CLAM WIN
A FREE ANTIVIRUS FOR WINDOWS

Manual & Help © 2004 - 2007 Russell Phillips

ClamWin program code © 2004 - 2007 ClamWin Development Team

Updated to ClamWin Free Antivirus 0.90.2.1

www.clamwin.com

PROJECT OF THE MONTH

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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
- Automatic notifications of new ClamWin releases
- Standalone virus scanner
- Scanning of programs that are loaded in memory
- 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 add-in, however, will delete a virus-infected attachment automatically, without any intervention from the user.

Installation Instructions

Download the latest installer from www.clamwin.com. Close all running programs (especially Outlook and ClamWin), 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.

After clicking **Next** 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 Clam Anti-Virus (www.clamav.net), which is also distributed under the GNU General Public License.

On the next screen the installer will ask you whether you want to make ClamWin available to every user of the computer, or just to yourself. The recommended setting here is "Anyone who uses this computer".

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.

Two selections (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, and if Microsoft Outlook is installed, 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 MS Outlook Express) is installed.

International Help Files: This section has sub-sections for different languages. Although ClamWin is not yet available in localised versions, members of the community have provided translations of the help files and/or manual. Selecting the relevant languages in this section will install these translated help files/manuals.

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. Note however that if you connect to the internet using a proxy, you should first configure the proxy settings before you can download the updates, so you will need to do this at a later stage.

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 **Install**. To go back and change some options, click **< Back**.

If you selected **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 eleven tabs will be displayed (if you do not have the Microsoft add-in installed, the tab "Email Scanning" will not be displayed). Clicking **OK** will close the dialogue box and save any changes made. Clicking **Cancel** will close the dialogue box without saving any changes.
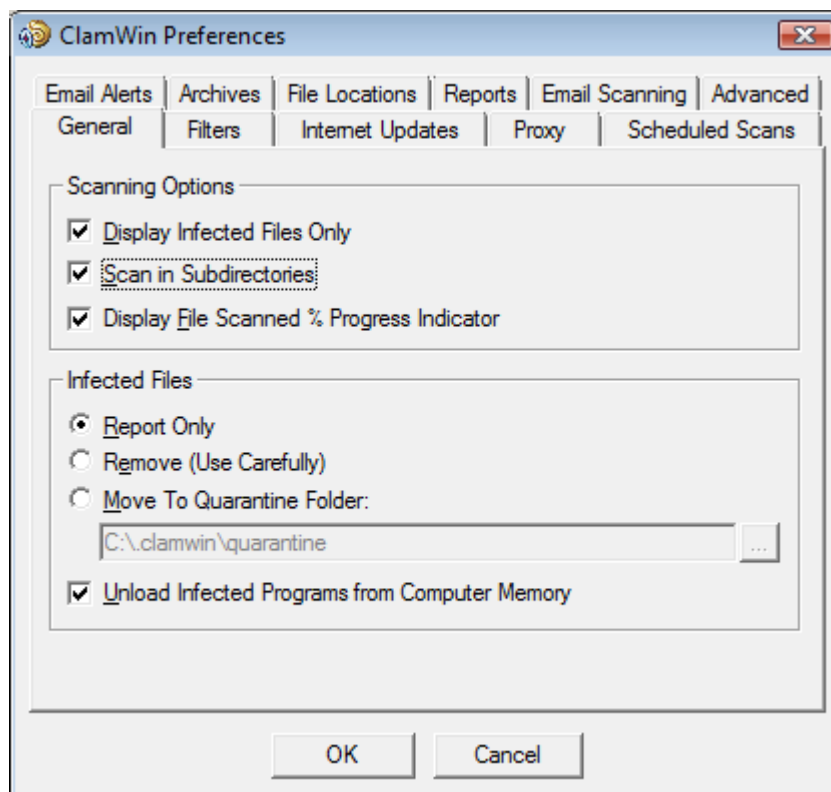
Each of the tabs is discussed below.

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:

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.

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

Display File Scanned % Progress Indicator: If this option is selected, ClamWin will display the name of the file that is at that moment being scanned, with the progress in percentages between brackets. For archives, a rotating line will be shown, indicating the scan is proceeding.

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.

Finally, the **Unload Infected Programs from Computer Memory** option determines whether ClamWin should try to unload a file from memory, if it detects it to be infected while performing a memory scan. This is necessary to successfully quarantine such a file.

Filters

On this tab, ClamWin can be configured to scan only certain types of files, or to ignore certain types of files. The two can be combined to give greater control over what types of files are scanned.
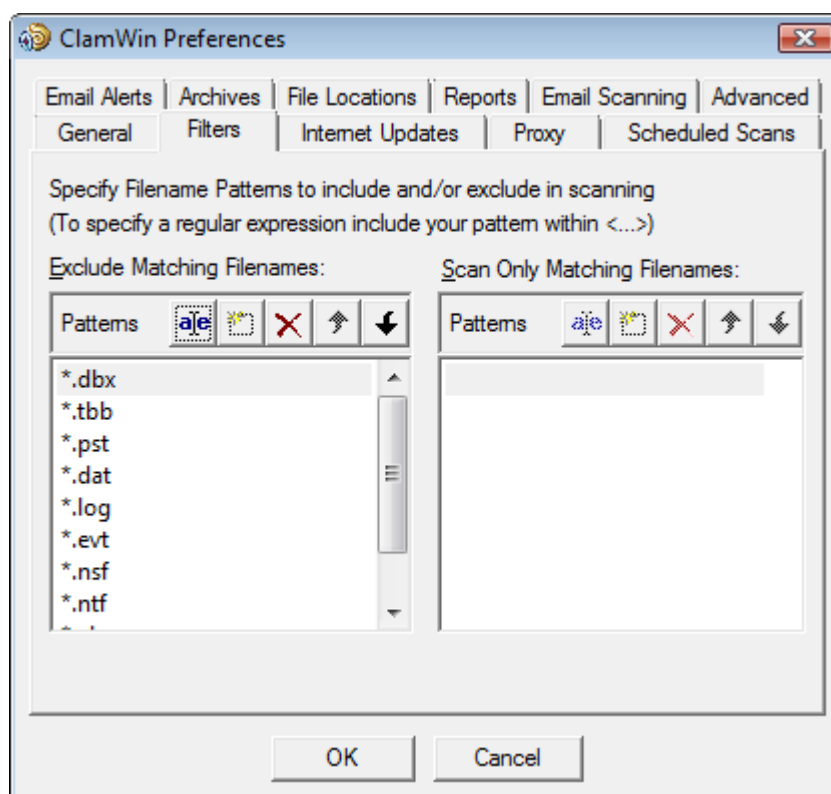
Specific files can be filtered by specifying the full path, e.g.:

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

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

`C:\Path\to\folder\*`

Note that * will not match \, so if you want to include or exclude a folder with all sub-folders you need to use a regular expression syntax and add .* (dot star) at the end:

```
<C:\\Path\\to\\folder\\.*>
```

Regular expressions are enclosed in <> tags and \\ is needed because \ is a reserved character.

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.)

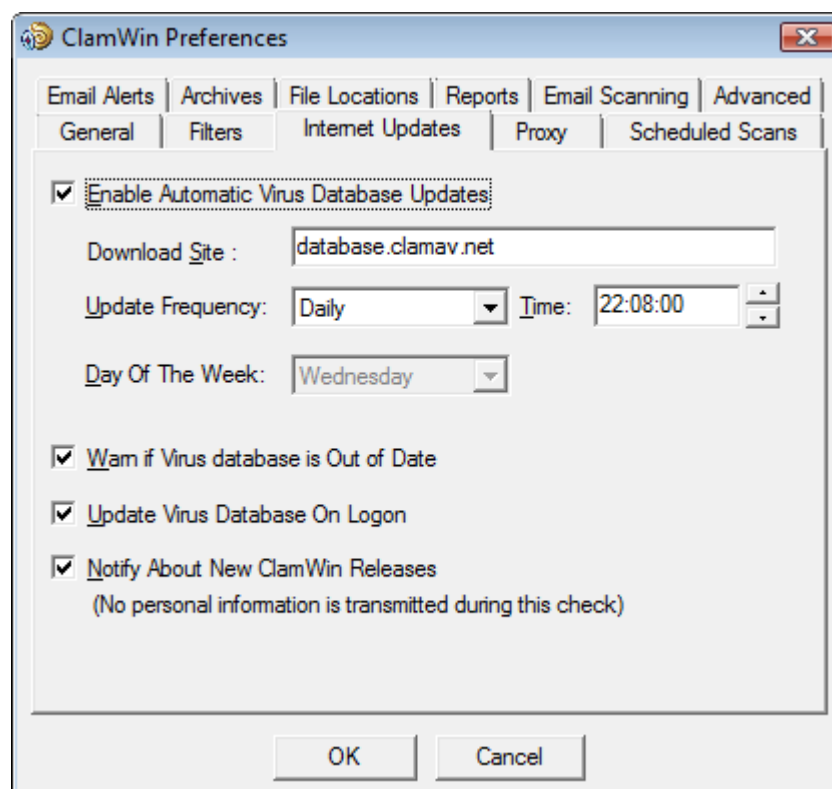*.pst (used by Microsoft Outlook to store data)

*.dat

*.log

*.evt

*.nsf

*.ntf

*.chm (Windows help files)

Internet Updates

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

Enable Automatic Virus Database Updates: When this 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. For a list of mirrors, check out http://www.clamav.net.

Warn if Virus database is Out of Date: If this option is selected, ClamWin will warn you when your database is not actual anymore.

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

Notify About New ClamWin Releases: If this option is selected, ClamWin will check for new releases. This check is run five minutes after startup of ClamWin, and every 24 hours after that.

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.
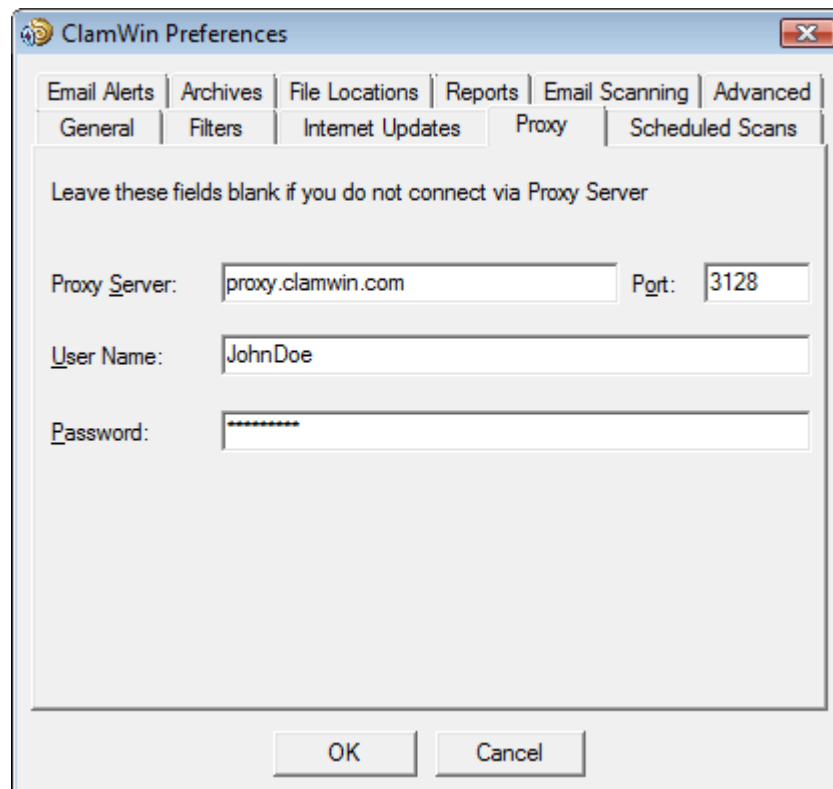
Scheduled Scans

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.
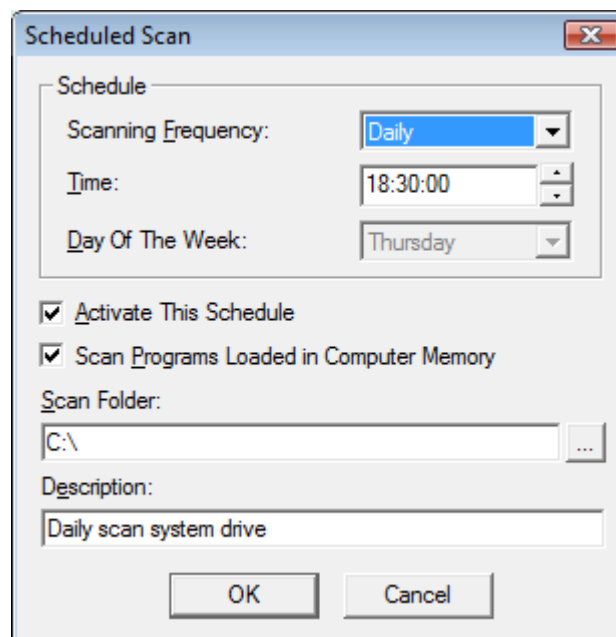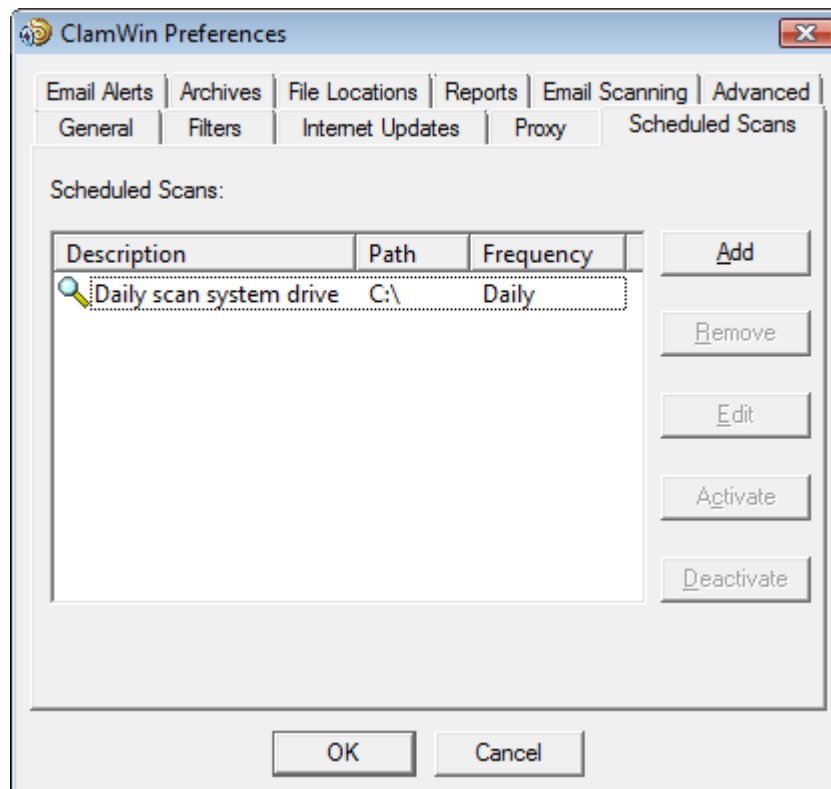
An existing scheduled scan can be changed by clicking the **Edit** button, or removed by clicking the **Remove** button.

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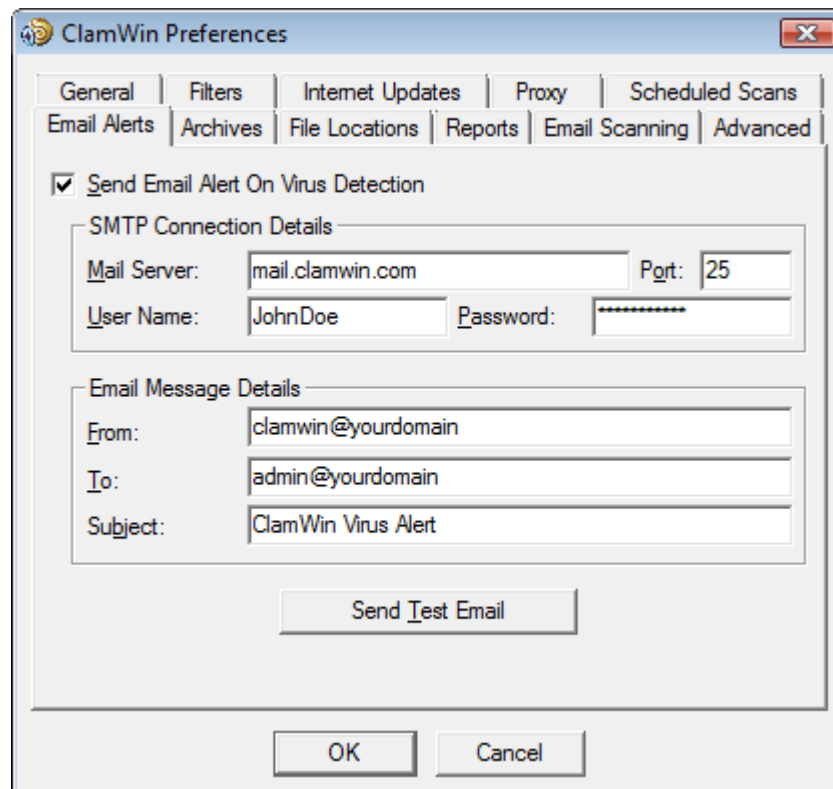
To have ClamWin send an e-mail report when a virus is detected, check the **Send Email Alert On Virus Detection** option. Fill in the details for your SMTP server, and the details for the message (subject, from address, to address).

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.
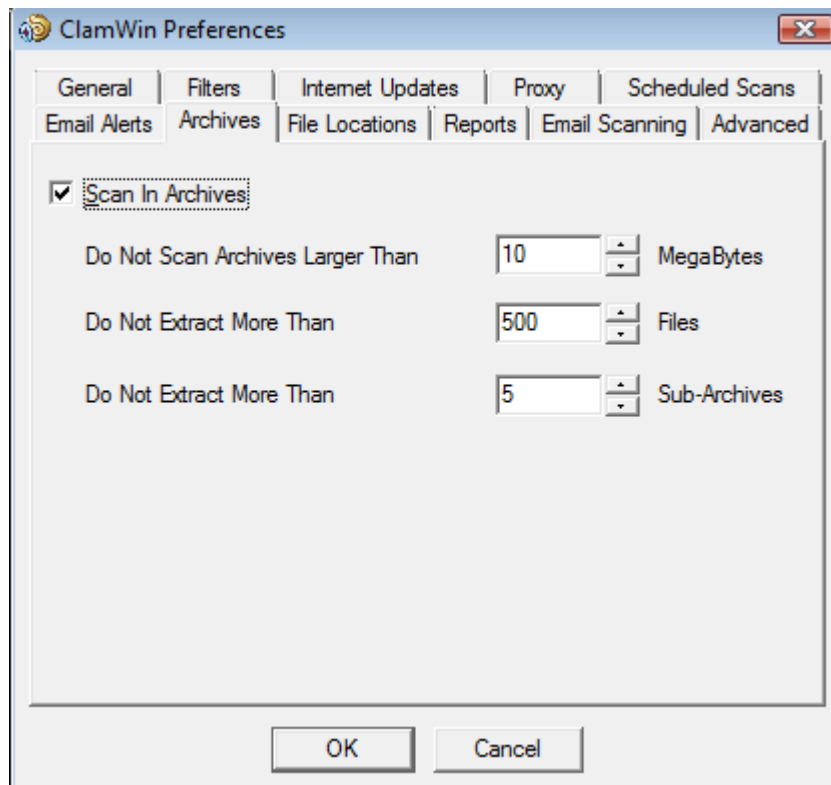
File Locations

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.
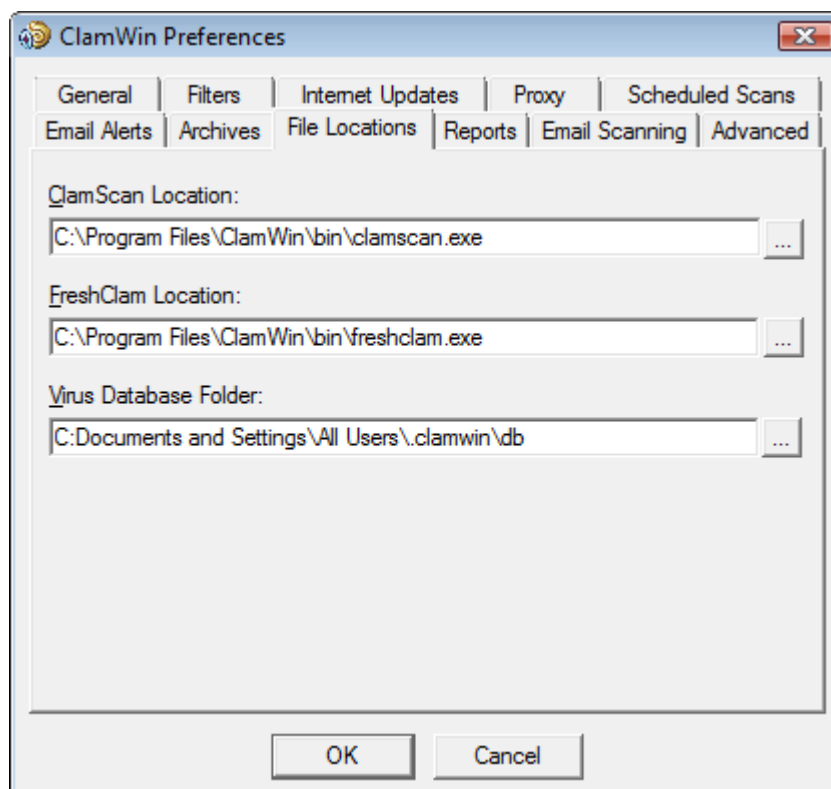
Reports

This tab allows the user to change the location & name of the log files. Most users will not need to change these settings.
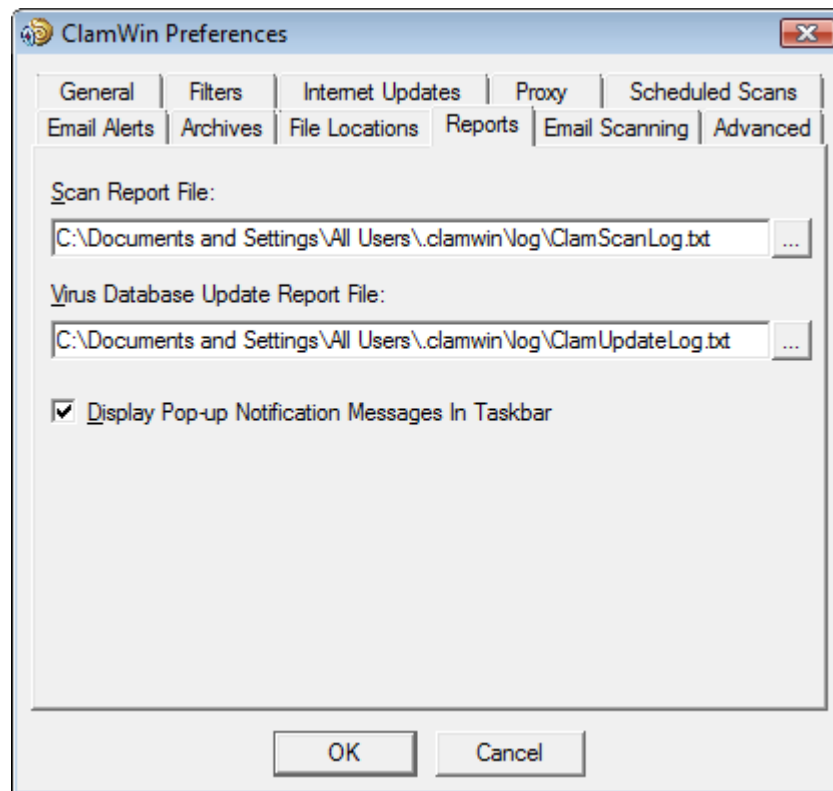
You can also enable or disable the display of pop-up notification messages on this tab. By default, such messages are enabled. Unchecking the **Display Pop-up Notification Messages In Taskbar** checkbox will prevent status messages appearing when viruses are detected, the virus database is updated, etc.

Email Scanning

This tab is displayed only, if the Microsoft Outlook add-in is installed.
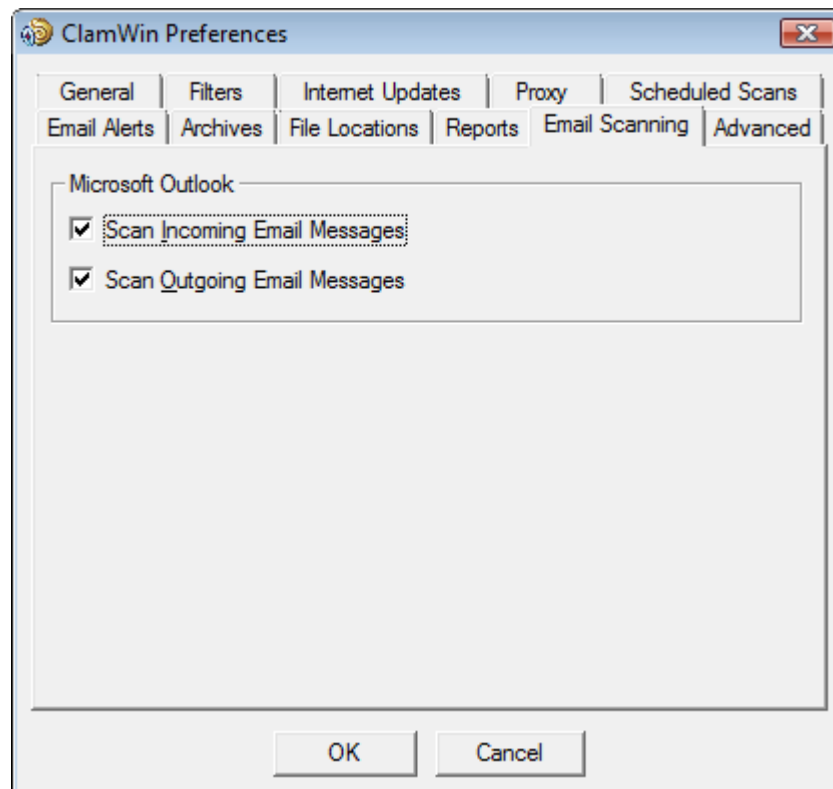
The user can decide to scan for incoming email messages and/or outgoing email messages.

Advanced

This tab has four settings. The default settings will be fine for most users.
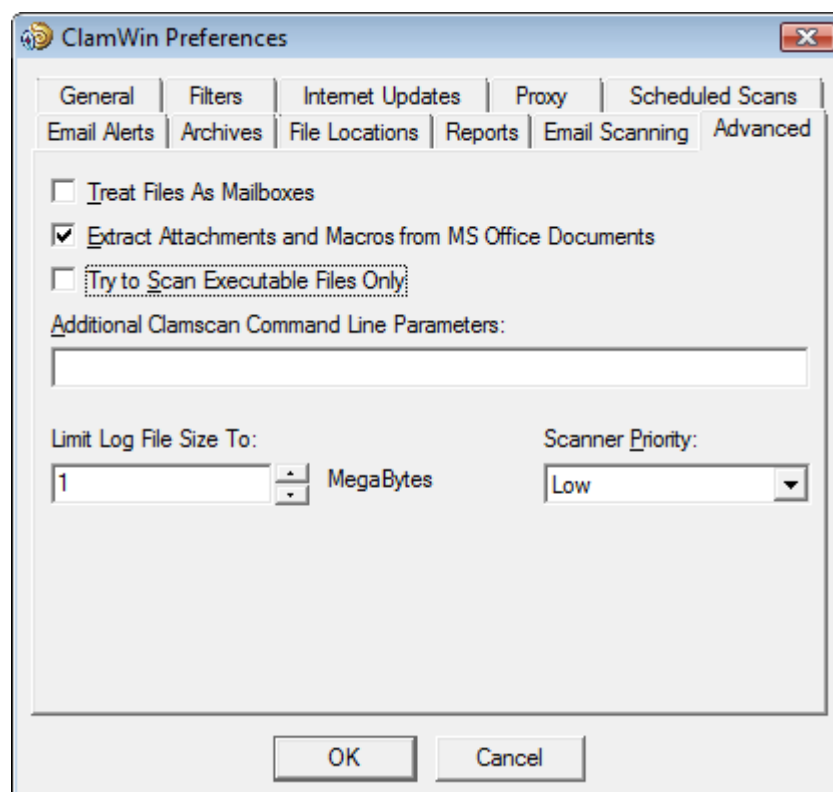
Treat Files As Mailboxes: If selected, ClamWin will parse all files as if they were MIME e-mail messages (e.g. Unix/Linux mailboxes, .eml files saved from Outlook Express). Note that non-MIME files can be scanned with this option selected, but this will slow the scan down.

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

Try to Scan Executable Files Only: If selected, ClamWin will check only executable files.

Additional Clamscan Command Line Parameters: If you want to use Clamscan command line options that are not currently supported by ClamWin, you can add them here.

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 or Normal, and determines how the CPU cycles are split between ClamWin and other running applications. The default setting is Low which 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, which contains "Virus Scanner", help/manual and uninstaller. Selecting "Virus Scanner" will start ClamWin with the main window open, as shown below:
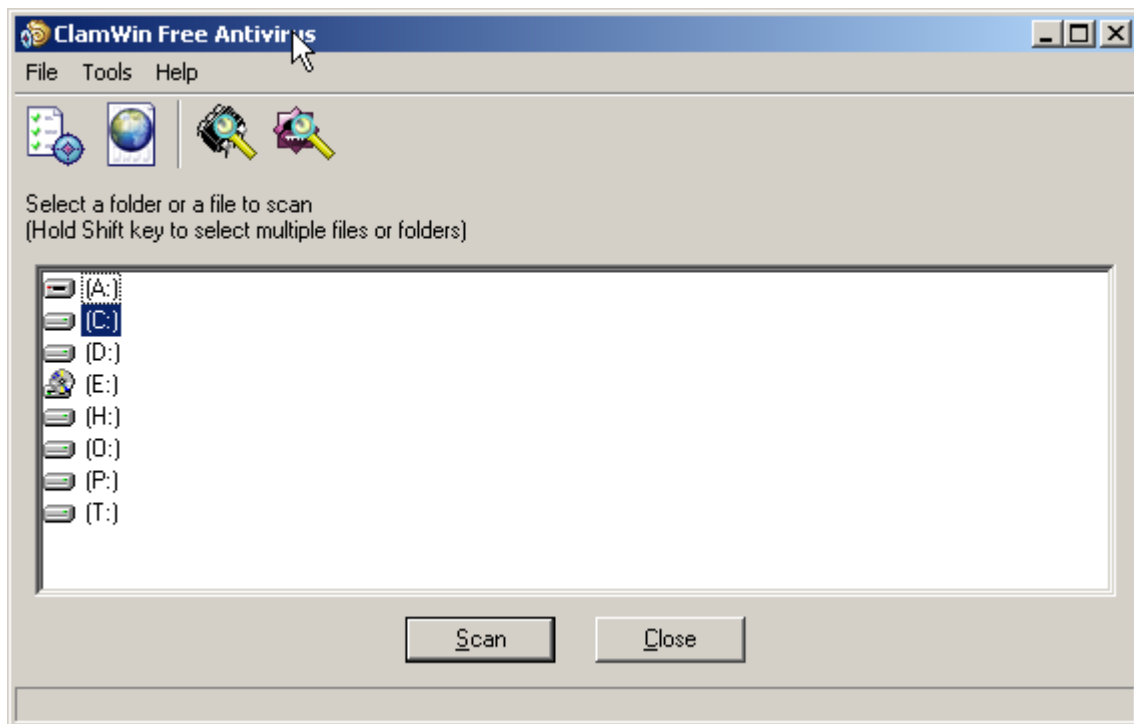
To scan a file or a folder, simply select it in the main window, and click the **Scan** button (or click **File > Scan Files** in the menu or click the last icon in the toolbar). Multiple files/folders can be selected by holding down the **Control** or **Shift** key whilst clicking.

To scan all programs that are currently loaded in memory, select **File > Scan Memory**. Memory scanning can also be started using the third icon in the toolbar.

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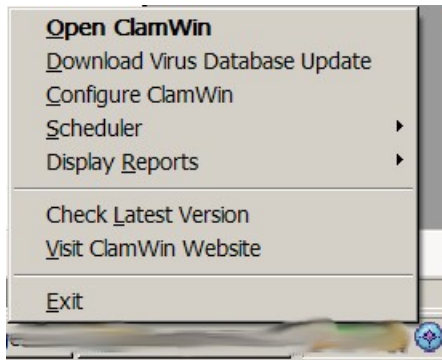
Download Virus Database Update: This will cause ClamWin to check for updates to the virus database, and download any updates that are available.

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 "Virus Scan Report" can be viewed.

Check Latest Version: This will open the default browser at the ClamWin web site, and check the installed version of ClamWin. The page will display a message showing the latest version available, and whether or not the latest version is installed, along with a link to the download page, so that a newer version can be downloaded if required.

Visit ClamWin Website: This will open the default browser at the ClamWin web site.

Scheduled Scans

Scheduled scans can be set up in the preferences dialogue (Tools > Preferences > Scheduled Scans) or from system tray icon (Scheduler > Configure Scheduler). 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.

MS 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.

Modifying ClamWin's Default Configuration

If a copy of clamwin.conf is in the ClamWin executable files directory ("C:\Program Files\ClamWin\bin" on a default installation), then the first time a user runs ClamWin, it will use the contents of this file as the default configuration.

If you are to set up several new user accounts on a computer, or if you have just installed ClamWin on a system with multiple users, it is recommended that you set up a default configuration and copy the clamwin.conf file to this location.

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 one of three 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. It should be possible to download the files by pointing a web browser at `http://YOURSERVERNAME/main.cvd` and `http://YOURSERVERNAME/daily.cvd`

In ClamWin's **Internet Updates** configuration tab, enter the web server's IP address or domain name in the **Download Site** text box. Do not include anything other than the IP address or domain name (eg `192.168.1.1` is correct, `http://192.168.1.1/` is wrong). 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.

The third method is to set the Virus Database Folder in all copies of ClamWin to a shared folder (eg `\\SERVER-NAME\SHARED-DRIVE\db`). Note that, in this case, only one copy of ClamWin (preferably the copy on the server) should be set up to get automatic updates.

Manually Updating the Virus Database

To update the virus database manually, download the virus database files `main.cvd` and `daily.cvd` and copy them to ClamWin's virus database folder, over-writing the existing files. The virus database files can be downloaded from ClamAV's home page at www.clamav.net

FAQ: Frequently Asked Questions

Please see online version of FAQ located at:
http://www.clamwin.com/content/category/3/7/27/

Troubleshooting

This chapter describes solutions to the following issues:

- When trying to send a test e-mail alert, a message similar to the following appears
- E-mail clients that store messages in a single file
- Conflicts with some versions of ActivePython
- Outlook 2000 does not restore when minimised

If your desired topic is not included here, please see the FAQ located at:
http://www.clamwin.com/content/category/3/7/27/

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'
```

or

```
Could not send the email.  Please ensure you are connected to the
internet. Error: SMTP AUTH extension not supported by server
```
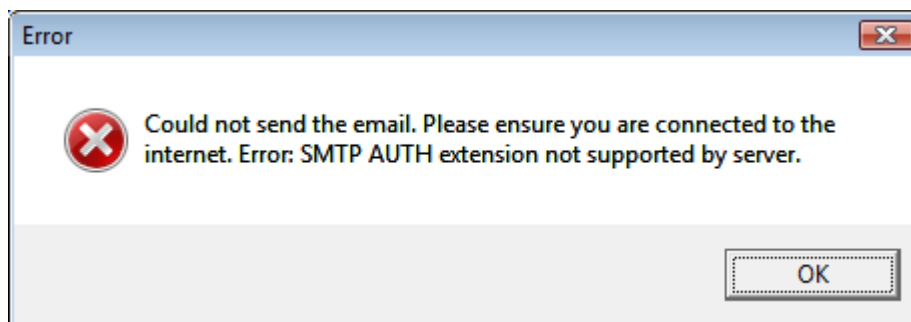

Solution: The SMTP server settings are wrong. Note that many ISP's do not require a user name & password for the SMTP server. Try leaving these settings blank.

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.

Users of The Bat! may be interested to know that Marco Pontello has written a plug-in that allows The Bat! to use ClamWin to scan attachments. More details are available at Marco's web site.

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 and it should be fine.

Outlook 2000 does not restore when minimised

When ClamWin is installed, Outlook 2000 may not restore properly from being minimized. Installing Office 2000 Service Release 1a (SR-1a) will fix this problem, and is generally recommended, as it includes a number of bug fixes and security fixes. Full details and downloads are available at http://www.microsoft.com/downloads/details.aspx?FamilyID=AF6C8D03-7633-45B4-AB96-795EE656F2A2&displaylang=EN or

http://tinyurl.com/xsyx

Appendix A : How to Run ClamWin from CD or USB

Introduction

This tutorial explains how to create a CD or USB key with ClamWin, to allow a Windows PC to be scanned for viruses without having to install ClamWin. Note that the CD/USB key is *not* bootable, and so can only be used on a working Windows PC.

The PC that is used to create the CD/USB will need to have ClamWin installed, and be able to copy files/folders to a CD or USB key.

The easy way : Portable ClamWin

The easy way is to use the pre-built portable version of ClamWin, which can be found at http://portableapps.com/apps/utilities/clamwin_portable.

Note that the maintainers of this Portable ClamWin are not affiliated with the ClamWin team, so the team might not be able to answer all your questions regarding this version. Also, ClamWin Portable might be some versions behind the official ClamWin release.

Preparation

Start by installing the latest version of ClamWin, and download the latest virus definitions. See the ClamWin manual for full details on how to do this.

Note that, if you are going to create a CD, you will not be able to update the virus definitions without creating a new CD, since a CD is read-only.

Copy Folders

Create a working folder in a convenient location to hold the files that are to be copied onto CD/USB, e.g. `C:\ClamWin-CD`.

In the working folder, create a folder named `ClamWin`.

Copy the contents of the ClamWin program folder into `C:\ClamWin-CD\ClamWin`. By default, the ClamWin program folder is installed to `C:\Program Files\ClamWin`

Create folders named `log`, `db` and `quarantine` in `C:\ClamWin-CD\ClamWin`.

Copy the ClamWin database files (all files in the `db` folder) into `C:\ClamWin-CD\ClamWin\db`. In Windows 2000/XP, the ClamWin database folder defaults to `C:\Documents and Settings\USERNAME\.clamwin\db`, where `USERNAME` is your login name (if it was installed for a single user) or `C:\Documents and Settings\All Users\.clamwin\db` (if it was installed for all users).

Copy the following into a text file named `C:\ClamWin-CD\ClamWin\bin\clamwin.conf`

```
[Schedule]
path = .\

[ClamAV]
clamscan = .\clamscan.exe
enablembox = 0
maxfiles = 500
infectedonly = 0
database = ..\db
includepatterns =
```

```
scanole2 = 1
excludepatterns = *.dbx|CLAMWIN_SEP|*.tbb|CLAMWIN_SEP|*.pst|CLAMWIN_SEP|*.dat|
CLAMWIN_SEP|*.log|CLAMWIN_SEP|*.nsf|CLAMWIN_SEP|*.ntf|CLAMWIN_SEP|*.chm
maxsize = 10
scanarchives = 1
priority = Low
maxrecursion = 5
maxlogsize = 1
moveinfected = 0
debug = 0
logfile = ..\log\ClamScanLog.txt
scanrecursive = 1
freshclam = .\freshclam.exe
quarantinedir = ..\quarantine
removeinfected = 0

[UI]
reportinfected = 1
traynotify = 0
standalone = 1

[Updates]
dbupdatelogfile = ..\log\ClamUpdateLog.txt
enable = 1
dbmirror = database.clamav.net
updateonlogon = 0
frequency = Daily
weekday = 2
time = 12:00:00

[EmailAlerts]
enable = 0
from = clamwin@yourdomain
to = admin@yourdomain
smtppassword =
smtpuser =
smtphost =
smtpport = 25
subject = ClamWin Virus Alert

[Proxy]
host =
password =
port = 3128
user =
```

You should now have the following folders:

```
C:\ClamWin-CD
C:\ClamWin-CD\ClamWin\bin
C:\ClamWin-CD\ClamWin\db
C:\ClamWin-CD\ClamWin\lib
C:\ClamWin-CD\ClamWin\log
C:\ClamWin-CD\ClamWin\quarantine
```

Copy Files to CD/USB

Now you just need to copy the contents of `C:\ClamWin-CD` to a CD or USB key. Do not copy the `C:\ClamWin-CD` folder itself, only the contents. Exactly how this is done will depend on whether a CD or USB key is to be used, and what software is to be used.

Using the CD/USB

To use it, insert the CD/USB into the PC to be scanned. Run ClamWin by double-clicking on the `ClamWin.exe` file in the `ClamWin\bin` folder.

ClamWin should operate normally, but if run from CD or read-only USB drive, it will have the following restrictions:

- Files will not be quarantined
- Internet updates will not work
- Preferences cannot be changed

These restrictions will not apply if it is run from a USB drive with read-write permissions.

Appendix B : GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Preamble

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