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Instructions p6

Computer **active**

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From the Editor

One of things I like about editing *Computeractive* is that it grants you many 'when I were a lad' moments. Such as: when I were a lad, a dashboard was only in your car. It's still there, of course, but dashboards are now on computers too – as panels of settings.

We've seen lots of 'privacy' dashboards recently, as companies try to reassure users their personal data is safe. Microsoft's new dashboard is welcome, but it's not clear what you should do with each setting. In our Cover Feature we go through it step by step.

I wasn't quite a lad when *Computeractive* launched in 1998, but I was definitely a



springier chicken. With our 500th issue weeks away, we want to hear about how computing has changed for you in the past 20 years. Please turn to page 54 for details.

Daniel Booth

editor@computeractive.co.uk

• **PS:** Our 2016 Back Issue CD is now on sale on Amazon: www.snipca.com/23209.



THIS ISSUE IN NUMBERS

£55

Price of the Tinker Board, Asus's new micro-computer – **p49**



7%

Rise in BT's broadband prices from April – **p7**



1.7bn

Number of "bad adverts" Google removed in 2016 – **p9**



HOW TO USE SNIPCA URLs

We use snipcas to turn long URLs that are hard to type into ones that are short and simple. They aren't websites themselves, which means they won't be recognised if you type them into Google. Instead, you need to type them into your browser address bar, then press Enter. Doing this will take you to the correct website.

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Make sure your PC monitor shows its true colours by making these tweaks



Update Your WINDOWS PRIVACY SETTINGS

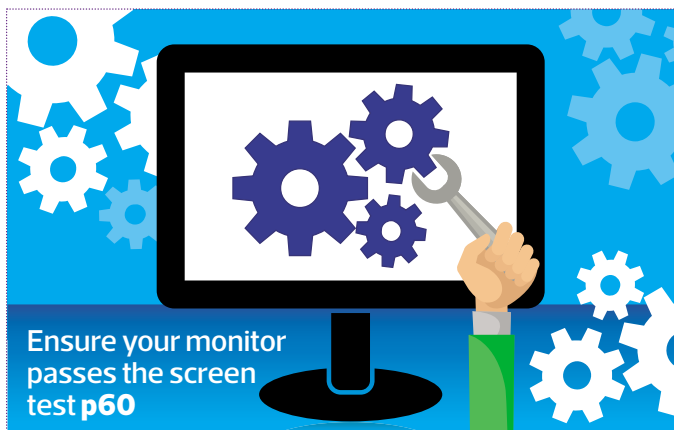
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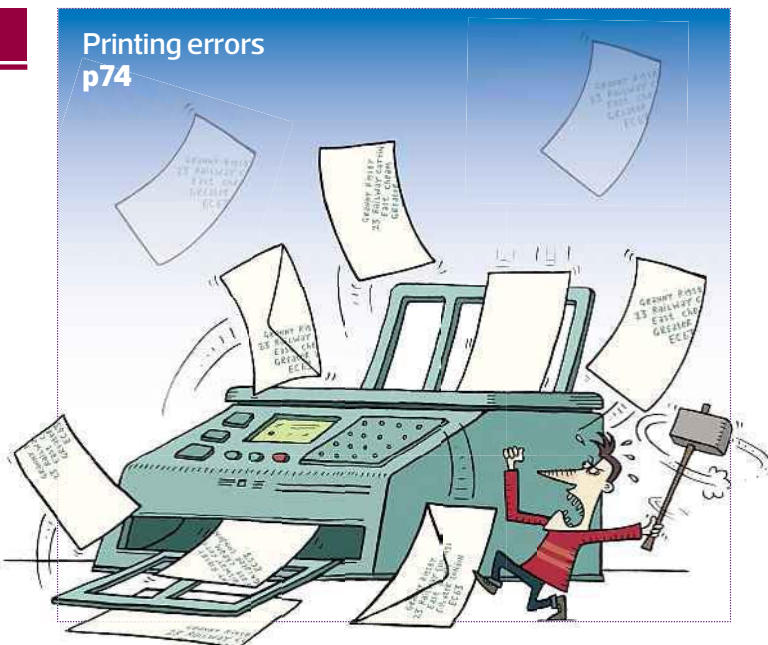
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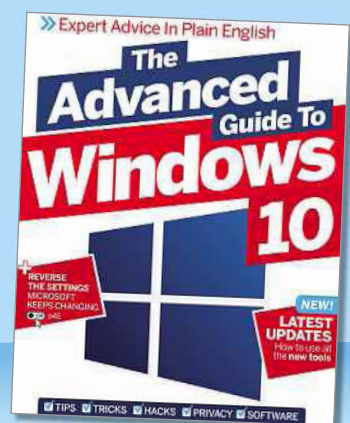
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Netgear releases 31 router fixes as 'millions' are at risk

A security researcher has revealed how he exposed a flaw in Netgear routers that allows hackers to access admin passwords, forcing the company to issue emergency fixes for 31 models.

Simon Kenin from Chicago-based security company Trustwave, said that he discovered the vulnerability early last year. In a blog post (www.snipca.com/23360), he writes that he needed to reset his Netgear router, but was "tucked in bed, cosy and warm", and so didn't want to go downstairs.

He chose instead to reboot the router via its website, but couldn't recall the password. He tried to recover it by hacking the website's security.

After some trial and error, he found "a totally new bug" that would allow a hacker to easily steal your log-in details if they were on the same Wi-Fi



network. They could also do so from another network if your router had remote-management turned on (it's disabled by default on Netgear models).

He reported the flaw to Netgear, which last June admitted that 18 models were at risk, and released **firmware** updates to fix the vulnerability.

Since then Trustwave identified more Netgear routers it claims are vulnerable, but for which the company hadn't released updates. In January, just as the researchers were

about to announce these new flaws publicly, Netgear contacted them to say that it would release fixes.

Kenin claims that while Trustwave found more than 10,000 vulnerable devices, the total number is "probably in the hundreds of thousands, if not over a million".

What you must do

If you have a Netgear router you should visit www.snipca.com/23359, where the company has published links to firmware updates for 19 routers, including nine in its Nighthawk range (one of these, the R7000, is pictured above).

Check the list for your router model, then click the link to go to the firmware download page and follow Netgear's instructions. They recommend downloading the update on a wired connection, because

COMMENT

These flaws will further damage the reputation of router manufacturers. For too long they've neglected security, complacently assuming that hackers will continue to target computers directly. But thwarted by improved antivirus on PCs, criminals are increasingly looking for holes in other types of web-connected devices. Routers are top of their list. Thankfully, security researchers can be just as motivated by money as hackers, so Netgear's reward scheme should mean that the good guys spot the flaws first. Every time they do we'll explain what you need to do to stay safe.

Wi-Fi can potentially cause "disconnect issues".

Netgear hasn't released an update for the other 12 routers, and so as a temporary solution it is suggesting you reset the password-recovery feature (following the instructions at www.snipca.com/23363). You should then disable the remote-management tool using the instructions in your user manual. You can find this at www.netgear.com/support.

• For more help email techsupport.security@netgear.com.

SECOND NETGEAR FLAW IN TWO MONTHS

Trustwave's revelations follow separate claims in December that Netgear's routers were vulnerable. Netgear released firmware updates after the US Government's Computer Emergency Readiness Team (CERT) called the flaws "critical". They said it was easy

for hackers to hijack the router and force their victim to visit a website containing malware.

The flaw was detected by a researcher who calls himself AcewOrm. He told Netgear about it in August 2016, but had no response until December. The company apologised,

saying his email had been "overlooked". It now offers rewards of \$150 to \$15,000 to researchers identifying security flaws (<https://bugcrowd.com/netgear>).

Visit Netgear's website for links to the updates: www.snipca.com/23361.



You'll like this...

The EU will end roaming charges in June (www.snipca.com/23364)



... but not this

Google blocked NHS staff searching online (www.snipca.com/23365)

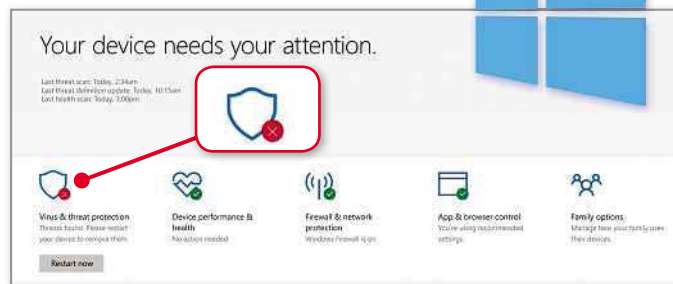
Microsoft: New W10 app will make PC security easier

Microsoft is planning to release a Windows 10 app to make it easier for you to control your computer's security and performance.

Due to arrive in the Creators Update this spring, the Windows Defender Security Center will let you check what Microsoft calls "the five pillars of protection". These are virus and threat protection, device performance and health, firewall and network protection, app and browser controls, and family options.

The company said that it wants "to help you become more informed and make safety simple" so that the "bad guys" never have the chance to harm you. The Security Center will let you scan results direct from Windows Defender (or let you launch any other antivirus you have installed).

Each pillar is displayed as an



icon alongside ticks (if all's well) or crosses (if something needs your attention). In the screenshot above, for example, there's a cross next to 'Virus & threat protection' to indicate that threats have been found and you should restart your PC to remove them.

The Security Center, not to be confused with the Windows Defender app, is Microsoft's latest 'dashboard', a new trend on websites and in operating systems to simplify settings and controls (see also the new Privacy

Dashboard, Cover Feature, page 50).

You can open the app now if you're signed up to the Windows 10 Insider Program – just press the Windows key, then type **defender security center** and click the result at the top. Select the 'Trusted Windows Store app' option.

Visit Microsoft's Windows 10 blog for details on the app, including a video of it in action: www.snipca.com/23354.

Does your antivirus do more harm than good? See Question of the Fortnight, page 11.

IN BRIEF

EMAIL BLOCKS UNSAFE ATTACHMENTS

Gmail has blocked JavaScript attachments – which arrive as .js files – because they are increasingly being used to spread malware. If you try to upload one you'll see a message saying it's been blocked for "security reasons". If you urgently need to send a .js file, Google recommends doing so via Google Drive instead. Find out more on the company's blog: www.snipca.com/23312.

USE WI-FI TO PHONE ON THREE

Phone network Three now lets customers make calls and send texts through Wi-Fi without needing to install the company's InTouch app. When you can't get a phone signal, your device will switch automatically to Wi-Fi. It will be available on most new iPhones, and selected Android phones, including the LG G5 and Samsung Galaxy S6. EE and Vodafone already offer Wi-Fi calling, leaving O2 as the only network not to. Three's website has more details: www.snipca.com/23305.

Customers 'scared to switch broadband'

Fears of being without a connection for weeks are forcing customers to stick with unreliable broadband, according to new research.

A survey from broadband-comparison site uSwitch found that 35 per cent of people stick with their internet service provider (ISP) because they're worried that switching to a new one would be so problematic that it

would leave them without access to the web for a significant period of time.

uSwitch says only 10 per cent of customers have moved ISP in the past year, while a third have never switched, meaning that millions of people miss out on better deals. The website estimates that the average customer would save £118 a year.

Its study suggests that fears

of a 'broadband blackout' are well founded. Ten per cent of people reporting a delay while switching said that they were left for a week without access to the web. Around six per cent had to wait three weeks.

These are the worst extremes. When it comes to average waiting periods, the problem is worst in London, where customers have to wait an average of 2.3 days.

Currently, ISPs have to tell customers when a switch is likely to be completed. uSwitch called for further action by asking the Government to introduce a system that forces ISPs to compensate customers if they miss this deadline.

Does a 'broadband blackout' put you off switching? Let us know at: letters@computeractive.co.uk



Tomorrow's world

Researchers think robots can help solve the crisis in



social care. Academics from Middlesex University and the University of Bedfordshire are working on a £2m project to turn the Pepper Robot (pictured) into an "assistive, intelligent" android that can treat people in care homes and hospitals. Read more at www.snipca.com/23303.

Haggle to avoid BT's 'absurd' broadband price rises

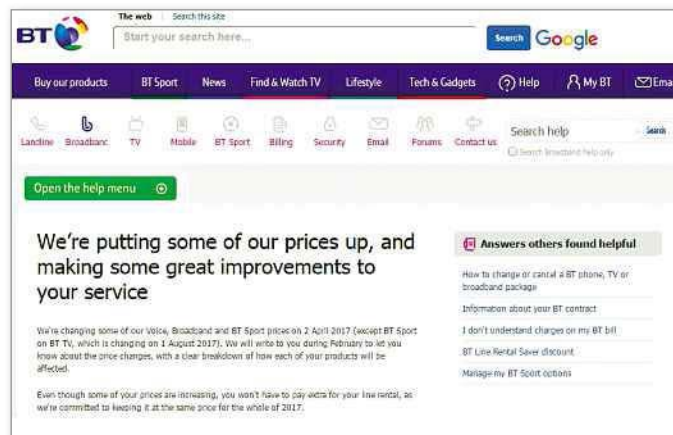
BT has indicated that you can haggle to avoid the large broadband price rises due this April.

On its web page confirming the price rises (www.snipca.com/23277, see screenshot), BT says that if you're unhappy about the increases you can get in touch to help "save with our great deals and make sure your bill is the best it can be for you".

The new prices, effective from 2 April, see the cost of BT's broadband rising by up to seven per cent – much higher than the rate of inflation, which is currently 1.6 per cent

Customers on the Unlimited Broadband package will pay £2 more each month, while bills for those on BT Infinity fibre broadband will rise by £2.50.

The price of BT Basic, the subsidised service for people on low incomes, stays at £5.10 per month. Line rental remains at £18.99 a month,



but the cost of calls per minute is going up by a penny.

BT says the rises will pay for better customer service, including more call centres in the UK, and faster compensation payments for broadband problems. But one industry analyst slammed the increases as "absurd".

Dan Howdle from broadband-comparison site Cable.co.uk said BT's customers would be "fuming" that prices were rising above

the rate of inflation. He added: "As a BT customer you do get a vote in this – but it's a vote with your feet".

BT says it will soon send letters to customers to explain the price rises, which by law it has to do at least 30 days before they are implemented. You then have another 30 days to cancel your contract without charge.

Please let us know if you haggle a better deal with BT: letters@computeractive.co.uk

IN BRIEF

WAVE BRITISH FLAGS AS EMOJIS

You'll soon be able to use the flags of England, Scotland and Wales as emojis following their approval by Unicode Technical Committee. This is the body of tech companies, including Google and Apple, that decides what new emojis should look like. The Union Jack has been available for several years, one of 1,851 emojis that are allowed. See what they'll look like at www.snipca.com/23276.



MPs TELL GOOGLE TO SORT OUT FAKE NEWS

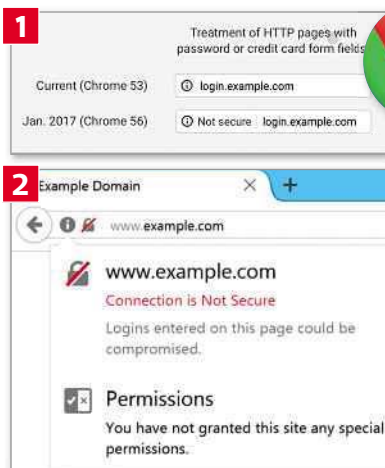
MPs have asked Google and Facebook to create a tool that helps readers spot fake news, following reports that it helped to influence the US election. The House of Commons culture, media and sport committee has launched an inquiry amid fears that untrue stories could harm democracy. Read its aims at www.snipca.com/23278.

Chrome and Firefox show HTTP warnings

Chrome and Firefox now warn you if you are about to submit information on an unsafe website, thereby helping to prevent hackers from stealing your passwords and bank details.

The browsers, run by Google and Mozilla, show you when a site uses the old, insecure HTTP internet connection, rather than the safer HTTPS. These are the protocols that allow data to be sent via the web.

In Chrome safe sites are indicated with a green padlock icon at the top left of the browser bar. This will be replaced on unsafe sites by the words 'Not secure' (see screenshot 1). In Firefox the warning will be a grey padlock



with a red line through it (see screenshot 2).

The warnings, tested in the beta versions of the browsers last year, are more explicit than before – Google and



Mozilla said that users weren't noticing them.

The warnings will appear in the latest versions of the browsers – Chrome 56 and Firefox 51. To find out your version in Chrome click the top-right menu (three vertical dots), hover your mouse over Help, then click 'About Google Chrome'.

In Firefox, click the top-right menu button (three horizontal lines), the question mark at the bottom, then About Firefox.

Tomorrow's world

Is nowhere safe from the selfie?

You may soon have to dodge them at the fairground, if 'selfiecoasters' start popping up. Research from Sony says that half of "thrill seekers" would like to record their terrified expressions on white-knuckle rides. Sony has even imagined what they may look like (above). Think we'll stick with the dodgers.



HP recalls exploding laptops – is yours still safe to use?

HP has issued a worldwide recall of 100,000 laptops that pose a serious fire risk. The company admitted they contain a faulty Panasonic battery that could overheat and burn people.

It's an extension of the recall that HP ordered in June 2016, when the company warned that 40,000 laptops were faulty.

It affects HP, Compaq, HP ProBook, HP ENVY, Compaq Presario, and HP Pavilion laptops bought between March 2013 and October 2016. The company urged customers to check the model number of their laptop's battery – those at risk begin with 6BZLU, 6CGFK, 6CGFQ, 6CZMB, 6DEMA, 6DEMH, 6DGAL and 6EBVA. You'll find this on the battery's barcode (see image).

Alternatively, you can run HP's program to check whether your battery is



affected. Type the following URL and the download will start automatically: www.snipca.com/23271.

If your battery is faulty, visit HP's website (www.snipca.com/23270), click the 'Validate & Order' tab, then fill in the details of your laptop, including its serial number. You need to enter your email address so HP can validate your claim and send you a free replacement.

HP said that customers who had their batteries replaced after the initial recall don't need to check. But customers

whose battery was given the all-clear should check again. For more information click the FAQ tab on HP's site.

The recall came a few days after Samsung confirmed that two battery faults had been causing its Galaxy Note 7 phone to explode. The company recalled around 2.5 million phones last September amid reports of them overheating and catching fire, and stopped making them the following month. Read the company's announcement at www.snipca.com/23245.

Microsoft: Brexit won't make us quit the UK

Microsoft has denied that Brexit will force the company to abandon its plans to build more data centres in the UK.

It responded quickly to quash rumours following comments made by its government affairs manager, Owen Larter, who said that import tariffs on hardware may mean it invests in other European countries instead.

Taking part in an online seminar titled 'What Brexit Means for Tech', he said: "If all of a sudden there are huge import [tariffs] on server racks from China or from eastern Europe, where a lot of them are actually assembled, that might change



our investment decisions".

He also warned that future restrictions on the transfer of data from the EU to the UK could cause problems for Microsoft.

Microsoft tried to downplay fears by issuing a statement online: "The comments reported by a Microsoft employee were not reflective of the company's view. As we

have said both before and after the EU referendum vote, Microsoft's commitment to the UK is unchanged".

It added: "We have more than 5,000 highly qualified people working in fields including support, marketing, gaming, communications, cybersecurity and computer science research".

Microsoft has three UK data centres – in London, Durham and Cardiff. These are large groups of computer servers used by organisations to remotely store and process data. NHS trusts and the Ministry of Defence are among those who use Microsoft's service.

IN BRIEF

GOOGLE REMOVES 1.7BN MALICIOUS ADS

Google removed 1.7 billion "bad" adverts from the web in 2016, more than double the number the year before. These included adverts that sold illegal goods, promoted "unrealistic" offers and infected computers with malware. Google's Scott Spencer said that in 2016 the company expanded its banned list to include, for example, payday loan adverts. Read his blog post at www.snipca.com/23254.

PAY AT TESCO WITH YOUR PHONE

You can now pay for goods at every Tesco store using its PayQwiq phone app, following a successful trial at half of its supermarkets. The app works like contactless payment – you scan your phone at the till to pay (£250 maximum). If you register before 7 May, Tesco will give you 50 free Clubcard points for each of your first 10 transactions. Visit www.tesco.com/payqwiq-app for more information.



GET SKY TV THROUGH THE WEB

Sky is to offer its full TV package entirely over the internet, targeting customers who can't or won't install a satellite dish. The service will be an extension of Sky Q, which already requires a web connection to stream on-demand content. Sky said it will launch in 2018, but didn't confirm any details, such as minimum broadband speed required.



Named & Shamed

Jane Hoskyn puts the boot into tech villains, jargon-spouting companies and software stuffed with junk

JUNK OFFENDER: AHEAD

Junk offender: Skype

It's taken me a year to get round to installing Skype on my Windows 10 PC. It then took me 10 minutes to get round to uninstalling it – at which point I discovered that Skype is one of a few junk offenders that pushes rubbish on the way out as well as on the way in.

In case you weren't sure, Skype doesn't come pre-installed with Windows 10. Since the Anniversary Update, Windows 10 has included an app called Skype Preview. If you want Skype itself, though, you have to download and install it. That's a pain for us, and an opportunity for Skype's owner Microsoft to force-feed our hard drives with Bing and MSN – the slime at the bottom of its software fridge.

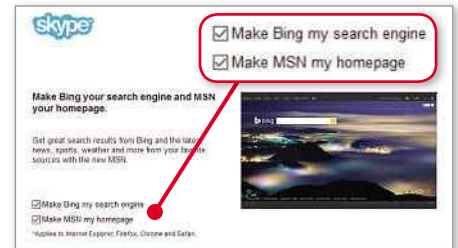
Skype's latest version includes new call-forwarding and voicemail features, but its installer contains the same old



junk: 'Make Bing my search engine' and 'Make MSN my homepage' (see screenshot). These pre-ticked extras sound inoffensive, but if you click Continue without unticking them, you're in for a nasty shock. You'll find your browser taken over by an unwanted toolbar and search engine that are tough to remove.

What a way for Microsoft to reassure users. In recent months, hackers have used Skype to spread spam and even **key-logging Trojans** (see Protect Your Tech, Issue 479). Skype needs to fix its reputation, and bundling **browser-hijacking** adware in its own installer is no way to go about it.

Anyway. After being put in a foul mood by Skype's installer, I was further rattled by the program insisting on running automatically when I started my PC. I decided to uninstall it – and that's when it forcibly opened Internet Explorer (IE)



Microsoft is still pushing its Bing and MSN browser hijackers in Skype's installers

and displayed a terrifying 'crying face' emoji. It then told me to 'set up' IE. I'd rather eat my keyboard sideways, thanks. Once I'd removed Skype I had to clear more than 45MB of leftover junk from my ProgramData and AppData folders, and my Registry.

You know what, Skype? I can live without you. Google's brilliant Duo app (<https://duo.google.com>) is more than a capable alternative. It may only work on phones and tablets for now, but it provides free video calls with no hassle and – so far – zero junk.

What are they talking about?

What they say

Android Developers Blog
(www.snipca.com/23348):

"With these factors in mind, we then focus on retention. An app's retention rate is the percentage of all retained devices that downloaded the app in one day. Because retention is a strong indicator of device health, we work to maximize the ecosystem's retention rate."



What they mean

Android apps that users uninstall quickly are more likely to be malicious (or just rubbish) than apps that users keep for a long time.

Jane's villain of the fortnight

IObit Start Menu 8

IObit Start Menu 8 describes itself as free, and it is, eventually. But only after you install it, discover it's a trial for a paid-for program, and then uninstall it – at which point you're offered Start Menu 8 for free.

This is the software equivalent of ringing up your internet service provider to say you've decided to dump them after 10 years, only for them to offer a much cheaper deal to make you stay. Loyalty is never rewarded in the world of tech. Instead, you're pushed into playing a game of tease. It may not quite be villainous but it is pathetic.

Oh, and IObit Start Menu 8 is a **PUP**-peddler as well. After you click Free Download to get its installer



(www.snipca.com/23370), you'll see a pop-up with two buttons. The one on the right installs a browser hijacker. I recommend clicking neither button. Actually, I suggest not downloading it at all. I prefer Start Menu X (www.startmenux.com), whose installer has a very clear 'Free version' button.

Have you spotted any sneaky upgrade traps? Email us at editor@computeractive.co.uk

Question of the Fortnite

Does your antivirus do more harm than good?

A "rogue developer" urges users to uninstall their security software

Ever since antivirus (AV) products began appearing in the 1980s people have questioned whether they are necessary. Sceptics accuse security companies of exaggerating the threats, with some claiming that they even create malware to sell more software.

Former Firefox developer Robert O'Callahan doesn't go that far, but in a recent blog post (www.snipca.com/23283) he urged Windows 10 users to uninstall their AV (he describes all AV sellers as "terrible"). Controversially, he said that Windows Defender is all you need.

He painted himself as a whistleblower, saying that because he no longer works for Mozilla (which runs Firefox) he's "free" to lift the lid. There's "negligible evidence" that AV boosts your defences, he said, adding: "more likely, they hurt security significantly". For evidence he points to AV flaws discovered by Google's Project Zero, which was set up in 2014 to detect **zero-day vulnerabilities**.



O'Callahan claims that AV companies don't "follow standard security practices", in contrast to the "generally competent" Microsoft, and that their products can "poison" other types of software. He draws on his experience with Firefox, blaming AVs for blocking security updates to the browser. Fixing this required "major amounts of developer time".

His comments have been slammed by AV testers, although they do accept that security software can cause problems. Security blogger Graham Cluley acknowledged that AV "sometimes suffered from its own flaws and vulnerabilities", but people would still be "crazy" to use the web without one.

But was O'Callahan right to recommend Windows Defender? The latest analysis would suggest not. It was the worst AV in our recent test (see Issue 493, left), failing to block 10 of the 84 threats it was exposed to. Respected AV

tester Simon Edwards, who runs SE Labs (<https://selabs.uk>), says that while Windows Defender is better than it used to be, rival programs "are consistently stronger".

Edwards says that he understands O'Callahan's frustration with AV, but calls his advice "misguided". He says that no AV is perfect, but it's "just plain wrong" to say that they are all "equally ineffective".

But it would be a mistake to dismiss O'Callahan as a lone dissenter. Other security developers share his view, including Chrome's Justin Schuh. He said on Twitter that "worthless" antivirus code delayed the introduction of features in the browser.

He pointed the finger at AV companies: "I expect it's possible to make an [antivirus] that isn't more harm than good, but none of you are even trying". There are likely to be many developers who hate the changes AV makes to their software.

Yet rather than a reasoned

THE FACTS

- A former Firefox developer says that Windows Defender offers enough protection, and that antivirus programs "poison" computers
- Antivirus testers have attacked his claim, saying that security software is essential
- Windows Defender was the worst performing antivirus program in our latest group test (see Issue 493)

plea for cooperation, O'Callahan's blog feels like an irrational howl of frustration. He says that "rogue developers" are prevented by their employers from criticising AV companies because they need their help when things go wrong. But any credibility in his argument is undermined by his reckless advice to ditch security software.

Edwards says O'Callahan's view is typical of developers who "make it their life's mission" to find flaws in AV, and overreact by saying that you don't need it. They do agree on one thing though: staying safe means updating your operating system.

They do agree on one thing. O'Callahan updated his blog to say that AV is needed on Windows XP and 7 to make you "slightly less doomed". But that doesn't mean Windows 10 is safe without it. Our advice remains unchanged – always run an AV, and always install Windows security updates.

Letters

Tell us what's on your mind

Email: letters@computeractive.co.uk




Facebook: www.facebook.com/computeractive



Twitter: @ComputerActive

www.twitter.com/computeractive

I blacklist sites with 'obnoxious' adverts


 Ken Rigsby never spoke a truer word than when raging against 'obnoxious web adverts' in Issue 494 (The Final Straw). I accept that websites need adverts. It never bothered me in the early days of the web, when the ads were fairly tame. They didn't blare loud music, or devour your screen. But times have changed, and the internet has become almost unusable at times because of adverts. It's not so much the volume of adverts as their style. A TV equivalent would be an advert popping up over a programme, obscuring half the screen, rather than waiting for the traditional commercial break.

They are clearly designed to be impossible to ignore, but that just doubles my resistance to them. Every time a site pollutes my screen with an advert I add it to my personal blacklist, and refuse to visit it again. I know lots of people who do the same thing. Eventually, websites will realise that intrusive adverts are counter-productive, and there will be a return to less annoying ads that people won't object to.

Donald Cairns



Aluminium cables slow down my broadband

 Re Bill Munns' letter in Issue 493 ('Aluminium wires slow down broadband'), he is absolutely spot on. My estate in west London suffers from aluminium telephone cables. They won't be replaced unless it's impossible to make telephone calls, so we are stuck.

Almost every broadband article I've read mentions copper cables running from the cabinet to the house, but this is not the case for many homes, specifically the 900,000 houses mentioned in your article (News, Issue 492, page 9). In my case, the cabinet pushes out 58Mbps (according to the engineer), but this slows to 23Mbps by the time it reaches me – 800 yards away in terms of cable length, but only 200 yards as the crow flies.

Peter White

BT must block fake-caller IDs

 I signed up this week for BT Call Protect (www.bt.com/callprotect – see News, Issue 494, page 8), and was delighted to discover that unwanted calls (including withheld, unavailable, international and blacklisted) can be stopped before they reach the home phone. Many so-called call-blocking phones don't actually block calls – they merely suppress the ringer, leaving the caller none the wiser as to why the call isn't being picked up. This doesn't matter for unwanted calls, but some legitimate calls don't get through because the calling organisation withholds the caller ID (our local NHS does this).

BT Call Protect plays the caller a statement, such as "Welcome to 1572. The person called is not accepting anonymous calls. Please redial without withholding your number, or leave a message". Our GP called my wife this morning, heard the announcement, and knew immediately he had to redial using 1470.


However, Call Protect has a major failing. It does not detect incoming calls with a fake-caller ID. We are receiving unwanted sales calls from a company selling new boilers under the Government's boiler-scrappage scheme. These guys are one step ahead because they use different fake-caller IDs each time they ring. But why aren't these numbers on the BT blacklist? Whenever I make a phone call, the exchange checks



the number dialled and then routes the call to the destination, but will recognise an invalid number and play the message "the number has not been recognised". So why isn't BT Call Protect using this database?

David Bickell

Microsoft's help line is 'a revelation'

 When I tried to update to the Windows 10 Anniversary Update it all worked fine until I did the final reboot, and found that the Start menu would not open. Also, I couldn't access the Windows Store, and the Action Center notification wouldn't work.

I looked for solutions online, but didn't feel confident enough to try them. I ended up using Microsoft's tech help online chat (www.snipca.com/23247). I was surprised to talk to someone almost immediately, and they assured me they would resolve the issue. Three attempts were made by three different assistants, using some of

Out-foxed by vulpine hackers

 I'm surprised that foxes didn't make the list of animal hackers suggested by Cris Thomas (News, Issue 494, page 9), along with squirrels and birds. It seems that they aren't satisfied with simply ransacking my bins, or leaving little 'presents' for me to stand in. Twice in the past few months foxes have chewed through the lead for my robotic lawnmower, causing much annoyance.

It means I've had to pay the local handyman to

mow my lawn, making me wonder whether he is in cahoots with the foxes, and they get a cut of his money. Fortunately, they've not affected my broadband yet, but I bet they'll soon

learn how to open BT's cabinets and nibble away.

I would like to appeal to *Computeractive* readers, who I suspect have had similar problems with foxes. How can I stop these vulpine villains? How can I out-fox them?

Brenda Dack



the fixes suggested in online forums, but the problems remained.

The issue was elevated to a 'Tier 2' assistant. As no one was immediately available a callback was arranged for the next day. This happened exactly as promised, and the problem was fixed within half an hour. It simply involved updating the GeForce **graphics card**. It took a while but Microsoft came through in the end. Their customer helpline has been a revelation.

Bruce Robertson

Wanted: old Computeractive Back Issues CDs

✉ Are there any *Computeractive* readers who would like to dispose of their older Back Issue CDs? If so, I would gratefully receive them. I have CDs numbered 1, 8 and 9, plus those for the years 2013 and 2014. I would love to fill the gaps. Having said that, if someone offers a complete run I would also accept that gladly.

Margaux Sanders

CA says If you would like to pass on your old CDs to Margaux please email us (letters@computeractive.co.uk) and we'll get in touch with her. The 2016 Back Issue CD is now on sale on Amazon: www.snipca.com/23209.

Good riddance Comodo: my tablet is now faster

✉ Being a semi-professional computer user (I'm an industrial systems engineer), I consider myself to be computer proficient. However, I subscribe to *Computeractive* because we often take things for granted and ignore the basics. Jane Hoskyn's 'Named and Shamed' in Issue 493 being a case in point.

I have a Dell Venue Pro 11 tablet with a Core i5 processor. It has been loading progressively more slowly over the 18 months that I've had it, and has suffered various irritations such as **blue screens of death** when coming out of hibernate.

I've used Comodo Firewall alongside Avast Free Antivirus. Removing Comodo, as Jane recommended, was one of the most satisfying 'clean-ups' I've ever carried out. My tablet is transformed, boot-up is almost instantaneous and to date I've observed no irritations. Edge also now performs fast and error free.



STAR LETTER

Elderly don't need a robot to stay active

✉ You asked in Issue 494 (News, page 8) whether the ElliQ robot (pictured) was useful or patronising. I think it's worse than patronising – it's insulting.

Old people don't need a device to tell them they need to stay active. I'm perfectly capable of waking up, seeing that it's a nice day, and deciding to go for a stroll through the woods. The idea that I need artificial intelligence to tell me this is absurd. What's wrong with real, *human* intelligence for a change?

Yes, old people can get lonely, but a pet would be far more beneficial than a lump of plastic that's meant to look 'cute'. I love my computer and the access it gives me to the internet, but they don't give me as much satisfaction as my pet dog.

Also, this kind of device could make older people feel *more* socially isolated. Their younger friends and relatives might think that the ElliQ is taking care of everything, and so they might stop



popping round to check on them. You hear about children buying their parents a phone, and saying 'use this to get in touch'. They think it means they no longer need to visit in person.

In your news story you point out that 1 million pensioners say they feel lonely. I'm sure that's true. But not all of them are daft enough to spend hundreds of pounds on a device that they simply don't need. Give people a laptop and decent access to the internet and everyone – young, old, active, inactive – can organise a healthy social life.

Heather Robertson



The Star Letter writer wins a Computeractive mug!

Thanks Jane. It just proves that anyone can forget the basics.

Harold Howe

Clamp cars to stop drivers using phones...

✉ Susan Platter's Star Letter in Issue 493 denouncing the deactivating of all mobile phones in cars and thereby penalising everyone for the sins of a minority was brilliant. She favoured stronger penalties. But increased fines and penalty points will only slightly reduce the number of drivers using phones. Of course, impounding their vehicles for a week would be more effective, but towing them all away would be problematic and the car pounds would soon be filled to the brim.

The most effective penalty, (on top of fines and penalty points) would be wheel clamping – not only the offender's car, but all vehicles

owned by their family at their address, for a week. That would not only inconvenience but also shame the offender.

Tom Tottis

...or 'cage' them instead

✉ Perhaps 19th-century scientist Michael Faraday had the answer for preventing mobile-phone use by car drivers. Some trains use the 'Faraday cage' effect to block mobile-phone signals, by applying electrically conductive material to the windows, which is connected to the steel structure of the carriage. This has been done to provide 'quiet carriages' on trains.

With applicable glass added to cars, without detracting from light passing through, phone use would be impossible when the vehicle is moving. The car industry has a lot of catching up to do, because many of the technologies it uses are old and ineffective.

Andrew Porter

Consumeractive

How do I know if EE overcharged me?

Q I'm worried that I'm one of the 6,905 customers overcharged by EE that the company says it can't track down (see News, Issue 494, page 7). I've switched to Vodafone, but if EE overcharged me I want my money back. How can I find out?

John Palfrey

A It's possible that many of the customers who can't be accounted for are no longer signed up with EE. But this doesn't change anything – they are still entitled to get their money back. To help their case, they'll need to produce evidence that they were overcharged.

EE's advice is to check your bills to see if your calls to 150 from abroad were charged at £1.20 per minute instead of 19p, or whether you were charged for any calls made to 150 after 18 November 2015. If so, you are due a refund.

Oftcom has ordered EE to do more to trace people entitled to a refund, so the company has set up a freephone number for former customers: 0800 079 0216. We've advised John to ring this. If you're still with EE you should instead call its customer services team on 0800 956 6000.

CASE CLOSED

Apple's upgrade has broken my iPhone – what can I do?

Q I bought a second-hand Apple iPhone 5s on eBay in December 2016. A message from Apple prompted me to upgrade the phone to iOS 10.1.1, but now the phone is locked. We tried the repair suggested on Apple's website (www.snipca.com/23228) but it didn't work. My local Apple store said it's a **firmware** problem and would cost me £250 to fix. The seller has refused to take responsibility. Who's at fault here?

George McElvoy

A Apple is. It admitted as much by releasing a fix for the update. George should consider suing the company in the small claims court for the amount he paid. He could also demand that Apple replaces it, or pays for a repair.

Normally, when devices go wrong, the seller is responsible. But the problem here isn't the hardware but the software, which came from Apple. The seller *would* be responsible if they



sold digital content, such as software, apps, and film downloads. These carry the same legal status as physical items, and so must be of "satisfactory quality, fit for purpose and as described".

But George didn't buy the update from the seller. Apple delivered it,

so Apple is responsible for it working (and it doesn't matter that George bought the phone second hand from an unofficial outlet).

This applies to updates for all operating systems and devices, as stated under the Consumer Rights Act (CRA) of 2015. It means that in theory Windows users can sue Microsoft for updates that mess up computers, although this hasn't been tested in a UK court.

We've advised George to mention the CRA at his Apple store, stressing that it means he's entitled to a refund, repair or replacement. We'll let you know how he gets on.

CASE ONGOING

Can I get a refund for a Kodi TV add-on?

Q On 28 October 2016 I paid £26 for a six-month subscription to the Sports Mania add-on (<https://sportsmania.eu>) for the TV-streaming software Kodi. It worked fine at first, but within a couple of weeks I found I couldn't load the Sports Mania site, and then I found I didn't have an active subscription. I've emailed the site but haven't got a response. Can you help me?

Gabriel McAllister

A We'll try, but getting hold of Sports Mania could prove difficult. The website is working,

but clicking the 'Subscribe' heading takes you to a very basic page saying that Sports Mania is "no longer accepting new registrations". It advises customers to sign up to their "sister" sites: <http://ultimatemaniarocks.com> and <http://sportsnationhd.tv>. But we don't advise doing that until we've worked out what's going on.

We've emailed the support team (themaniateam005@gmail.com), but we're not confident they will reply. We'll also try Sports Mania's Twitter account and Facebook page, but neither has been updated recently.



If Sports Mania has closed then all customers will be entitled to a refund, although getting this money won't be straightforward.

CASE ONGOING



✉ Contact us so we can investigate your case

Email: consumeractive@computeractive.co.uk

Write: Consumeractive, Computeractive, 30 Cleveland Street, London W1T 4JD
Please include both your phone number and address.
Unfortunately, we can't reply to all your letters.

We stand up for your legal rights

What's happened to my missing phone and tablet?

Q In November 2016, I sent a Samsung Galaxy S4 phone and Galaxy tablet to a company called Phone Recyclers (www.phonerecyclers.co.uk), based in Birmingham. I've been waiting for almost a month for the £116 it owes me, but the company never answers its phone or my emails, and even blocks access to its Facebook page. Can you help?

Dean Marshall

A Dean's not the only customer to have had problems with Phone Recyclers. It has received some scathing reviews on the company-rating website Trustpilot (www.snipca.com/23226), with one titled 'Excellent, so long as you don't expect to be paid'. Over



35 per cent of the reviews are for just one star. Many customers complain that they haven't received any money, which if true amounts to fraud. We'll try to contact the company to investigate further.

Other customers have complained that the company is offering them less money than originally stated because it claims the device they sent is broken. This is a less clear-cut issue. It's true that if a gadget has a defect, whether the

customer knew about it or not, then Phone Recyclers is entitled to reduce its offer. That's why device-recycling companies offer an 'estimated' price, which – unlike a quoted price – isn't legally binding.

However, we've read the company's terms and conditions and it seems that customers are emailed a 'quote', which means it must stick to the price agreed. Once the device arrives, it can't use the 'estimate' loophole to offer less money. With such misleading terms, it's not surprising that customers are fed up.

We'll ask Trading Standards to examine the company's terms because we think they are confusing. We'll also check if they are investigating the company.

CASE ONGOING

CASE UPDATE



eBay tells seller to clear up listing confusion

We get many emails from readers about misleading product listings on eBay, so we're pleased the site has taken action against one seller advertising Norton Security software as a disc, when it was download only.



As we reported in Issue 490, *Computeractive* reader Stuart Womack bought the software specifically because he wanted it on a disc. Contrary to the listing that promised free postage, the seller emailed Stuart an activation key instead. Both the seller and eBay refused his request for a refund. He could have taken this further through Trading Standards, arguing that the error in the listing meant he was mis-sold the software. In the end though he decided to download and install the software.

After we examined Stuart's case, eBay told the seller they must state on their listings that the product is a download. We hope this will lead to less confusion in future. However, we're unhappy that eBay has removed Stuart's negative feedback for the seller. Future customers have a right to know that the seller's listings once contained misleading information. After all, as eBay says on its 'All about Feedback' page (www.snipca.com/23229): "Seeing what a member says about others can give you valuable information before you trade with them".

Sellers can ask buyers to change feedback (see www.snipca.com/23230, though only for five comments per 1,000 items sold in the past 12 months. They can also tell eBay if they think feedback has violated the site's policy: www.snipca.com/23231.

THIS WILL COME IN USEFUL

Banks and building societies: help for people with disabilities

Barclays

www.barclays.co.uk/Accessibility

Natwest

www.snipca.com/23233

Coventry Building Society

www.coventrybuilding.society.co.uk/accessibility

RBS

www.snipca.com/23237

Sainsbury's Bank

www.snipca.com/23236

HSBC

www.hsbc.co.uk/accessibility

Santander

www.santander.co.uk/uk/accessibility

Lloyds

www.lloydsbank.com/accessibility.asp

Tesco Bank

www.snipca.com/23239

Metro

www.snipca.com/23238

TSB

www.tsb.co.uk/accessibility

Nationwide

www.snipca.com/23234

Virgin Money

www.snipca.com/23235

West Bromwich B S

www.westbrom.co.uk/accessibility



Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

Scam emails from 'Benedict Brown'

What's the threat?

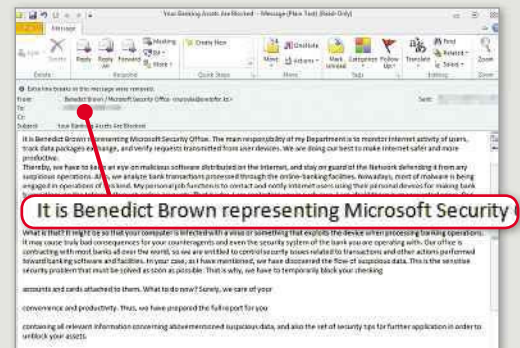
Scammers are posing as Microsoft security experts in an attempt to infect computers with the dangerous Neutrino malware. They send emails that claim to be from 'Benedict Brown representing Microsoft Security Office' (see screenshot), telling the recipient that access to their bank accounts and cards has been blocked because of suspicious activity.

The email urges you to click a link to download a report containing more details, and to read instructions to unblock your account. In order to read the report, which comes as a Word document, you're asked to enable **macros**. Doing so allows Neutrino to strike. It can take screenshots of your PC, record what you type, and absorb your computer into a **botnet**.

Hackers love Neutrino because it requires little knowledge of computer security. Malwarebytes, which discovered the scam, said that criminals with "zero coding experience" can use the malware. It exploits programs that are known to be riddled with security flaws, such as Adobe Flash Player.

What should you do?

Remember the name 'Benedict Brown'. Nobody of that name works for Microsoft, and even if they did they wouldn't email you to say that access to your bank account has been blocked. Thankfully, it's not the most convincing email. There are no Microsoft logos, and it contains the usual English-language abominations, such as 'Surely, we care of your convenience and productivity'. Read



it in full at www.snipca.com/23131.

On a general note, you should consider disabling macros in Microsoft Office tools so hackers can't use them to spread malware. Microsoft provides instructions for doing this in Office 2010, 2013 and 2016 (www.snipca.com/23133). For Office 2007 visit www.snipca.com/23132.

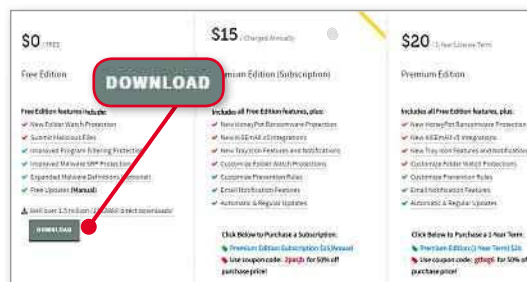
New tools

CryptoPrevent 8
www.snipca.com/23210

When the devastating CryptoLocker emerged in September 2013 it triggered a new wave of **ransomware**. Since then dozens of copycat attacks have infected millions of computers worldwide, including those in hospitals and schools.

One program that's tried to fight back is CryptoPrevent, a purpose-built ransomware-blocker that – its creator claims – offers protection your antivirus can't. It "peacefully co-exists" with your antivirus, so there's no fear of it clashing and messing up your PC.

The eighth version contains 4,000 rules for Microsoft's Software Restriction Policy, which controls what software can run on your PC. It's a tenfold



increase on CryptoPrevent 7, meaning it can block more types of ransomware.

To install it visit the URL above and scroll down until you see the three download options. The Free version on the left is all you need – click its grey Download button at the bottom (see screenshot). If you already have CryptoPrevent 7 installed, it should have been automatically updated to the new edition.

ScamWatch READERS WARN READERS

Postman missed me? Pull the other one!

I recently received an email purportedly from Royal Mail telling me it had been unable to deliver a parcel. It asked me to click the attached invoice. It looked similar to the paper form that postmen leave when you're out, but I had my doubts because I've never given my email to Royal Mail. The message said: "We missed you, when trying to deliver. Please view the invoice and contact us with any questions". The sender's address contained the word 'telefonica', which seemed unlikely – a bit like emails from the Bank of England using Hotmail!

John Craggs

Warn your fellow readers about scams at letters@computeractive.co.uk

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DS216play | DS716+II | DS216+II

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Best Free Software

Jane Hoskyn recommends new programs that won't cost you anything

SYSTEM & SECURITY TOOL

Process Network Monitor 6.0

www.snipca.com/23225

What you need: Windows 7, 8/8.1 or 10



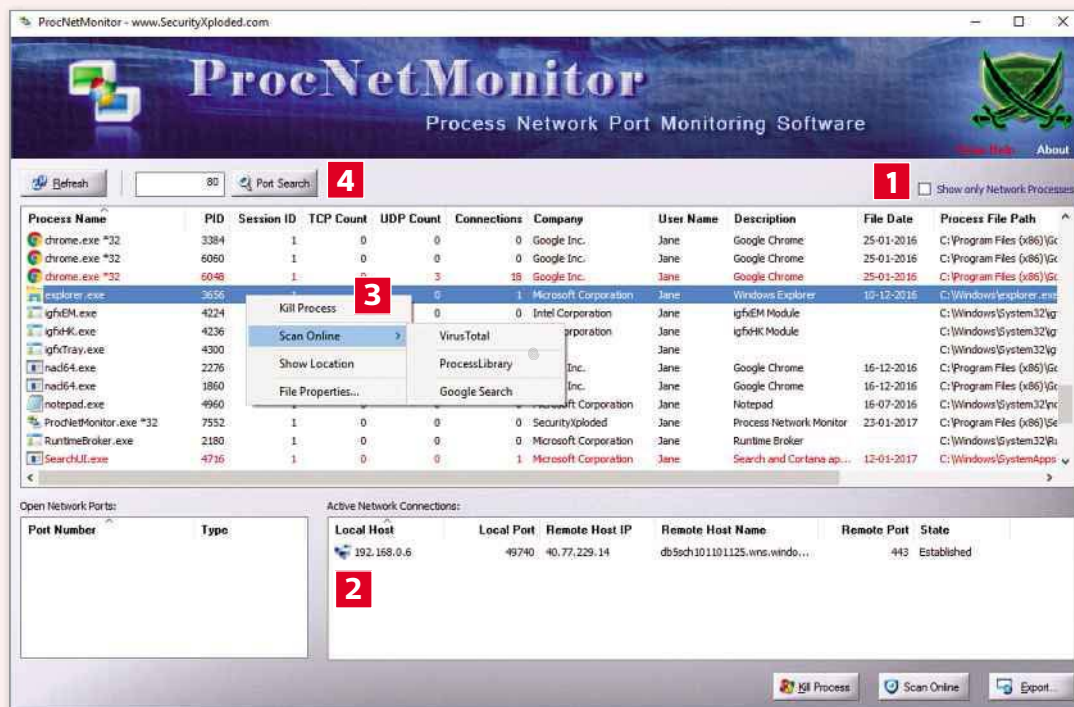
Track the internet activity of all your PC's running processes, using the new 'Mega 2017 edition' of this free tool. Process Network Monitor displays a list of running processes that are currently communicating with the internet, and shows how much data they're sending and receiving. At a glance, you can see which programs are hogging your bandwidth and may even be spying on you. As well as rooting out **Trojans** and spyware, you can discover which programs and Windows tools are sending data to their servers from your PC.

The list of network-active processes is likely to include your browser, your antivirus (AV) and Windows Search ('SearchUI.exe'). If you don't recognise a process, or it has no reason to connect to the internet, right-click it then select Scan Online to check for reports of dodgy activity. The program lets you check a process with online malware database VirusTotal

(www.virustotal.com) and process directory Process Library (www.processlibrary.com), as well as Google. It also now lets you export the whole list as a text (XML) or **HTML** file (see **4** in screenshot below).

Now for the bad news – it's a pain to install. Version 6.0 comes with a new installer that Chrome, Avast and Windows blocked on the day of its release. Within a couple of days these **false positives** had been cleared up, but if this happens, you can get around the block by **whitelisting** the installer file.

To get it, go to the link above, then click the words Download Link (in green at the top). Don't click any Download buttons – they are adverts (and they seem immune to Adblock Plus). Extract the contents of the **ZIP** and then run the installer ('Setup_ProcNetMonitor.exe'). After all this, setup is quick and junk-free, and the program is less than 5MB in size.

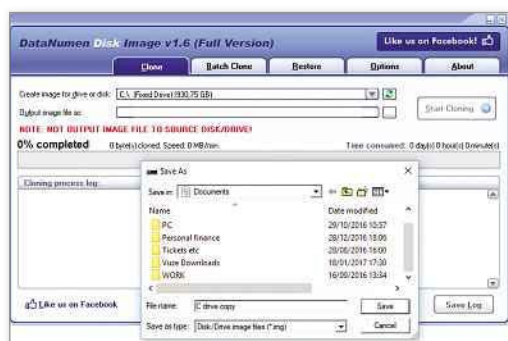


1 By default, Process Network Monitor displays network-active processes only (in red). To see all running process, untick 'Show only Network Processes'.

2 Click a red process to see information, such as its server's **IP address**, in the Active Network Connections box. Double-click the process to open detailed Properties.

3 Right-click a process, select Scan Online and then select VirusTotal to check for malware reports. Select ProcessLibrary to find out more about what it is and what it does.

4 Click Port Search to see only processes that are accessing web (HTTP) servers. To go back to the full list, click Refresh. To export a text or HTML file of the list, click Export.



BACKUP TOOL

DataNumen Disk Image 1.6

www.datanumen.com/disk-image

What you need: Windows 7, 8/8.1 or 10

Create and restore a backup of your C drive or entire operating system, using this redesigned version of DataNumen's PC-cloning tool. The program is not only powerful, but fast, small (2.96MB) and easy to use. Click a tab (Clone, Batch Clone, Restore and so on) then use the dropdown menus to choose the drive or drives to back up, where to store the backups (also known as **ISO files**) and where to restore data to. You can now create backups of multiple drives and **partitions** in one go, and restore data from corrupted drives. To get it, click Free Download then run the installer ('ddki.exe'). The installer opens full screen, doesn't contain junk and is very quick.

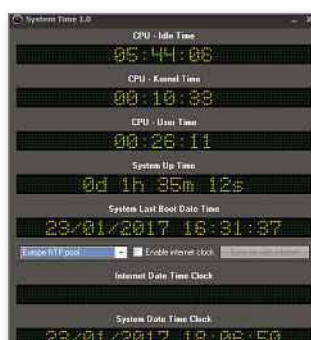
SYSTEM TOOL

LeeLu System Time 1.0

www.snipca.com/23215

What you need: Windows XP, Vista, 7, 8/8.1 or 10

What time is it? That depends - do you mean **CPU** time, System Up Time, or (here's one you've never been asked for in the street) Europe NTP Pool Internet Date Time? LeeLu's latest portable system-monitoring tool tracks these and more of your PC's time measurements, and displays them in a neat dot-matrix window.



The CPU measurements are particularly useful. They reveal how long your processor has spent on certain tasks, such as communicating with your operating system. A high CPU Kernel Time suggests your processor is working too hard, perhaps with faulty **drivers** or too many startup processes. The program also lets you sync your system clock with global Internet Date Time measurements. If your clock is accurate it won't make much difference, but it could help to correct an older computer's timekeeping.

To get it, scroll down the page then click Download System Time. Save the **ZIP** file, extract its contents, then click the EXE file to run it. It's also now included in the LeeLu Monitors AIO (All In One) suite of monitoring tools (www.snipca.com/23227).

WHAT SHOULD I DOWNLOAD?

We tell you what software to use

What should I use instead of Windows DVD Maker?

Q Recently I had to upgrade to a new Windows 10 PC. This leaves me without Windows DVD Maker, which I used for making photo slideshows. I have photos from a family wedding waiting to be burned to disc, with music. I'd be happy to pay for the right software.

Don Church

A Former users of Windows DVD Maker have been abandoned to a world of **PUPs**. One well-known free alternative, Freemake Video Converter, is infested with so much junk it inspired our first-ever Named & Shamed page (Issue 443). Meanwhile, **open-source** program DVDStyler gets great online reviews - but I've just spent 15 minutes removing the nasty PUP it installed on my PC.

After testing a few tools I was about to conclude that you'd be better off paying for software. For example, DVD Photo Slideshow (www.dvd-photo-slideshow.com) is tailor-made for your needs, and its installer is junk-free, but after a free trial it costs \$49.95 (£40; you may also be charged a transaction fee).



Then I came across Ashampoo Slideshow Studio 2017 (www.snipca.com/23286, pictured). This free new program is buried deep on Ashampoo's website (they'd rather you use their paid-for programs, of course). It does everything you want, quickly and easily. Drag photos on to the window to add them to your slideshow, then add music and edit transitions. You can even set the photos to move around in time to your music! When you're happy with the results, you can export your slideshow in various file formats as well as burn it to DVD. It's completely free, but you do have to enter your email address to get an 'activation key', and be prepared to for a few pop-ups advertising Ashampoo's other software.

Do you need our advice on what software to use? Just email us at letters@computeractive.co.uk

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Reviews

New products tested by our experts

LAPTOP | £600 from PC Specialist www.snipca.com/22318

PC Specialist Ultranote IV

Simple but effective



If Batman built himself a laptop, it would probably look like this. While most nowadays are finished in shiny silver aluminium or brightly coloured rubber, the Ultranote IV is an ode to monochrome. The only attempt at decoration are a couple of triangular cutouts, which add to the stealth-chic feel. There isn't even a logo on the lid. LED lights, hi-fi speaker logos and gaudy marketing stickers are conspicuous by their absence.

“It's a very capable all-rounder and pleasant to work on”

Not that we're complaining. Rivals might be more eye-catching, but the Ultranote's got it where it counts. Despite a few clunky bits of detailing, it's fashionably slim and light, tipping the scales at just 2.18kg despite its 15.6in screen. Build quality feels sturdy enough to carry around without layers of padding, even if there's a bit of flex in the matt-black plastic. It's almost handsome, in an angular, brutalist kind of way.

The chassis is made by a Taiwanese company, Clevo, which supplies a wide range of options to small computer builders like PC Specialist, who then install their own components. Here

they've started with Intel's new Kaby Lake generation of processors, fitting a dual-core 2.5GHz i5-7200U alongside a sensible 8GB of memory. Windows 10 Home is installed on a speedy 128GB SSD, but there's also a 1TB hard drive to make sure you don't run out of storage too quickly. The result is a very capable all-round specification, enough to keep multiple programs ticking over at once.

For this price you don't get a dedicated graphics card, but the processor's integrated graphics chip is reasonably capable in its own right. It'll even handle some recent 3D games with low graphics settings, as well as older titles, so a bit of casual play is quite feasible, while photo- and video-editing programs should have enough processing power for basic work at least. The absence of a graphics card takes the pressure off the relatively small 31Wh battery, so the Ultranote IV lasted an acceptable five hours and 20 minutes in our video playback test. It's a far cry from the 10 hours of some laptops, but you're not compromising on performance or paying over the odds.

For general use, this is a pleasant laptop to work on. The keyboard, often a giveaway of poor build quality on cheaper machines, is firm in all the right places, and comfortable to type on, with backlighting to help you in dark rooms. Unlike many, the touchpad has two proper clicky buttons rather than incorporating them into the touch surface, offering smooth cursor control and two-fingered scrolling gestures.

It has to be said that the 15.6in Full HD screen isn't the last word in picture quality. Colours look rather flat, and the limited range makes the Ultranote a poor choice for colour-critical graphics work.

But it's bright and clear enough for most purposes, and the matt finish keeps reflections at bay. For movie watching, whether from the internet or from the built-in DVD drive, the headphone socket is a better option than the tinny built-in speakers. Talking of sockets, you get a full set, including Gigabit Ethernet and conventional USB ports as well as Thunderbolt-compatible Type-C.

That's one factor that might help to win PC Specialist some customers from the big PC brands, but competition is stiff. Dell's Inspiron 15 5000, for example, starts at £579 with the same i5 processor but no SSD; for a similar price to the Ultranote, you can get a dedicated AMD graphics card thrown in.

SPECIFICATIONS

2.5GHz Intel i5-7200 dual-core processor • 8GB memory • 128GB SSD • 1TB hard drive • DVD writer • 1920x1080-pixel screen • USB 3.0 port • 2x USB 2.0 ports • 1x USB Type-C port • Gigabit Ethernet • HDMI port • Windows 10 Home • 24.2x377x259mm (HxWxD) • Three-year warranty
www.snipca.com/22318

VERDICT: This is a good all-round laptop for sensible money, and as long as gaming isn't a priority it's worth considering – but do shop around



ALTERNATIVE: Dell Inspiron 15 5000 £699 Has the same i5 processor plus an AMD R7 M445 graphics card, but a 256GB SSD instead of a hard drive. It's a strong rival



PC | £800 from Currys www.snipca.com/23355

Lenovo Ideacentre AIO 510S

No borders, but some limits

There's something to be said for the simplicity of an all-in-one PC, as long as expansion potential isn't your priority. The Ideacentre AIO 510S's finish is silver plastic rather than aluminium, but you'd never guess from a distance, and the metal V-shaped tilt stand adds a futuristic touch. The top section is strikingly slim with only its chunky curved lower back (see image below) marring its wafer-thin profile.

Only a sliver of black space separates the 23in screen from the edges, so Lenovo has mounted the webcam on a little pod that pops down from underneath. This means video callers get an odd worm's-eye view up your nose, but makes the machine look sleeker when you're not on camera. A pair of USB 3.0 ports have been usefully added to either side.

“For anything more than office tasks, look elsewhere”

On the back are two more USB 3.0 sockets, Gigabit Ethernet, a headphone jack and an HDMI port: this isn't for a second monitor, but to let you plug in another device to use the built-in screen (such as a DVD player). The 510S also incorporates a quite acceptable pair of Dolby Home Theatre-certified speakers. A keyboard and mouse are included,



requiring one of those USB 3.0 ports for their wireless dongle.

The 23in LCD is big enough to use Windows 10 comfortably, but small enough to make its Full HD resolution look reasonably sharp, and we were satisfied with its brightness, contrast and viewing angles. Covering just under 90 per cent of the sRGB colour range, it's not ideal for graphics work, but serious photo or video editing is beyond its comfort zone anyway. It's a touchscreen too, so you can control Windows with a swipe of your finger.

So what's inside? Well, at first glance you might see 'i7' and think £800 looks a very good deal for a PC with a top-of-the-range processor and a monitor thrown in. Hold your horses: the i7-6500U is a low-power version normally found in laptops. Accordingly, our tests showed the 510S couldn't even keep up with a mid-range i5 tower: Windows 10 ran quite smoothly, but for anything more than everyday office tasks you might want to look elsewhere.

The basic 5200rpm mechanical hard drive provides a useful 1TB capacity, but very little in the way of speed, making the system slow to boot up and load programs. 3D gaming potential, meanwhile, is very limited. If you really do only want a basic PC, an i5 model costs £100 less.

SPECIFICATIONS

Intel Core i7-6500U processor • 8GB memory • 1TB hard disk • 23.8in 1920x1080-pixel touchscreen • 4x USB 3.0 ports • HDMI input • 802.11ac Wi-Fi • Bluetooth 4.0 • Gigabit Ethernet • Windows 10 • 325x523x42mm (HxWxD) • 4.4kg • One-year warranty www.snipca.com/23356

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PRICES

Our reviews contain a link to the best price we found online at the time of press.

VERDICT: This is almost a very good all-in-one, let down by performance that feels a little too limiting for the money



ALTERNATIVE: ASUS Zen AIO Z240 (i5) £800 For around the same price you can find this 24in with either an SSD or GeForce 940MX graphics



Reviews

PC MONITOR | £420 from Amazon www.snipca.com/23257

AOC Agon AG271QX

Quicker pixels

When flatscreen monitors first replaced the chunky old cathode-ray-tube models, they used a 'twisted nematic' (TN) system, which was basically LCD crystals between two polarised glass plates. The screen is lit from the back, but any light that passes through the first plate can't pass through the second. When a voltage is applied, the crystals twist the light, which can then pass through, lighting up a pixel.

IPS (in-plane switching) works in a similar way, but with the crystals parallel to the screen rather than perpendicular. This overcomes some of the problems with TN, including limited colour reproduction and colours looking wrong from an angle. But TN has one advantage: the pixels can change faster. That means it's stuck around as an option for gamers, who value smooth, steady motion and higher refresh rates (measured in hertz). The AG271QX goes up to 144Hz.

“Produces seamless motion and stunning colour accuracy”

Whether any of this matters to non-gamers is an interesting question. When monitors were limited to 30Hz or less, their subtle flicker could be tiring on the eyes. Doubling this to 60Hz seemed to fix the problem. But many people can still see a difference between 60 and 120Hz, with the latter looking more 'real' – as if objects on the screen (including simple things like the mouse cursor or scrolling text) are moving seamlessly, rather than frame by frame.

As you might expect then, the AG271QX's picture is rock steady. It's helped by low input lag (the time it takes

SPECIFICATIONS

27in TN LCD • 2560x1440-pixel resolution • 1x HDMI port with MHL • 1x HDMI port • 1x DVI port • 1x DisplayPort 1.2 • 1x VGA port • 623x433x218mm (HxWxD) • Three-year warranty
www.snipca.com/23259



for your action to be reproduced on screen) and – if you run games on a recent AMD graphics card – FreeSync frequency matching. Using Overdrive (which uses higher voltage to make the liquid crystals change colour more quickly for even faster response) caused unwanted ghosting – but monitors that avoid this cost a lot more. For most gamers, we can't really fault this screen.

For general Windows use, fast refresh rates certainly don't hurt, and the 2560x1440 resolution beats Full HD (1920x1080) monitors. We found 96.5 per cent of the sRGB colour range was covered with excellent accuracy, good enough for photo and video editing.

Contrast wasn't brilliant, but with good brightness levels, we were happy with the picture. In terms of build quality and adjustability the AG271QX excels. The sturdy plastic stand has plenty of height and tilt control, plus 90-degree pivot, and even a fold-out arm to hang your headphones on. There's a jack for these, and another for a separate mic. The built-in USB 3.0 hub has no less than eight ports.

VERDICT: Non-gamers probably won't want to spend this much, but it's a superb all-round monitor



ALTERNATIVE: AOC Q2778VQE £215
Not 144Hz and lacks most of the advanced features, but this more basic TN monitor is a pretty good choice



Do I really need a... Curved monitor?

What does it do?

Curved screens have been appearing at the big electronics shows for the past few years, and are now getting affordable. They're vertically flat, but the sides curve towards you. Most of us can still remember when cathode-ray screens were the opposite: first bulging like a goldfish bowl, then losing the vertical curve so the screen looked like part of a cylinder, and finally getting almost completely flat, only to be replaced by LCD panels. There's no technical need for LCDs to be curved at all, but manufacturers have now decided it's a saleable gimmick... sorry, we mean a desirable innovation.

Why would I want it?

That's a very good question. Not many of us have ever sat looking at a TV and thought "If only it wasn't so flat". When you try a large curved screen, though, such as LG's 34in 34UC88 (£670 from Novatech www.snipca.com/23316, pictured), it undeniably makes films and especially games feel more – to use the jargon – 'immersive'. Compared to multiple monitor setups, you're more likely to see the whole



scene, rather than focus on the central screen and ignoring the others.

What's the catch?

Curved TVs are unpopular because they're harder to see from the sides, and most living rooms accommodate several people. Curved monitors make more sense, but you might find it more comfortable just to use a big screen and push it back a bit, so your eyes can scan across easily. Alternatively, use two monitors with, for example, your photo or video on one and the editing software on the other. Most PCs can cope with at least two screens.

So can I do without it?

Unless you're a full-time gamer with a craving for curves, yes.

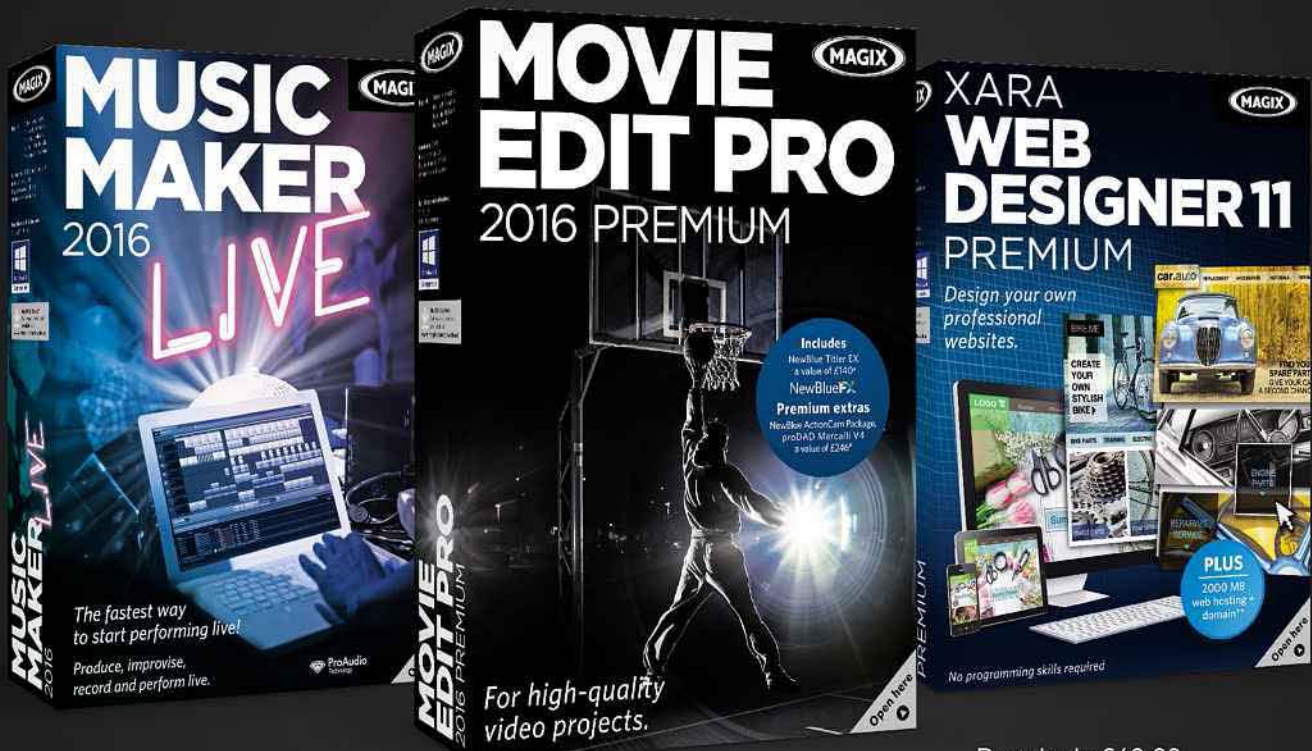
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Chillblast Fusion Hubble

A desktop PC with the latest processor

For a grand, you might expect an i7 processor to be thrown into the mix. But the **quad-core** i5-7600K processor you'll find in this high-performance desktop PC is from Intel's new Kaby Lake range and is the successor to the i5-6600K, which arguably offered the best performance per pound sterling of any **CPU**. The 7600's base **clock speed** has gone up from an already nippy 3.5GHz to 3.8, all ready to Turbo Boost to 4.2GHz (up from 3.9 last year) when software allows it. And, not content with this clout, Chillblast has opted for the 'K' version of the processor (which you can **overclock** if you want) and ramped it up to a 4.6GHz base speed.

“This is a classy, well-connected and powerful PC that stays cool and quiet under pressure”

Allied with 8GB of fast **DDR4** memory, this gave the Fusion Hubble something of a head start in our **benchmark** tests. The results beat any PC we've previously seen at this price, with results for image editing, video processing and multitasking pretty near to what we'd expect from an i7-6700K processor.

Chillblast has found room in its budget for a GeForce GTX 1060 **graphics card**. This is from near the bottom of Nvidia's new range – it's the 3GB version, not the slightly more powerful 6GB – but it's still enough to play games without problems. Our less demanding 3D titles ran smoothly even at 4K resolution with Ultra graphics settings, while more demanding games had little trouble at Full HD (1920x1080) and could be coaxed higher with a few compromises on the quality settings. These are perfectly respectable results for this kind of money, and the Fusion Hubble is also ready to work with virtual-reality hardware, if that's your thing.



The Fusion Hubble has much more going for it besides. It's housed in a spacious, sound-dampened mid-tower case with a good mix of customisation options, including room for up to five storage drives in two 3.5in bays and three 2.5in mounting points.

The motherboard – Gigabyte's new GA-Z270-Gaming K3 – is also excellent. On the PC's rear panel you'll find a generous eight USB ports, including one USB 3.1, one **Type-C** and two **USB 3.0 DAC-UP** ports for high-quality audio connections. There are also rear speaker, side speaker and C/SUB connections for surround sound. On the inside are no fewer than three **PCIe** x16 slots, two of which are free for major upgrades, plus three PCIe x1 slots and an **M.2** port for the fastest possible **SSD** storage. Strips of red lighting around the board's edges add a touch of flair, but with no side window you'll have to admire them through the mesh at the top of the case – as long as you haven't covered it up with the optional sound-insulation panel, which is included. As standard, you get a sensible combination of a 250GB SSD and a 1TB hard drive.

The front panel is awash with easily

reachable inputs and outputs, from the two **USB 2.0** and two USB 3.0 ports to the integrated SD and **microSD** card readers. Behind the front panel door you'll also find two 5.25in drive bays (suitable for adding DVD or Blu-ray) along with two fan-speed switches and a removable dust filter. In case you were wondering how Chillblast has prevented that speeded-up CPU from frying, it's fitted with a closed-loop water-cooling system, which is pleasingly quiet.

The Fusion Hubble won't be the first choice of gamers, and that's exactly why it'll be of such interest to everyone else. Most of your money has gone into that i5-7600K processor, which certainly earns its keep and will power through even the most ambitious tasks. The only reason not to rush out and buy this PC immediately is that we haven't yet seen what other makers can do with this chip – but if you're looking for a new desktop PC right now, don't let that put you off.

VERDICT: A powerful and classy demonstration of what the very latest mid-range processor and graphics card can do

★★★★★

ALTERNATIVE: Cyberpower Infinity X55 VX £1,000
An attractive PC boosted by the 6GB GTX 1060 graphics card, but the i5-6402P processor is slower



SPECIFICATIONS

4.6GHz Intel i5-7600K quad-core processor • 8GB memory • 3GB Palit GeForce GTX 1060 graphics card • 250GB SSD • 1TB hard drive • 4x USB 3.0 ports • 2x USB 3 DAC-UP • 1x USB 3.1 • 1x USB Type-C • 4x USB 2.0 ports • Gigabit Ethernet • 2x HDMI ports • 3x DisplayPort • DVI port • Windows 10 • 451x232x521mm (HxWxD) • Two-year warranty www.snipca.com/23380

WI-FI EXTENDER | £50 from Devolo www.snipca.com/23292

Devolo WiFi ac Repeater

Wi-Fi from further away

Like TP-Link's RE450 (see our review Issue 494), this is a plug-in box that extends the Wi-Fi signal from your router. Let's say your broadband socket is in the hallway at the front of the house, and you can get strong wireless reception in the living room, but not in the back bedroom. To find the optimum location for your extender, use a phone or tablet to see how far you can walk towards that room and maintain decent Wi-Fi, then plug the repeater into any mains socket near that point, and it should bounce the signal the rest of the way.

It's simple to set up, and the compact design means it doesn't take up any space. If you plug it into a double socket, the other socket is still usable, unlike with the



RE450. On the other hand, maybe there wasn't room inside for a big enough aerial, because the speeds we got were worse than average and some were significantly slower than the RE450. With older devices that only support the 2.4GHz waveband, not 5GHz, performance was especially poor. Not only was the connection slow, but as we moved a little further away it often dropped out altogether or refused to connect at all.

When this happens it's often because other nearby Wi-Fi networks are interfering with the channel, so if you live in the middle of nowhere you might get better results. But the RE450 was much more effective for us.



SPECIFICATIONS

Dual-band 802.11ac/a/b/g/n Wi-Fi extender • 1x Gigabit Ethernet port (cable included) • 91x59x44mm (HxWxD) • Three-year warranty www.snipca.com/23292

VERDICT: It's not great with 2.4GHz devices and only fine with 5GHz, and overall not as good as TP-Link's similarly priced RE450

★★★★☆

ALTERNATIVE: Sky Q Booster £69 If you have Sky broadband, this excellent repeater is worth the extra, but it only works with the Sky Q Hub



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Reviews

GAMES/STREAMING CONSOLE | £190 from Amazon www.snipca.com/23243

Nvidia Shield TV

An Android in your living room

You can't carry a desktop PC around with you, but there's no reason why an Android tablet or phone shouldn't work equally well just plonked on a shelf or desk. And if that shelf happens to be next to your TV, the device won't even need its own screen. That's the basic idea behind the Shield TV console, which first appeared in 2015. It has now shrunk to a handier size and gained access to more online services, including Amazon Prime video streaming at (depending on your TV set) up to 4K resolution.

Little has changed inside the box, but the Shield is made by Nvidia, the **graphics card** specialists, and so already had a surprising amount of processing power. It's marketed partly as a games console, and comes with a rather nice PlayStation-style controller, which has been completely redesigned. Acknowledging that there's a lot more to this than games, a TV

remote is also included.

Not all Android games will be compatible – most are designed for touchscreens, not joysticks – but there are lots of great titles you *can* play. Alternatively, pay to stream games from Nvidia's GeForce Now service (www.snipca.com/23244) if you have fast broadband. Google's Android TV, Amazon Prime Video, BBC iPlayer and Netflix are all available, and you can use Google Cast to stream from other Android devices. It also works with tools like Plex and Kodi to play content from other sources. Voice control is included, and Google Assistant will be available soon, so you can ask your Shield questions or even control Wi-Fi home gadgets.

Only 16GB of storage is built in, reflecting the emphasis on streaming from the internet, but you can add more via **USB 3.0**. When we plugged a hard drive in, though, we found some games were slow to load from it. There's also a 'Pro' version of the Shield TV with a 500GB internal hard drive, which looks similar to the old model, but it doesn't seem worth the extra £90.



SPECIFICATIONS

Nvidia Tegra X1 processor • 3GB memory • 16GB flash storage • 802.11ac Wi-Fi • Bluetooth 4.1 • 2x USB 3.0 ports • Gigabit Ethernet port • HDMI port • Android 7.0 • Controller • 159x98x26mm (HxWxD) • One-year warranty www.snipca.com/23246

VERDICT: More expensive than the Apple TV but also more versatile, this is the best all-round living-room box for online content that we've seen so far



ALTERNATIVE: Emtec GEM Box £93 This console and controller set costs half as much, but has less processing power and far more limited TV options, including no Netflix



WHAT SHOULD I BUY? We solve your buying dilemmas

Is the 128GB iPad Air 2 worth the money?

Q As a subscriber to *Computeractive*, I always check your 'Buy It' pages. I bought the Apple iPhone SE after reading your review. I've been thinking of upgrading my ageing 32GB iPad, and after reading your review of the iPad Air 2 (pictured) I thought this would be an ideal replacement. I was disappointed to find Apple no longer sells the 64GB model, so I have to either buy another 32GB version or pay for 128GB, which seems like overkill!

I'd be interested to know why they changed it and what your advice would be now.

David Abbott

A You're right: when Apple updated the iPad range in September, it kept the iPad Air 2 but upgraded the higher storage option from 64 to 128GB. However, that didn't cause any increase to the retail price. The iPad Air 2 only got more expensive when Apple

raised all its UK prices in October to reflect the fall in sterling.

The 128GB model is still a good choice at £469, and although the specification hasn't changed for more than two years, it's more powerful than most rivals. New iPads will appear this year, and prices will rise again, but probably not until late spring.



Do you need advice on what you should buy? Email us at letters@computeractive.co.uk



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Huawei Honor 6X

A big phone for a medium price

We're always keen to see a good phone at a reasonable price, and this latest model from Huawei's Honor brand offers an alternative to Motorola's Moto G4 (see our review, Issue 479) and more directly to the Moto G4 Plus (see Issue 483).

Available in silver, grey or gold, the 6X resembles an iPhone 6 Plus, with rounded edges. It's only partly metal. The rear is curved, so it's easy to grip but annoyingly wobbly on a desk. The 5.5in screen has good brightness and contrast, only falling down on colour range (at 89 per cent of sRGB). An 'eye comfort' mode filters out blue light at night to assist your sleep.

On the back is a dual camera enabling the blurred background effect also seen on Huawei's Mate 9. Picture quality isn't as good, but we were happy with our shots, and the Honor version of Android (currently version 6, with 7 due as a free

upgrade) gives you manual camera control if you want it. There's a fingerprint reader, which works well and enables Android Pay's contactless payment.

An eight-core processor keeps everything running smoothly, including basic games, helped along by Huawei's efficient file system, which avoids stored content getting fragmented. The battery managed 11 hours 18 minutes of video playback in our tests, which is acceptable, although the Moto G4 Plus ran for two hours longer. Charging is via microUSB rather than the neater USB Type-C.

SPECIFICATIONS

5.5in 1920x1080-pixel screen • 12-megapixel and 2-megapixel rear cameras • 8-megapixel front camera • 32GB flash storage • MicroSD card slot • 802.11n Wi-Fi • Bluetooth 4.1 • 3G/4G • 151x76x8.2mm (HxWxD) • 162g • One-year warranty www.snipca.com/23309



VERDICT: A fully featured phone at this price is usually about compromise, but in the 6X corner-cutting is hard to spot



ALTERNATIVE: Motorola Moto G4 Plus £229 This 5.5in rival is splashproof and its battery lasts longer, but its plastic case doesn't feel as sleek



HOMEPLUGS | £132 from Scan www.snipca.com/23311

TP-Link AV1200 Powerline Wi-Fi Kit WPA8730

Use your mains instead of Wi-Fi

Powerline adapters route your home network through the mains wiring to reach areas Wi-Fi may not. You plug one of the supplied units into a power socket near your router, to which it connects with an Ethernet cable, and the other wherever you want to get connected (as long as it's served by the same fuse box). The WPA8730 is priced above average because the extension unit provides Wi-Fi as well as Ethernet, so you can connect wireless devices. There are three Ethernet sockets for PCs too.

The '1200Mbps' rating is the highest available for powerline, but it's not really faster than Gigabit Ethernet's 1000Mbps. Expect about a third of that speed in ideal conditions. If you're connecting to the extension via Wi-Fi, there will be more of a bottleneck, but we found the WPA8730

relatively quick. As usual, newer devices supporting the 5GHz waveband fared best, but even on 2.4GHz we were able to connect reliably at longer distances, although file-transfer speeds were slower.

TP-Link's set-up web page has extra features for restricting internet access and setting up a protected guest network, and the adapter features Wi-Fi 'cloning' to match the network name and password of your existing router. It's a good deal, but also consider wireless extenders such as Devolo's WiFi ac Repeater (see page 25) and look out for our upcoming tests of new wi-fi-boosting systems.

SPECIFICATIONS

Theoretical maximum speed of 1200Mbps • 3x Gigabit Ethernet ports • Base 130x71x47mm • Extension 137x75x52mm (HxWxD) • Two-year warranty www.snipca.com/23310



VERDICT: Performance will vary between homes, but powerline adapters are a useful solution to Wi-Fi blackspots, and these are relatively fast



ALTERNATIVE: Devolo dLAN 1200+ Wi-Fi AC Kit £124 There's little to choose between these except the WPA8730 has one more Ethernet socket



NAS | £149 from Amazon www.snipca.com/23266

QNAP TS-228

Network storage

As if there weren't already enough acronyms in the computer business, this Taiwanese company named itself after the initials of its mission statement, 'Quality Network Appliance Provider'. At least it's distinctive, as is the TS-228, one of QNAP's most affordable **NAS** (network-attached storage) devices. There's another acronym for your collection.

A NAS connects one or more hard drives to your network to provide storage that's accessible to all your PCs – although it can justify its existence even if you only have one computer. The TS-228 has room for two standard 3.5in **SATA** drives, which you'll need to provide yourself. You could buy a couple of 2TB hard drives for under £150.

“Simple to set up and easy-to-use software make it a doddle to manage, but slow file transfer let it down”

The drives slide in and are held in place by clips (no screwdriver required), so the only fiddly part of the job is getting the case back on, which we found very fiddly indeed. Still, once that's done, it's done. Connect the drive to your router and it's reasonably simple to set up. The software is the same as you'd get with one of QNAP's pricier boxes, and has lots of options plus a range of extra programs for even more features.

First, you can configure your two drives as RAID 0, where data is split across the drives, or RAID 1, where the drives mirror each other, giving you half the space but no worries about losing data (short of the whole unit falling into a threshing machine). Then you can decide what to do with your NAS. To back up your computer, for example, QNAP provides its own Windows solution. Music, photo



and video streaming from the box are all supported as standard, although you can also use third-party tools like Plex.

You can run a Qsync program on your PC to create a Dropbox-like folder that syncs automatically to the NAS, and from there to any other PC. QNAP also provides iOS and Android apps, so you can access files and photos. If you want to get fancy, you can use IFTTT (<https://ifttt.com>) to automate jobs such as copying any new photo on a device to the NAS, or emailing you whenever a new file appears.

Our only complaint was that the TS-228's basic processor limited the speed of data transfer to and from the box, so even if your hard drives are fast, they won't feel so with large files.

SPECIFICATIONS

Two 3.5in SATA drive bays • 1.1GHz ARM v7 dual-core processor • 1GB memory • 4GB flash storage • Gigabit Ethernet port • USB 3.0 port • USB 2.0 port • 188x90x125mm (HxWxD) • 0.7kg • Two-year warranty www.snipca.com/23265

VERDICT: Just misses out on a recommendation because of its slow performance, but this is a versatile NAS for the money

★★★★☆

ALTERNATIVE:

Synology DS216j £140
The successor to the 215j (see our review, Issue 449) is hard to beat for features and performance



The Computeractive Wishlist



Products we would like to see

No.13: A PHOTO LIBRARY THAT WORKS

Photography has been transformed from taking 36 pictures on a roll of film and waiting three days for prints, to grabbing a shot with your phone at any time. Even if you still use a camera, it's probably digital, and downloading your photos takes just a few minutes. Either way, you have instant and permanent access to any photo you ever take.

But that's not how it really works, is it? You have photos on your phone, tablet, camera, and on a pile of old memory cards. You ought to have downloaded them all to your PC for safekeeping, but when you check there are hundreds missing and hundreds of duplicates. If there's more than one PC in your household, everyone ends up with their own set of family photos.

Plenty of photo-management programs exist, but none has solved these problems. What we really need is a box that plugs into the router, keeps all your photos centrally (with a private folder for each user too), and guides everyone through adding pics from any device, avoiding duplication and keeping a constant backup.



NEXT ISSUE

ON SALE
Weds
1 March

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Our pick of products that have won the Buy It award

LAPTOP

PRICE
DROP

Asus ZenBook UX305CA
£610 from www.snipca.com/22321
Tested: Issue 475



This metal-cased 'ultrabook' looks much more expensive than it is. There's no touchscreen or 36-degree hinge, just great quality all round and an ultra-sharp display. The M3 processor is adequate for most tasks, though not gaming.

ALTERNATIVE: Dell Inspiron 15 5000

If you need a full-size Windows 10 laptop with a DVD drive and a desktop PC-level i5 processor, this is a solid choice. £550 from www.snipca.com/21650

DESKTOP PC

Palicomp AMD Avenger
£500 from www.snipca.com/20927
Tested: Issue 479



AMD's Athlon X4 880K processor gives this PC solid performance with money left for GTX 960 graphics and a very fast 128GB SSD as well as a 1TB hard drive. It's not the quietest or most expandable PC, but excellent value.

ALTERNATIVE: Dell Inspiron 24 5000

If you prefer your desktop PC in one neat box, this Intel i5 system has all the essentials at a reasonable price. £815 from www.snipca.com/21651

APPLE IPAD

PRICE
DROP

Apple iPad Air 2
£350 from www.snipca.com/21664
Tested: Issue 437



Getting old, but still our favourite iPad. Buy with 128GB (£469) and you'll never run out of space. The Pro models are great with Apple's keyboard and Pencil, but work out much more expensive.

ALTERNATIVE: iPad Mini 2 Slower

than the iPad Mini 4, with no fingerprint recognition and a less vivid screen, but an iPad at this price is great value. £239 from www.snipca.com/20436

ANDROID TABLET

Samsung Galaxy S2 9.7
£450 from www.snipca.com/21678
Tested: Issue 462



The Sony Xperia Z4 is too expensive and Google's cheaper Nexus 9 has been discontinued, leaving the 32GB S2 9.7 as the best mid-sized choice. It's a serious rival to the iPad Air 2, albeit slower.

ALTERNATIVE: Huawei MediaPad M3

8.0 Rivalling Samsung's Galaxy Tab S2, this compact tablet has a slightly larger screen and a fingerprint reader. It's highly capable except when playing advanced 3D games. £314 from www.snipca.com/21926

APPLE IPHONE

Apple iPhone SE
£364 from www.snipca.com/21683
Tested: Issue 474



It may be Apple's 'budget' phone, but the smaller SE beats most others in the market with top-end processing power, a great screen and camera, fingerprint recognition and Apple Pay. You should consider paying £439 for the 64GB model, though.

ALTERNATIVE: iPhone 6s

A bigger screen, better camera and 3D Touch justify the price, but as with the SE the 64GB model (£619) is the best choice. £499 from www.snipca.com/20441

ANDROID PHONE

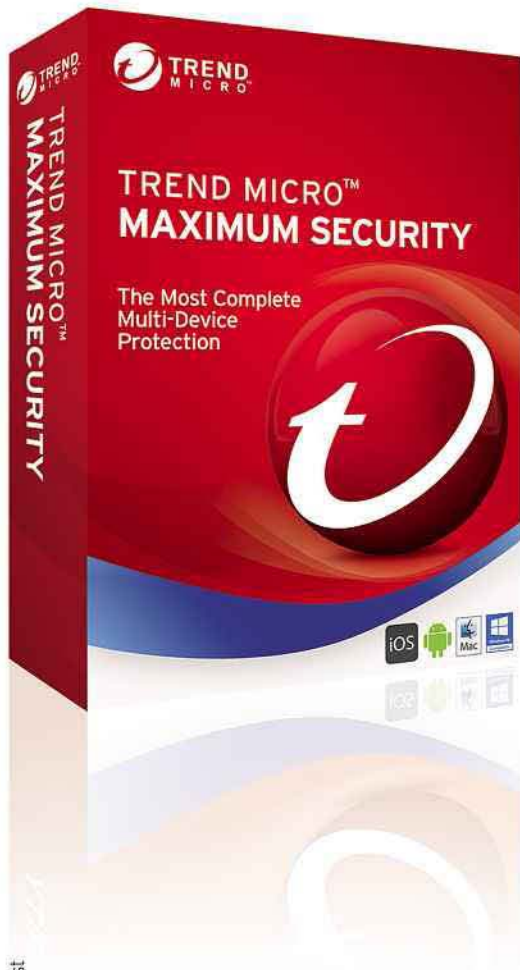
Motorola Moto G4
£158 from www.snipca.com/21685
Tested: Issue 479



With an attractive 5.5in screen, an excellent 13-megapixel camera and decent performance, the G4 is the best budget option. £150 from www.snipca.com/21685

ALTERNATIVE: Samsung Galaxy S7

Restoring the microSD slot to allow extra storage makes this an even better top-end phone than the S6, with a fantastic screen and camera and incredible 18-hour battery life. £450 from www.snipca.com/21684

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EBOOK READER

Amazon Kindle (2016)
£60 from www.snipca.com/21901
Tested: Issue 483



Amazon's basic ebook reader is now good enough to be our first choice. It's plasticky, but slim and lightweight, with a decent 4GB storage and good battery life. Consider the £110 Paperwhite if you want backlighting or (for £60 extra) 3G.

ALTERNATIVE Kobo Aura One

Competing with Amazon's Kindle Oasis, this premium model from Kobo has a large 7.8in screen and is comfortable to read. £190 from www.snipca.com/22031

SECURITY SOFTWARE

Kaspersky Internet Security 2017
£19.95 from www.snipca.com/21532
Tested: Issue 493



Kaspersky Internet Security 2017 has won our past eight antivirus tests. Compatible with Windows 10, the 2017 edition is available at an exclusive reader discount on our Software Store. Go to the link above for a one-year, one-device licence or buy a two-year, three-device licence for just £39.99.

ALTERNATIVE: Avast Free Antivirus

Almost as good as Kaspersky, but sometimes blocks legitimate software. Free from www.snipca.com/16493

PHOTO EDITING

Adobe Photoshop Lightroom 6
£99 from www.snipca.com/21904
Tested: Issue 453



Lightroom is the professional's choice for managing and tweaking photos, including raw files from DSLR cameras. If you need Photoshop for more advanced editing, get both on the Adobe CC Photography Plan for £8.57 a month (www.snipca.com/19283).

ALTERNATIVE: Xara Photo & Graphic Designer 365

For all-round design and drawing plus photo filters, this affordable app has a lot to offer. £50 from www.snipca.com/19280

PC MONITOR

AOC Q2778VQE
£213 from www.snipca.com/21902
Tested: Issue 468



It comes with no extras, such as built-in speakers or a USB hub, but this 2560x1440 panel gives you a full 27in screen with excellent contrast and colour accuracy at a very reasonable price. It's a little laggy for gamers, but there's no ghosting on motion.

ALTERNATIVE: Dell UltraSharp U2414H

This 1920x1080, 24in screen has a stand that can switch to portrait mode. Colour accuracy is excellent. £199 from www.snipca.com/21908

ROUTER

Synology RT1900ac
£145 from www.snipca.com/21903
Tested: Issue 474



If you're looking to upgrade an outdated router, there are lots of dual-band 802.11ac models to choose from. This one suits most broadband connections that don't require an ADSL modem and has plenty of options, such as sharing a connected printer or storage.

ALTERNATIVE TP-Link Archer C9

Not quite as fast, but this or the D9 (with ADSL modem built in) is a simple and capable router with a stylish design. £85 from www.snipca.com/21909

NAS

Synology DiskStation DS215j
£184 from www.snipca.com/21906
Tested: Issue 449



This two-drive NAS enclosure has it all – fast performance, easy configuration and plenty of extra features. Its only flaw is that installation is a little fiddly – but if you want quality network storage, then this is the obvious choice.

ALTERNATIVE: Synology DS414j

A four-drive NAS that's generally fast and easy to set up and use. £268 from www.snipca.com/22846

HOMEPLUGS

Devolo dLAN 1200 Triple+ Starter Kit

£95 from www.snipca.com/21690

Tested: Issue 444



Devolo's latest HomePlug adapters are the fastest we've ever seen. They're well designed too, with a passthrough socket so you can still power another device and the design should avoid skirting boards and other obstacles.

ALTERNATIVE: D-Link PowerLine AV2 1000HD Gigabit Starter Kit Fast (speeds of up to 1000Mbps), much cheaper and very easy to set up, but the lack of a passthrough socket is frustrating. £22 from www.snipca.com/21691

WEB-DESIGN

Xara Web Designer Premium 365

£70 from www.snipca.com/16955

Tested: Issue 453



This visual web-design program makes creating sites more like laying out a document than writing HTML code, and sites can be responsive, meaning they look right on both big and small screens without extra work. A basic version is also available for half the price.

ALTERNATIVE: Incomedia WebSite X5 v12 Evolution It may feel a little basic, but this straightforward program outputs efficient HTML code and responsive pages. £50 from www.snipca.com/19440

COMPETITION

Win 1 of 2 Solwise HomePlug kits

We've teamed up with Solwise to offer two HomePlug kits, each containing the PL1200AV2-PIGGY and PL-1200AV2-PEW HomePlugs, which plug into an electrical socket and your router to create an internet connection. The PEW has been specially designed for homes with several multimedia devices that use up a lot of bandwidth. To enter, email your address to cacomp@dennis.co.uk with 'solwise' in the subject line by midnight 28 February.



You can buy the PL1200AV2-PIGGY and the PL-1200AV2-PEW HomePlugs, priced £47 and £78.35 respectively, from www.solwise.co.uk. For more information on Solwise products follow @Solwise on Twitter, and 'like' www.facebook.com/solwise.

MULTIFUNCTION PRINTER

Canon Pixma MG5750

£68 from www.snipca.com/21693

Tested: Issue 470



You don't get many frills, but this compact all-in-one printer/scanner includes all the essentials, like Wi-Fi and printing both sides of the paper (duplex), at a reasonable price. It's fairly quick, running costs are better than average, and the five-ink system ensures photos and black text both come out looking great.

ALTERNATIVE: Brother MFC-J5320DW For more business-type tasks, this all-in-one has automatic paper feed for the scanner and the ability to print occasional A3 pages. £128 from www.snipca.com/21694

SOLID-STATE DRIVE

Crucial BX100 1TB

£583 from www.snipca.com/21695

Tested: Issue 445



A blindingly fast, high-capacity SSD at a lower price than ever before. If you've been put off buying an SSD because of the cost, then now is finally the time to take the plunge.

ALTERNATIVE: Samsung 850 Pro 256GB An even faster SSD, and significantly cheaper per gigabyte. £116 from www.snipca.com/21696

SECURITY CAMERA

Y-cam Day/Night

£125 from www.snipca.com/22987

Tested: Issue 483



Smaller and simpler than rivals, this all-in-one 720p HD Wi-Fi camera is triggered by motion. Play back or watch live remotely from your iOS or Android phone or tablet. A week's cloud storage is free, upgradable to 30 days for £3.99 per month.

ALTERNATIVE: Netgear Arlo Batteries, which last months, make these cameras (the price is for two) very practical. Cloud storage beyond a week costs extra. £240 from www.snipca.com/21653

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14 pages of easy-to-follow workshops and expert tips

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43 Readers' Tips
44 Phone & Tablet Tips
46 Make Windows Better

47 Make Office Better
48 Secret Tips For... Restore points

Upgrade to W10 for free using Microsoft's loophole

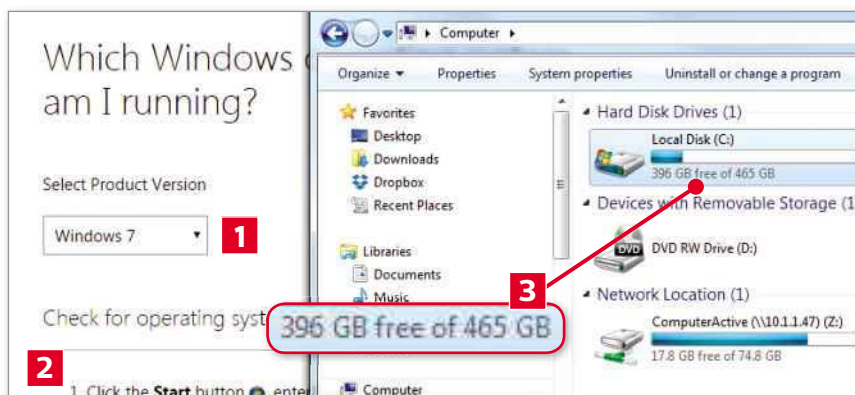
What you need: Windows 7, 8 or 8.1 **Time required:** 3-4 hours

The deadline to upgrade to Windows 10 for free was July 29, 2016. However, as we mentioned in Issue 482 (see page 58) Microsoft has left a back door open. With the Windows 10 Creator's Update arriving some time in spring,

there's a good chance Microsoft will close this window of opportunity soon. Here, we'll show you how prepare your PC for an upgrade, then explain two ways you can upgrade for free, and what you should do immediately after upgrading.

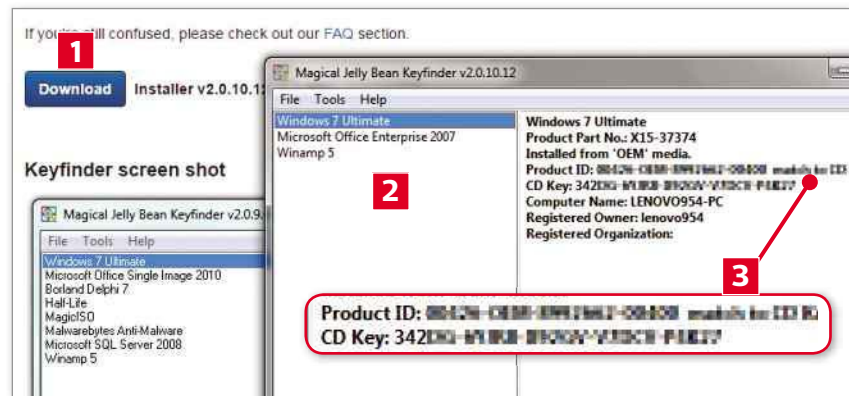


STEP 1 You can only upgrade to Windows 10 if you're using Windows 7 or 8.1. If you run Windows 8, upgrade to 8.1 before proceeding (follow Microsoft's instructions at www.snipca.com/23390). Before upgrading to Windows 10, make sure your PC meets Microsoft's recommended requirements (www.snipca.com/23391). To check this, go to www.snipca.com/23392, click the Select Product Version dropdown menu **1**, select your version of Windows, then follow the instructions **2**. Finally, ensure your C Drive has at least 20GB of free space **3**.



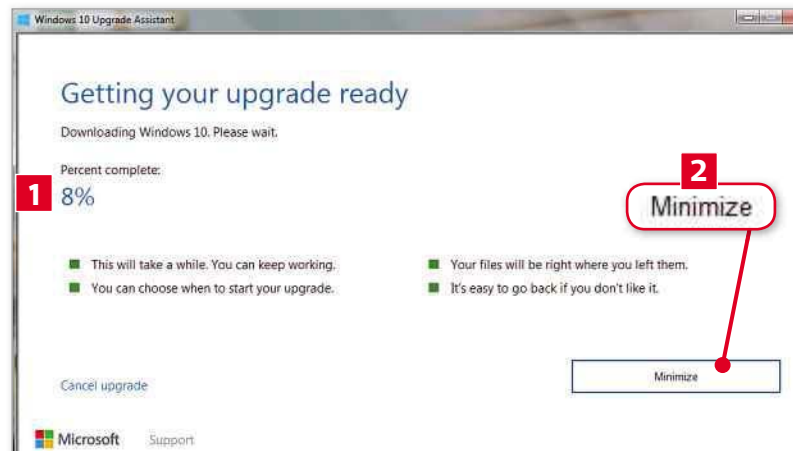
STEP 2 It's a good idea to back up your files before upgrading to Windows 10. We recommend using EaseUS Todo Backup Free (www.snipca.com/23393) – see our Workshop in Issue 480 (page 38) on how to use it to back up your whole PC for free. Alternatively, you can move/copy your files to an external hard drive or an online storage service. For example, you could create a OneDrive account (www.snipca.com/23394) to get 5GB of free storage space. Download **1** and install OneDrive on your PC. Sign in with your Microsoft account (or create one if you don't already have one). Create suitable folders **2**, then drag and drop your files into these folders to back them up. Once Windows 10 is installed you'll be able to access these files by signing into OneDrive.

Workshops



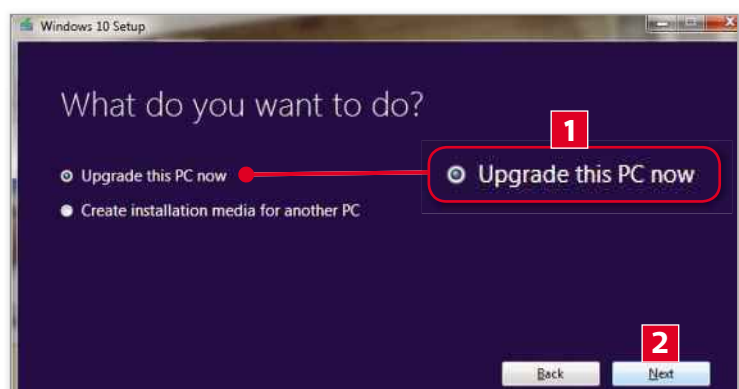
STEP 3 During the upgrade process, you'll need your Windows product key. We'll use the free program Magical Jelly Bean Keyfinder to find this, so go to www.snipca.com/23395 and click the Download button **1**. Open the downloaded setup file, accept the T&Cs, then install it. Upon launch, you'll see a list of any paid-for Windows programs on your PC that have a license or product key. Select your Windows version **2**, then take a photo of or write down the Product ID and Product/CD key **3**.

STEP 4 Before starting your upgrade we suggest you use an uninstaller program such as IObit Uninstaller (www.snipca.com/23397) or BCUninstaller (www.snipca.com/23398) to remove any unwanted programs. This lets you retrieve storage space and minimises the junk that can bog down your new operating system. To begin upgrading your PC, go to www.snipca.com/23399 and click the Upgrade Now button **1** to take advantage of Microsoft's free upgrade offer for customers who use 'assistive technologies' (like Magnifier and Narrator tools). Microsoft doesn't check whether you *actually* use these. Open the downloaded setup file **2**, click Yes, then Accept.

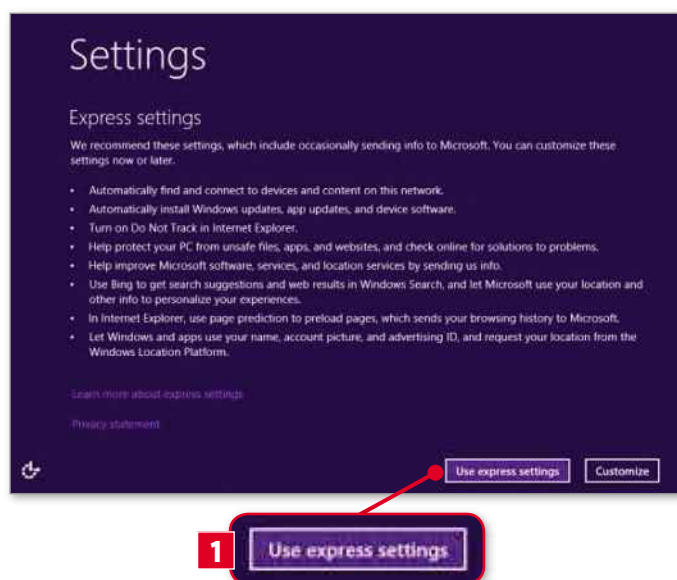


STEP 5 The Windows 10 Upgrade Assistant will now run a few tests to check whether your PC is compatible and you have enough storage space. If so, it will begin downloading the Windows 10 installation file – you can then keep an eye on the download's progress **1**. Click Minimize **2** to continue working while the download is taking place (this can take 3-4 hours). After that's done, the Assistant will take you through a series of screens (setting your language, time zone and so on) to complete the upgrade. Your PC will now reboot several times before upgrading to Windows 10. If this method works, then skip to Step 7.

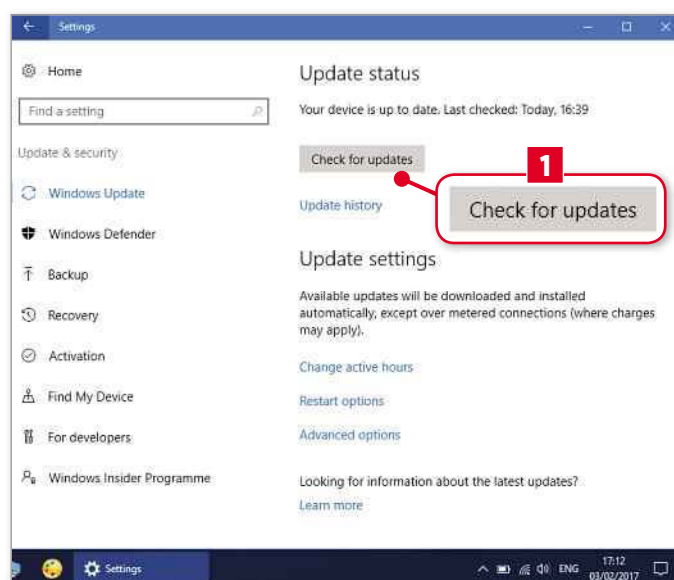
STEP 6 If Microsoft's Assistive Technologies method doesn't work for any reason, an alternative method involves the use of Windows' Media Creation Tool. Go to www.snipca.com/23401 and click the 'Download tool now' button. Open the downloaded setup file, click Yes, Accept, choose 'Upgrade this PC now' **1**, then click Next **2**. The Windows 10 setup file will now start downloading to your PC (again, this can take an hour or two). After that's done, you'll be prompted to enter your Windows 7 product key (see Step 3). Your PC will then reboot several times before upgrading to Windows 10.



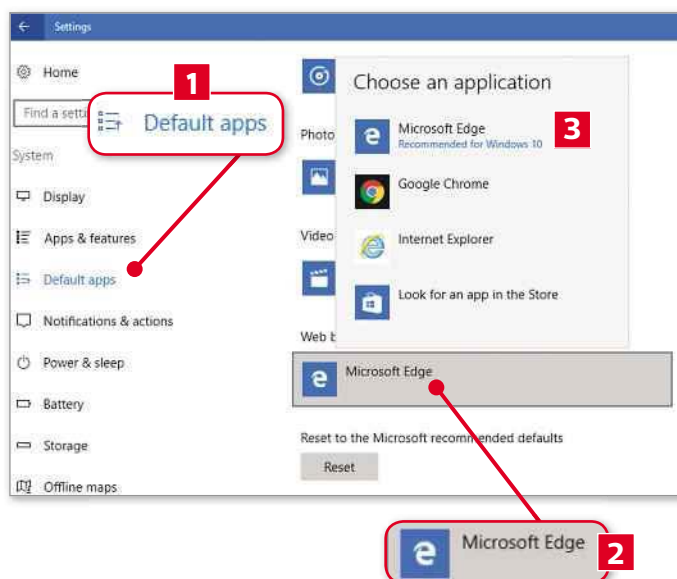
Upgrade to W10 for free using Microsoft's loophole



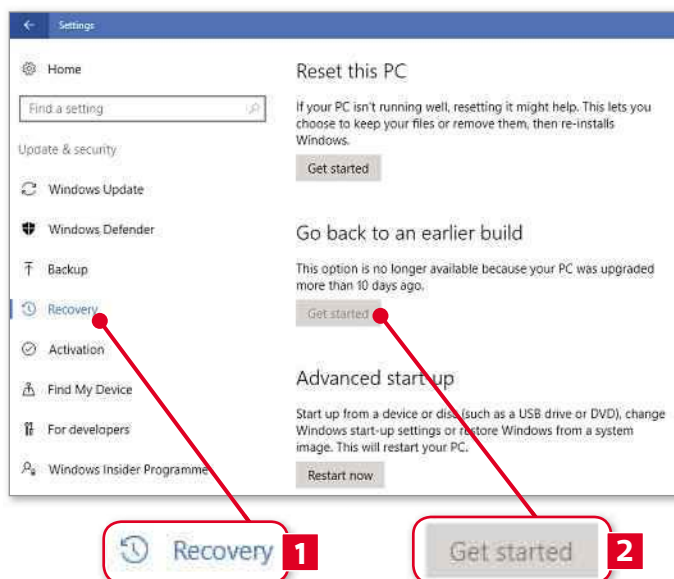
STEP 7 When you boot into Windows 10 for the first time, you'll need to log in using the account details you set up for your earlier Windows version. Click Next, 'Use express settings' **1**, then click Next again. Now log into your PC using your Microsoft account. You'll see another series of screens saying that Microsoft is setting up your Windows 10 PC, after which you'll see your Windows 10 desktop. Your files should be exactly where you left them.



STEP 8 The first thing you should do is update your PC to the latest version of Windows 10. To do that, open the Start menu, click Settings, 'Update & security', then click 'Check for updates' **1**. These will download in the background. After that's finished, you'll be prompted to install them and restart your PC.



STEP 9 Windows 10 automatically sets its pre-installed apps as your defaults. This means your default browser will be set to Microsoft Edge, your default email program will be the Mail app, and so on. To change these, open Settings, click System, then click 'Default apps' **1**. Now click the current default app **2** to see other installed programs in a pop-up list **3**. Select the one you want as your default.



STEP 10 Microsoft saves a recovery file containing a copy of your old operating system. If you're happy with Windows 10 you should delete this file. To do that, press the Windows key, type **disk cleanup**, then press Enter to open your PC's Disk Cleanup tool. Next, click the 'Clean up system files' button at the bottom left and look for an entry called Previous Windows Installation (about 10-20GB in size). Tick to select it, click OK, click Delete File(s), then Yes to remove it. If, on the other hand, you prefer your previous Windows version, you can revert to it within 10 days of upgrading. To do this, open Settings in your Start menu, click Update & Security, click Recovery **1**, click 'Get started' **2**, then follow the prompts (this process can take a few hours). ●

Design your own posters and flyers

What you need: Any web browser **Time required:** 30 minutes

There are plenty of free online services that let you design your own posters and flyers. Among these, Canva has always been our favourite because it offers a wide variety of layouts, backgrounds, photos and fonts, as well as the

option to upload your own images from your PC. The service now has many more of these elements than ever, including some new tools that make it easier to customise them on your page. We'll show you how to use it.

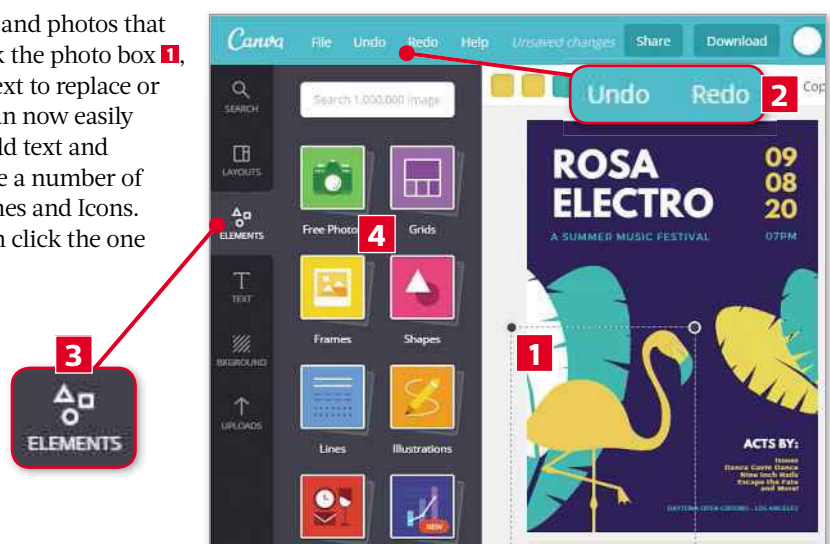


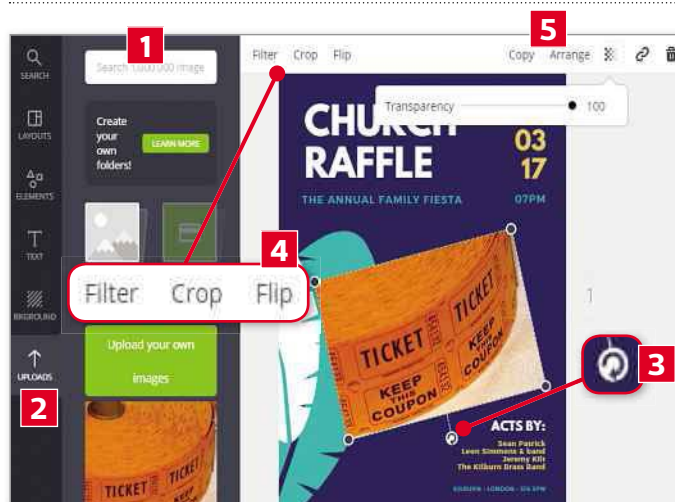
STEP 1 Go to www.canva.com and click 'Sign up with Email' to create a Canva account, or log in by entering your details in the top-right corner. After logging in, you'll see a range of templates at the top. Click 'Create a design' **1**. Unlike before, these templates are now arranged in categories. Scroll to the Marketing Materials **2** category to see examples of posters **3** and flyers **4**, then select the one you want (we selected poster).



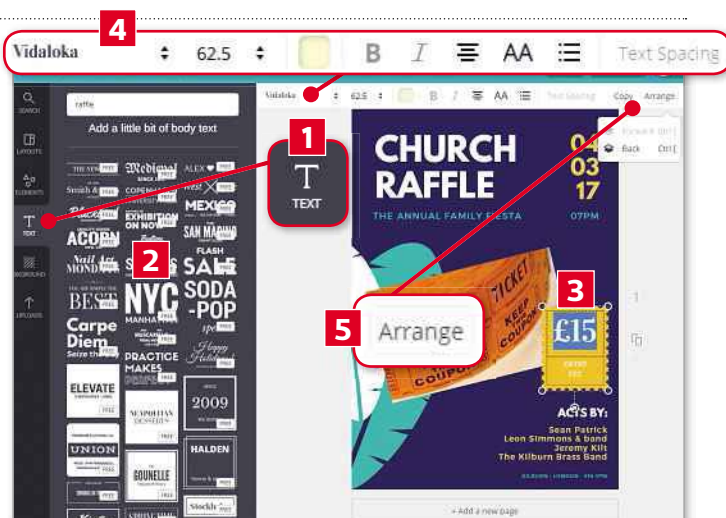
STEP 2 First, name your file **1**. In the Layouts tab **2**, you'll see a selection of blank templates to choose from. There are more free options than in earlier versions, but there are also a few paid-for options (starting at \$1). You can also start with a blank background, then add photos and text. To do that, click the Background tab **3**, which now has three options. You can click the Document Colors tab **4** and select a colour from the palette, select one of the solid colours from the default palette **5**, or use one of the free patterned options below that.

STEP 3 We selected a poster layout (containing text and photos that we want to change). To remove photos, click the photo box **1**, then press Delete. Similarly, highlight any text to replace or delete it. Changes are saved automatically and you can now easily undo or redo them **2**. We'll now show you how to add text and images to your layout. Click the Elements tab **3** to see a number of options **4**, including new additions like Charts, Frames and Icons. Select the category you want to see examples of, then click the one you want to add it to your poster.





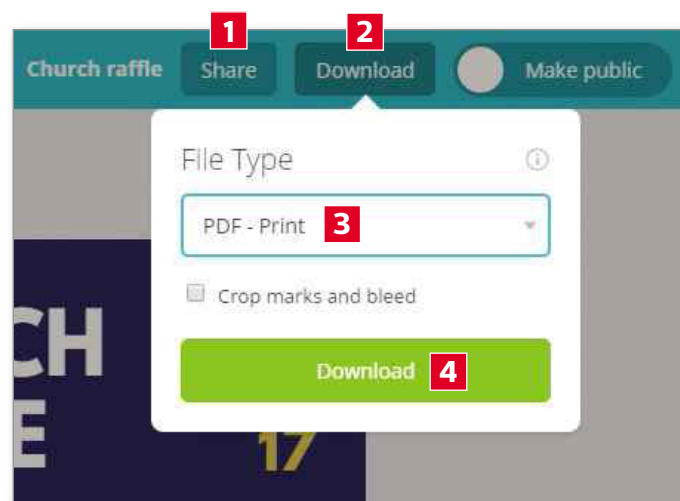
STEP 4 Another feature lets you search **1** for suitable photos and illustrations. Alternatively, upload photos from your PC by clicking the Uploads tab **2**. Once you've added a photo it's easy to customise it. First, click to select the photo. You can click and drag to reposition it, drag its corners to resize it, or click and drag its handle **3** to rotate it. You'll also see some new tools at the top that let you add filters, and crop or flip your photo **4**. On the right, you'll see options to make a copy of the image and change its transparency levels using a slider **5**.



STEP 5 To add and customise fonts select the Text tab **1**, then click one **2** or one of the new coloured themes below. As with images, you can resize and reposition the font after highlighting it **3**. You'll see plenty of customisation options **4**, which let you change the font, its size, colour, format, and text spacing. If a piece of text or a photo you want to display lies behind another element, simply select it, click the new Arrange button **5**, then click Forward.



STEP 6 Canva has several other useful options. If your text appears too small to read, then click the plus icon **1** to zoom in. Click the new 'Enter presentation' button **2** to view your poster fullscreen. To replicate your poster, click the copy icon **3** – this second version will appear below **4**. You can now make changes to each separately then compare the two, before deleting the one you don't want **5**.



STEP 7 Finally, we'll show you how to share or download your poster. The new Share button **1** displays three tabs – People (default), Link and Embed. In the first tab, type the email addresses you want to send your poster to. Set the adjacent dropdown menu to 'Can edit' or 'Can view', then click Send. Recipients will need to create a free Canva account to see or edit your file. To download the file to your PC, click the Download button **2**. The dropdown menu lets you choose which file format you want (the new 'PDF - Print' option **3** is best for printing). Finally, click Download **4**.

Record your screen using keyboard shortcuts

What you need: ChrisPC Screen Recorder; Any Windows version (XP to 10)

Time required: 20 minutes

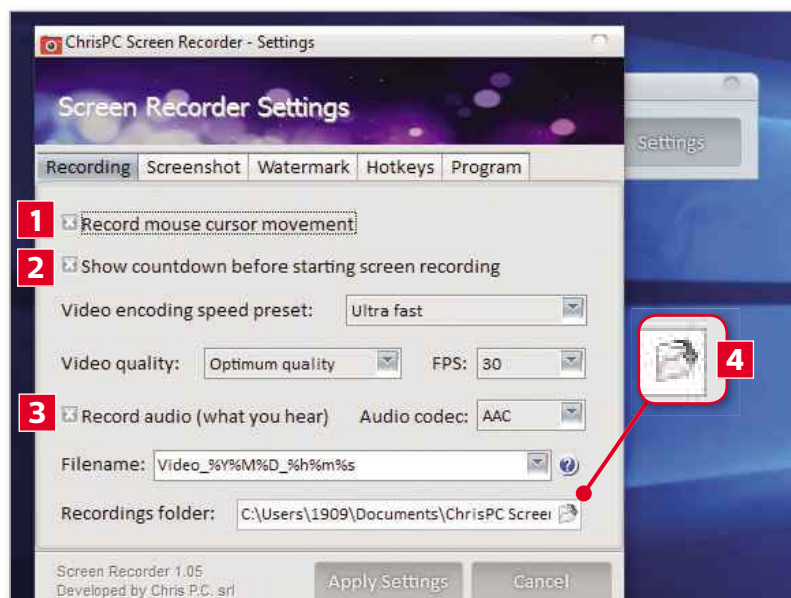
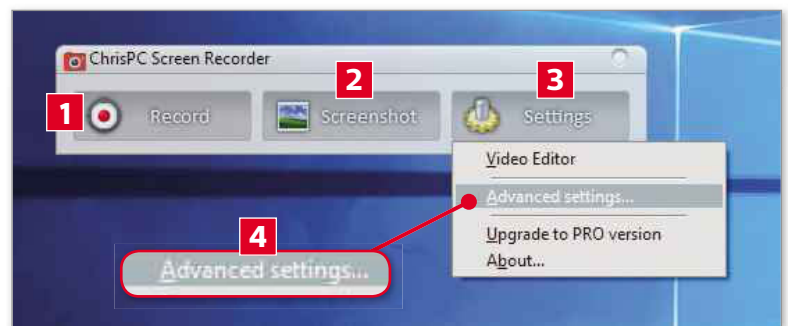
In previous issues, we've covered several programs that let you take video recordings or screenshots so you can better illustrate a problem on your PC to someone else. ChrisPC Screen Recorder is a new, free

program that lets you do both.

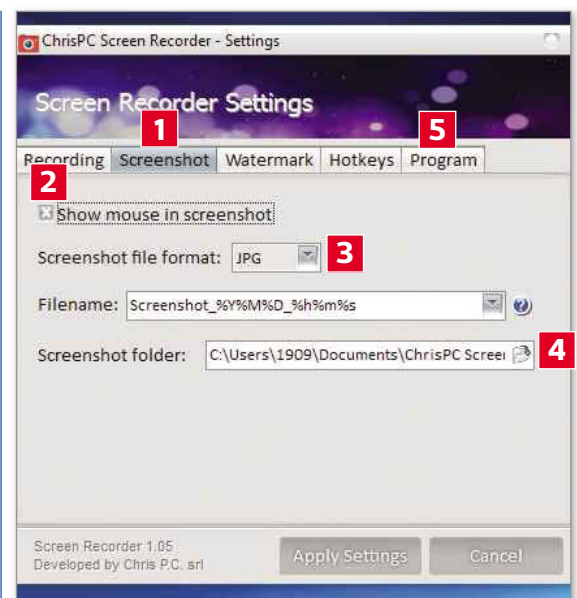
You can record your entire screen or just a portion of it. Better still, it lets you set your own keyboard shortcuts for different types of recordings and screenshots.



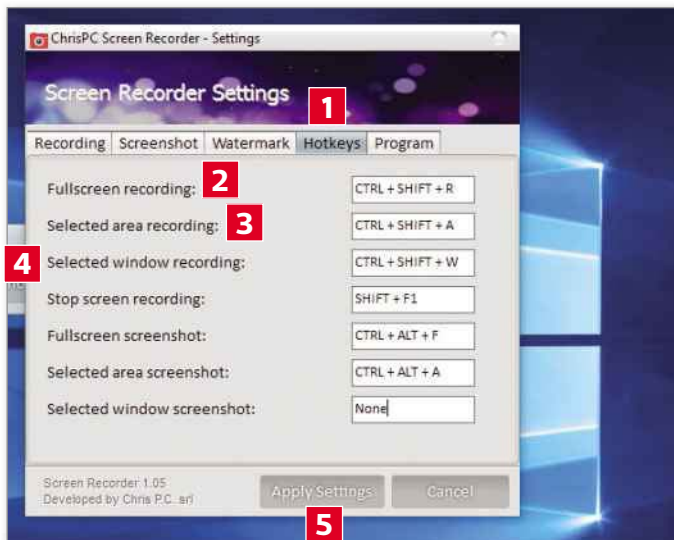
STEP 1 To download the program, go to www.snipca.com/23248, then click the green Download Now button. Open the downloaded setup file, click Run, Yes, OK, Next, select 'I accept the agreement', then keep clicking Next until you need to click Install. Finally, click Finish to launch the program. You'll see a small window with three buttons – Record **1**, Screenshot **2** and Settings **3**. We'll first show you how to tweak the program's default settings, so click Settings, then 'Advanced settings' **4**.



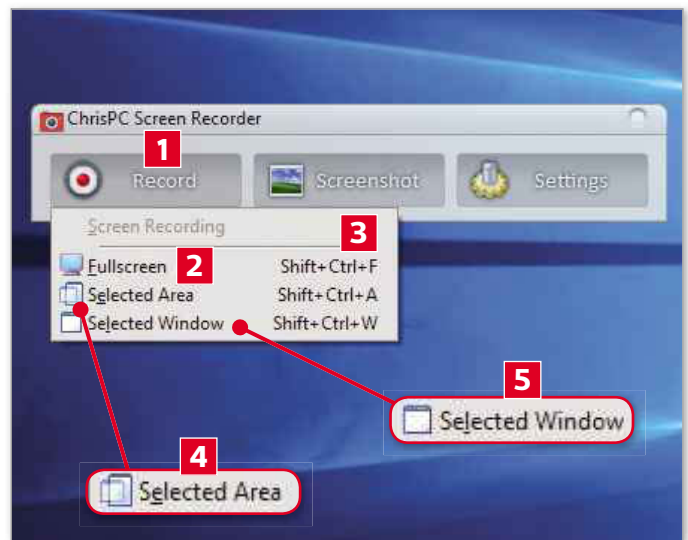
STEP 2 The Settings window will open in the Recording tab. By default, your mouse cursor is visible in video recordings **1**, there's a five-second onscreen countdown timer before your recording begins **2** and the program records any audio produced by your PC **3**. Untick the relevant boxes if you don't want these options. The program creates sub-folders in your Documents folder where it saves recordings. If you want to save your files elsewhere, click the folder icon **4** and choose another location.



STEP 3 Now click the Screenshot tab **1**. Here, you can choose whether to display your mouse cursor in screenshots **2**, change the file format (select JPG or PNG) **3** and change the default save location **4**. Once you've recorded your video, it will automatically start playing in ChrisPC's Video Editor. If you don't want this, click the Program tab **5** and untick the second box. The Skin dropdown menu in this section lets you change the program's theme.

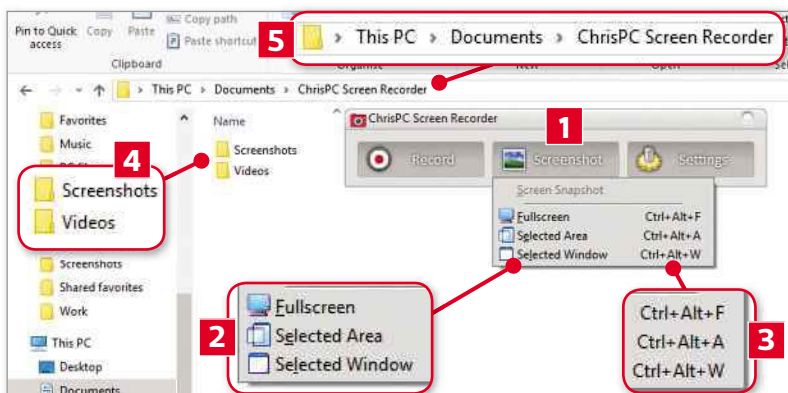
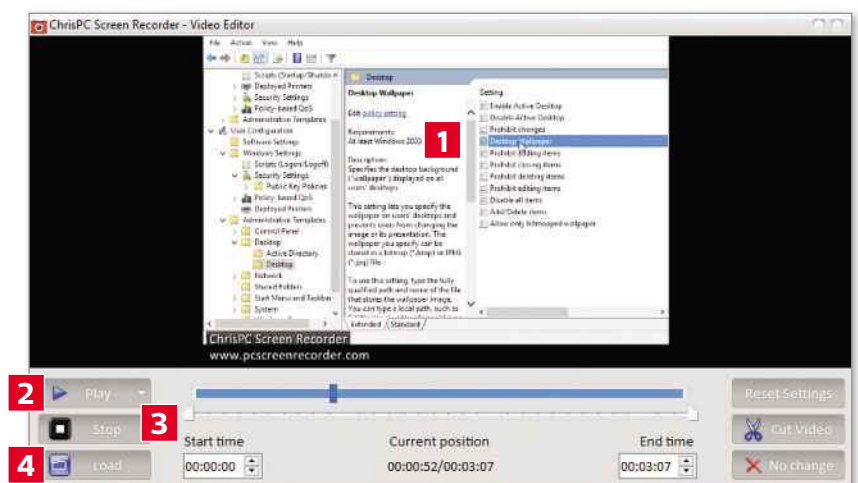


STEP 4 Next, click the Hotkeys tab **1**. Unlike other programs, ChrisPC Screen Recorder lets you take three types of screen recordings – full screen **2**, a selected area **3** or any open program window **4** (such as Word or Chrome). You'll see default keyboard shortcuts for each of these options and another to stop your recording. To change any of these default shortcuts, click inside the relevant field, then press the key combination you want to use instead. Click Apply Settings **5** when you've finished.



STEP 5 There are two ways to start a video recording. You can click Record **1**, then choose the type of recording you want **2**. Alternatively, you can simply press the keyboard shortcut you created in Step 4 **3**. If you choose Selected Area **4**, you'll see a message asking you to highlight the section of your desktop you want to record. If you choose Selected Window **5**, you need to click inside the window you want to record. You'll now see a five-second onscreen countdown timer, after which whatever you do within the selected area will be recorded.

STEP 6 There's no time limit on recordings, but be careful not to reveal sensitive data relating to your online accounts (such as passwords) or your PC (such as your IP address). When you've finished recording, click Stop (or use the 'Stop screen recording' shortcut – see Step 4). Another option is to re-open the program on your PC and click Stop. Unless you changed the default settings (see Step 3), the recording will automatically start playing in ChrisPC's Video Editor **1** so you can check it. You can play/pause **2** or stop the video **3**. To open and check another video file, click Load **4**, navigate to the file, then click Open.



STEP 7 As with video recordings, the program lets you take three types of screenshot in two different ways. So, either click Screenshot **1**, then choose what you want to take a screenshot of **2**, or use the relevant keyboard shortcut **3**. By default, your videos and screenshots will be saved in separate folders **4**. To access them, go to your Documents folder, then the ChrisPC Screen Recorder folder **5**. Finally, send the relevant files to the person helping you fix your PC problem. ●

Make our Snipca URLs easier to use

What you need: Chrome or Firefox browser **Time required:** 10 minutes

We often convert long web addresses to Snipca URLs to make them easier to type. Usually this means typing the entire Snipca URL into your browser bar, then pressing Enter to go to the website. One of our subscribers, Alison Anderson,

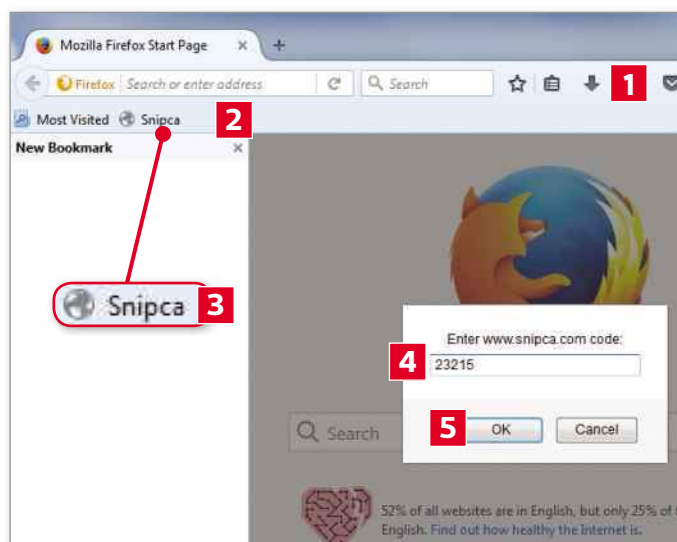
has now created a Chrome and Firefox bookmark that lets you open these Snipcass even faster. Instead of typing the entire URL into your browser bar, you simply open the bookmark, then enter the five digits at the end.



STEP 1 We'll first show you how to set this up in Chrome. Open Chrome, click the three dots **1**, move your cursor to Bookmarks **2**, then click 'Show bookmarks bar' **3** to display your bookmarks below your browser bar **4**. Now repeat the above steps 1-2, but then click 'Bookmark manager' **5**. Next, open another browser tab, go to www.snipca.com/23220, copy the entire line of code, then return to the Bookmarks Manager tab.



STEP 2 Right-click the 'Bookmarks bar' folder **1**, then click 'Add page'. Type **Snipca** in the Name field at the bottom, paste the copied line of code into the URL field, then press Enter. Click and drag this new bookmark toward the top of your list **2** (so it's positioned near the top left of your Bookmarks bar **3**). Now whenever you want to access a Snipca link you see in *Computeractive*, click this bookmark, enter the five-digit number after 'www.snipca.com/' (in our screenshot **23215**) **4**, then click OK **5** to open that web page in Chrome.



STEP 3 To create a Snipca bookmark in Firefox, right-click any area near your extensions **1**, then select Bookmarks Toolbar to see your bookmarks below your browser bar. Right-click anywhere in this toolbar **2**, then click New Bookmark. Next, type **Snipca** in the Name field, paste the long line of code from www.snipca.com/23220 in the Location field, then click Add. From now on, whenever you click this Snipca bookmark **3**, you'll see a message prompting you to type your five-digit code **4**. Do that, then click OK **5**.

NEXT ISSUE

- Get Windows 10's future tools today
- Make Paint.NET better with plug-ins
- Email sensitive documents 100 per cent safely
- Make PDFs easier to print

Subscribe to *Computeractive* at getcomputeractive.co.uk

ON SALE
Weds
1 March

TIP OF THE FORTNIGHT

Use your iPad without the Home button

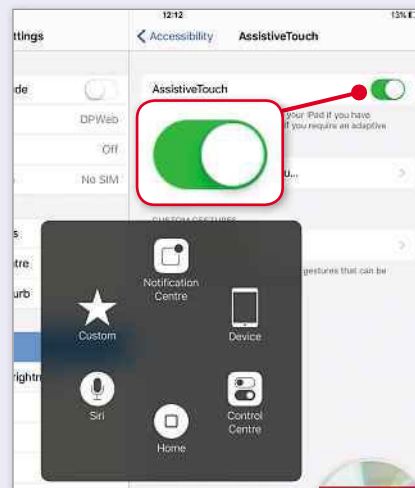
The Home button on my iPad recently stopped working. The device is past its warranty and I was quoted an exorbitant amount to fix the problem. Initially, I was worried because I couldn't access my home screen and apps. However, I was happy to find that I can still use my iPad without the Home button.

There are two ways around this problem. The first method is to turn on your screen using the power button at the top, swipe left to the widgets screen, then pinch inwards using four fingers. You'll then see the Enter Passcode screen.

If this method doesn't work, go to the widgets screen again, but this time tap the search bar at the top, type **settings**, then tap the Settings icon. You'll be prompted for your passcode, after which you'll see your device's home screen.

Now go to Settings, General, Accessibility, AssistiveTouch, then turn the slider on (see screenshot). This displays a small floating icon that is permanently on your screen. When tapped, it gives you access to several device functions, including a virtual Home button. I can now use my iPad without having to pay for repairs.

Ian Shannon



Ian wins a copy of our 2016 Back Issue CD

Buy it on Amazon www.snipca.com/23209



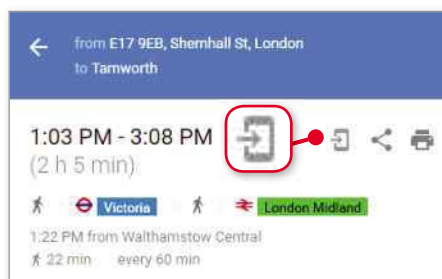
GOOGLE MAPS

Send directions to your phone via text

✓ My job involves lots of travelling and I only recently realised you can now send directions from Google Maps on your PC to your phone as a text message or email. This is brilliant because it means I can work out my directions at home then follow them on my phone.

First, go to maps.google.co.uk on your PC, click 'Sign in' and log in using the email address you use on the Gmail app on your phone. Next, type your start and end points into the relevant fields, select your mode of transport, then select the route you want from the list of options. Now, click the send-to-phone icon (see screenshot below). You'll see three options – to send the directions to your device as a notification, to send them via an email, or as a text message. The latter two options are useful because they contain links that let you navigate to those locations with one tap.

Trevor Payne



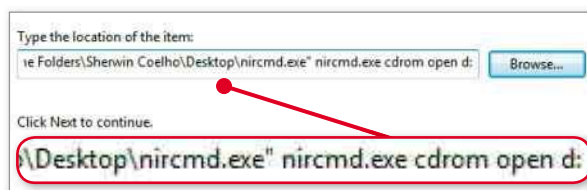
WINDOWS

Create a desktop shortcut to open your disc tray

✓ I find it fiddly to open my laptop's disc tray, so I was happy to stumble upon NirCmd – a free Nirsoft program that lets you create a desktop shortcut that will open it.

To install the program, go to www.snipca.com/23358, scroll to the bottom of the web page, then click the 'Download NirCmd 64-bit' link. Extract the downloaded zipped files, then drag the 'nircmd.exe' file to your desktop. Next, open My Computer, and check the letter of your DVD drive (usually 'd').

Now, right-click any blank area on your desktop, move your cursor to New, then click Shortcut. Click the Browse button, navigate to the 'nircmd' file on the desktop and click OK. Next add a space, then type the following line at the end of your 'nircmd' desktop location: **nircmd.exe cdrom open d:** ('d' stands for your DVD



drive – see screenshot above). Finally, click Next, give your shortcut a name (like 'Open Disc Tray'), then click Finish. From now on, simply open this shortcut and click Run to open your disc tray.

David Ward

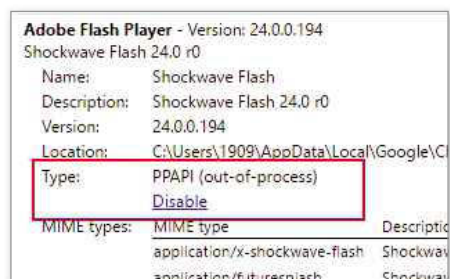
CHROMECAST

Fix sound problems when casting to TV

✓ I bought a £30 Chromecast (www.snipca.com/23367) after reading about it in *Computeractive* (Secret Tips, Issue 493). When I tried **casting** content from my Chrome browser to my TV (following your first tip), there was no audio. Turns out it's a common problem with an easy fix.

Open Chrome on your PC, type **chrome://plugins** in the browser bar, then press Enter. Click the '+' sign beside Details (at the top right) to expand your **plug-ins**, then look under Adobe Flash Player. If you see any other entries in the Type field, then disable them, making sure that PPAPI is the only one enabled (see screenshot left). Restart Chrome and audio should now play on your TV.

Nigel Thornley



Phone and Tablet Tips

Brilliant things to do on your device

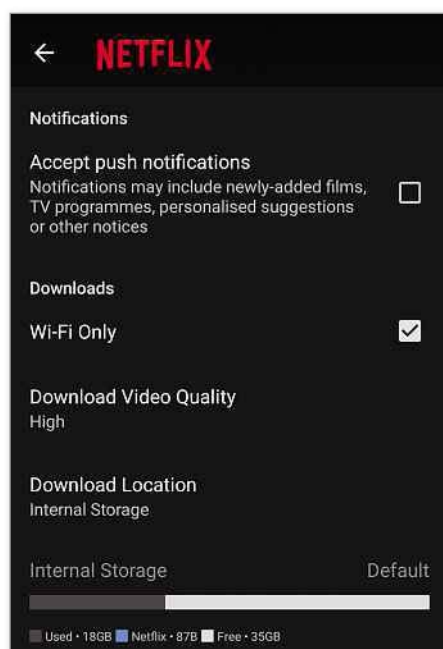
ANDROID

Download Netflix movies and TV shows to watch offline



In Issue 492 (see page 44), we explained how to download Netflix movies and TV programmes to watch offline. This kind of data can quickly eat into your phone's storage space. Thankfully, Netflix now lets some Android users download content on to their **SD card**. Netflix says that the feature is not available on all devices. We'll show you how to check whether the feature is available for your device.

Open the Netflix app on your device



(www.snipca.com/23317) and create an account (or log in if you already have one). The service is free for the first 30 days, after which monthly subscription plans starts at £5.99 (see www.snipca.com/23318). To watch offline you'll need to change Netflix's default download settings, so tap the menu button (three lines at the top left), then tap App Settings.

Here, ensure Wi-Fi Only is ticked (see screenshot below left) – this ensures you can't download using mobile data. Next, click Download Video Quality and change it from Standard (the default) to High. This will result in larger files, but better video resolution. Next, tap Download Location. If you have an SD card installed and the feature is available for your device, then you'll see your SD card here. Tap to select it.

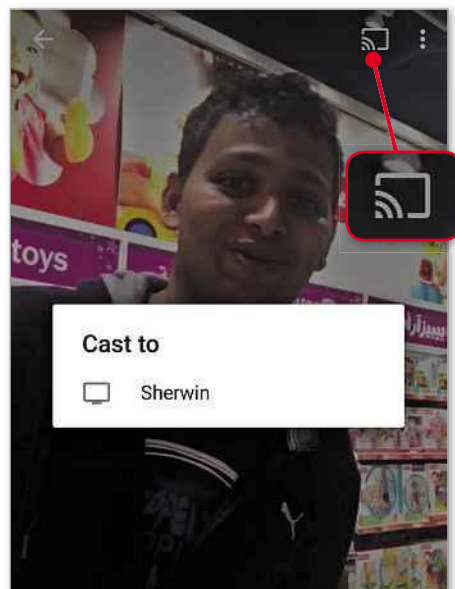
To download a movie or TV show, tap the menu button on the main screen, tap the 'Available for Download' section, select what you want to download, then tap the Download button. You'll see its download progress at the bottom. To watch these files, go to the My Downloads section in the menu.

ANDROID & iOS

Watch WhatsApp videos on your TV



WhatsApp Messenger (Android www.snipca.com/23319; iOS www.snipca.com/23320) is one of the most popular mobile apps. In Issue 491 (see



page 44), we told you how to use it to make free video or voice calls over your phone's mobile network or via Wi-Fi. With its latest update, the app lets you play videos as soon you receive them, while they are still downloading (previously, you had to wait for the video to finish downloading before watching it).

Better still, if you use Google's Chromecast (£30 from www.snipca.com/23322) you can now stream any videos you receive via WhatsApp to your TV. Tap to start playing your video. You'll now see the Chromecast icon at the top or bottom (see screenshot above). Tap to select it, then select the name of your Chromecast to watch the video on your TV.

Best New Apps

What you should install this fortnight

Don't Leave It Free

iOS: www.snipca.com/23330

This app is a godsend for those who often forget something when leaving the house.



You save a list of items you need to take with you and set an alert range (such as 30 steps). When you exceed that range, you'll see a reminder showing you the items you should have with you.

Lego Life Free

Android: www.snipca.com/23333

iOS: www.snipca.com/23335

Adults have loads of social networks to choose from, but Lego has now created one



for kids (though they'll need their parent's consent and details to sign up). Kids can upload and comment on photos of Lego creations. There are also Lego challenges and 'how to' videos.

Evernote Free

iOS: www.snipca.com/23332

Evernote has updated its iOS app with a few new features. Press the big green



button to start taking notes; or long-press it to take an audio note or photo, or to set a reminder. The search tool can now find text within photos using **OCR**. It's also easier to change text size and colours.

iOS Use Gmail's new features



Google has updated the iOS Gmail app (www.snipca.com/23323), adding multiple new features. While reading emails you can now swipe left to go to the previous one or right to read next one. If you've set up an email signature in the online version of Gmail, your app will now use that signature by default (unless you've set up a different signature within the Gmail app).

If you want to set up a specific signature for emails you send from the app, then tap the three lines at the top left. Next, tap Settings at the bottom, your email address, 'Signature settings', the Signature slider, the text field below that, then type the signature you want to use.

You can also now choose a default browser app to open web links and maps app get directions. To do that, go back to Settings, then tap Google Apps. Next, tap



to select the browser and maps app you want to use (see screenshot right). Tap the 'Ask me which app to use every time' slider if you want to be prompted each time. This change applies to all Google apps installed on your device, including Google Keep and Google Docs.

ANDROID & iOS

Send money abroad at the cheapest exchange rate

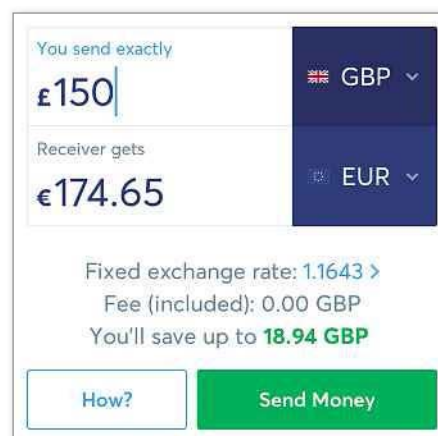


There are several apps that let you transfer money abroad securely. Among these, TransferWise is one of the best free options we've used because the process is incredibly simple and – in our experience – offers the best exchange rate. You can read more about the service and why Richard Branson invested in it, on its website: www.transferwise.com. It lets you send money to 59 countries, including the United States and Australia, as well as nations across Europe and the Asian sub-continent.

To use it, open the app (Android www.snipca.com/23325; iOS www.snipca.com/23326), tap 'Sign up' to create a new

account (or 'Log in' if you already have an account). Once you're signed in, tap the blue circular button at the bottom. On the following screen, enter the amount (in pounds) you want to send and which country you want to send it to. You'll see the exchange rate offered by the app and how much you'll save compared with sending money via your bank (see screenshot right). Next, tap Send Money.

Next, select the recipient – options include Myself, 'Someone else' and 'A business/charity'. Select the appropriate option, type the recipient's name, email address and their IBAN code, then tap Continue. You can now select whether you want to pay with your credit or debit card. Enter and confirm your bank details when prompted, then follow the onscreen instructions to check and confirm your transaction.



You'll receive an email telling you when the money is likely to reach the recipient. Use the app to follow the progress of your transfer. The recipient will receive an email when the money has been transferred into their account.

Games With Kids

What to play together on your phone and tablet

AGES 0-5

Sago Mini Puppy Preschool

£2.49 www.snipca.com/23336 (Android)

£2.99 www.snipca.com/23337 (iOS)

This new app has four simple games that will teach your youngster how to count and to recognise colours and shapes. Our favourite game (which all feature puppies) involves matching a toy to the correct shape.



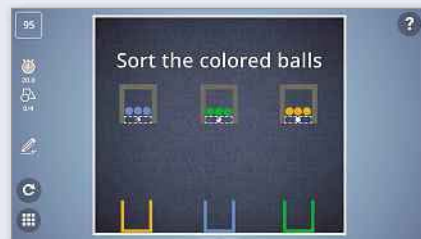
AGES 6-10

Brain It On*

Free www.snipca.com/23341 (Android)

Free www.snipca.com/23343 (iOS)

This game offers simple puzzles that will encourage your child to think creatively. Each one requires different solutions that usually involve drawing a line that joins the correct elements. You win stars upon completing each level, which then automatically unlocks the next one.



AGES 11-16

Pokémon Duel

Free www.snipca.com/23344 (Android)

Free www.snipca.com/23345 (iOS)

In this new Chess-like strategy game, your child has to choose six different Pokémon figures with different strengths. They then take on another player and their six figures. The player whose Pokémon crosses to the opponent's side first wins.



*Contains in-app purchases

Make Windows Better

Clever tips for every version

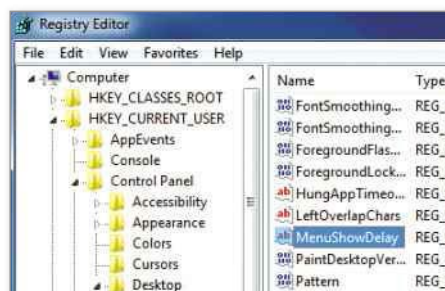
WINDOWS 7, 8, 10

Make your Start menu load faster



If your Start menu seems to take ages to load, there's an easy way to make it pop up faster. It involves editing a value in your PC's Registry Editor, so press Ctrl+R, type **regedit**, then press Enter to open it. Now navigate to the following key using the dropdown menus on the left: **HKEY_CURRENT_USER\Control Panel\Desktop**.

In the right-hand section, double-click the MenuShowDelay key (see screenshot below). You'll see its default value is 400, meaning your Start Menu takes 400 milliseconds (0.4 seconds) to launch. Change this to a lower value (200, for example). Once done, restart your PC and see if your Start menu loads more quickly. If not, try even lower values (but don't change it to 0).



WINDOWS 10

Change your profile photo



Windows 10 PCs require you to log in using your Microsoft account (you'll see your Microsoft profile photo when you log in and on the left of the Start menu). There's an easy way to change or remove this photo. To do that. Go to www.microsoft.com, click 'Sign in' at the top right and log in with your Microsoft account. Now click your login ID at the top right, click 'View account', click the circular profile photo, then click 'Change picture'.

To change your photo, click 'Add picture', navigate to the one you want to use on your PC, then click Open. Once it



WINDOWS 10

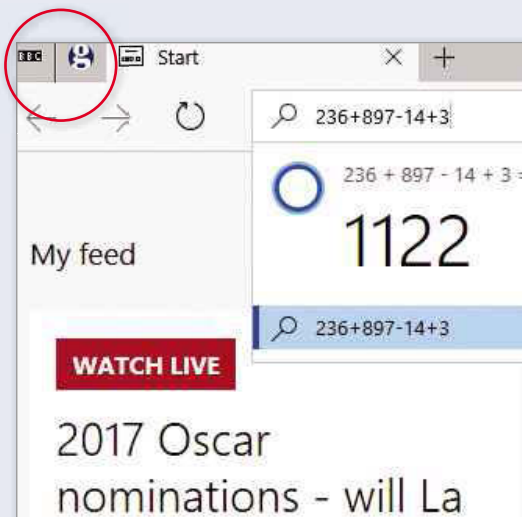
Use hidden Edge tools



Windows 10's default browser Edge has useful features that are easy to overlook. Here are three of the best.

Google Chrome lets you run simple calculations by typing them into your browser bar. Edge recently added this feature, so you can instantly see the correct answer once you've finished typing your calculation (see screenshot). You can use the asterisk (*) and backslash (/) symbols to carry out multiplication and division in your calculation.

To get more information about a word or phrase on a web page, simply highlight it, then click Ask Cortana. A panel will appear on the right with Bing's search results for the highlighted term. If you click Ask Cortana after highlighting an image, you'll see related images in the right-hand panel. Previously this was a feature you needed to enable, but it's



now turned on by default.

Another great feature lets you pin tabs to your browser. These appear as small square tabs at the top left of Edge (see red-ringed area of the screenshot). To do that, open the relevant website, right-click the website's tab, then click Pin. This will appear at the top left giving you easy, one-click access to it.

uploads, you can drag the four dots to zoom in on a specific area and click inside this area and drag to reposition your focus area (see screenshot below left). Click Save to confirm your changes. To remove the photo, click Remove at the bottom right, then Yes to confirm. The changes will take place within a few minutes.

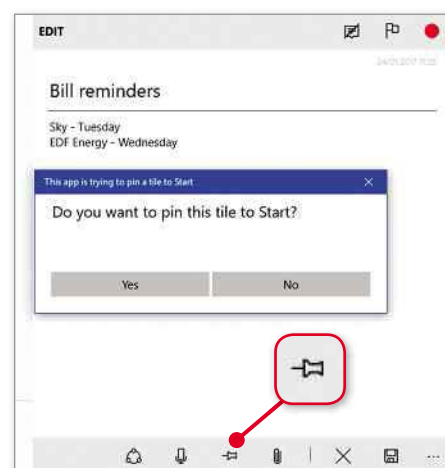
WINDOWS 10

Pin notes to your Start menu



Action Note is a free Windows 10 app that lets you make notes directly in the Action Centre. It also lets you pin important notes to your Action Centre and Start menu. Install Action Note from the Windows Store (www.snipca.com/23232). Once that's done, click the Notifications icon to the right of your taskbar to open your Action Centre, click Note, select Action Note, tick 'Always use this app', then click OK to set it as your default Action Centre note-taking app.


When the app opens, give your note a title and type what you want. Click the



note icon (with a slash) at the top right if you want to pin it to your Action Centre. You can change the default note colour by clicking the black circular dot at the top right, then choosing the colour you want. You'll see more icons at the bottom right. The paperclip icon lets you add photos from your PC. Click the pin icon then click Yes (see screenshot above) to pin your note to the Start menu. Click the floppy-disc icon to save your note.

EXCEL

Make printing spreadsheets easier

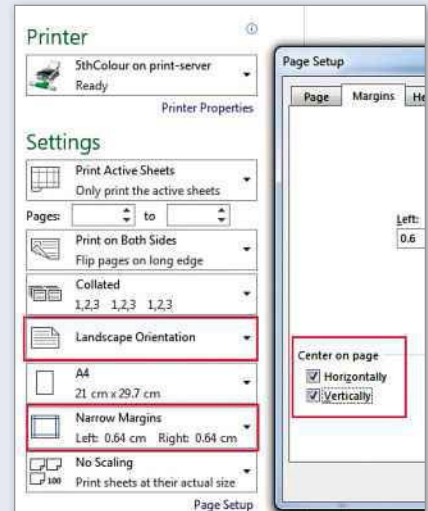
 Excel data can run into dozens of rows and columns which can make printing the relevant spreadsheet difficult. We'll explain how to simplify this process.

First, highlight the data you want to print. To make it easier to read in a print-out it's a good idea to convert the data into a table format. To do that, click in the selected area and press Ctrl+T. If your data has headers, ensure that 'My table has headers' is ticked in the 'Create a Table' pop-up menu, then click OK.

Next, select this table, click the Page Layout tab, the Print Area dropdown menu, then click Set Print Area. If you

see any text or data outside your defined print area, click the Home tab, then Wrap Text (in the Alignment section). Now press Ctrl+P to see a print preview on the right. The printing orientation is set to Portrait, but you can change this to Landscape (see screenshot).


Next, click the Margins dropdown menu and select Narrow. This reduces the margin width, thereby making it easier to fit your data on one page. By default, your table will appear at the top of the page. If you want it to appear in the middle, click the Margins dropdown menu again, click Custom Margins at the bottom, tick the Horizontally and Vertically boxes, then click OK.



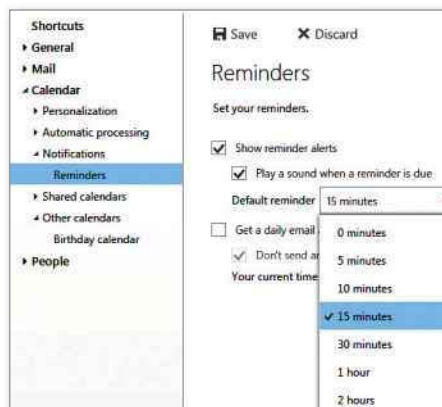
Finally, ensure the top Printer dropdown menu is set to the one you use, then click Print.

OUTLOOK & OUTLOOK.COM

Disable or delay your notifications

 Outlook displays reminders for any events you've added to your calendar and any email invites you've accepted. If you use your Outlook or Hotmail account to log into Facebook, you'll also see notifications of all your Facebook friends' birthdays. There's an easy way to disable these reminders or reduce their frequency if you find them annoying. The process varies slightly between Outlook and Outlook.com.


If you're using the Outlook program, click File at the top left, Options at the bottom, then Calendar. In the 'Calendar options' section, untick 'Default reminders' or change the duration in its dropdown menu to a longer time period (it's set to 15 minutes). Next, click Advanced on the left, untick 'Show reminders', then click OK to confirm your changes.

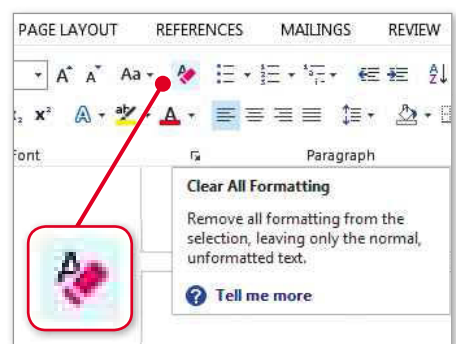
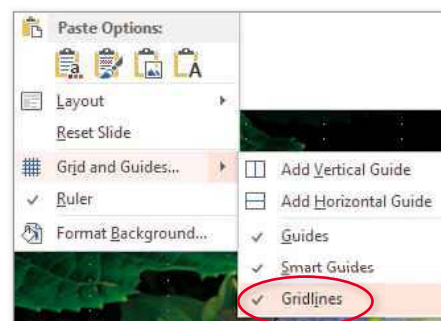


If you use Outlook.com, then go to this page (www.snipca.com/23285) and log into your account. Using the dropdown menus on the left, click Calendar, Notifications, then Reminders. Next, untick 'Show reminders alerts' or change the 'Default reminder' dropdown menu from '15 minutes' to a longer duration (see screenshot below left). To stop birthday notifications, click Calendar, 'Other calendars', 'Birthday calendar', then select 'Turn off the birthday calendar'.

WORD

Change cases and remove text formats quickly

 We've all been in the situation where we type a whole chunk of text without looking at our screen, only to realise that our Caps Lock key was activated and everything we bashed out is in upper case. Thankfully, there's an easy way to convert text from upper to lower case (and vice versa). Select the relevant text, then press the




keyboard shortcut Shift+F3.

Likewise, if you've formatted your text (perhaps by bolding it up, italicising, and applying colours), then decided you don't like it, there's an easy way to remove all this formatting in one go. To do this, highlight the relevant text, then click the Clear All Formatting button in the Font section of the Home tab (see screenshot above).

POWERPOINT

Add gridlines to your slides

 Gridlines can be useful to see if you've aligned text and images properly within your slide. However, PowerPoint doesn't display these lines by default. To see them, left-click anywhere at the top or bottom of your current slide, move your cursor to 'Grid and Guides', then click Gridlines (see screenshot left). Similarly, you can click the Ruler option after right-clicking to see units of measurement along the top and left edge of your slide preview panel.

Restore points



Switch on system protection in Windows 10, schedule and delete restore points and create a desktop shortcut

Use system protection in W10

It's a mystery why Microsoft deactivated system protection – the automatic creation of **system restore points** – in Windows 10 (even if you upgraded from a Windows 7 or 8.1 PC that had it enabled). However, you can turn it back on quite easily. Click the Start button, type **restore point** then select 'Create a restore point'. Click the Configure button, then select 'Turn on system protection', move the Disk Space Usage slider to 2 per cent and click Apply (see screenshot below).

Create a system restore shortcut

You can set up your PC so that creating a new system restore is a simple matter of

double-clicking a desktop shortcut. In Windows 10, right-click the desktop, select New, then Shortcut. In the Create Shortcut pop-up box that opens type `cmd.exe /k "wmic.exe /Namespace:\\root\\default Path SystemRestore Call CreateRestorePoint "My Shortcut Restore Point", 100, 7"` (or copy and paste this from www.pastebin.com/raw/XvxRPTDy). Click Next, then name it – we called ours 'System restore point'.

The shortcut will be added to your desktop. Right-click it, select Properties, then click Advanced. Tick the 'Run as administrator' box and click OK, then Apply. To change the shortcuts icon (optional), click the Change Icon button

and type `C:\\Windows\\System32\\imageres.dll`. Press Enter, then pick your preferred icon – we selected an image of a PC (see screenshot below left). Finally, click OK, then Apply.

Now you can make a restore point whenever you want to by double-clicking the shortcut on your desktop. You can also pin the shortcut to your Start menu or taskbar by right-clicking the shortcut and choosing 'Pin to Start' or 'Pin to taskbar'.

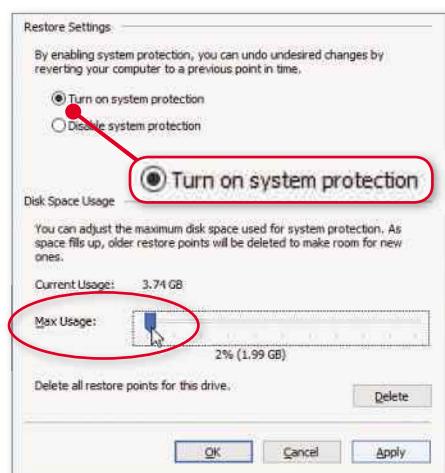
Delete restore points

Having lots of system restore points that you no longer need can take up hard-drive space. You can't delete them using Windows's System Restore menu, but you can use Restore Point Creator (www.snipca.com/23211). On the website click Download Restore Creator Installer, double-click the downloaded file then follow the instructions to install it. Open Restore Point Creator in your Start menu and you'll see a list of all your system restore points. To delete one, click it to highlight it, then click the Delete Selected Restore Point button (bottom right).

Schedule the creation of restore points

Restore Point Creator also lets you schedule the creation of restore points. Open the program, click System Restore Point Utilities (top left), then 'Schedule creation of System Restore Points' in the list. Click OK if you see a message about installing the program somewhere safe.

Next, choose a time interval (Daily, Weekly or Every) then choose a suitable time and day of the week (if applicable). Tick the three boxes in the Additional Task Preferences section to ensure the process runs without problems (for example, if your laptop tries to go into sleep mode). You may also want to click 'Set Custom Restore Point Name for Scheduled Restore Points' to name scheduled restore points so you can identify them. Finally, click Save Task.



Turn on system protection to let Windows 10 create restore points



Change the system restore point's shortcut icon to anything you want

Find out what a system restore will do

To see exactly what will change before you commit to activating a restore point, open the System Protection menu (see first tip above), click System Restore, then Next. You'll see a list of every available restore point on your PC. To preview what will change if you use one, click the 'Scan for affected programs' button. After a few seconds you'll see two lists of programs. The top list shows everything that will be

deleted, while the bottom list contains everything that will be restored.

You'll notice that many of the same programs and **drivers** will appear in both lists – this is because System Restore deletes certain files before restoring them. If a program/driver is displayed in the top list, but not the bottom one, it will be deleted from your PC. Make a note of these so you can reinstall them if necessary.

What's All the Fuss About...



Tinker Board

Asus's new computer blows raspberries at its British rival

What is it?

A new single-board computer that's being touted as a serious rival to the hugely popular (and British-made) Raspberry Pi. Made by Taiwanese company Asus, it runs a customised version of Linux – like the Pi – and is the same credit-card size.

Remind me, what's a single-board computer?

It's a bare-bones computer comprising just a motherboard, ports, memory and a processor. To use one you'll need to buy a compatible keyboard, mouse and monitor. The Pi is the most popular – 10 million units have been sold since it launched in 2012. But the Tinker Board is more powerful in several ways.

Such as?

It has a faster processor, and double the memory (2GB). But the key difference is that it supports 4K video and high-quality 24-bit audio, and has speedy Wi-Fi. This makes the Tinker Board a wiser choice than the Pi if you want to build a media-centre PC. Films and TV will look and sound much better on it, leading some industry commentators to call it the 'Raspberry Pi killer'.

Isn't that a bit over the top?

Yes, but self-styled 'experts' are rarely short of dramatic, headline-grabbing statements. Asus thinks people may be bored with the Pi, saying that it's "been in the market for so long, we're here to



expand users' choices with more options". But the Pi's longevity is actually one of its strengths. Over the past five years it has attracted a vibrant community of enthusiasts keen to share and swap projects (start at www.raspberrypi.org/community). So while the Tinker Board offers more streaming options, nobody buying a Pi will be short of ideas, especially now that Google plans to make "smart tools" for the computer (read more at www.snipca.com/23241).

Isn't the Pi cheaper too?

Yes, but not by so much that the Tinker

Board feels expensive. The latest version of Pi 3, called Model B, is £32.99 (from www.snipca.com/23224). You'll have to cough up £55 for the Tinker Board (from www.snipca.com/23219), but that feels like good value. In truth, both devices manage to pack a heck of a lot of computing potential into a small space for not much money at all. However, the Tinker Board has one drawback that is likely to put off some people.

Which is?

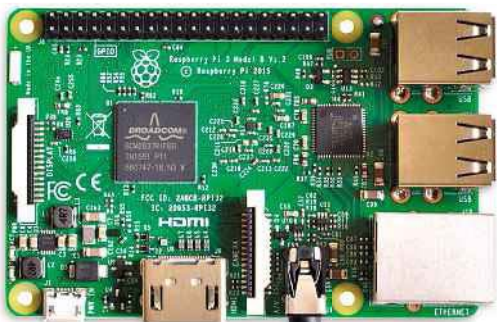
It doesn't support 4K video from Netflix, one of the world's most popular TV-streaming services. Also, the kind of computing aficionados attracted to single-board computers might be put off by the size of Asus itself. It's a huge company, employing over 6,000 people. In 2015 it made a profit of £430m.

By contrast, the Raspberry Pi Foundation is a Cambridge-based charity on a mission to "promote the study of computer science, especially at school level, and to put the fun back into learning computing".

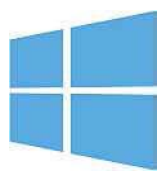
The Pi's fans love its do-it-yourself ethos, seeing it as the 'real ale' version of computing. In fact, you can even use the Raspberry Pi to make your own beer.

Really? How?

You need the BrewPi (www.brewpi.com), which controls the fermentation temperature of beer and wine. The Pi runs the device's web server, letting you monitor brewing data online. It's unlikely that the Tinker Board will be put to such quirky use, though we wouldn't say no if Asus offered us a home-brewed pint.



The Raspberry Pi is £22 cheaper than the Tinker Board, but lacks support for 4K video



Update Your WINDOWS PRIVACY SETTINGS

Microsoft is watching you, but you don't have to put up with it.

Mike Plant explains the new settings you need to tweak to keep
using Windows and Office without sacrificing your privacy

If you have Windows on your PC – and very possibly even if you don't – Microsoft has you on file. It knows your name, address, phone number, email address and, if you've ever bought

WHAT YOU'LL LEARN

- How to use Microsoft's new Privacy Dashboard
- Windows 10 privacy settings you must change – and which to leave
- Hidden settings that will stop Microsoft emailing you adverts
- Ideal privacy settings for Office, Skype, OneDrive and more

something from its store, your payment details. If that isn't worrying enough, the company also knows your internet browsing and search history, as well as the important dates in your calendar, who your friends are, how quickly you type and where you are right now.

One of the best ways to check exactly what Microsoft knows about you is on its new Privacy Dashboard. We'll show you exactly how to use it so you can see your stored online history for yourself. We'll then show you how to dig even deeper and find hidden settings that let you stop Microsoft gathering your data.

We'll also explain some of the privacy settings that are worth leaving on, so that

you can make sure Microsoft takes just enough of your information so that Windows and Office work just the way you want them to. For example, we'll explain how to set your location so that Microsoft can tailor search results based on where you live, but without knowing exactly where you are at any given time. Then we'll reveal how to clear your browsing and search history to prevent Microsoft from gathering similar information in the future.

Finally, we'll tell you about the settings you need to change in Windows, and in the Microsoft programs you use every day, so you can trust that your privacy is secure.



WHAT DOES MICROSOFT KNOW ABOUT YOU?

Your personal details

If you've ever created a Microsoft account (and this is a pre-requisite if you've ever used Windows 10, Outlook, OneDrive or Skype), then Microsoft knows quite a lot about you already. To find out how deep its knowledge goes, go to <https://login.live.com> and type your Microsoft email address (typically ending in @hotmail.com, @live.com, @msn.com, @passport.com or @outlook.com), click Next, then enter your password and click 'Sign in'. Click 'Your info' and then 'Edit your personal info' to see whether Microsoft has a record of your birthday and post code.

You can't remove your country/region because Microsoft needs to know where you are to provide location-specific Windows updates, and it also needs to know your date of birth to ensure that you're over 21. However, there's nothing to stop you entering a fake date of birth should you wish (though make a note of this bogus date in case you ever need it to recover your password).

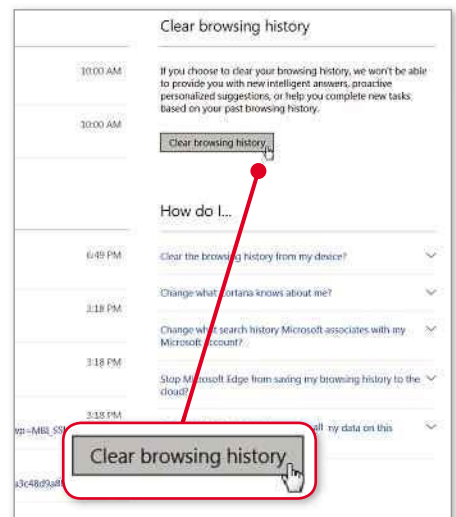
You can also restrict how much Microsoft knows about where you are by deleting your postcode and choosing 'Select' from the Constituent Country dropdown menu. Finally, you can choose 'Not specified' from the Gender dropdown menu should you wish. Click Save to apply your settings (see screenshot above right).

Remove your date of birth, gender and home address by choosing these settings on your 'Personal info' page

Every website you've visited

Microsoft will record your internet browsing history if you use the Edge browser in Windows 10 and it's voice-activated personal assistant Cortana is switched on. To see this, go to www.snipca.com/23250 – you may be prompted to sign into your Microsoft account) and scroll down the page. A record of every website you've visited will be listed in date order.

Microsoft claims that having access to your browsing habits lets it improve Edge and provide personalised suggestions, but



Wiping your browsing history won't have a negative impact on your browsing experience

preventing Microsoft from accessing your online activities won't make any difference to your browsing experience.

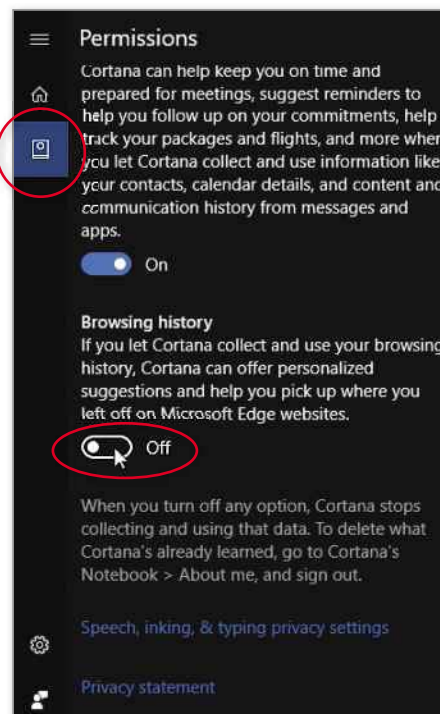
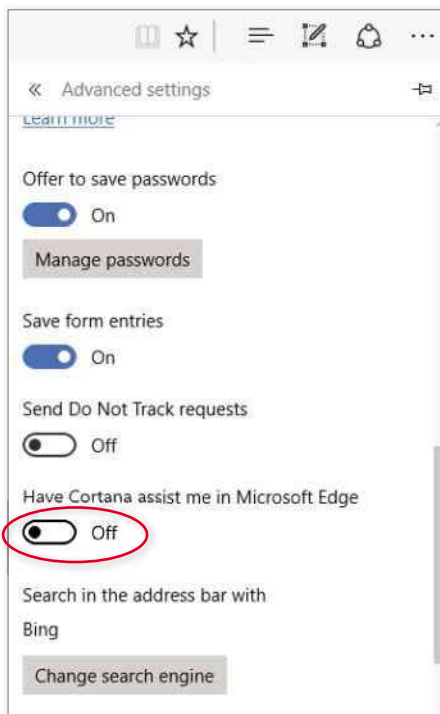
First, click 'Clear browsing history' (see screenshot above) to wipe Microsoft's records to date. Next, you need to switch off Microsoft's ability to track you from this point on. Open the Edge browser, click the Menu button (the three dots at the top right), then Settings, 'View advanced settings' and switch the 'Have Cortana assist me in Microsoft Edge' slider to Off (see screenshot below far left). Now open Cortana (click the search box at the left of the taskbar), click the Notebook icon, Permissions, then switch off the 'Browsing history' slider (see screenshot left). Note that this won't remove the browsing history that you can see, only the history that Microsoft can access.

What you've searched for online

Now that you've restored some control over your browsing history, it's time to do the same with what you search for online.

Go to your Privacy Dashboard (www.snipca.com/23251). Anything you've ever searched for in Bing will be listed here. Even if you don't consciously use Bing, you may find Microsoft has captured some of your search history anyway. This is because Edge uses Bing as its default search engine, so entering a search term into Edge's search bar will automatically alert Bing.

Microsoft claims it uses this information to provide more relevant search results, but we've noticed little difference after disabling it.



Turn off Cortana's tracking abilities in Edge (left) and in Cortana's settings (right) to stop Microsoft snooping on your browsing

To wipe the search history Microsoft currently holds, click the 'Clear search history' button. The best way to stop your future search activities being stored on Microsoft's servers from now on is to change Edge's default search engine to Google (or another of your choice).

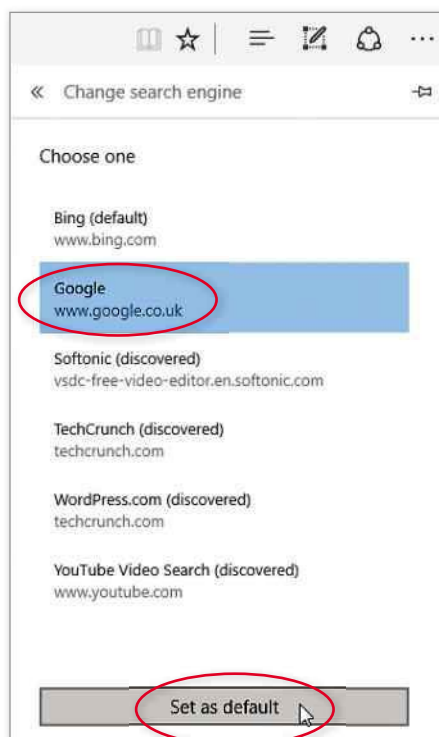
You'll first have to visit the website of the search engine you want to use. In Google's case, go to www.google.co.uk. Next, click Edge's Menu icon (three dots at the top right), Settings, 'View advanced settings', then 'Change search engine'. Click Google to highlight it, then 'Set as default' (see screenshot right). If you want to use a search engine that doesn't track you at all, you should consider DuckDuckGo. Visit www.duckduckgo.com, then select it as your default search engine using the steps described above.

Where you live and where you go

Microsoft doesn't need your post code to have a good idea of where you live and work – or indeed where you are right now. All it needs is login data from your PC, or – if you own one – a Windows phone or tablet. To find out whether Microsoft knows where you are when you log into Windows, go to www.snipca.com/23255 (or click Location in the Privacy Dashboard).

You'll see a map marked with orange dots, which represent a location where you have logged into your Microsoft account. To view each record Microsoft has kept about your location click the down arrow next to 'Past 2 weeks' and select 'All time' (see screenshot below). The map will usually focus on your home location, but you can zoom in and out using the '+' and '-' symbols at the top right of the map (or use your mouse's scroll wheel).

If you zoom out and then move the map (by holding down the left mouse



Change Edge's default search engine to stop Bing recording your search history

button and moving your mouse) you'll be able to see if Microsoft has tracked you when you've been travelling further afield.

You can wipe all stored location data by clicking the 'Clear location activity' button. However, you should consider whether there is certain information you want Microsoft to have. For example, if you use Bing Maps (or the Windows 10 Maps app) to plan journeys, or Cortana to give you live travel updates, it helps if Microsoft knows the location of your home or work.

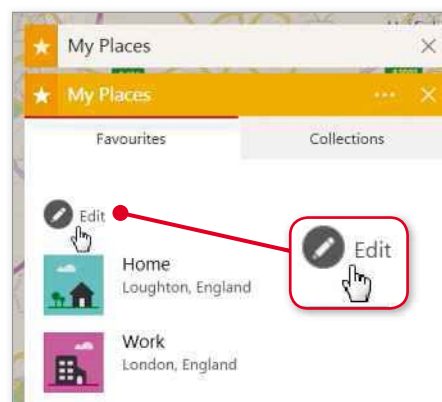
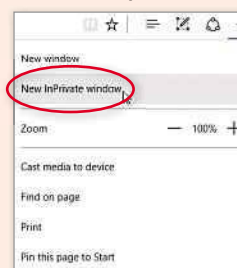
Go to www.snipca.com/23260 (you may be prompted to sign into your Microsoft account) and click the Edit button in the My Places box (see screenshot above right). The box will turn grey and you can now click the pencil icons to the right of Home and Work to edit their settings or delete them

USE INPRIVATE MODE FOR EVEN MORE PRIVACY

If you like Bing, there is a way you can use it without Microsoft gathering your search history. InPrivate is Edge's privacy mode (much like Chrome's Incognito) and will keep your browsing and search safe from the prying eyes of Microsoft. To open an InPrivate window, launch Edge as normal, click the Menu icon, then 'New InPrivate window'.

You can also launch it by pressing Left Ctrl+Left Shift+P. Annoyingly, Microsoft has yet to add an option to make

InPrivate mode your default option whenever you open Edge. If it ever does, we'll let you know.

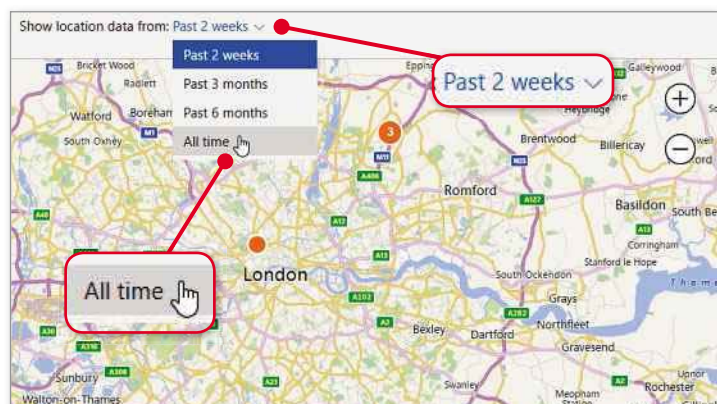


Edit (or delete) where Microsoft thinks you live and work

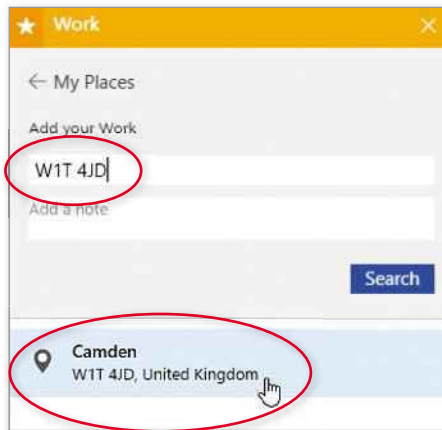
entirely. To edit a location, click the pencil icon and type a post code, then select your address from the list (see screenshot above right). If you want to delete your location history click the 'x' next to the pencil icon. Once you're happy with your settings, click the back button (at the top left), then Done.

To stop Microsoft from tracking your location in future you'll need to tweak a few settings in Windows 10. Click the Start button, Settings, Privacy, then Location. Turn the 'Location service' slider off (see screenshot top right of page 53). This also stops your Windows 10 programs and apps from detecting your current location.

To set a default location (which can be handy if you want news and finance apps



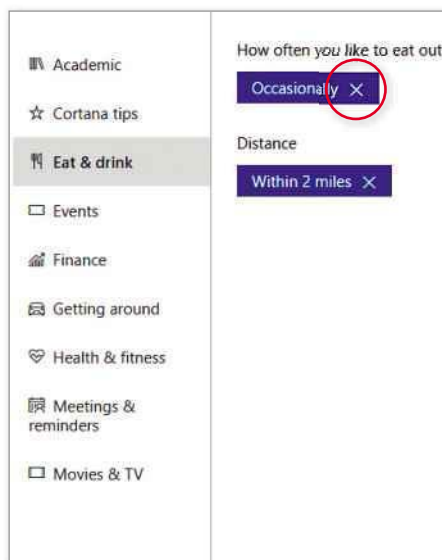
Select 'All time' to see every log that Microsoft has made of your location



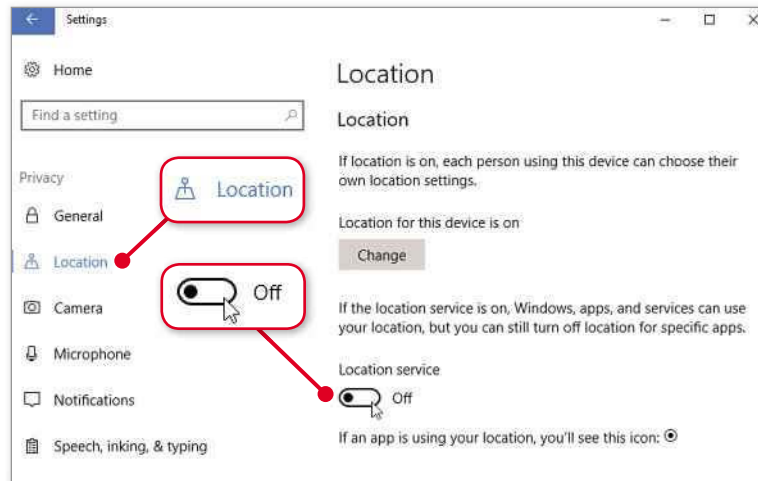
Add your Home and Work locations if you use Bing Maps to plan journeys

to give you UK-specific information, for example) click the 'Set default' button. When the Maps app opens check the 'Default location' box. If you set a location using Bing's My Places (see page 52) you should see your home location indicated. If you don't see a location or it's incorrect, click Change, enter your password, then choose an address from the list of results. Your location should now appear in the 'Default location' box. Now close the Maps app.

Another option is to leave the 'Location service' slider turned on, but then choose which Windows apps can use your location. To do this, click the Start menu, Settings, Privacy, Location, then scroll to the bottom of the Location settings menu until you see a list of apps. Here, you can use the sliders to deny certain apps access to your location. You might, for example, want to grant the Maps and News apps permission to access your location, particularly if you regularly travel abroad.



Limit what Cortana knows about you by deleting data within categories



If you want to stop Windows tracking your location, move this slider to Off

Cortana knows what your interests are

If you've used Windows 10 for a while, you'll be well aware of Cortana, Microsoft's digital assistant, even if you haven't used it. In Microsoft's ideal world, we'd all organise our lives through Cortana – but we've yet to meet many people that actually do. Instead, Cortana sits on your PC and watches you – ever attentive as it waits for a command or request that never comes.

However, even if you steadfastly refuse to interact with it, Cortana knows a lot about you, including what you get up to in your spare time and what you buy online. To find out exactly what it knows go to www.snipca.com/23263 (or click Cortana's Notebook in the Privacy Dashboard).

On the left you'll see a list of categories. Try clicking one – such as 'Eat and drink', 'Special days' and 'Movies & TV' – to find out what, if anything, Cortana has gleaned about you from your browsing

habits. To clear all data click the 'Clear Cortana button', or you can remove info more selectively by clicking the 'X' next to specific entries (see screenshot below far left).

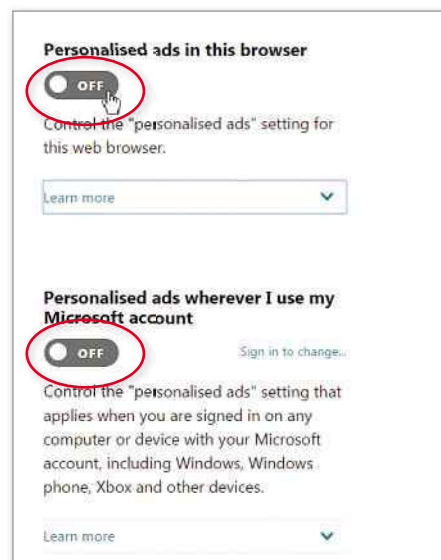
If you're happy for Cortana to know more about you, you can add more detailed hobbies and interests. Click the Cortana search bar on your taskbar (next to the Start button), then the Notebook icon (see right-hand screenshot, bottom of page 51). Next, click a category to add specific details (the 'Eat and drink' category, for example, lets you choose which types of food you like, so that Bing searches will provide more relevant results).

If you're concerned that Microsoft might pass on this information to other companies, click Connected Services (above the list of Categories in Notebook) and see which services Cortana shares information with. We allowed sharing with Outlook, for example, but blocked Microsoft Health by clicking its entry in the list of services, then clicking Disconnect.

The adverts you see and how you type

Microsoft uses all these sources of information – your location, your online searches and your chats with Cortana – to send you carefully tailored adverts on Microsoft's website and apps (such as Mail and Solitaire for Windows 10). You can't turn off adverts completely, but you can prevent Microsoft from using the info to send you adverts you're more likely to be tempted by. Go to www.snipca.com/23268 and turn both sliders on the right to the Off position (see screenshot left).

To reinforce this restriction in Windows 10, click Start, Settings, then Privacy. Next, turn off the 'Let apps use my



Turn off these sliders to stop Microsoft targeting you with tailored adverts

ISSUE 500 IS COMING... and we'd like to hear from YOU!

To celebrate our 500th issue, out on 26 April, we want you to tell us how your experience of computing has changed over the years.

As you can see from our first ever cover (below), published in 1998, some things never change. Then, as now, computers can be so infuriating that you have to fight the temptation to fling them out of your bedroom window.

But overall there's no doubt that computing has become easier and faster, and that the internet has transformed all our lives.

So we would like to hear your opinions on the evolution of computing. If you want to share your thoughts with your fellow readers, please answer the following questions:



- What computer did you use in 1998? Can you remember what specifications it had?
- What's been the best tech innovation since 1998?
- What program have you used most since 1998?
- How would you describe your PC skills then? And how have they developed since?
- What's been the biggest tech waste of time (and money) since 1998?

Please email your answers to editor@computeractive.co.uk with 'issue 500' in the subject line. We'll publish a selection of the most interesting responses in Issue 500.

I'm looking forward to reading your emails.

All the best
Daniel Booth, Editor

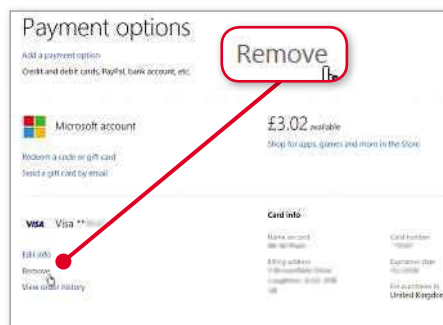




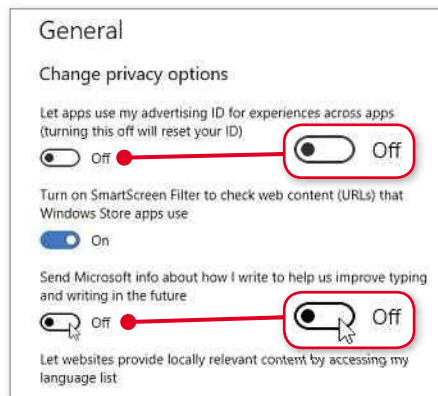
advertising ID for experiences across apps' slider. While you're here, we suggest you also switch off 'Send Microsoft info about how I write to help it improve typing and writing in the future' (see screenshot right). This stops Microsoft snooping on what you type, even though it claims to only use this information to help it understand the *way* you type.

Payment-card details and data

If you've ever bought a product from Microsoft's Store (such as Office 365), a version of Windows or even just an app – then it probably has your payment details on file. Go to www.snipca.com/23269 (you may have to sign in) to see the payment-card details you've used to buy Microsoft products over the years. In light of recent high-profile hacks (against Yahoo and TalkTalk to



Remove your payment-card details to lower your risk should Microsoft be hacked



Switch off Windows 10's advertising settings and Microsoft's typing-data gathering

name just two) we suggest you delete all your payment-card details. After all, there's no guarantee that Microsoft won't be hacked in the future. To do so, click 'Remove' underneath each card (see screenshot below left), then the 'Yes, remove' confirmation.

Can Microsoft contact you?

Nobody wants to be bothered by sales calls and nuisance emails, but Microsoft probably has a free rein to bombard you with newsletters and offers. That's because it has your email address, and quite probably your phone number and home address. What's more, unless you were careful to untick various relevant tickboxes over the years it also



Tick this box to stop Microsoft bombarding you with promotional emails

has permission to contact you.

To check your contact settings go to www.snipca.com/23221 (you will be prompted to sign into your Microsoft account) and look at the Address, Phone and Email sections to see any subscriptions you're currently signed up to.

To prevent Microsoft from contacting you, click 'edit your preferences' and untick any subscriptions, as well as the two tickboxes in the General Promotional Emails section. Next, tick the box next to 'Do not send me any newsletters, subscriptions or general promotional emails (see screenshot below)'. Click Save. Bear in mind, it can take up to 48 hours for these changes to take effect.

STOP MICROSOFT'S PROGRAMS WATCHING YOU

Microsoft Office

Office has many privacy options that let you control what information it sends back to Microsoft's servers. But, because these options are buried deep within the program's sub-menus, most will remain unused. To find them, click File, Options, Trust Center and then the Trust Center Settings button. Click Privacy Options (at the bottom of the left-hand column) to

see a list of options with tickboxes.

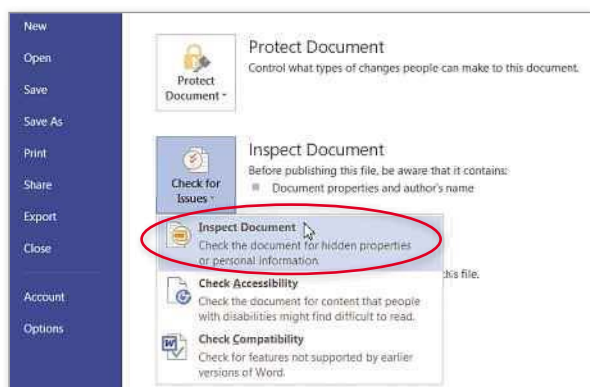
In Office 2013, untick 'Send us information about your use and performance of Office software to help improve your Microsoft experience'. In Office 2016, you should untick 'Send personal information to Microsoft to make improvements to Office'. Office 2016 users should also untick 'Let Office connect to online services from Microsoft to provide functionality that's relevant to your usage and preferences'. This stops the program sharing your personal details with Microsoft's online services like Bing Maps, Insights and Bing Weather.

Depending on how you initially set up Office, you might be including more of your personal information in your documents than you realise. Hidden information (known as **metadata**) is

stored in all Office documents. To see it in a Word document, right-click it, then select Properties. In the Properties window that appears, click the Details tab and scroll down to see the names, dates and history associated with that file.

This info can be useful if you like to keep records of such data yourself. But it's a good idea to remove it if you want to share the document or post it online. To remove the data (you may want to make a copy of the original for your own reference), open the document, click File, Info, 'Check for Issues', then Inspect Document (see screenshot left). Click Yes when prompted and the Document Inspector window will open. Leave all the boxes ticked and click Inspect.

After a few seconds you'll see a report detailing all hidden information within the document, which includes metadata and any hidden text. It will be flagged up with an exclamation mark and a brief description.



Use Office's Inspect Document tool to find hidden information in your documents

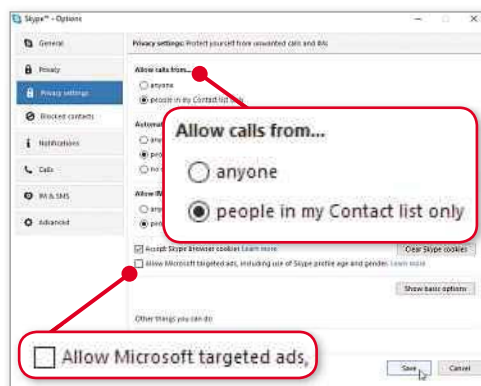
Our scan found 'Document Properties and Personal Information' metadata, for example. To remove it, click Remove All (see screenshot right). Click Close, then save the document as normal to apply your changes.

Skype

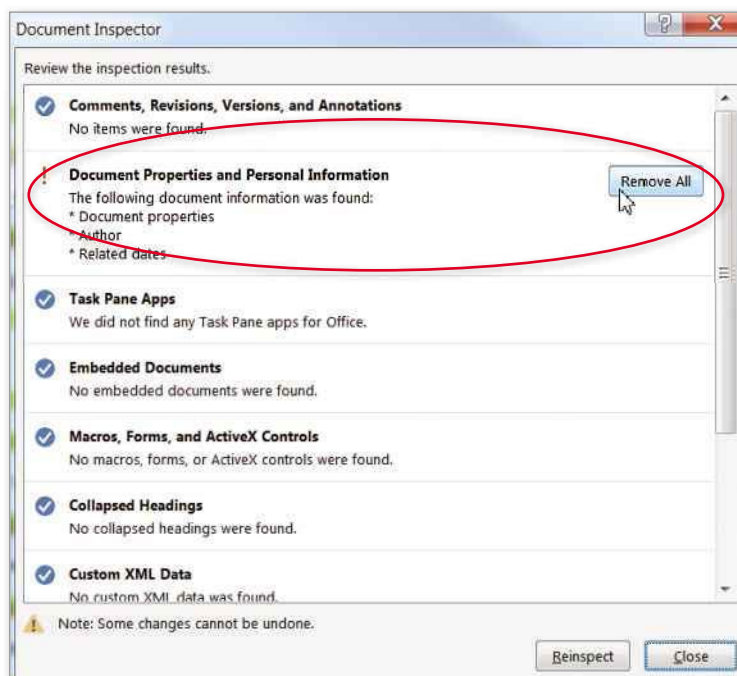
It might be facing stiff competition from similar services, such as Google Duo and Facebook Messenger, but Skype remains a popular video-chat program. It's also weighed down by default settings we'd suggest you change.

Before doing anything else you should turn off the setting that allows *anyone* to contact you via Skype, even if they aren't among your contacts. Open Skype on your PC (sign in if prompted), click Tools, Options, then Privacy. Select 'people in my Contact list only' in the 'Allow calls from' section (see screenshot below). Use the same option for 'Automatically receive video and share screens with' and 'Allow IMs from' (so only people you know can send you text messages via Skype).

In this same menu you can also opt out of adverts tailored for you by unticking 'Allow Microsoft targeted ads, including use of Skype profile age and gender' (see screenshot below). Note, if you don't see all the above options, click the 'Show



Control who can call you and which adverts you see on Skype by changing these settings



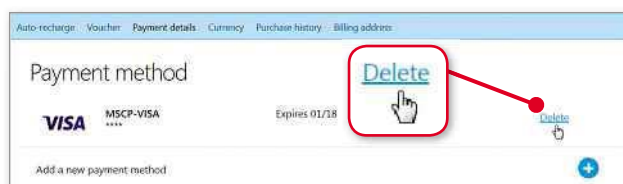
Any hidden information in a document can be found using the Document Inspector

advanced options' button.

Microsoft will also look to Hoover up information on how you use Skype unless you tell it not to. To prevent this, click 'Advanced settings' in the Options menu, then untick the

'Help improve Skype and other Microsoft products...' box. While you're here, untick 'Show Skype watermark during calls'. This stops the Skype logo appearing when you're video-chatting.

Next, it's worth checking how much of your personal information is shared with Skype. Go to www.snipca.com/23273 and sign in to see your Skype 'Personal information' screen. Adding your name, country and email address can be useful so that friends and family members can find you. However, we can't, for example, justify why Skype needs to know your



Stop Skype holding your payment details by deleting any cards you've registered

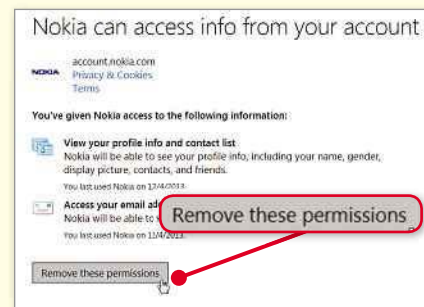
gender, or your mobile and home telephone numbers. Click Save once you're happy with the amount of information shared.

Finally, make sure that Skype isn't holding any of your financial details by going to www.snipca.com/23274 (you might be prompted to sign in). Here you'll see which payment cards you have registered with Skype. We'd suggest you delete any that are listed by clicking Delete on the right (see screenshot above). If you regularly add Skype credit, you can still do so in future. Just click no if you're prompted to save your payment card details.

CAN NON-MICROSOFT APPS ACCESS YOUR DETAILS?

It isn't only Microsoft products that connect to your Microsoft account. To see a list of all programs and Windows 10 apps that can access your information go to www.snipca.com/23275. For example, we found that PhotoSync (see Issue 488, page 57) has permission to access files stored on our OneDrive (which in our case is necessary for the program to work properly). More worrying was

a permission – from 2013 (when we last owned a Nokia phone) – giving Nokia access to our email address, profile information and contacts list (see screenshot). To check an app or service, click the Edit button directly under it. You'll see a list of that app's permissions with a description of what each allows. If you want to deny access to the service or app, click the 'Remove these permissions' button.





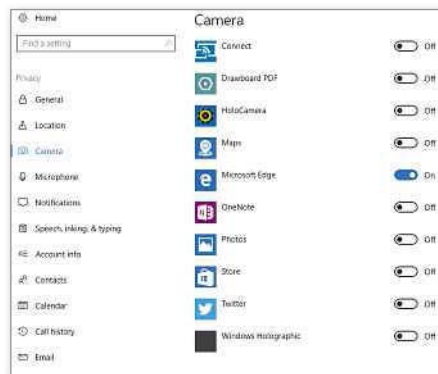
BURIED WINDOWS 10 PRIVACY SETTINGS

Deny apps access to your camera, mic, calendar and more

Windows 10 apps are incredibly hungry for data and will seek permission to access anything from your camera and microphone to your contacts list and calendar.

To control exactly which apps can access which information click the Start button, Settings, then Privacy. In the left-hand column, you'll see a list of options. Click Camera and you'll see a list of apps in the 'Choose apps that can use your camera' section. Click the sliders to allow or deny apps access to your camera. What you do here depends on how you use your apps. For example, we decided to block access to our camera for everything except Edge so we could continue using Skype in the browser (see screenshot above right).

Go through this process for all categories that require app permissions – Microphone, Notifications, Contacts, Calendar, 'Call history', Email, Tasks, Messaging, and Radios. If you do find an app stops working properly after you make any changes, you can undo them at any time. If a category doesn't display any apps, it means there are no apps installed that require access to that particular area of your PC.



Use Windows 10's Privacy settings to manage how apps access data and components

Stop Windows requesting your feedback

Besides snooping on how you use your PC, Microsoft constantly bugs us for feedback on how satisfied (or otherwise) we are with Windows 10. To stop this, click the Start button, Settings, Privacy, then scroll down the left-hand menu to 'Feedback & diagnostics'.

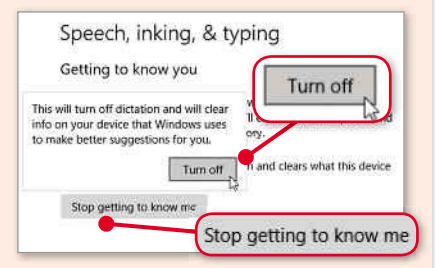
In the 'Windows should ask for my feedback' dropdown menu we suggest you select Never. In the 'Send your device data to Microsoft' dropdown menu, you should opt for Basic (see screenshot below left). This will ensure that Microsoft stops nagging you for feedback and can only access the information it needs to (such as the names of your PC devices) in order to keep your PC working properly.

Choose what Windows 10 syncs across devices

If you have more than one Windows 10 PC you may have noticed that the settings you apply on one apply across all of them. This is because Windows 10 synchronises your settings across any PC that you've logged into using your Microsoft account. This means your PCs will behave identically whether you want them to or not.

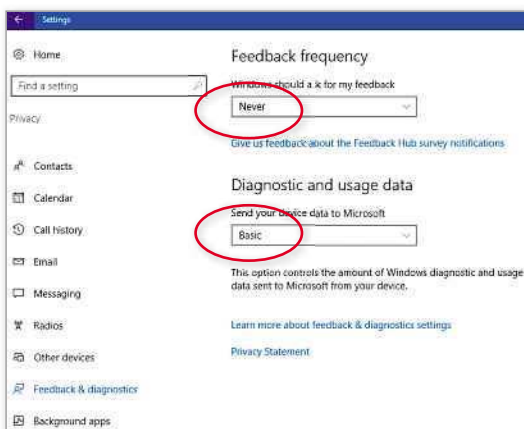
IS WINDOWS 10 'GETTING TO KNOW YOU'?

Microsoft collects samples of your voice (via the microphone), your typing patterns, and even your handwriting (if you use a touchscreen). The reason given is that this allows Windows – and Cortana in particular – to 'know your voice and writing to make better suggestions for you'. Unless you have trouble typing and want to use your voice to control your PC, we'd switch this tracking off. To do that, click the Start button, then Settings, Privacy and 'Speech, inking & typing' (in the left-hand column). Click 'Stop getting to know me', then 'Turn off' to confirm (see screenshot).



To control which settings are synced across multiple computers click the Start button, Settings, Accounts, then 'Sync your settings'. If you want to disable syncing altogether, turn off the 'Sync settings' slider at the top of the screen.

Alternatively, use the 'Individual sync settings' sliders for more nuanced control. Most sliders are self-explanatory. Note, the Passwords slider determines whether passwords saved in Edge and Internet Explorer will sync across your PCs (we left this on). The 'Other Windows settings' slider lets peripherals (such as your printer) work across your PCs, and also syncs any minor changes you make to settings, such as increasing your cursor size. **ca**



Use these settings to stop Windows 10 nagging you for feedback

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SUPERB NEW USES for your old tablet & phone

Don't just dump your old portable devices. Anthony Enticknap explains how to dust them off and give them a new lease of life



Unlike PCs, when tablets and phones get too old and sluggish to be useful anymore, there's no easy way to upgrade them. Instead, we simply buy new ones. The question then is: what should you do with the old one?

You could bin it, but that feels like a waste. You might even donate it to a friend, family member or charity. But we all know most devices get consigned to cupboards or drawers, where they lie forgotten, gathering dust. If this sounds familiar, it's time to dig out that old tablet or phone, because there are plenty of ways you could still make use of it.

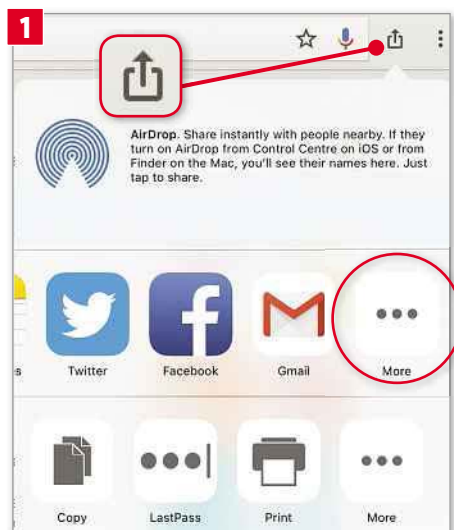
Turn your tablet into a TV for the kitchen

Why risk exposing your brand new tablet to the various messy powders and liquids – not to mention heat sources – of your average kitchen when you could use an older, more expendable device instead? You could even make it a permanent fixture in your kitchen by mounting it on a wall, thereby saving on the cost of a small-screen TV.

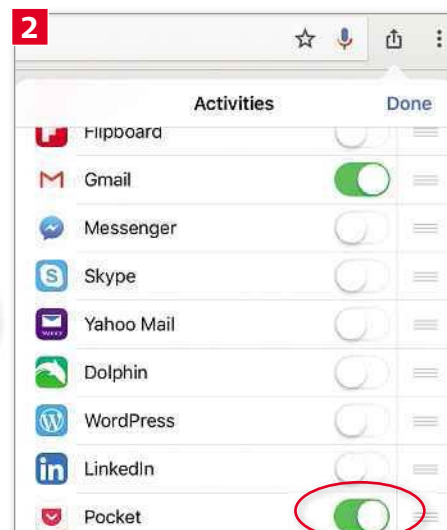
The Koala Wall Mount (£12, www.snipca.com/23350) makes this possible.

Install one to create a bracket that you can easily slide your tablet in out of as and when you need it. Alternatively, buy two to fix your device at the top and bottom and make the

Buy two Koala Wall Mounts to create a permanent wall-mounted display for your kitchen



If you can't see Pocket as an option when you click your browser's Share button, you can add it by tapping More then tapping the slider next to its entry



enclosure more permanent (see image below). Whichever way you decide, be sure to position it near a plug socket so you can keep the tablet charged. If you're struggling to hear what's being said over the sound of your kitchen appliances, you could also consider a waterproof Bluetooth speaker, such as the AquaAudio Cubo (£19.95, www.snipca.com/23351).

Apps for the BBC iPlayer, ITV Hub and All 4 are available from your tablet's app store and all three apps can be used to watch live TV, as well as catch-up.

In the iPlayer app, for example, tap Menu then TV Guide to watch anything being currently broadcast on BBC channels.

Build a digital reference library

From Encyclopedia Britannica (www.britannica.com) to Wikipedia (<https://en.wikipedia.org>) the internet is awash with great reference sources that you'll want to access from time to time, which is why you could turn that old tablet into a dedicated digital library.

With the free Pocket app (Android: www.snipca.com/23293; iOS: www.snipca.com/23294), you can save web pages to your device to read later – even when you're tablet isn't online.

First, you'll need to create an account. To do this, open the app, then select 'Sign Up with Google' or 'Sign Up with Email'. If you choose the second option, you'll need to enter your name, email address and a password, then tap 'Sign up'. Keep tapping Next through the introductory screens (which include details of how to add web pages to Pocket by email).

Finally, tap View Your List, then tap Not Now if prompted to allow **push notifications** (this will stop the app nagging you).

Once you're signed in you can save web pages directly from the tablet's browser. Open the browser and navigate to the page you want, then tap the Share button (a square with an up arrow – see far left screenshot **1** on previous page). A pop-up window will appear with a range of options. Tap Pocket and the current web page will be saved to your Pocket account.

If you don't see Pocket listed, scroll to the left, tap More (see screenshot **1**), move the slider next to Pocket to the right (see screenshot **2**), then tap Done. Pocket will now be added as an option when you tap Share in the future. You can access any web page you save in the app's My List section.

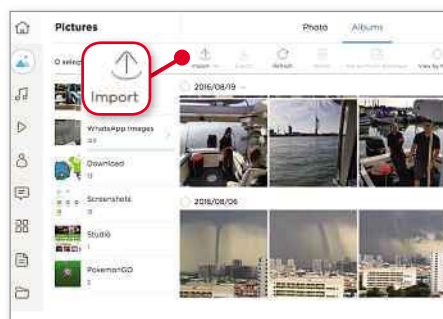
Create wireless storage

With the right tools the free space on your old phone or tablet can be used to store files from your PC, essentially turning it into a portable hard drive.

To do this, we suggest wiping your old device first (see box above right), then installing the free AirMore app (Android: www.snipca.com/23297; iOS: www.snipca.com/23298). The app lets you wirelessly transfer pictures, documents, videos and more between your device and your PC.

Once installed, open the app, then tap 'Scan to connect' and your device's camera app will open. Next, go to www.airmore.net on your computer where you'll see a **QR code**. Point the camera on your phone or tablet at the QR code and it will scan the code and link your tablet to your PC via Wi-Fi. Tap Accept on your phone or tablet when prompted to complete the process.

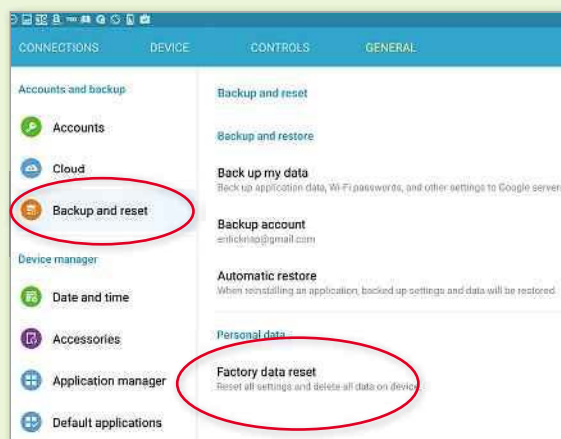
AirMore's website will now refresh and you'll see a file manager giving you access to your device's storage. To move a photo from your PC to your tablet, for example, click the Photos icon, Import (see



Back up files from your PC to your tablet using the AirMore app and website

WIPE YOUR DEVICE CLEAN

Before you get to work with any of our tips you should consider wiping your old device completely so that it's devoid of clutter and as fast as possible. With most Android devices, you can do this via the settings menu. Under the Personal section, tap 'Backup & reset'. Next, select 'Factory data reset'. Read the information that appears, then touch 'Reset tablet', and enter any PIN, password or security pattern that you might have in place. Finally, tap 'Delete everything' to initiate the **factory reset** (it will restart when finished).



To do this on an Apple device, tap Settings, Reset (in the General section), 'Erase all Content and Settings' then follow the onscreen instructions.

screenshot below left), then navigate to the photo or folder you want to upload. Select them, then click Choose.

Make your own security camera

Setting up a decent home security system can be time consuming and often involves an expensive subscription, but you can create a CCTV system of your own using the Manything app. Available for Android (www.snipca.com/23299) and iOS (www.snipca.com/23300), it lets you use your old phone or tablet as a security camera. If you have a choice, you should use a phone, because they generally have better cameras. Also, being smaller they are easier to conceal or move from one spot to another (you will need a wall socket nearby to keep it charged).

After installing Manything, open it and tap Sign Up to create an account. By default, you'll be placed on the free Basic plan, which lets you view a live feed. To record any footage you'll need to subscribe – prices start at £2.99 per month. Next, tap Allow when it asks for

permission to access your camera, pictures or microphone (it needs these to work correctly). Now tap Camera and make sure the phone is located to capture the area you want to keep an eye on. Tap the red record button to start recording.

You can then view live footage in one of two ways: on your PC, by heading to www.manything.com, or by using the Manything app on another phone or tablet. If you want to use the app, open it and sign in as before, but this time tap Viewer instead of Camera.

Help cure cancer

Working out how proteins fold is an integral part of understanding many diseases, including cancer. Scientists use special software to simulate this process, but there's a vast amount of data that they need to process with their limited computing power.

The Folding@Home project was launched in October 2000 to help with this. Using the project's app you can add your tablet to the cause, letting it run protein-folding simulations when it isn't being used for anything else (which of course it won't be). The data is then sent to the researchers, where it can help them find ways to combat diseases.

Android owners can download the app from www.snipca.com/23295 (there's no iOS version, sadly). All you need to do is tap the app to open it and it will run automatically. Just be sure that your tablet is connected to the mains as it has to be fully charged and online for Folding@Home to function. **ca**



Use Manything to monitor your home from anywhere in the world

Manage YOUR monitor settings

FOR YOUR EYES ONLY!



Like much of the news these days your monitor isn't always as accurate as it should be. Mike Plant reveals the tools to fine-tune your screen so that it displays everything flawlessly

Before you start reading this article (and certainly before you start applying any of our tips here), open a photo on your PC and take a few seconds to look at it. Though it might look perfectly fine, the chances are that its reds aren't really red, its blues are far from blue and its greens... well, you get the idea.

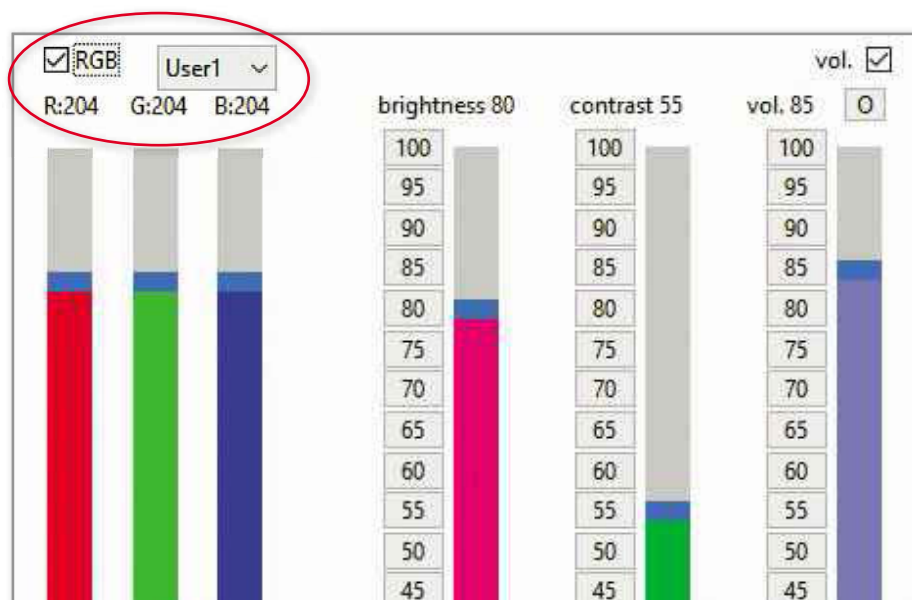
That's because monitors don't come pre-calibrated to suit the unique conditions of the room you are in, meaning what you see on screen is a far-from-accurate rendition. In fact manufacturers of PC monitors and TVs often crank up the brightness levels and oversaturate colours so that their screens look vivid – even garish – in order to stand out on the shelf of your local PC World store.

That's why it's important to properly calibrate your monitor's brightness, contrast and colour settings. This not only helps reduce eye strain, but displays photographs and images as they should be. Here we'll explain how to tune up your monitor for a truer picture.

Brightness and contrast settings

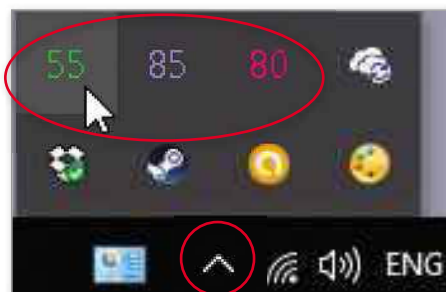
The first step to accuracy is to ensure that brightness and contrast settings are at the correct levels. Usually you'd have to grapple with the fiddly controls on the front of your monitor to adjust these. Thankfully, you can make these tweaks more easily by using the free program ClickMonitorDDC.

Go to www.clickmonitorddc.bplaced.net, scroll down and click the Download ClickMonitorDDC link. To open it double-click the ZIP file that downloads, then the



Make adjusting your monitor less fiddly by using ClickMonitorDDC's display settings

'ClickMonitorDDC_3_0.exe' file. After a few seconds you'll see the program's interface, which contains a series of sliders. Try moving the brightness and contrast sliders (see screenshot above) and you'll see that your monitor's display changes accordingly.



Open ClickMonitorDDC by clicking one of its icons in the notification area

Next, dim the lighting in your room, then use an online calibration aid known as a **reference card** to properly adjust your screen – Photo Friday's card (www.snipca.com/23044) is a good example. Press F11 to make the card full screen (press the Escape key to undo this) and pay particular attention to the horizontal bar along the top of the card. The segments of the bar (from true black to true white) should be distinct, while true black (on the far left) should look black, not grey. The other sections of the card can also help. For example, you should be able to see three concentric circles of black and white within the circular graphics on the left and right.

To adjust your screen, open ClickMonitorDDC by clicking its icon in

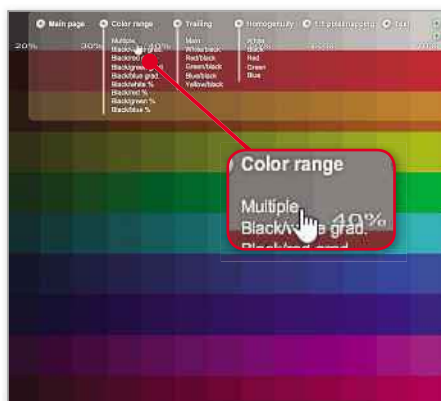
the notifications area at the bottom-right of your taskbar. To see the icon you might have to click the up arrow (see screenshot at the bottom of page 60). Adjust the sliders until the Photo Friday calibration aid displays correctly. If you want to double check the settings against a similar calibration aid you can also use Screen Check (www.photographerusa.com/screencheck).

Configure your colours

Now it's time to adjust your monitor's colour settings. Again, ClickMonitorDDC can make this process much easier. Open it and tick the RGB box in the top left corner, then choose User1 in the dropdown menu next to it. Three sliders will appear representing red, green and blue (see screenshot left). If you don't see User1 in the dropdown menu – some laptops and monitors may not give you the option – try using the Calibrize tool instead (see the next section).

It's worth noting that rather like tuning a guitar by ear, you'll never quite get your colour settings exactly right by sight alone. If absolute accuracy is important to you (because your career or hobby involves photo- or video-editing) your best option is to buy a digital colourimeter (see box below). However, you can still make sure individual colours are distinct and appear accurate.

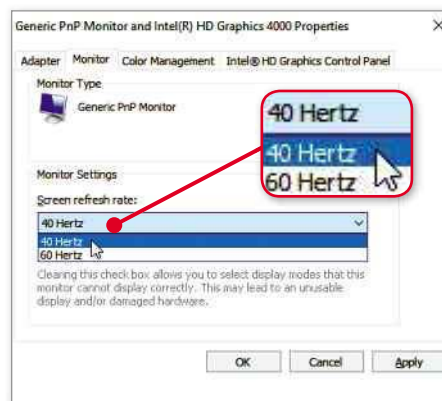
One of the best colour reference cards you can use is TFT Vanity's Monitor Test Scale (www.snipca.com/23052). The only downside is that you have to enable Flash in your browser to open it. When you first load the page you'll see a brightness



Use TFT Vanity's Monitor Test Scale to correct your monitor's colour

and contrast card that's similar to Photo Friday's version. But TFT Vanity's card is even more detailed because its true black and true white are divided into gradients with one-per-cent differences. However, unless you have a professional-level monitor you won't be able to tune it to make such fine margins visually distinct.

Instead move your cursor to the top of the web page to see the available settings and click Multiple under 'Color range' (see screenshot above). You'll see a series of graded colours. Now adjust your sRGB settings using ClickMonitorDDC so that every colour looks correct at its 100-per-cent mark (on the right) and all show the same shade of black at the zero-per-cent mark (on the left). Finally, make sure each colour gradient is distinct from those either side of it. To help tune red, green and blue individually you should select 'Black/red grad.', 'Black/green grad.' and 'Black/blue grad.' from the 'Color range' column.



Changing the refresh rate can help alleviate monitor flicker

Fine-tune your settings

Once you've changed your monitor settings so you're reasonably happy with what you see, it's still worth fine-tuning them using a second tool. Calibrize (www.calibrize.com) – like ClickMonitorDDC – provides handy sliders for changing your colours. Download and install the program then follow the instructions to make your adjustments.

Also try the 13 tests at www.lagom.nl/lcd-test. Together they may take you up to an hour to complete, but it will be time well spent, especially if your screen currently leaves your eyes feeling tired.

Change the refresh rate

If you have ever noticed your screen flicker, it could be because its refresh rate isn't set correctly. This determines how often the monitor updates what you see on screen, but if Windows is set to send that information at a rate faster (or slower) than your monitor can handle, you'll see that annoying flicker.

To change the refresh rate in Windows 10, right-click a blank space on your desktop then click Display Settings. Next, click 'Advanced display settings' then 'Display adapter properties' (you'll see it under 'Related settings'). Click the Monitor tab and choose another refresh rate from the 'Screen refresh rate' dropdown menu (see screenshot above), then click Apply and (assuming the display looks good) 'Keep settings'.

You should keep an eye on your display for flickering and if none occurs leave the refresh rate as it is. If flickering does continue, change the rate until the problem is resolved. To find the same refresh-rate dropdown menu in Windows 7, right-click the desktop and choose 'Screen resolution', then click 'Advanced settings' and click the Monitor tab. **ca**

HOW TO GET PERFECT COLOUR

Colour perception on monitors is rather like Chinese whispers and can be a real pain for photography professionals and enthusiasts.

Let's imagine that a photographer has retouched an image so that its colours are vivid and perfectly tuned. He sends this to another photographer, but his monitor uses different settings, so the photo looks washed out. The second photographer fixes this by saturating the colours, then sends it to a third photographer, whose monitor settings also make the photo looked washed out. He saturates the colours even more. As a

result, if the photo was to be returned to our original photographer, it would look garishly oversaturated.

Following the colour-calibration advice in this feature can alleviate this problem, but the only way to be 100-per-cent sure that the colours you see are accurate is to use a colourimeter, such as the Spyder 5 (£142 from www.snipca.com/23055, pictured). It uses



a lens to scan your monitor and then tunes up your display automatically to balance the colours perfectly. If all three of our photographers used a colourimeter, they would see the same image with the same colour balance.

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Problems Solved

PROBLEM OF THE FORTNIGHT

How do I get rid of Slimware Utilities?

Q I keep getting messages on my XP computer, including at startup, saying '10 Driver Updates available'. In very small print at the bottom the message says 'Slimware Utilities Holdings'. This company, whoever it is, appears to know my computer's serial number and Windows version! How does it know this information? Do you know what's causing this? And what can I do about it?

Alan J Waller

A Slimware Utilities is a legitimate software company and it produces several legitimate programs, including one called DriverUpdate.

However, as we've mentioned many times in *Computeractive*, just because a tool is legitimate doesn't necessarily mean it's one that you want on your PC. The trouble is that some programs use decidedly sneaky methods to find a way on to your hard drive without your knowledge. Such programs are often referred to as 'potentially unwanted programs', or PUPs. While it's not a virus or even remotely dangerous, Slimware Utilities' DriverUpdate has been described by some as a PUP.

Even so, it's not entirely clear from your description whether your annoyance is caused by DriverUpdate itself or by some other PUP whose

apparent purpose is to advertise DriverUpdate. Think about any other programs you might've installed recently, even if they seem completely unrelated. It's possible – likely, even – that one of these had a hidden or disguised tick box that opted you in to installing DriverUpdate (or an advertising PUP).

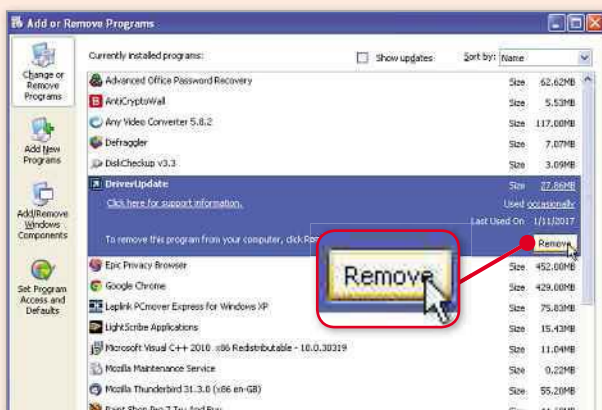
The display of your computer's serial number and Windows version isn't of itself a worry, as that's information that can be easily retrieved by any software. Indeed, if you're curious you can do it yourself in a Command Prompt window, by typing `wmic bios get serialnumber` and pressing Enter. (To launch a Command Prompt window, click Start, type `cmd`, then click Command Prompt.)

Regardless, the solution is to identify and then remove either DriverUpdate or whatever PUP is serving up the adverts for it. In Windows XP click Start followed by Control Panel and then 'Add or Remove Program'. If DriverUpdate is in the list, click to select it, then click Remove followed by Yes to confirm (see screenshot). If not, look through the list for other recently installed items, searching on Google to identify any you don't recognise. If you detect a PUP, remove it.

If the problem persists, then use a PUP-cleaning tool, like the free AdwCleaner – www.snipca.com/23134. Just click the Scan button, then review

the results. Tick the items you want to remove, then click the Clean button; or use the category tabs for more details and then, if needed, search online for guidance on whether or not a particular entry is safe to delete.

You should be able to remove DriverUpdate via Windows XP

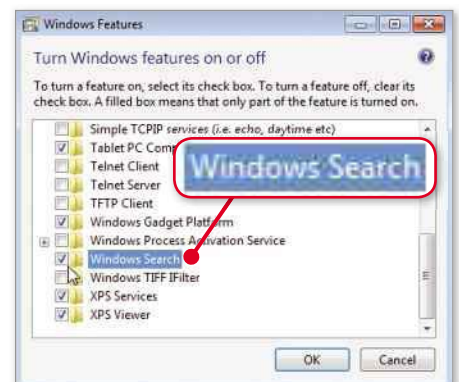


Why won't my Windows 7 PC search?

Q I'm running a PC with Windows 7 Professional. I lost use of my Start menu's search facility, meaning nothing happens after I hit Enter on a search request. I suspected the hard drive was failing and sure enough it was, so I had a new one fitted. The PC appeared to be working but when trying to use the Start menu's box, search was still not working. Any idea how to fix this?

Mike Wooldridge

A First, check that the Windows Search feature is actually enabled. Click Start followed by Control Panel and then Programs. Then, under 'Programs and Features' click 'Turn Windows features on or off'. In the Windows Features box that appears, scroll down to find and tick Windows Search, then click OK (see screenshot).



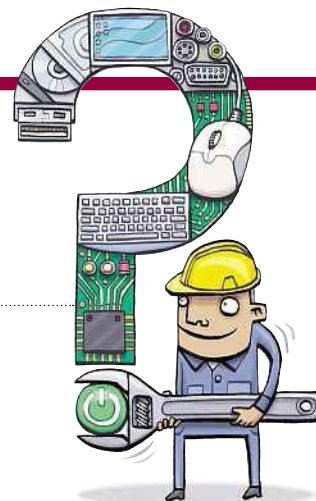
You can check whether Windows Search is enabled in 'Programs and Features'

If this doesn't fix it, the index could be switched off, corrupted or otherwise not indexing folders. To repair this, return to Control Panel, then, next to 'View by' select 'Small icons'. Click Indexing Options. Check folders under Included Locations and, if you wish to add or remove anything, click Modify, use the tick boxes to make your selections, then click OK.

Finally, in the Indexing Options box, click the Advanced button and click Rebuild, followed by OK. It'll take several hours or even days for the index to be rebuilt, but search should then work.

Our experts solve all your tech problems

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Why won't Avast scan these files?

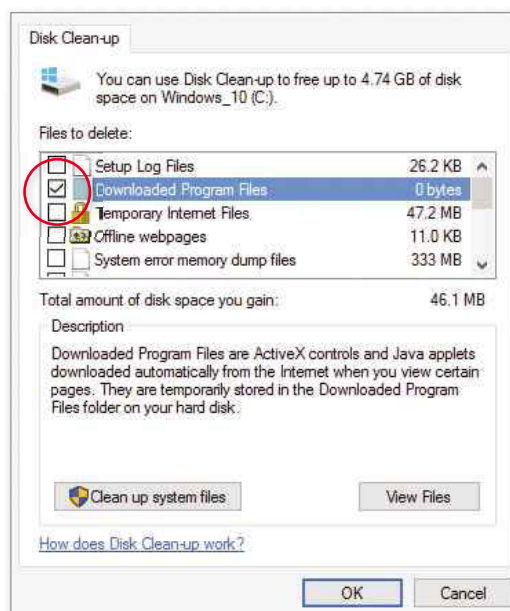
Q When I scan my computer using Avast Free, it tells me that it was unable to scan some files. The warning box that appears says this is because the files in question are password-protected. That's as may be, but what or whose password would this be? It's not mine, at least so far as I know. Is this normal? Is there anything I can or need to do about it?

Michael Grinter

A It is normal and there's probably nothing to worry about – but there are things you can do to deal with the annoyance.

This message is most likely appearing because Avast is encountering encrypted or compressed files that relate to software you have installed. Software developers use these techniques to keep their downloads and installation files safe, and as small as possible. These are typically deleted automatically once the program installation is complete, but this won't always be the case – so you've probably got a few remnants on your hard drive.

First, launch Control Panel (via Windows key+X in Windows 10) and then click 'System and Security'. Next, under Administrative Tools, click 'Free up



Get rid of the remnants of old downloads by using the Disk Clean-up option in Administrative Tools

disk space'. In the Disk Clean-up box that appears, tick Downloaded Program Files and Temporary Internet Files, then click OK followed by Delete Files (see screenshot).

If Avast continues to show alerts, make a note of the filenames and locations, and then search for them on Google for more

information. You might then decide to remove them manually, using File Explorer (or Windows Explorer in Windows 7), or have Avast ignore the particular file type. That might sound unwise but most compressed file types aren't themselves inherently dangerous – it's their contents you have to worry about. Indeed, in common with other security programs, Avast ignores many compressed file types, other than those that are able to 'self-extract'.

To make changes to the file types Avast skips, first click Scan and then select a scan type from the dropdown menu. Now, below Avast's Start button, click the Scan

Settings link. Then, in the left-hand pane, click Packers. Keep the top two boxes ticked ('Self-extracting...' and Droppers), but then feel free to remove ticks from the offending file types below. If the contents of such files ever extracted you'll still be protected, as Avast will scan them in real time. Click OK to save your changes.

Why does the National Lottery think I'm abroad?

Q I've been unable to add funds to my National Lottery (NL) account. After some assistance from the NL, changing to the Avast SafeZone browser fixed the problem. However, I can't buy tickets because the NL website says my IP address is not in the UK. According to my Sky router, my IP address puts me in Shrewsbury. On Sky's advice I switched off the router for a while and then got a new IP, originating from Cannock. Neither are far from me, and both are obviously in the UK – but the NL website isn't having it. During

all this I accepted a trial of Avast's software. Could this be to blame?

Anthony C Johnstone

A You didn't say specifically which Avast programs you're testing but we're going to wager that one of them is SecureLine: this is a VPN tool that, among other things, masks your router's real IP address. The upshot is that while your router knows you are in the UK, to the outside world – including the NL website – your browser appears to be from wherever SecureLine pretends you are.

To fix it, in the notification area on the taskbar, right-click the SecureLine icon and choose Disconnect. Then left-click



Avast SecureLine users can ensure their browser is seen as UK-based by specifying London in the Connect menu

the icon to launch SecureLine's window, click the down arrow next to Connect, choose London and then click Connect (see screenshot). Note that if you're also using Avast Antivirus, you can launch SecureLine from its Tools menu.

Problems Solved

How do I safely remove iPhone data?

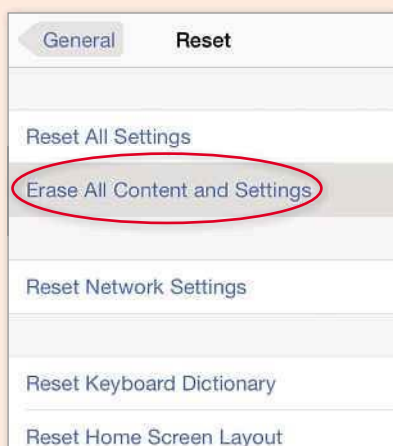
Q I am thinking of trading in my iPhone 6 to upgrade to an iPhone 7. How can I ensure that all of my personal data is properly erased from my old phone so that it cannot be retrieved?

Dave Taylor

A This is easy to do but if you're passing on or selling your old iPhone to someone else then it's important to first sign out from iCloud, iTunes and the App Store, or else the handset might stay in what's known as Activation Lock – also known as useless to anyone other than the original user.

To do this, go to Settings followed by iCloud, then tap Sign Out followed by Sign Out again. Now tap 'Delete from My iPhone' and tap in your password. Now return to Settings, tap iTunes & App Store followed by your Apple ID and then tap Sign Out.

Finally, return to Settings once more, then tap General followed by Reset and then 'Erase All Content and Settings' (see screenshot). If prompted, tap in your Apple ID and password. Now tap in your iPhone's password and, when you're certain you wish to proceed, tap Erase iPhone. Your personal data will now be wiped and, after a few minutes, your iPhone will restart.



If you're discarding your iPhone, you can erase all of its data in Settings

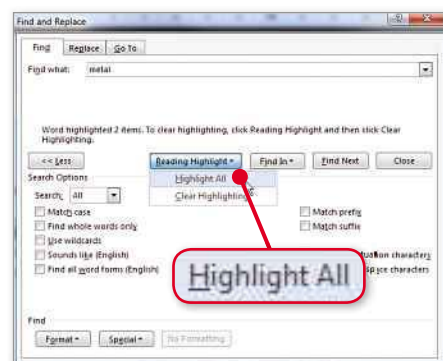
Can I change the colour of Word's search highlight?

Q When searching a Word 2013 document for a group of characters, the program highlights all instances of them. Unfortunately, for those of us with vision limitations, the colour Microsoft has chosen is a rather pale and insipid grey. When one is looking for a single character, it is not always possible to see the highlighted character – even with reasonable vision. Do you know if it is possible to change the colour of the cursor in these circumstances?

Barry Singleton

A Yes, you can do this – although how is hardly obvious. First, in the menu at the top, select the Home tab and then, in the Font category, open the Text Highlight Color dropdown menu and select your desired shade.

Next, in the Editing category (also on the Home tab), click the down-pointing arrow next to Find and choose Advanced Find – or memorise and use the keyboard shortcut Control (Ctrl)+H. Select the



Boost the visibility of your searches by changing the highlight colour

Find tab, tap your search term into the 'Find what' box and then, directly below, click the Reading Highlight button and then click Highlight All (see screenshot).

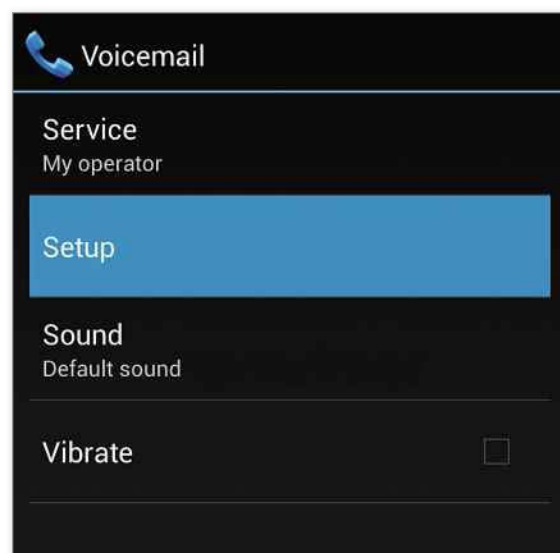
Your search results will now be highlighted in your selected colour. You can now click Close to hide the 'Find and Replace' panel, letting you search the document with the highlights intact. To clear them, summon the 'Find and Replace' panel again, click the Reading Highlight button and this time choose Clear Highlighting.

How do I access my voicemail?

Q I have an Android smartphone that sometimes shows 'New voicemail. Voicemail number unknown'. Tapping this shows a settings screen, again with a message telling me that the voicemail number is not set. If I tap here I'm asked for a voicemail number. I have to tap Cancel, as I have no idea what else to do. How do I hear my voicemail message? Also, to clear the notification I have to force the app to stop. Is there an easier way to do this?

Anne Couch

A You need to enter your mobile network's voicemail number, at the prompt you've already encountered. For the benefit of other readers, in the Phone app tap the menu button (three vertical dots), followed by Settings, and then Calls followed by Voicemail. Now tap



Tap Setup then enter your number to retrieve voicemail messages

Setup (see screenshot), and type the relevant number – ask your mobile network for the right number. Doing this and retrieving voicemail will also clear the notification, so that's your second problem fixed too.

Can I always launch Chrome in Incognito mode?

Q For privacy reasons I only ever use Chrome in Incognito mode, so I'd like to know if it's possible to launch straight into it automatically? Currently, I have to launch Chrome in normal mode, summon an Incognito window, and then close the normal Chrome. This is both time-consuming and annoying.

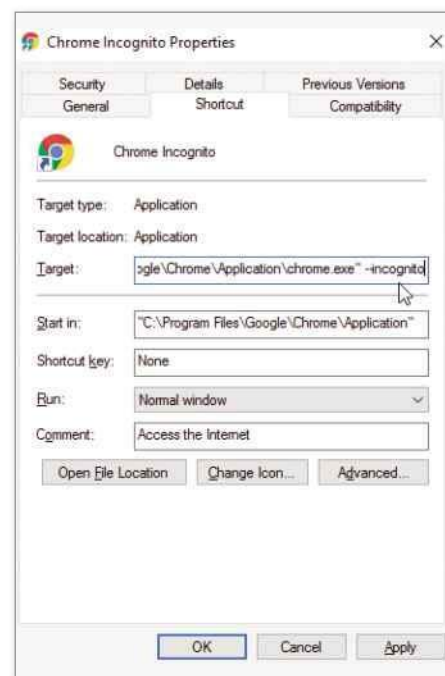
Hank Alford

A Yes, you can do this by creating a shortcut to Chrome on the Windows desktop and then modifying its properties.

First, click Start, left-click on your Chrome icon and then drag and drop it to the desktop to create the shortcut. Now

right-click this shortcut and choose Properties. Select the Shortcut tab and then click in the Target box. Press the End key on your keyboard, or hold down the right arrow (cursor) key until the text-entry cursor is positioned at the very end of the file path that's listed in this box. Next, type a space followed by `--incognito` (see screenshot). We should point out that that's two minus symbols ahead of 'incognito', which might not be entirely clear in print. The whole line in the Target box should look something like: `"C:\Program Files\Google\Chrome\Application\chrome.exe" --incognito` – depending on where Chrome is installed. Now click OK.

That's actually all there is to it, but you might want to rename the shortcut so that it's obvious it launches Chrome's Incognito mode. So, right-click the shortcut and choose Rename – or press F2 on your keyboard – type a fitting name and press Enter.



You can create a shortcut in Properties to launch Chrome straight into Incognito mode

What's causing this error message?

Q As a long-time subscriber, I'm hoping you can assist with an irritating problem. Just recently I have been getting a little box on my screen every time I start up. The box, in the top left-hand corner, is labelled 'Dipawaymode'. In the middle of the box is a red circle and X, and the words 'Stack overflow'. The only button is 'OK', and if I click this the box is dismissed and everything seems to work okay. Do you know what's causing this, and is there anything I can do to stop it?

Alex Rankin

A This message is displayed because you have a program called AI Suite 3 installed on your PC, which is made by a company called Asus – so your PC must have an Asus motherboard. An element of AI Suite 3 called Dual Intelligent Processors (DIP) has an Away mode that's designed to put various components into a low-power, low-noise state,

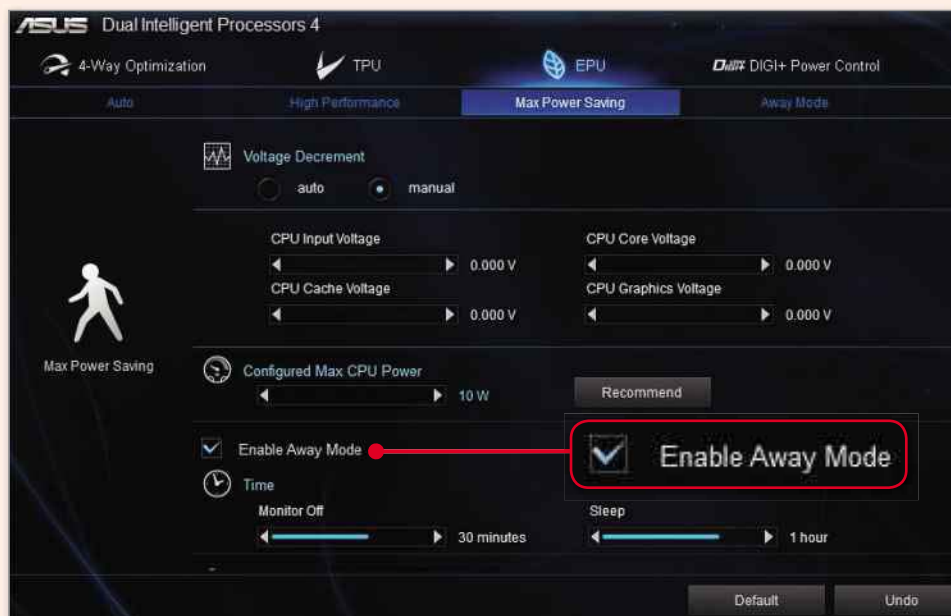
Unticking Enable Away Mode in the AI Suite 3 program is one way to stop its annoying error message

which is in turn executed by a utility file called Dipawaymode.exe.

So that's the background. We can't tell you why Dipawaymode is crashing in this way, but it's probably because of outdated drivers or a clash with some other piece of hardware. If you've installed new hardware recently then make sure you also have the latest drivers installed; or, as a test, try temporarily removing or disabling it. To

do the latter, press Windows key+R, type `devmgmt.msc` and press Enter, then right-click the relevant device and choose Disable.

Alternatively, disabling Away mode will certainly stop the error message, though your PC will become a little less energy-efficient. In AI Suite 3, select the EPU tab, untick the Enable Away Mode box and then click Apply (see screenshot).



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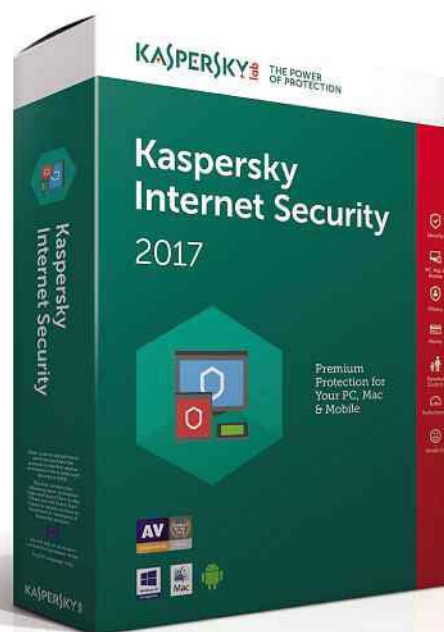
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Whatever happened to... XTree?

Q Around the middle of the 1980s I used a program called XTree. It was easy to use and each Friday I asked it to show all files that had changed in the previous week days so that a backup could take place (on to 5.25-inch floppies). Whatever happened to XTree? Is there anything simple like this nowadays, or am I just getting too old now that I am 78?

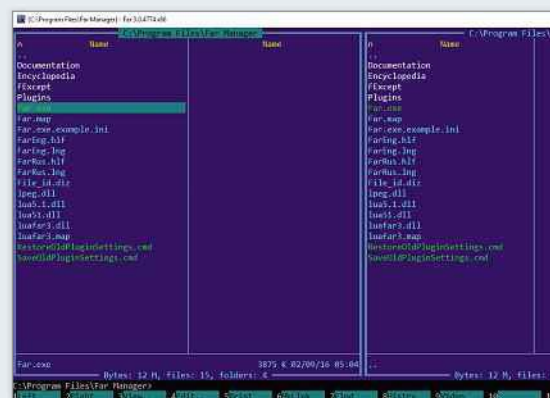
Michael Harrison

A For the benefit of other readers, XTree was an early file-management program. The modern equivalent that's perhaps most familiar is Windows 10's File Explorer (previously known as Windows Explorer) – just press Windows key+E to launch it. However, unlike these graphical tools, XTree's interface was entirely text-based, in common with DOS, the most popular operating system of the day.

While text-based interfaces certainly did and to some extent still do have

their advantages and proponents, by the early 1990s more and more people were shifting to graphical operating systems – and on PCs that meant Windows 3.0/3.1. In 1992 XTree Software introduced a Windows version but, faced with competition from new, prettier, faster and more flexible alternatives, it failed in the market. By 1993, the game was up for XTree Software. The company's assets were bought and sold a couple of times but, by 1995, both it and its eponymous product were no more.

We mentioned that File Explorer is a modern equivalent. You can actually use this to search for files changed only in the last seven days. First, click in the folder search box on the right-hand side and then, in the Search tab at the top, click 'Date modified' and choose 'Last week'



XTree, a text-based file manager, was superseded by graphical operating systems such as Windows

from the dropdown menu.

Alternatively, if you really crave the XTree experience, then try Far Manager. It's a modern file manager but with a decidedly retro text-based interface. Download for free from www.farmanager.com.

✉ Want to know what happened to your favourite program, website or technology? Email noproblem@computeractive.co.uk

Can you help with this confusion over cloning?

Q I'm considering cloning my computer, as suggested in your magazine. However, File Explorer tells me that my operating system (OS) is still Windows 8, in spite of my having updated to Windows 10 a long while ago. Why is this? Will it affect my ability to clone? Also, is cloning better than simply copying the C drive

using a backup tool such as Paragon's Backup & Recovery?

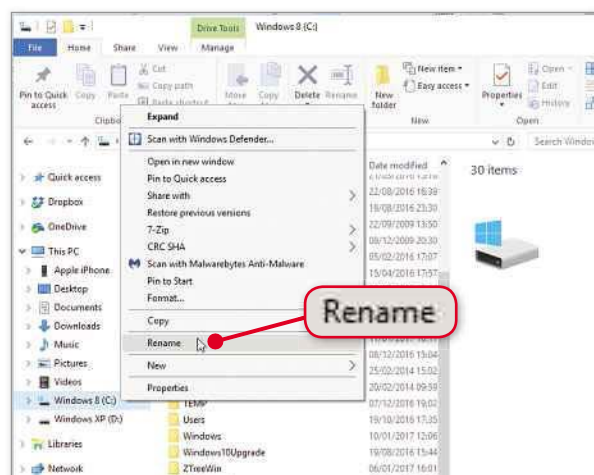
Barrie Colman

A Don't worry – your PC is running Windows 10. What you're seeing in File Explorer is the name of your C drive, which is literally just a label. This label doesn't necessarily bear any relation to what's actually on the drive, or your computer's OS – and in your case certainly doesn't. In all likelihood it's a hangover from when your PC was made, where the factory labelled the drive as 'Windows 8' simply because that's what was originally installed on the PC.

You've since upgraded to Windows 10 but that process doesn't change drive labels, so your C drive is still called 'Windows 8'. To change it, in File Explorer

simply right-click the C drive and then choose Rename. Now type **Windows 10** (or anything else you fancy) and press Enter (see screenshot).

As for cloning versus other backup types, it's really a question of what you want to achieve. Cloning creates a literal bit-for-bit copy of a drive, typically for the purposes of recreating your existing PC setup on a new drive. For most people, a 'differential' method makes more sense, as this backs up only those files and folders that have changed since the last backup – and the Paragon program you mention offers this facility.



If you've moved to Windows 10 and want to update your C drive's name from 'Windows 8', you can do so in File Explorer

NEXT ISSUE

ON SALE
Weds
1 March

- How do I change my Gmail email address?
 - Can I get iOS 10 on my old iPad?
 - What's causing this error and keyboard problem?
- ...And many more

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Why is my PC saying 'MIC On' when I boot it up?

Q In a recent issue you explained how to install and use GodMode (see Issue 492, page 51). I followed the steps precisely. Now whenever my PC boots up it says out loud 'MIC On'. I don't even have a mic connected. Please help.

Jeremy Newman

A We'd never heard of this happening before, but we don't think this has anything to do with GodMode. We confirmed with Jeremy that he didn't have a microphone connected to his PC. So we considered the possibility that the 'MIC On' message might refer to Wi-Fi encryption (MIC stands for Message Integrity Code and is related to Wi-Fi access).

Jeremy then contacted us again to let us know that Microsoft's support team had found a fix for the problem, so we thought we'd share it. Press the Windows key+R to bring up the Run box, type `msconfig`, then press Enter. Tick 'Hide all Microsoft services' (see screenshot above right), then click OK and restart your PC. Once it boots, repeat the process but this time untick 'Hide all Microsoft services' and reboot your PC again. This resets Windows on your PC.

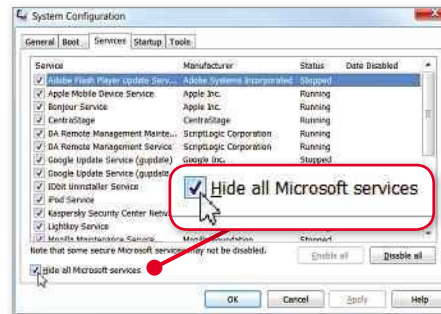
Where's Cortana for iOS?

Q There seems to be a problem with the Cortana app for iOS covered in Issue 494 (page 51). It seems to be available in the iTunes store in the US, but not in the UK. Could you clarify this please?

B Bunker

A Cortana for iOS was scheduled to launch in the UK in December (at the same time as the Android app in the Google Play store), but after we went to press Apple announced it had been delayed for "a few weeks".

You can read the latest regarding Cortana's updates on Microsoft's blog (www.snipca.com/23308). We will of



If you hear audio announcements as your PC boots, try ticking then unticking this box

course let you know when it does finally appear in the App Store.

Is eM Client really the best replacement for WLM?

Q Having read your feature (Issue 494, page 60) about support ending for Windows Live Mail (WLM) I downloaded and installed eM Client as you suggested, and it seems to be working OK. However, I think you should point out that this client is only free if it's used for no more than two email accounts.

J Luxon

A You're quite right, eM Client does support only two email accounts for free – we should have pointed this out in the feature. However, we do stand by eM Client as a great replacement for anyone who has no more than two email addresses.

For anyone who has more, try Mozilla Thunderbird (www.snipca.com/23307). It isn't as easy to use, but it's still a great alternative for WLM. Once installed you'll see a 'Welcome to Thunderbird' pop-up window. Untick the box and click 'Skip this and use my existing email' (see screenshot above right), then add the details of your existing email accounts.

Why is Malwarebytes' scan taking so long?

Q I took your advice (see Issue 493, page 57) and downloaded Malwarebytes Free. The first scans went



Don't bother creating a new email address if you install Thunderbird. Use your existing email addresses instead

OK, but then the 'Heuristic analysis' scan ran for two hours without any results. I uninstalled Malwarebytes and re-installed it, but the same thing happened. Have I gone wrong somewhere?

Alan Teale

A The fix for this does involve uninstalling and reinstalling the software, but you need to use the specific instructions on Malwarebytes' site (www.snipca.com/23302).

We haven't got space to include the whole process here, but you should follow the 'Free version' method (Method 2). The steps explain how to download the Malwarebytes Anti-Malware Cleanup Utility to completely remove the current installation of Malwarebytes and install it afresh. Be aware that if you have paid for the Premium version of Malwarebytes you will need to find your licence code first (go to www.snipca.com/23315 and enter the email address you used when you bought the software). Alternatively, contact the company you bought it from.

If the problem persists you should consult Malwarebytes' help forum at www.snipca.com/23304. Click Sign Up (top right) to create an account (then validate it in the email you receive). To submit your query click '+ Create', Topic, click Malwarebytes 3.0 (in the 'Malwarebytes for Home Support' dropdown menu) then click Continue. Add a title, type your query, then click Submit Topic.



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Heavyweight Matte 167gsm:
A4 50 sheets £12.99
A3 50 sheets £32.99
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hp
Originals:
No.300 Black 4ml £12.99
No.300 Colour 4ml £14.99
No.301 Black 3ml £10.99
No.301 Colour 3ml £13.49
No.302 Black 3.5ml £10.99
No.302 Colour 4ml £12.99
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No.351 Colour 3.5ml £17.99
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No.364XL **SET OF 4** £59.99
No.920XL **SET OF 4** £51.99
No.932XL **SET OF 4** £50.99
No.950XL **SET OF 4** £79.99

Compatible:
No.15 Black 46ml £3.99
No.21 Black 10ml £6.99
No.22 Colour 21ml £11.99
No.45 Black 45ml £6.99
No.56 Black 24ml £6.99
No.57 Colour 24ml £11.99
No.62XL Black 12ml £14.99
No.62XL Colour 12ml £15.99
No.78 Colour 36ml £8.99
No.110 Colour 12ml £9.99
No.300XL Black 18ml £12.99
No.300XL Colour 18ml £13.99
No.301XL Black 15ml £12.99
No.301XL Colour 18ml £13.99
No.337 Black 21ml £9.99
No.338 Black 21ml £10.99
No.339 Black 34ml £11.99
No.344 Colour 21ml £12.99
No.350XL Black 30ml £13.99
No.351XL Colour 20ml £15.99
No.363 **SET OF 6** £19.99
No.364 Black 10ml £3.79
No.364 Colours 5ml each £3.29
No.364 **SET OF 4** £12.99
No.364XL Black 18ml £4.99
No.364XL Colours 11ml each £4.29
No.364XL **SET OF 4** £16.99

Albums & Frames

We now stock a comprehensive range of frames, mounts, albums and accessories. The full range can be viewed on our website, with detailed close-up images of each product to help you choose the perfect way to display your printed photographs. Below is just a tiny sample of what we offer:



Travel Albums
Over a dozen designs in stock.

Grace Albums
Available in Burgundy or Blue.

Emilia Frames
Distressed wood shabby chic effect.
Blue or White.

Rio Frames
Handcrafted solid wood with 30mm wide profile, in four colours.

Grafton Albums
Available in Burgundy or Blue.

Frisco Frames
Simple, basic design available in a huge range of sizes & colours.

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Frisco 7x5 seven colours £2.29
Frisco 8x6 seven colours £2.79
Frisco 9x6 seven colours £3.49
Frisco 10x8 seven colours £3.79
Frisco 12x8 seven colours £4.59
Frisco A4 seven colours £3.99
Frisco A3 seven colours £8.99

Wood Bevel, Glass Front:
Emilia 6x4 two colours £4.99
Emilia 7x5 two colours £5.99
Emilia 8x6 two colours £6.99
Emilia 10x8 two colours £7.99
Emilia 12x8 two colours £8.99
Rio 6x4 four colours £6.99
Rio 7x5 four colours £7.99
Rio 8x6 four colours £7.99
Rio 10x8 four colours £8.99
Rio 12x8 four colours £9.99

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16GB £6.99
32GB £11.99
64GB £21.99
SanDisk Extreme
600X (90MB/s)
16GB £9.99
32GB £14.99
64GB £27.99

Compact Flash
SanDisk Ultra
333X (50MB/s)
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16GB £15.99
32GB £24.99
SanDisk Extreme
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16GB £26.99
32GB £32.99
64GB £47.99
128GB £94.99

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SanDisk Ultra
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32GB £12.99
64GB £24.99

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Delkin USB3 Card Reader £19.99
Delkin SD Card (x8) Case £6.99
Delkin CF Card (x4) Case £6.99

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Batteries

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LP-E6 for Canon £16.99
LP-E8 for Canon £12.99
LP-E12 for Canon £12.99
EN-EL3e for Nikon £14.99
NB-2L/LH for Canon £9.99
NB-6L for Canon £9.99
NB-10L for Canon £12.99
NP95 for Fuji £9.99
NPW126 for Fuji £12.99
EN-EL3e for Nikon £14.99
EN-EL14 for Nikon £19.99
EN-EL15 for Nikon £24.99
BLN-1 for Olympus £22.99
BLC12 for Panasonic £23.99
FW50 for Sony £24.99
BX-1 for Sony £14.99
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AAA 1100mAh (4) £3.99





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58mm UV / Haze £6.99
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ND4 Grad Filter £13.99

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3		EE: Broadband	£28.50 (£21.00 for 18 months)	18 months	17Mbps max speed	∞ unlimited	£252.00
4		Virgin: Broadband	£45.00 (£29.00 for 12 months)	12 months	50Mbps max speed	∞ unlimited	£348.00

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Beta A version of software that's being tested.

Blue light Light given off by PC and phone screens. Can disrupt sleep patterns.

Blue screen of death Technically called a 'Stop error', this is shown when your PC crashes.

Botnet A group of infected computers connected together via the internet, and used to infect other PCs, send junk email and perform other criminal tasks.

Browser hijackers Programs that change your default browser, its homepage and search engine, without prior warning, when you install them.

Calibration The process of checking that colours are accurate on a monitor.

Cast To wirelessly send content from your PC to TV.

Clock speed The speed at which a computer processor can perform operations. Measured in Gigahertz (GHz).

CPU Central Processing Unit. Another term for a computer processor.

DAC-UP (port) Digital-to-analog converter. Connects to the PC for audio playback.

DDR4 The newest, fastest commonly used type of computer memory.

DOS Disk Operating System. DOS was the predecessor to Windows.

Driver A file that tells Windows how to work with a connected device.

Emoji A small graphic that can be inserted into a text message or email.

Ethernet A standard used for almost all wired computer networks.

Factory reset A software restore of an electronic device to its original system state by erasing all of the information stored on the device in an attempt to restore the device's software to its original manufacturer settings.

False positive When an antivirus program wrongly detects a malware infection.

Firmware Basic software stored on a device, such as a music player, to control its operation. Can sometimes be upgraded in a process often called flashing.

Ghosting In relation to television screens, the appearance of an offset second image that's a ghost-like facsimile of the first.

GHz Gigahertz. A measure of how many instructions a chip can process per second. 1GHz is equal to 1,000MHz.

Gigabit Ethernet A very fast networking standard that can transfer data at up to 1,000Mbps.

Graphics card A component in a computer that produces the image shown on the monitor.

HTML Hypertext Markup Language. The language used to write most web pages.

IBAN code International Bank Account Number. Made up of 32 letters and numbers.

IP address Internet Protocol Address. A unique set of numbers, separated by full stops, used to identify computers and websites on the internet.

ISO file A type of image file that contains all the data from a CD or DVD.

Keylogger A piece of malicious software that records all the letters and numbers typed on a PC in an effort to find passwords or other valuable information.

LCD Liquid crystal display. The technology used to create almost all flatscreen monitors.

M.2 A standard specification for internal PC expansion cards and connectors.

Macro An automated series of commands or options that can be run at any time.

Metadata A set of data that gives information about a file.

MicroSD A small type of memory card. Can be converted to SD size using an adapter.

Micro USB A miniature version of USB, often found on smartphones, tablets and portable hard drives.

Motherboard The main circuit board inside every PC into which all other parts connect.

NAS Network-attached storage. A hard drive attached to a network that can be shared with other PCs.

OCR Optical character recognition. The process by which printed text is scanned and converted into documents that can be edited.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

Partition A large hard drive can be split into two or more partitions or 'virtual' drives.

PCIe Peripheral Component Interconnect Express. A faster version of PCI – a slot on the motherboard for expansion cards.

Plug-in A small program that adds extra features to software or to your web browser.

Protocol A type of internet technology that is regarded as the accepted standard.

PUP Potentially unwanted program. A program that may not be desired.

Push notification A message from an app that appears on a phone or tablet, even when you're not using the app.

QR code Quick Response Code. A barcode that can be read using smartphones.

Quad core A computer that has four processors on a single chip, which allows it to operate faster than single-core computers.

Ransomware Malware run by hackers who lock files on your PC and demand a payment to release them.

Reference card A colour chart used to check monitor accuracy, like the old TV test card.

Refresh rate Measured in Hertz (Hz), the number of times per second that the image on your monitor is redrawn.

SATA Serial ATA. An interface for connecting modern hard drives and optical discs to a computer.

SD card Secure Digital card. A popular type of memory card.

sRGB A standard RGB colour space for use on monitors, printers and the internet. RGB stands for red, green and blue.

SSD Solid-state drive. Storage that, unlike a hard drive, uses no moving parts.

System restore point The collection of system files stored by System Restore on a given date and time to which Windows can revert if a problem occurs.

Trojan A malicious computer program that's disguised as a different, harmless program.

USB 2.0/3.0 Faster successors to USB that are used by devices such as external hard drives.

USB Type-C A new USB connector type that's reversible, letting you plug it in upside down.

VPN Virtual private network. A technology for keeping all internet communication safe and private even on insecure networks.

Whitelist A list of allowed websites, email addresses and programs used by security software.

Zero-day vulnerability A security flaw accidentally introduced into new or updated software that can be exploited by malware or hackers before it is fixed.

ZIP file A file that contains a number of compressed documents or files.

The Final Straw



KEN RIGSBY is
Computeractive's Mr Angry

This issue Ken Rigsby is having nightmares about his...

Petulant printers

Last week, I needed to print an address on an envelope. So I found the appropriate template in LibreOffice Writer, tapped out the address, inserted the envelope in the printer's slot and then hit the Print icon. What could go wrong?

While I waited for things to kick into gear, I did what every seasoned printer user does next. I pulled on my wellies, trudged down to the garden shed, hefted my sledgehammer and – whistling contentedly as I diverted back via the kitchen to wish dear Mrs Rigsby a fine morning – returned to my office. And then, obviously, I used it to smash the printer into a million small pieces.

When I sadly awoke from this satisfying dream I was faced with the nightmare reality: printing almost anything drives me potty, because my printers seem to have minds of their own. Yes, I'm crazy enough to have two – a laser for long jobs, and an inkjet for colour documents and photos.

Save for the sledgehammer bit, my imagined envelope-printing experience is a reflection of the painful reality. Yes, I know that on the second attempt I'll remember that the sheath needs to be face up, not

“
I grabbed my
sledgehammer and
smashed my printer
into a million pieces
”

face down. And yes, I realise too that on my sixth go I'll have figured out which edge needs to be fed into the printer for the address to be the right way up. Heck, by the seventh tap of the Print button I might even coax the printer to put the address somewhere other than where the Royal Mail stamp is supposed to go.

Some of these frustrations are down to my own stupidity, but it doesn't help that my inkjet printer wants pages inserted face up, while the laser demands to be fed face down. Nor is life made easier by the fact that my inkjet's traction roller grabs as soon as something's inserted.

That's fine with A4 sheets, as they generally self-correct their path, but smaller paper always seems to be sucked in skew-whiff, so I have to crouch down to peer in to make sure my aim is just right.

Of course, at some point, usually when there's an urgent deadline looming, the printer will run out of ink or toner. With the laser, a quick shake of the drum sometimes gets me back in business, albeit at the expense of ink-stained fingers and toxic-dust inhalation. But the inkjet? Well, I foolishly bought a model that uses 'chipped' cartridges. You know: that little manufacturing wheeze that ensures not only that I'm unable to coax out a hard copy when I really need one but also forces me to cash in a pension or two every time I need to buy a new cartridge. Which, incidentally, seems to be a suspiciously regular requirement.

I'm already seething, and I've only written so far about the hardware! Windows is quite capable of driving most printers, but the hardware manufacturers delight in foisting their own software on users. These pretty interfaces are intended to make printing simpler, but many also tell you that the ink is low, or check whether you've inserted the correct (ie, exorbitantly priced) cartridges.

Instead of using a single, standardised 'Print' panel, companies confound us with a dozen different boxes, buttons and garish logos. Also, they seemingly conspire with their rivals to ensure that there's absolutely no consistency between one printer's Windows interface and the next.

Is it too much to expect my printers to just... print? Apparently, it is. So, when I next need to address an envelope I'll grab a pen and write it by hand. It won't look terribly professional, but it could save me from a nervous breakdown.



✉ What printer problems do you have?
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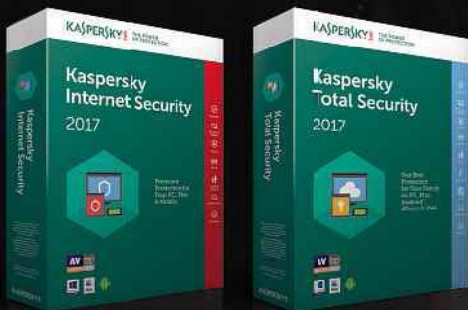
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