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From the Editor

Firstly, I'd like to apologise. In Issue 441 I said that our 2014 Back Issue CD was available to buy on Amazon. For logistical reasons that I shan't bore you with, it took longer than I hoped to get them on sale. But I'm happy to say they are now absolutely, positively, incontrovertibly on sale on Amazon (www.snipca.com/14981), with the same RRP as last year's CD (£15).

Once you buy the CD, you're one click away from all 26 issues of 2014 (that's 1,976 pages!). We've already sold almost half of the CDs, so they're in big demand. If you do buy the CD, we'd really appreciate it if you left feedback on Amazon.



Our Cover Feature this issue shows you clever ways to improve the software you use regularly. We recommend free extensions to use, hidden settings to apply and Registry editors to make. Follow our instructions and you'll find your favourite programs working faster and better. Please let me know how you get on.
Daniel Booth
editor@computeractive.co.uk



THIS ISSUE IN NUMBERS

£330,000

Amount donated to the Alan Barnes Fund in its first week - **p7**



£25

Approximate price of the new Raspberry Pi 2 - **p8**



180 days

Time you have to raise a dispute with PayPal - **p15**



3

Number of times this year Adobe has patched Flash - **p16**



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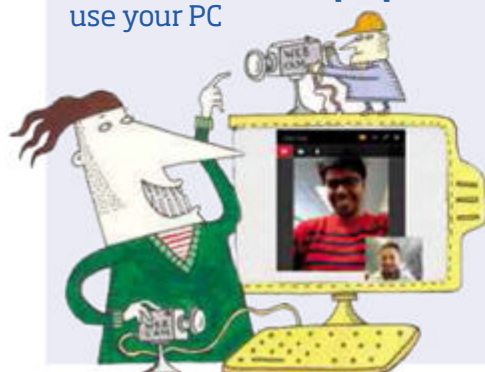
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Computeractive offer of the fortnight

Kaspersky Internet Security 2015 page 68



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Councils sell care of the elderly in 'eBay-style' auctions

Councils across the UK have been criticised for running eBay-style online auctions in which care homes bid to offer to look after the elderly.

At least a dozen local authorities are listing people's details, such as their age and required medication.

Local care homes submit the fees they would charge councils using software called SProc.Net, which has been devised by Milton Keynes-based company Matrix SCM.

In many cases the lowest bidder wins. A BBC Radio 5 Live report revealed that Birmingham City Council, for example, awarded 92 per cent of its care packages over a six-month period to the lowest bidders.

The figures were obtained via a Freedom of Information request by Birmingham Care Consortium, which represents care providers.



Critics slammed the process, saying it was inappropriate and insensitive to let computer software decide which care home looks after an elderly person in need.

Mike Gimson, chairman of Birmingham's Moundsley Healthcare Group, called it an "absolute disgrace". He said: "It's more like Hereford cattle market than it is a caring service for the elderly".

Ros Altmann (www.rosaltmann.com), a

Government advisor and expert on pensions and care for the elderly, called the process "uncivilised". Jane Vass of the charity AgeUK told the BBC: "No one would want their ageing mum or dad to be 'auctioned'".

Birmingham Council said: "No placements have been awarded based solely on price without considering the quality of care or provider, [they are] weighted 60 per cent on quality and 40 per

COMMENT

This may be an efficient way to offer care for the elderly, but it feels heartless and inhuman. Councils' budgets are being squeezed like never before, but there has to be a more compassionate way to make sure the elderly receive the care they deserve without it breaking the bank. It comes down to this basic question: who wants the care of a loved parent or grandparent determined by a software algorithm? They are human beings, not unwanted DVDs to list on eBay.

cent on price".

Other authorities using auction-style systems include Kent County Council, Devon County Council and Southend Borough Council, with dozens more expected to follow suit.

Word and Excel released for Windows 10

Microsoft has released new versions of its touchscreen apps for Word, Excel and PowerPoint to use in the Windows 10 Preview. They have been built to work best on phones and tablets.

The programs include a host of new features. In Word, for example, the 'Insights for Office' tool shows images and

definitions from the web when you highlight and right-click a word.

Microsoft also announced that it's working on a prototype of its voice-activated personal assistant Cortana that will work within Office. Codenamed 'Work Assistant', it may let you open, edit and share documents

using only your voice.

Some reports suggest it might even understand more complex voice commands



such as "open the presentation yesterday" or "email this file to this person".

If you have downloaded the new Windows 10 Preview (see page 35), you can install the Office apps from the Windows Store Beta today – read Microsoft's Office Blog for links: www.snipca.com/15366.



You'll like this... A Yorkshire man was thrilled when Virgin retrieved a voice message from his dead wife (www.snipca.com/15352)



...but not this Emoticons added to text messages could lead to huge phone bills (www.snipca.com/15355)

Android malware and IE flaw leave millions at risk

Millions of Android and Internet Explorer users are in danger of infection, according to warnings from security researchers.

In a blog post (www.snipca.com/15334) security company Avast said that several popular Android apps in the Google Play Store contained hidden code that made malicious adverts pop up.

One of the apps, a card game called Durak, had been downloaded between five and ten million times, according to the 'Installs' figure on the app's page.

Avast said two other popular apps – a Russian-language IQ test and a Russian history educational tool – also displayed the adverts.

According to Avast, the adverts warn you that your



device is infected, out of date or contains porn.

You are prompted to take action by tapping a button in the advert. Doing so takes you to web pages that contain malicious apps, such as those that send text messages to expensive premium-rate numbers.

Google has since blocked access to these apps, as well as dozens of others made by the same developers.

Avast's warning came a few days after David Leo, a

researcher at British security consultancy firm Deusen, exposed a **zero-day vulnerability** in Internet Explorer (www.snipca.com/15337).

The flaw, which affects users on Windows 7 and 8.1, lets hackers change content on websites. They could, for example, infect a bank's website with a rogue form that requests your financial details, thereby allowing the hackers to steal them.

You wouldn't suspect anything because the website's URL in your browser bar would remain the same – for example, www.barclays.co.uk.

Microsoft said hackers hadn't exploited the flaw, and that it was working on a fix. Keep checking the company's Security Bulletin for its arrival: www.snipca.com/15340.

IN BRIEF

BT BUYS EE FOR £12.5bn

BT has agreed terms to buy mobile-phone network EE for £12.5 billion, taking control over EE's 31 million-strong customer base, which includes 834,000 broadband customers. If the deal is approved by the Competition and Markets Authority, it would reduce the number of major UK mobile companies to just three: BT/EE, Vodafone and Three/O2. Consumer groups fear this will erode competition and lead to higher bills (see 'Question of the Fortnight', Issue 440).

PLAY LOST DESERT ISLAND DISCS EPISODES

The BBC has rescued several episodes of *Desert Island Discs* recorded between 1964 and 1970. Now available online on iPlayer Radio (www.snipca.com/15344), the episodes feature Diana Rigg, Louis Armstrong, William Hartnell and *Thomas the Tank Engine* author Reverend W Awdry being interviewed by Roy Plomley. To find them, just search for the person's name on the homepage.

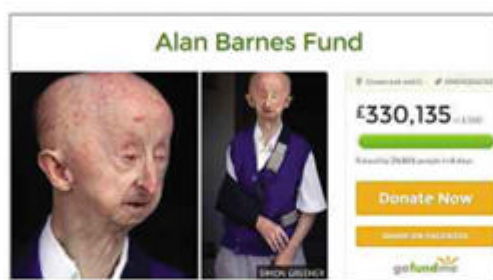
Charity fund for mugging victim halted after hitting £330,000

An online fund to raise money for a disabled mugging victim has closed after raising a staggering £330,000 in just over a week.

Alan Barnes, a pensioner from Gateshead, broke his collarbone when his attacker knocked him to the ground outside his house on 25 January. Nobody has been arrested for the assault.

Barnes, 67, was born with sight and growth problems after his mother contracted German Measles while pregnant. The attack left him too scared to return home, where he lives alone.

After reading about his ordeal, Katie Cutler, a



21-year-old beautician also from Gateshead, created a donation page (www.snipca.com/15324) on the fundraising website GoFundMe.

Ms Cutler wrote: "We can't take away what has happened, but with a little donation we can make the future a prettier one".

She initially hoped to raise £500 to help Alan relocate. But the number of donations

rocketed after her campaign garnered national interest. Eight days after going live, the fund had reached £330,135, with nearly 25,000 people contributing.

In early February, Mr Barnes asked Katie to close the fund. She wrote on the page that he "is very grateful for all your love, support and donations".

When asked what he would do with the money, Mr Barnes said: "I can tell you one thing, it won't be wasted, I am always very careful with money and won't be spending it on flashy holidays. I just want to feel safe again".

Tomorrow's world

Most of the pioneering technology we celebrate here is meant to make life better. But a group of scientists and entrepreneurs, which includes Stephen Hawking, have warned of the dangers of artificial intelligence (AI). In an open letter published online they wrote that while AI brings many benefits, there must be sufficient research to prevent it from damaging society. Read it at www.snipca.com/15321.

IN BRIEF

AMAZON LAUNCHES BOOK-SCANNING TOOL

Amazon has released new PC software that lets you convert paper books into ebooks formatted for your Kindle. Called Kindle Convert, it transforms scanned pages into digital text. However, it's currently only available in the US, costs \$49 (around £32) and requires you to scan each page manually. Amazon is marketing it as a way to digitally preserve rare prints and books. Find out more at www.snipca.com/15291.

BT PROMISES 500Mbps BROADBAND

BT has outlined plans to deliver broadband speeds of between 500Mbps and 1Gbps to homes and businesses around the UK. It will trial its new 'G.fast' technology this summer in Huntingdon and Gosforth, using existing copper cables to provide ultra-fast speeds into homes. BT says if the trials are successful the entire UK should have access by 2020.

New, faster Raspberry Pi runs Windows 10 – and it's still just £25

A new Raspberry Pi 2 Model B has been released that boosts the performance of the credit-card sized computer by up to six times, according to its makers. It's also the first Pi that can run Windows 10.

There are two major changes to the previous version. The CPU is now quad-core rather than single-core, which makes it capable of performing more complex tasks, and it has one gigabyte of RAM, double the previous amount. It also starts up in less than half the time.

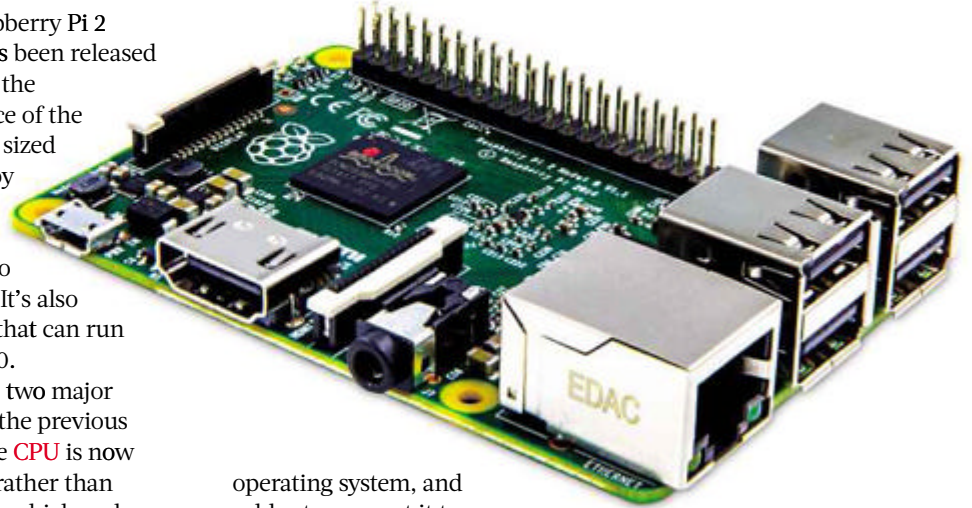
It's backwards-compatible with previous Raspberry Pis, which means users can simply replace old versions with the new computer.

As with previous versions, to start programming you'll need to add your own keyboard, a MicroSD card containing a copy of an

operating system, and cables to connect it to a TV or monitor.

The price remains the same, too, at \$35 (around £25). You'll find links to buy it online from the Raspberry Pi site at www.snipca.com/15299.

The low-budget Raspberry Pi has been the biggest British computing success since the heyday of the micro computers of the mid-1980s. Around 4.5 million have been sold since the first model was launched in February 2012. It



has become especially popular in schools as a way of teaching programming to pupils.

A hundred thousand units of the new Pi will be available immediately, with the makers predicting a "little queue" to get your hands on one.

• We'll review the Raspberry Pi 2 in a forthcoming issue. For more information on the Pi, buy the 2015 edition of our *Raspberry Pi for Kids* book from Amazon at www.snipca.com/15298.

Don't dial 999 – report crimes online instead

People should report non-emergency crimes over the internet instead of dialling 999, Home Secretary Theresa May has said.

Speaking at an international policing conference in late January, she claimed that if people went online to report crimes such as criminal damage and minor theft, annually it would save the police £3.7m and free up 180,000 officer hours.

The Home Office plans to introduce a nationwide scheme using the website www.police.uk, if a trial involving Surrey and Sussex police forces proves successful.



Police personnel will analyse the online reports before deciding how best to respond.

The Home Office stressed that victims of serious crimes, including assault and burglary, should still phone 999.

May said: "The growth in the internet has transformed other services – from shopping to banking – and it is right to give victims and witnesses greater choice over how they

report issues".

Her comments provoked a mixed response. Mark Castle from charity Victim Support said it would encourage people to report crime because it "will give victims a choice in how they want to begin the process of seeking the justice they deserve".

Other crime experts were less enthusiastic. Former police officer Robin Fletcher, now associate professor of criminology at Middlesex University, said the proposal "is about isolation, and putting artificial barriers up between the public and the police".

What's new from Google

Sending money by email may seem fraught with risk, but you can now do so safely using Gmail. Google added the service to UK accounts in January, having launched it in the US in 2013. To send money, you need to be over 18 and have a Google Wallet account, which is easy to create. We'll explain how to send money in our next issue.

British Army to launch Facebook and Twitter unit

The British Army is forming a unit that will use Twitter and Facebook to help fight wars “in the information age”.

Called the 77th Brigade, it will specialise in non-lethal psychological operations, and use social-media activity to counter propaganda spread by terrorist organisations such as Isis.

Around 40 per cent of the 2,000-strong unit will be reservists. Members will come from the Navy, RAF, and Army. The unit will be formally set up in April and will be based in Hermitage, Berkshire.

Head of the Army General Sir Nick Carter said the unit will help the British Army fight “smarter”.

An Army spokesman added that the unit’s formation



“recognises that the actions of others in a modern battlefield can be affected in ways that are not necessarily violent and it draws heavily on important lessons from our commitments to operations in Afghanistan among others”.

However, a former commander of British forces in Afghanistan told the BBC that the creation of the unit should not result in fewer soldiers on the frontline.

Colonel Richard Kemp, who

served in the Army from 1977 to 2006, said: “My view is that this should not be done at the expense of combat troops. Where are these 2,000 people going to come from? They are likely to come from savings made in combat troops. I think that’s a mistake”.

The unit will be modelled on the Chindits, the name given to a British India ‘special force’ that operated behind Japanese lines in the Burma campaign of 1942–1945 during World War 2.

They used guerilla warfare to disrupt communications and supply routes that supported the Japanese war effort. Read more about the Chindits on Wikipedia at www.snipca.com/15264.

IN BRIEF

OUTLOOK APP FOR ANDROID AND APPLE

Microsoft has launched its Outlook app for Android and iOS, letting you use the service to send emails from your phone and tablet. The iOS version is a full release, while its Android equivalent is a preview, so will contain a few bugs. Both apps are free. You’ll find links to them, plus more info, on Microsoft’s Office blog (www.snipca.com/15255). We’ll show you how to use the app in a Workshop in our next issue, out Wednesday 4 March.

TALKTALK BLOCKS PORN BY DEFAULT

TalkTalk has become the second ISP this year to block adult content by default, following Sky Broadband’s similar move in January (see News, Issue 442). The company said it will show a pop-up asking customers to choose whether they want to switch on its HomeSafe filters, which block websites deemed “inappropriate” for children. The company said on its blog (www.snipca.com/15231) that the pop-up presents customers with an “unavoidable choice”.

NEW APP SHOWS CLOSEST TOILET

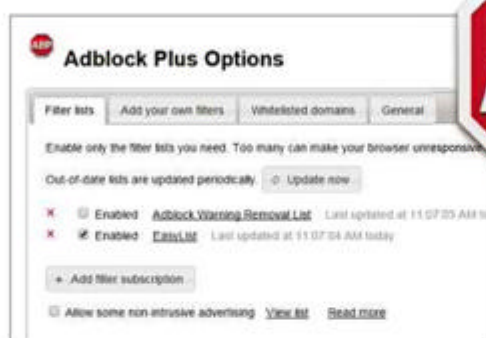
A new app lets members of the public and businesses advertise their toilets for general use. If you install Airpnp (www.airpnp.co), you’ll see any nearby toilets and showers you can use. The owners of the toilet can decide whether to charge. The app is American (toilets are called “restrooms”), and New Orleans currently has the most listed locations. But some London toilets have been added recently, including several in students’ halls of residence.

Microsoft and Google pay Adblock Plus to allow their adverts

Several leading tech companies are paying substantial sums of money to the makers of the extension Adblock Plus (<https://adblockplus.org>) to ensure their adverts aren’t removed from websites, according to a report in the *Financial Times*.

Microsoft, Amazon and Google are among the companies paying Eyeo, the makers of Adblock Plus, to ensure their adverts are added to the software’s ‘whitelist’ of permitted adverts.

By default, the Adblock Plus extension has an option ticked to “allow some non-intrusive advertising”. The Frequently Asked Questions (FAQ) section on the company’s website



non-intrusive advertisements.

It was not revealed precisely how much Eyeo is charging the likes of Amazon and Google. Eyeo refused to comment.

You can still block all ads by unticking the box that permits non-intrusive advertising (see option at the bottom of our screenshot). Eyeo encourages you not to, however, claiming that agreeing to see some adverts gives companies an “incentive to produce better ads”.

claims this is a means of rewarding companies that don’t run intrusive adverts.

But Eyeo fails to mention in its FAQs anything about charging companies to join the whitelist. Only when you click to read more details of the agreement companies must sign to be whitelisted does it mention that Eyeo is paid to let through

Named & Shamed

In the first of an occasional series, **Jane Hoskyn** puts the boot into nasty software, jargon-spouting companies and tech villains

Don't click here! Junk ahead...

Freemake Video Converter

Freemake's video tool is a good program let down by a hideous installer. Last time I tried installing it, I ended up staring at a **browser hijacker** that took a weekend to remove from my PC. But that was a few years ago, before I grew old and wise to the horrors of setup wizards, so I've decided to give Freemake another chance for our inaugural Named & Shamed page. (Spoiler: better not try this at home.)

1.36pm It all starts innocuously on Freemake's download page (here's the link, for what it's worth: www.snipca.com/15367), which has friendly headings like Support and 'How to'.

1.38pm In the setup wizard, the words 'Install Wajam - Recommended by Freemake' confirm that nothing has changed around here. Wajam is search adware, and I'm off to Google to prove it.



Freemake's installer is laced with adware and not worth the risk

1.43pm Microsoft asks: 'How did Wajam get on my PC?' (www.snipca.com/15370), Symantec says 'Wajam is a PUP' (Potentially Unwanted Program, www.snipca.com/15371) and Malwarebytes offers 'Removal instructions for Wajam' (www.snipca.com/15372). Sounds great, doesn't it?

1.45pm I click 'I do not accept' and click Next without suffering any apparent

Wajam-shaped damage to my PC. On the next window, there's a greyed-out 'Custom installation' option. Greyed-out items normally can't be clicked, but this one can – and it hides some sneakily pre-ticked adware, TuneUp Utilities.

1.48pm You know what? This wizard is making me nervous. I close and delete it.

USE THIS INSTEAD

Freemake isn't worth the risk. There are excellent alternatives that don't claim to be "free" in return for installing adware.

The best installable video converter is HandBrake (<http://handbrake.fr>), but I prefer the free online tool CloudConvert (<http://cloudconvert.org>). It lets you convert between hundreds of formats – and you don't have to download anything at all.

What are they talking about?

What they say

The Investigatory Powers Tribunal, (www.snipca.com/15375): "Whether by virtue of the fact that any of the matters now disclosed in the judgment of 5 December 2014 were not previously disclosed, there had prior thereto been a contravention."

What they mean

The Government only slightly broke the law by eavesdropping on you. Human-rights organisation Liberty is now going to court in a bid to remove the "slightly" part from the ruling, which can only mean one thing: there's plenty more legal gobbledegook to come.

Jane's villain of the fortnight Facebook

My name is Jane and I am a Facebook user, so I've learned to ignore the phrase "Facebook privacy changes", because it's usually a hoax (see News, Issue 441). When I read about the latest change, which supposedly gives Facebook the right to snoop on your activity across the internet (www.snipca.com/15378), I assumed it was hoaxers crying "wolf" again.

Oops! The wolf is real this time, and he's right behind you. Facebook has admitted it's signed us all up to its new privacy policy automatically, so it's already tracking your browsing habits inside and outside Facebook in order to target you with yet more adverts. It's all there in the small print



on the Adverts page of your Facebook settings.

I'm not sure who's the bigger villain here: Facebook for this nefarious back-door assault on our privacy, or the hoaxers who've conditioned me to think these announcements are fake.



Would you like to nominate a villain of the fortnight? Email us at editor@computeractive.co.uk

Question of the Fortnight

Should internet access be a human right?

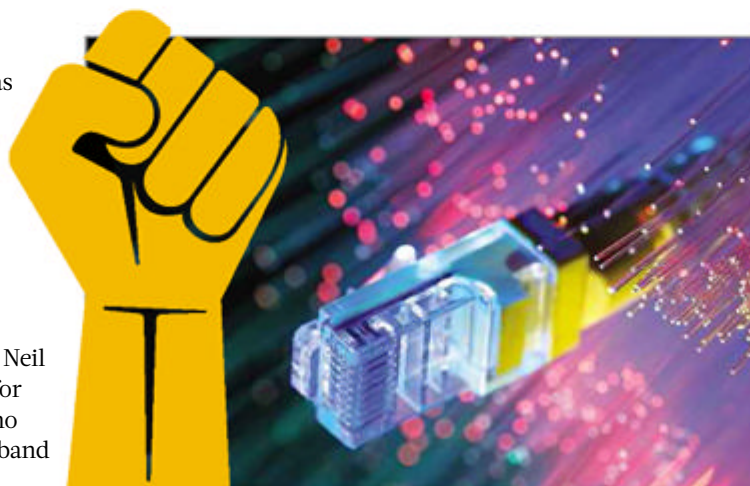
As a parliamentary report calls for better web access in rural areas, one MP says everyone has the right to access broadband

For decades in the UK, access to electricity, gas and running water has been considered a basic right. Many leading figures are now asking whether access to broadband should be considered equally important as a utility.

The issue was raised by Neil Parish, Conservative MP for Tiverton and Honiton, who said that “access to broadband should be considered a fundamental right”.

Parish is a member of the Environment, Food and Rural Affairs select committee. In early February it published a report on rural broadband that highlighted how poor access to the internet is in remote areas (read it at www.snipca.com/15313).

The committee is worried that broadband coverage is so substandard in rural areas that the UK risks becoming a



broadband, which is capable of providing access in areas beyond the reach of conventional cable broadband.

Anne McIntosh MP, the chairman of the committee, didn't quite endorse Mr Parish's claim that broadband is a “right”, but she did say it was an “an essential, everyday public utility”.

She said that without broadband “schoolchildren

to be a basic human right that enables people to “exercise their right to freedom of opinion and expression”.

Several countries have already taken measures to enshrine this right in law. In 2009, France's highest court, the Constitutional Council, declared access to the internet to be a basic human right. Finland followed suit a year later, vowing to provide 100Mbps broadband to all its citizens by 2015 (www.snipca.com/15302).

There's support for the idea across the world. In 2010, a BBC World Service poll of 28,000 adults in 26 countries found that almost 80 per cent of people felt access to the internet was a fundamental right.

But the principle has some high-profile critics, most notably internet pioneer Vint Cerf, a vice president at Google and the company's Chief Internet Evangelist. He says that technology “is an enabler of rights, not a right itself”. Access to the web should be a “civil right”, he

THE FACTS

- Five per cent of UK households are unable to access broadband speeds higher than 2Mbps
- MPs have called for a voucher scheme to cut the cost rural households have to pay for fast speeds
- In 2009 France's highest court said that access to the internet is a basic human right

“Without broadband children can't do their homework, people can't pay their tax, people can't even watch a film”

“two-tier society”. They are especially concerned about the plight of the five per cent of households (around 850,000 people) who cannot access 2Mbps broadband.

The report suggests the Government should offer vouchers to those households unable to get fast speeds to help them pay for satellite

can't do their homework, people can't pay their tax, people can't even watch a film. It's the haves and the have-nots”.

Mr Parish's view is shared by many in the United Nations. In 2011, a report from the Human Rights Council of the United Nations General Assembly declared web access

argues, not a human right.

Other internet experts agree with Cerf, citing the dangers of ‘human-rights inflation’. They warn that labelling internet access a human right devalues the importance of other rights, such as freedom from torture and freedom of speech.

Unsurprisingly, Amnesty International and other campaign groups say that it's wrong to equate internet access with fundamental freedoms. Instead, it should be regarded as part of the right to expect a reasonable standard of living, alongside food, clothing, housing and medical care.

This argument matters because governments will feel more moral pressure to deliver fast broadband to everyone if it becomes widely accepted as a human right. That's why MPs who represent predominantly rural constituencies, such as Mr Parish, will continue to make the argument that web access isn't just an essential service, but a fundamental right.

Letters

Tell us what's on your mind

Email: letters@computeractive.co.uk

Facebook: www.facebook.com/computeractive

Twitter: [@ComputerActive](https://twitter.com/ComputerActive)
www.twitter.com/computeractive

Don't be a Windows 10 'guinea pig'

 I bet you'll get


lots of emails from readers dazzled by Microsoft's offer of a free upgrade to Windows 10. I urge them all to think very carefully, especially if they are still using Windows 7, which remains a perfectly capable operating system (if you're using the awful Windows 8, then knock yourself out – surely Windows 10 can't be worse).

So my message to all Windows 7 users is not to fall for Microsoft's free-upgrade bribe. You don't want to be a Windows 10 guinea pig, testing the operating system for bugs and flaws during its first free year. Wait instead for Windows 10.1 a year later. Or don't bother upgrading at all.

Ask yourself what Windows 10 does that you can't already do in Windows 7. Well, there's Cortana (so what?), a new browser (big deal – just use Firefox or Chrome) and... that's about it. I will be sticking with Windows 7, and I urge my fellow users to do likewise.

Thomas Clarke

Helping scammers is 'bleeding-heart liberal drivel'

 I've read some bleeding-heart liberal drivel in my time, but Barry Sutton's letter in Issue 442 takes some beating. He says we shouldn't tease or mock phone scammers who try to trick us into downloading malware. In Mr Sutton's loved-up world, we should empathise with the scammers and offer counselling over the phone. But why stop there? Let's pay for an air ticket from India, pick them up at Heathrow, and put them up for a few weeks while they look for a more reputable job.

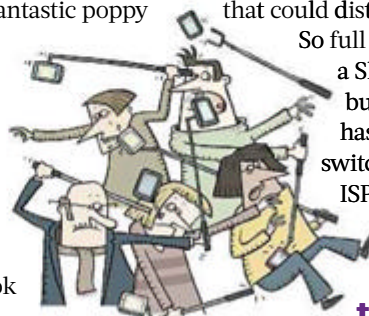
This isn't just dangerous advice, it's also patronising. Does he really think these scammers turn to crime through choice? Rubbish. They're not "desperate" as Mr Sutton claims. There are lots of jobs available to them in India. But instead they try to make money working for a criminal operation. Rest assured, I shan't be diluting my abuse for these people next time they ring me.

Robert Reeves


Angered by poppy tourists using selfie stick

 I totally agree with Stuart Andrews about so-called selfie sticks (The Final Straw, Issue 441). I've seen them being used in several places, usually by disrespectful tourists. The worst example was when I visited the fantastic poppy artwork at the Tower of London last autumn. It was bad enough that these tourists wanted to take gurning selfies at such a sombre display, but to do so using a selfie stick the size of a snooker cue took the biscuit. I told them that they should show more respect, but being Chinese they just looked at me bemused.

Larry Butler



'Full marks' to Sky for blocking porn


 Of course Sky Broadband is right to block porn by default. Elsewhere in our media-saturated world we make porn hard to find. Want it from a newsagent? You'll have to reach to the top shelf. Want it on TV? You'll have to pay with your credit card. But accessing porn from the internet is a breeze. I was

sickened when my nine-year-old granddaughter accidentally stumbled upon some sexual content as the result of an innocent search on Google. There are so many ambiguous words and phrases in the English language that it's easy for children to come across sexual images that could disturb them.

So full marks to Sky. I'm not a Sky Broadband customer, but such responsible action has made me consider switching to them. Will other ISPs follow suit?


Raymond Palmer

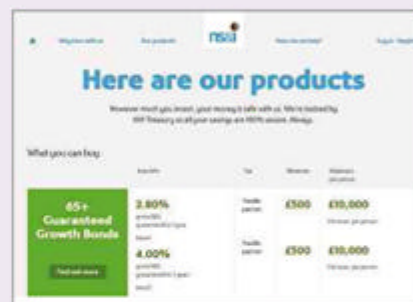
Using the web to fight old-age loneliness

 I was interested to read the news story in Issue 440 titled 'Skype and Facebook make older people feel less lonely'. I can't speak from experience, but it makes sense to me when I consider my mother-in-law sinking slowly into dementia. Back in those early days it seemed to me that if she could have been stimulated in some way, the onset of dementia might have been delayed.

Your article confirmed my long-held belief that there are many people in our community who are lonely. In three months I'm taking over as chairman of

Impossible to ring pensioners' bonds number

 With reference to the National Savings & Investments website (www.nsandi.com) crashing (News, Issue 442), it's not just the website that is a problem. I cannot apply for a bond online without an activation password, but they will not email this to me – I can only get it by phoning 0500 007 007. This line was permanently engaged for over a week from the announcement, including at 1am on Saturday, Sunday and Monday. Initially, they left it to BT to keep telling me that the line was busy, then after my fifth complaining email, they placed their



What you can buy	Rate	Term	Minimum investment
65+ Guaranteed Growth Bonds	2.80% annual interest	10 years	£300
			£10,000
	4.00% annual interest	10 years	£300
			£10,000

own answerphone on the system to tell me the line was busy.

A sensible alternative would have been an answerphone that told us how many people were in the queue, allowing us to make the decision on whether to hold or ring back. But then again, this is a Government service we're talking about.

John Bourne

our local U3A Group (University of the Third Age, www.u3a.org.uk) and I intend to provide an outreach to such people in our community. To start, we'll buy five or six tablets to teach elderly people how to use social media. We'll then set up a team of U3A members to provide a dialogue with as many isolated people as we can.

John Kinchington

BBC dog-breed map made me a proud northerner

✉ As someone born and bred in Yorkshire, I take great delight in the stereotype of the flat-cap-wearing, whippet-owning, no-nonsense northerner. I loved it therefore when a BBC survey of popular dog breeds showed that greyhounds were the most common breed in Halifax. The BBC shared this wonderful news with the nation on a superb online map (www.snipca.com/15163). While other regions love their labradors, spaniels and even Shih Tzus, we stick with tradition up north. Ee, it makes me reet proud!

Gerald Jeffries

'Hypocritical' Facebook gives in to Turkey

✉ Less than an hour after reading Donald Warburton's Star Letter in Issue 442 praising Mark Zuckerberg's stance on the importance of freedom of speech, I saw this story online (www.snipca.com/15169) which said that Facebook is going to remove a page which, according to the Turkish government, offended the Prophet Mohammed. Turkey had threatened to block Facebook if it didn't comply. So much for your principles then, Mark! Faced with a nationwide ban, and the loss of all that lovely advertising revenue, you just gave in to an unreasonable request from an authoritarian government. What hypocrisy! I thought we had a right to cause offence, Mark? Obviously not. Think I'll have the same success trying to persuade Facebook to remove all anti-Christian pages? Somehow I doubt it.

Douglas Betts

Amazon's prices 'shoot all over the place'

✉ It didn't surprise me to read in News, Issue 442, that Amazon constantly changes its prices. I noticed years ago that their prices can shoot all over the place. It's not usually a bad thing because I think Amazon often has the

STAR LETTER

I will finally upgrade from XP... to Windows 10

✉ I could be proved very wrong later this year (and if I am I will write in and say so), but I think Windows 10 could be the best version yet. Reading your News article on it in Issue 442, I got the same positive vibes I felt when getting used to Windows XP – the operating system I still use. It's great to see the Start menu back; I'm glad Microsoft are replacing Internet Explorer with something more modern; and Cortana sounds very useful – I get bossed around at home by my dear wife, so it would be nice to start telling somebody else what to do.

I've resisted all attempts by Microsoft to get me to upgrade to Windows 7 or 8 because I love XP. I realise it's unsafe and I guess I should have upgraded last year when support for XP ended. But I've been safe so far. Or have I just been lucky?

I've not been complacent though. I did have an XP-free month when I dabbled with Linux. I downloaded Ubuntu, which many of my geeky friends have recommended, but just found it impossible to use. Maybe I'm set in my Windows ways, but Ubuntu seems to be built for the more



trainspotter-type of PC user (no offence meant).

So Linux isn't for me. Nor are Windows 7 and 8. Which just leaves Apple Macs (no thanks – too trendy, too expensive). That's why I'm keen to use Windows 10. My only gripe is that Microsoft isn't making Windows 10 free for XP and Vista users. What's wrong with us? Are we being punished for sticking with an old operating system? Maybe Microsoft want to teach us all a lesson.

But I'll forgive them this once. Windows comes in for a lot of stick, but what's the alternative? It's not Linux (unless you have technical expertise) and it's not Apple (unless you have a lot of money). I have neither, so I'm sticking with Windows and moving into a brave new future.

Ian Dodd

The Star Letter writer wins a Computeractive mug!



cheapest prices, but I can see why some people would think it's sneaky (supermarkets are just as bad though).

I've even noticed that the price of *Computeractive's* books on Amazon fluctuate wildly. For example, I've seen your *Definitive Guide to Android* (www.snipca.com/12476) book on sale for over £7.00, but when I checked this morning it was £6.78. I bought it when it was around £6.90 (absolute bargain – it's an essential guide for an Android beginner



like me). Should Amazon be more honest about how prices change, or should we just accept that we're being manipulated and be thankful of the bargains? I don't know.

Vince Ellington

CA says You're right that Amazon's prices change frequently, probably as a result of using price-tracking algorithms to monitor prices on rival websites, and to measure customer demand. When we took this screenshot (left) in late January, Amazon was selling our *Definitive Guide to Android* for £6.73, the cheapest we've seen it. But before Christmas it was on sale for over £7. The book's RRP in the shops is £9.99, so if you buy it with free delivery on Amazon, you get a bargain.

Consumeractive

Why is Currys forcing people to buy USB sticks?

Q I'm writing regarding Nick Dobie's case in Issue 440 about Currys insisting on the purchase of a USB stick for £35. My daughter was told the same thing. She was also told that if she didn't buy it and the computer failed to start the first time it was switched on, the warranty would be void. What's going on?

Chris Semple

A We're not sure. A few other readers have told us that staff in Currys have said the same thing to them, so we've gone back to Currys for an answer. Unless customers aren't understanding what the sales staff are saying, this is hectoring behaviour and potentially misleading – and therefore a breach of the law.

Regarding voiding the warranty, Currys can include whatever terms and conditions it wants. But we are surprised it would void a warranty if a PC doesn't start the first time it was switched on – that would be inexplicably poor customer service. And if a computer failed to start the first time, then it's clearly inherently faulty, and can be returned under the Sale of Goods Act. In such a case, the warranty wouldn't matter.



Can I get a refund from Apple if I download an app, then reject it?

Q I read an article in *The Daily Mail* just before Christmas that said a new law meant Apple had to refund purchases from iTunes and its App Store if you told them you didn't like what you bought. Can I really demand my money back if I don't like a track or app I bought?

Maria Ward

A No, Maria can't legally demand her money back, but we understand why she's confused because the article in *The Daily Mail* sounds convincing. Indeed, other newspapers and websites have said the same. It's a muddled situation, so let's try to clear things up.

A new law was introduced last year that gives consumers greater rights. The Consumer Contracts Regulations, which replaced the Distance Selling Regulations, means you can cancel purchases of digital media such as ebooks, music and apps within 14 days, but only if you haven't downloaded them.

However, according to reports online Apple is refunding purchases in some circumstances even if the item has been downloaded. We emailed Apple to confirm this, but the company



refused to. If Apple is doing this, it contradicts its own terms and conditions, which say: "You cannot cancel your order for the supply of digital content if the delivery has started upon your request and acknowledgement that you thereby lose your cancellation right" (www.snipca.com/15150).

If Apple is refunding people who have downloaded purchases, it puts the company on a collision course with the firms that make the digital media, such as app developers and music publishers. These companies are worried that after buying a track customers could rip it to a CD, and then claim a refund. They could also read an ebook within the 14-day period, then claim a refund. We find it hard to believe Apple is offering mass refunds, but if you've received one we'd love to hear from you.



Can Currys refuse to help with a failed repair?

Currys PC World

Q I wrote to you last year about a fly trapped behind my Samsung TV screen. Currys sent it away for repair. Now I've multiple problems including a dead pixel at the top of the screen, and the TV waking and shutting down intermittently. I want a replacement, but Currys isn't responding to my emails. Can you help again?

Simon Sims

A We'll try. Currys told Simon it wouldn't carry out any further repairs – a response we're not

happy with. So we've contacted Currys again (we're keeping them busy this issue) to see if we can persuade them to change their mind.

The usual legal view is that, if the fault isn't down to wear and tear or damage, consumers are entitled to a refund if an item needs to be repaired more than once. However, this isn't enshrined in law yet. We say 'yet', because it's due to be included in the new Consumer Rights Bill, which is expected to become law this summer. This means that Simon might get a refund from Currys, although it's

unlikely the company would give him all his money back because he has had some use from the TV.

That said, we wouldn't be surprised if Currys refused to give any refund. But that doesn't mean it can simply ignore Simon. He is entitled to a replacement TV that's "fit for purpose", though it doesn't have to be brand new. Instead, Currys can offer him a refurbished TV, but it has to be the same model – unless the company offers an acceptable alternative. We hope Currys will come back to us soon.





✉ 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.

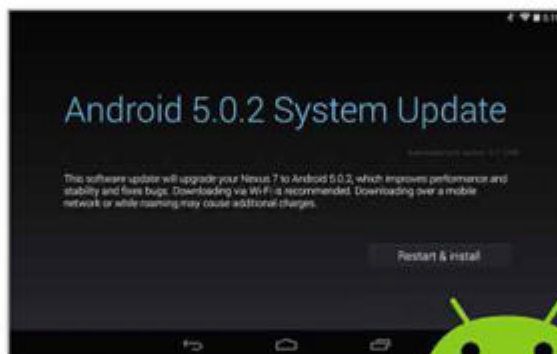
We stand up for your legal rights

Could I sue Google for a lousy Android update?

Q I recently downloaded Android 5.0.2 (Lollipop) to my 2013 Nexus 7 tablet, but I find it's virtually unusable. It constantly freezes and the tablet often shuts off completely. I realise that the decision to upgrade was mine, but do I have any legal comeback with Google?

Vic Storey

A This is an excellent question. Theoretically, Vic does have a case because if a **firmware** upgrade renders a device useless it's the software developer's fault. But we think it would be a hard case to win because the Nexus may be malfunctioning because the apps installed on it are incompatible with the upgrade. Legally, that wouldn't be Google's fault.



Vic isn't alone with his grievances. Many people have complained to Google that the original Lollipop upgrade, which arrived in November last year, causes problems on their phones and tablets. Google has also been criticised for "rushing out" the

5.0.2 upgrade to fix these problems.

We wouldn't recommend legal action in this case. Instead, Vic should wait to see what the next Lollipop update brings – hopefully Google will fix the problems plaguing millions of users. He should also check the website of app developers to see if they update their apps with fixes

that solve some of the problems. He is one of many readers to have emailed us with problems, so we'll have a Fast Fixes

for Lollipop in an upcoming issue.



CASE UPDATES



PayPal extends its dispute deadline to 180 days from purchase

In Issue 439 we took on Alan Parker's case, but sadly so far haven't been able to resolve the situation. He bought a 10.1in tablet on 1 May 2014 from an eBay seller called ca-sitton2014.

However, when it arrived it wasn't as described. Then, three months later, it stopped working. The seller didn't respond to Alan's emails requesting a refund.

Alan felt safe buying the tablet because he thought the seller was based in Derby. However, the seller's email address indicates he's based in China. We emailed the seller asking which country he operates from and why Alan might have believed he was based in Derby, but we've had no response.

Alan can't now raise a dispute with eBay or PayPal because too much time has passed since purchase. He never really stood a chance with eBay because you have only 30 days from purchase to raise a dispute. PayPal used to give you 45 days, but on 17 June it extended this to 180 days. This is great news for consumers, giving you greater protection from unscrupulous sellers, but unfortunately for Alan it doesn't apply to purchases made before 17 June. Had he bought the tablet on 17 June he would have had until mid-December to claim his money back through PayPal.

If you want to raise a dispute with PayPal, you can do so through its Resolution Centre: www.snipca.com/15159.



THIS WILL COME IN USEFUL

Pensions contact details

Civil service pensions

0300 123 6666

Email: contactcentre@mycsp.co.uk

Future Pension Centre

0845 3000 168

Email: www.snipca.com/15149

Government's Pension Service

Make a claim:

0800 731 7898

Help with website:

0345 604 3349

Report a change of circumstance:

0345 606 0265

Claim online:

www.snipca.com/15079

International Pension Service

0191 218 7777

Contact form:

www.snipca.com/15080

NHS Pensions

0300 3301 346

Online info:

www.snipca.com/15158

Pensions Advisory Service

Contact form:

www.snipca.com/15081

0300 123 1047

Pensions ombudsman

0207 630 2200

Email: enquiries@pensions-ombudsman.org.uk

Pension Tracing Service

0845

6002 537

Online form:

www.gov.uk/find-lost-pension

uk/find-lost-pension

pension



Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

Triple-whammy of Adobe flaws

What happened?

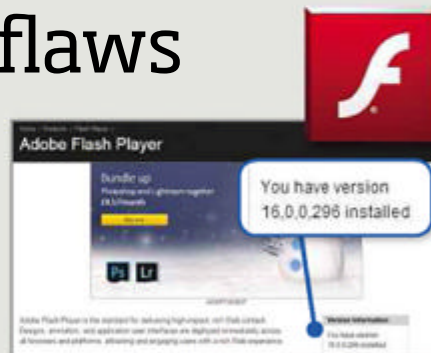
Adobe issued its third security patch of 2015 for Flash Player. It arrived on 2 February (download from www.snipca.com/15283), fixing a flaw that allowed criminals to launch so-called 'malvertising' attacks, which is the practice of placing malware inside adverts on websites. By clicking an infected advert, the user unwittingly installs malware on their PC.

In a blog post (www.snipca.com/15251) security researchers at Trend Micro said they detected the malware in adverts on the video-sharing website Dailymotion (www.dailymotion.com). Clicking the advert downloads malware to your PC, creating a **backdoor** hackers can exploit to install other malware and steal personal details such as credit-card information.

It's fair to say, 2015 hasn't started well for Adobe. As reported in News, Issue 442, Adobe issued an emergency fix (download from www.snipca.com/15133) for a flaw spotted in early January. This was followed less than a week later by another fix (download from www.snipca.com/15250).

What should you do?

First of all, you should make sure Adobe has automatically updated Flash on your PC. Go to www.adobe.com/software/flash/about, look in the box titled 'Version Information' (see screenshot), then check it's the same as the latest 'Player version' in the box below (these vary depending on your operating system). If your version of Flash hasn't been updated, click the links we've mentioned to install the



fixes from the Adobe Security Bulletin webpages. Chrome users don't need to worry because the browser runs Flash in a **sandbox**, which keeps you safe. It's also automatically updated with every new Flash fix.

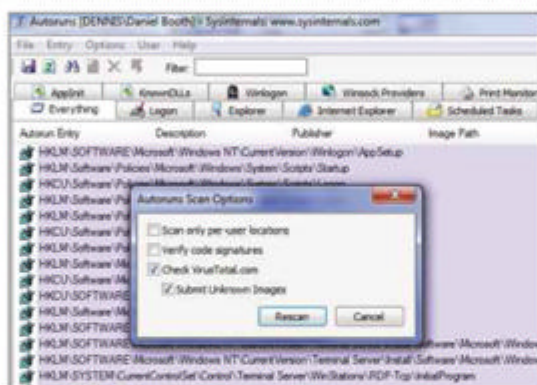
Finally, you could try uninstalling Flash to see how it affects your web browsing. You may find it has little impact. You don't need it to use YouTube anymore because the site now plays videos by default in **HTML5**.

New tools

Autoruns with VirusTotal
www.snipca.com/15282

Don't you just love it when Microsoft and Google get on nicely together? Microsoft's free Autoruns tool, which lets you keep an eye on items that launch when you start your PC, now scans files using Google's VirusTotal. This is great news because VirusTotal scans for malware using the **antivirus engines** of over 60 security products. It's a powerful way to make sure nothing nasty launches when you boot your PC.

From the link above, click 'Download Autoruns and Autoruns.exe' (small blue link near the top), then run both applications. Next, in Autoruns, click Options at the top, then Scan Options, tick 'Check VirusTotal.com' and



'Submit Unknown Images' (see screenshot) and click Rescan. You will need to agree to VirusTotal's terms and conditions, which is nothing to worry about. VirusTotal will highlight anything suspicious in red in the VirusTotal column.



ScamWatch

READERS WARN READERS

Well spoken 'Windows Helpdesk' scammer

I just received a phone call from a very well spoken woman, with a strong Asian accent. She said she was called Jennifer and that she was from "Windows Helpdesk". She told me my licence for my PC had been banned and asked if I could go to their website to get it unblocked. I replied, "As if I'm that stupid - I'm using Linux!" But she insisted that my PC would be unusable. The firm clearly isn't that bright because they didn't block their number. So if you get a call from from 'Windows Helpdesk' on 09898 931 748, ignore it.

Kevin Harvey



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



Minerva

"Under a grand net's you a system that is powerful enough to use in any gaming title you care to play."

Bryan Water, OC3D.net

- Overclocked Intel® Core™ i5-4690K Quad Core
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Ryan Martin, eTeknix.com

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Zordon, KitGuru.net

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"what you do get with the UltraNote II is more than just alright. It gets the job done, and does so at a reasonable price."

TechRadar.com

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Zordon, KitGuru.net

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GEOGRAPHY

Google Earth Pro

www.snipca.com/15361

What you need: Windows XP, Vista or 7

Google's amazing virtual globe Google Earth (www.snipca.com/15362) was released 10 years ago and is still one of our favourite tools of all time. Perhaps it didn't like being pipped to the number one spot by Skype in our Best Free Programs Ever top 20 (see Issue 434), because it's now thrown down an impressive gauntlet – its Pro version, previously more than £200 to buy, is now free. Beat that, Skype.

You now get HD video screen recording, area measurement and high-resolution screenshots for free. Ever wanted a wall-sized poster of your town? Now it's just a few printable screenshots away. All the usual Google Earth features are still in place, including virtual flights across the planet and detailed views of landmarks in distant continents.

So what's the catch? It's not free for Windows 8/8.1, which means quite a few of us miss out on the party. But if you're running XP, Vista or Windows 7, it's not only free but surprisingly quick and easy to download. When you click Download you see a lengthy 'Sign up for Earth Pro' form, but you can ignore it – the only bit that matters now is the yellow banner, where you'll find a licence key and 'Click here' link. Click it, click 'Agree and Download', then save and run the installer. You'll need to type your email address and the licence key.

As you might expect from Google, there's plenty of online support, including video tutorials for all levels (www.google.com/earth/learn).

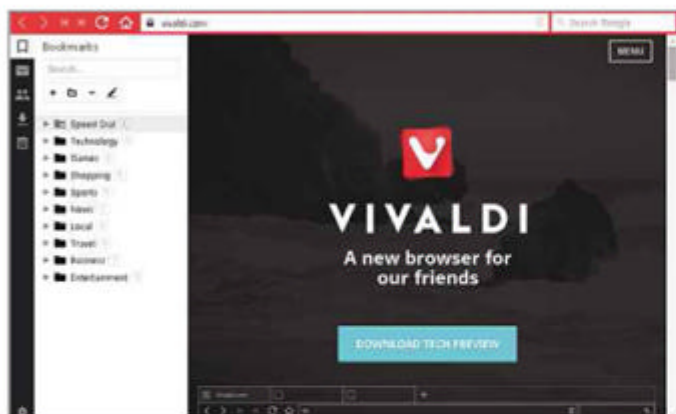


1 Hover your mouse at the top-right to see the Look tool (the one that looks like a compass). Click it to change your vantage point, and drag the ring to rotate your view.

2 Click a thumbnail at the bottom of the window to tour that country or region. You'll then automatically zoom into that location, where you can click photos to choose cities and areas to explore.

3 To record a high-quality video of your tour, click Tools, then Movie Maker. Choose a video format from the (huge) dropdown menu, then choose a Resolution (PAL is encoded for UK TV sets).

4 To take flight, click Tools, then Enter Flight Simulator, then Movie Maker. Choose a video format from the (huge) dropdown menu, then choose a Resolution (PAL is encoded for UK TV sets).



BROWSER

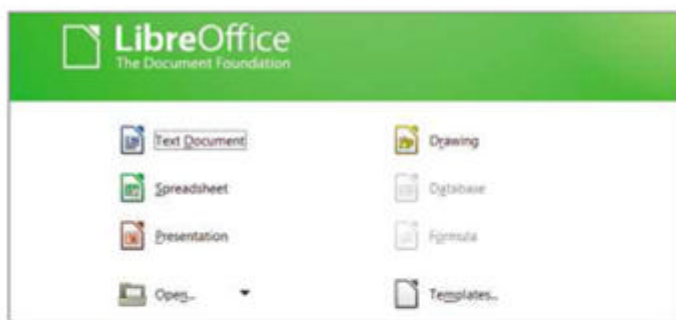
Vivaldi

www.snipca.com/15345

What you need: Windows 7 or 8+

If you're fed up with Chrome's crashes, find Firefox and Opera intimidating and feel Internet Explorer is a step backwards, rejoice – you have another option. Vivaldi is a new browser from former Opera boss Jon von Tetzchner, and it's packed with the kind of built-in features you can only get in Chrome or Firefox by adding extensions (see our Cover Feature, page 50). You can make searchable notes about websites, take screenshots, create groups of tabs and use keyboard shortcuts, all without extra downloads.

Vivaldi is amazingly quick and easy to install: just click Download Tech Preview and run the installer. There's no adware, and Vivaldi doesn't force itself on you as your default browser. Find out more about the project at <https://vivaldi.com>.



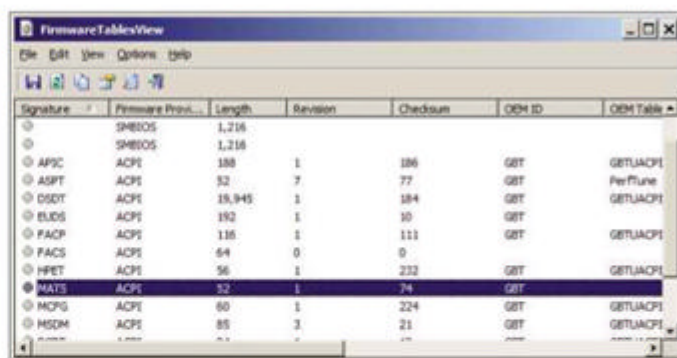
OFFICE SUITE

LibreOffice 4.4

www.snipca.com/15347

What you need: Windows XP, Vista, 7 or 8+

Open-source office suite LibreOffice used to be the go-to free alternative to Microsoft Office, but it faces stiff competition from Google Docs (www.snipca.com/15356) and Microsoft itself, with its free Office apps (Android www.snipca.com/15357, iOS www.snipca.com/15358). So LibreOffice has had a big makeover to keep it ahead of the pack. The menu bars and right-click menus are bigger and better; there's a new PDF-signing tool; Writer has new, improved AutoCorrect and Track Changes; and there are oodles of new templates designed by volunteers. Read more on the LibreOffice wiki (www.snipca.com/15359).



SYSTEM TOOL

FirmwareTablesView

www.snipca.com/15346

What you need: Windows Vista, 7 or 8+

What firmware is in your PC? Actually let's go back a step – what is firmware? It's software embedded permanently in your PC's hardware (graphics card, hard drive) to make it work, and like all your system software it's regularly updated. This new tool from NirSoft lets you view all your installed firmware. It's a portable program, so you can store it on a USB stick to check any PC.

WHAT SHOULD I DOWNLOAD?

We tell you what software to use

What should I use to make flowcharts?

Q I'm looking for software for creating simple flowchart diagrams, ideally a free program and easy to use. What would you recommend?


Tony Bradshaw

A We're glad you asked, because we'd forgotten just how much fun flowcharts can be. They're also useful for planning projects such as home improvements.

Gliffy (www.snipca.com/15351, see screenshot) works entirely online, so you don't need to download anything, even Flash, because Gliffy uses the safer and more reliable **HTML5** instead. Click the orange Start Drawing button to launch the tool, then drag and drop shapes from the Gliffy library on to your virtual graph paper. The site also has tools for creating Venn Diagrams, floorplans, etc.

If you want a more sophisticated program, try Lucidchart (www.lucidchart.com). Its most basic version is free if you register (www.snipca.com/15350, click Sign Up) and comes with 25MB of secure online storage.



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

Reviews

DESKTOP PC | £899 from www.snipca.com/15252

Chillblast Fusion Rhino

A fast and colourful Windows 7 PC

The Chillblast Fusion Rhino is an updated version of the Fusion Mammoth, one of our favourite PCs of 2013 (see our review, Issue 408). Although the Mammoth wasn't cheap and was sold without a keyboard, mouse or monitor, it was nonetheless a great PC (we gave it five stars) thanks to its power, compact size and quiet operation. The Rhino retains all of these great qualities.

The Rhino's dimensions are more compact than most tower PCs, so it saves space whether on your desk or under it. It would be a shame to hide it away though because it's available in a variety of eye-catching colours (red, white, orange, black, green and blue). It's an attractive look, particularly the red and blue (see main image) versions. The Rhino has plastic moulded handles in case you ever need to relocate it, but it's a heavy beast and over longer distances the handles will start to dig into your hands, so you don't want to be moving it far.

“It's fast, quiet, eye-catching and has loads of useful extras”

While the Rhino is fairly muted when running, it's not quite as whisper-quiet as the Mammoth. You'll hear a low whirring sound in a hushed environment, but it's hardly obtrusive. This is all the more impressive given the Rhino's very fast performance. Its Intel Core i5 4690K **quad-core processor** has been **overclocked** from 3.5 to 4.3GHz. Paired with 8GB of memory, it blazed through our benchmark tests. Although only marginally faster than the (already pacy) Mammoth processor, it should easily handle demanding programs for some years to come.

Starting up and waking from sleep is almost instantaneous as the 1TB hard drive also has a small 8GB **SSD** built in. It's also no slouch when it comes to 3D performance. The GeForce GTX 960

graphics card is one of Nvidia's latest and coped impressively with our demanding 3D graphics tests. This is useful even if you have no interest in games because some programs – such as Adobe Photoshop and CyberLink PowerDirector – can use the graphics card to improve performance. Plus, it lets you attach up to four **1080p** monitors to use simultaneously, giving you lots of working space.

One downside to the Rhino's compact size is that the interior is very cramped, making it tricky to upgrade. You'll need to remove the chunky graphics card and one of the two cooling fans if you want to increase the memory to the maximum 16GB. This process is less intimidating than it sounds, which is handy because it's also how you add more internal storage. There's room for two extra hard drives or SSDs, but connecting the necessary **SATA** and power cables is a fiddly business.

While the graphics card is easy to upgrade, the processor is not due to its sizable water-cooling system, which is difficult to remove. There aren't any **PCI** slots (besides the one for the graphics card), but this isn't a critical flaw because most PCI devices, such as TV tuners, have USB equivalents and the Rhino has

SPECIFICATIONS

4.3GHz Intel Core i5 4690K quad-core processor • 8GB memory • 1TB hard drive • 8GB SSD • 2GB Nvidia GeForce GTX 960 graphics chip • Windows 7 or 8.1 • 310x250x340mm (HxWxD) • Two-year warranty
www.snipca.com/15252



plenty of USB ports – six **USB 3.0** and four **USB 2.0**. With **802.11ac** already built in you won't need to add a Wi-Fi adapter.

Strangely for a desktop PC, there's no DVD or Blu-ray drive built in. You can install one later if you really need one, but, like other upgrades mentioned, this will be a fiddly task. But at least you have the option of choosing Windows 7 instead of 8.1 at no extra cost.

The Rhino isn't perfect – its diminutive size reduces the choice of internal expansion options and makes it hard to carry them out. It's still a great PC though, thanks to its fast performance, quiet operation, attractive looks and useful extras.

VERDICT: A few niggles means it won't suit everyone, but it's still a good choice if you want a powerful desktop PC

★★★★☆

ALTERNATIVE: Palicomp AMD Kaveri Evolution **£500** A larger and much slower Windows 8.1 PC, but still fast enough for everyday tasks and with greater potential for internal expansion



PHONE | Free on two-year, £34.50-per-month Vodafone contract; £549 (without contract) from www.snipca.com/15172

Sony Xperia Z3

The big waterproof rival to Samsung's Galaxy S5

While Samsung dominates the Android phones market, there are alternatives worth considering. We've always been big fans of Sony's previous Xperia phones, and the Z3 is the latest incarnation.

Previous Xperias have suffered from screens that lacked the radiance of rival phones. That's no longer the case here – the Z3's 5.2in screen is bright with impressive colour accuracy and contrast, wide viewing angles, and – thanks to the **1080p** resolution – sharp text. Like its smaller-scale counterpart, the Z3 Compact (see our review, Issue 442), the Z3 uses a slightly modified version of Android 4.4 KitKat, with an upgrade to 5.0 Lollipop promised in the near future.

The Z3 has essentially the same casing as its predecessor, the Z2 (see our review, Issue 426). It's waterproof at depths of up to 1.5 metres for as long as 30 minutes, providing the protective port flaps are tight shut. While these claims don't extend to seawater, it's still useful if you

“A great Android phone, with an imperfect camera”

read in the bath, like to be creative with photography, or are just a bit accident prone. The glass back combined with the screen's expansive width makes it something of a slippery customer though. It slipped from our grasp frequently, but at least the casing remained unscathed.

Both battery life and performance are an improvement on the (already excellent) Z2. The battery lasted 31 hours 45 minutes on Vodafone's 4G network and just over 27 hours on 3G. In both cases, we used it for calls, GPS, photography and web browsing. It also fared well playing videos

SPECIFICATIONS

5.2in 1920x1080-pixel touchscreen • 2.5GHz Qualcomm Snapdragon 801 quad-core processor • 450MHz Adreno 330 graphics chip • 3GB memory • 16GB storage • 4G • Micro SIM • MicroSD slot • Android 4.4 KitKat • 163g • 147x73x8mm (HxWxD) • One-year warranty www.snipca.com/15173



on a loop, lasting 13 hours 12 minutes.

The speedy **quad-core processor** paired with 3GB of memory made short work of our demanding benchmark tests, while the touchscreen was almost flawlessly responsive. Call quality was a mixed bag, though – while we sounded loud and clear to callers, they sounded distant and fuzzy to us.

The Z3's 20.7-megapixel camera isn't quite up to the standard of rival phones. Shots taken in dimly lit interiors were pretty good, with minimal **noise** and reasonably sharp details. However, shots taken outside (for example, of clouds and buildings bathed in particularly strong sunlight) featured some details that looked washed out.

The Sony Xperia Z3 is a great Android phone, but its imperfect camera and slippery, unwieldy casing counts against it. Although the Galaxy S5 (see our review, Issue 423) isn't perfect either, it just edges ahead if you want a big-screen phone that's also waterproof.

HOW WE TEST

Computeractive is owned by Dennis Publishing, which owns a hi-tech facility for testing the latest technology. You'll often read references to our benchmark testing, which is a method of assessing products using the same criteria. For example, we test the speed of every PC and the battery life of every tablet in exactly the same way. This makes our reviews authoritative, rigorous and accurate.

Dennis Publishing also owns the magazines *PC Pro*, *Computer Shopper*, *Web User*, *Micro Mart* and *MacUser*, and the website Expert Reviews (www.expertreviews.co.uk). This means we can test thousands of products before choosing the most relevant for *Computeractive*.

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Our writers follow strict guidelines to ensure the reviews are fair and impartial. The manufacturer has no involvement in our tests.

OUR AWARDS



We award every product that gets five stars our Buy It! stamp of approval. It means we were extremely impressed by the product, and we think you will be too.



Every product that gets a four-star review is given the Great Pick award. We highly recommend these products, although they just fail to meet the high standard of our Buy It! winners.

PRICES

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

VERDICT: A great Android phone, let down by a couple of niggles



ALTERNATIVE: Samsung Galaxy S5 **£395** (without contract) A less stylish waterproof Android phone with a cluttered interface, but it's also less slippery and has a more well-rounded camera



Reviews

TABLET | £150 from www.snipca.com/15182

Asus MeMO Pad 7 (ME572C)

The cheap Android tablet that's better than the Tesco Hudl 2

Asus isn't a household name, which is a shame because the Taiwanese company makes some great products, such as top-notch Chromebooks and Windows laptops. It also made the discontinued Nexus 7 Android mini tablet, which does now at least have a spiritual successor in the shape of the MeMO Pad 7.

Like the Nexus 7 (see our review, Issue 407), the MeMO Pad 7 (not to be confused with previous models with similar names) is a 7in Android tablet with a 1920x1200-pixel screen. Unlike the Nexus it's not guaranteed to get the latest versions of Android, although it does come with the second most recent version (4.4 KitKat) installed. There are rumours the 5.0 Lollipop upgrade will come in May, but this is no cause for alarm because KitKat is a good operating system.

Asus has modified KitKat slightly, the most useful tweak being a mode that lets you use two apps side by side on screen. The range of compatible apps might be limited and the mode can feel cramped (this is a 7in screen, after all),

but it can be useful in a pinch. Less useful are the non-customisable widgets on the lock screen and the notifications drawer, which is now

cluttered with bundles of settings shortcuts (which you can at least change).

The MeMO Pad 7 is well built and – available in a variety of colours – looks attractive. Apart from a thin black rubbery strip similar to that on the Nexus 7, the rear has a glossy plastic finish. While this wasn't as slippery as we'd feared, a more grippy, rubbery surface would have been preferable. Also, the sharp, angular corners dug into our flesh.

It's tricky getting a firm grip on the tablet because of the narrow borders to the left and right of the screen (when held in portrait orientation). We sometimes set off onscreen controls inadvertently. The screen, though, is bright and sharp, with good colour accuracy and wide viewing angles. The touchscreen's responsiveness was sometimes lacking, with a noticeable delay between touch and response. It's still less laggy than the sluggish Tesco Hudl 2 though. Asus'

“An attractive tablet with great battery life and performance”

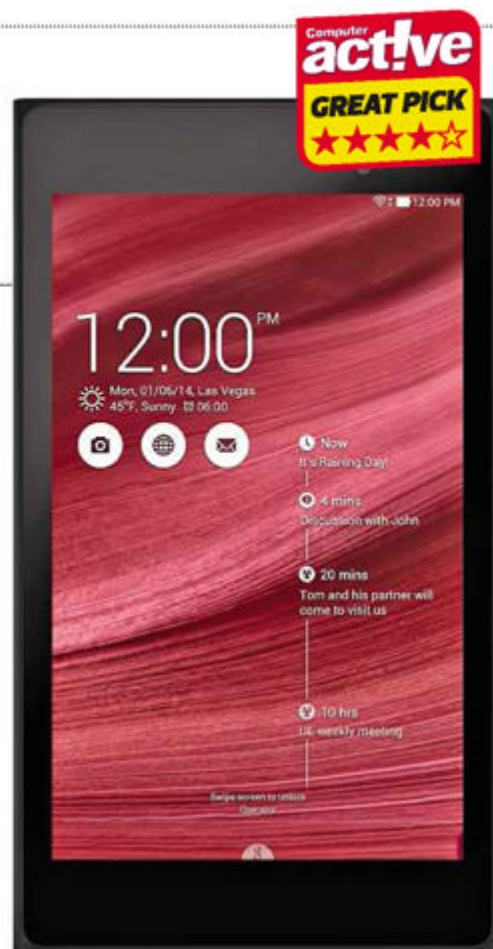
onscreen keyboard often also struggled to keep up, so we swapped it for an alternative and this fixed the problem.

We had no complaints about performance though – the Intel **quad-core processor** and 2GB of memory tore through our benchmark tests. The MeMO Pad 7 didn't always wake from sleep instantly, unlike the vast majority of tablets, sometimes taking several seconds to kick into gear.

Battery life was very good for a mini tablet, lasting 13 hours 12 minutes

SPECIFICATIONS

7in 1920x1200-pixel touchscreen • 1.83GHz Intel Atom Z3560 quad-core processor • 2GB memory • 16GB storage • Android 4.4 KitKat • 269g • 8x114x200mm (HxWxD) • One-year warranty
www.snipca.com/15184



when playing videos on a loop. As you might expect, the cameras are nothing to write home about. The forward-facing camera is good enough for video calls, but the rear-facing five-megapixel camera produced images with washed-out colours and lots of **noise**, even in brightly lit conditions.

So the Asus MeMO Pad 7 isn't perfect and these flaws are enough to prevent us from recommending it unconditionally. But it's still a very good budget mini tablet and is certainly better than the larger, if slightly cheaper, 8in Tesco Hudl 2 because of its longer battery life and more convenient weight.

VERDICT: Held back by a few flaws, the latest MeMO Pad 7 is nonetheless a fine budget tablet

★★★★☆

ALTERNATIVE: Nvidia Shield Tablet £240 An Android tablet with design flaws of its own, but with blistering performance and a good-quality 8in screen



PRINTER | £95 from www.snipca.com/15179

Epson Expression Premium XP-620

A flexible MFP that can even print on discs

Epson's Expression Premium XP-620 is an inkjet multifunction printer (MFP) designed for general use in the home. As its name promises, it's got reasonably high-spec features, including wireless networking, a colour screen and automatic duplex (double-sided) printing. There are two paper trays – one handles sizes up to A4, while the other handles photo paper up to 5x7in. You can load both trays and the printer will choose the appropriate one for the job. Tucked away underneath is a tray for loading printable CDs, DVDs and Blu-ray discs.

While most basic inkjet printers use four colours – black, cyan, magenta and yellow – this MFP uses five inks with two separate black cartridges. One is optimised for text on plain paper, while the other is for graphics and photos. All five cartridges are available in two sizes. But even when using the larger cartridges, an A4 page of mixed text and graphics costs 11.3p, which isn't cheap.

More expensive models in the Expression range come with motorised control panels and paper-output trays, but with the XP-620 you must open both manually before you can start printing. The screen itself isn't touch-sensitive, but the buttons and onscreen menus are relatively easy to grasp. To the left there's an **SD card** slot which you can use to quickly print photos without using your computer. Helpfully, you can also use the printer to back up the card's contents to your computer.

Print speeds were reasonably quick in our test, with five pages of text delivered in 32 seconds, and five pages of colour graphics in just under a minute. Photo prints were swift at the highest-quality



setting, with a single borderless 4x6in photo taking 80 seconds and an A4 print just over three minutes. The scanner was fast, too, needing just 10 seconds to capture an A4 page at 150 dots per inch (dpi) – a low **resolution**, but good enough for archiving documents. With the detail raised to 600dpi, it took 18 seconds to capture a 4x6in photo.

Moreover, the scanner did a great job of reproducing colours and preserving detail in our test documents. We were also very happy with print quality. Photos were particularly good, especially our black-and-white test shots, although colour graphics printed on plain paper weren't quite up to the standards of some MFPs we've tested.

The XP-620 is a good-quality, versatile MFP, but it's also a bit expensive (to buy and run). Canon's PIXMA MG5650 (see our review, Issue 436) has only one paper-input tray and does without an SD card slot, but otherwise has similar specifications, performs to the same level, and is cheaper to run.

VERDICT: A good inkjet MFP, but it's more expensive to buy and run than the best of the competition

★★★★☆

ALTERNATIVE: Canon PIXMA MG5650 **£79** No SD card slot or dedicated tray for photo paper, and it can't print on discs, but this otherwise very similar printer is cheaper to run



SPECIFICATIONS

5760x1440dpi maximum print resolution • 10ppm colour/13ppm mono quoted speeds • 2400x1200dpi maximum scan resolution • **USB** • **Wi-Fi** • **SD card slot** • One-year warranty www.snipca.com/15180

Accessories

Sandberg 4-in-1 USB AC Charger

£22 from www.snipca.com/15303

This four-port USB wall charger has two dedicated high-power ports for charging particularly power-hungry mobile devices such as tablets. UK and European plugs are included.



PNY ThinkSafe Portable Locking System for MacBook

£16 from www.snipca.com/15306

This portable locking cable uses a combination code and works with laptops that don't have the standard Kensington security slots, such as the MacBook Air and MacBook Pro Retina. You slide the metal brace around your laptop's hinge and secure it by attaching the robust cable.



Corsair Flash Voyager GTX 128GB

£84 from www.snipca.com/15304

Most USB sticks are significantly slower than USB hard drives and **SSDs**. Not this Corsair stick. Its average speeds of 237.3MB/s in our large-files test and 36MB/s in our small-files test make it the fastest USB stick we've ever seen.



Duet Display

£12 from www.snipca.com/15305

This app lets you use your iOS device (running iOS 7 or later) as an extra monitor for a Mac (running OS X 10.9 or later). This provides extra working space and is cheaper than a dedicated extra monitor.



Reviews

WEB-DESIGN SOFTWARE | £90 from www.snipca.com/14964

Serif WebPlus X8

Make your own website with this sophisticated software for beginners

As a way of building attractive websites without having to learn how to code, Serif WebPlus has always been one of our favourite programs. Recent versions have added features aimed at small businesses, such as the ability to add various types of contact forms and a booking system to your website, alongside more fundamental improvements like 64bit support and cleaner, faster-loading HTML code. The latest version, WebPlus X8, builds upon this sound foundation.

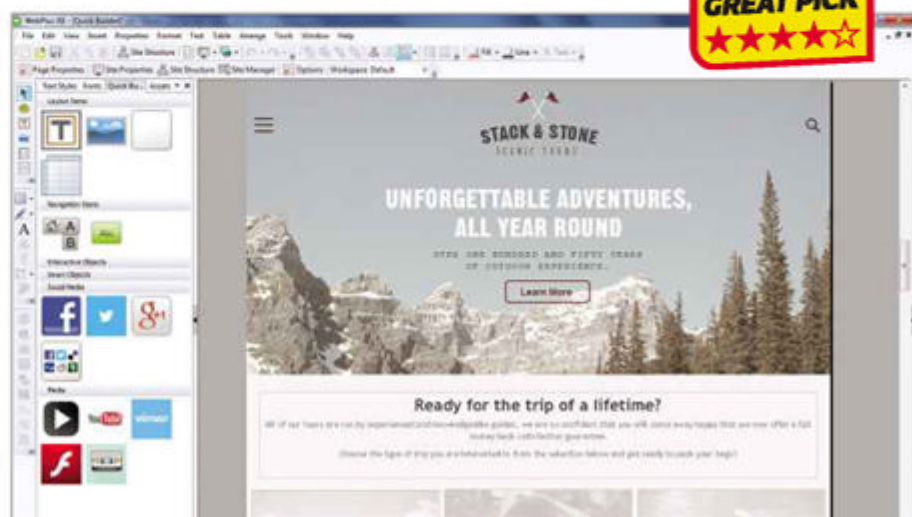
Existing users will feel right at home with X8's interface. Even novices will pick it up quickly, especially those who have previously used a DTP program. No fewer than 39 templates are included, with separate mobile and desktop PC versions of each – all designed to get your website up and running quickly.

“A great design program let down by slow performance”

You start by adding your content (text, photos, graphics, links and so on) to dedicated sections. You can then proceed, if you choose, to customising the design of the template to suit your needs – replacing a photo gallery with an animated banner, for example. There's the option to buy additional templates within the program. These cost £13.26 each or £17.35 if you also want a matching template for Serif's PagePlus DTP program – great for creating letterheads, logos, invoices and so on.

Having dedicated mobile and desktop template versions is useful, but this split approach to web design is increasingly old fashioned. Other programs can now create 'responsive design' websites that adapt automatically to suit the device they're being viewed on. This is less time consuming than having to create separate mobile and desktop versions and keeping both up to date.

Alternatively, you can create your site



from scratch. There are a couple of new tools that come in handy when working on especially complex websites. We like the new task manager that lets you create to-do lists for specific parts of your site. The ability to 'pack' an entire site into a single file so you can share it more easily with another WebPlus user is also a nice touch. One welcome survivor from previous versions of WebPlus is the ultra-convenient 'page tree' view, which displays the entire site like a family tree from where you can edit pages as well as reorder them by dragging and dropping.

New to X8 is Slider Studio, which you use to create slideshow-style banners (called sliders or carousels) to highlight specific content on your site. You can choose from 13 transition styles and add overlays like captions and headings. You can select an introductory slide and set the slider to loop continuously, but oddly there's no option to randomise the order of slides. It's still a welcome addition, as is the simple HTML5 audio player, which can be configured to play single tracks or playlists. Because it doesn't use Flash, it works on the vast majority of smartphones and tablets.

Security-conscious users will be pleased to see that WebPlus can now

SYSTEM REQUIREMENTS

Windows XP SP3 or later • Minimum 1GB of memory
• Minimum 396MB free hard-drive space
www.snipca.com/14965

upload changes to your website's server using Secure FTP, which – unlike standard FTP – is encrypted. X8 also adds the ability to create members-only sections of a site that require a password to access. This feature also lets you edit text in specific areas of your site from your web browser rather than from within WebPlus. This browser-based editing is very basic though, especially when compared to dedicated web-based website-creation services such as WordPress.com.

X8's biggest flaw though is its performance. The program was much slower than either WebPlus X7 or X6 on our Dell PC with an Intel Core i3 processor. We hope Serif resolves this in an upcoming update. Despite this flaw, X8 is still a great web-design program both for existing users and beginners.

VERDICT: A worthwhile upgrade over X7, but a few disappointments still let it down



ALTERNATIVE: Xara Web Designer 10 Premium £90 Excellent web-design program, although its responsive-design feature is a bit clunky





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* Chillblast won more awards in the leading IT press publications PC Pro, PC Advisor and Computer Shopper combined than any other retailer 2010-2013

** World's fastest PC as tested by PC Pro Magazine <http://www.pcpro.co.uk/reviews/desktops/371152/chillblast-fusion-photo-oc-iv>

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Reviews

NAS | £389 from www.snipca.com/15177

Synology DiskStation DS415play

A versatile NAS for large storage needs

Synology's network attached storage (NAS) devices are generally more expensive than the competition, but we've been impressed with their previous models – they're easy to use and come with a wide range of useful features. The DS415play is particularly pricey (at just under £400 without hard drives), but it can accommodate up to four drives and its new features really set it apart.

Fitting your hard drives is very straightforward. The four drive trays are easily accessed by removing the front panel. You don't need any tools for this unless you're inserting laptop hard drives or SSDs, which are physically smaller than desktop hard drives. We installed four 3TB Western Digital Red drives in a matter of minutes. With two or more

“It's pricey, but it's easy to use, converts video files and comes with loads of extra features”

drives installed, you have the option of using RAID if you want. We used RAID 5, which means that should one drive stop working, all your data is still safely stored on the other.

The DS415play is one of the few NAS devices we've seen that can automatically convert video files. Strangely, while this is one of the features that sets it apart from cheaper Synology NAS devices, the app that controls this feature is not installed by default. You have to use the DS415play's web-configuration interface to download the app, install it and then configure it. Once set up, the DS415play will automatically convert incompatible video files to formats that your networked computer, smart TV or other device can

SPECIFICATIONS

Accepts 4x SATA3 hard drives or SSDs • 1x Gigabit Ethernet port • 3x USB 2.0 ports • 2x USB 3.0 ports • UPnP media, iTunes, Print, USB disk, Web and FTP servers • 165x203x233mm (HxWxD) • One-year warranty www.snipca.com/15178



play. Impressively, all of this happens within seconds of starting the video on your device, and it handles all but the most obscure video file formats.

We used this feature to watch 1080p MKV videos on an old Samsung smart TV. We didn't experience any of the loss in image quality or out-of-sync audio problems that often plague converted videos. However, because the DS415play converts video files as you watch them, you can't jump to a later scene in the video if it hasn't been converted yet. Another limitation is that it can't convert more than one video at a time, so two or more people can't watch different videos on different devices at the same time. When we attempted to do this it caused image-quality and audio problems, making the videos nigh on unwatchable.

As with previous Synology NAS devices, the DS415play lets you share files, USB printers and drives, with any computer on your network. The web-configuration interface is straightforward and feels familiar because it resembles a Windows Desktop. There are plenty of other features thrown in, including the ability to access your files remotely from any internet-connected computer and control compatible security cameras and store recorded footage, although using more than one camera will cost extra. If you're

still hungry for more, you can get hold of additional features from Synology or third parties using apps. You could run your own blog or an iTunes-compatible media server, for example.

All of this would be for naught if file-transfer performance was slow, but the DS415play excelled at copying large files, with a superb average speed of 97MB/s. Small-files performance wasn't quite as impressive, but it was still good for a NAS at this price, managing 15MB/s on average.

The Synology DS415play is a great, albeit expensive, NAS. If you don't need the ability to use up to four hard drives and don't need the video-conversion feature, then one of Synology's two-drive models, such as the DS213j (see our review, Issue 404) is a better bet.

VERDICT: It's expensive, but this NAS is a good choice if you have large storage needs or a huge video library

★★★★☆

ALTERNATIVE: Synology DiskStation DS213j £156 Not quite as fast and it doesn't have automatic video conversion, but otherwise this two-drive NAS has all the same features and is cheaper



TABLET-LAPTOP | £650 from www.snipca.com/15167

HP Envy x2 13

HP's answer to Microsoft's Surface Pro 3 falls flat

Intel's new Broadwell **processors** are supposed to herald a new era of lighter, more flexible Windows 8.1 laptop-tablet hybrids, but HP has opted for a highly derivative design for its first Broadwell-equipped computer. The Envy x2 13's design resembles that of Microsoft's Surface Pro 3 (see our review, Issue 431), but not only has HP failed to learn from Microsoft's mistakes, it's managed to make plenty of new ones.

The x2 13 weighs 1.3kg, but attach the included screen cover (which doubles as a keyboard) and the weight balloons to 1.8kg. Throw in the charger and this bulks up further to 2kg. This isn't overly hefty for a laptop, but it's heavy for a tablet. This weight, along with its thickset design, makes the x2 13 uncomfortable to use as a tablet. Thanks to the Intel Core M 5Y10 fan-less processor, there are at least no cooling vents pumping out hot air over your hands and it's whisper quiet.

The sturdy flip-out kickstand can be adjusted to almost any angle, but the X2 13 is still awkward to operate as a

laptop using the included keyboard/cover. The combined depth of both makes it almost impossible to position comfortably on your lap while typing.

On top of this, the keyboard isn't great. It feels flimsy when attached, so it often bounces and flexes when you're typing. The keys themselves have sufficient **feedback**, though we'd prefer a little more resistance. The touchpad is spacious but otherwise very poor. Cursor movement is slow, responsiveness to gestures is poor and the buttons built into the touchpad give very little feedback. Bizarrely, even though the keyboard attaches magnetically to the bottom of the computer it needs Bluetooth to work. This magnetic connection is also weak - it's therefore very easy to inadvertently detach the keyboard.

Battery life is lengthy at 11 hours 24 minutes in our light-usage test, but we've seen computers with Intel's older Haswell processors last longer. The 800MHz Core M processor can temporarily up its speed to 2GHz when needed, so the x2 13 is certainly fast enough for use as your main computer. The 4GB of memory will be limiting in future though, as newer software inevitably demands more memory.

The 13in touchscreen is very

responsive, while text looks sharp thanks to the screen's **1080p** resolution. It's bright with good colour accuracy and contrast, but the screen's backlighting is uneven and viewing angles are narrow, both of which are especially noticeable when used as a tablet in portrait mode.

The HP Envy x2 13 uses some quality technology - resulting in lengthy battery life, a sharp, bright screen and quiet operation. But it's let down by several usability problems. Although the Surface Pro 3 isn't perfect either, it's still a far better hybrid than this poorly designed shambles.

VERDICT: A horribly flawed laptop-tablet hybrid that's impossible to recommend



ALTERNATIVE:

Microsoft Surface

Pro 3 **£1049** Not without flaws of its own, this Windows 8.1 hybrid is nonetheless far better designed



SPECIFICATIONS

800MHz Intel Core M 5Y10 dual-core processor • 4GB memory • 128GB SSD • Intel HD 5300 integrated graphics • 13.3in 1920x1080-pixel screen • 802.11ac/a/b/g/n • Windows 8.1 • 1.3kg (2kg with keyboard and charger) • 14x355x216mm (HxWxD) • One-year warranty www.snipca.com/15168

WHAT SHOULD I BUY? We solve your buying dilemmas

What's the best cheap-to-run MFP?

Q I'm frustrated by the high cost of running my printer. Is there a printer you can recommend that uses cheap inks or works with refillable inks? I rarely print in colour, but I do want a multi-function printer (MFP) as I scan a lot.

Joy Vinh-Duong

A Third-party ink cartridges, refillable or otherwise, are tempting, but we'd be wary. It's always far safer to choose a printer

that's cheap to run using official supplies.

The Canon Pixma MX535 MFP (www.snipca.com/15117) costs £74. An A4 page of text and colour graphics costs 6.7p, while a page of black text costs 2.7p - extremely competitive for an MFP at this price. In our test, we used the XL-size cartridges which, according to Canon, are good for 600 mono pages.

If you're willing to pay more for a printer itself, the Epson WorkForce Pro WF-5620DWF (£218 from www.snipca.com/15170) costs 3.3p for a colour A4



page and 1p for black using the XL cartridges, which Epson says will print 2600 pages.

Finally, it's always worth considering a laser printer. Although the Dell B2360dn (£176 from www.snipca.com/15171) is a standalone black-and-white printer, an A4 page costs just 1.6p. Its toner cartridges officially have a capacity of 8500 pages.



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

Reviews

3D PRINTER | £1,074 from www.snipca.com/15181

3D Systems Cube 3

A printer that can create actual, three-dimensional objects

3D printing is one of the most intriguing technologies to emerge in years. The Cube 3 works in a similar way to inkjet printers, but creates actual physical objects you can use rather than a printed page. It uses plastic rather than ink, and this is heated to the point of melting and then forced out through the print nozzles, creating a fine, sticky thread. Motors move the nozzles back and forth over a flat surface. The nozzles are raised slightly after each pass so that the next layer of thread is stacked upon the previous one. Once this process has finished, and the layers of thread have cooled, you have your 3D object.

There are other more expensive 3D printers that use various materials, including metal, silicone and even chocolate, but plastic is the most common. The Cube 3 uses 3D System's own cartridges, whereas some cheaper 3D printers use generic spools that are both cheaper and more widely available. These cartridges are much easier to fit though, simply slotting into place.

“It's great fun, but strictly for tinkerers with time and money”

These little touches help explain the Cube 3's price which is high even for a 3D printer. Cheaper alternatives are available but, unlike the pre-assembled Cube 3, tend to be kits that you put together yourself. The Cube 3's also a doddle to use. We had it up and running in less than five minutes and started printing objects in less than 15.

Because the Cube 3 has built-in Wi-Fi, you don't even need to connect it to a PC – you can use the free Android and iOS apps to print straight from your smartphone or tablet. Its built-in touchscreen provides basic controls, such as entering passwords for Wi-Fi networks or calibrating the nozzles.

Before you actually print anything, you need to apply glue (included) to the

printing plate. This ensures the base of your design is fixed to the plate, so it doesn't move during printing. The Cube 3 can make objects with dimensions up to 6x6x6in in size, which is fairly large for a printer at this price.

Having two cartridge slots makes it easier to create different coloured versions of an object, but you can't create multi-coloured objects. To print something you need a design file (also known as an STL file). Several websites, such as www.thingiverse.com, offer vast libraries of STL objects that other people have made and uploaded. Download an STL file, upload it to the printer using your PC or mobile device, then click print. If you're confident, you can create your own objects from scratch using various CAD programs. The www.tinkercad.com web app makes it easy to create simple objects.

Once you've uploaded your object design file, choose which cartridge you want to use. You also need to select the strength and resolution (0.07mm or 0.2mm) of the object. Weaker, low-resolution objects will have a rougher texture with visible print lines, but they will print quicker. Strong, smoother, high-resolution objects take longer to produce. Even a relatively small Rubik's Cube can take hours to print in

SPECIFICATIONS

Prints in ABS or PLA plastic • 6x6x6in maximum object size • Wi-Fi • USB • 343x335x241mm (HxWxD) • 8kg www.snipca.com/15307

high-resolution mode. Even so, we had great fun printing simple objects, such as a camera lens cap, replacement keyboard buttons and other small parts for our PC.

The revolutionary potential of 3D printing is obvious – in future you might simply print what you need at home, instead of trekking to the shops or waiting at home for a delivery. But as the Cube 3 shows, 3D printing is in its infancy. While it's almost as easy to operate as a standard inkjet printer and there are vast libraries of pre-designed objects available, you will need realistic expectation levels, patience and deep pockets. At the moment it takes hours to make small plastic objects. This technology might change the world one day, but for now 3D printers like the Cube 3 are for wealthy tinkerers only.

VERDICT: 3D printers are useful for creating a variety of objects, but they're still very expensive with lots of limitations. The Cube 3 is no exception

★★★★☆

ALTERNATIVE: Printbot Simple Maker's Kit **£360**

A build-it-yourself 3D printer that uses standard print spools, but is more difficult to use. It's no looker and prints in lower resolutions



MP3 PLAYER | £129 from www.snipca.com/15174

Sony Walkman NWZ-WS613

Sony's waterproof and lightweight MP3 player

Dedicated MP3 players are now something of a rarity, as these days most of us tend to use our smartphones for music on the go. Sony has therefore gone out on a limb with its latest Walkman, the 4GB NWZ-WS613, which is aimed at runners, walkers and swimmers.

Sony has miniaturised its MP3 player to such an extent that it's entirely self-contained inside earphones. It weighs just 40g and is waterproof. Tiny buttons on the left earphone control volume and Bluetooth, while power and playback controls are on the right. We'd prefer these buttons if they were a different

“Great for swimmers who want to stay motivated in the pool”

shape, making it easier to distinguish them by touch alone, but we soon got the hang of them. Built-in Bluetooth means you can use the NWZ-WS613 as wireless earphones for your phone or tablet. A small Bluetooth remote control, which is designed to fit around your fingers like a ring, is included for joggers, but it's not waterproof.

Sony includes several earplugs of varying size to guarantee you get a watertight seal when swimming. This not only ensures music is audible, but also helps prevent water from getting inside your ear canal – a regular problem for frequent swimmers. Sony's stated battery life is seven hours, which tallies with our informal test (the NWZ-WS613 was still going after a week of daily 40-minute sessions at our local pool). You recharge the battery, and transfer music to it from your computer, using the dedicated USB

adapter. You should, of course, dry the NWZ-WS613 thoroughly before connecting it.

Listening to music while you swim might sound like a frivolous luxury, but we found it to be a great motivator – especially when our enthusiasm for shedding those extra Christmas pounds was starting to wane. Audio quality was clear and loud when underwater. Vocals were a little muffled at times, and the bass was only so-so, but you're unlikely to notice these flaws when in full flow.

The NWZ-WS613 is less useful for joggers, unless you really want to shed the bulk and weight of your smartphone when running. Many runners now use smartphone apps such as RunKeeper (see our review, Issue 389) to track how far they've run and to compare results with their friends, while keeping them motivated by tracking how close they are to their goals. The NWZ-WS613 can't do any of this.

The NWZ-WS613 therefore isn't perfect, but it's still a boon for swimmers and others who want to stay motivated and entertained when exercising.

VERDICT: Great for swimmers, but most joggers will want to stick with their smartphones

★★★★☆

ALTERNATIVE: Apple iPod Shuffle £40 Not waterproof and only 2GB of storage, but this rugged matchbook-sized MP3 player is cheaper and can be

clipped to your clothing

SPECIFICATIONS

4GB storage • 40g • Supports MP3, WMA, AAC and Linear PCM files www.snipca.com/15175



COMING SOON



MARCH 2015

Acer has announced the Revo One RL85, a striking mini PC that will come with up to 6TB of hard-drive space and a remote control featuring a mini keyboard. The 2TB model will cost £279.



APRIL/MAY 2015

The Samsung Galaxy S6 will reportedly have a new all-metal design as well as a curved screen, similar to the one on the Galaxy Note Edge phablet (see image).



SPRING 2015

Apple is rumoured to be radically redesigning its MacBook Air laptop. It will apparently be much lighter and thinner because it will use Intel's new fan-less Broadwell processors and will only have a single USB 3.0 Type-C port for power and peripherals.



SUMMER 2015

Sony has announced that all but one model in its 2015 range of smart TVs will use Google's Android TV interface and also have YouView built in.



NEXT ISSUE

ON SALE
4 March



Hanspree
Micro PC

A Windows PC the size of a USB stick



Epson Expression
Photo XP-760

Epson's latest MFP

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Buy It

Our pick of products that have won the Buy It award

LAPTOP

Asus Zenbook UX303LA

TESTED: Issue 442

£683 from www.snipca.com/15113



Asus' thin and light laptop is the only Windows laptop we've seen to rival Apple's MacBook Air for price, weight, battery life and style. On top of that, it has a very comfortable keyboard and a high-resolution screen that's easy on the eyes.

ALTERNATIVE Asus Chromebook C200

A cheap ChromeOS ultra portable laptop with a bright screen, lengthy battery life and a great keyboard. £190 from www.snipca.com/15269

DESKTOP PC

Palicomp AMD Kaveri Evolution

£500 from www.snipca.com/11804

Tested: Issue 422



A budget PC with a fast overclocked processor. It also has good upgrade potential and comes with a surprisingly good 24in monitor, as well as a quality USB keyboard and mouse.

ALTERNATIVE Chillblast Fusion Rhino

A very powerful and compact PC sold without a keyboard, mouse or monitor. £899 from www.snipca.com/15252

TABLET

Apple iPad Mini 2

£239 from www.snipca.com/14467

Tested: Issue 416



Apple's mini tablet from 2013 is now available at an even lower price. The only thing it lacks compared with this year's Mini 3 is a fingerprint sensor and the option of lots of built-in storage. Otherwise, it's an absolute bargain.

ALTERNATIVE Apple iPad Air 2 A

thin and lightweight 10in tablet with a fingerprint reader, an excellent screen and peerless selection of apps. £399 from www.snipca.com/14309

PHONE

Motorola Moto G 4G

£150 (without contract) from

www.snipca.com/14162

Tested: Issue 432



Motorola's budget Android smartphone is an absolute steal. It's very responsive, well made, fast and has a good screen. Plus, it's now been updated with 4G and a microSD card slot.

ALTERNATIVE Apple iPhone 5s

An excellent smartphone with a great camera and performance. £459 without a contract from www.snipca.com/10171

DIGITAL CAMERA

Panasonic Lumix DMC-GF6

£300 from www.snipca.com/12607

Tested: Issue 405



This compact interchangeable-lens camera is small and reasonably priced, yet it has well-designed controls, a wide range of available lenses and shoots excellent quality photos. The GF6 really is unbeatable value.

ALTERNATIVE: Fujifilm XF1 If you don't need the flexibility of removable lenses, this slim compact is a great choice.

£130 from www.snipca.com/13701

E-READER

Kobo Aura H20

£140 from www.snipca.com/13859

Tested: Issue 435



A waterproof e-reader with an easy-to-read, high-resolution touchscreen that's easy on the eyes and great for reading in the bath. There's no 3G version, but, unlike the Amazon Kindle, you can buy ebooks from independent retailers that use the ePub format.

ALTERNATIVE Amazon Kindle Voyage

The best Kindle yet, with a sharp, extremely responsive touchscreen and easy-grip design. £169 from www.snipca.com/14451

There's never a good time for downtime.



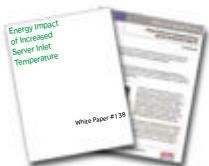
Protect your uptime and availability with smart power protection, the next generation Smart-UPS On-Line

On site, off site, big, or small — the importance of your IT network and other critical business systems cannot be overstated. Maintaining system uptime and availability is imperative, even as new technologies and approaches increase power challenges. But even the best network and applications need reliable power protection, and now, they have it – the new next generation Smart-UPS™ On-Line from by APC™ by Schneider Electric™ reinvented with your business in mind.

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Switched Outlet Group(s) Ability to control a group of receptacles independent from the main UPS.

Best-in-class Power Density: More real power in watts, 0.9 pf on 5 kVA, unity power factor capability on 6 – 10kVA models.

Dual Input (230V 8kVA & 10kVA only) Enables second input source to be connected to UPS bypass.

Graphical LCD User Interface with Multicolor Backlight Intuitive interface provides detailed and accurate information with ability to configure locally.

Embedded Network Management Card with Environmental Monitoring Provides remote user interface, Manage via Web Browser, SNMP, and Telnet. Includes PowerChute Network Shutdown.

3 Year Warranty on Electronics Additional year of warranty protection for electronics provides peace of mind.

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by Schneider Electric

SECURITY SOFTWARE

Kaspersky Internet Security 2015

£17.99 from www.snipca.com/14221

Tested: Issue 427



Kaspersky Internet Security 2015 has won our past four antivirus tests, making it the year's standout performer. The 2015 edition is available at an exclusive reader discount on our Software Store. Click the link above for a one-device licence, or buy a three-device licence for just £39.99 at www.snipca.com/14221.

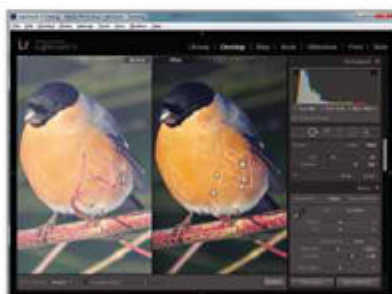
ALTERNATIVE: Norton Internet Security 2014 An affordable program, but sometimes blocked legitimate software. £30 from www.snipca.com/15115

PHOTO EDITING

Adobe Photoshop Lightroom 5

£93 from www.snipca.com/14348

Tested: Issue 402



Lightroom is a consistently elegant, powerful and fast photo-management program packed with sophisticated features. If you want to keep on top of your photos and make them look great, there's no better software to do it with.

ALTERNATIVE: Adobe Photoshop Elements 13 A fast and polished photo-editing program with excellent advanced editing tools. £62 from www.snipca.com/14731

PC MONITOR

Dell UltraSharp U2412M

£200 from www.snipca.com/14610

Tested: Issue 378



An exquisite monitor with superb image quality, an adjustable stand, a high resolution and even a built-in USB hub. It costs a little more than other monitors, but it's money well spent. It's easily the best value monitor we've seen and is the one by which all others are judged.

ALTERNATIVE: AOC I2360PHU A good quality budget 23in monitor that's easily adjustable and has a built-in USB 2.0 hub too. £157 from www.snipca.com/15274

SECURITY CAMERA

Y-cam HomeMonitor HD

£147 from www.snipca.com/11646

Tested: Issue 420



A home-security camera that's well priced and easy to set up. Plus, it has great picture quality, useful apps and there's no need to subscribe to any extra services. It's a worthy successor to the original HomeMonitor, our previous favourite security camera.

ALTERNATIVE: D-Link Wireless N Day & Night Camera A good-value security camera with excellent night vision. £85 from www.snipca.com/15275

ROUTER

Trendnet TEW-812DRU

£114 from www.snipca.com/14612

Tested: Issue 427



An incredibly fast 802.11ac router that's also one of the cheapest we've seen. It's superb and it's the router to buy if you're ready to make the jump to 802.11ac.

ALTERNATIVE: Linksys WRT1900AC More expensive, but even faster and with loads of features too. £204 from www.snipca.com/14950

NAS

Synology DiskStation DS213j

£156 from www.snipca.com/15276

Tested: Issue 404



This NAS enclosure has it all – fast performance, easy configuration and plenty of extra features. It's not perfect – disk installation is a little fiddly and it's a tad pricey – but there are few other NAS devices we would rather buy.

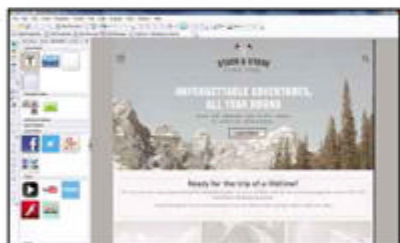
ALTERNATIVE: Synology DS414j A four-drive NAS that's generally fast and easy to set up and use too. £259 from www.snipca.com/12545

WEB DESIGN

Serif WebPlus X8

£90 from www.snipca.com/15278

Tested: Issue 443



WebPlus X8 is one of the best programs available for designing a website without having to write a line of code. It comes with lots of templates, with more available for purchase if you need them. It also has lots of specialist tools for building a small business website.

ALTERNATIVE: Jimdo Pro This browser-based program for creating websites is slick and feature packed, but lacking in high-quality templates. £60 a year from www.jimdo.com/pricing

SMART TV

Samsung UE32H6200

£399 from www.snipca.com/15279

Tested: Issue 427



A stylish 32in smart TV with great picture quality and apps for all the terrestrial TV catch-up services. It has plenty of extras, too, such as recording-to-USB storage, 3D, playing media files stored on a NAS or USB stick, and plenty of HDMI ports.

ALTERNATIVE: Sony KDL-42W705B Excellent image quality, stylish looks and a 42in screen. £429 from www.snipca.com/12931

COMPETITION

Win 1 of 3 Kitvision Escape HD5W waterproof camera

Perfect for family days out and holidays, Kitvision's new Escape camera is waterproof up to 60 metres and captures video in 1080p high definition.



It has built-in Wi-Fi, letting you easily share your photos and videos. It comes with bicycle and helmet mounts, tripod and camera adapters, a USB cable and a user manual. To enter, email your address to acomp@dennis.co.uk by midnight 3 March.

The Kitvision Escape HD5W camera costs £99.99. For more info visit www.kitvision.co.uk, 'like' the Kitvision Facebook page at www.facebook.com/KitvisionUK and follow Kitvision on Twitter @KitvisionUK.

MULTIFUNCTION PRINTER

Canon Pixma MG4250

£50 from www.snipca.com/12457

Tested: Issue 382



This budget multifunction printer (MFP) isn't the fastest available, but it's cheap to buy and inexpensive to run. Just as importantly, both prints and scans look great. Unless you need faster print speeds or separate ink tanks for each colour, this MFP is the one to buy.

ALTERNATIVE: Canon Pixma MX535 An MFP aimed at small offices with duplex, ADF and fax, but also good photo print quality. £74 from www.snipca.com/12909

SOLID-STATE DRIVE

Crucial MX100 512GB

£149 from www.snipca.com/15289

Tested: Issue 427



A blindingly fast, high-capacity SSD at a remarkably low price. If you've been put off buying a SSD because of the cost, then now is finally the time to take the plunge. It's far faster than any hard drive and is one of the best upgrades you can fit to your computer.

ALTERNATIVE: Crucial M550 SSD 1TB If you need a bigger SSD, this fast 1TB model is great value. £350 from www.snipca.com/15290

HOMEPLUGS

Devolo dLAN 650 Triple+ Starter Kit

£98 from www.snipca.com/13655

Tested: Issue 433



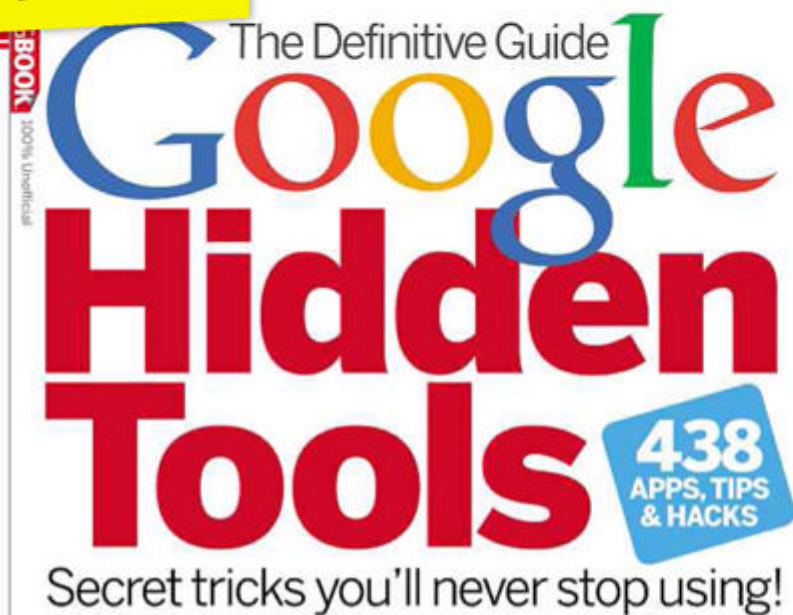
Devolo's latest Homeplug adapters are not only very fast, but they're well designed too. They have a passthrough socket so you can still power another device and the design should avoid skirting boards and other obstacles.

ALTERNATIVE: TP-Link AV500 Nano Powerline Adapter Starter Kit (TL-PA4010KIT) These tiny Homeplug adapters are a great choice, especially if socket space is at a premium or you don't want to block an adjacent socket. £30 from www.snipca.com/10742

Computeractive Bookstore

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Workshops & Tips

PULL OUT
& KEEP
Issue 443

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

35 Download the new Windows 10 Preview
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42 Take screenshots with one click

PLUS

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

47 Make Office Better
48 Secret Tips For... CCleaner

Download the new Windows 10 Preview

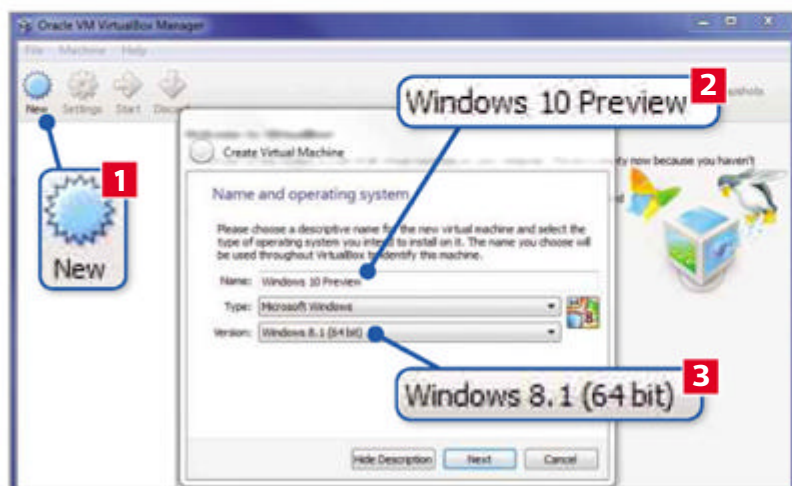
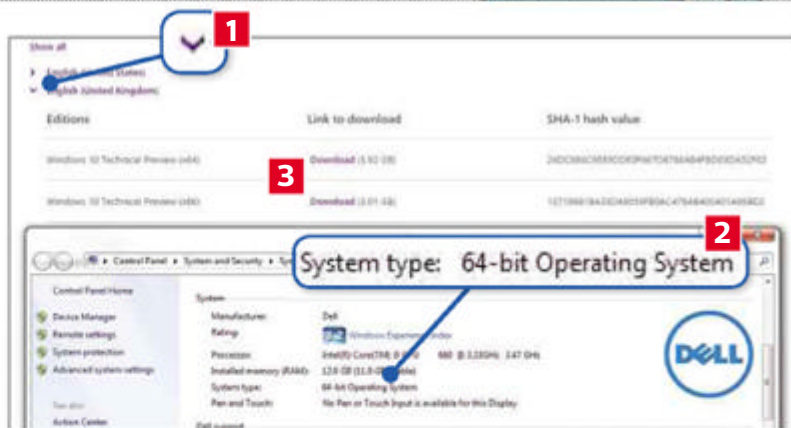
What you need: VirtualBox; Windows 7, 8 or 8.1 **Time required:** 2 hours

To get an insight into what Microsoft's next operating system will look like, you can now download the new Windows 10 Preview. It features an improved Start menu, an easier-to-navigate Windows Store and Microsoft's voice-activated

personal assistant Cortana. We'll show you how to try it out safely using the free **virtual drive** VirtualBox, which ensures the rest of your PC is unaffected by any changes you make. See News page 6 for more info on new Office apps for Windows 10.



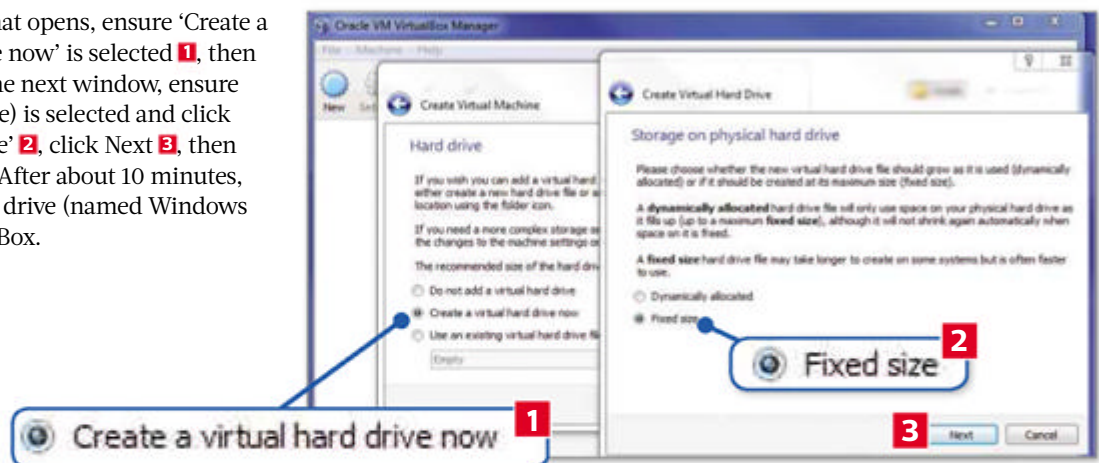
STEP 1 Bear in mind, the Windows 10 Technical Preview is a huge file (around 3-4 GB) which, depending on your internet speed, can take a while to download. Go to www.snipca.com/15342, scroll down and click the English (United Kingdom) dropdown menu **1**. You'll see two download options – x64 (for **64bit** PCs) and x86 (for **32bit** PCs). To find out what your PC type is, right-click Computer on your Desktop (or in the Start menu), then click Properties and look under 'System type' **2** in the System section. Click the Download link **3** on the file that corresponds to your PC.



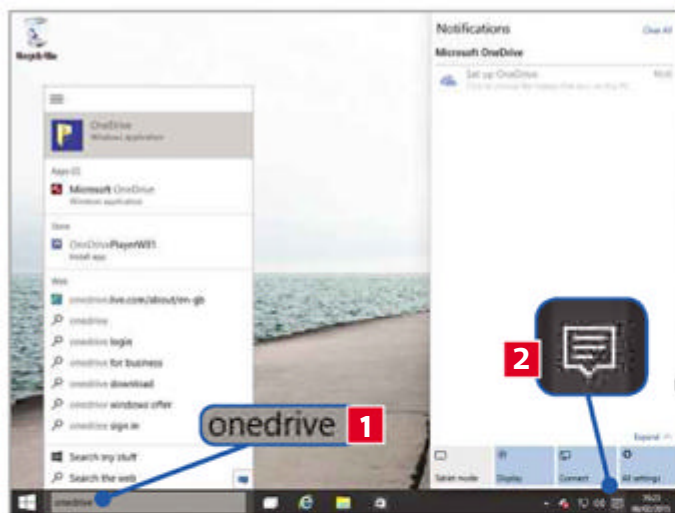
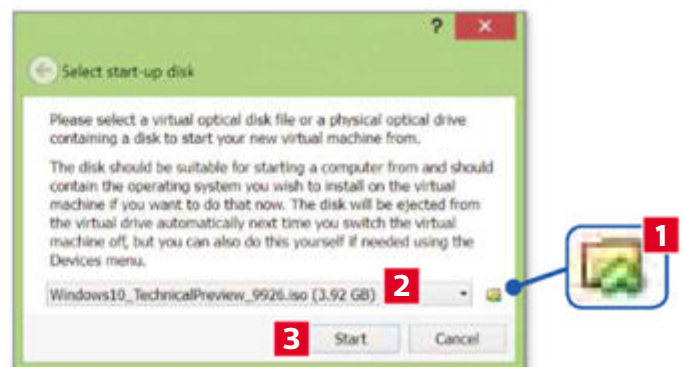
STEP 2 While the Preview is downloading, you should download and install VirtualBox. If you already have the program installed on your PC, update it by clicking Help at the top, then 'Check for Updates'. Otherwise, go to www.snipca.com/15343 and click the blue 'x86/amd64' link beside 'VirtualBox for Windows hosts' at the top. Click the setup file, Run, keep clicking Next, then Yes, Install and Finish. In the window that opens, click New **1** and name it Windows 10 Preview **2**. Click the Version dropdown menu, select Windows 8.1 (64-bit) **3** (regardless of whether you're using a Windows 7, 8 or 8.1 PC), then click Next twice.

Workshops

STEP 3 In the window that opens, ensure 'Create a virtual hard drive now' is selected **1**, then click Create. In the next window, ensure VDI (VirtualBox Disk Image) is selected and click Next. Now select 'Fixed size' **2**, click Next **3**, then Create on the next screen. After about 10 minutes, you'll see your new virtual drive (named Windows 10 Preview) within VirtualBox.



STEP 4 Once the Windows 10 file has downloaded to your PC you need to install it in VirtualBox. To do this, click the green Start button at the top left. In the 'Select start-up disk' window that opens, click the small folder icon **1**, and navigate to the 'Windows10_TechnicalPreview_9926.iso' file **2** in your Downloads folder. Click Open to add it, then click Start **3**. Windows 10 should immediately begin loading to VirtualBox. Ensure your language, time and keyboard is set to English (United Kingdom), then click Next and 'Install now'. Tick the T&C box at the bottom left, then click Next.

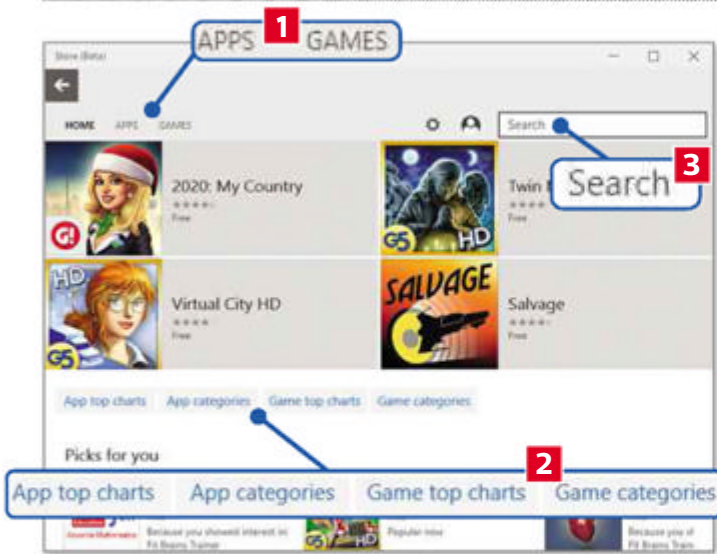


STEP 5 Select Custom on the Windows Setup window, then click Next. You'll see a Windows Setup screen showing your installation progress as a percentage (the process can take some time and Windows will reboot several times within VirtualBox). Once the process has finished, select 'Use express settings', enter your Microsoft login details and click Next, and wait for Windows 10 to start up. You'll see the new search bar **1**, which searches both your PC and the web (using Bing search). You can access the new Notification Panel by clicking its icon at the bottom right **2**.

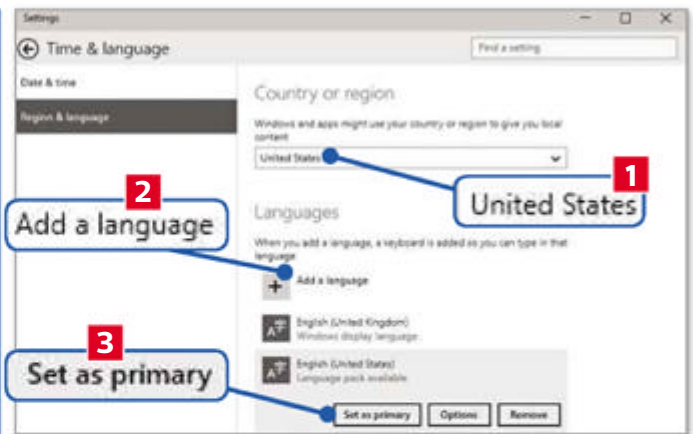


STEP 6 The Start menu has undergone several changes since the previous Technical Preview. The list of apps are now sorted into sections **1** and the power button is located at the top right. You can move app tiles by clicking and dragging them, and resize them by right-clicking a tile, moving your cursor to Resize and selecting one of the four options (Small, Medium, Wide and Large). Click 'All apps' **2** to list the apps in the left side of your Start menu alphabetically. The new Expand Start button **3** will convert your Start menu to full-screen mode (making it similar to the Modern tile interface on a Windows 8.1 PC).

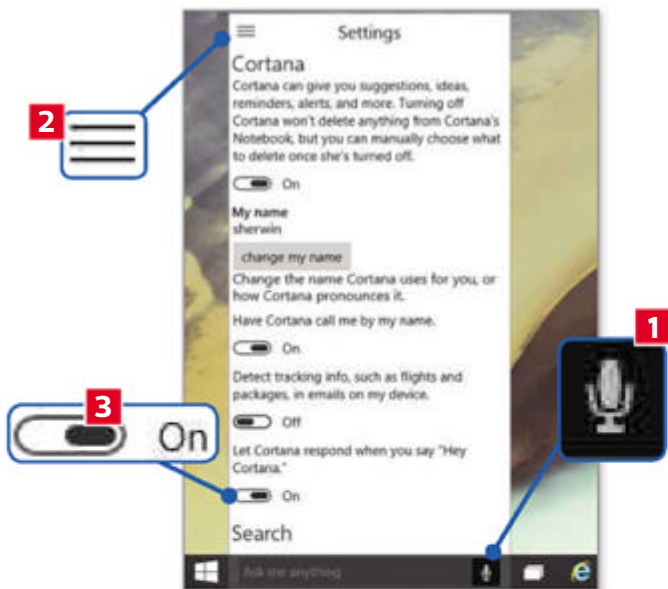
Download the new Windows 10 Preview



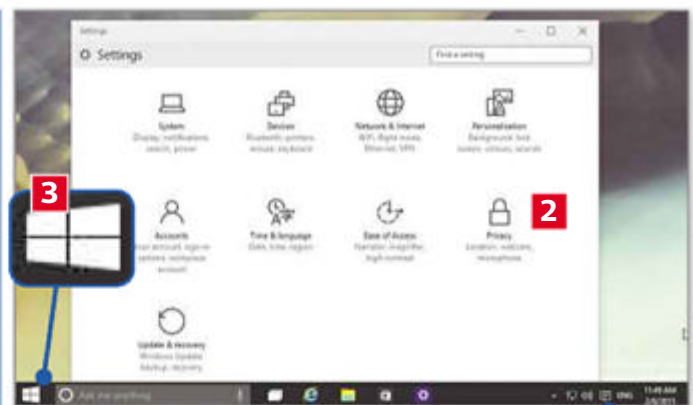
STEP 7 The Windows Store has also undergone a few changes. Click the Store (Beta) tile in the Start menu to open it. Scroll down to see the various sections ('Picks for you' 'Top free apps', 'Best-rated apps' and so on). You can filter the Windows Store so that it displays only apps or only games **1**. You can also find apps in the charts or categories **2**. Use the search bar **3** to search for a specific app. To install an app, click it, then click the blue Free button. The top-left Back button takes you to the previous screen.



STEP 8 Microsoft's voice-activated personal assistant, Cortana, isn't officially available in the UK yet, but you can use the feature by changing your region settings. To do this, click the search bar at the bottom, type **region** and click 'Region and language settings'. Next, click the Region dropdown menu at the top and change it to United States **1**. Click 'Add a language' **2**, select English, then click English (United States). When that's added to the Languages list below, click it, then click 'Set as primary' **3**. Now click the search bar at the bottom and click Allow to grant Cortana access to your Windows settings (such as your contacts, calendar, location, browsing and apps).



STEP 9 Cortana will request your name. Type it, click Enter then click the Play icon to hear how she says it. If the pronunciation is correct, click Sounds Good. If not, click That's Wrong, click the microphone icon **1** and pronounce your name. Cortana will speak it back to you. Repeat this until you're happy with Cortana's pronunciation, then click Sounds Good. To test Cortana, ask questions (such as 'What's the weather like in London?') or give her commands (for example, 'Open the Maps app'). To set Cortana so it launches when you say 'Hey Cortana', click the three lines at the top left **2** and turn on the 'Let Cortana respond when you say "Hey Cortana"' slider **3**.



STEP 10 Windows 10 has a new Settings menu, which features the Charms bar options from Windows 8 and the Control Panel options from Windows 7. To access it, click the Notifications icon **1**, then 'All settings' at the bottom right. The Privacy section **2** lets you turn your location, webcam and microphone off and on. It also shows you which apps make use of these features. To give Microsoft feedback about this Preview version, click the Start button **3**, then Windows Feedback (in the Explore Windows section on the right).

Make free video calls in Firefox

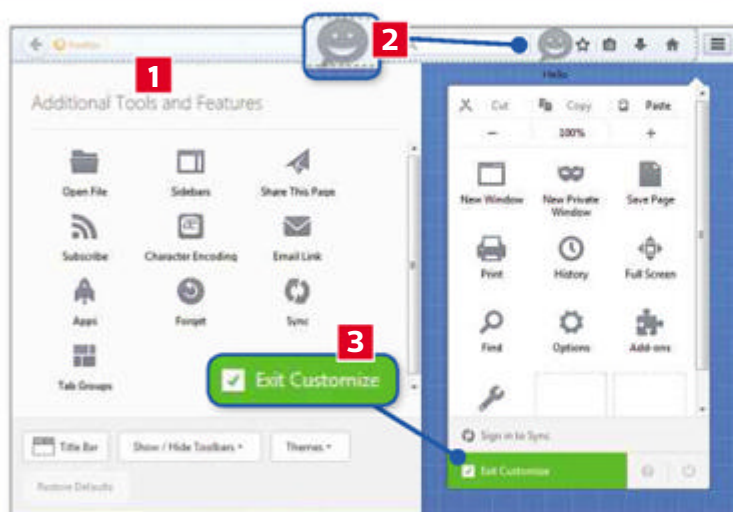
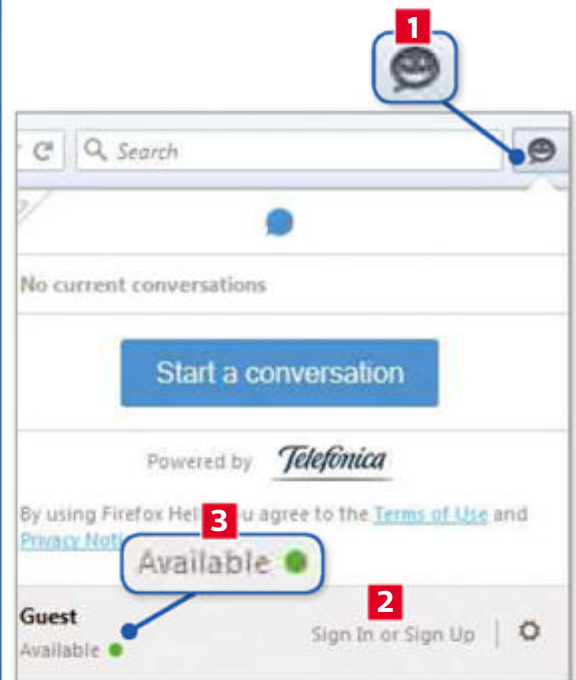
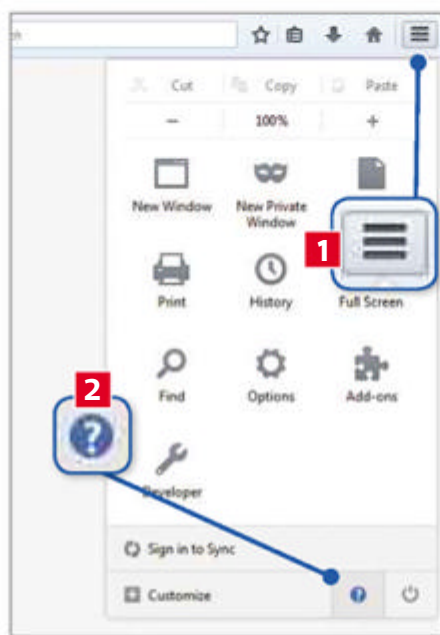
What you need: Firefox; webcam; microphone **Time required:** 20 minutes

When it comes to video-calling, there are plenty of options. While Skype is popular, we know from your emails to Problems Solved that it's not perfect. If you want an alternative, the latest version of Firefox comes with a new feature called Firefox Hello, which lets you make free video calls directly

from your browser. You don't need to install anything, you can start chatting without an account, and it even lets you make video calls to mobile devices. The person you're calling can receive the call in Firefox, Chrome or Opera browsers (Internet Explorer and Safari are not supported).

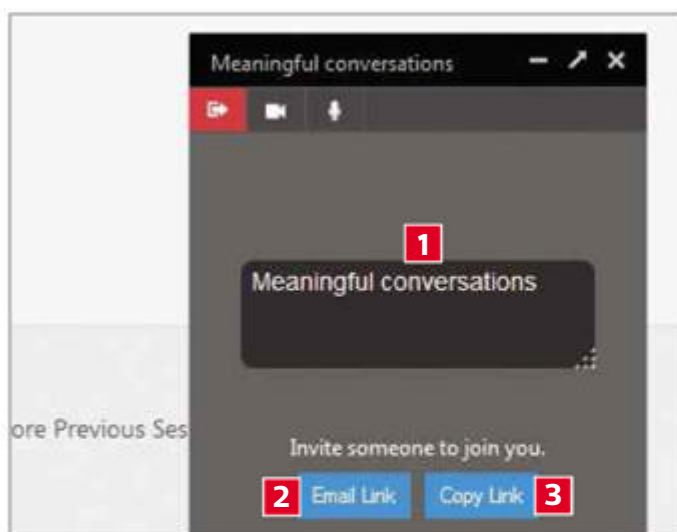


STEP 1 To use Firefox Hello, you need to be running the latest version of Firefox (35). To install this, go to www.snipca.com/15112, click the green Free Download button and follow the instructions. If you already have Firefox, update it by clicking the menu button at the top right **1**, the Help menu **2**, then About Firefox. You'll see a pop-up window that will update Firefox, then restart it if necessary.

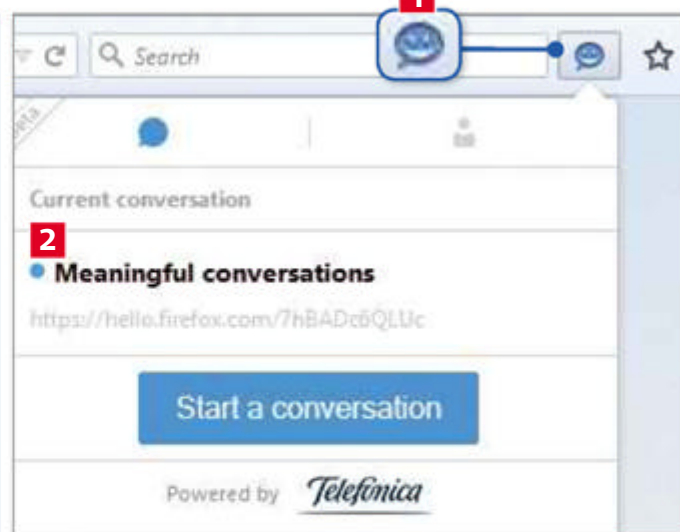


STEP 3 To start using Hello, click its icon **1**, then Get Started. You can begin video calling immediately by clicking the blue 'Start a conversation' button. If you prefer to log into your Firefox account first, click Sign In or Sign Up **2** and follow the instructions. Your email address will now appear at the bottom, above your status. You can change your status by clicking Available **3** and selecting Do Not Disturb.

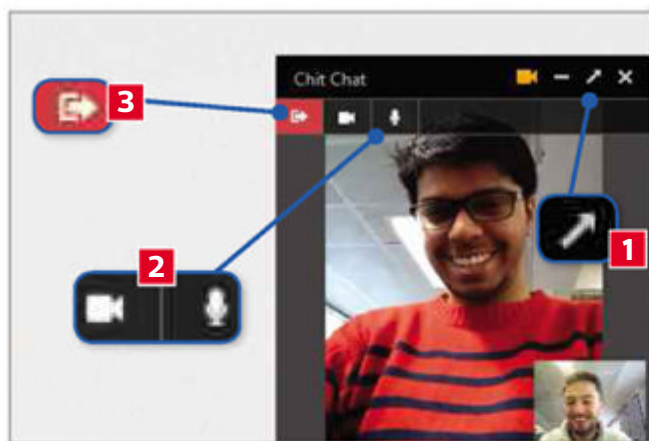
STEP 2 Next, you need to add Hello to your browser. We'll add it to the extensions toolbar (at the top right beside your search bar). Click the menu button (three lines), then Customize at the bottom. You'll see an 'Additional Tools and Features' page **1** with several options, including Hello (a smiley face icon). Click and drag that icon to the Firefox extensions toolbar **2**, then click Exit Customize **3**.



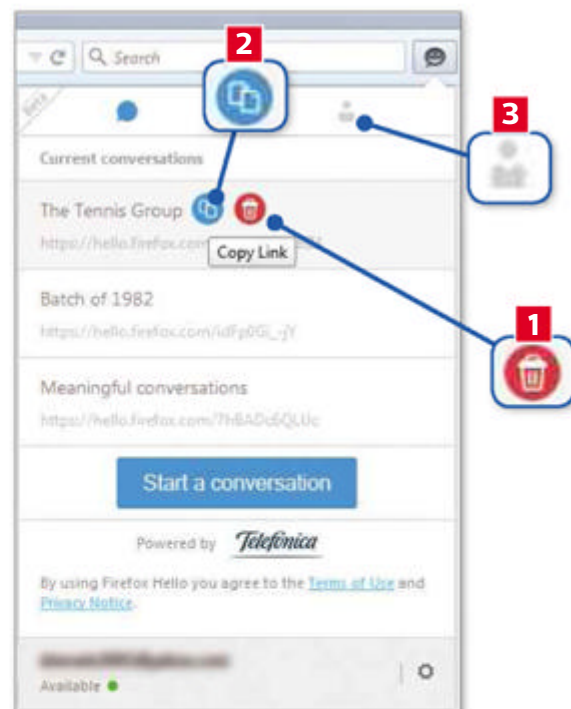
STEP 4 Next, grant Firefox permission to access your webcam and microphone. A small video-call window will then appear at the bottom right of Firefox. Type a description of your call in the 'Name this conversation' box **1** if you want. Next, click Email Link **2** to open a pre-written email containing the link to your video call and send this to whoever you want. Click Copy Link **3** to copy the video-call link to your clipboard from where you can paste and send it to anyone – using another email account, for example, or by posting it on Facebook.



STEP 5 Once you've sent the Hello link, wait until the recipient clicks it. It will work as long as they use Firefox, Chrome or Opera (on either a mobile device or PC). While waiting, you can either click the Hello icon and launch more video calls or browse the web. When your contact clicks the link, they'll be taken to your video-call window, where they need to click 'Join the conversation'. If you closed your video-call window, the Hello icon will turn blue **1**, telling you someone is calling. Click the icon, then the conversation with the blue circle next to it **2**.



STEP 6 You can now begin chatting with your contact (this will be a voice-only call if neither of you has a webcam). You'll need to control your speaker and microphone volume via your PC because there are no settings to do this within Hello. To make your video-call window full screen, click the diagonal arrow **1**. To stop your camera or mute your microphone, click the relevant icons **2**. Click the red icon **3** to terminate your call.



STEP 7 Every call link is saved as a 'conversation' in Hello. Just click it to start another call with your friend. If you want to delete a link, move your cursor over it, then click the red trashcan icon **1**. Click the blue icon **2** to copy a link (which you can email to more people). The contact icon **3** lets you import contacts from your Gmail account or add new contacts using their names and email addresses. ●

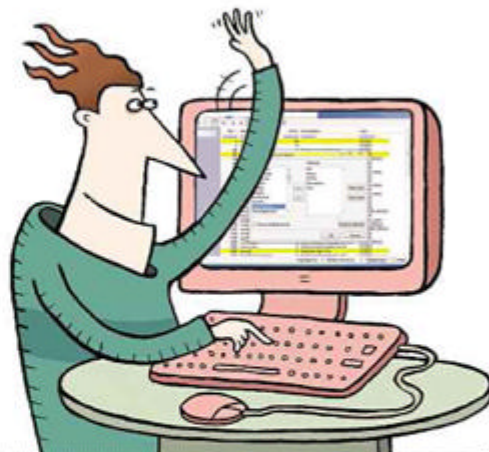
Find out if other people use your PC

What you need: Windows Inspection Tool Set; Windows XP, Vista, 7, 8 or 8.1

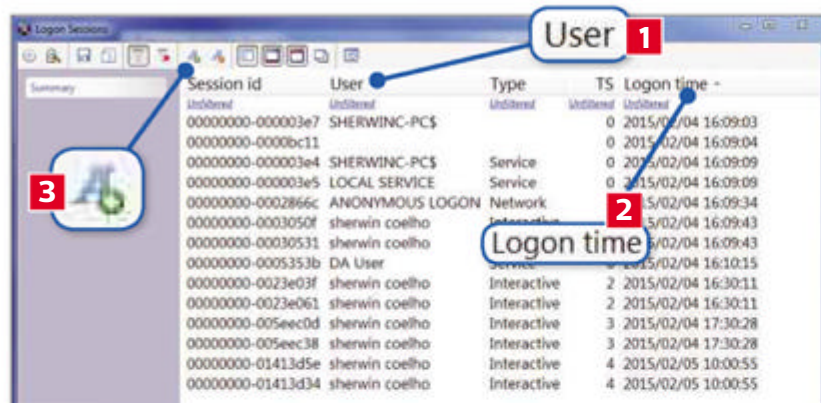
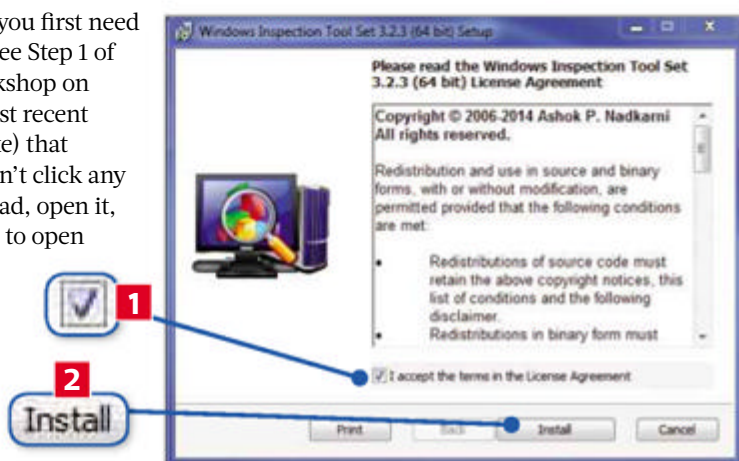
Time required: 25 minutes

If you suspect someone is using your PC without your permission, you should download the free program Windows Inspection Tool Set. It's not made by Microsoft, but it does let you see who logged into your PC and at what time.

You can then export this information as a file. We'll show you how to find out which programs the interlopers used. You can also use the program to find useful information about your PC and to set **hotkeys** for certain actions.

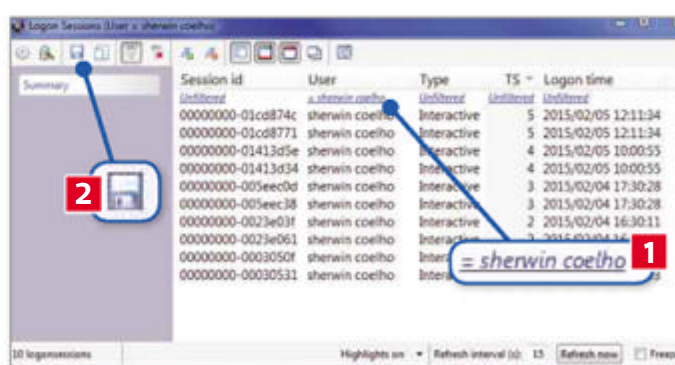


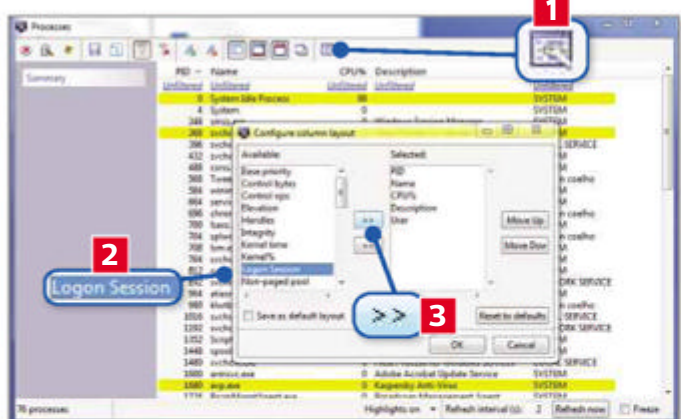
STEP 1 Before downloading Windows Inspection Tool Set, you first need to establish whether you have a **32bit** or **64bit** PC. See Step 1 of our 'Download the new Windows 10 Preview' Workshop on page 35. Now go to www.snipca.com/15311 and click the most recent (top) file. Next, click the most recent setup file (ending in .exe) that corresponds to your version of Windows (32bit or 64bit). Don't click any links on the web page that opens. Wait for the file to download, open it, click Yes, then tick the T&C box **1**. Click Install **2** and Finish to open Windows Inspection Tool Set.



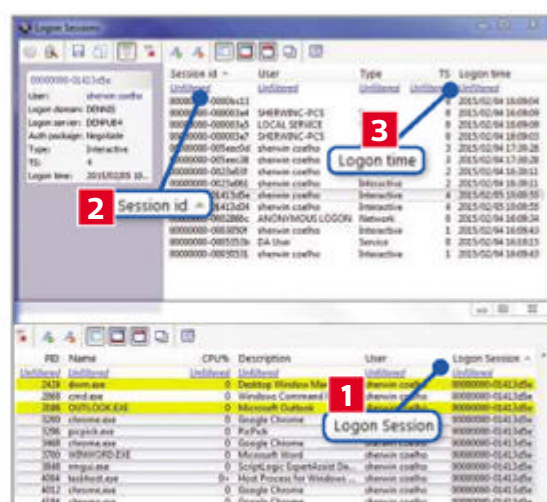
STEP 2 You'll see a small window with five sections, each with their own sub-sections. To find out who's using your PC, click Logon Sessions (in the Security section). You'll see a list of all users who have logged into your PC since you installed the software **1** (if each user in your household has their own account) and when they did **2**. You can also see who may have logged in using your account. The default font size is small, so keep clicking the 'Increase font size' option **3** if you have trouble reading it.

STEP 3 If you only want to see when a specific user logged in, click the Unfiltered link below User, type the user you want to see **1**, then press Enter. It's easy to export the information in this window as a file. Click the 'Export to file' icon **2** if you want to export it as an Excel spreadsheet, name the file and save it. To only save selected information, press Ctrl on your keyboard, click the entries in the list that you want to save, then click the 'Copy selection to clipboard' icon (to the right of the 'Export file' icon). You can then paste this data to a program such as Notepad, Word or Outlook.

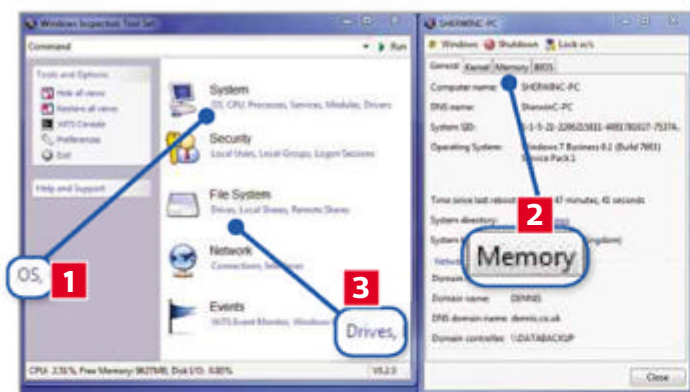




STEP 4 Now, go to the Windows Inspection Tool Set window and click Processes (under System). Like Windows Task Manager, this reveals a list of all the programs running in the background on your PC. From this window you can find out which user accessed certain programs and at what time. To do this, you first need to add a column. Click the 'Select table columns' icon **1**. Next, click Logon Session on the left **2**, the '>>' button **3**, then OK.

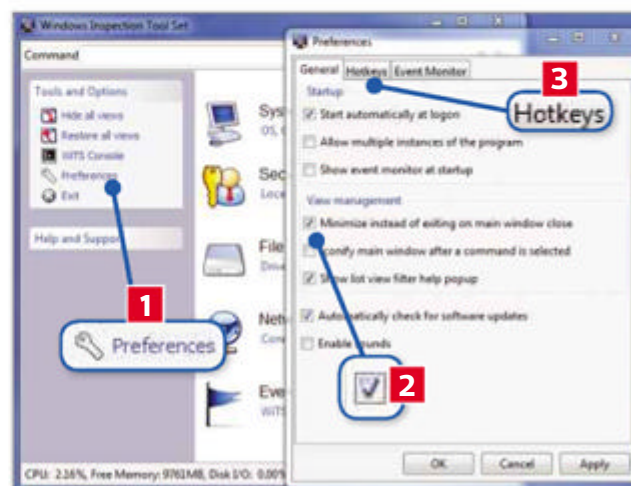


STEP 5 You'll now see a new Logon Session column **1**, with a list of values (denoted by many zeroes, followed by random numbers and letters). Each value corresponds to a user and a specific time they logged into your PC. Open the Logon Sessions window to see who the user is. The 'Session id' column **2** contains the same values but with the time **3** and user. By comparing the values in the Logon Session and 'Session id' columns you can find out who was using which program on your PC, and when.



STEP 6 We'll now explore other useful features of Windows Inspection Tool Set. Click OS **1** to see information about your operating system, including how long it's been since you last rebooted. Click the Memory tab **2** to see how much available space you have on your PC. It also tells you how much space you have on your **virtual drive**, if you have one. Click Drives **3** to see the space available on your hard drives, drive **partitions** and any external devices (such as USB sticks) connected to your PC.

STEP 7 Annoyingly, if you close Windows Inspection Tool Set, you'll need to run it as an Administrator to reopen it (by clicking Yes twice on the pop-ups that appear). An easier alternative is to hide the program in your Notification Area on closing it. To do this, click Preferences **1** and tick the first box under 'View management' **2**. You can also set up keyboard shortcuts to run certain features. To do this, click the Hotkeys tab **3**. As an example, we'll create a shortcut to open the Processes window. In the 'Show process list view' field, type a keyboard shortcut (such as Alt+P). Click Apply, then OK to confirm these changes. ●

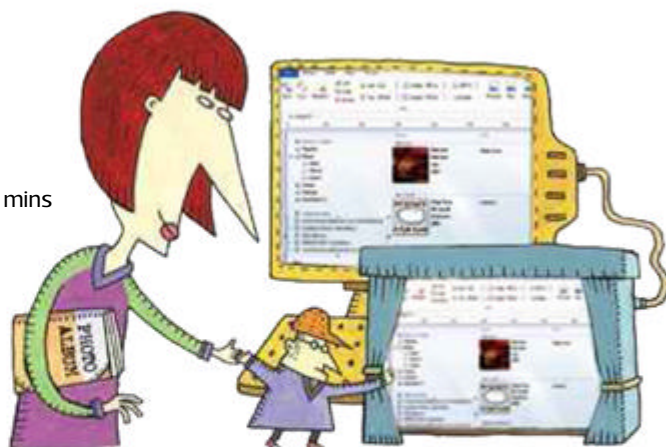


Take screenshots with one click

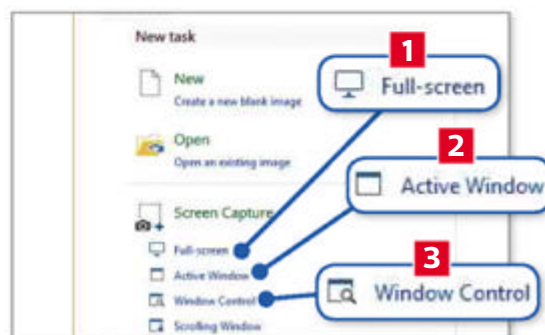
What you need: PicPick; Windows XP, Vista, 7, 8, 8.1 or 10 **Time required:** 10 mins

Sending a screenshot can be the best way to illustrate a problem you're having with your PC, but this can be quite a fiddly process. Here at *Computeractive*, we produce screenshots all the time and PicPick is our favourite

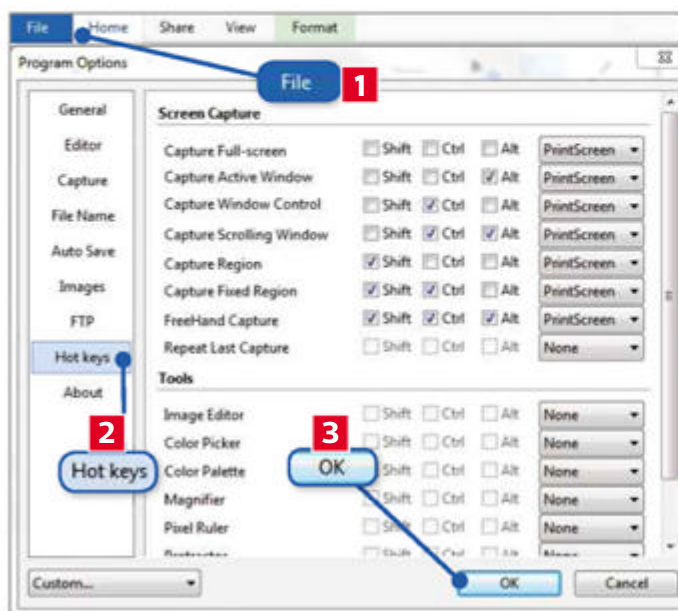
free program for the job. We'll show you how to take screenshots with just one click or by using keyboard shortcuts. PicPick also lets you edit the screenshot and attach it to an email for sending.



STEP 1 Go to www.snipca.com/15176, click the green Free Download button and follow the instructions (the latest version offers no unwanted extras). Once it's installed, open the program, and check out the options for taking screenshots in the Screen Capture section. Full-screen **1** captures your entire Desktop, while Active Window **2** takes a screenshot of any open window. Window Control **3** lets you use your cursor to focus on a specific area of your screen (marked with a red border). Move your cursor to the area you want to capture and click to take a screenshot.



STEP 2 To edit your screenshot (optional), click Select (in the Tools section of the Home tab **1**). Now specify the area you want, then click Crop **2**. Blur sensitive information such as email addresses or passwords. To do that, highlight your info, then click Blur **3**. Keep clicking to increase the intensity of the blur effect. If you want to attach this screenshot to an email, click the Share tab at the top right, then click Email.



STEP 3 To save your screenshot, click File **1**, move your cursor to Save As and select PNG. Navigate to where you want to save this file on your PC, name it and click Save. PicPick has several keyboard shortcuts (or 'Hot keys') that let you take screenshots quickly by pressing a key or combination of keys. Click File at the top left, then Program Options. Next, click 'Hot keys' **2** to see a list of shortcuts for various actions. You can customise these by ticking the Modifier keys (Shift, Control and Alt) you want to use and changing the PrintScreen to another key via its dropdown menu. Click OK **3** to save your changes.

NEXT ISSUE

ON SALE
4 March

- Dual-boot Windows 10 with Windows 7
- Use Outlook on your tablet
- Convert any file without software
- Send money by email safely

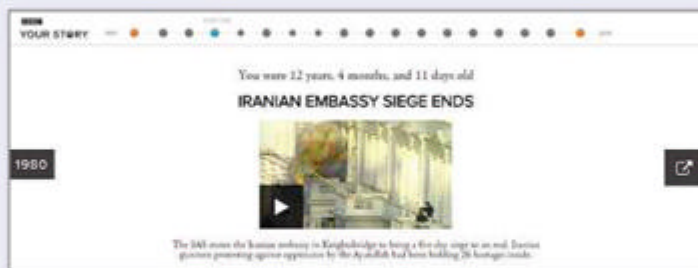
Subscribe to *Computeractive* at getcomputeractive.co.uk

TIP OF THE FORTNIGHT

Find out how old you were at historical moments

I stumbled upon a brilliant new BBC website the other day called Your Story. The site tells you what happened the day you were born and how old you were when significant moments in history took place. Curious to give it a go, I found loads of useful facts about events that took place throughout my life, some of which I remember very clearly.

For example, I found out that The Beatles' *Hello, Goodbye* was number 1 in the charts the day I was born and that I was 12 years, 4 months and 11 days old when the Iranian Embassy siege ended (see screenshot above). It also informed



me that the Challenger Space Shuttle disaster occurred soon after my 18th birthday, and that the Berlin Wall came down shortly before I turned 23.

To use the site, go to www.snipca.com/15230 and click the 'Try it' button. You can sign in with your Facebook account or click 'Continue without Facebook' to log in without an account.

Type your name and date of birth (the earliest year you can enter is 1930), tick the topics that interest you (from Music, Politics, Sports and Comedy), then click 'Continue to Your Story'. Click View Your Story, then the down arrow. Scroll down to see what was happening at different stages of your life.

You can also watch videos or click the small icons to the right to read more information about those events from the BBC archives. Click the dots at the top to jump to events on your timeline.

Brad Farwell

The winner of every Tip of the Fortnight wins this exclusive Computeractive mug!



EMAIL

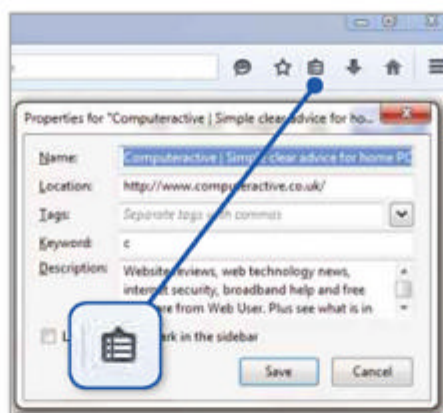
Search Google Drive within Gmail

I've always loved the fact that I can attach files from my Google Drive account to an email within Gmail, but I always wondered if there was a way I could search my Google Drive files without exiting Gmail. I asked a friend and he told me you can do this simply by tweaking Gmail's settings.

Click the Settings (cog) icon at the top right, then Settings. Next, click the Labs section at the top. Look for Apps Search (in the Available Labs section) and select Enable beside it. Finally, click Save Changes at the top or bottom left.

Now, whenever you want to search for a file you've saved in Google Drive, simply type its file name in the Gmail search bar at the top and press Enter. The search result will display any of your emails that contain the terms you typed, as well as any Google Drive files in a separate 'Docs and Sites' section below.

Craig Church



pleased to say that I haven't regretted the decision for one second. The feature I've found most useful is the ability to add single-key shortcuts to my Firefox bookmarks, which when pressed opens the bookmarked web page assigned to that key.

Click the 'Show your bookmarks' icon (see screenshot above) on the toolbar, move your cursor to the bookmarks folder, right-click the bookmark you want to assign a single-key shortcut to and click Properties. Click the Keyword field, type the key on your keyboard you want to use (C in the screenshot above), then click Save. Now whenever you want to open that website, open a new tab, press the key you assigned and then Enter.

Alastair O'Neill

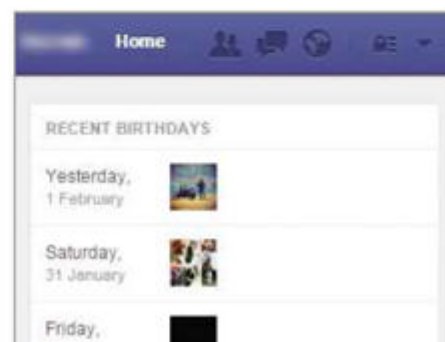
SOCIAL MEDIA

Never miss a Facebook friend's birthday

I'm not an avid Facebook user, but I usually log in every few days to find out which of my friends is celebrating a birthday. Because I don't always log in every day, on occasions I've missed someone's birthday. Thankfully, I've recently come across a new feature that displays any birthdays from the previous three days.

Click Events at the top left, then See All at the top right (beside Birthdays This Week). You'll see a list of all your friends' birthdays on that day as well as in the week ahead. In the new Recent Birthdays column at the top right (see screenshot below) you'll see all your friends' birthdays from the previous three days.

Carol Daines



BROWSER

Create your own Firefox bookmark shortcuts

Inspired by some of your Workshops on Firefox, I decided to try it out as my default browser, and I'm

Phone and Tablet Tips

Brilliant things to do on your device

ANDROID

Add links and hide rows in Google Sheets



The latest version of Google Sheets for Android (www.snipca.com/15187), Google's equivalent of Microsoft Excel, has made it easier to create hyperlinks (selected text that acts as a shortcut to a website when clicked), and conceal selected rows and columns.

To create hyperlinks, tap the cell you want to add a hyperlink to, then tap the '+' symbol at the top. Scroll to the bottom



and tap Link. In the Insert Link field, enter the text you want to use as a hyperlink (for example, BBC). In the Label field, type its website URL (such as www.bbc.co.uk), then tap Save. To open the link in your default mobile browser, tap the cell twice to bring up a menu of options. Next, tap the three dots, then Follow Link. Other options include 'Edit link' and 'Remove link'.

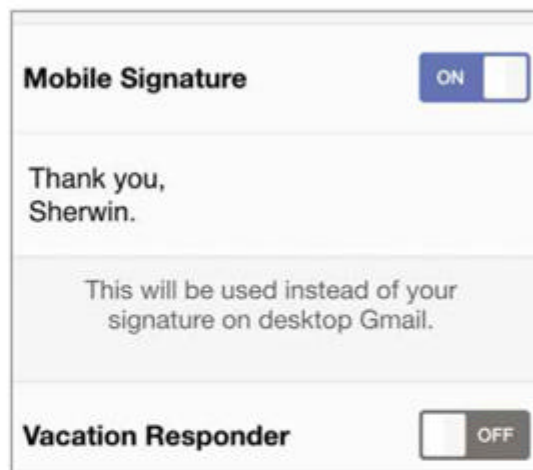
Hiding rows or columns is useful if you want to filter out unimportant data. We'll show you how to hide rows (you can use the same steps to hide columns). First, tap the number of the row (on the left) you want to hide. If you want to hide multiple adjacent rows, drag the small blue dots up or down to highlight them. Next, long-press anywhere in this highlighted section and tap the three dots that appear. In the pane below, tap 'Hide rows' (see screenshot left). To reveal these rows again, select the rows above and below the hidden ones, repeat the process and tap 'Unhide rows'.

ANDROID & iOS

Add a signature to Gmail



In Issue 439's Phone and Tablet Tips, we showed you how to add multiple email accounts (including Gmail, Yahoo and Outlook) using the updated Gmail app. You can also add your signature to any



email account you've added through Gmail. The process differs slightly for Android and iOS, but we'll show you both.

On the Gmail Android app (www.snipca.com/15189), tap the three lines at the top left, scroll to the bottom, then tap Settings. Next, tap the email account you want to add a signature to, then tap Signature. Type your signature, then tap OK.

In the iOS Gmail app (www.snipca.com/15190), tap the three lines at the top left. Tap the dropdown menu at the top, select the email account you want to add a signature to, then tap the cog icon beside it. Tap the Mobile Signature slider to turn it on (see screenshot above). Tap the box below that contains the text 'Sent from Gmail Mobile'. Delete this text, type your signature, then tap Save at the top right.

Best New Apps

What you should install this fortnight

70 Voices

Free

Android: www.snipca.com/15193

iOS: www.snipca.com/15192

To mark the 70th anniversary of the end of the Holocaust, this inspiring and thought-provoking app explores related topics through the poems, diaries and writings of people affected by it. You'll receive new content every day, including a weekend podcast discussing each topic in more detail.

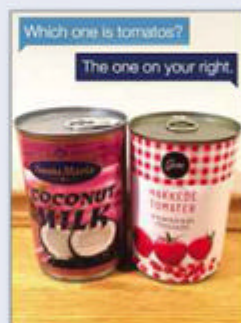


Be My Eyes

Free

iOS: www.snipca.com/15194

As its name suggests, this app lets you help change the lives of the visually impaired. Create an account and sign up as a 'Helper'. Whenever you're needed, you'll be notified about an incoming video call. The caller may need help with an expiry date on food or new surroundings, for example, and when they point their phone at the relevant subject you can read out or describe to them what you see.



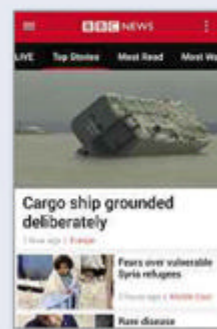
BBC News

Free

Android: www.snipca.com/15195

iOS: www.snipca.com/15196

The BBC News app has undergone a much-needed overhaul, adding several useful features. You'll now see local news based on where you are at any time and you can add topics to your personal news feed by tapping the '+' symbol. See Secret Tips in the next issue for more information.



iOS Straighten, rotate and crop your photos



iOS has always had good features for editing your photos but the latest version (iOS 8) has better options for cropping them. Open your photo, tap Edit at the top right, then the small Crop icon (to the right of Cancel).

Tap the small square icon with the arrow at the bottom left to rotate your image anticlockwise by 90 degrees. You'll see a small dial below your photo. Tap and drag this dial to the left or right to straighten your photo. To crop it, tap the rectangular icon at the bottom right and select one of the image ratios (Square, 2:3, 3:5 and so on) to see a box with that ratio overlayed on your photo. To change the size of this box, tap and drag any of its corners. Move the image within the box until you're happy. Tap Done (bottom right) to save your changes or Reset to discard them.



iOS Listen to music before adding it to your Spotify playlists



The latest update to Spotify Music (www.snipca.com/15191) has made it much easier to preview tracks and add them to your current playlist. Previously, you'd have to listen to the song from the beginning, and then save it or add it to a playlist by tapping the three dots. Now you can listen to a 30-second preview of a song (usually its chorus) simply by long-pressing it (Spotify calls this Touch Preview). You can then save songs or add them to your playlist using swipe gestures.

To preview a song, tap the three lines at

the top left, then tap Browse. Now long-press an album to bring up small tiles representing its tracks. Without lifting your finger, move it to any of these tracks to listen to them. Release your finger when you've finished listening.

To queue a track to your playlist, press it and swipe to the right. You'll see a message confirming it's queued. Likewise, swiping your finger to the left saves it to your Spotify playlist. If you swipe left across a track that's already in your playlist, it'll be removed.

ANDROID

Recover files you've accidentally deleted



The free app Dumpster Image & Video Restore (www.snipca.com/15188) is the mobile equivalent of

the Recycle Bin on your PC. It saves any file you delete on your device, letting you restore it whenever you want. You can choose to save your deleted files in Dumpster permanently or set them to be automatically deleted after a period of time.

Install and open the app, scroll to the bottom and then tap Accept (to agree to its T&Cs). You'll now see all the file categories (photos, videos, documents and audio) ticked. To automatically delete files in Dumpster from your device after a specific time, tap Auto Clean, then select one of the three options - 1 Week, 1 Month or 3 Months. Tap Next to finish setup.

Whenever you delete a file from your device, it'll appear in Dumpster. Tap that file in the app to see options to restore it, delete it (permanently remove it) or share it using other compatible apps.

Games With Kids

What to play together on your phone and tablet

AGES 0-5

Monkey Preschool Lunchbox

£1.23 www.snipca.com/15197 (Android)

£1.49 www.snipca.com/15198 (iOS)

The educational games in this app will teach your kids how to identify shapes, colours and fruits. They'll also learn to count, solve puzzles and play memory games. A friendly, animated monkey corrects them if they make a mistake and they'll get a virtual sticker after each game.



AGES 6-10

Words on Tour

Free www.snipca.com/15200 (Android)

Free www.snipca.com/15201 (iOS)

From the developer of the popular Scrabble game, Words With Friends, this app features multiple word-based challenges. These include connecting adjacent letters to form words within a set time and finding hidden phrases among a group of letters. After each round, your kids will learn trivia about a particular place in the world.

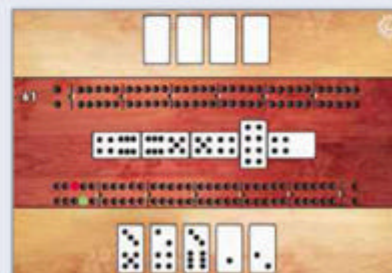


AGES 11-16

British Domino

£1.49 www.snipca.com/15199 (iOS)

Teach your children how to play dominoes and then challenge them to a match. Play in 'training' mode to learn the ropes and then select 'scoring' when you're ready to begin. You can also choose to get tutorials and in-game hints, and even customise the board how you want it.



WINDOWS 8, 8.1

Add credit-card details and secure Windows Store account



The Windows Store on Windows 8/8.1 is the PC equivalent of Apple's App Store or Google Play store on your phone and tablet. While there are plenty of free apps to choose from, some of the most useful ones you'll need to pay for. To buy these, you first need to add your payment details. We'll show you how to do that and then lock your account so that no one can buy paid-for apps without your Microsoft password.

Open the Windows Store app (the green tile with the Microsoft logo), click Account at the top, then My Account. To add your payment details, click 'Add payment method' in the 'Payment and Billing info' section. Select whether you want to pay with PayPal or credit card, type your details in the form provided, then click Submit. After doing that, tick the 'Always ask for your password when buying an app' slider to turn it on.

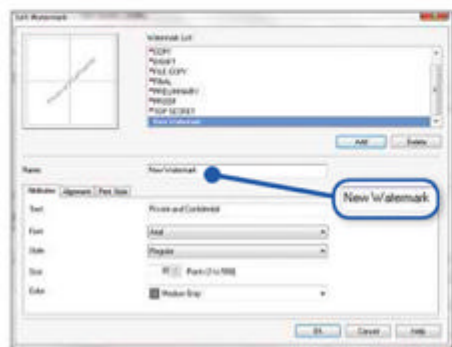
WINDOWS 7, 8, 8.1

Create your own watermarks for files you print



Many printers offer a number of watermarks you can add to a printed image or document (to insert a logo or mark it as a 'Draft' version, for example). However, you can easily create your own. Open your Word document and click Ctrl+P (the Print shortcut). Now click the Printer dropdown menu at the top left, select your printer, then click the Printer Properties link below the dropdown menu.

Tick the Watermark option at the bottom, then click Edit Watermark below it. Next, click Add and name your watermark (see screenshot below). In the Text field, type what you want your watermark to display. Next, select its font type, style (bold, italics or underline), size



WINDOWS VISTA, 7, 8, 8.1

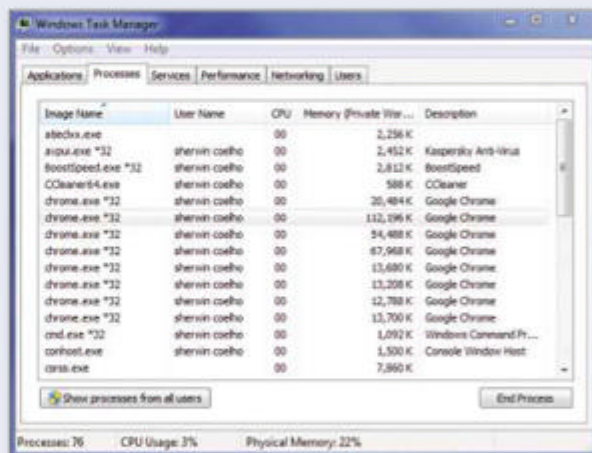
Uninstall stubborn programs



Some programs may give you an error message when you try to uninstall them via your Control Panel.

This is often because, even though the program is closed, it's still running as a background process and therefore can't be uninstalled. If this is the case, you first need to stop the program's background process.

We'll show you how to do this using Chrome as our example, because the browser is often guilty of running several processes in the background. Try uninstalling Chrome via the Control Panel and you'll probably see the error message 'Please close all Google Chrome windows and try again', even though you've closed the browser on your Desktop.



If you see this message, close your Control Panel and open your Task Manager (by clicking Ctrl+Alt+Delete), then clicking Start Task Manager. In the Processes tab, you'll see a number of chrome.exe entries. Click the entry that's using the maximum amount of memory (see screenshot), then click End Process at the bottom right and 'End process' again.

Once you've done this, you should be able to uninstall Chrome as you normally would via your Control Panel.

and colour by clicking those dropdown menus. You'll see a preview of your watermark at the top left.

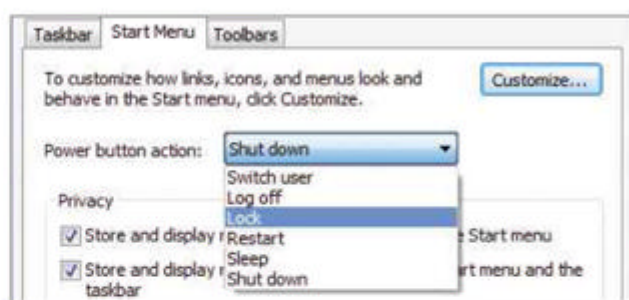
To change its alignment, click the Alignment tab and select one of the two options in the Tilt section, or choose Set Angle and in the Angle (Degree) field enter the number of degrees you want your watermark to be tilted. Click the Print Style tab for options to add a border to your watermark. Click OK to apply your changes and Print to print a document containing your watermark.

WINDOWS VISTA, 7

Change the function of your 'Shut down' button



If you tend to lock your PC or switch it to Sleep mode often and only shut it down at the



end of the day, then it's a good idea to change the function of the power button from 'Shut down' to an action that's more relevant to how you work.

To do this, right-click the Taskbar, click Properties, the Start Menu tab, then the 'Power button action' dropdown menu. You'll see a list of six options (see screenshot above). Select the one you want, click Apply, then OK. Your power button now displays your choice while the right-pointing arrow beside it displays the other five options.

WORD

Stop others changing sections of your documents



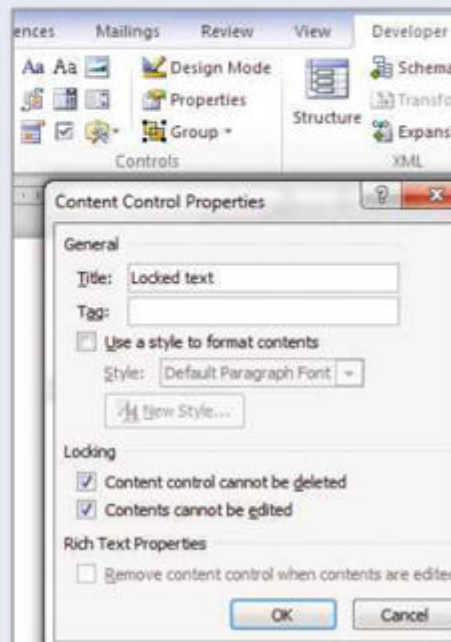
There's an easy way to lock sections of text in your document, preventing anyone else from making changes to it. This is especially useful if you're sending a document to someone but don't want them editing specific sections.

Click File at the top left, then Options. Next, click Customize Ribbon on the left and you'll see two columns. The right column contains all your Ribbon tabs, with a number of options already ticked. Tick Developer, then click OK at the bottom right. You'll see a Developer tab added to your Ribbon. Click it.

Highlight the text you don't want others to edit, then click the Rich Text Content Control option (the blue 'Aa' option at the top left in the Controls

section). Next, click the Properties option in the same section. In the Content Control Properties window (see screenshot right), give it a title and tag (optional). If you want to change the highlighted text style (for example, to Heading, Subtitle or Quote), then tick 'Use a style to format contents', click the Style dropdown menu below and select the option you want.

Now tick the 'Content control cannot be deleted' and 'Contents cannot be edited' boxes in the Locking section, and click OK. Now no one – not even you – will be able to edit or delete the text you highlighted. To make that text editable again, select it, click the Properties option, untick both the boxes in the Locking section, then click OK.



OUTLOOK.COM

Save Outlook.com email attachments to OneDrive



Last year, Google introduced a feature that lets you save your Gmail attachments directly to Google Drive. Microsoft have now followed suit with the option to save your Outlook.com attachments to your OneDrive account.

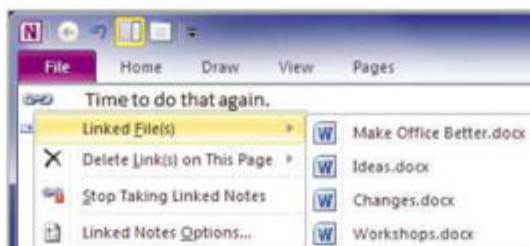
Go to www.outlook.com, log in with your Microsoft (Outlook or Hotmail) account and open any email that contains attachments. Click 'Save all to OneDrive' (below your attachments) to do that or click only the attachment you want to save, then click 'Save to OneDrive'. You'll see a notification stating your attachment is being uploaded and a Completed message will appear at the top right when that's done. To access your attachment, click Completed, then click 'Email attachments', which will open that folder within your OneDrive account.

ONENOTE

Cross-reference notes with relevant Word documents



If you like to use OneNote (in conjunction with Microsoft Word) to manage and make notes about your documents, you should also use a feature called Linked Notes that



shows you which Word documents you opened when writing a specific note. Linked Notes will only work when OneNote is docked to your Desktop (a useful mode that displays OneNote as a pane on your Desktop, letting you open and access other programs and documents at the same time).

To activate this mode press Ctrl+Alt+D in OneNote. With your OneNote pane docked, you can open Word documents and start making notes. OneNote will remember any documents you open as you write the note. To see a list of these, click the Linked Files icon (a small chain at the top left of OneNote) and move your cursor to Linked Files (see screenshot above).

EXCEL

Calculate percentages quickly



Excel lets you make quick calculations, but you first need to know a few basic formulae. There are various ways to calculate percentages, for example, but we'll show you the easiest one.

In our screenshot below, we show test scores as a percentage across a range of school subjects. To do this, click the cell where you want to display the percentage (D2 in our example). Now click the General dropdown menu in the Number section (in the Home tab) and change it to Percentage. Next, type = in D2, then click the first cell in the Marks column (B2), type / (forward slash), click the second cell in the 'Out of' column (C2) then press Enter to see your percentage score.

	A	B	C	D
1	Subject	Marks	Out of	Percentage
2	Literature	23	40	=B2/C2
3	Biology	29	40	72.50%
4	Chemistry	39	40	97.50%
5	Physics	37	40	92.50%



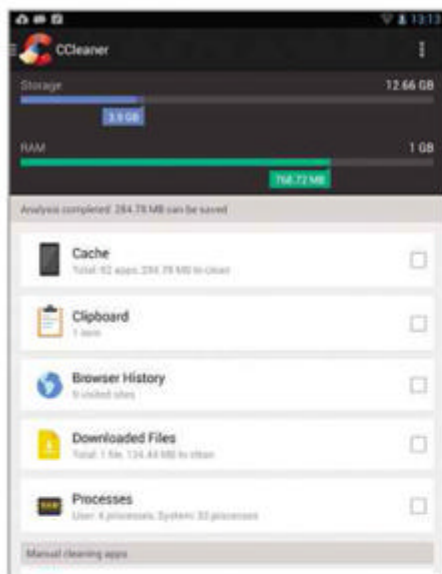
CCleaner

Exclude folders from clean-up, delete duplicate files, and get CCleaner on your Android

Remove junk from your tablet or phone

In our Cover Feature (page 50) we show you how to make CCleaner even more powerful with the brilliant free **plug-in** CCEnhancer, which adds loads more options to CCleaner's Applications tab. But did you know that you can use CCleaner to clean your phone and tablet apps, too?

The new version of CCleaner for Android (www.snipca.com/15349) does many of the same jobs as its PC version – removing **cache** junk, temporary files, clipboard content and so on. It also lets you uninstall multiple apps; batch-delete text messages and call logs; and check your **CPU** and battery health.



Clean junk from your phone or tablet with CCleaner for Android

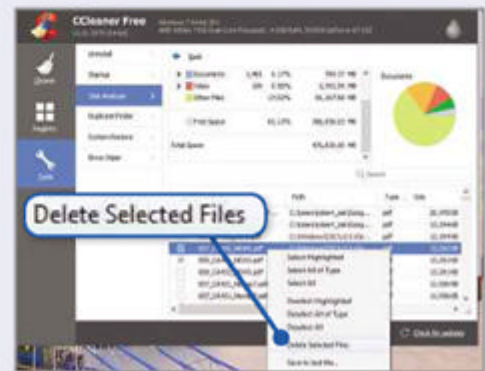
Shut down your PC automatically after cleaning

You can activate a setting within CCleaner that shuts down your PC automatically after it finishes cleaning. This is especially useful if you want to leave CCleaner to clean your PC while you pop out or go to bed. Click Options in the left-hand pane, Advanced, then tick the box that says 'Shutdown after cleaning'. Remember to untick this option if you want to revert to your default settings.

Find out which types of file are using up most space on your hard drive

The most recent CCleaner update includes a new Disk Analyzer tool, which neatly shows you what percentage of your hard drive is being used by specific file categories, such as Pictures, Music, Documents and Video. To see this, make sure you're running the latest version of CCleaner (you can download it from www.snipca.com/15100).

Next, open CCleaner, click Tools on the left, then Disk Analyzer. Tick the categories and drives you want to include, then click Analyze. Once the scan finishes, you'll see a pie chart that breaks down file categories according to how much hard-drive space each takes up. Click a



Use the new Disk Analyzer tool to find out what's taking up the most space.

category at the top to see all its files at the bottom. To delete unwanted, space-hogging files, tick them, then right-click any file, and click Delete Selected Files (see screenshot).

Exclude files and folders from clean-up

On occasions you may not want to clean certain programs (for example, web browsers), because some of the data they contain (history, **cookies**, saved passwords, autofill-form data and so on) makes them quicker to use.

To exclude a program from a clean-up, click Options on the left, Exclude, then Add. In the new window, select File, click Browse, navigate to the program you want to exclude and click Open. When you've finished, click OK. If on some future occasion you decide you want these items cleaned, follow the same steps but click Remove after navigating to the relevant program.

Delete duplicate music files

CCleaner has a Duplicate Finder tool, which lets you find and delete duplicate files that take up space on your PC. Click Tools on the left, then Duplicate Finder to see a list of options.

If, for example, you only want to delete

duplicate music files, click the blue Add button on the right, then click Browse. Now select the drive (or folder) you want to scan for duplicates and click OK. Next, select File Types and then type your audio-file formats into the box provided, for example: ***.mp3; *.m4a; *.aac; *.flac** and so on (see screenshot below). Click OK and untick the boxes in the Include list. Click Search, then delete the duplicates by ticking them and clicking the Delete Selected button at the bottom right.



Set which kinds of file you want CCleaner's Duplicate Finder to search for



Microsoft HoloLens

Not content with giving away Windows 10 free, Microsoft now wants to float 3D objects in your living room

What is it?

A futuristic-looking headset that displays 3D objects (which Microsoft calls “holograms”) to the person wearing it. It can show the weather as a floating map, turn living-room walls into virtual screens, and let you play virtual games on your coffee table. Microsoft unveiled it in January when announcing the next version of the Windows 10 Preview, and said it will go on sale when the operating system officially launches later this year. There’s no indication yet of what it will cost.

What would I use it for?

Here’s what Microsoft says: “Holograms will improve the way you do things every day, and enable you to do things you’ve never done before”. That’s the sort of vague-speak we’ve come to expect from Microsoft, but helpfully they’ve made a video – available on the HoloLens website (www.microsoft.com/microsoft-hololens) – to help explain what it does. It shows a man at home living in a monochrome world; then he puts on the HoloLens and his expensive flat is awash with colour. He instantly sees a screen on his wall showing a football match. As he moves around his flat a 3D graphic springs up showing him the weather in Maui, Hawaii (a very pleasant 78-degrees Fahrenheit), along with icons for Microsoft services including Skype (see image right).

The video also shows how the HoloLens could be used in a work environment. Designers will see how 3D models look on top of real objects, while architects can visualise a finished building.

So is it like virtual reality?

No, it’s more like augmented reality. Virtual-reality headsets, such as the Oculus Rift (www.oculus.com), transport you to unfamiliar worlds, such as an alien environment or foreign country, making you forget where you are in reality.

By contrast, HoloLens overlays objects



HoloLens displays 3D objects that you can ‘touch’



on to the real world – “blending holograms with the environment around you”, as Microsoft puts it. In other words, you’ll still see the room you’re in. That said, HoloLens can be used to visualise places we can’t yet visit. Microsoft says that Nasa scientists will soon be exploring a virtual Mars using holograms of images captured by the Mars rovers.

How does HoloLens work?

It tracks your movements and follows your gaze, displaying information relevant to where you are. You can interact with the 3D images by using hand gestures, such as clicking your fingers. It ‘maps’ the room to see where tables, chairs and other objects are, using

this information to project 3D images on top of them.

Will it replace computers?

We doubt it. Performing many key tasks, such as writing an email and filling out a spreadsheet, will remain easier on a PC for years to come. But we can see it replacing some things we currently use PCs for, such as making video calls and browsing web pages. And while we’re naturally suspicious of products that receive the level of hype generated by HoloLens, there’s no doubt it could revolutionise how we interact with technology. Unlike other headsets, which are aimed at gamers, the HoloLens has serious practical uses, and doesn’t smack of a sci-fi gimmick with limited appeal.

It has been said before of less-deserving products, but the HoloLens really could change everything.

But won’t I look like a plonker wearing one?

A bit, maybe. But you won’t be walking around outside, unlike Google Glass wearers. Judging by Microsoft’s videos, HoloLens is meant to be used primarily indoors, minimising the plonker factor.

Hack Your SOFTWARE

You don't have to be a developer to hack software. Jane Hoskyn reveals how to use free plug-ins and easy tricks to make your favourite programs even better



KEY POINTS

- Double CCleaner's power to make your PC faster and safer
- Turn Windows Media Player into the only video player you need
- Record Skype calls and translate Skype messages automatically
- Do everything faster in Chrome with one-click extensions
- Hack IE to get a sneak preview of Spartan
- Save time in Word and Excel

Nobody's perfect, and that goes for our favourite programs and browsers too. CCleaner, Skype, iPlayer, Chrome (especially Chrome) could all be improved by adding some things and taking away others.

At the simplest level, you can 'hack' (modify) a program by clicking Settings and ticking a few boxes until the software is configured to suit your needs. At the most advanced level, you can take a program apart and rebuild it from the ground up. This so-called **reverse-engineering** is as easy to a developer as altering the sleeves of a jacket is to a tailor.

Sadly, many skilled hackers use their talents to malicious ends, as you know only too well from reading our news pages. Instead of hacking programs to

improve them, they often set out to destroy them.

Hacking for non-hackers

Well, we can hack software too – we just do it for more constructive reasons and in smarter, less time-consuming ways. We may not know our **source code** from our GitHub, but we do know how to improve Firefox by adding some great extensions to it, and how to make Excel spreadsheets open faster with a quick Registry edit.

In this feature, we'll reveal our favourite "good hacks" for getting the best out of the software you already use, including many of the Microsoft tools you rely on. Most of our improvements involve downloading free **plug-ins** or extensions, but we'll also throw in some workarounds that software-makers don't want you to know about.

MAKE YOUR FAVOURITE PROGRAMS DO MORE

Make CCleaner remove even more junk

One of our favourite programs of recent months, CCEnhancer, is actually a plug-in. It's one of your favourites, too, judging by the number of times you've clicked its link (see 'Your most popular programs', Issue 440). Like other plug-ins, CCEnhancer (www.snipca.com/15280) exists purely to improve another program – in this case, the PC junk-removing tool CCleaner.

CCleaner (the latest version is v5.02) is already a great program, and its developer – Piriform, which also makes Recuva and Speccy – offers excellent online support (www.snipca.com/15300). But to really get the most out of CCleaner, you need to hack (sorry, 'enhance') it in a completely safe, legal way with CCEnhancer.

Download and run the file (it's a mere 280KB), then click Download Latest to check for the latest enhancements. That may take a minute or two. Then, open CCleaner and you'll notice the Applications list has almost doubled in length, with extra options that include Shortcut Cache, Mozilla Temps and Google Crash Reports. All the options added by CCEnhancer are marked with an asterisk. Tick the items you want to include in your clean-up, and untick any you want to exclude. The clean-up

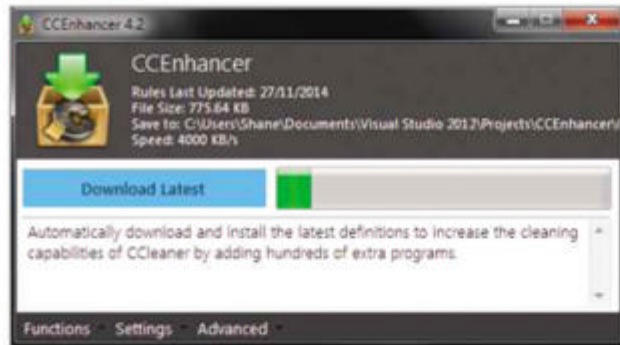
takes a bit longer than before, thanks to the new options, but it should give your PC a sizeable speed boost.

Many of the extras are sourced by CCEnhancer from CCleaner's official forum (www.snipca.com/15281), where users share plug-in files they've created, along with extras created by Piriform. You can download and add them to CCleaner one at a time, but CCEnhancer saves you the bother. Turn to page 48 for more CCleaner tips.

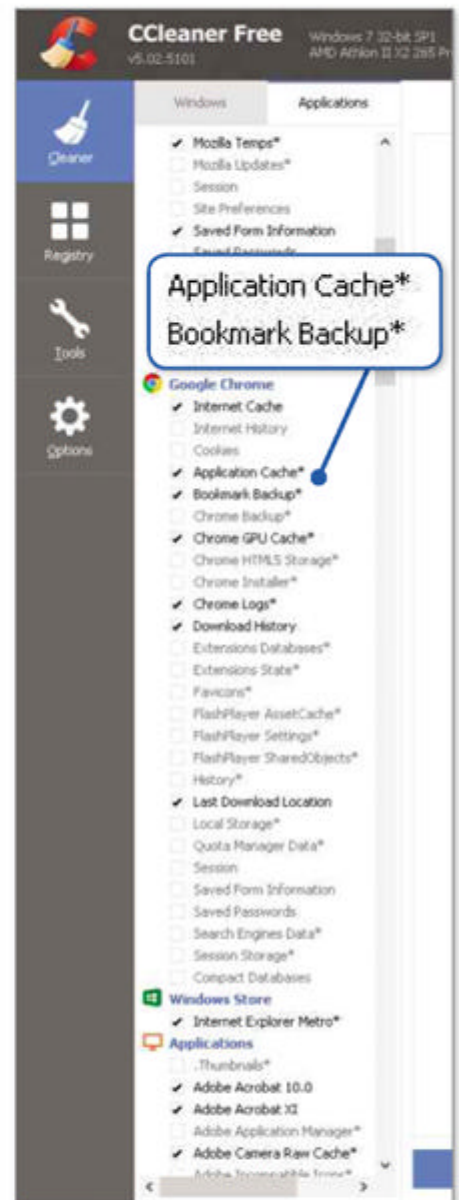
Add Windows Media Player's missing settings

Windows Media Player (WMP, www.snipca.com/15284) is more than 25 years old and – in its raw state – isn't very good. But instead of moving to a new media player, why not improve WMP?

If you're up for this, first install a **codec** pack, such as 'Advanced Codecs for Windows 7/8/10' (www.snipca.com/15293), so you can play any video or audio format you want. Those running Windows XP or Vista should download codecs from www.snipca.com/15294. ►



Click Download Latest in CCEnhancer to check for the most recent CCleaner plug-in files



CCEnhancer automatically adds extra options to CCleaner and marks them with an asterisk

PLUG-INS, EXTENSIONS, SCRIPTS... WHAT'S WHAT

PLUG-IN: A small program that integrates with a larger program to modify or improve it, often by adding new features or format support. For example, Adobe's Flash Player plug-in (which Adobe and Google call 'plugin') integrates with your browser to add support for Flash video.

EXTENSION: A simple plug-in that improves a program, usually a browser. For example,

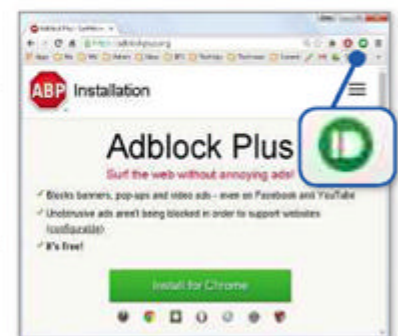
Adblock Plus (<https://adblockplus.org>) prevents adverts being displayed in your browser. Extensions are very easy to install, and can be enabled and disabled without uninstalling. Some extensions add a **bookmarklet** to your browser for one-click control.

ADD-ON: Means extension. Firefox says 'add-on', Chrome says 'extension' (so does Computeractive); some

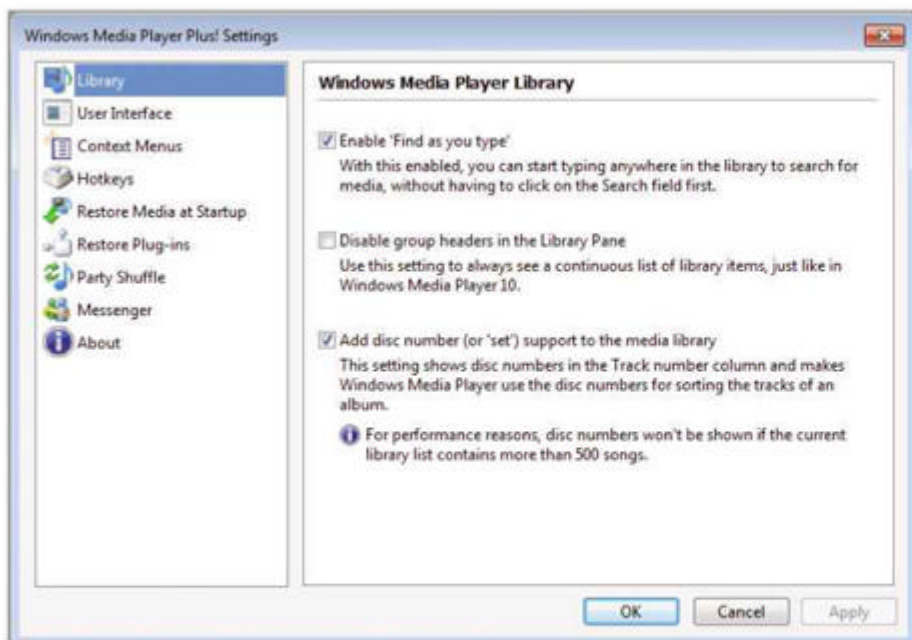
companies say 'addon' or 'add-in'.

CODEC: A plug-in that adds support for specific types of content, such as audio and video formats.

SCRIPT: A piece of code that works like a plug-in, without needing to be downloaded. To run one, you need a script manager like Tampermonkey (see page 54).



Extensions like Adblock Plus add a bookmarklet to your browser for one-click control

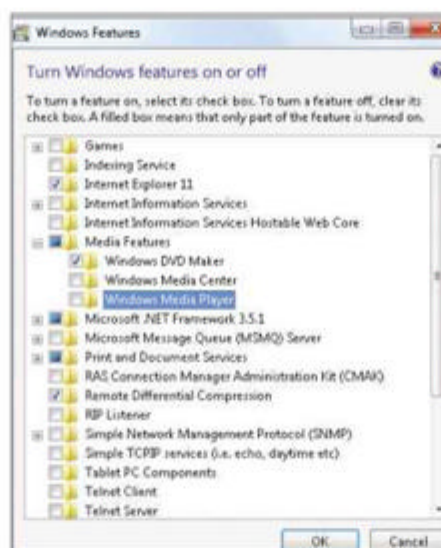


The Windows Media Player Plus plug-in adds much-improved settings to WMP

Then install BM Productions' free plug-in Windows Media Player Plus (WMPP, www.snipca.com/15341, click Windows Media Player Plus in the left-hand pane), which lets you add tools and functions that WMP has been sorely missing. These include keyboard shortcuts for controlling WMP while you're using other programs; a setting to close WMP automatically after the current item finishes playing; and a choice of much-improved WMP library search tools and right-click menus.

Unlike CCEnhancer, WMPP needs to be installed on your PC, but this is a quick and easy process. Once you've clicked the WMPP link, scroll down the page and click 'Download now!', then run the adware-free installer. When you click Finish, WMP will open with a new WMPP Settings box full of new options.

The same developers also make WMPCDText (www.snipca.com/15308), a free WMP plug-in that adds support for CD-Text. This simple technology lets you



You can disable Windows Media Player using Microsoft's hidden Windows Features tool

copy text information such as track names from an audio CD. Many other media players have CD-Text built in, but not poor old WMP.

If you really can't stand WMP, you can always disable it (and other memory-hogging Windows tools) with a simple Windows hack. Type **optionalfeatures** (no spaces) into Start, press Enter and wait a minute for the Windows Features list to populate. Click the '+' symbol next to Media Features, untick Windows Media Player, then click Yes in the window that appears. Other tools you can disable here include Internet Explorer and 'Windows Fax and Scan'.

Our favourite free alternative to WMP is VLC (www.snipca.com/15318). It eats up a lot less memory than WMP and goes out of its way to encourage (non-malicious) hacking by making its source code available to users. It also hosts a huge library of extensions (www.snipca.com/15319) – including VLSUB, which adds support for **open-source** subtitles, and the self-explanatory 'Click to Play/Pause'.

VLC already supports many more formats than WMP, but you can add even more from the excellent site Codec Guide (www.codecguide.com).

Record your Skype calls

Skype doesn't include a tool for recording your calls, but it's more than happy to let developers hack one into existence. In fact, rather than crack down on third-party recorders, Skype has compiled a clickable list of them (www.snipca.com/15310). It's a great attitude – and helpful, because Skype has already done the work of filtering out malicious, rubbish plug-ins.

The best on the list is MP3 Skype Recorder (MSR, www.snipca.com/15312), which is free, regularly updated and has an online manual (www.snipca.com/15314). Click Free Download Windows, run the installer and tick the licence agreement to confirm your recordings are for private use only. There's no adware to opt out of.

MSR automatically records your Skype calls as MP3 audio files, which are only saved on your computer; nothing is sent to a **server**. If you delete one of the saved calls, no-one else has a copy.

The only real catch with MSR is that it doesn't record video. Video-capturing software either costs money or litters your PC with adware (see box, page 54), and dedicated Skype video recorders cost a fortune (Vodburner is a hefty £70, www.vodburner.com/win). Don't bother. MSR automatically saves an audio recording of your video calls, and that's

Back Issue CD 2014 on sale now!

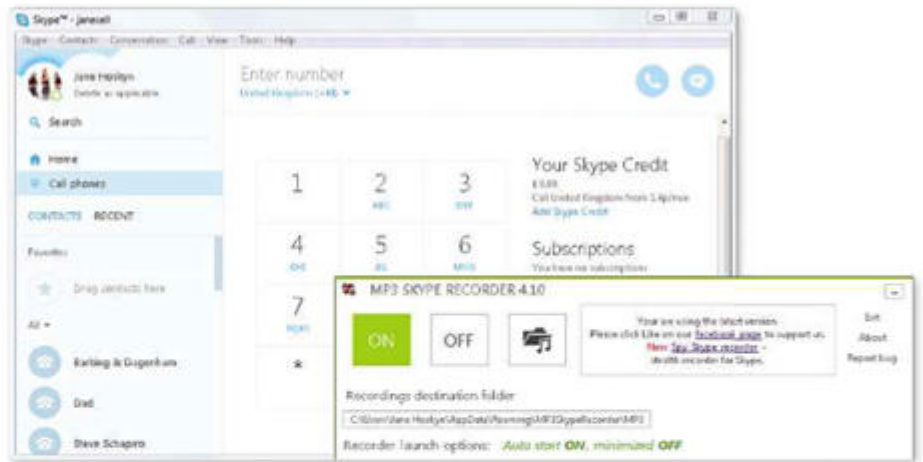
Pre-order the CD on Amazon via www.snipca.com/14981



all you need if you want a record of that important conversation with your bank manager or the council.

Another Skype-improver worth a look is the free plug-in Clownfish (www.snipca.com/15317), which translates your Skype text messages into your correspondent's language in real time. If you live abroad and need to contact a local doctor, Clownfish could be a life-saver.

By the way if you need to install the latest version of Skype (www.snipca.com/15315), make sure to untick the Bing and MSN tools offered in the setup wizard – unless you really, really want them.



Automatically record your Skype calls using free plug-in MP3 Skype Recorder

HACK YOUR SOFTWARE TO MAKE IT FASTER

Open Word and Excel files instantly

Opening Word or Excel, then finding and opening the document or spreadsheet you want, is a frustratingly slow business. Save your time and sanity with a couple of simple Windows hacks that don't require any plug-ins.

First, pin your most-used folders, documents and spreadsheets to the Windows Explorer Jump List. This is the list of items that appears when you right-click Explorer on your taskbar. Just drag a file or folder from the Explorer window to the taskbar icon and let go when you see 'Pin to Windows Explorer'. Now you can open the item without opening Word or Excel manually first.

To save even more time, add an 'Open with Notepad' option to the right-click menu for any file, so you can instantly check what's in a document or spreadsheet, without opening Word or

Excel at all. This involves an easy Registry hack. Type **regedit** into Start, press Enter and click Yes to open Registry Editor, then navigate to **HKEY_CLASSES_ROOT*\shell**. Right-click 'shell' and create a new key called 'Open with Notepad', then right-click it and create a new key called 'command'. Select 'command', double-click '(Default)' on the right and type **notepad.exe %1** (with space), then OK. This adds 'Open with Notepad' to the right-click menu for any file, not just documents.

Do anything faster in Chrome

Google's browser isn't the silver-grey dream machine it once was. What's a Chrome devotee to do? First, save time by adding extensions that give you one-click (or even one-glance) access to your most-used tools. See Gmail messages on your browser bar with Google Mail Checker (www.snipca.com/15327); send

links with one click of the brilliant Pushbullet extension (www.snipca.com/15328); and instantly send web content to your Chromecast with the new Google Cast extension (www.snipca.com/15326). All are free, safe and hosted by the Chrome Web Store, where we've spent many an afternoon browsing brilliant tools.

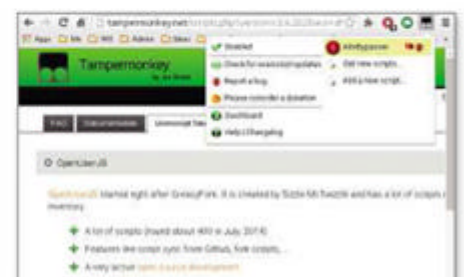
The trouble with extensions is the more of them you add, the slower Chrome gets. In Chrome, each extension triggers a new **process**, which really slows things down. So if you want lots of browser tools, use scripts (lines of code) instead.

To find and run scripts you need a script manager, and there's none better than Tampermonkey, which is free (Chrome www.snipca.com/15329, Android www.snipca.com/15330). Its website includes a warning that we heartily echo: "Malicious scripts can violate your privacy and act on your behalf! You should only install scripts from sources that you trust."

Next, you need to find scripts to install and manage in Tampermonkey. Greasy Fork (<https://greasyfork.org/en>) is a script library that "strives to block spam and scam scripts" and hosts the excellent AntiAdware script, which – manna from



This quick Registry edit lets you open any document or spreadsheet in Notepad



Add scripts to Chrome using Tampermonkey's free web tool and bookmarklet



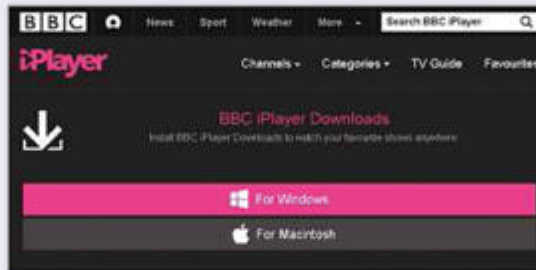
WHY YOU SHOULDN'T HACK IPLAYER DOWNLOADS

GET THE BEST OUT OF IPLAYER

The biggest improvement you can make to the BBC iPlayer is to stop using its online version and switch to the free iPlayer Downloads tool (www.snipca.com/15320) instead. It lets you save shows to watch offline, with no buffering or pauses – but only for 30 days. After that, the files won't play.

Don't try to hack your iPlayer files into lasting forever. People do, but their methods are either useless or dangerous. First, they try to remove the licensing code that's written into the BBC's files. Google lists many tools for doing this, but they're either expensive or fill your PC with adware.

Another strategy is to use a screen recorder. We gave this a go, because it seemed easy, and even legal – after all, we've been recording programmes on VHS for years. Screen-recording tools tend to be pricey, so we thought we'd struck gold with free open-source program CamStudio (<http://camstudio.org>). It sounded like we could use it to record anything that moved: YouTube



Switch to the iPlayer Downloads tool to get the best out of the BBC iPlayer

videos, animated Google Doodles, online tutorials. Too good to be true? Too good to be safe, actually. We opted out of every unwanted extra during setup, but it installed its rubbish anyway. For that reason, we urge you not to go anywhere near it.

HACK WITHOUT BEING HACKED

Media software and plug-ins are serial adware offenders (even Skype, as we've seen), so be extra careful when installing tools like this. Media software is expensive to make, so free programs are often funded by furtively bundled advertising.

Plug-ins and extensions are such small,

simple pieces of software that they're easy for hackers to modify in dodgy ways. What's more, because they integrate with a browser or program, they can potentially access your data. This is why plug-ins like Adobe's Flash Player have to be patched so often to fix security problems (see Protect Your Tech, page 16).

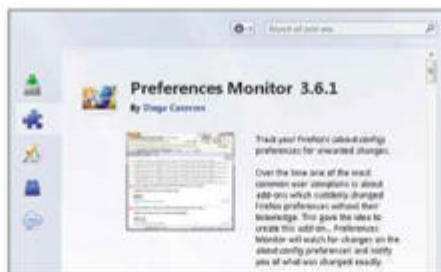
But plug-ins are also some of the most useful programs you'll ever download. Just make sure to install extensions from official sources (Chrome is particularly strict about monitoring safety in its Web Store, www.snipca.com/15323). With plug-ins, go for portable tools wherever possible (CCEnhancer, for example) and opt out of any offered extras. Make sure your antivirus is updated and enabled, and have the latest version of AdwCleaner (www.snipca.com/15322) saved to your Desktop to remove any nasties that do sneak into your system.

heaven – aims to block adware in installers (www.snipca.com/15332).

Make Firefox your fastest browser ever

Alternatively, dump Chrome for Firefox. Firefox is a great choice for fans of browser tools and speed, because it has many more extensions than Chrome – 18,000 and counting – and they don't trigger separate processes, which saves on memory.

You can make Firefox even faster with the extension SettingSanity (www.snipca.com/15336), which speeds up page downloads by letting you disable all images and JavaScript with one click. We'd also recommend EdgeWise (www.snipca.com/15338), which lets you perform browser actions, such as Show All History and scroll down one full page,



Add Preferences Monitor to keep dodgy Firefox extensions at bay

with one mouse click.

Only add extensions from the official Firefox Add-ons site (<https://addons.mozilla.org>), or click 'Add-ons' in your Firefox menu), and read the user reviews before clicking 'Add to Firefox'. The extension Preferences Monitor (www.snipca.com/15333) helps to keep dodgy

add-ons at bay by monitoring any changes made to your Firefox settings, and only allowing the changes you approve.

Get Spartan in IE

Internet Explorer's customisation options are limited unless you're running Windows 10, in which case you can try the greatest browser tweak of all. Type <about:flags> in the IE address bar to open a brand new Experimental Features page, then click Enable under Experimental Web Platform Features. Click Apply Changes and restart IE. You won't see any difference, but IE will be up to 80 per cent faster (www.snipca.com/15335) – because you're now running the Spartan Edge rendering engine, a feature of Microsoft's forthcoming browser, codenamed Spartan. 

NEXT ISSUE On sale Wednesday 4 March

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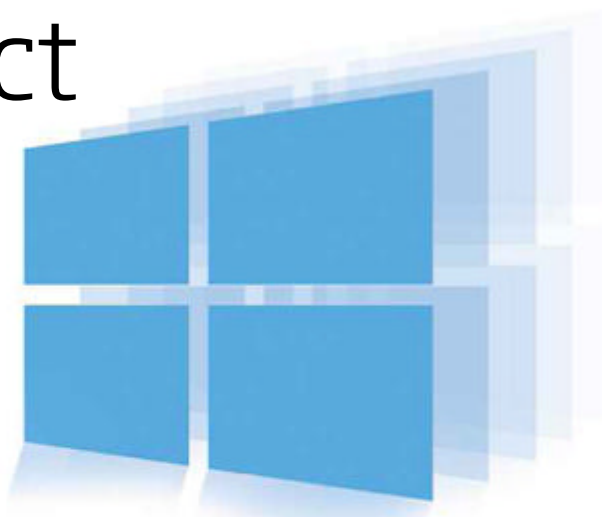
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PART 3

Build your perfect Windows 8 Start screen

In her penultimate guide to Windows 8, Jane Hoskyn discovers how to get one-click voice controls without waiting for Windows 10



Step 1: Don't wait for Cortana

My mission to improve Windows 8's reputation has just been made a darn sight harder by Microsoft, whose Windows 10 sounds brilliant (see News, Issue 442, and probably every issue from here on in).

But the proof of that pudding (codenamed Awesome, for pity's sake) will be in the eating, and it won't be served up until "late 2015". In the meantime we're being drip-fed tasty hors d'oeuvres like the voice-control tool Cortana, which is a few settings tweaks away in the latest Technical Preview (see Workshop, page 35). That's the Technical Preview that was going to be the Consumer Preview, until Microsoft changed its mind. Either way, Windows 10's not finished.

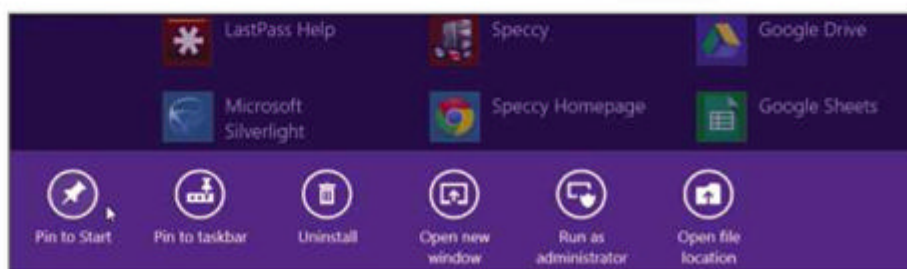
Would you rather put your treasured PC at the mercy of an unfinished operating system, or get the best bits of Windows 10 right now in Windows 8? As someone whose laptop lost a fight with the Technical Preview, I favour the latter.

Cortana is not the only voice-control tool available. In fact, you've already got voice controls in Windows 8 (I'll stick to saying Windows 8 if that's OK. As I've pointed out before, 8.1 is a required upgrade, so it's part of Windows 8). Microsoft has a page on setting up and using Windows Speech Recognition (www.snipca.com/15186), but it doesn't shout this from the rooftops because it wants us all to wait for Cortana.

Step 2: Add a voice-control tile to your Start screen

Windows 8's Speech Recognition app isn't bad, but there are better third-party alternatives. Install one, add it to your Start screen, and you can start ordering your PC around straight away.

First, a spot of history. Cortana's



You can pin any app or installed program to your Start screen

ancestors are 'intelligent' mobile assistant apps like Google Now and Apple's Siri. While examples of Siri's lack of intelligence abound (<http://whysiriwhy.com>), it has improved a lot, and Google Now is fantastic. Say "OK Google, play Bohemian Rhapsody" to your Android phone or tablet, and you'll be treated to instant Freddie Mercury – provided the song is saved somewhere in your Google account.

Siri and Google Now aren't yet available for your PC, but the free new program Braina (www.brainasoft.com) is a very capable stand in. To get the free version, go to www.snipca.com/15185 and click the purple Download button. It installed without fuss on my Windows 8 PC and didn't drag any adware along for the ride. We'll take a closer look at Braina, and other free voice-control tools, in our next issue (out Wednesday 4 March).

Once I'd installed Braina it took me all of 12 seconds to add it to my Start screen for instant access. I clicked All Apps (bottom-left of the Start screen), right-clicked Braina's tile, then clicked 'Pin to Start' on the pop-up bar of icons (see screenshot). You can create tiles for as many programs as you like, or for any file or folder on your PC – similar to shortcuts on your Windows 7 or XP Desktop.


You'll notice Microsoft shuffles your program tiles to the right of your Start screen to make way for Windows Apps

tiles. You may not even be able to see them unless you delete most of your apps tiles, as I did in the last issue – my little territorial victory over Microsoft.

Step 3: Give up your shortcuts

Why not just use Desktop shortcuts instead of tiles? Because tiles are more useful, faster and much easier to manage. In fact, now I've discovered the joy of tiles, I'm a bit miffed Microsoft plans to shrink them all into a kind of hangnail off the side of the Windows 10 Start menu.

The whole point of tiles is that they're big enough to contain real-time information, without you needing to click them and open their corresponding program. For example, if you create a shortcut for Outlook, you'll see updates about your latest incoming emails. Create a tile for Windows Task Manager and you can see instantly what's hogging your memory.

Desktop shortcuts, by contrast, need a good click to serve any purpose, and they can quickly turn into redundant clutter. Whenever I try deleting Desktop shortcuts for installed programs, Windows warns me that I'm about to uninstall something. No I'm not; I just want to delete its shortcut. Windows 8 has resolved this misunderstanding and made it far easier to control what you see on your PC's Desktop. 

WHY YOU NEED an SSD & how to install it

In our guide to replacing your hard drive with an SSD, Jonathan Parkyn reveals why it's the best thing you can do for your PC



When it comes to getting more speed from your PC, you might consider adding memory, or possibly even replacing your old computer altogether with one that has a more powerful **processor**. But there's a cheaper, simpler way to make even the slowest computer run at lightning speed – and that's by

installing a solid-state drive (SSD).

An SSD is a replacement for your computer's hard drive (often referred to as 'hard disk'). Because of the way they work, SSDs are significantly faster than normal hard drives, slashing boot times, making programs launch quicker and giving Windows itself a huge overall performance boost.

Not only that, but they're also immune to many of the problems associated with traditional storage media, such as **fragmentation**.

Until recently, SSDs tended to be very expensive, but with prices falling to less than £50, they've suddenly become a much more viable prospect for all PC users.

WHY YOUR PC NEEDS AN SSD

What are the main advantages?

SSDs write and retrieve data much faster than hard drives. Think of it like this – a hard drive is a mechanical device, a bit like a record player, with spinning platters and a needle-like read/write head. When your PC needs to find or save a specific file, the read/write head needs to physically locate the data, bits of which are often strewn randomly across the surface of the drive.

With an SSD, there are no moving parts; just flash memory, similar to the **SD card** in your digital camera. Without any mechanism holding them back, SSDs are able to read and write data in less time, making everything about your computer happen faster. When you start your PC, for example, instead of your hard drive having to grind away, tracking down hundreds of Windows launch files that happen to be scattered all over the place, an SSD can retrieve all the necessary data in seconds, reducing your

boot time to a fraction of what it was before. It's the same with applications – programs are much quicker to launch when you're using an SSD.

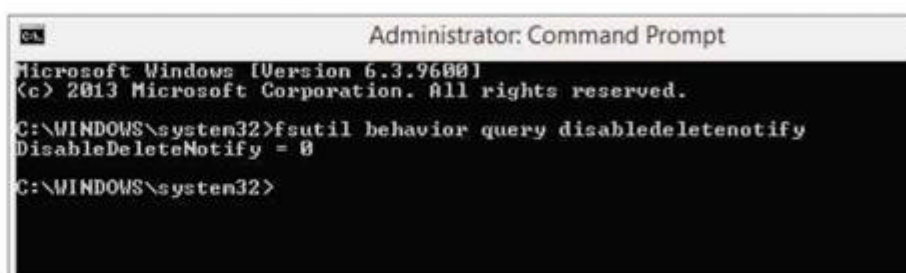
To give you some idea, we recently replaced the 500GB drive in our budget test PC with a £45 120GB SSD and ran some benchmark tests. This relatively cheap, simple upgrade meant we were able to slash Windows 7 boot times from 91 seconds to 32 seconds – that's almost two-thirds faster. In another test system, the same upgrade cut boot times from

35.5 seconds to just 15.7 seconds.

Speed isn't the only advantage. SSDs are cooler, quieter, more energy-efficient and far less likely to break down.

What are the downsides?

Before you grab your wallet and your screwdriver, there are a couple of small caveats to bear in mind. The first is that, at larger capacities, SSDs quickly become less cost-effective. Currently, there's a sweet spot in terms of price-per-gigabyte at around the 120GB mark, where it's



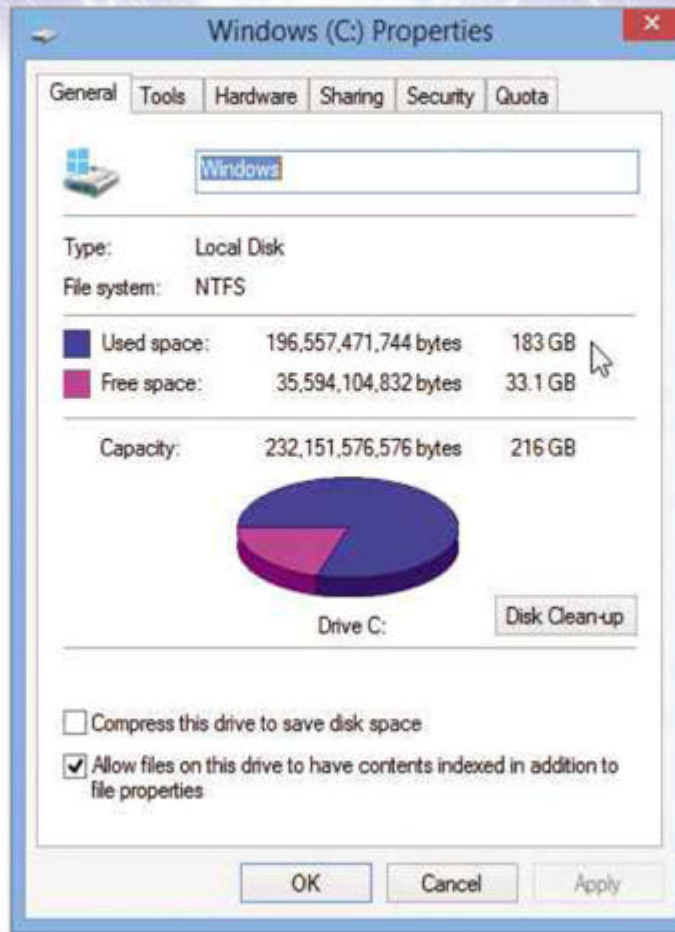
Check whether an older PC can support an SSD by using the Command Prompt

possible to buy an SSD for between £45 and £60 online. 240GB SSDs have recently started plummeting in price too, so keep your eye out for a bargain. But if you're after a like-for-like replacement for, say, an existing 1TB HDD, then you're looking at prices above £300.

You won't be able to install an SSD in a computer that's running an operating system (OS) older than Windows 7. You may also encounter problems if your PC is more than five years old. If it is older than that, you'll need to make sure its storage controller supports a technology called Trim. You can find out in the Command Prompt. Type **cmd** into Start, then right-click Command Prompt ('cmd.exe') and select 'Run as administrator'. At the prompt, type **fsutil behavior query disabledeletenotify** and press Enter. (Note the US spelling of 'behavior', see screenshot left.)

If you then see the message 'DisableDeleteNotify = 0', it means Trim is supported and enabled on your PC. If you see 'DisableDeleteNotify = 1', then Trim is supported but disabled. To enable it, type **fsutil behavior set disabledeletenotify 0** at the prompt and press Enter. If you're still in doubt about Trim support, refer to your PC's manufacturer.

Like SD cards and other types of **flash memory**, SSDs have a limited number of times you can rewrite to them before they start to degrade. This is usually in the hundreds of thousands – more than most of us would ever carry out over the life cycle of a PC's drive.



Check the used space on your C: drive before choosing what size SSD to buy

specifications. The actual speed will be lower, but maximum speeds are still useful as a guide. Ideally, look for newer drives that read and write at 400GB/sec or more.

We recommend getting an SSD that comes as part of an upgrade kit. This will add a few pounds to the overall cost, but it's worth it. Upgrade kits not only provide the screws and cables needed to fit your drive into your PC, but they also provide accessories and software you can use to **clone** your old drive before you upgrade it. This makes the whole process infinitely simpler.

If you know someone else who has recently upgraded to the same brand of SSD, you could save a few pounds by opting for a standalone drive and borrowing your friend's upgrade kit and cloning software. Alternatively, you could use free drive-cloning software, such as Macrium Reflect Free

How do I choose the right SSD?

Capacity and speed are your main considerations. Aim to buy an SSD that's greater in capacity than the current used space on your system drive (your Local Disk or C: drive). To see how much space you've used, open Windows Explorer (Win+E), right-click the C: drive and choose Properties, then look at the number of gigabytes next to 'Used space'.

SSD manufacturers tend to quote maximum read and write speeds in their

(www.snipca.com/15226).

Virtually all SSDs are 2.5 inches in size – the same as hard drives used in laptops. Desktop PCs, however, have 3.5in drive bays, so if you're replacing your desktop PC's drive you'll need an adapter to fit the SSD into the bay. Some SSDs and upgrade kits are supplied with a 3.5in adapter, but they're cheap to buy separately – here's one for just a couple of pounds on Amazon: www.snipca.com/15220.

HYBRID DRIVES: THE SMART BUDGET OPTION

While large-capacity SSDs are expensive, there is a way to get a more spacious drive that offers the speed benefits of solid-state technology at a price that's more in line with large-capacity traditional hard drives.

Hybrid drives, such as Seagate's SSHD range (www.snipca.com/15229), are old-fashioned mechanical hard drives (HDDs) with a bit of fuel-injected SSD technology thrown into the mix.

Available in sizes up to 4TB, hybrid drives include a dedicated area of

flash memory, where your PC's most frequently used data is stored. The result is faster boot times, quick-loading programs and overall speed improvements, but with plenty of storage space to spare.

You won't get quite the same performance gains as you would with a pure SSD, but hybrids cost a great deal less per gigabyte. A 1TB Seagate SSHD currently costs just £64 from Amazon (www.snipca.com/15225, see image right).



Hybrid drives, like this 1TB Seagate SSHD, cost less than SSDs with a similar capacity

HOW TO FIT YOUR NEW SSD

Get your PC ready for an SSD

Before you install an SSD, make a full backup of your computer to an external hard drive. Then you'll need to migrate all the data on your system drive to the SSD. If you bought an upgrade kit, use the program that came with it. Kingston SSDNow V300 kits (www.snipca.com/15227), for example, come with a bootable CD that runs Acronis True Image.

Precise instructions for cloning will vary depending on the drive and software provided, so we won't go into any detail here. In most cases, it'll involve attaching the new drive to your system via a supplied USB adapter first, then running the cloning software and following its on-screen instructions.

Remove your old hard drive

Shut down your PC and unplug it from the mains. If you're upgrading a desktop PC, remove the side panel and look for

the hard-drive bay. Unplug the **SATA** and power cables and remove the existing drive. The drive may be attached to the bay with screws or clips and should slide out. Alternatively, if there's a spare drive bay and you have an additional SATA cable, you may be able to leave the existing drive where it is for storage, though this will require additional configuration (see box on page 59).

If you're upgrading a laptop, remove the battery pack first, then look for the hard-drive access panel. This is usually underneath your laptop or on the side – refer to your instruction manual for the precise location. You'll usually need to unscrew the panel to remove it. There's often a tag you can pull to extract the drive from the laptop. You may then need to unscrew the drive from a bracket or tray and remove any shock-absorbent pads. Incidentally, if you no longer have the paper manual for your laptop or desktop PC, try searching the online

manual databases eSpares (www.espaces.co.uk/usermanuals) or Users Manual Guide (www.usersmanualguide.com).

Fit the new drive

Inserting the SSD into a desktop PC's drive bay (see step-by-step guide below) will involve attaching the drive to your 3.5in adapter (usually via four screws), attaching the SATA and power cables, then sliding the assembly into the empty drive bay and fixing it into place with either screws or clips (depending on your PC's case).

If you're replacing a drive this is simple – just use the cables that were previously attached to the drive you removed. If you're also keeping the old drive, then use a new SATA cable to connect the SSD to the **motherboard**. There should be a spare power cable nearby – most PC cases have a few spare, though you may need to get an internal power-splitter cable if not. There may be

STEP BY STEP: INSTALLING YOUR NEW SSD

1



Back up your PC and remove your old hard drive. Mount the SSD in a 3.5in adapter, then connect the SATA data cable.

2



Next, connect the SATA power cable, which has a wider connector than the SATA data cable. Be careful – any excess downward pressure can break the clip that holds it in place.

3



Slide the SSD (in its adapter tray) into an available drive bay in your PC. Your PC's manual will have more information about finding and using the bays.

4



Finally, plug the SATA cable into your PC's motherboard. If you want to boot from your SSD, plug it into the lowest-numbered SATA port.

RUN AN SSD AND HARD DRIVE IN ONE PC

You don't have to choose between a hard drive and an SSD – why not run them both in one PC? You'll need more than one drive bay, but if you have that it can save you a lot of money.

Buy a lower-capacity SSD (60GB models cost about £35) to use as your system drive, and keep your existing hard drive for personal data such as documents, photos and videos. That way, your OS and programs still get the maximum speed benefit of the SSD.

You'll need to back up all your personal files to an external drive, delete them from your system drive before you clone it, then restore them to the old hard drive once you've finished.

Laptop users will need an external enclosure for their old hard drive (about £10 online). Desktop PC users can keep both drives internally, but will need to tell the PC which drive to boot from – this is usually done in the Boot Priority setting of the BIOS.

a power splitter included in your SSD upgrade kit. If not, buy one from Amazon for under £3 (www.snipca.com/15221).

Laptop users may need to fasten the SSD into the empty drive tray and replace any shock absorbers as needed, before sliding the assembly back into the drive bay. The SATA and power connections are usually internal and only fit one way round, so push the drive into place gently but firmly.

Restart your PC

With the new drive installed, replace any access panels, plug the PC back into the mains and switch it on. If everything has gone according to plan, Windows should start as normal... but much, much faster! If it doesn't, don't worry – if anything has gone wrong at any point during the process, you can always put your old hard drive back and try cloning it again.

Back Issue CD 2014 on sale now!

Buy the CD on Amazon at www.snipca.com/14981



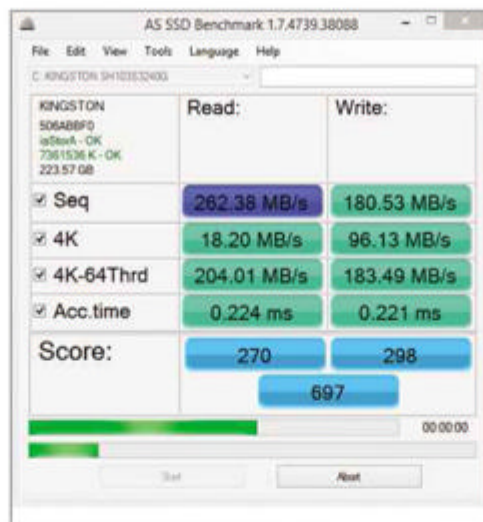
GET THE BEST FROM YOUR NEW SSD

Check your SSD's speed and health

Now you've got your new SSD installed, you're probably eager to know how fast it is. A free benchmarking tool called AS SSD (www.snipca.com/15222) can tell you exactly what your drive's actual read and write speeds are. Don't worry that the web page is in German – the program itself displays in English. Scroll down to the Download icon at the bottom of the page to download the program's ZIP file, then extract the ZIP and double-click the EXE file to run it. The program is portable, so you don't have to install it.

SSDLife Pro (www.snipca.com/15228), which is free despite its Pro tag, lets you keep an eye on your SSD's health and even get an estimated lifespan. The free portable version gives you a quick snapshot of the SSD's and unused space, along with the total length of time the drive has been running, a health bar and details on amounts of data your SSD has crunched. The program can also tell you whether Trim is enabled.

To install SSDLife, just click the green download icon and run the installer. It doesn't contain any adware. Confusingly,



Discover how fast your SSD really is using the free, portable program AS SSD

there is also a 'professional' version, which costs \$21 (£14) and has a few extra features, such as monitoring more than one SSD in the same PC. If you try running either program on a PC without an SSD installed, you'll just see an error message.

Automatically boost your SSD

SSDs don't suffer from data fragmentation like hard drives do, but they still need looking after if you want to get the best



Monitor your SSD's health and find out how long it has to live using SSDLife Pro

out of them. Tweak-SSD (www.snipca.com/15224) makes this easy by automatically taking care of your drive and optimising it for you. It provides a number of SSD-related boosts, most of which can be applied by working through the simple 'SSD optimization wizard'. The free version is limited, but the full paid-for version, which costs £9.84, lets you optimise Trim settings, making read and write speeds even faster. **ca**

BEST FREE Simulators

Simulator programs let you fly planes, drive trains and even get a goat's-eye view of the world from your PC or armchair. Jane Hoskyn reveals our free favourites



In 1903, Wilbur Wright (with a little help from brother Orville) built the world's first successful airplane.

Nearly a century later, a man named Will Wright helped pioneer flight simulators. Who doesn't enjoy a coincidence like that?

Wright (Will, not Wilbur) wasn't responsible for the first-ever flight simulator, but he did invent the simulator genre with his 1989 game *SimCity*. It spawned numerous spin-offs, including *SimCopter* and *SimFarm*, and inspired a whole industry of programs, apps and websites that let you fly planes, tour real-world cities and explore deep space in amazing detail from the safety and comfort of your PC.

SimCity is still hugely popular, and a 'Special Edition' of *SimCity 2000* for PC (www.snipca.com/15202) was free for a while to provide some winter cheer (see our Cover Feature, Issue 440). The game has now reverted to its usual price of £4.99 – still fantastic value, given how much you *can* spend on simulators (here's a PlayStation Ferrari wheel for a cool 500 quid: www.snipca.com/15203). We'd rather save our cash and fly, drive and orbit the world without paying a penny.

Fly a plane

Open-source program *FlightGear* (www.flightgear.org) has been around for nearly two decades now, but it's constantly being improved and is still leagues ahead of its

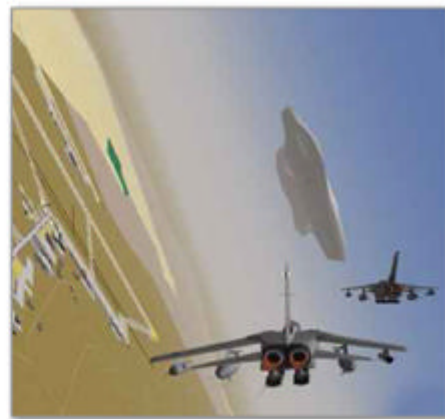


Choose your plane and explore the world in detail with *FlightGear*

free flight-simulator rivals.

The latest version 3.2 (www.snipca.com/15232) lets you man the cockpit of more than 400 passenger jets, helicopters, war planes, airships and even the Wright Brothers' Flyer. You've got even more choice where you fly, with 20,000 real-life airports rendered in amazing detail, and thousands of miles of real-world scenery in between (we say scenery; they say "seamless, continuous oblate ellipsoid world"). It's a vast labour of love and obsession, put together by an army of volunteers who've also created the fans' go-to site *FlightGear Wiki* (www.snipca.com/15208) and a detailed, free online manual (www.snipca.com/15209).

There is a catch. The program is huge,



YSFlight lets you join a squadron of high-speed jets – without slowing down your PC

so it's a real pain to install. First you have to choose a **download mirror** (the options appear when you click 'Download Now!' on the homepage), then wait for the 1.2GB installer to download, and only then can you start setting up the program.

If you and your PC don't want the hassle, we'd recommend *YSFlight* as a memory-light alternative (<http://ysfhq.com>). This free, small (8.8MB) program works on all versions of Windows since 2000. While it won't win any CGI awards, it doesn't skimp on options. There are scores of aircraft to fly or just watch, missions to accomplish and free ("always free") extension packs for adding new routes, missions and vehicles. The vehicles range from Ferraris to *Star Wars* trucks (check the forum for the latest:

AROUND THE WORLD IN 8 FREE SIMULATORS

Sorry, we haven't got room for 80, but this lot should keep you busy...

1 CLIMB MOUNT EVEREST and explore the Himalayan landscape with free app Mount Everest 3D (Android www.snipca.com/13215, iOS www.snipca.com/13217).

2 TOUR ROME at the wheel of the Giagi Driving Simulator (www.snipca.com/15246, click Tour), which requires the Google Earth plug-in (www.snipca.com/15247).

3 EXPLORE THE OCEAN FLOOR as a deep-sea diver (or a squid!) with

the online Savage Seas simulator (www.snipca.com/15253).

4 GET INSIDE ENGLAND'S GOLD VAULT using the free Bank of England Virtual Tour app (Android www.snipca.com/13225, iOS www.snipca.com/13287).

5 DRIVE DOWN LAS VEGAS STRIP with the Google Maps-based version of 2D Driving Simulator (www.snipca.com/15245).

6 FLY A BETTY BomBER OVER JAPAN with World

War II simulator WarBirds (www.snipca.com/15256). Register to download free.

7 HEAD FOR THE BEACH in wonderful 8bit-style graphics, courtesy of free online game Holiday Sim (www.snipca.com/15263).

8 BE A GOAT and butt walls, cars, people and anything in your realistic 3D path, using free app Crazy Goat (Android www.snipca.com/15265, iOS www.snipca.com/15266). It's inspired by the brilliant, but paid-for, Goat Simulator (www.goat-simulator.com, £3.99 for Android and iOS, £6.99 for PC).



www.snipca.com/15233). YSFlight even lets you customise the weather. If only you could do that in real life!

Drive a train

Finding train simulators online is like looking for hay in a haystack. There are so many, for every budget, platform and disposition, that it's hard to weed out the good stuff.

Steaming ahead of the pack is Open Rails (<http://openrails.org>), which is unbeatable and completely free. This open-source project is similar in style and scale to FlightRadar, with a mind-boggling choice of trains and tracks, as well as its own wiki site (www.snipca.com/15241), featuring a manual and forum.

Open Rails grew from the ashes of the classic Microsoft Train Simulator (MSTS), and most MSTS files (routes, extensions and so on) are supported by Open Rails. You can download many of these files free from the File Library section of Train Sim (www.trainsim.com), a kind of Internet Archive for train simulator fans. If you have an old copy of MSTS kicking around, visit Train Sim's 'How To...' section (www.snipca.com/15240) for advice on

making it work in Windows 7 and 8.

We also like the free Train Sim app (Android www.snipca.com/15243, iOS www.snipca.com/15244). It's not related to the Train Sim website. Man the controls of numerous trains and speed through a wide range of 3D environments, including a city's underground network. There are no in-app purchases to worry about, so a child can use it without running up a bill.

Explore deep space

Join the space race with Rodina (www.snipca.com/15211), a vast computer-generated universe you explore from a virtual space station. Click the Direct Download link to get the installer. Rodina fans will also like Limit Theory (<http://ltheory.com>), a virtual universe that's currently only available as a free prototype (www.snipca.com/15235). We'll let you know when it gets a stable release.

If you'd prefer a more educational and less game-like journey through space, try the Solar Walk app (Android www.snipca.com/15214, iOS www.snipca.com/15215). The free version lets you explore Saturn and its moons in amazing



Explore a vast virtual universe from your own space station with Rodina

detail, using your fingertips to zoom in and out. You can also see their positions on any given date and explore their geography and history. Other planets, missions and spacecraft are available as in-app purchases.

The biggest solar system exploration app isn't even ready yet, but we're excited enough to tease you with it. Space Simulator (www.space-simulator.com) is due out soon for Android and iOS, with a PC release further down the line. Click Register to sign up for news about the release, and gaze in awe at the 'work in progress' screenshots (www.snipca.com/15236).

You can kill time while you wait by taking control of the Apollo 11 Moon Lander (www.snipca.com/15248), a beautiful, free simulator that works entirely online (requires the Google Earth plug-in, www.snipca.com/15247). Finally, and purely for laughs, try your luck with Comet Landing Simulator (www.snipca.com/15216), inspired by last November's bouncing space probe Philae (www.snipca.com/15239). **ca**



Steam through the countryside on your PC using free simulator Open Rails

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Problems Solved

PROBLEM OF THE FORTNIGHT

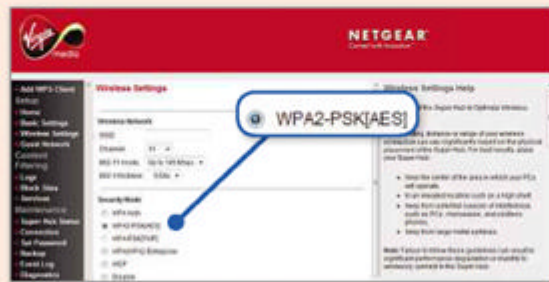
Why is my Virgin Media Super Hub Wi-Fi so slow?

Q I use my laptop extensively and have it connected

via an Ethernet cable to my Virgin Media Super Hub. I get reliable download speeds of 93Mbps, but if I disconnect the cable and switch to Wi-Fi, the speed drops to around 23Mbps, even in the same room.

The Super Hub is not obstructed and is on a shelf about 1.5m above the floor.

Is this as good as it gets or can I improve wireless speeds? My laptop is an HP Pavilion G6.



Make sure that your system is set to use the latest available wireless-security mode if your Wi-Fi is slow

Neil Morley

A It's certainly not as good as Wi-Fi gets and it's likely that your equipment is capable of much better.

You didn't tell us which Super Hub model you have. The most recent version that's widely used is Super Hub 2, which is around 18 months old. This adheres to the **802.11n** wireless standard for Wi-Fi speeds of up to 450Mbps. The original model doesn't have as many antennas, but it's still capable of up to 300Mbps. Your laptop also supports 802.11n. An updated Super Hub due to be released soon will offer **802.11ac**, for speeds of up to 1,300Mbps.

Obviously these speeds are theoretical maximums and you should expect quite a bit lower in the real world, but really not as low as you're experiencing. So, we reckon a few investigations will help you to ramp up the speed.

First, log into the router. Launch a web browser, type **192.168.0.1** into the address bar and press Enter. If you haven't changed the default login details (and you really should), then the username is 'admin' and the password

'changeme' – so type these in then click the Sign In button.

Now click Wireless Network Settings. Start by checking the 802.11 mode, which you want to set to the highest-available figure. You'll also want to check the wireless band. For the best possible speed you'll need to choose 5GHz. However, note that by doing this some of your older Wi-Fi devices may stop working with your Super Hub, as it's possible that they'll only support the 2.4GHz standard. Regardless, we suggest trying it for experimentation purposes – you can always switch back to 2.4GHz later. If you have the newer Super Hub 2, it anyway supports simultaneous 2.4 and 5GHz connections, so it shouldn't be a problem. Also make sure that your system is set to use the latest available wireless-security mode, which should be **WPA2** (or 'WPA2-PSK[AES]').

As well, try a wireless channel at the opposite end of the available spectrum, just in case your Super Hub or laptop signals are clashing with a neighbour's. So, for example, if the wireless channel is currently set to 11, switch it to 1 or vice versa. Channel 6 is another option, as it is equidistant in terms of overlapping signals.

A free tool such as Wi-Fi Inspector will let you check the channels used by your neighbours, so you can make an informed choice. Get it from www.snipca.com/14873.

What is this Windows Live Mail message?

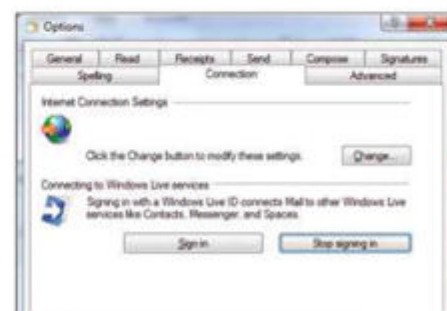
Q I have Windows Live Mail on my laptop, which runs Windows 8.1. Every time I open Windows Live mail, I get a small window with the message: "To help protect your account information, please sign in again". I can clear it by clicking the red X and everything works normally. So far I haven't signed in. Is it genuine? And how can I stop it appearing each time I open up?

Brian Hillier

A Yes, this is genuine. If you have a Microsoft account (such as an email address ending in 'hotmail.com', 'live.com' or 'outlook.com') then you can sign into Windows Live Mail (WLM) and have it synchronise any calendars or contacts attached to your Microsoft account.

If this would be useful to you, then simply sign in with your Microsoft account username and password. However, if you have no desire to synchronise your data via Microsoft's servers then this login box is easily disabled. In WLM, open the menu by clicking the down-pointing arrow at the top left, point to Options and then click Mail. Now select the Connections tab and click the 'Stop signing in' button. Click the second 'Stop signing in' button to confirm (see screenshot below).

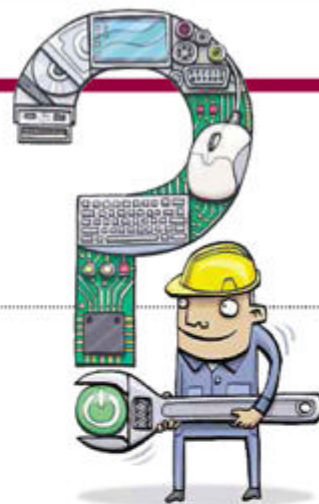
Should you later change your mind just follow these instructions again, but this time click the 'Sign in' button and then supply your Microsoft account credentials.



Click 'Stop signing in' to disable the option to synchronise your data via Microsoft's servers

Our experts solve all your tech problems

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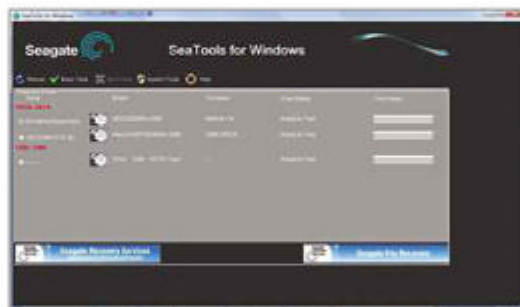


Can I recover data from a dead hard drive?

Q I've got a Lenovo C345 PC running Windows 8 and a separate Seagate Barracuda 7200.11 hard drive. I dropped this latter device on the floor and now, when I plug it into my Winstars docking station, the drive just makes a clicking noise. It does not seem accessible in any way. I've taken it to various shops to be fixed, but with no luck. I really need the data off this drive, as it's very important. Is there anything I can do?

Paul Martin

A A clicking hard drive is never a good sign, typically suggesting mechanical failure. So, while the data on the disc platters may still be in good order, the drive's read/write heads are failing to read it. These microscopic heads sit at the end of tiny, fragile arms that move back and forth across the platters, much like an old record-player arm. It is these arms that are somehow clicking: the cause could be that they're physically stuck or deformed; or perhaps



Install Seagate's diagnostic utility SeaTools to attempt to rescue data from a damaged hard drive

the drop shifted their position a fraction, so they're no longer able to read the platters.

Begin by installing Seagate's diagnostic utility, SeaTools – a free download from www.snipca.com/14878. Attach your drive before launching SeaTools and then wait while it scans your system. If your Barracuda is detected then tick its entry under Detected Drives and then work through the options under the Basic Tests menu, starting with 'S.M.A.R.T. Check', then Short Drive Self Test, then Short

Generic and Long Generic. You'll need to be guided by whatever SeaTools reports, but it's likely that you'll end up using the Fix All option to repair any errors.

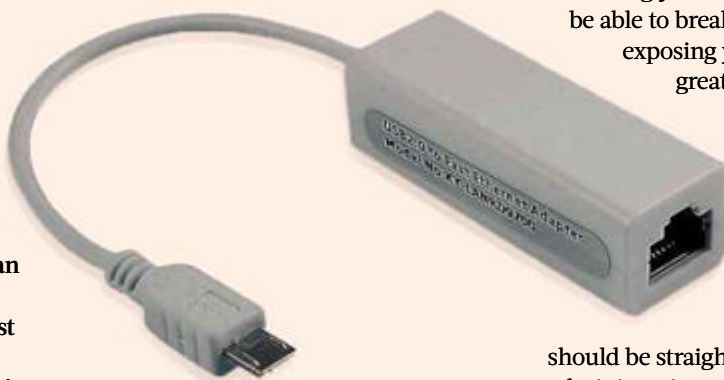
However, we're afraid none of this will occur because your drive is probably physically damaged.

There are many specialist data-recovery companies that will dismantle hard drives to get at the platters to attempt to recover the data they store, but such services are labour-intensive and therefore expensive. But if the data is sufficiently important to you, then you might decide it's worth paying for. Seagate runs its own data-recovery labs, at www.snipca.com/14879. The company charges a minimum fee of £80.40 to evaluate the drive, for which it will supply a detailed estimate of the cost of recovering some or all of your data.

Can I get my Android tablet web-connected with an Ethernet cable?

Q I have been given a Proscan PLT7602G tablet running Android 4.2. At my request my ISP turned off my router's wireless capabilities, because I don't believe Wi-Fi to be secure. I cannot get the wireless turned back on, and I wouldn't want to anyway because I have a data-usage limit and would worry about somebody else using it up. I can still connect using BT's public hotspots. The tablet's manual says that it can connect to an Ethernet port via a special adapter but my local computer shop reckons they're impossible to get hold of. Any ideas?

Karen Gathercole



If you want to avoid using Wi-Fi to go online with your tablet, use an Ethernet adapter like this one

A To be honest, our first suggestion would be to stop worrying about Wi-Fi being insecure, re-enable your router's wireless connection and connect that way. As long as you use modern encryption (select WPA2, basically) in tandem with a good password, it is

exceedingly unlikely that anyone would be able to break in. In fact, you're exposing yourself to much greater risk when you use

public hotspots, as you're apparently happy to do.

You didn't tell us anything about your router, but re-enabling Wi-Fi

should be straightforward via the administration page. This is usually accessed via a web browser on a connected computer, by typing **192.168.0.1** (or something similar – check your manual).

If you're determined not to use Wi-Fi, Android Ethernet adapters can be picked up online cheaply (such as this £5.50 model from Amazon – www.snipca.com/14956). Attach it and enable the Ethernet option that appears under Wi-Fi, in your tablet's Settings screen.

Problems Solved

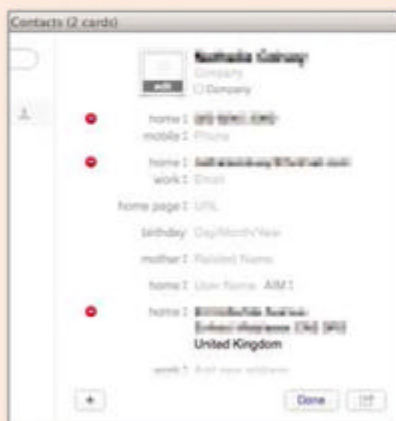
How do I stop my Apple Mac's auto-complete function?

Q I'm a fairly competent silver surfer who uses both a Windows 8.1 PC and an Apple Mac running OSX 10.10 (Yosemite). I read with interest your recent tip about deleting auto-complete history from a PC. I have a similar problem with my Mac, and I hope you can help. The Mac also has an auto-complete function that comes into operation when filling in online forms, automatically populating the fields. The trouble is that I moved house about 18 months ago and despite all my efforts auto-complete still tries to insert my old address, which I then have to manually amend. Any suggestions would be appreciated.

Andrew Fergus

A We're assuming you're using Safari, Mac OS X's default web browser? If so then amending your old details is straightforward. The feature is actually called AutoFill, which might explain why you haven't spotted it.

Launch Safari, click the Safari menu, then choose Preferences followed by AutoFill. To edit your information click the relevant Edit button; or to stop parts of or all aspects of AutoFill, just remove the ticks from the relevant boxes.



Update your autofill details in Safari via the browser's Preferences

How do I recover my hijacked web domain?

Q My personal website domain seems to have been taken over by something called YourSupportServices.co.uk, even though I have both Kaspersky Internet Security and Malwarebytes installed on my PC. As a result I can no longer use FTP or do anything with my website, as my password doesn't work. How has this happened and what can I do?

Richy Roberts

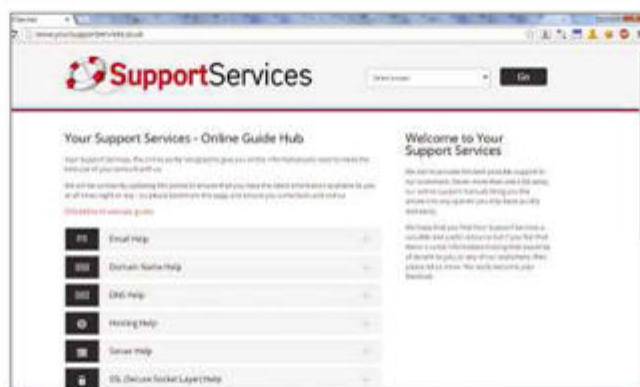
A First, you should understand that having security software installed on your PC offers little to no practical protection for your website, because its contents are stored

(hosted) on the **server** computers of whatever company you used to register and/or pay for web hosting. Your security software should prevent private information, such as passwords, leaking from your PC into the hands of hackers, but if your website has been hacked then the problem is at the server side, not your local PC.

However, we're not convinced that there's anything sinister going on here. It's possible, for example, that your domain registration or hosting package has expired. Have you contacted your web host? From what we can ascertain the YourSupportServices.co.uk holding page is put up by a company called

Iomart, which owns a variety of web-hosting companies – including the popular Easyspace brand.

We're guessing your website host is Easyspace and your hosting package has expired. So contact Easyspace to discuss – phone 0370 755 5088 or use the contact form at www.easyspace.com.



If you see this page when you try to access your website, it probably means your hosting package has expired

Why does Internet Explorer open with a blank page?

Q When I launch Internet Explorer (IE) it now opens with a blank page. Previously, it displayed Yahoo, which I consider my homepage. Why did this happen and how do I get it to go back to showing Yahoo as my homepage?

Louise Shield



Reinstate your preferred homepage in IE via Internet options

No matter, because it's very easily fixed.

First, visit the Yahoo homepage as normal (type www.yahoo.co.uk into the address bar and press Enter). Now click the cog icon at the top right of the IE window and click 'Internet options'. Select the General tab and, in the

A It's possible that you've installed a newer version of IE, which has overwritten your saved preference for Yahoo as your homepage.

'Home page' section of the dialogue box, click the 'Use current' button and then OK to confirm. Restart IE to see Yahoo reinstated as your homepage.

Are these real BT emails?

 During the past couple of months I've received several emails through my Mozilla Thunderbird program, purportedly from BT. They read: "Please confirm your BT Account information" and they're apparently from 'BT Mail Account'. I'm suspicious of these messages because other emails from BT are from 'bt.athome@bt.com' or 'bt.comms@bt.com'. I have therefore decided not to open these other ones. My email has been compromised in the past, so I would really appreciate your advice. What should I do here?

Don Parkinson

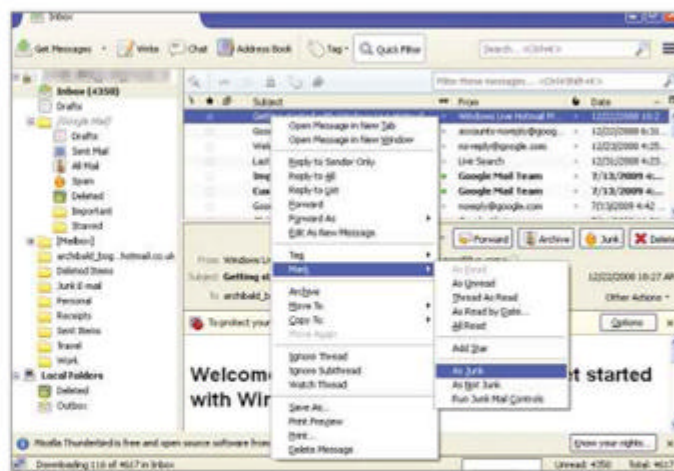
A You are quite right to be suspicious: these messages are almost certainly phishing attempts. While BT might contact its customers via email for promotional purposes, it would not ask them to confirm account details using this

method. BT makes this fact clear on its own help pages, where you can read more about phishing threats – www.snipca.com/14955.

As for the emails, there's really nothing to do other than ignore them or mark them as spam. To do this in Thunderbird, click the Junk button above the message-preview window.

If you don't have the custom toolbar enabled then you can instead right-click the message, point to Mark and then click As Junk (see screenshot).

Over time Thunderbird will ‘learn’ what you consider spam and move these



In Thunderbird, mark any suspicious emails As Junk by right-clicking the message, then clicking Mark

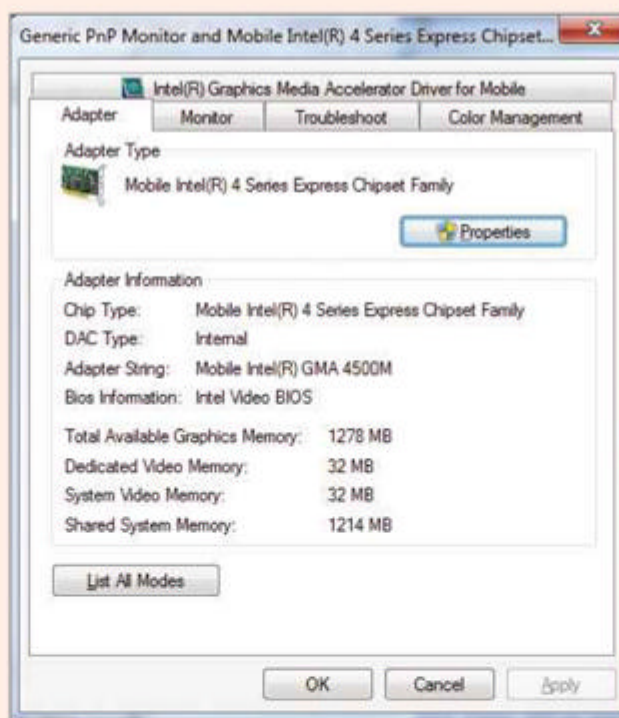
emails automatically. To modify how these junk filters work, click the menu button (three stacked lines), followed by Options. Next, select the Security tab and use the sub-tabs to customise the behaviour to your liking.

Why can't I run Windows 10 in VirtualBox?

Q I was keen to try the Windows 10 Consumer Preview, so attempted to install it into VirtualBox, which you covered in a Workshop (Issue 434). I set up a virtual PC without problem but when I mount the ISO, the following error message is displayed soon after: “VirtualBox is unable to allocate and lock memory”. My PC has a 2GHz Intel **processor**, 2GB memory, 100GB of free hard disk space and the **32bit** edition of Windows 7 Home Premium.

Bob Forrester

A The most likely scenario is that your system lacks sufficient memory to allow the amount you've tried to allocate to your virtual Windows 10 PC within VirtualBox. This might sound unlikely if, say, you allocated only 1GB of your computer's 2GB complement, but there could be memory thieves lurking inside



Check how much memory your motherboard's graphics hardware is using through your Control Panel

your machine.

It's possible, for example, that your PC lacks a dedicated graphics card and relies on a graphics chip integrated directly onto the **motherboard**: in this case the graphics might 'share' a sizable

chunk of your PC's 2GB memory, reducing the amount available to both Windows and other applications.

We can't say for sure how much your motherboard's graphics hardware might grab but it could 512MB or possibly even more. To check, click Start followed by Control Panel and then 'Adjust screen resolution' under 'Appearance and Personalization'. Now click 'Advanced settings' and select the Adapter tab.

Whatever your findings here, the solution is to reduce the amount of memory allocated to your virtual PC. As well, be sure to download the 32bit edition of Windows 10, and not the 64bit edition. This is

because Microsoft recommends a minimum of 1GB memory for the former version, but 2GB for the latter. Either version will work with less memory, but you'll have a better chance with the 32bit edition.

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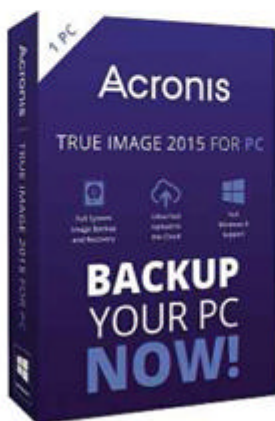
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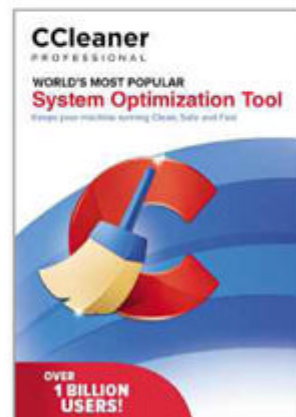
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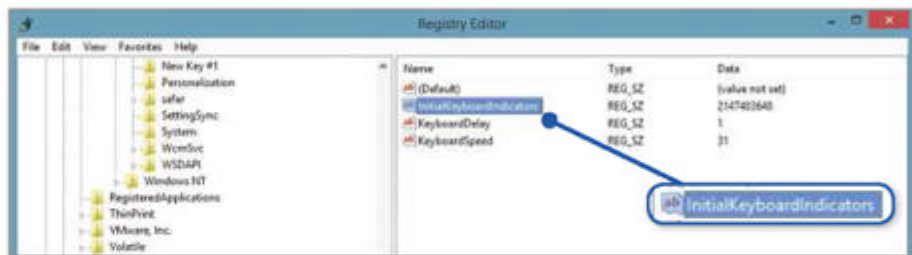
How do I find Windows Update in Windows 8.1?

Q I've just had to update my old computer to a new one (an HP Pavilion). I'm pleased with it, but I can't work out how to access Windows Update – or is this now all automatic? Another small problem is that every time I switch on my computer the Number Lock (NumLock) light goes off. I never had these problems with Windows 7.

Chris Scrivener

A We're assuming that your new PC has Windows 8/8.1. The default state for Windows Update is indeed to download updates automatically, but you can configure it however you choose. First, press Windows key+C to open the charms bar, then click Settings followed by 'Change PC settings'. Next, click 'Update & recovery' followed by Windows Update. To change the automatic default, click 'Change how updates get installed'.

As for the NumLock problem, there are



Make this Registry tweak to restore the Number Lock feature to your PC

a couple of solutions you can try. The first is to disable Windows 8/8.1's fast startup feature, as it is this that seems to cause the problem. Press the Windows key+X to open the Desktop menu, then choose Power Options. Click 'Choose what the power buttons do' followed by 'Change settings that are currently unavailable'. Finally, untick 'Turn on fast startup (recommended)'.

This should work but it will mean Windows launches a little slower. If you'd prefer to avoid that then there is a Windows Registry hack that has worked

for some people. Back up your computer before proceeding and then press Windows key+R to open the Run box. Type **regedit** and press Enter.

Next, click in the Registry Editor window's left-hand pane to navigate to this key: **HKEY_USERS\Default\Control Panel\Keyboard**. In the right-hand pane, right-click the InitialKeyboardIndicators value (see screenshot above) and change it to '2147483650' or '2' (the former has worked specifically for owners of HP laptops, while the latter seems to work more widely).

How do I burn DVD movies with Windows 8?

Q I've been using Windows Movie Maker (WMM) in Windows 7 to burn holiday photos to DVDs, so I can display them on my TV via a DVD player. Unless I'm missing something, there seems to be no way of burning a DVD in the WMM that comes with Windows 8. I've tried using other burning software without success.

Is it possible to burn a DVD using the

WMM in Windows 8? If not, why not? How do I make DVDs with Windows 8?

David Wilks

A No, it isn't possible to burn DVDs using WMM in Windows 8. Indeed, technically it never has been possible using just WMM. Yes the Windows 7 version of WMM offers the option to burn finished movies to DVD, but it actually fires up a separate program called Windows DVD Maker (WDM) to do the job. It is WDM that is missing from Windows 8/8.1, which is why WMM no longer offers the option to burn footage to DVD.

We don't know why Microsoft removed WDM but,

Use DVD Flick in conjunction with Windows Movie Maker to burn content to DVDs

as Windows 8 itself has proved, the company isn't averse to making unpopular changes. Regardless, the solution is to download and use a DVD-authoring program that can take the movie files produced by WMM and burn them to DVD. A good free option is DVD Flick, which you can download from www.dvdflick.net.

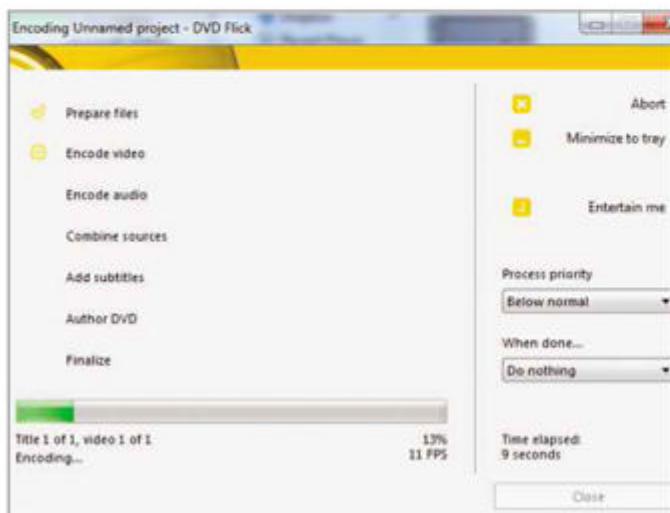
There's nothing complicated about DVD Flick. Add video clips by clicking 'Add title', choose a menu style by clicking 'Menu settings' and fine-tune the resulting DVD by clicking 'Project settings'. Lastly, click Create DVD and follow the prompts.

NEXT ISSUE

ON SALE
4 March

- How do I stop 'Text-to-Speech' on my Kindle Fire HD?
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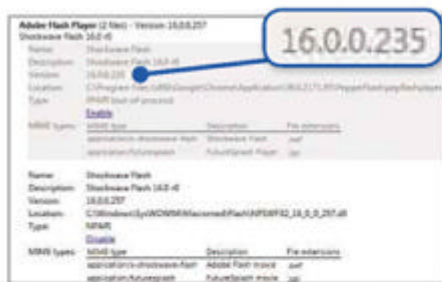
Chrome

Stop Google's browser crashing, fix syncing problems and get rid of adware

Chrome keeps crashing

Google's browser Chrome seems to have become increasingly unreliable since it launched seven years ago. If you (like us) find that Chrome keeps crashing, it's probably caused by a corrupt user profile, so you may be able to fix it simply by creating a new profile, which is easy to do using Windows Explorer. In fact, you can create multiple user profiles if you want.

First, close Chrome. Now open Windows Explorer, and type `%LOCALAPPDATA%\Google\Chrome\User Data\` in the address bar then press Enter. In the window that opens, long-click the folder called Default and rename it 'Backup default'. Now open Chrome and you should find it's faster and more reliable. It won't contain all your bookmarks, but they'll still be stored on your PC. See Google's 'Create a new browser user profile' page (www.snipca.com/15161) to find out how to transfer your bookmarks and for specific instructions if you're running XP.



If your Flash videos crash regularly, disable one of Chrome's two Flash Player files

If Flash videos keep crashing in Chrome, you need to change your Flash Player **plug-in** settings. Type `chrome://plugins` in the address bar and press Enter. Click the '+' symbol next to Details at the top right, then scroll down to Adobe Flash Player, where you'll see two files. Click Disable under the one with the older (lower) Version number (see screenshot above).

Chrome performs very slowly

Every extension you add to Chrome, and every customisation you make, contributes to making the browser slower over time. Most of these tweaks and tools

are processes that use memory. To speed up Chrome (and your PC), you need to find out which processes are responsible, and then stop them.

Task	Memory	CPU
Browser	90,400K	2
GPU Process	58,576K	1
Tab: New Tab	68,496K	0
Extension: PriceBlink	12,728K	0
Extension: Ratings Preview for YouTube™	11,352K	0
Extension: Send to Kindle for Google Chrome™	11,428K	0
Extension: AdBlock	39,960K	0
Background Page: TweetDeck by Twitter	11,600K	0
Background Page: feedly	11,044K	0
Extension: Evernote Web Clipper	16,560K	0

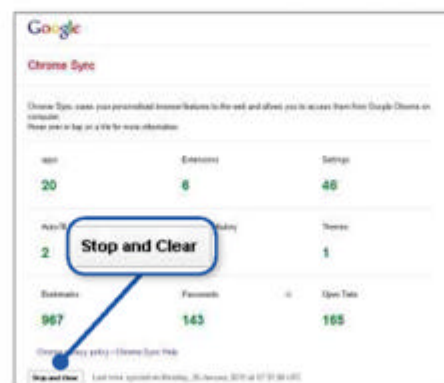
Use Chrome's Task Manager to close processes that slow the browser down

In Chrome, press Shift+Esc to open Chrome's built-in Task Manager. Here you can see how much memory and CPU each process is using. Click the Memory and CPU column headings to see which are the most resource-intensive. If a process is using more than 10 CPU, click it, then click 'End process'. This doesn't remove any extensions, just ends their current process. We wouldn't recommend ending processes that aren't listed as extensions or tabs.

Chrome won't sync across multiple computers

If Chrome is only partially syncing your bookmarks and other data between your PC and laptop, go to the Chrome Sync web page (www.snipca.com/15055) and click the 'Stop and Clear' button at the bottom (see screenshot below).

If Chrome has stopped syncing any



Click 'Stop and Clear' on the Chrome Sync page to fix syncing problems

data at all, you'll need to reset your sync settings. On the PC that's failed to sync, open Chrome, click the three lines at the top right, then click Settings. At the top, under 'Sign in', click 'Disconnect your Google Account', then 'Disconnect account' in the new box.

Chrome won't update automatically

It's important that you keep Chrome up to date, to keep it safe and running smoothly. Chrome usually does this automatically, but if it doesn't, and you see an 'Update failed' error message, something went wrong in Chrome's Application folder during its attempt to update. If so, you'll have to reinstall the browser. In Windows Explorer, go to `C:\Program Files\Google\Chrome` and delete the folder called Application. If the folder won't delete, make sure Chrome is fully closed by opening the Windows Task Manager and stopping every process or application with the word 'google' or 'chrome' in its name. Once the Application folder is deleted, reinstall Chrome (www.snipca.com/15162).

Your Chrome homepage has changed by itself

If you open Chrome and your homepage has been replaced by a search engine such as Spigot, Conduit or Trovi, then you've been infected with a browser hijacker. This is a type of adware that takes over your browser and won't uninstall or delete easily.

First, you must remove it from the 'Manage search engines' list. Click the three horizontal lines at the top right, then Settings, and then 'Manage search engines' in the Search section. Find the rogue engine in the 'Default search settings' list, hover over it, click the 'x' and then click Done. Next, download and run the free Chrome Software Removal Tool (www.snipca.com/15058), which can get rid of many browser hijackers. If that doesn't work, use the excellent free tool AdwCleaner (www.snipca.com/15160). Run a scan, delete any files it finds, then restart your PC.



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Digital




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T009 Colour	£29.99	16ml £4.99 20ml, 3 for £13.99	Photo 800, 1270, 1290
T026 Black	£39.99	16ml £3.99 20ml, 3 for £10.99	Photo 810, 830, 930A, 925, 935
T027 Colour	£29.99	46ml £4.99 50ml, 3 for £13.99	
T040 Black	£44.99	17ml £3.99 20ml, 3 for £10.99	C62, C6300
T041 Colour	£39.99	17ml £4.99 46ml, 3 for £13.99	
T050 Black	£32.99	16ml £2.99 16ml, 3 for £7.99	440, 640, 660 Photo 700, 1200
T051 Black	£36.99	24ml £3.99 20ml, 3 for £7.99	740, 790, 800, 880, 880, 1160
T052 Colour	£36.99	24ml £3.99 20ml, 3 for £10.99	440, 640, 660, 740, 760, 1160
T053 Colour	£26.99	46ml £3.99 46ml, 3 for £10.99	Photo 700, 790
T0441-4 Set of 4	£44.99	£14.99 3 sets for £42.99	C64, C66, C68, C68, C68
T0441 Black	£19.99	13ml £4.99 13ml, 3 for £13.99	C6600/6650, C6640, 6600
T0452-4 each	£9.99	4ml £18.99 13ml, 3 for £10.99	
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T0552-4 Set of 4	£9.99	4ml £3.99 9ml, 3 for £10.99	
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T0611 Black	£8.99	9ml £4.99 9ml, 3 for £13.99	CX3600/3650, CX3620/3640
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T0711-4 each	£8.99	7.4ml, 3 for £10.99	CX4000/4050/4060/4070/4090/40
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T0870 Gloss	£7.99	11.4ml	
T0871-9 each	£9.99	11.4ml	
T0961-9 Set of 9	£74.99	Check Website.	Photo R2825
T0961-9 each	£9.99	11.4ml	
T1281-4 Set of 4	£29.99	£14.99	S22, S25, SX130, SX259H, SX420H/425H/430H/435H/440H, SX505F
T1281 Black	£7.99	5.5ml £4.99 5.5ml	S225H/420H/425H/430H/435H/440H, SX505F/425H/430H/435H/440H, SX505F/425H/430H/435H/440H
T1282-4 each	£7.99	3.5ml £3.99 3.5ml	SX505F/425H/430H/435H/440H
T1291-4 Set of 4	£42.99	£16.99	R3000
T1291 Black	£10.99	11.4ml £5.49 11.4ml	Pre 3800, 3880
T1292-4 each	£10.99	11.4ml	Workforce WF-2010W, 2510WF, 2520NF, 2530WF, 2540NF
T1571-9 each	£20.99	25ml	Check Website.
T1591-9 each	£14.99	17ml	Check Website.
T5801-9 each	£24.99	40ml	Check Website.
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No.18 CMY, each	£5.99	3.3ml £3.99 3.3ml	XP322, 305, 402, 405
No.24 Set of 6	£44.99	No.24XL Set of 6	£69.99
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No.24 CMY, each	£7.99	4.6ml	
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Jargon Buster

1080p Of the common types of high-definition video, this is the best quality: 1920x1080 pixels.

32bit A measure of how much information a computer can process at once. Most older computers are 32bit, more modern ones are 64bit.

64bit A technology that processes information in larger chunks. Most modern computers are 64bit.

802.11ac A standard for wireless networks that allows for higher transfer speeds than 802.11n.

802.11n A standard for wireless networks that allows for high transfer speeds.

AAC Advanced Audio Coding. A type of music file.

Antivirus engines The core component of an antivirus program that detects malware.

Backdoor A way of bypassing the normal security procedures in a piece of software. Backdoors are often deliberately left in by programmers as a shortcut and then later exploited by hackers.

BIOS Basic Input-Output System. Essential software built into every PC that connects the vital components. It's visible for a few seconds when the PC starts.

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

Cache A temporary space for storing information. Can be memory used on a computer processor, or space on a hard drive used by a web browser.

CAD Computer Aided Design. Software used to create 3D models.

Clone A feature found in some backup programs that makes an exact copy of a drive on to another drive.

Codec Short for Compressor/Decompressor. A file that tells a computer how to record or play a type of media file.

Cookie A small text file stored on your computer by a website. Used to store browsing preferences, website log-in details and so on.

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

Download mirror A website that contains the same downloadable software as others, bundled in a branded installer.

dpi Dots per inch. A measure of printed image quality, or the size an object will be shown on screen.

DTP Desktop Publishing. Creating documents, books, leaflets or other printed matter on a PC.

Feedback The tactile response that the keys on a keyboard give when they've been pressed.

Firmware Basic software stored on a device, such as a music player, to control its operation.

Flash memory A type of memory that can retain information without a power source.

Fragmentation When Windows cannot find a space on the hard drive big enough to store a given file it will split up the file and store the parts in different locations.

FTP File Transfer Protocol. A system for transferring files between computers.

Hotkey A key set up to perform a complex action.

Hotspot A public area covered by a wireless network that allows you to access the internet, either free or for a fee.

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

HTML5 The latest version of the Hypertext Markup Language used to create most web pages. HTML5 includes extra commands that allow for more complex designs.

M4A An audio format often used on mobile devices.

MB/s Megabytes per second.

Media server Software that makes audio and video files in the PC available on the network.

Megapixel A measure of the amount of detail that can be recorded by a digital image.

MicroSD card A small type of memory card. Can be converted to SD size using an adapter.

MKV Matroska. An open-source type of video file.

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 by other PCs.

Noise Visible dust-like speckles that appear in some camera and TV images.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

Overclocked Making a CPU work faster to improve performance at the cost of it getting hotter and requiring more power.

Partition Splitting a hard drive into two or more partitions or 'virtual' drives.

PCI Peripheral Component Interconnect. A high-performance expansion slot for desktop PCs.

Plug-in A small program that adds extra features to your web browser or to other applications, and is loaded only when it's needed.

PNG Portable Network Graphics. A format for images that shrinks file sizes using compression but without discarding any data.

Process All programs and drivers run as processes on a computer.

Processor The processor – or central processing unit – is the brain of a computer.

Quad core A PC that has four processors on a single chip, which allows it to operate faster than standard (single-core) computers.

Raid A system for storing data efficiently and automatically backing up PC hard drives, but it can be more trouble than it's worth.

RAM Random-access memory. The computer's working area.

Resolution The amount of detail shown in an image, whether on screen or printed.

Reverse-engineering The act of breaking down software or hardware bit by bit in the reverse order in which it was assembled.

Sandbox A virtual container that you can run programs in safely.

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.

Server A PC on a network, such as the internet, that distributes information to other PCs.

SSD Solid-state drive. Storage that uses no moving parts.

Server A PC on a network, such as the internet, that distributes information to other PCs.

Source code Program instructions written by a programmer in a high-level language that is readable by people but not computers.

USB 2.0 Faster successor to USB that's used by devices such as external hard drives.

USB 3.0 A faster version of the USB standard used to connect devices to a computer.

Virtual drive A set of files seen by Windows as a separate hard disk.

Web apps Programs stored on a web server and run through your web browser.

WPA2 Wifi Protected Access. A more secure variant of the security standard for wireless networks.

Zero-day vulnerability A previously unknown software flaw that can be exploited by malware or hackers before it's fixed.

The Final Straw



STUART ANDREWS is
Computeractive's Mr Angry

Stuart Andrews is feeling ill after reading about...

High-tech health scares

There's no doubt that modern tech is bad for you. Given my 'text neck', my 'iPhone thumb' and my 'smartphone claw', it's a miracle I can hold my phone, let alone use it. LED-backlit screens and the rigours of responding to emails are keeping me awake at night – and that's before I start worrying that mobile phones are irradiating my unmentionables and Wi-Fi will give me cancer. If I'm lucky, I'll just about survive to the end of this column. But if I don't, learn from my mistakes. Take your family away to the Scottish Highlands, ditch your devices, fit aluminium wallpaper and, if you must venture outside, wear a tinfoil hat. It's the only way to feel safe.

I hate all these high-tech scare stories. Only this week I learnt about 'text neck' (the persistent neck ache caused by looking down at your tablet or smartphone for long periods of time). A related condition, 'tech neck', affects the skin, leaving us with prematurely wrinkled throats. Coincidentally (surely?), Yves St Laurent, the pioneers of tech-neck research, have launched a pricey cream to fix this problem. How kind of them to highlight it before our necks become the

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According to *The Daily Mail* just about everything causes cancer, cures cancer, or sometimes does both
”

tortoise equivalent of Keith Richards.

I should be more concerned about iPhone thumb and smartphone claw. Apparently, holding your smartphone in your hand and tapping with your thumb is guaranteed to make your opposable digit painful, stiff and swollen, freezing your hand in an iPhone-shaped claw. I don't know about you, but I can't move for people who are unable to shake hands, use cutlery or hold a pint glass because of excessive smartphone use.

Then there are all those screens. If they're not causing eye strain and dry-eye conditions, they're waking our brains late at night and preventing us from kipping. Well I never. Who'd have thought that spending all day and night focusing your gaze on a brightly lit flat plane might not be the ideal precursor to a good night's sleep?

And the cancer stories? Well, according to *The Daily Mail* just about everything causes cancer, cures cancer,

or sometimes does both. Ten years ago it was mobile phones. Five years ago it was Wi-Fi. Next it could be 4G or virtual-reality headsets. As *The Guardian's* Jack Schofield and Charles Arthur have pointed out, Wi-Fi is simply a radio signal with roughly the same wavelength as various other radio signals or – watch out – the cosmic radiation that was bouncing around for millions of years before Wi-Fi was even invented. If you think Wi-Fi is dangerous, you really shouldn't step outside.

A few years ago *The Daily Mail* even claimed that Facebook could cause cancer, citing research by Dr Aric Sigman into the possible effects of social networking. Sigman, who also believes that electronic devices hamper children's learning, suggested that social networking reduced physical interaction, and that this social isolation could affect the body's immune system. It was a controversial study, and *The Daily Mail* didn't perhaps reflect every nuance. After all, why worry about the subtleties when there are dramatic headlines to be written?

I'm not saying that all tech health scares are bunkum. It seems obvious to me that holding your head at an unnatural angle for long periods of time isn't smart – as I come to realise when I'm reading books – and that repeating the same motions for too long will result in repetitive-strain injury (hence the name). I'm also sure that our always-on, high-tech life is a recipe for anxiety. Yet many of the heaviest Facebook users I know are also some of the most sociable people, and I know more people who have been damaged by sports injuries, workplace stress or a car crash than have been seriously affected by their gadgets. So, please, could we have fewer high-tech scare stories, and just a little more common sense?



✉ Do you agree with Stuart?
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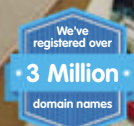
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