

ClamWin AntiVirus: User Manual

Manual © 2004 Russell Phillips

ClamWin program code © 2004 Alex Cherney

www.clamwin.org

Table of Contents

Introduction	3
Installation Instructions	4
Windows.....	4
Configuration	5
General.....	5
Filters.....	6
Internet Updates.....	6
Proxy.....	7
Scheduled Scans.....	7
Email Alerts.....	7
Archives.....	7
File Locations.....	7
Reports.....	8
Advanced.....	8
Usage	9
Run from the Start Menu.....	9
Run from the system tray icon.....	9
Scheduled Scans.....	10
Outlook Integration.....	10
Windows Explorer Integration.....	10
Advanced Operation	11
Running a Virus Scan from the Command Line.....	11
Updating the Virus Database from the Command Line.....	11
Getting Updates from a Local Server.....	11
FAQ: Frequently Asked Questions	13
Troubleshooting	14
GNU GENERAL PUBLIC LICENSE	16
Preamble.....	16
GNU General Public License Terms and Conditions for Copying, Distribution and Modification .	17
How to Apply These Terms to Your New Programs.....	21

Introduction

ClamWin is a graphical front-end to the [ClamAV](#) anti-virus software that runs on Microsoft Windows. An easy to use installer program is provided.

Features include:

- Scheduler - set up scans to run at a defined time
- Automatic virus database updates via the Internet
- Standalone Virus Scanner
- Context menu integration to Microsoft Windows Explorer - right click on a file to scan it
- Microsoft Outlook add-in to scan incoming and outgoing e-mails

Please note that ClamWin Antivirus does not include an on-access real-time scanner, that is, you need to manually scan a file in order to detect a virus. The Microsoft Outlook Addin, however, will delete a virus-infected attachment automatically.

Installation Instructions

Windows

Download the latest installer. Close all running programs, then double-click on the downloaded file to run it. If you already have a copy of ClamWin installed, you can upgrade it by simply running the installer for a later version, and installing on top of the existing version. In this case, the installer will detect if ClamWin is running. You should stop ClamWin before continuing the installation.

After clicking **N**ext on the initial screen, the licence terms will be displayed. This program is released under the GNU General Public License. You must agree to the terms of this licence to use this program. The installation program will also install binary files from Cygwin (www.cygwin.com) and Clam Anti-Virus (clamav.sourceforge.net), both of which are also distributed under the GNU General Public License.

Next, you will be asked where you would like ClamWin to be installed. The default option is sensible, and you should only change it if you have a particular reason to do so.

Next, you will be asked which parts of the program to install.

Three selections (Cygwin Files, ClamAV Files and ClamWin Files) are greyed out and cannot be de-selected. This is because these files are essential for the program's correct operation. The other options are as follows:

Integration with Windows Explorer: If this option is selected, an extra option is added to Windows Explorer's right-click menu, allowing files to be scanned quickly and easily.

Integration with Microsoft Outlook: If this option is selected, an Outlook add-in will be installed, which will check all incoming and outgoing e-mails for viruses automatically. Note that this option will only appear if Microsoft Outlook (not Outlook Express) is installed.

Download Source Code: If this option is selected, the program's source code will be automatically downloaded from the Internet. The source code is not necessary for a normal installation, but may be of interest or use to programmers.

Next, you will be asked which Start Menu folder ClamWin's icons should be placed in. By default, a new folder named **ClamWin Antivirus** will be created, and the icons placed in that.

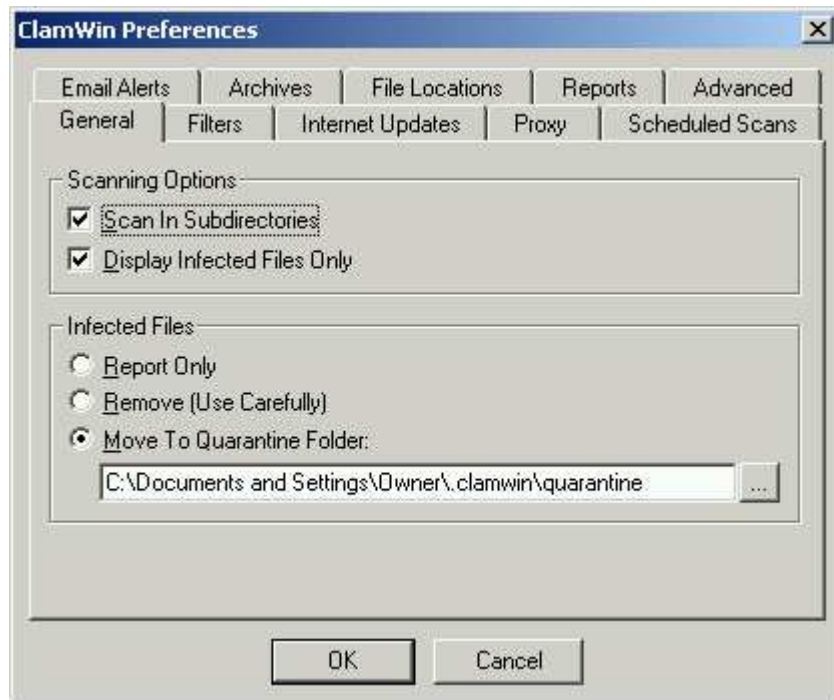
The next screen asks if you would like to download virus database files as soon as the program is installed. It is a good idea to update the virus database files as soon as possible. This screen also gives you the option to have a shortcut icon placed on the desktop.

The last screen displays a summary of the options that have been selected. To install ClamWin with the selected options, click **I**nstall. To go back and change some options, click **< B**ack.

If you selected **Download Source Code** or **Download Virus Database Files**, this will be done once the program is installed. You will need to be connected to the Internet.

Configuration

To configure ClamWin, either right-click on the system tray icon and select **Configure ClamWin**, or, from the main program window, select **Preferences** from the **Tools** menu. A dialogue with nine tabs will be displayed, as shown below. Clicking **OK** will close the dialogue box and save any changes made. Clicking **Cancel** will close the dialogue box without saving any changes.



Each of the tabs is discussed below.

General

This tab has options that control ClamWin's behaviour when scanning, and what ClamWin should do about infected files. The **Scanning Options** control ClamWin's behaviour when scanning. Any combination of options can be selected. The options are as follows:

Scan In Subdirectories: Select this option to have ClamWin scan sub-directories as well as the directory specified.

Display Infected Files Only: When ClamWin is running a scan, it displays the names of the files as it scans them. If this option is selected, ClamWin will only display the names of files that have been detected as infected. Selecting this option may slightly increase scanning speed.

Display Warning When Virus Is Detected: If this option is selected, a warning message will be displayed if ClamWin detects a virus.

The **Infected Files** options control determine what action ClamWin should take if it detects a virus. Only one option can be selected. The options are:

Report Only: If this option is selected, ClamWin only reports that a virus was found.

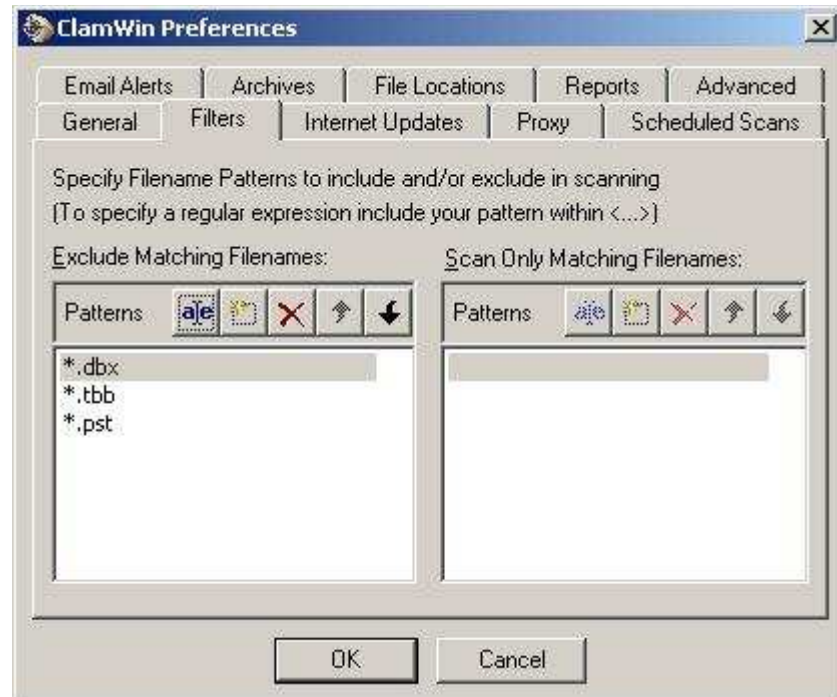
Remove (Use Carefully): If this option is selected, ClamWin will *permanently* delete the infected file. The file will not be placed in Windows' Recycle Bin.

Move To Quarantine Folder: If this option is selected, ClamWin will move the infected file to the designated folder. To change the folder, enter the path in the text box, or click on the ... button to browse to a folder.

If a file with the same name is already present in the quarantine folder, then ClamWin will append a dot followed by a number to the new file, to avoid over-writing the existing file. E.g. if a file named **eicar.com** is in the quarantine folder, and a virus is found in a file named **eicar.com**, then the second copy will be moved to the quarantine folder and renamed to **eicar.com.000**, a third copy would be moved and renamed to **eicar.com.001**, etc.

Filters

On this tab, ClamWin can be configured to scan only certain types of file, or to ignore certain types of file. The two can be combined to give greater control over what types of file are scanned.



Specific files can be filtered by specifying the full path, eg:

```
C:/Path/to/folder/File.ext
```

Folders can be filtered by specifying the path, and including a * at the end, eg:

```
C:/Path/to/folder/*
```

Note that in both cases a forward slash (/) is used in place of the usual backslash (\) to separate folders.

Regular expressions can be used for greater flexibility, but must be contained within angle brackets (<RegularExpression>). Information about regular expressions, including tutorials, are readily available on the web. Just use your favourite search engine to search for **regular expression tutorial**.

By default, the following patterns are excluded from virus scans:

- *.dbx (used by Microsoft Outlook Express to store e-mails etc.)
- *.tbb (used by Ritlabs The Bat! to store e-mails etc)
- *.pst (used by Microsoft Outlook to store data)

Internet Updates

On this tab, you can control how ClamWin gets updates to the virus database. If the **Enable**

Automatic Virus Database Updates option is selected, then ClamWin will automatically check for and download database updates. How often it checks and at what time can be set by the user.

If ClamWin is not running (or the computer is switched off) at the time specified, the update will be applied the next time ClamWin is started (which will normally be the next time the computer is switched on). The only exception is if the update frequency is set to "workdays", in which case it won't do anything until Monday

The address of the server to be queried can be set manually. Most users will want to leave this at the default setting (database.clamav.net). However, if you have a local server that mirrors database.clamav.net, you can enter its address instead.

The other option is **Update Virus Database On Logon**. If this option is selected, ClamWin will check for updates when a user logs on to the PC.

Proxy

If you connect to the Internet via a proxy server, enter the details on this tab. If not, leave the details blank. Most users do not use a proxy server, and so can safely ignore this tab.

Scheduled Scans

This tab allows the user to configure ClamWin to run scans at certain times. Details of scheduled scans are displayed. To add a scan, click the **Add** button, then set the description, frequency, time, and folder to scan. An existing scheduled scan can be changed by clicking the **Edit** button, or removed by clicking the **Remove** button.

Scheduled scans can be activated or deactivated by clicking on the appropriate button. A deactivated scan will not run at the scheduled time.

Email Alerts

To have ClamWin send an e-mail report when a virus is detected, check the **Send Email Alert On Virus Detection** option. Fill in the details for your SMTP server, and the details for the message (subject, from address, to address).

Note: some SMTP servers do not require a user name & password. If this is the case, leave these settings blank.

To test the settings, click the **Send Test Email** button.

When this option is selected, ClamWin will send an e-mail report whenever a virus is found. This e-mail will include the name of the computer that the e-mail was sent from, and a copy of the scan log.

Archives

ClamWin can check the files in archive files (such as .zip files) for viruses. This tab allows the user to select whether or not ClamWin should check inside archive files, and set the maximum size of archive files to be checked, the maximum number of files to be extracted, and the maximum number of sub-archives to be extracted.

It should be noted that scanning within archives can slow down a scan, so disabling scanning of archives may reduce the time taken for a scan to complete.

File Locations

This tab allows the locations of the ClamScan program file, FreshClam program file (the program used to retrieve database updates) and the virus database to be altered. These values are set during installation, and should not normally need to be altered. *Do not*

change these settings unless you know what you are doing. If they are incorrectly set, ClamWin will stop working.

Reports

This tab allows the user to change the location & name of the log files. Most users will not need to change these settings.

You can also enable or disable the display of pop-up notification messages on this tab. By default, such messages are enabled. Unchecking the **Display Pop-up Notification Messages In Taskbar** checkbox will prevent status messages appearing when viruses are detected, the virus database is updated, etc.

Advanced

This tab has four settings. The default settings will be fine for most users.

Treat Files As Mailboxes: If selected, ClamWin will parse all files as if they were MIME e-mail messages (e.g. Unix/Linux mailboxes, .eml files saved from Outlook Express)

Extract Attachments and Macros from MS Office Documents: If selected, ClamWin will check for macro viruses in MS Office documents.

Limit Log File Size To: Older logs will be deleted when necessary to keep the log file within the specified size.

Scanner Priority: This can be set to Low, Normal or High, and determines how the CPU cycles are split between ClamWin and other running applications. Setting this to High may make scans quicker, but may have slow down other applications. Conversely, setting this to Low may make scans slower, but should have less impact on other applications.

Usage

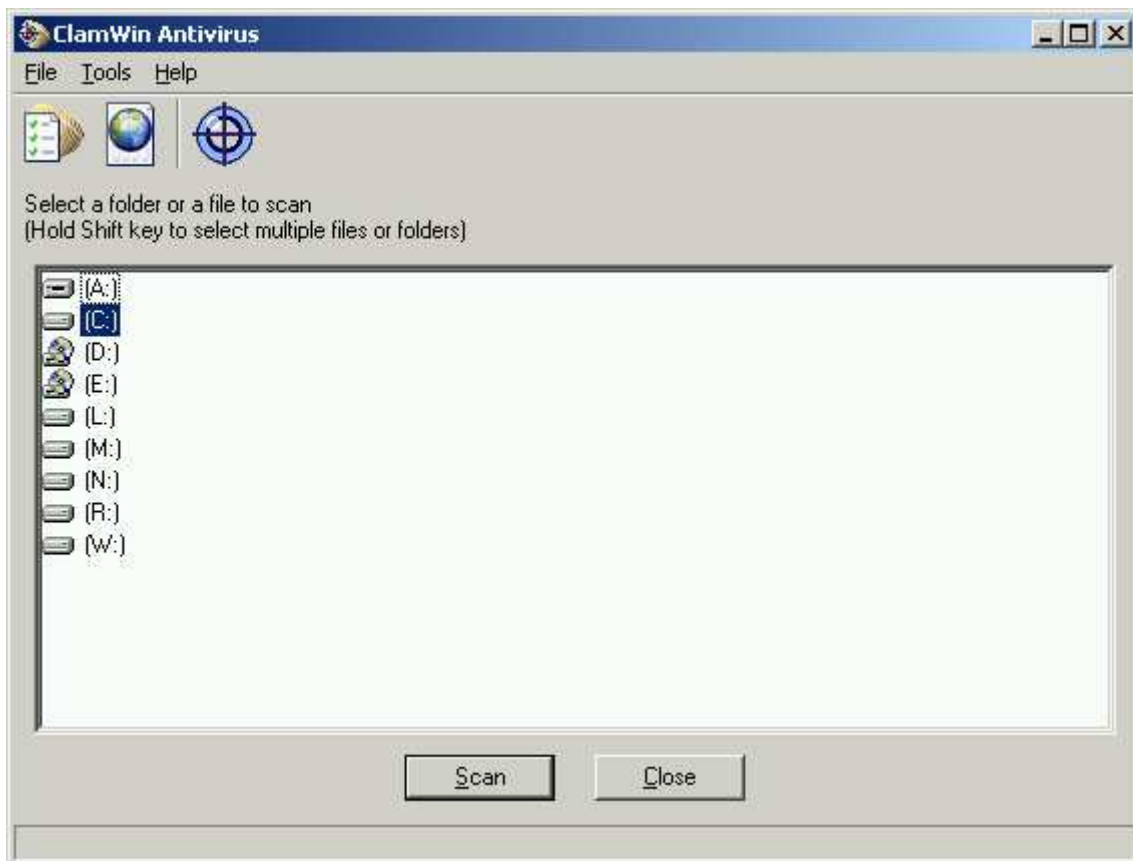
There are several ways to use ClamWin:

- Run from the Start menu
- Run from the system tray icon
- Scheduled scans
- Outlook integration
- Windows Explorer integration

This section will discuss each method in turn

Run from the Start Menu

By default, during installation, a program group named "ClamWin Antivirus" is created, with one item, "Virus Scanner". Selecting this item will start ClamWin with the main window open, as shown below:

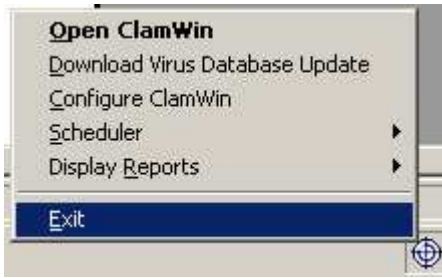


To scan a file or a folder, simply select it in the main window, and click **Scan**. Multiple files/folders can be selected by holding down the **Control** or **Shift** key whilst clicking.

Run from the system tray icon

To run ClamWin from the system tray icon, either double-click on the icon or right-click and select **Open ClamWin**. ClamWin will be started with the main window open, as above.

The system tray icon allows other options to be selected on right-click:



Download Virus Database Update: This will cause ClamWin to check for updates to the virus database, and download any updates that are available.

Configure ClamWin: This will display ClamWin's preferences dialogue, where ClamWin's settings can be altered.

Scheduler: If the mouse is moved over this option, a sub-menu will be displayed. From this sub-menu, scheduled

scans can be configured, already configured scheduled scans can be run, or running scans can be stopped.

Display Reports: If the mouse is moved over this option, a sub-menu will be displayed. From this sub-menu, the virus database update report or scan report can be viewed.

Scheduled Scans

Scheduled scans can be set up in the preferences dialogue. If a scheduled scan is set up, ClamWin will run a scan at the specified time, without interrupting the user. If a virus is found, a balloon notification will appear above the system tray icon (note: the balloon notification feature does not work in Windows 98). The action taken by ClamWin on detecting a virus will be determined by what has been set in the **General** tab of the preferences dialogue.

Outlook Integration

If Outlook is installed on the computer, and the **Integration with Microsoft Outlook** option was selected during the installation of ClamWin, then ClamWin will scan all incoming and outgoing e-mails for viruses. This is done entirely automatically, with no user intervention required. If an incoming e-mail has a virus attached, the virus attachment is replaced with a report file.

Windows Explorer Integration

If the **Integration with Windows Explorer** option was selected during the installation of ClamWin, an extra option (Scan For Viruses With ClamWin) will be added to the Windows Explorer right-click menu. Right-clicking on a file or folder and selecting this option will scan the file or folder for viruses, providing a quick and simple way to scan suspicious files.

Advanced Operation

This section has details for more advanced users.

Running a Virus Scan from the Command Line

ClamWin can be run from the command line, from a batch file for instance. For a full list of parameters, navigate to the directory containing the executable files ("C:\Program Files\ClamWin\bin" on a default installation) and run

```
clamscan.exe --help
```

The database directory *must* be specified, using the `--database=FILE/DIR` parameter. In a default installation, the command to scan the entire C: drive would be:

```
clamscan.exe --database="C:\Program Files\ClamWin\db" --recursive C:\
```

Note the use of the `--recursive` parameter to ensure that sub-directories are scanned.

When run from the command line, a value will be returned, indicating whether or not a virus was detected. If no virus is found, the return value will be 0. If a virus is found, the return value is 1. Any other return value indicates an error.

Updating the Virus Database from the Command Line

ClamWin uses `freshclam.exe` to update the virus database. As with the `clamscan.exe` scanning program, this can be run from a command line, batch file, etc. For a full list of parameters, navigate to the directory containing the executable files ("C:\Program Files\ClamWin\bin" on a default installation) and run

```
freshclam.exe --help
```

Both the database directory and the configuration file *must* be specified. ClamWin generates a `freshclam` configuration file on the fly, so you will have to create your own. The configuration file is a text file. See the [ClamAV documentation](#) for full details of what can be included. A simple `freshclam` configuration file would have the following lines (lines beginning with a `#` are comments):

```
# URL of server where database updates are to be downloaded from
# If this option is given multiple times, each will be tried in
# the order given until an update is successfully downloaded
DatabaseMirror database.clamav.net
# Number of times to try each mirror before moving to the next one
MaxAttempts 3
```

Once a `freshclam` configuration file has been created, `freshclam` can be run with a command similar to the one below:

```
freshclam --datadir="C:\Documents and Settings\All Users\.clamwin\db" --
config-file="C:\Program Files\ClamWin\bin\freshclam.conf"
```

Getting Updates from a Local Server

If you have ClamWin running on several networked computers, you may wish to have a single computer downloading updates from the Internet, with the others getting updates over the local network. This can be done in two ways.

The first (and preferred) method requires a web server. This web server should have the `main.cvd` and `daily.cvd` files in the web root directory. In ClamWin's **Internet Updates**

configuration tab, enter the web server's IP address or domain name in the **Download Site** text box. ClamWin will then query the local web server for updates, instead of a remote Internet server.

The second method is to set up a batch file or similar to copy the main.cvd and daily.cvd files from the server to the relevant location on the clients, over-writing the existing copies. Windows' Task Scheduler can be used to run this batch file as often as required. Disable ClamWin's **Enable Automatic Virus Database Updates** option, so that it does not query the remote Internet server for updates.

FAQ: Frequently Asked Questions

Q: Is a localised version available? Can I translate ClamWin into my language?

A: At the moment, ClamWin is only available in English. Translating ClamWin would be difficult. However, this will change in the future (probably around version 1.0) and features will be added to make it easier to produce localised versions of ClamWin.

Q: Can I upgrade an existing version of ClamWin?

A: Yes, just run the normal set up program, and install over the top of the existing version.

Q: Why doesn't the Integration with Microsoft Outlook option appear during installation?

A: This option only appears if Microsoft Outlook is installed on the computer. Note that Outlook (which is part of the Microsoft Office suite) and Outlook Express (which comes as part of Windows) are two very different programs (despite the similarity in names). ClamWin does not integrate with Outlook Express.

Q: Can ClamWin be configured to check files as they are opened/executed (commonly known as "on-access scanning")?

A: No. However, if the "Integration with Windows Explorer" option is checked during installation, any file can be scanned from within Windows Explorer simply by right-clicking on it and selecting "Scan For Viruses With ClamWin"

Q: How can I check it works?

A: Download the EICAR anti-virus test file from http://www.eicar.org/anti_virus_test_file.htm. This is not a virus, but a standard test file. Any anti-virus program should recognise it and treat it as a virus. ClamWin will report it as "Eicar-Test-Signature". The file is a DOS program, and if run it will print the message "EICAR-STANDARD-ANTIVIRUS-TEST-FILE!"

Q: I installed ClamWin with Outlook integration. Why doesn't it appear in Outlook?

A: ClamWin will not appear as an add-in. However, if it is properly installed, an extra menu option ("About ClamWin") will have been added to Outlook's Help menu.

Q: Does it check incoming and outgoing e-mails?

A: If ClamWin is installed with Outlook integration, it will check all incoming and outgoing e-mails for viruses. E-mails are checked automatically when they are opened. If an incoming e-mail has a virus attachment, the attachment will be replaced with a report file.

Q: How can I report a virus that ClamWin doesn't recognise?

A: ClamWin uses the same database as ClamAV (www.clamav.net). Viruses that are not in the database can be reported using the on-line form at www.clamav.net/sendvirus.html. Please make sure that you have updated your database to the latest version before using this form. False positives can also be reported here.

Troubleshooting

Problem: When trying to send a test e-mail alert, a message similar to the following appears:

Could not send the email. Please ensure you are connected to the internet.
Error: SMTP instance has no attribute 'sock'

Solution: The SMTP server settings are wrong. Note that many ISP's do not require a user name & password for the SMTP server. Try leaving these settings blank.

Problem: Error message -

Unable to create temporary directory

This error may appear if you have previously installed & uninstalled Cygwin. If you no longer need Cygwin, remove this registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Cygnus Solutions
```

After removing the registry key, re-install ClamWin

If, however, you still need to be able to use Cygwin, add this key to the registry:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Cygnus Solutions\Cygwin\mounts v2\tmp
```

And add these values to the new key:

Name: flags

Type: dword

Value: 0000000a

Name: native

Type: string

Value: "C:\\Documents and Settings\\All Users\\Local Settings\\Temp"
or "C:\\Temp"

The value of the "native" key can be any directory that the user has write access to.

Problem: Outlook 2000 is not detected during set up

The current installer will not detect Outlook 2000 unless Service Pack 1 is installed. This is a known bug, which will be fixed in a later release. As a workaround, create the following registry key, then re-run ClamWin set up:

```
HKEY_CURRENT_USER\\Software\\Microsoft\\Office\\Outlook
```

Problem: Non-Administrator user cannot install ClamWin on Windows XP

On Windows XP, only users with Administrator rights can install ClamWin. This is a bug that is due to be fixed in version 0.40

E-mail Clients that Store Messages in a Single File

Some e-mail clients (e.g. [The Bat!](#)) store all messages in a single file. Others store each e-mail as a separate file. If ClamWin finds a virus attached to an e-mail, it will consider the entire file (i.e. all the e-mails in that file) to be infected. Therefore, the entire file will be removed or moved to quarantine. You may wish to set the Filters (see the instructions on configuring ClamWin) so that these files are not scanned.

Conflicts with ActivePython

Having python installed should not be a problem if you have python 2.3 and pywin32-201 (<http://sourceforge.net/projects/pywin32/>) installed. It seems that versions of ActiveState python that come with win32all-163 (now pywin32) create a dll conflict. So if you have ActivePython 2.3, just install pywin32-201 and it should be fine.

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