

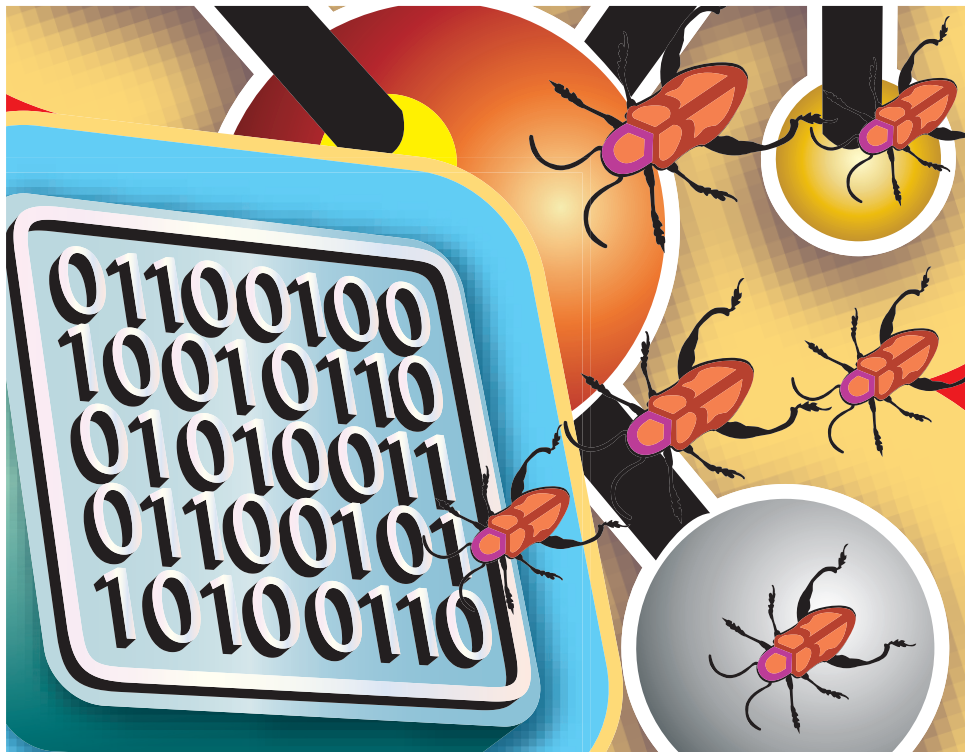
Roundup

» Every month we compare tons of software so you don't have to!



Antivirus software

Hoping to stay healthy, **Nick Veitch** gets forensic on the available programs.



How we tested...

Although we advocate reading all the documentation and taking care with config files, for this test we've done as little tuning of the software as possible – the defaults should be good enough to keep a computer safe.

We employed the virus test suite, as developed by EICAR (www.eicar.org/anti_virus_test_file.htm), the European security organisation. There's nothing tricky here; effectively it's just a pseudo-viral text string that should be easy for all the scanners to pick up. It's provided in several formats, including plain text and Zip files. To complicate things further we included a few large RAW photos, plus the virus test files encoded in a tarball and hidden within an ISO image.

Our selection

AVG Free p31
Avira Antivir Pro p31
ClamAV p32
Sophos p32
ClamTk p33
Avast p33
BitDefender p34

Pretty much every Linux user thinks they're immune to viruses, but they're wrong. Just recently, malware was found hidden inside an innocuous-looking Gnome theme from a reputable site. Users who installed the theme also got several scripts installed as root that were designed to attack internet targets, but it could easily have been much worse. You see, the problem with

thinking that Linux is immune is that sooner or later, something like this happens, and you'll have no protection. Yes, 99% of the time you won't need it. Maybe even 99.9% of the time. But if a virus checker saves you just once a year, we think that's a good enough reason to install one.

Of course, there are other good reasons, not least that you don't want to be blamed in the flame-fest that would result if you accidentally forwarded a virus to your Windows-loving friends. For seconds, even if the virus doesn't affect you, wouldn't you at least like to know that it had somehow made its way on to your precious Linux box?

For the most part, we expect virus checkers to run without us noticing that they're there, to consume no resources and just get on with things. Extra points are awarded to software that comes close to this ideal, while they're deducted for difficult installs, weak documentation and poor performance.

Many of the clients on test make use of *Dazuko*, which is a kernel module designed to give on-access notifications to userland software – so when you open a file, the module passes the details to any service that wants to know. Some of the checkers rely on an old version of *Dazuko*; we've made a note of these in the review text.

“You don't want to be blamed for forwarding a virus to your friends.”

AVG Free

Long-established virus scanning provided free for Linux.

Products bearing the AVG name have a reasonable history in antivirus software, stretching back to 1992. Linux/Unix systems were only added to the lineup in version 7.5 and now lag behind the Windows version (at 9.0), having only had a few updates. Installing the free client is pretty straightforward, no matter what system you're using, because there are packages freely available in RPM, Deb and tarball formats. Installing the tarball might be a slight pain, but as it's binary, there's no need to worry about compiling this, that and the other.

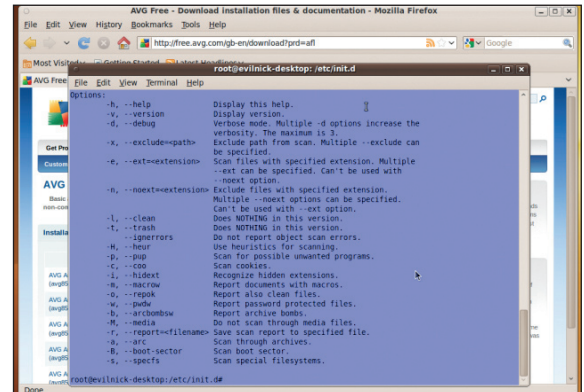
Unlike many of the apps here, there's no GUI for this software. It's designed to be run as a system daemon to scan your files on schedule or on demand. There's an option for on-demand checking with the *Dazuko* kernel module. Starting the daemon is easy if you have some sysadmin skills, and it can be configured to run at boot.

In terms of speed, *AVG Free* did pretty well, but perhaps at the expense

of being thorough. Surprisingly, the software failed to find the zipped versions of the virus test file. Since the test file has been around for years, this is pretty inexcusable – it shouldn't be at all hard to find. The only reasonable explanation is that perhaps the software is misconfigured. As part of our tests, we do the minimum amount of configuration to get the program to run. In a production environment, you might want to investigate the docs and the various settings, but even if you did, *AVG Free's* documentation is scantier than a minuscule bikini.

Because of the difficulty in making sure the system is configured and working, as well as the poor results in finding viruses, this wouldn't be one we could recommend for desktop use.

“In terms of speed, AVG did well, at the expense of being thorough.”



➤ *AVG Free* isn't well-documented or easy to set up, but it works, some of the time.

LINUX FORMAT Verdict

AVG Free

Version: 8.5
 Website: <http://free.avg.com>
 Price: Free

» It performs so poorly and comes with such minimal documentation that it's not worth it, even if it is free.

Rating 2/10

Avira Antivir Professional

Command line scanner with a really low overhead.

Avira Antivir, if you can get past the avoidably ugly name, lives in the shady realms of the command line, though it needs no real knowledge of *Bash* to install or use. Download the archive and run the install script within to set everything up. There follows a series of questions about which options are to be installed, whether to use the scan-on-access service (which requires *Dazuko*) and where you've put your keyfile. The latter was the only hitch on installing. For reasons still unclear, the website provided us with a trial key, but it didn't work. If you have the same problem, pretend you live in the USA...

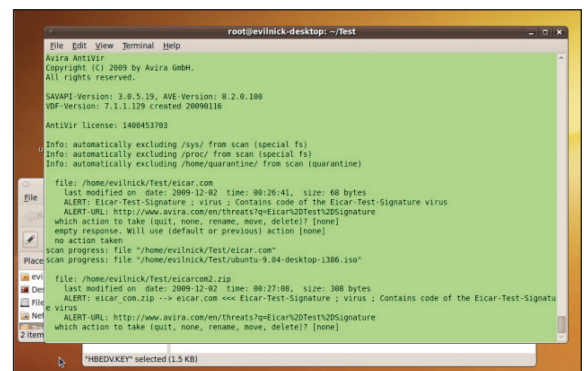
Once we had it installed, we noticed the presence of a configuration file and daemons automatically being installed to run the software on startup. Running the test scan was surprising – the software seemed to be instantaneous, and barely took up any memory or CPU cycles at all. It would have been easy to

believe that nothing had happened, but the scanner identified all of our infected files and offered to quarantine them.

The default settings seem good enough and the virus database is kept well up to date, so you needn't fear that you need to be extra vigilant in the configuration. It works impressively quickly – it's just a shame that the on-access scanning isn't available for modern kernels.

Avira does have free versions of its other antivirus software, but all the Linux versions come under the Professional department, so there's no dispensation if you're a non-business user. That said, the licensing structure doesn't make it expensive: £25 for a year-long single-user licence.

“The website provided us with a trial key, but it didn't work.”



➤ It's impressive in speed and low resource use, but not really in the results stakes.

LINUX FORMAT Verdict

Avira Antivir Professional

Version: 3.0.5
 Website: www.avira.com
 Price: £25

» Pretty average all-round, and not worth paying for when there are better alternatives out there.

Rating 5/10

ClamTk

The one with GTK and Perl.

ClamTk is almost the default front-end to *clamscan*, in that even distros that prefer KDE to Gnome often install it, so it must have something going for it.

When it runs, this tool will check for the current version of itself, the *ClamAV* back-end and virus signature files, displaying the results in an easily-understood status table. Buttons along the top give quick access to the scanning functions, while various options can be turned on and off via the switches below. You may prefer to use the menu for some operations, but there isn't a lot that can go wrong with this simple client.

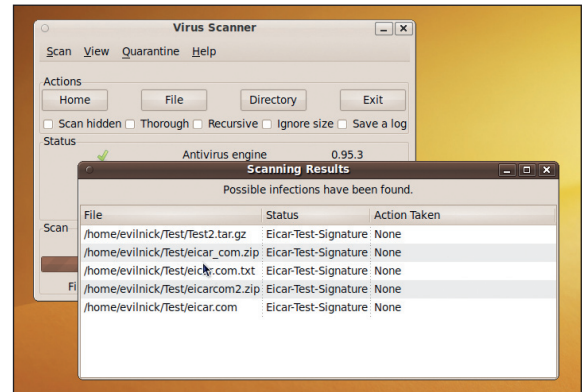
One feature worth noting is the searchable history log, which tracks any previous naughtiness and what files were involved, though it lacks some of the useful features of other front-ends such as *KlamAV*.

As the most popular front-end to *ClamAV*, you'll find up-to-date packages in almost every distro repository that

carries *ClamAV*, though there's a quick note for Fedora users: for some reason the package currently showing for Fedora 12 is old and doesn't actually work, but you can get an RPM built by the developer at the *ClamTk* website. If you want to build it from source, you'll need little other than up-to-date Perl libraries and the standard *GTK* stuff.

A new feature is an option to restore files you might inadvertently have quarantined, but later want to let out again. It's hard to imagine this was top of the 'must have' list for users, but on the other hand, this small and simple GUI client isn't missing much at all.

Obviously, with either of the graphical clients running on top of *ClamAV*, the resource usage rises a little, but as *ClamTk* makes use of standard *GTK* libraries, it isn't really going to add much to the bill. There's a minimal amount of extra memory consumed and the difference in speed wasn't measurable, so Perl and *GTK* was obviously a good decision.



› *ClamTk* has a simple interface that enables straightforward virus scanning.

LINUX FORMAT Verdict

ClamTk
Version: 4.2
Website: <http://clamtk.sourceforge.net>
Price: Free

» Simple *GTK* interface makes scanning straightforward and easy, despite the lack of frills.

Rating 8/10

Avast

Harrrr! Splice the mainbrace and stand by to repel boarders, me hearties!

This nautically-themed gem may not be top of your list when you think about antivirus software, but the developer – Czech-based Alwil – has been creating antivirus tools since 1991, so there's a pedigree here. This version mirrors Alwil's Windows software in terms of features, and is available free of charge for personal use.

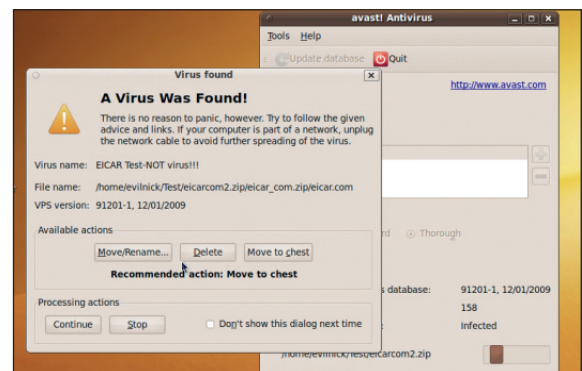
Downloads come from the website as RPM, Deb or binary archives for the Linux version and all are pretty easy to install. As you might expect with commercially-oriented software, there are few dependencies, but the GUI does make use of the *GTK* libraries, and the resulting app looks rather Gnome-like and not at all dissimilar to *ClamTk*.

Scanning manually using the graphical interface, you'll see a few extra buttons. Select the Thorough option – if you're not being thorough, you may as well not bother. Engaging this mode does pretty much double the time it takes to perform a test, but it

pays dividends: *Avast* managed to find all of our hidden fake-viruses, even though it had to search through a Zip file embedded in an ISO image to complete the set. A curious follow-on to the Jolly-Jack-tar theme they have going on is that quarantined viruses are stored in what they call a chest, which is all very amusing once you get the hang of what's going on. Handily, you can also keep a list of commonly scanned locations for quick checking.

The command line tool is simple to use. Run it with no options to see the switches available. Unusually, this has fine control of the archive formats supported (like *ClamAV*) so if you want to do some very specific scanning, this may be the one to pick.

“Handily, you can keep a list of commonly scanned locations.”



› We've caught something! Even though we did put it in there in the first place.

LINUX FORMAT Verdict

Avast
Version: 1.3
Website: www.avast.com
Price: Free

» A definite winner on talk-like-a-pirate day, and actually, it's pretty good the rest of the time too.

Rating 9/10

BitDefender

Glitzy and glamorous, and it delivers the goods.

BitDefender is a reputable security company, and this antivirus solution sits within a giant cluster of antivirus software for different platforms. This version is provided free of charge for personal desktop users. You have to register first and get a trial key, which can then be turned into a proper keyfile if you're accepted. The real keyfile will last for about six months, at which point you can simply sign up and get another one.

Running the GUI is a slight surprise. It's built using custom widgets, so although it's essentially leveraging *GTK*, there is nothing very *Gnome*, *KDE* or even *Linux*-like about it. That said, it's easy to navigate and use. The initial run will download the latest definitions and check the software is up to date before you start scanning.

BitDefender gained top marks in the scanning test by finding all the suspect files (and correctly identifying them as the same 'threat', for a super-bonus gold star). Naughty files can be processed in a number of ways, including quarantining them or attempting to remove them, and you'll be reminded and warned about existing threats on your machine if you choose to take no action initially.

The settings screen is easy to follow, thanks to the proliferation of tooltips on

› A helpful tip of the day pops up over the UI's gigantic buttons.



every button and text-entry point, and they are also pretty concise. For example, the archive setting is just a simple toggle switch.

Thorough check

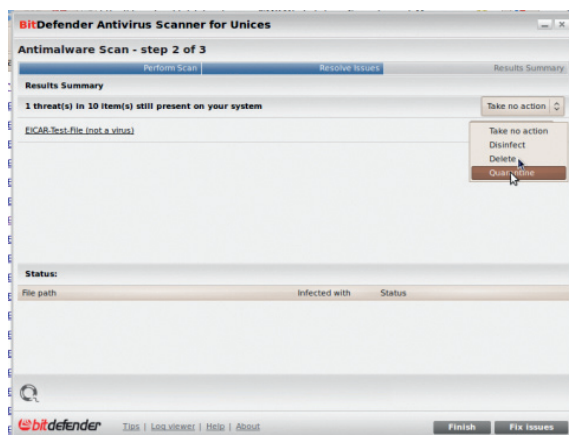
This might not give the fine-grain control that some people hanker after, but it seems like a sensible compromise – if you want to search through archives, you want to search through them all, not just ones of a specific type. The software warns that this will increase the resource overhead during scans, but neither the CPU cycles grabbed or the memory allocated seemed to be excessive compared with other software in the test. In fact, it put in the fastest performance of the scanners that found all the suspect files. *BitDefender*'s memory usage was higher than the other programs on test here, but that can partly be explained by the fact that it actually tested the files within the test ISO image, which some didn't.

There's a command line tool available for those who want to specify every available option, which also means that *BitDefender* can be scripted for other uses, such as checking mail or network shares if needed. It doesn't give quite as much control as, for example, *ClamAV*, when it comes to types of archive to include or patterns of files to avoid, but is

manageable enough, and you could embed it in a more complicated script if your needs so demand.

BitDefender also includes an optional drop box for quick, one-off scans, which is a thoughtful addition, if somewhat un-Linuxy in execution – there's something strange about dropping files on to the red shredded logo device that floats in the corner of the screen, but it does work on *Gnome* and *KDE* desktops. About the only negative point to be found is that the GUI interface is perhaps a bit large and overdramatic. It takes up a considerable amount of screen real estate for what's essentially a one-click operation, which may be annoying if you use it regularly. The drop box may solve this in part, but perhaps a system tray widget would be better. Overall though, this put in an impressive and speedy performance that would be hard to beat.

“Running the GUI is a slight surprise: it's built using custom widgets.”



› *BitDefender* asks you what you'd like to do with files on your system that are potentially harmful.

LINUX Verdict
FORMAT

BitDefender
Version: 2.1
Website: www.bitdefender.com
Price: Free

» A great all-round performer. It's fast and easy to use, although the interface is a little bit in-your-face.

Rating 9/10

Antivirus software

The verdict

BitDefender 9/10

Choosing an antivirus system to suit you depends on a number of factors, not least how much of a risk viruses are to you. If you're simply running a Linux desktop for personal use, there probably isn't an urgent need for you to spend time, money and the overhead of clock-cycles to check every file that comes near your system rigorously. If you use your Linux box to share files with Windows machines, then there's a bit more of a point. Also, as we've seen, sometimes it's better to use a command line tool, for example if you wish to build scripts or execute periodic checks through the *Cron* system.

We were impressed with the abilities of most of the packages included in the Roundup, but surprised that some of the commercial versions seemed less effective at finding viruses. The AVG software fared particularly badly at this.

ClamAV will always be a favourite for Linux users because of its open source nature, choice of *GTK* or *KDE* GUIs and the way that it's kept up to date regularly. As the software development is supported by SourceFire (the company behind *Snort* and various intrusion detection systems) it can't be said to be just another temporary project that'll be here today and gone tomorrow. The *ClamAV* software is also

popular running on the Windows platform too.

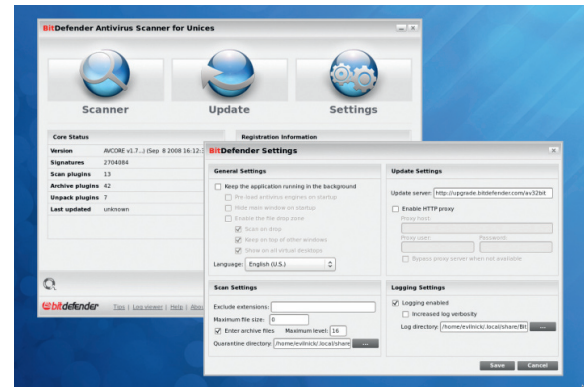
And the winner is...

Ultimately, *BitDefender* had the performance and accuracy needed to win. It wasn't the fastest on test, but neither was it the slowest. Changing the options makes a big difference to the performance, but we're of the opinion that if you want to run antivirus software, you should run it at the most paranoid level available. *BitDefender* competently found all the virus files, identified them and suggested appropriate action, so it's difficult to see

“Ultimately, BitDefender had the performance and accuracy to win.”

what more it could do. It was simple to use and the updates to the virus database seem to be regular. The command line app is configurable and versatile too, so you can easily set up regular scans.

For those who balk at the idea of running a virus scanner that takes up most of the screen, there's *Avast*. This software is a relative newcomer to the Linux scene, but performed as well as



> BitDefender provides reliable security and is easy to use.

BitDefender in finding viruses. The interface was also simple to use and the command line tool is just as useful.

For die-hard free software fans, *ClamAV* is definitely good enough, but be careful how you configure it, or what you use it to check for. As long as you're aware of what files it's scanning and which ones might need further investigation, you should be safe.

We should close by saying that the number of Linux viruses that could possibly damage your system in any way is currently less than 10, so don't have any nightmares. **LXF**

Over to you

Do you think *ClamAV* should have won simply because it's open source? How concerned are you about viruses? Have you ever unwittingly transferred a Windows virus on to someone else? We'd love to hear from you – email your opinion of the Roundup to lxf.letters@futurenet.co.uk

Table of features

| Name | Web | Version | Licence | Price | Trial version? | Toolkit | Memory usage | Disk usage | On access | Time to test | Test results |
|----------------------------|--|---------|------------|-------|----------------|-----------|--------------|------------|------------|--------------|--------------|
| AVG Free | free.avg.com/us-en/download?prd=af1 | 8.5 | Commercial | Free | n/a | Shell | 95MB | 75MB | via plugin | 5.4s | 2 |
| Avira Antivir Professional | www.avira.com | 3.0.5 | Commercial | £25 | ✓ | Shell | 6MB | 54MB | Dazuko 2 | 1s | 4 |
| Avast! | www.avast.com | 1.3.0 | Commercial | Free | n/a | GTK | 82MB | 32MB | ✗ | 54s | 6 |
| BitDefender | www.bitdefender.com | 7.6.4 | Commercial | Free | n/a | wxWidgets | 140MB | 75MB | ✗ | 16s | 6 |
| ClamAV | www.clamav.net | 0.95.3 | GPL | Free | n/a | Shell | 25MB | 28MB | Dazuko 2/3 | 11s | 4 |
| ClamTk | clamtk.sourceforge.net | 4.2 | GPL | Free | n/a | GTK | 27MB | 29MB | ✗ | 12s | 4 |
| Sophos | www.sophos.com | 4.47 | Commercial | 67 | ✓ | Web | 74MB | 311MB | Dazuko 2 | 36s | 4 |