risk to the security of your computer.

To exclude a file from a scan

1. In Symantec AntiVirus, do one of the following:
   - For Auto-Protect of the file system, in the left pane, click **Configure**, and then, in the right pane, click **File System Auto-Protect**.
   - For all other scan types, in the pane where you specify what to scan, click **Options**.
2. In the right pane or Scan Options dialog, check the exclude files and folders option.
3. Click **Exclusions**, and then click **Files/Folders** to select the file to exclude.
4. Click **OK**.
5. Click **Extensions**.
6. Specify the file types that you want to exclude, and then click **OK**.
   You can use the ? wildcard character to specify any character. For example, XL? excludes .xls, .xlt, .xlw, and .xla files.
7. Click **OK** until you return to the Symantec AntiVirus main window.

Chapter 4

What to do if a virus or security risk is found

This chapter includes the following topics:

Acting on infected files

The Symantec AntiVirus preset options for Auto-Protect and all scan types are to clean a virus from an infected file on detection, but to place the file in the Quarantine if it cannot be cleaned. For security risks, the default is to quarantine the infected files and remove or repair their side effects, and to log the detection if it cannot be repaired.

If a virus-infected file is repaired, you don't need to take further action to protect your computer. If a security risk-infected file is quarantined and removed or repaired, you don't need to take further action to protect your computer.

You can deal immediately with infected files from the scan progress dialog box once a scan completes. For example, you may decide to delete a cleaned file because you'd rather replace it with an original file.

You can act on a file that has been infected by a virus or a security risk at a later point from the Risk History or from the Quarantine.

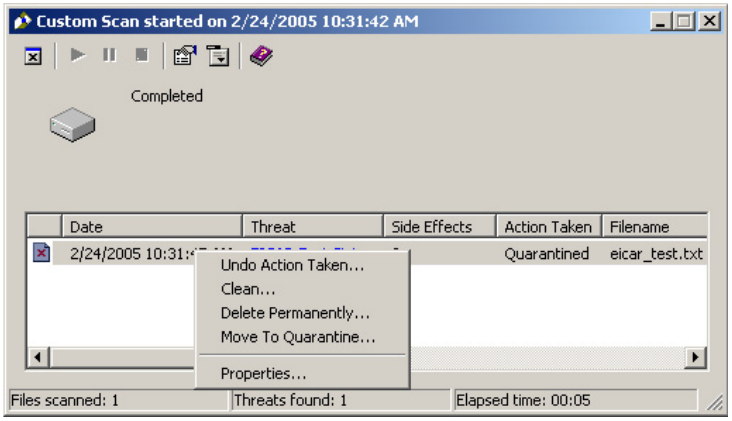
See "Rescanning files in the Quarantine for viruses" on page 79.

Note: In a centrally managed network, the scan progress dialog box may not appear for administrator-initiated scans. Similarly, your administrator may choose not to display alerts when a virus or security risk is detected.

To act on an infected file

1. Do one of the following:
   - In the scan progress dialog box, select the files that you want when the scan completes.
   - In Symantec AntiVirus, in the left pane, expand **Histories**, click **Risk History**, and then, in the right pane, select the files you want.
2. Right-click the file or files, and then select one of the following:
   - Undo Action Taken: If possible, reverses the preset action response.
   - Clean (viruses only): Removes the virus from the file.
   - Delete Permanently: Deletes the infected file and all side effects.
     For security risks, use this action with caution because in some cases, deleting security risks can an application to lose functionality.
   - Move To Quarantine: Places the infected files in the Quarantine and for security risks, also attempts to remove or repair the side effects.
   - Properties: Displays information about the virus or security risk.

   Depending on the preset action for a virus or security risk detection, Symantec AntiVirus might not be able to perform the action you selected.



About damage that viruses cause

If an infection is found soon after the file became infected, the formerly infected file will probably be fully functional. In some instances, however, Symantec AntiVirus may clean an infected file that has already been damaged by the virus. For example, if Symantec AntiVirus finds the Word.Wazzu macro virus in an infected document file, Symantec AntiVirus removes the virus, but does not remove the word wazzu that the virus places in the infected document. In this case, Symantec AntiVirus cannot repair the damage that has been done to the infected file.

About the Quarantine

Sometimes Symantec AntiVirus detects an unknown virus that can't be eliminated with the current set of virus definitions, or you have a file that you think is infected but is not being detected. The Quarantine safely isolates potentially infected files on your computer. A virus in a quarantined item cannot spread.

Move files that are infected by viruses to the Quarantine

Moving a virus-infected file to the Quarantine drastically reduces the opportunity for the virus to copy itself and thus infect other files. This action is a recommended second action for both macro and non-macro virus infections.

Moving a virus-infected file to the Quarantine prevents the spread of the virus. However, it does not clean the virus, so the virus stays on your computer until the virus is cleaned or the file is deleted. Moving an infected file to the Quarantine is a useful action to perform on files that have been infected by file viruses and macro viruses, but is not useful for boot virus infections. Usually, boot viruses reside in the boot sector or partition tables of a computer; these items cannot be moved to the Quarantine.

See "About the master boot record" on page 13.

See "Boot viruses" on page 12.

After a file is moved to the Quarantine, you can attempt to clean the file, delete the file permanently, or restore it back to its original location. You can also view properties of the infected file. When virus definitions files are updated, you can rescan the virus-infected file in the Quarantine.

See "Rescanning files in the Quarantine for viruses" on page 79.

Leave files that are infected by security risks in the Quarantine

You can leave files that are quarantined because of security risks in the Quarantine or you can delete them. You should leave them in the Quarantine until you are sure that the applications on your computer have not lost any functionality.

Delete files that are infected by viruses in the Quarantine

If you delete a file in Quarantine, Symantec AntiVirus permanently deletes it from your computer's hard disk.

Deleting a file that is infected by a virus reduces the threat that a virus might spread by removing the file (and thus the virus) from your computer. Deleting the infected file is useful for file viruses and macro viruses.

Because viruses can damage parts of a file, deleting the infected file and replacing it with a clean backup file may be better than cleaning the infected file.

You can perform this action manually after an infected file has been moved into the Quarantine. Deleting the infected file in the Quarantine would be a useful way to remove a virus from a disposable file that was unable to be cleaned.

Warning: Use this option only if you have clean backups of files that you've decided to scan. You should not use this as a primary action for files that are scanned during Auto-Protect or scheduled scans.

Delete files that are infected by security risks in the Quarantine

If you delete files that are associated with a security risk, an application on your computer might not function properly if the application depends on the associated files that you deleted. Quarantine is a safer option because it is reversible. You can restore the files if any of the applications on your computer lose functionality after you quarantine the dependent program files.

Note: Once you have run the application that was associated with the security risk and are sure that there is no loss of functionality, you might want to delete the files to save disk space.

Managing the Quarantine

You can place files that are infected by viruses or security risks in the Quarantine.

Files are placed in the Quarantine in one of two ways:

- Symantec AntiVirus is configured to move infected items detected during Auto-Protect or a scan to the Quarantine.
- You manually select a file and add it to the Quarantine.

The Symantec AntiVirus preset options for Auto-Protect and all scan types are to clean a virus from an infected file on detection, but to place the file in the Quarantine if it cannot be cleaned. For security risks, the default option is to place the infected files in the Quarantine, and to repair the side effects of the security risk.

To add a file manually to the Quarantine

1. In Symantec AntiVirus, in the left pane, click **View**.
2. In the right pane, click **Quarantine**.
3. On the toolbar, click **Add New Item to Quarantine**.
4. Locate and select the file, and then click **Add**.
5. Click **Close**.

Viewing files and file details in the Quarantine

You can view files that have been placed in the Quarantine and details about the files, such as the name of the virus, the name of the computer on which the file was found, and so on.

To view files and file details in the Quarantine

1. In Symantec AntiVirus, on the View menu, click **Quarantine**.
2. Right-click the file that you want to view, and then click **Properties**.

Rescanning files in the Quarantine for viruses

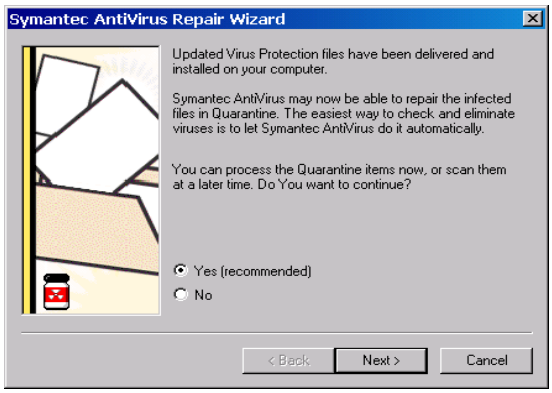
If a file is placed in the Quarantine, update your definitions. Depending on how your administrator has configured the Quarantine, when definitions have been updated, files in the Quarantine might get scanned, cleaned, and restored automatically or the Repair Wizard might appear, letting you rescan the files in the Quarantine.

If, after Symantec AntiVirus rescans the file in the Quarantine, it still can't remove the virus, you can submit the infected file to Symantec Security Response for analysis.

See "Submitting a potentially infected file to Symantec Security Response for analysis" on page 84.

To rescan files in the Quarantine using the Repair Wizard

1. If the Repair Wizard appears, click **Yes**.
2. Click **Next** and follow the on-screen instructions to rescan the files in the Quarantine.



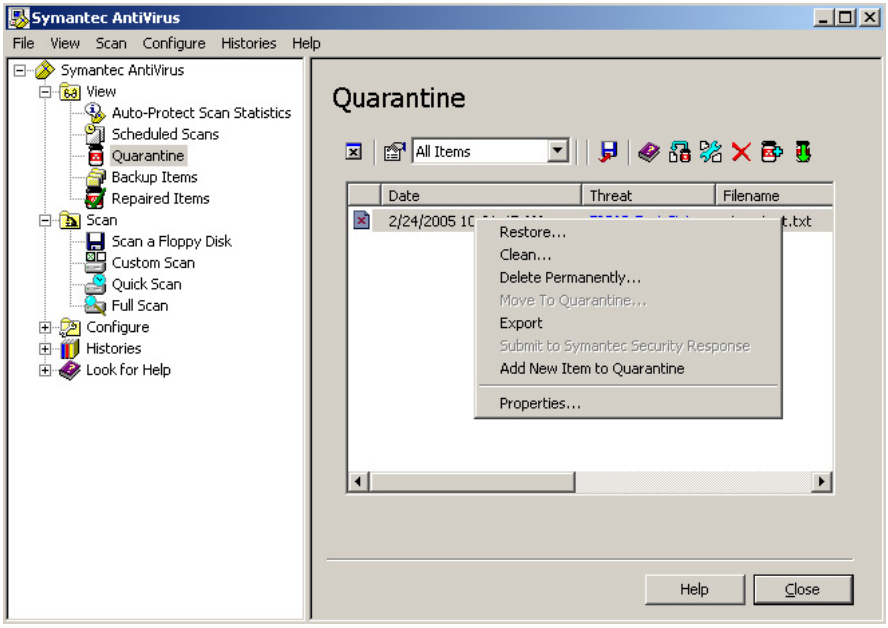
Rescanning files manually

You can manually rescan a file in the Quarantine for viruses, but not for security risks.

To rescan a file in the Quarantine manually for viruses

1. Update your definitions.
   See "Keeping virus and security risk protection current" on page 33.
2. In Symantec AntiVirus, in the left pane, click **View**.
3. In the right pane, click **Quarantine**.

4 Select the file in the Quarantine listing.



5 Do one of the following:

- Right-click the file, and then click **Clean**.
- In the right pane on the toolbar, click **Clean**.

6 Click **Start Clean**.
The file is scanned again with the new definitions and replaced in its original location.

When a repaired file can't be returned to its original location

Occasionally, a clean file does not have a location to which to be returned. For example, an infected attachment may have been stripped from an email and placed in the Quarantine. In this special circumstance, the cleaned file is placed in Repaired Items instead. You must release the file and specify a location.

To release a cleaned file from Repaired Items

1 In Symantec AntiVirus, in the left pane, click **View**.

2 In the right pane, click **Repaired Items**.

3 Right-click the file, and then click **Restore**.

4 Specify the location for the cleaned file.

Clearing Backup Items

As a data safety precaution, by default Symantec AntiVirus is configured to make backup copies of items that are infected by viruses and security risks before attempting a clean or a repair. After an item has been successfully cleaned of a virus, you should manually delete it from Backup Items because the backup is still infected. You can also set up a time period in which files are deleted automatically.

See "Automatically purging files from the Quarantine, Backup Items, and Repaired Items" on page 83.

To manually clear Backup Items

1. In Symantec AntiVirus, in the left pane, click **View**.
2. In the right pane, click **Backup Items**.
3. Select one or more files in the Backup Items listing.
4. Do one of the following:
   - Right-click the file, and then click **Delete Permanently**.
   - In the right pane on the toolbar, click **Delete**.
5. In the Take Action dialog box, click **Start Delete**.
6. Click **Close**.

Deleting files from the Quarantine

You can manually delete files that you no longer need from the Quarantine. You can also set up a time period by which files are deleted automatically.

See "Automatically purging files from the Quarantine, Backup Items, and Repaired Items" on page 83.

Note: Your administrator may specify a maximum number of days that items are allowed to stay in the Quarantine. Items are automatically deleted from the Quarantine after that time limit.

To manually delete files from the Quarantine

1. In Symantec AntiVirus, in the left pane, click **View**.
2. In the right pane, click **Quarantine**.
3. Select one or more files in the list of quarantined items.
4. Right-click the files, and then click **Delete Permanently**.

5 In the Take Action dialog box, click **Start Delete**.

6 Click **Close**.

Automatically purging files from the Quarantine, Backup Items, and Repaired Items

You can set up Symantec AntiVirus to automatically remove items after a specified time interval from the Quarantine, Backup Items, and Repaired Items. This prevents the buildup of files that you may forget to remove manually from these areas.

To automatically purge files

1 In Symantec AntiVirus, in the left pane, click **View**.

2 In the right pane, select one of the following:

- Quarantine
- Backup Items
- Repaired Items

3 Click the Purge icon on the far right of the toolbar.

4 In the Purge Options dialog box, check **Enable automatic files purging**.

5 In the Purge after text box, type a number or click an arrow to select a number.

6 Select the time period interval.

7 Click **OK**.

Submitting a potentially infected file to Symantec Security Response for analysis

Sometimes, Symantec AntiVirus cannot clean a virus from a file. Or, you suspect that a file is infected and is not being detected. If you submit the file to Symantec Security Response, they can analyze your file to make sure that it is not infected. You must have an Internet connection to submit a sample.

Note: In a centrally managed network, submissions to Symantec Security Response are usually handled by your administrator from the Symantec Central Quarantine. In this case, the Submit to Symantec Security Response option is not available in your version of Symantec AntiVirus. Also, the Submit to Symantec Security Response option is not available if the administrator configures an unmanaged client to not allow submissions to Symantec Security Response.

To submit a file to Symantec Security Response from the Quarantine

1. In Symantec AntiVirus, in the left pane, click **View**.
2. In the right pane, click **Quarantine**.
3. Select the file in the list of quarantined items.
4. In the right pane on the toolbar, click **Submit To Symantec Security Response**.
5. Follow the on-screen instructions in the wizard to collect the necessary information and submit the file for analysis.

Viewing the Event Log

The Event Log contains daily records of virus and security risk activities that are related to protection on your computer, including configuration changes, errors, and virus and security risk definitions file information. These records, called events, are displayed with additional relevant information in a list format.

By using the information in the Event Log, you can track trends that are related to viruses and security risks on your computer. If your computer is used by several people, you might be able to identify who is introducing the most viruses or security risks, and help that person to use better precautions.

To view the Event Log

- In Symantec AntiVirus, on the Histories menu, click **Event Log**.

Filtering items in the Event Log

You can filter events in the Event Log by Date, Event, Computer, User, or Scan Type that logged the event. You can also filter by date or by categories of events, so that you can view information for a few days or information for the last few years.

Filtering items by date

You can filter items that appear in the Risk History, Scan History, Event Log, and Tamper History by date.

By default, Symantec AntiVirus enters events in the Event Log in the order in which the events happen. All of the events that occurred on your computer since Symantec AntiVirus was installed are stored.

When you change the date range, Symantec AntiVirus does not delete the information. For example, if you change the information that appears to Today, the other information continues to exist, but does not appear in the history or log.

To filter items by date

1. On the Histories menu, click **Event Log**.
2. Click the **All Items** (or date range) drop-down list box.
3. Select a filter.
4. If you clicked Selected range, select a start date and an end date, and then click **OK**.

Filtering the Event Log by event category

After you have displayed the information that you want to view in the Event Log, you can save the data as it is displayed on your computer to a comma-separated value (.csv) file.

Events are divided into the following categories in the Event Log:

- Configuration change
- Symantec AntiVirus startup/shutdown
- Virus definition file
- Scan omissions
- Forward to Quarantine Server
- Deliver to Symantec Security Response

- Auto-Protect load/unload
- Licensing
- Client management and roaming
- Log Forwarding
- Unauthorized communication (access denied) warnings
- Login and certificate management

You can reduce the number of events that appear in the Event Log by displaying only certain categories of events.

For example, if you wanted to view only error events, you could select only the Configuration Change category. While Symantec AntiVirus would continue to record events in the other categories, those events would not appear in the Event Log.

To filter the Event Log by event category

1. In Symantec AntiVirus, on the Histories menu, click **Event Log**.
2. Click **Filter Event Log**.
3. Select one or more categories of events.
4. Click **OK**.

About clearing items from the Event Log

You cannot permanently remove event records from the Event Log from within Symantec AntiVirus.

To permanently delete Event Log records, you must delete the .log files that contain the event records. Events are recorded in .log files for each day of the week in the Symantec AntiVirus Logs directory. These files are named according to the day that they were created. Deleting .log files is not recommended, because you will permanently lose the historical virus protection data that is contained in them.

Exporting data to a .csv file

You can export information into comma-separated value (.csv) format. This common file format is used by most spreadsheet and database programs to import data. Once in another program, you can use the data to create presentations, graphs, or combine the data with other information to create complex reports.

You can export only the data that is displayed. For example, if you changed Symantec AntiVirus settings to show information for the last seven days, only information for the last seven days would appear in the .csv file.

To export data to a .csv file

1. In the Risk History, Scan History, or Event Log window, make sure that the data that you want to save is displayed.
2. Click **Export**.
3. In the Save As dialog box, locate the directory in which you want to save the file, and then type a file name.
4. Click **Save**.

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