Group test

HOW WE TESTED
Our review criteria explained

■ **Inspection formats**
We used four test criteria: VB100 awards, Virus.gr test results, real-world performance and frequency of updates.

■ **VB100 scores**
Virus tester Virus Bulletin puts AV engines against 100 viruses each month, and a VB100 pass means all 100 were detected. We've given VB100 scores for Windows XP and Vista, where available.

■ **Virus.gr**
Greek collector Virus.gr has one of the world's biggest virus collections. The results show how each virus engine fared against some 147,184 different viruses, Trojan horses and other nasties on a Windows XP Professional system.

■ **Performance**
We tested each program's scanning speed using the default system scan settings, and we also checked Task Manager to see much of our system resources each program used.

■ **Frequency of updates**
There's no point in having anti-virus software if it isn't updated. Do you get daily updates? Weekly? Hourly?

ON TEST
Your quick guide to the seven AV programs we've reviewed

Avast 4 Home Edition
■ Free

AVG Free Edition
■ Free

BitDefender Antivirus Plus v10 ■ £37

McAfee VirusScan Plus 2007 ■ £36

Norton Antivirus 2007
■ £30

Panda Antivirus + Firewall 2007 Titanium ■ £24

Windows Live OneCare
■ £35

The all-new
virus
busters

Decent AV software isn't just handy — it's essential. **Gary Marshall** puts seven bug-busters through their paces

UPGRADE

The Internet makes life much easier, but it makes life easier for villains, too. Before we all went online, viruses travelled on floppy disks. These days they're in email attachments and Web pages — and that's just the ones you can see. When you're online your PC is constantly being probed for weak spots that malicious software can use to sneak onto your system, and if you're not careful then your PC can contract the electronic equivalent of Bird Flu. Just ask our in-laws, whose relatively new PC just kept getting slower and slower. When we looked at it, we found more than 200 different bits of malicious software including viruses, adware and spyware.

The good news is that as viruses have become smarter, so have anti-virus programs, but that means more bad news because villains are lazy. Their viruses are easily intercepted,

their worms walloped and their ad-ware eliminated. So, instead of trying to fool security software, they're trying to fool PC owners instead.

You are the weakest link
Because security software is so good, the weakest link in any system is the person using it. This is why villains are increasingly turning to "social engineering" attacks. You've seen such attacks already. That official-looking email from your bank is a clever fake — click the link and you'll be taken to what looks like your bank's site... but isn't. It's called "phishing", and phishing scams hope to trick you into handing over your user name and passwords. If you do, they'll use those details on the real site and clean out your accounts.

Other forms of social engineering are similarly sneaky. Web sites display fake Windows error messages that they hope will trick you into

❯ downloading malicious software, emails contain links to reputable-looking sites that actually lead to dodgy destinations, and so on.

Security firms agree that such social engineering attacks are becoming increasingly common, and as a result many anti-virus programs have been beefed up so they can also detect phishing scams, fraudulent emails and dodgy downloads. That's

version of Windows in the form of Vista and finally updating *Internet Explorer* to make it more secure, Microsoft has also joined the anti-virus party with its *Windows Live OneCare* program. While other firms have years of anti-virus experience, Microsoft is a still wet behind the ears. Furthermore, many people think that it's partly responsible for the Windows security problems, which so much malware exploits.

> ❝ Many people think that Microsoft is partly responsible for the Windows security problems, which so much malware exploits ❞

why we've decided to compare some of the current market leaders, to see whether they can protect your PC from more than just viruses.

There's another reason for our round-up, though. There's a new name in the world of PC security: Microsoft. In addition to creating a more secure

So we have some interesting questions to answer. Can Microsoft keep your system secure, or would your system be safer with software from firms who've been battling viruses for years? Can free software deliver the goods, or do you get what you pay for? Let's find out.

? Technology explained
Keep on top of the most common virus-related jargon

■ **Virus definitions**
Anti-virus software uses a database virus "signature" or definition, and files are compared against this database to see if they might be infected. If they are, the file is either fixed, deleted or quarantined.

■ **Quarantine**
When an infected file can't be disinfected it's deleted or quarantined. The latter option doesn't delete the file, but stores it in a safe place where the virus can't spread. You can then see if another program can fix it, or just get rid of it.

■ **Heuristics**
New viruses are created every day and they'll often arrive before your virus software is updated with details of the new threat. Heuristic detection deals with this by looking for virus-like behaviour, so it's possible to spot a virus and fix, delete or quarantine it even when the software doesn't know what virus you've got.

■ **Rootkit removal**
A rootkit is software that hides away on your PC and compromise your security. It makes it

possible for the rootkit creator to infect your PC with malicious software, without your knowledge.

■ **Trojan horses**
Trojan horses invade your PC by stealth and enable their creators to use your computer to relay spam emails, attack Web sites, record what you type or intercept your passwords.

■ **Malware**
Malware is software that does things without your permission. The most common forms are adware – software that displays adverts – and spyware, which sends information about you over the Net. In most cases it's annoying rather than dangerous, but it can slow even the fastest PC to a crawl.

■ **Firewall**
You wouldn't go on holiday and leave your front door unlocked, and you shouldn't go online without locking your PC's various doors. Windows has lots of "doors" for different kinds of network connection, and a firewall makes sure that they're only opened for legitimate programs such as Web

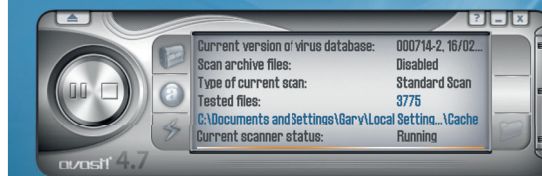browsers, chat software and so on.

■ **Whitelists**
One of the simplest ways to get rid of junk email is with a whitelist/blacklist system: any messages from people on your whitelist get through, and blacklisted ones don't. In practice, it's better to have a whitelist of trusted senders and Bayesian filtering to spot the spam.

■ **Bayesian filtering**
Bayesian email filtering works much like heuristic detection: it scans new messages against a database of known spam and makes an educated guess as to whether it's legitimate or junk. Such filters become more accurate over time.

■ **Phishing**
Phishing is when a fraudster sends you an official-looking email that's designed to trick you into giving your usernames and passwords. Software can often spot such scams, but you should always assume that any finance- or account-related email is a fake.

■ **PUBLISHER:** ALWIL Software ■ **WEB SITE:** www.avast.com
■ **FEATURES:** Anti-virus, Web filtering, network protection, P2P/IM protection

Avast 4 Home Edition

Excellent free software that proves looks aren't everything

Free software tends to be a stripped-down version of a better program, but that's not the case with *Avast*: there's no difference between the free and paid-for versions other than price. If you use your PC for any commercial reason then you need to pay for it; otherwise you can have it for nothing.

The interface is horrible and a bit confusing. It's loud, too: when you carry out the daily update download, a male voice bellows that the database has been updated; if a virus is detected he's back again, this time with sirens.

Looks aren't everything
It might be ugly, but you can't argue with *Avast's* features. You get standard and heuristic scanning, real-time protection for email and newsgroups, protection for chat software and peer-to-peer programs, and some basic firewall features to protect you from network attacks. The email scan comes in two forms: a plugin for *Outlook* and a generic scanner that works with any standard email program. *Avast* scans your Web browsing, too, and if you wish the scanner can also kick in whenever your screensaver does.

Avast has passed both the XP and Vista versions of the VB100 test and its Virus.gr results were a very respectable 87 per cent, which is better than many pricey programs managed. The standard scan took 14 minutes but didn't include zipped files – if it had, speeds would be comparable to the other programs on test – and takes around 50MB of memory; in idle mode it sits at around 13MB.

Although it's officially just an AV program, *Avast* can also help battle spyware. Its Web filtering can spot intrusions and its network protection features operate as a basic firewall. We'd recommend supplementing it with spyware and firewall software, though.

PCAnswers VERDICT

Ease of use	●●●●○
Features	●●●●○
Performance	●●●○○
Value for money	●●●●●

It isn't pretty, but it's pretty good **85%**

EXPECT TO PAY
FREE

■ **PUBLISHER:** Grisoft ■ **WEB SITE:** http://free.grisoft.com
■ **FEATURES:** Anti-virus, email scanning, scheduled scanning

AVG Free Edition

In contrast to Avast, sometimes you do get what you pay for

AVG is probably the best-known free anti-virus program, and while it's a decent-enough scanner Grisoft makes it crystal-clear that it would prefer you to go for one of its paid-for products. As such, it's very limited. Like *Avast* it's free for non-commercial, personal use only; if you want to use it for a church group or charity then discounts are available on the "proper" products.

AVG is designed solely to fight viruses, so if you also want spyware protection then you'll need to download its sister anti-spyware program. There's no anti-spam or network filtering either, although the virus engine offers standard and heuristic scanning, real-time protection and email protection. The latter is available via plugins for *Outlook*, *Eudora* and *The Bat!* or by using the Personal Email Scanner for other programs. Updates are "regular"; when we tested the program the most recent update was just hours old.

Poor performance
You'd expect a stripped-down program to be fairly easy on your system, and you'd be right. You can choose between two performance modes, one of which emphasises scanning speed and the other which goes for the least impact on your PC's performance. If you go for the latter option *AVG* is hardly noticeable: in idle mode it took just 1MB of memory, although that increased to 34MB during our full system scan. A full scan took 42 minutes, although *AVG* didn't spot the worm lurking on our hard disk that every other program picked up. We suspect that was a lone bad example, though, because *AVG* routinely achieves VB100 awards (on both XP and Vista), and its Virus.gr results were a creditable 83 per cent. If you're short of cash and don't mind installing additional anti-spyware and firewall protection then *AVG* isn't bad, although we think *Avast* is better.

WHAT TO LOOK FOR

Extra protection
All anti-virus programs check your system for viruses, but viruses aren't the only Net nasties that you ought to worry about. Trojan horses can be used by ne'er-do-wells and villains to take control of your PC, often without your knowledge. So, for example, many spam emails come via normal people's PCs and the owners have no idea it's happening, while adware infests your system with invasive pop-up advertising. Many anti-virus programs can detect and disable such software.

PCAnswers VERDICT

Ease of use	●●●●○
Features	●●○○○
Performance	●●○○○
Value for money	●●●○○

Extremely basic virus protection **60%**
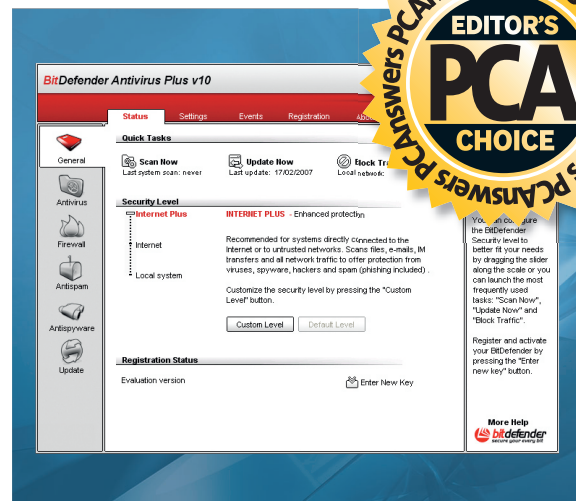
EXPECT TO PAY
£37

■ **PUBLISHER:** SoftWin ■ **WEB SITE:** www.bitdefender.co.uk
■ **FEATURES:** Anti-virus, anti-spyware, Web filtering, privacy protection

BitDefender Antivirus Plus v10

This gets you everything but the kitchen sink on two PCs, for two years

This is a tenth-anniversary edition of BitDefender Antivirus, so SoftWin's gone all generous. If you buy the product from the *BitDefender* Web site then you receive two licences and two years of updates for the same price many rivals charge for a one-user, one-year licence. You also get a dizzying array of features including hourly virus updates, P2P, chat and email protection, anti-spam, anti-phishing, privacy protection and site filtering. There's a solid firewall with a huge whitelist — so most of your programs should work happily without first having to tell the firewall what they are — and the email scanning and anti-spam filtering works with any standard email program.

Power and performance
While *BitDefender's* a comprehensive program, it isn't particularly demanding on your system. It needs about 12MB of RAM when running in the background, increasing to around 50MB when carrying out a full system scan. It's fast, too: a full system scan including zipped files took just 23 minutes. This isn't a case of more haste, less speed. *BitDefender's* a regular VB100 winner, most recently on Windows XP (the Vista version wasn't ready in time for the test) and the Virus.gr test detected 96 per cent of viruses.

You know a program's good when the worst thing you can say is that its interface isn't very pretty. However, while it's rather clunky to look at, the user interface can be as simple or as complex as you want. So, while it's possible to simply install *BitDefender* and forget about it, more advanced users can configure almost every aspect of its protection — from whether it zaps cookies to how the firewall should behave. If you want a single security program that does everything, *BitDefender Antivirus Plus* should be at the top of your shortlist.

PCAnswers VERDICT

Ease of use	●●●●○
Features	●●●●●
Performance	●●●●●
Value for money	●●●●●

All you need in a single package **95%**

UPGRADE
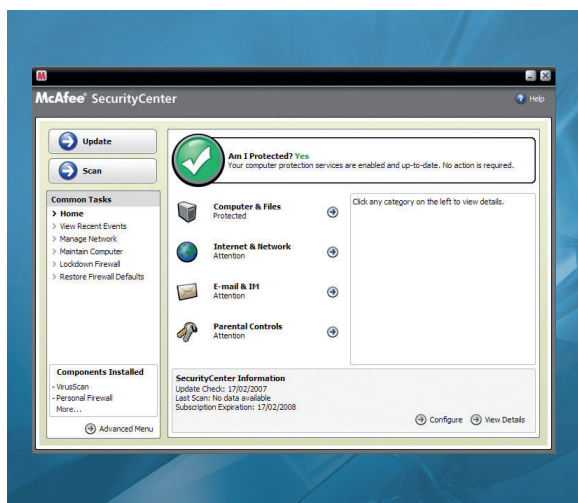
■ **PUBLISHER:** McAfee ■ **WEB SITE:** www.mcafee.com/uk
■ **FEATURES:** Anti-virus, anti-spyware, Web filtering, firewall

McAfee VirusScan Plus

The 2007 edition is an excellent all-rounder with lots of clever features

McAfee's VirusScan Plus adds some new features to its august VirusScan engine: anti-spyware, a firewall, McAfee Site Advisor to warn you of potentially malicious Web sites and a combined email virus and spam filter. You also receive daily updates, Web traffic filtering and system clean-up utilities. The latter items aren't much to get excited about – a disk defragmenter and a disk clean-up – but they're handy enough. More interestingly, the program includes Parental Controls that you can use to keep track of the kids' online activities, which could be handy on Windows XP (Vista has its own, very good, parental controls).

McAfee's user interface has always been fairly cheery, but the 2007 edition has been given a lick of paint to make things more attractive. It's easy to see what's going on and what needs attention, and configuring the program's components is straightforward.

Memory munching

Previous versions of McAfee software have been fairly demanding on our system hardware, and this edition doesn't buck the trend: with the various protection options enabled, *VirusScan Plus* grabbed around 50MB while running in the background and that figure doubled during full system scans. The scanner felt slow, too, and took 50 minutes to scan our hard disk. It's effective, though, with VB100 awards on XP (the Vista test failed due to an update problem) and an impressive 93 per cent score at Virus.gr.

Ultimately, *VirusScan Plus* is an excellent all-rounder that falls short in two key departments. It's a hardware hog compared to the other programs on test, and its single-user licence seems rather stingy compared to competitors' two- and three-licence deals.

WHAT TO LOOK FOR

Automatic scanning

Anti-virus programs all provide on-demand scanning, which means that they'll scan your system for viruses when you click the Scan now button. However, for maximum protection automatic scanning – sometimes called on-access scanning – means that files are scanned whenever you open them. For example, an automatic email scanner will check emails as they arrive, rather than wait for you to start a scan. The best programs offer both on-demand and automatic scanning.
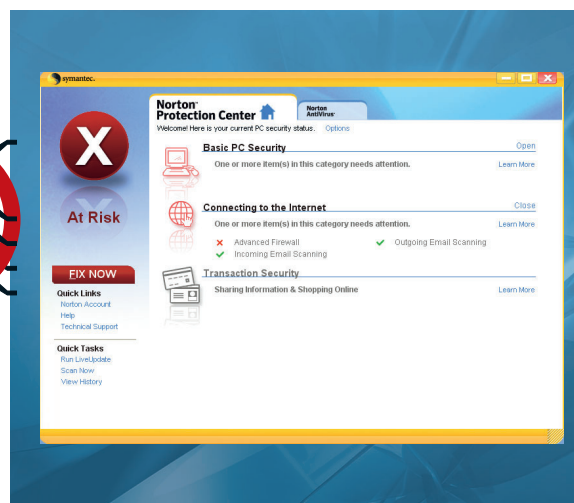
■ **PUBLISHER:** Symantec ■ **WEB SITE:** www.symantec.co.uk
■ **FEATURES:** Anti-virus, anti-spyware, email and IM scanning

Norton AntiVirus 2007

Basic protection from one of the best-known security firms... if you can get it to install

Norton AntiVirus 2007 is a no-frills security program without firewall, privacy protection or site checking. It's Vista-compatible via a free download and scans files, emails and instant messenger chats, and in addition to standard and heuristic virus checking it also scans for spyware.

We weren't looking forward to installing *AntiVirus 2007*. Over the years we've encountered endless problems running *Norton* products, because they go in a big huff if other security software is present or has ever been present. This time, though, we were prepared: we uninstalled every security program from our PC, rebooted, installed *Norton*, rebooted again and waited for it to load... and waited... and waited. After multiple reboots it was clear that *Norton* wasn't playing, so we tried to uninstall it. The installer crashed. We tried again. It crashed again. No matter what we did, we couldn't get *Norton* to work – so we had to find another PC.

Starting fresh

On a brand new PC *Norton* installs and works just fine. There's no obvious performance hit from the real-time scanner and even a full system scan is relatively undemanding, averaging 32MB of memory. We can't do a like-for-like comparison of scanning speed because we had to use a different PC, but a near-empty 60GB hard disk took 28 minutes to scan. *Norton's* scanning engine has achieved VB100 certification on both XP and Vista, and Virus.gr performance was good: an 83 per cent success rate.

Norton is a good program, but we can't recommend it without some serious reservations. Rival programs offer more features for similar cash, and our installation problems weren't the first time *Norton* software has made us swear.

PCAnswers VERDICT

Ease of use	●●●●●
Features	●●●●○
Performance	●●●○○
Value for money	●●○○○

Basic – and pricey – protection **70%**

PCAnswers VERDICT

Ease of use	●●●●●
Features	●●●●○
Performance	●●●●○
Value for money	●●●●○

Superb, but a little pricey **88%**
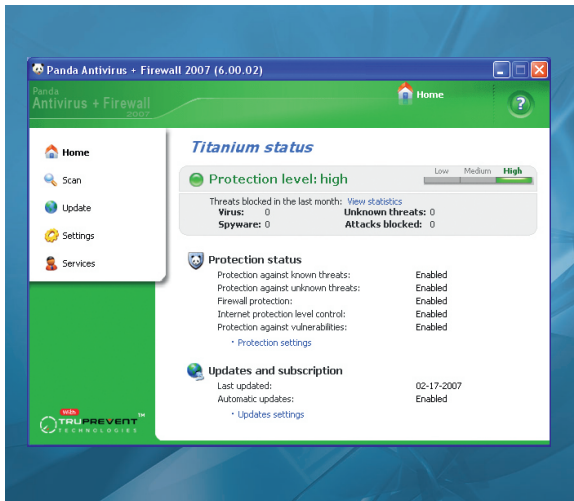
EXPECT TO PAY
£24

■ **PUBLISHER:** Panda Software ■ **WEB SITE:** www.pandasoftware.com
■ **FEATURES:** Anti-virus, anti-spyware, Web filtering, firewall

Panda Antivirus + Firewall 2007

Stacks of security features for up to three PCs on Panda's Titanium-coated product

Panda's been a busy bear of late: its anti-virus technology powers Tesco's own-brand security software, which is half the price of Panda's own offering. However, the proper Panda package is well worth the extra cash: the Tesco version uses an older version of Panda's Platinum system, while *Antivirus + Firewall* uses the Titanium product. Other than the age of the engine, the main difference is that Titanium is designed to be an install-and-forget product, with minimal configuration options.

In addition to standard and heuristic scanning, *Panda* offers anti-phishing protection, anti-spyware, anti-adware, daily updates, IM scanning, a firewall and malicious Web page filtering. There's no anti-spam protection, although the email scanner does offer heuristic virus scanning that works with any standard email program.

Bear necessities
Panda doesn't take part in the VB100 tests, but its anti-virus engine is certified by the other main anti-virus testing firms; in the Virus.gr test, it achieved a respectable 82 per cent detection rate. It's particularly good with adware: the default option is zero tolerance, so *Panda* even gets rid of cookies set by advertising banner networks.

There's a downside to all this power. Panda's software is even hungrier than McAfee's, taking around 70MB of memory when running in the background and nudging 200MB when running a full system scan. However, the scanning engine itself is fast, scanning our hard disk — zipped files and all — in just 19 minutes, and in everyday operation we didn't notice any effect on our system's performance. We wouldn't recommend installing it on a system that's already short of RAM, but if you've got room to spare then it's a fast and powerful security suite.

PCAnswers VERDICT
Ease of use ●●●●●
Features ●●●●○
Performance ●●●●○
Value for money ●●●●○
All you need, bar anti-spam **88**%

■ If you go for a paid-for anti-virus program, consider buying a two-year subscription rather than a standard one (where available): it works out a lot cheaper in the long run.

■ If you need more battery life on laptops or performance for gaming, disconnect from the Internet and disable your anti-virus software. Remember to enable it again before you reconnect.

■ Security software is just one part of the equation. Keep your system up to date with Windows Update and consider switching to more secure software such as the *Firefox* browser and *Thunderbird* email program.

■ The weakest link in any system is the person using it — software can only do so much. Always be suspicious of unsolicited emails and never open files that you weren't expecting to receive.

■ If your security software includes a scheduler, use it to schedule processor-intensive system scans for times when you won't be using your PC. Lunchtimes or early mornings are good times.
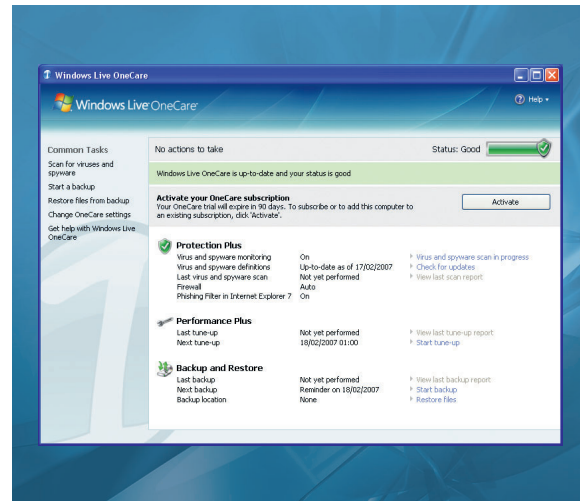
EXPECT TO PAY
£35

■ **PUBLISHER:** Microsoft ■ **WEB SITE:** http://onecare.live.com
■ **FEATURES:** Anti-virus, anti-spyware, Web filtering, firewall

Windows Live OneCare

Microsoft's oddly named software protects up to three PCs from major threats

As a newcomer to the world of anti-virus software, Microsoft knows that it's up against some serious competition. This explains why your money gets you a very un-Microsoft three user licences instead of the usual one, together with a generous 90-day trial period before you have to pay for it. The package includes the usual anti-virus and anti-spyware scanning, which also scans email attachments and instant messaging chats, but they're supplemented with an interesting mix of features.

OneCare offers a two-way firewall (unlike Windows Vista's firewall, the one in Windows XP can't be configured to block outgoing traffic) and a backup and restore feature. The anti-phishing system is just *IE7's*, while Performance Plus, which promises to tune up your PC, simply adds scheduling to Windows XP's own disk defragmenter and clean-up tools.

OneCare working
System requirements are average — PC *OneCare* grabbed 34MB of memory when running in the background and around 50MB during a system scan — and there was no noticeable problem with our PC's performance. *OneCare's* scanner is reasonably quick, too, and scanned our entire hard disk in just 30 minutes. However, a number of problems have been found in *OneCare*, and it's virus detection abilities are under question as several labs have found that it fails to detect a large number of critical problems. The Vista version has fared even worse, and there have even been problems with it deleting the .pst file in *Outlook*, which holds all your email, when it quarantines a virus (see news on page 8). *OneCare* certainly has potential, and some good features, but has too many problems for us to be able to really recommend that you use it, at this time.

PCAnswers VERDICT
Ease of use ●●●●●
Features ●●●●○
Performance ●●●○○
Value for money ●●●○○
Solid features but flawed **60**%

UPGRADE

And the winner is...?

They all did the job in hand, but one AV package stood out from the rest of the field

In much the same way that you can't really buy a bad car, you can't really buy a bad anti-virus program. All seven packages in our test boast certification from the major anti-virus test centres, and whichever one you choose you can be confident that you'll be protected from the most common forms of Net nasties. However, some programs offer more comprehensive protection than others, and in best Big Brother style we need to evict six of them from our PC so that only one remains.

If this were Anti-Virus Big Brother, *AVG* would be the first to go. It's not a bad program by any means, but it's very basic and its free rival *Avast* is better. We'd boot *Norton AntiVirus* immediately afterwards, partly because of the installation problems — there's

no point in having security software if you can't persuade it to work — but mainly because rival programs offer more comprehensive protection for similar or even less money. *Windows*

goodbye to *McAfee*, a good all-rounder let down by a slow scanner and a comparatively stingy one-user licence. *Panda* has to go, too. Again it's an excellent all-rounder, but while it's

> **If you'd rather buy a one-box solution to all your security woes then BitDefender is the one product that we'd recommend**

Live OneCare suffers a similar fate: there are too many questions over its performance at this time.

Free or paid-for AV?
You can't go wrong if you choose any of the remaining programs, but we need to be ruthless and pick an outright winner. This means waving

cheaper than *BitDefender* and offers a three-user licence it doesn't have *BitDefender's* anti-spam system and it needs a reasonable amount of spare RAM to strut its stuff.

The final verdict really depends on what kind of user you are. If you want free software and you're willing to add your own spyware scanner and

Features
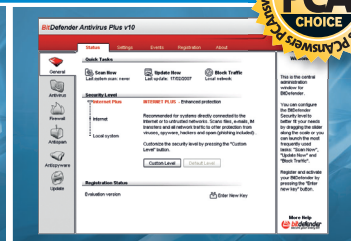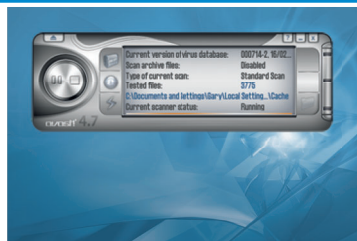
| Product	Avast 4 Home Edition	AVG Free Edition	BitDefender Antivirus Plus v10
Heuristic scans	Yes	Yes	Yes
Anti-spyware	Yes*	No	Yes
Anti-spam	No	No	Yes
Anti-phishing	No	No	Yes
Web filtering	Yes	No	Yes
Firewall	No	No	Yes
Identity protection	No	No	Yes
Updates	Daily	Daily	Hourly
Licence	One PC	One PC	Two PCs
Free updates	Indefinite	Indefinite	Two years
Price	FREE	FREE	£37
Contact	www.avast.com	http://free.grisoft.com	www.bitdefender.co.uk
Verdict	85%	60%	95%

* Via Web filtering

firewall, go for *Avast*. While its interface is horrible and its audio downright frightening, it's very effective and you can't argue with a price tag of zero. Remember, though, that *Avast* is only free for home, non-commercial use. So, if you use it on a work PC or a PC that generates any sort of income, you don't qualify for the free licence.
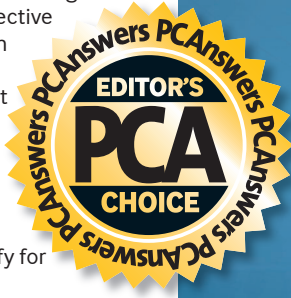
If you'd rather buy a one-box solution to all your security woes, though, *BitDefender* is the one we'd recommend. It can spot even the most obscure viruses, it protects you from spam, phishing and privacy breaches, it comes with a two-user licence, and you receive two years of updates. Power users can tweak every aspect of the program to suit themselves, but if you fancy an easy life you can simply install it and forget it's there. Of all the anti-virus programs, *BitDefender* is the one that we'd put on our own PCs. **PCA**
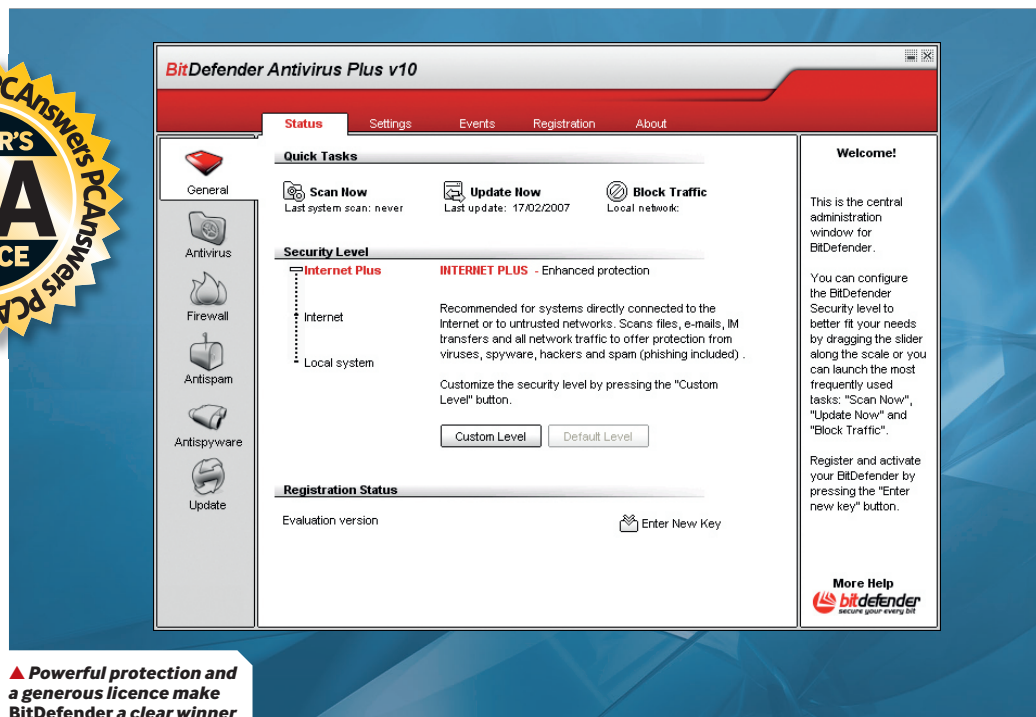
▲ **Powerful protection and a generous licence make BitDefender a clear winner**
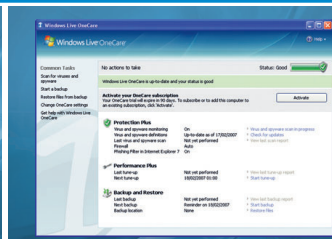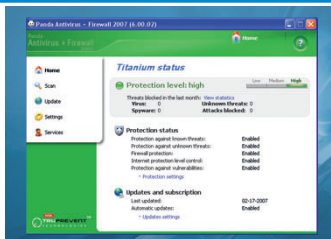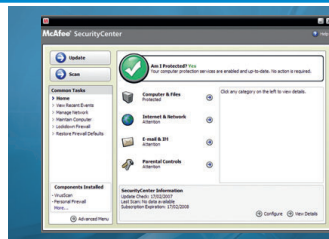
	McAfee VirusScan Plus 2007	Norton Antivirus 2007	Panda Antivirus + Firewall 2007 Titanium	Windows Live OneCare
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	No	No	No	No
	Yes	No	Yes	No**
	Yes	No	Yes	No
	Yes	No	Yes	Yes
	No	No	No	No
	Daily	Daily	Daily	Not stated
	One PC	One PC	Three PCs	Three PCs
	One year	One year	One year	One year
	£36	£30	£24	£35
	www.mcafee.com/uk	www.symantec.co.uk	www.pandasoftware.com	http://onecare.live.com
	88%	70%	88%	60%

** Uses *Internet Explorer's* anti-phishing system

UPGRADE