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p35

Computer

active

ISSUE 439 | 23 DEC 2014 – 6 JAN 2015

Your friendly guide to technology



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Secret tools to improve every part of your PC **p50**



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From the Editor

In our final cover feature of the year we reveal Microsoft's best hidden tools for improving Windows. You'll find secret tips for every version of the operating system, from XP to 8.1. We've also got an end-of-year quiz (p60) with a fantastic prize - a robot vacuum cleaner worth £450!

A fun (and cheap) way to make your own robot is to use a Raspberry Pi. You'll find advice on how to master the revolutionary £20 computer in our new 148-page *Raspberry Pi For Kids* book, updated for 2015 to include advice on how to master the A+ and B+ models. It's available now on Amazon (www.snipca.com/14658).



I'd like to thank you all for reading *Computeractive* this year. If you've been thinking about subscribing, now is a great time because we've got a brilliantly useful new gift (which I've been using myself to tidy my messy desk) - turn to page 62.

All that's left is for me to wish you a merry Xmas and a happy New Year. I'll see you in 2015.

Daniel Booth

editor@computeractive.co.uk



THIS ISSUE IN NUMBERS

£23.9m

Amount of money phone scammers have stolen in the past year - **p7**



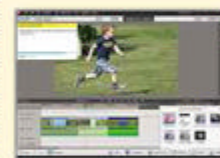
13%

Proportion of PCs using XP, down from 26% in April - **p8**



£80

Price of the five-star Adobe Premiere Elements 13 - **p22**



40

Number of questions in our end-of-year quiz - **p60**



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NEW GIFT!



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Computeractive offer of the fortnight

**Kaspersky Internet Security
2015 page 68**



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GCHQ to hunt for paedophiles lurking in the dark net

David Cameron has announced the creation of a special unit to investigate child sexual offences being planned or carried out on the dark net.

He said it will help the fight to remove millions of “sickening and depraved” images from the internet.

The unit, as yet unnamed, will be a joint effort between GCHQ and the National Crime Agency (NCA). It will, the Prime Minister promised, put the same kind of resources into catching paedophiles as are currently used to track down terrorists.

The unit will use the new Child Abuse Image Database (CAID), a digital bank of child-abuse images that, the Government says, “will help UK law enforcement improve and speed up investigations”.

Cameron made the announcement on 11



December at the We Protect Children Online summit in London.

Politicians met with representatives from 23 of the world’s biggest technology firms, including Facebook, Google, Microsoft and Twitter.

They discussed new solutions to help find online paedophiles and reduce the proliferation of images of child abuse. One of these solutions is a new technology from

Google that identifies and blocks videos of child abuse. The company said it will be rolled out to the rest of the industry next year.

The Prime Minister has also announced a new law making it illegal to ask a child to send explicit photos of themselves online or via a mobile phone.

Until now, it’s been illegal to create or possess indecent images of a minor, but asking them to create the photo and

COMMENT

The most important part of this news is the creation of CAID. It will massively reduce the workload of law-enforcement officers by automating the process of checking images of child abuse. Until now, police officers have had to check images one at a time, an inefficient method that has left paedophiles feeling relatively safe in the shadows of the web. CAID is overdue, coming too late for many children. But it’s the start of a more sophisticated campaign to fight web paedophiles.

send it has been something of a legal grey area.

It’s hoped that the new regulations will help crack down on sex offenders “grooming” children online.

Windows 10 delayed until autumn 2015

Microsoft has admitted that the release of Windows 10 has already been delayed until next autumn.

The company’s chief operating officer Kevin Turner told Japanese news service Nikkei that the next version of the operating system (OS) would arrive “early next fall”. Only a week before Microsoft

had hinted at an earlier release date, possibly late summer.

A day after Turner’s comments, Microsoft invited the media to a Windows 10 event on 21 January to be held at the company’s Redmond site in Washington state, near Seattle. Entitled ‘Windows 10: The next chapter’ (see image),

the event is likely to see Microsoft unveil the Consumer Preview version of the OS.

The Consumer Preview will be a more stable version of the OS than the Technical Preview, which Microsoft released on 1 October. It will contain more of the features that will appear



in the final version of the OS, but it’s still a work in progress, much like beta versions of software.



You'll like this... Nokia's free satnav app, called Here, is now available for Android on the Play store (www.snipca.com/14711)



... but not this Mobile company EE is ending its Orange Wednesday two-for-one cinema deals (www.snipca.com/14712)

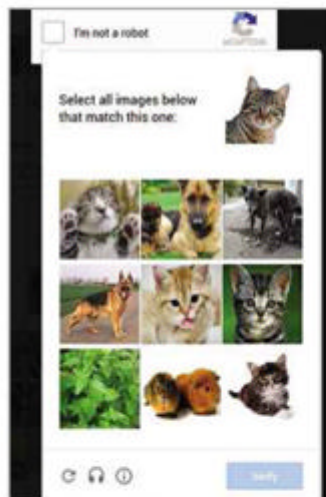
Good riddance Captchas as Google replaces squiggly letters

Google plans to replace Captchas with a simple tickbox, thereby eliminating one of the most common irritants people face on the internet.

Captchas are online security tests that challenge you to replicate a sequence of distorted letters and numbers. Websites use Captchas so users can prove they are human, not some automated program.

You may need to pass a Captcha test in order to buy tickets for an event. Ticketmaster, for example, uses Captchas to prevent touts from using automated systems to buy up the best seats at a concert.

Other sites require users to pass a Captcha test in order to post a comment on a forum. This prevents spammers from plastering a forum with



unwanted messages.

While these tests have proved effective at distinguishing humans from robots, many people find it impossible to decipher the squiggly characters in the code.

Google's new system, called the No Captcha ReCaptcha, is

much simpler. It asks you to tick a box containing the words: "I'm not a robot". Doing so means you pass the test.

Writing on Google's Online Security Blog (www.snipca.com/14697) Vinay Shet, Product Manager at Google's reCAPTCHA, said the new system "radically simplifies" the process of passing a Captcha test.

However, he also said that on phones and tablets this new Captcha will require you to pass a secondary test in which you have to identify images of similar content (see screenshot left).

He said: "It's much easier to tap photos of cats or turkeys than to tediously type a line of distorted text on your phone." Google plans to test the new service on a few sites before launching it fully in 2015.

Cold-calling bonanza for scammers as they steal £24m in one year

Phone scammers have become more successful at stealing money from victims over the past 12 months.

According to Financial Fraud Action UK (FFA UK, www.financialfraudaction.org.uk), the amount of money conned out of people over their phone has tripled to an estimated £23.9m. Some victims have been defrauded by as much as £100,000.

FFA UK, which manages fraud-prevention work for banks, building societies and payment-card companies, said the most common trick involved fooling people into thinking the caller is phoning from the police, a computer company or a bank.



Victims are told they have been targeted by fraudsters, and to prevent further attacks they must reveal their credit-card details, or their PIN codes.

Some scammers also ask the victim to hand over a bank card to a courier, transfer money into a new account set up in their name, or withdraw money from a cash machine.

Scams executed over the phone are often called 'vishing', short for 'voice

phishing'. FFA UK said that 58 per cent of people in the UK have received a suspicious phone call, up from 41 per cent 18 months ago.

FFA UK has launched an advertising campaign to warn people about vishing scams. All major banks, building societies, card companies and senior police officers have signed a declaration that highlights the tactics used by cold-calling scammers.

To help protect yourself, download FFA UK's report as a PDF from www.snipca.com/14698. It contains advice on how to spot a scam, and outlines what your bank or the police will never ask for over the phone.

IN BRIEF

SCOTTISH VOTE MOST DISCUSSED FACEBOOK TOPIC

The Scottish referendum was 2014's most discussed topic on Facebook by UK users of the website. Facebook said the subject generated 10 million interactions in the five weeks leading up to the vote. There were 3.3 million on polling day itself (18 September), 1.9 million of those originated in Scotland. The Ice Bucket Challenge charity campaign was the second most discussed topic, followed by the World Cup.

HAGGLE FOR PRICES ON AMAZON

Amazon has added a 'Make an Offer' button to allow buyers and sellers to haggle over a price. Buyers suggest an amount they're willing to pay. This price is then emailed to the seller, who can accept or reject it, or suggest another price. Initially this option is available only in categories selling "one-of-a-kind" collectible items (www.snipca.com/14696). Amazon said the feature will be added to more categories next year.

Tomorrow's world

Forget holiday brochures, with their suspiciously idyllic photos – you can now get a more accurate preview of a resort by watching virtual-reality videos on headsets. Thomas Cook has teamed up with London company Visualise to show clips that take you to a swimming pool in Rhodes, a restaurant in Cyprus and a helicopter trip above Manhattan (www.snipca.com/14604).

IN BRIEF

MOZILLA PLANNING FIREFOX FOR IPAD

Mozilla is planning to develop a version of Firefox for Apple's iOS. The company has long refused to support iPhone and iPad, because Apple demands that browser makers use its own **rendering engine**. This restriction has never bothered Google, which makes a version of Chrome for iOS that lets users synchronise their bookmarks and web history across devices.

WINDOWS 8 OVERTAKES XP

Windows 8 and 8.1 finally have a bigger worldwide market share combined than XP, according to new figures from Net Analytics. Nearly 19 per cent of computers now run 8 or 8.1, with the latter rising from 6 to 12 per cent between September and November. XP fell from 26 to 13 per cent between April and November. Windows 7 remains the most popular OS at 53 per cent.

Average broadband speed now 23Mbps – but 15% can't get 10Mbps

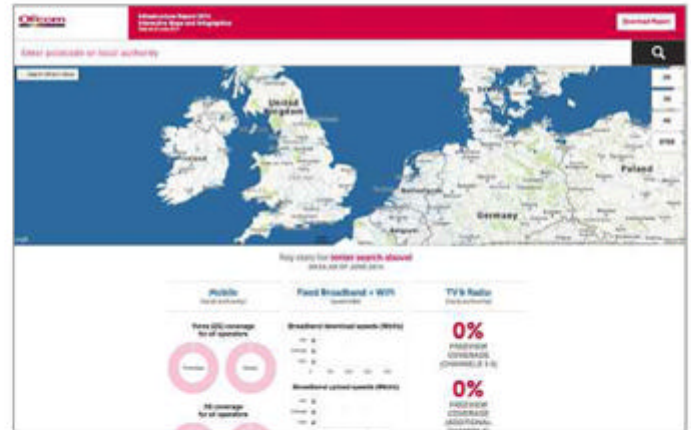
Ofcom says that the average broadband speed in the UK has risen to 23Mbps, although a sizeable minority can't even get 10Mbps.

In its latest annual Infrastructure Report (downloadable as a PDF from www.snipca.com/14690), the telecoms regulator said that although speeds are rising throughout the UK, three per cent of premises can only get speeds of up to 2Mbps.

Ofcom also said that 15 per cent can't receive 10Mbps, which the regulator says is now the typical requirement for a household.

The report suggests that the UK is splitting into a nation of broadband haves and have-nots as a result of huge gaps between the minimum and maximum download speeds. While some premises enjoy super-fast speeds of 350Mbps, others have to get by on just 0.1Mbps.

Remote areas continue to be poorly served. Ofcom says that when companies decide it's



not profitable to deliver broadband to remote locations, the "Government may intervene to further consumer and citizen interests".

However, Ofcom's report reveals that many people simply don't want super-fast broadband. Around 75 per cent of households can get speeds of 30Mbps, but only 21 per cent of these do so. The report also showed that 18 per cent of households don't have any internet access.

These figures cast doubt on

whether the Government will hit its target of delivering super-fast broadband to 95 per cent of UK premises by 2017.

Alongside the report Ofcom has launched an online map to help customers find out which broadband, mobile and TV services are available in their area (<http://infrastructure.ofcom.org.uk>). To use it, type a postcode or local authority into the search bar, then click the search icon (magnifying glass; see screenshot above).

What's new from Google

VISIT SANTA'S VILLAGE ONLINE

Every Christmas the newspapers report on a so-called 'winter wonderland' that has rubbish presents, a drunk Father Christmas and no snow (not even fake). A merrier alternative is to visit the Santa Village (<https://santatracker.google.com>) run by Google. Yes, it's on the internet, not in a wintry forest, but it has games and animations that children will love. Best of all, it tracks Santa's flight in Google Maps on Christmas Eve.

EXPLORE NATIONAL TRUST PROPERTIES

After recently taking its Street View cameras across the Liwa Desert, along the Great Barrier Reef and deep into Tanzanian national parks, Google has now chosen more genteel surrounds in the UK. Its new collection of National Trust properties (www.snipca.com/14671) includes Stourhead House in Wiltshire (pictured), a miniature replica of which appeared as Lady Penelope's residence in the original *Thunderbirds*.



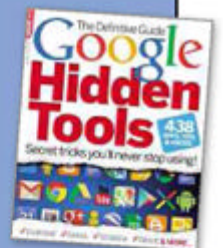
GOOGLE TO MAKE KID-FRIENDLY PRODUCTS

Google says it will launch next year a specially adapted range of products aimed at the under-12s. In an interview with *USA Today* (www.snipca.com/14682) Pavni Diwanji, a vice-president of engineering at Google, said that the "big motivator" for the plan is that everyone at the company "is

having kids". There are no details yet, but products are likely to include Search, Gmail and YouTube.

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Question of the Fortnight

Will Google sell your DNA to advertisers?

A DNA-testing company's connection with Google has raised concerns about what it wants to do with your data

Performing a DNA test at home can yield many fascinating and significant things about yourself. A sample of saliva could, for example, reveal the percentage of your DNA that's Neanderthal in origin, which genetic marker causes you to sneeze when you look at bright lights, and which illnesses you're genetically predisposed to.

However, privacy campaigners are growing increasingly concerned about how genetic data sent back to companies offering these tests will be handled. Anxieties were heightened in early December when a DNA-testing service backed by Google, called 23andMe (www.23andme.com), launched in the UK.

23andMe sells DNA-testing kits for £125, and has 750,000 users in its database. Google has invested \$4 million into the company, but the tech giant's involvement goes



What's All The Fuss About? Issue 430). So is Google planning to use our DNA data to refine its targeted advertising to a molecular level?

23andMe's privacy policy goes all out to reassure us that our data is safe in their hands. It states the company "will not sell, lease, or rent your individual-level information (genotypes, diseases and other traits/characteristics) to any third party or to a third party for research purposes without your explicit consent".

But this sounds all too familiar. In 1999, Google said: "individually identifiable information about you is not willfully disclosed to any third party without first

receiving your permission". Since then, Google's goldmine of data on us has been tapped into by both advertisers and intelligence agencies. Moreover, its privacy policies were so vague that it was forced to rewrite them under pressure from the EU.

23andMe's policies are also ambiguous. The company

insists that its work "does not constitute research on human subjects", which means it doesn't need to conform to strict privacy regulations governing scientific research. Some critics worry that this gives the company the legal freedom to use customers' DNA for commercial gain – for example, selling data to insurance companies.

Charles Seife, science author and professor of Journalism at New York University, feels uneasy about the nuances contained in 23andMe's privacy policies. He believes the company's research could lead to "a world where corporations have the innermost contents of your cells and where insurers and pharmaceutical firms and marketers might know more about your body than you know yourself".

There are huge benefits in building a giant genetic database, which is the shared goal of 23andMe and Google. Such research could help us fight illnesses long before symptoms appear. But should these databases be controlled by large and influential tech

THE FACTS

- 23andMe launched in the UK in December. It sells DNA-testing kits for £125
- The company was founded by Anne Wojcicki, estranged wife and current business partner of Google co-founder Sergey Brin
- It's received \$4 million of funding from Google, raising privacy concerns

“Critics worry that your DNA could be sold to insurance companies”

deeper: 23andMe was founded by Anne Wojcicki, estranged wife of Google co-founder Sergey Brin.

Google already makes billions monitoring our emails in order to sell targeted advertising, and recently announced it was funding another DNA-gathering project, called Baseline (see

companies like Google, or medical institutions such as the NHS, which is set to complete the first phase of its own genome project (www.genomicsengland.co.uk)?

To what extent Google will be involved in 23andMe, or whether it will have access to our genetic data, remains unclear. But we do know that Google is one of the most effective harvesters of personal data in the world, and that its record on customer privacy is patchy at best. With Google's fingerprints all over 23andMe, right down to its elusive privacy policies, perhaps you're better off holding your DNA data close to your chest for now.

The Final Straw



STUART ANDREWS is
Computeractive's Mr Angry

This fortnight we give Stuart Andrews two pages to say good riddance to. . .

2014: The Worst Year in Tech. . . Ever!

Every year is blighted by excessive hype, brutal disappointments, corporate stupidity and corrosive social impact, but 2014 set new standards. It began with an explosion of mediocrity at the annual Consumer Electronics Show hypefest in Las Vegas, and has managed to go from bad to worse since.

We've had underwhelming announcements, unpleasant behaviour from companies and some of the most bafflingly overblown launches of all time. I'd like to say that I saw something potentially world-changing or ground-breaking this year, but all I can remember is the same old nonsense.

Nothing better sums this up than 2014's new smartphones. Samsung launched the Galaxy S5 and struggled to come up with anything that was noticeably better than the Galaxy S4, if you ignored the flawed fingerprint reader and the fact that you could drop it in the bath. And where Google triumphed with the Nexus 5 (a flagship smartphone at a mid-range price), it's blown all my goodwill with the Nexus 6, which is a monster smartphone with matching price tag.

Apple, meanwhile, launched its dynamic iPhone duo to a hype-storm that could only have been justified had the devices cured cancer and solved the crisis in Ukraine. Sorry chaps, but all you did was deliver bigger, faster iPhones with a marginally better camera and screen, effectively putting yourselves back on level pegging with Samsung and LG.

Even Nokia managed to launch big-screen, high-resolution smartphones with fantastic cameras before Apple, but they didn't get the same treatment from fawning technology columnists and

celebrity fans. And just look at those prices? The iPhone 6 Plus starts from £619 and goes all the way up to a staggering £789. Nearly £800 for a smartphone! Has the world gone mad?

“
Apple launched its
dynamic iPhone duo
to a hype-storm that
could only have been
justified had the
devices cured cancer

Like many, I experienced a moment of *schadenfreude* at the bendy-phone backlash that followed, but even this seemed out of all proportion. So what if a few dimwits bent their overpriced superphone by sticking it in a back pocket and sitting down? Were the endless pressure tests, comparisons and hostile reports really justified? Perhaps next year we can have some smartphones of substance, or at least made from a substance that doesn't warp when shoved inside the pocket of skinny jeans.

WEARABLE TECH BECOMES 'UNBEARABLE' TECH

Let's move on to wearable technology,

which throughout 2014 was pitched as life-changing. Excitable experts insisted that by the year's end we'd all be donning Google-powered spectacles, slapping on a smartwatch and continually monitoring our fitness. Instead, wearable has become unbearable. Or at least uninteresting.

It's early days for Google Glass, but personally I'm happier using technology that isn't getting banned from public spaces, and that's less likely to result in me getting punched in the face. It's clearly a privacy nightmare, both for the wearer and anyone in close proximity, while Google has yet to demonstrate a really compelling reason to care. Sure, it all sounds great, shooting video while you're biking down a mountain, or taking messages and getting directions while you're out in town, but I suspect most people find the whole concept uncomfortable and intrusive. It's the kind of thing that plays better in some sunny Californian campus than on the mean streets of Manchester and London.

Smartwatches have a better chance of taking off, but the early efforts are just too underwhelming. For one thing, they don't appear to do anything you can't do already by pulling your bent smartphone out of your back pocket. For another, the battery life is usually so abysmal that you have to charge them every day. Here the smartwatch is up against human nature. We're lazy and forgetful creatures, and frankly we already have enough stuff to take care of. A smartphone I have to charge every day is one that ends up gathering dust. Apple might resurrect my flagging interest with a smartwatch that reverses ageing while beaming data to my brain, but I'm not holding my breath.

WHAT'S WORSE: FACEBOOK OR EASTENDERS?

The hype surrounding these gadgets was irritating, but what annoyed me most this year isn't a product or a company, but social media. I used to like the whole concept, seeing it as a way to bring people together, eliminate borders and help us to share all that's best in life. But instead it seems to be doing the opposite.

In June we found out that Facebook had experimented on its users, prioritising bad news in people's Feeds to see what the impact is. The shocking result? Too much bad news makes people feel bad and sad, the same feeling they get after watching an *EastEnders* omnibus on a wet Sunday afternoon. Worse still are all the horrific cases of harassment on Twitter, as another internet troll goes to town on MPs, journalists, TV historians, Olympic swimmers and campaigners.

While social media can be a tool to spread positive ideas and fight injustice, it's also being used to recruit terrorists and spread messages of hate. It has too much potential for good to be ignored, yet there's something about social media that seems to bring out the worst in us.

Across social media is where you'll also

find the 'selfie' photo, arguably the most annoying phenomenon of 2014. No visit to Facebook or Twitter is now complete without a dozen selfies that fill me with incandescent rage, whether they show smug celebrities, pouting teens, party minglers or people on holiday. Apparently, there's now a craze in North America for taking selfies with wild grizzlies in the background. I wouldn't wish a mauling by a bear weighing several hundred kilograms on anyone, but then again... See? It's bought out the worst in me, too.

...AND 2015 WILL BE NO BETTER

I hope we'll see less of this nonsense in 2015, but I fear the worst. There will be new announcements just around the corner, new tales of Twitter-based insanity, a glut of disappointing launches, and even more terrifying malware. All the same, I'll keep watching, and hoping that the world of technology will once more start delivering things that change lives for the better, rather than just dish out more of the same.

The rumours are already dripping in about next year's devices. Expect new smartphones so big they will only fit in

“
No visit to Facebook
or Twitter is now
complete without a
dozen selfies that
fill me with
incandescent rage
”

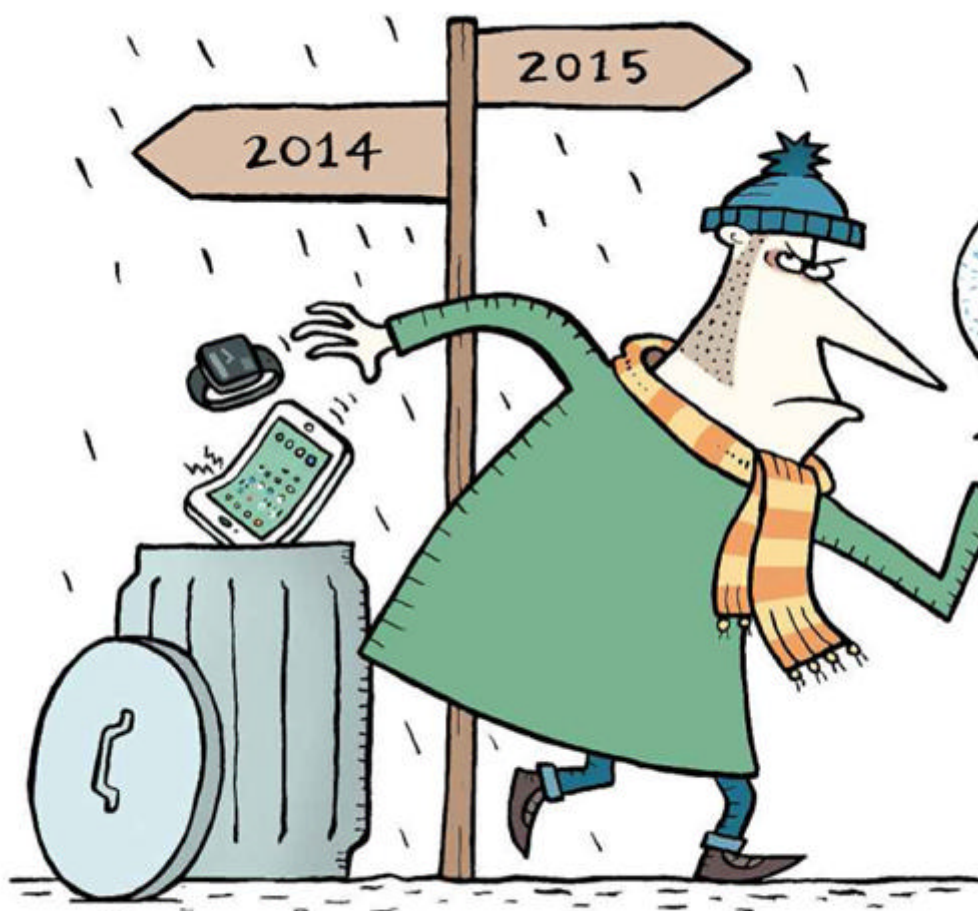
the pockets of the safari suit Roger Moore wore in *The Man with the Golden Gun*, and new tablets that will be faster than ever, but run out of batteries before the day is done. And there is no way on earth that the Apple Watch can conceivably live up to the years of hype.

I have high hopes for virtual reality, with products like the Facebook-owned Oculus Rift headset (www.oculus.com) that promise to take me into a world of gaming like never before. I just hope I'm not disappointed, and that it doesn't end up with Microsoft's Kinect and a pile of discarded Wii remotes in a corner of my living room.

I'm also keen to see Microsoft turn a corner with Windows 10, but can't quell a sneaking suspicion that all we're really getting is a Windows 8 that looks and feels like Windows 7.

We'll have the General Election campaign to look forward to, during which politicians will try more than ever to use social media to win votes (can't wait). We'll also have more scandals about our tech companies and their carefree approach to privacy and taxes. And if we're really unlucky, Google's network might become self-aware, trigger the apocalypse and blow us all to hell, though not without first reading all our emails to find out what our personal version of hell might be. Paranoid? Me?

Just you wait and see.



✉ Do you agree with Stuart?
Let us know at letters@computeractive.co.uk

Letters

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

Facebook wrong to think it has no social responsibility


 Many people have spoken recently about whether websites have a duty to report terrorists using their services (News, Issue 438). David Cameron is nudging towards the truth when he says Facebook and others have a "moral duty" to inform the security services, but his analysis is overly simplistic.

The most insightful comment I read came from Labour MP Jack Straw, who said websites have a "distorted libertarian ideology that somehow allows them to be wholly detached from responsibility to governments and to the peoples whom we democratically represent in this country and abroad". I think this expertly sums up the arrogance of Facebook, Google, Apple, Twitter and others. Because they've grown so big so quickly, they think that normal rules don't apply to them. It's as though they think of themselves as mini countries, inventing laws that best suit their business interests, and ignoring what might cost them money.

I read a few years ago that Apple earns more money in a year than many countries, and that level of financial power gives them an inflated sense of self-importance. You see similar attitudes in very rich people who believe they're above having to pay tax. The more money they earn, the more separated from reality they become. Like blinkered billionaires, these tech companies think they have no social responsibility. Well, Facebook, tell that to the family of Lee Rigby.

George Ferguson

That awful Blackpool hotel gives us all a bad name


 My heart sank when I read the news story in Issue 438 about the Blackpool hotel trying to charge a couple for writing a negative review on TripAdvisor. I run a small hotel with my wife, and over the past few years we've received some unfair reviews on TripAdvisor. Many of our regular guests

countered these statements with positive feedback, and we received a lot of sympathy. But the despicable actions of the people who run the Blackpool hotel will swing public opinion against hoteliers once more.

I'd like to remind readers that most hotels are run by decent, trustworthy, hardworking people. We accept that TripAdvisor can drum up business, as well as deter potential customers. What I object to are reviews from people with unrealistic expectations, and don't understand what the star ratings mean. If you want Savoy-like standards, don't book rooms at a small family-run hotel in rural Herefordshire! And please don't judge us by the standards of the pathetic chancers who manage that Blackpool hotel.

Name and address supplied

Free Wi-Fi improves exhibitions at museums

 I read Kenneth Bruce's letter in Issue 437 complaining about free Wi-Fi in public buildings. I would like to offer my own, very different point of view.

I have visited both the Science Museum and Natural History Museum recently, and being able to read information about


the exhibits on my iPad added greatly to the experience. This was especially the case at busy times, when there were hordes of people trying to read the information cards next to the exhibits.

In libraries, access to Wi-Fi is an essential adjunct to being able to use the mixture of reference books and the internet, and to carry out vital computer learning and training. The first half-dozen people in our library every morning want to use the free Wi-Fi or the library's computers, and the staff help anyone with their computer and tablet problems.

Sorry Kenneth, but Wi-Fi is here to stay. But perhaps what we need is 'Wi-Fi netiquette' on using devices in public places.

Andrew Strathdee

Don't prosecute people posting sick jokes online

 Steven Sneade seems like a very confused man. In Issue 438, he says that he would have "no hesitation" in prosecuting people posting sick jokes on Facebook pages dedicated to people who have died. But then, in the same breath, he says that he's not sure that being "antagonistic and confrontational" should be a criminal offence. Well, what's a sick

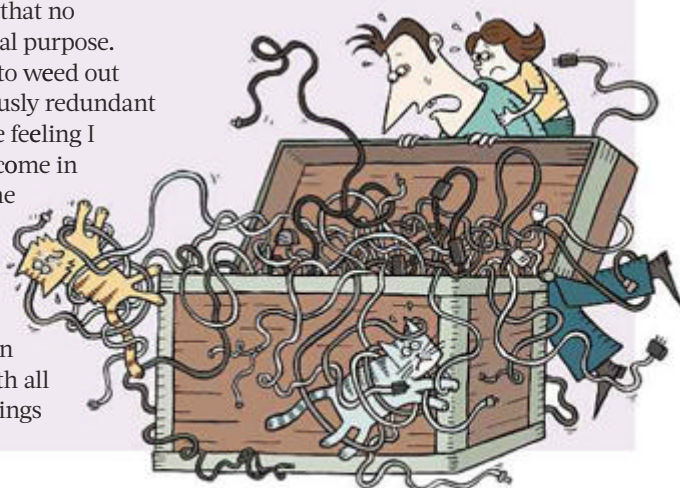
It's hard to let go of handy cables

 I concur wholeheartedly with Stuart Andrews about the proliferation of cables (The Final Straw, Issue 437). I also have a box (though not as big as his) that has a motley collection of cables (some totally useless), power adapters, dongles and various connectors that no longer serve any practical purpose. From time to time I try to weed out some of the more obviously redundant items, but invariably the feeling I should retain them as "come in handies" overwhelms me – so the box continues to fill up.

However, the "rat's nest" of wires behind my TV set seems to be an intractable problem, with all my attempts to make things

better always ending in failure. For me, a wireless solution cannot come soon enough, but that will no doubt bring its own problems – a Wi-Fi 'rat's nest' if you like. Will we ever win? I doubt it.

Brian Thomson



joke if it's not antagonistic and confrontational?

I can't believe anyone would seriously think that jailing someone for posting a sick joke is a good idea. People who do post these are obviously idiots, and they should be made to realise that society looks upon them as immature, pathetic creatures, not cool anti-heroes fighting censorship. But we already prosecute far too many people for non-crimes, stuffing the courts with cases that please *The Daily Mail* but nobody else. We don't need any more.

Douglas Morrison

Selling poppies on eBay would demean them

✉ Thank God we don't all think like James Marlowe, who says there's nothing wrong with selling the poppies from the Tower of London

on eBay. For displaying sacrifice, bravery and respect, there isn't a better symbol in the world than the poppy. Everyone in the UK (bar some extremists) loves what it stands for, and as a result armed-forces charities raise millions each year.

But all that would be demeaned if people could sell the poppies on eBay, as though they were old DVDs, second-hand books or unwanted Christmas presents. These poppies aren't throwaway tat. They belong to the most moving public art display in decades, and as such deserve better than to be flogged on eBay to make someone a quick buck.

Robert Gartside



Donate old tech to charity

✉ In one of his 'From the Editor' pieces a few months ago, Daniel Booth told us he saw someone chucking away a fairly new laptop at his local council tip, just because it had started to "go slow". My wife has just told me about a scheme run by Age UK, which should obviate the need for such wasteful behaviour.

Apparently, you can donate old computers, tablets and mobile phones, through a new Age UK recycling scheme on their website (www.ageuk.org.uk/recycleIT). You just log in and select the product you wish to donate. You're then told how much the item is worth, and you simply 'box it up' and take it to their nearest collection point. All the money

STAR LETTER

GCHQ: Show me your emails, and I'll show you mine

✉ Your Question of the Fortnight in Issue 437 concerning the thoughts and proposed actions of GCHQ chief Robert Hannigan was food for thought. It's clear that Mr Hannigan has a difficult job to do, and I don't believe he's a control freak interested in monitoring every aspect of all our lives for signs of dissent. At present, that would seem a position that Home Secretary Theresa May is keen to assume. Does GCHQ need to keep a careful eye on those who are known to cause problems? Yes, of course they do. But, powers already exist that allow for the monitoring of such individuals, and through these monitoring systems possible threats are flagged up. So I am at a loss to explain why Mr Hannigan feels the need to monitor the vast majority of law-abiding citizens just in case we suddenly become radicalised. My father's generation fought a world war to prevent this kind of invasive state control and Big Brother tactics.

It's clearly nonsense to suggest that everyone in the UK needs to be monitored, like something out of a Philip K Dick novel. It's also a huge waste of valuable time and resources. Most people just want to get on with their lives. Okay, there are those who



might bend the occasional rule, but it's normally nothing that comes within a million miles of being a threat to national security.

Mr Hannigan and his political masters will never agree with my sentiments, so I'd like to propose a compromise. One rule for all, like in a democracy. Under the new regulations GCHQ could legally monitor whatever and whomever they liked, with a single proviso: that every personal email sent by Mr Hannigan and his staff, and all their online activity, should be made available to the public. Then we can satisfy ourselves that none of them have become radicalised. After all, if they're doing nothing wrong, they have nothing to fear. As the Roman poet Juvenal said, *Quis custodiet ipsos custodes?* Or in plain English, who watches the watchmen?

Nathan Brazil



The Star Letter writer wins a Computeractive mug!

goes to Age UK, while the computers are wiped clean of their data (though it's probably better if you do this first), and reused, or the parts and materials are recycled.

Colin Gray

Ode to The Final Straw

✉ I used to consider Stuart
As just an angry young man.
If anyone could find a fault
Rest assured - he can!
But his article on Captchas
Really caught my eye
I can never solve them
However hard I try.

With some letters it's quite obvious
Whether upper case or not,
But O and C...
Just stare at me, malevolently,
Causing my brain to rot!
So how do I know if they're capitals?
Certainly not by their size
Then there's S and V...
They challenge me, to press 'CAPS' key,
Manipulating my eyes.
Cats and dogs I'd welcome,
Kittens and puppies I'd adore.
So I fervently agree with Stuart.
Such a perceptive column,
The Final Straw!

Sheila Ward

Consumeractive

Can I claim for my ingrowing thumbnail?

Q I've been diagnosed with an ingrowing thumbnail, caused by excessively using the keys on my Samsung laptop. I use numerous programs, including Microsoft Office, Safari, Picasa, Firefox and Lotus Word Pro. Do you think I could sue the software developers and Samsung because I believe they've caused this problem?

Brian Leith

A Yes, Brian could attempt to sue any or all of the companies he mentioned, including giants such as Apple and Google. Consumers can make claims for personal injury or death caused by faulty goods under the Consumer Protection Act 1987. But he'd have to prove that either the software he's using, or the laptop, or a combination of the two, makes them inherently faulty, leading to his "excessive use" of the keyboard.

Although claims are usually made against the manufacturer, other parties including the retailer can be held liable. Personal injury claims can be heard in the County court, but usually go to the High Court because of their complexity and higher amounts of compensation being claimed. Read the Government's guide at www.snipca.com/14512.



Under new laws, how long do I have to examine goods bought online?

Q I know that new laws came in earlier this year giving shoppers longer to examine goods bought online. But I'm not sure how long this period actually is. This Christmas, QVC is letting you wait a couple of months before returning gifts - is that part of the new law? How long exactly do I have?

Susannah Ward

A The new law - the Consumer Contracts Regulations (CCRs) - gives Susannah and other shoppers 14 days (including weekends) to examine goods bought online, an increase from seven under the old Distance Selling Regulations.

The CCRs entitle you to a full refund of the product price, and the delivery costs. To qualify, you must tell the retailer within 14 days of receiving the goods that you're rejecting them. You then have 14 further days to return the goods. But you may have to pay the cost of returning the goods, depending on the retailer's policy.

An extended return period such as that provided by QVC doesn't form part of the new law, and therefore can



include unique conditions which may limit your consumer rights. Usually, a company will refund the full cost of an item returned during this period, but not the delivery charge. Retailers can also demand you return the item in the original packaging, a requirement not included in the CCRs.

However, for many shoppers these conditions are a small price to pay for the peace of mind that comes from knowing a present they buy doesn't have to be returned within 14 days. Furthermore, extended-return periods let you 'use' the product, not simply 'examine' it, which is the limit set by the CCRs. What counts as 'use' can be hard to define. For example, if you switch on a laptop, have you 'used' it? Some retailers will argue that you have, and refuse a full refund. If you're unsure, contact the retailer.



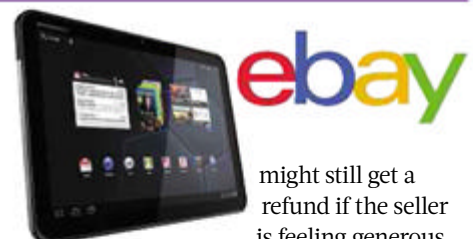
Why won't eBay help me get a refund?

Q I bought a 10.1in Android tablet on 1 May 2014, from an eBay seller called ca-sitton2014, who I think is based in Derby. But when I received the tablet, it wasn't as described. After I complained the seller gave me a £20 refund. I emailed the seller in August when the tablet developed a fault, but they haven't replied. I contacted eBay and PayPal, but too much time had passed, so I couldn't use their money-back guarantees. Surely they have some responsibility under the Sale of Goods Act?

Alan Parker

A We understand Alan's frustration, but neither eBay nor PayPal is responsible for sorting this. This is because Alan's contract is with the seller. However, eBay and PayPal do offer money-back guarantees despite not being required to.

To get his money back, or a replacement, Alan will need to continue to chase the seller. But we're pessimistic about his chances because, after investigating, we've discovered that the seller is based in Canada. This means the seller is not covered by UK consumer law, though Alan



might still get a refund if the seller is feeling generous.

We need to work out why Alan thought the seller is based in Derby. If the seller is misleading customers by tricking them into thinking he's based in the UK, then he's committing fraud. But this seems unlikely, because the seller appears to have a thriving eBay business, with a 99-per-cent feedback rating.





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

Why did Apple replace our iPad?

Q Recently my wife's iPad failed. An Apple technician tried to fix it, but said the problem was an unrepairable hardware fault. He also said that because the iPad is 21 months old and out of warranty, we'd have to pay £207.50 to get it fixed. We returned later to see if we could get a better deal and the manager said we could have a free replacement. The warranty expired after 12 months, so was the manager being generous to us?

Richard de Verteuil

A No, the manager was actually being responsible by following consumer law. Richard is correct in saying that the warranty has now expired. But his wife's iPad was inherently faulty, which means she is

entitled to a replacement under the Sales of Goods Act (SOGA), which overrides a company's warranty.

SOGA says that if a fault is inherent – that is, if it has existed since the product was manufactured – you have up to six years (five in Scotland) in which to seek a refund. It's important to remember that an inherent fault can be one that emerges several years after you bought an item. However, as years go by, it becomes trickier to distinguish an inherent fault from one caused by wear and tear.

Under SOGA, the retailer or manufacturer must repair or replace the item, or offer a refund. The replacement item doesn't have to be new, but has to be 'fit for purpose', a description that also applies to an



item that has been repaired. The amount of money you receive as a refund will depend on for how long you've had the item.

CASE CLOSED

CASE UPDATES



Lower card fees could lead to cheaper prices

Reader John Devine has emailed us to ask about the changes being made next year to fees added to credit- and debit-card payments. The European Commission

plans to introduce regulations to cap the 'interchange' fee – normally around one per cent of the purchase price – retailers pay banks when they process an order using customers' credit and debit cards. This fee is divided between the customer's bank, the retailer's bank and the main card brand, such as Visa and MasterCard.

But banks often impose a higher fee on retailers, which the EC thinks is unfair. The EC wants to cap the fee at 0.3 per cent and 0.2 per cent respectively for credit and debit cards, which they consider to be a reasonable charge. It also wants to ensure that paying by phone doesn't incur extra fees.

Retailers say this is good news because they will be able to pass on the savings. But the card companies disagree.

They say that capping hasn't led to cheaper prices in countries where it has been introduced. Also, some banks say they may have to recoup the money by charging customers annual subscriptions to use credit cards.



THIS WILL COME IN USEFUL

Returning goods to retailers

Amazon
0800 496 1081

Details: www.snipca.com/14372

Argos
0345 640 0800

Details: www.snipca.com/14371

Boots
0845 609 0055

Details: www.snipca.com/14440

Currys
0344 561 1234

Details: www.snipca.com/14439

Debenhams
0844 561 6161

Details: www.snipca.com/14438

John Lewis
0345 604 9049

Details: www.snipca.com/14373

Marks & Spencer
0333 014 8000

Details: www.snipca.com/14507

Selfridges
0800 123 400

Details: www.snipca.com/14436

Tesco
0800 505555

Details: www.snipca.com/14374

WHSmith
0333 600 5000

Details: www.snipca.com/14437

DEBENHAMS

WHSmith



Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

2015's biggest threats

What happened?

Kaspersky published its "security predictions" for 2015, warning us about the biggest threats of the next 12 months. The company, which makes the best antivirus software currently available (see our reader offer, page 68), predicts that we'll see more "internet-bleeding" bugs, like the Shellshock and Heartbleed flaws that emerged in 2014. These bugs will be buried in code that has existed for years. Hackers will exploit them to launch "menacing attacks".

Kaspersky says there will be more attacks on cash machines, pointing out that most are still running Windows XP, which leaves them "incredibly vulnerable by default". The company expects hackers to infiltrate banks'

networks in order to control cash machines in real time.

Apple's Mac OS X operating system will also come under more sustained attack. Kaspersky believes hackers will target people who disable the OS X security measures for whatever reason – typically to download pirated software. Hackers will try to trick these people by smuggling malware inside software, then listing it as a legitimate and safe download on **torrent** sites.

Read all of Kaspersky's predictions at www.snipca.com/14638.

What should you do?

Firstly, don't panic. It's Kaspersky's job to imagine the worst-case scenarios, and then offer solutions. We don't foresee bank customers across the UK



losing hundreds of pounds through cash-machine hacks. In any case, that particular form of attack is more of a concern to banks.

But the company is right to highlight the dangers of hackers exploiting a Heartbleed-style flaw. Like Kaspersky, we believe security researchers will find more of these hidden bugs.

However, without knowing what these flaws are, it's impossible to say whether hackers have been exploiting them. Whatever threats appear in 2015, we will continue to tell you how best to protect yourself.

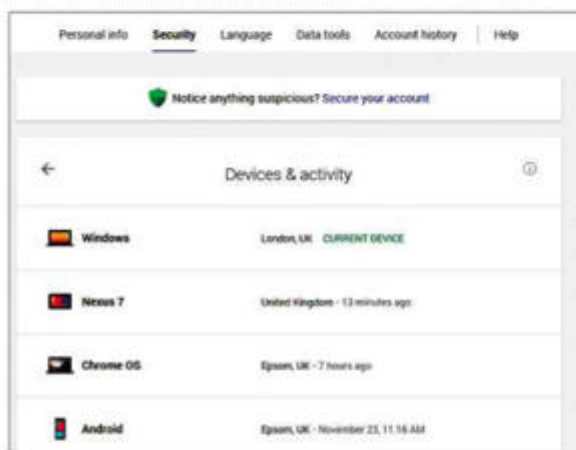
New tools

Google's 'Devices and activity' dashboard
www.snipca.com/14593

If you regularly access your Google account on more than one device, you should check the company's new 'Devices and activity' dashboard every couple of days.

It shows you which devices have had access to your Google account in the past 28 days, so if there's a phone, tablet or PC you don't recognise then you should investigate. If a device has accessed your account for the first time, 'New' is shown next to it. You can also see when your account was last accessed on each device and from which location.

But perhaps the dashboard is most useful as a way of checking whether a



lost or stolen phone has been used to access your account. If this has happened, click the red Remove button to revoke access, then click 'Secure your account' and change your password.



ScamWatch

READERS WARN READERS

Parcel-delivery scam

I want to warn readers about a scam that's got a lot of publicity in local papers in Lincolnshire, where I live, because I suspect criminals in other parts of the UK will soon try it. Scammers post a card through your letterbox supposedly from a company called Parcel Delivery Services. It looks official, and says they were unable to deliver a parcel, and you should ring 0906 661 1911. But the police say this is a premium rate number that costs you £315! I've done some research online, and it seems that this scam has existed for a few years. The company operating it is apparently based in Belize.

Jean Hart



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



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Bryan Water, OC3D.net

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Ryan Martin, eTeknix.com

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Best Free Software

Brilliant new programs that won't cost you anything

PHOTO EDITOR

Paint.NET 4.0.4

www.snipca.com/14650

What you need: Windows 7 or 8



Our 10th-favourite free program of all time (see Issue 433) was launched in 2004 as a university project, and quickly grew into a photo-editing tool as sophisticated as its expensive rival Photoshop and easier to use than its free rival Gimp.

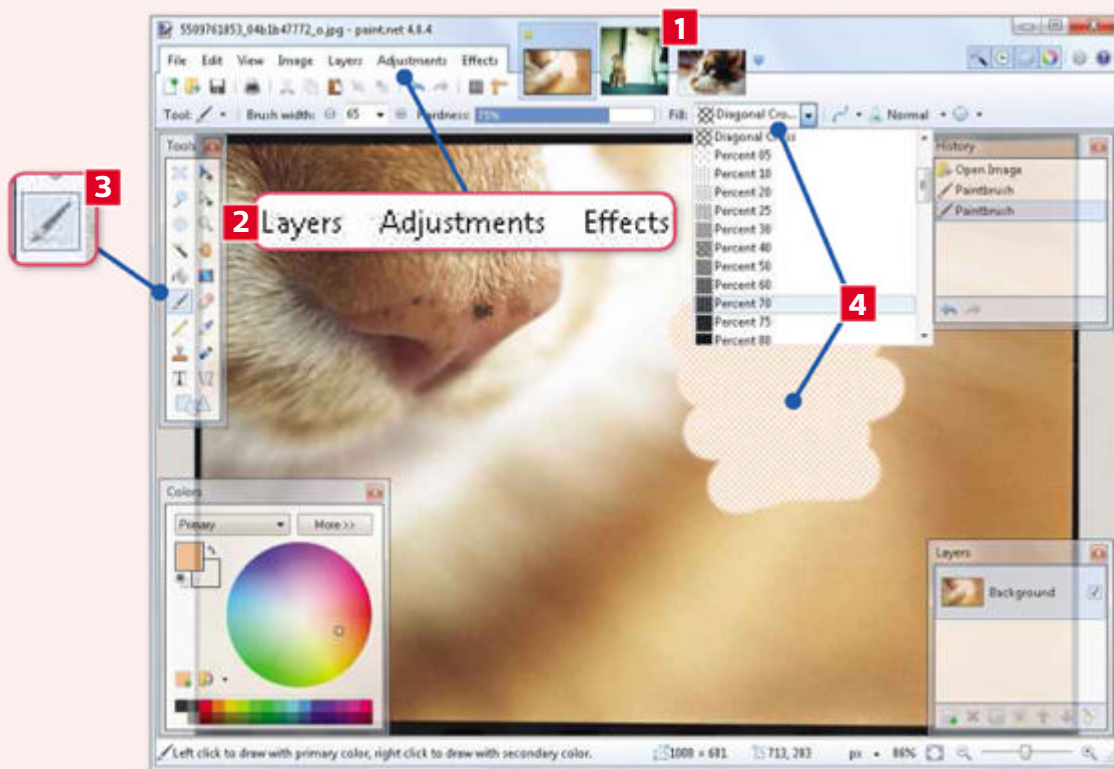
But a decade is a long time in software. As we saw in Issue 438, loads of free online tools are now as good as Photoshop, so why still use a program like Paint.NET? Its latest version answers that question with a range of improved tools that struggle to work smoothly in online editors.

For example, the Magic Wand tool, which you can use to select or cut out an area of a photo, is dramatically faster and more accurate in the new version of Paint.NET. Online editor Pixlr also has a Magic Wand tool, but its speed and accuracy

are at the mercy of your internet connection.

Other improved tools include Copy, Drawing and Text – which, according to the Paint.NET blog, used to “produce terrible looking text” (www.snipca.com/14649). The Fill option has been restored after previously being dumped.

Paint.NET's website (www.getpaint.net) has a wealth of excellent support material, including tutorials (www.snipca.com/14653) and plug-ins (www.snipca.com/14654), but you can't download the program directly from it; instead you're taken to a download mirror page (www.snipca.com/14650). The page is safe, but make sure you click the right download button. It's the black and white rectangle with 'Download Now dotPDN'. The program installer doesn't contain any adware.

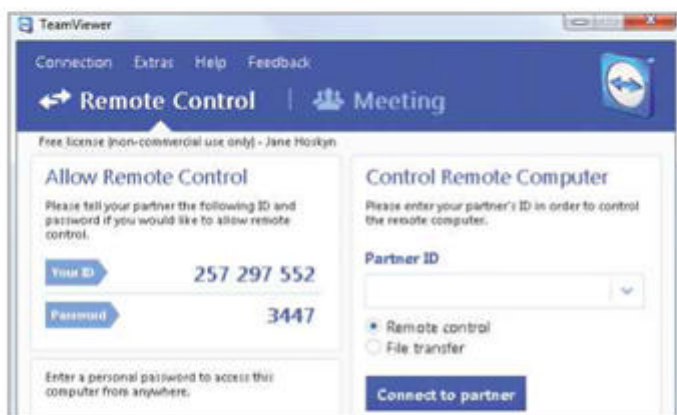


1 If you open a batch of photos in Paint.NET, they appear as thumbnails at the top of the window, so you can switch quickly between them like browser tabs.

2 You can apply most edits by using the Layers, Adjustments and Effects menus, where you'll find filters such as Motion Blur and Pencil Sketch.

3 Click the Paintbrush icon and adjust the brush width and hardness, then use your mouse to draw on your photo. You can now edit that area alone.

4 Paint.NET has restored the Fill option to its Paintbrush tool. Use the dropdown menu to fill your drawn area with a texture or colour.



REMOTE PC TOOL

TeamViewer 10

www.snipca.com/14665

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

TeamViewer is like Skype for PC problems. If someone you know is having difficulties with their PC's hardware or software, you can use TeamViewer to remotely view their screen and talk them through a solution. Both parties need to install TeamViewer on their PCs and swap unique security codes before connecting. This new version adds support for cloud services, including Dropbox and Google Drive, for easier file sharing while you chat. Download TeamViewer by clicking the small 'Download v10.0.36244' button with the Windows logo, then choose 'Personal use' when you run the installer.



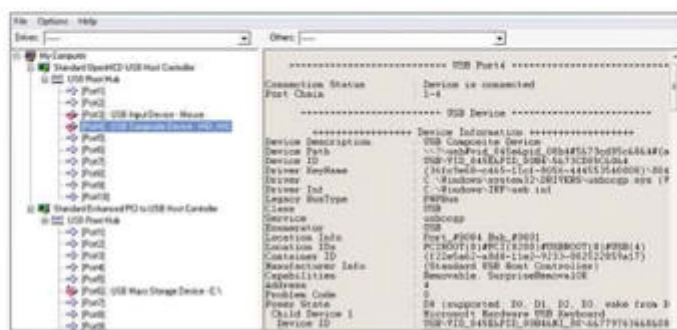
PC CLEANER

CCEnhancer

www.snipca.com/14667

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

CCleaner is already a fantastic tool, but CCEnhancer makes it even better. This new portable tool is effectively a plug-in for CCleaner, whose new-look version 5.0 was released in November (see Issue 438). Download and run CCEnhancer, then open CCleaner, where you'll find dozens more options in the Applications tab – or hundreds, if you have lots of software installed. The first time you run CCEnhancer, click Download Latest and wait a few seconds for it to update with the latest **virus definitions**, then open CCleaner when prompted. You'll need to have CCleaner installed (www.piriform.com/ccleaner).



USB TOOL

USB Device Tree Viewer

www.snipca.com/14668

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

There's more to your USB ports than meets the eye, as you'll discover when you run this small but powerful new program. It's like Device Manager for your USBs, with a list of ports and connected devices on the left, and a window on the right that provides technical details, including specifications, driver location and configuration details. You won't use it every day, but if you're having USB problems it may prove invaluable. See Fast Fixes on page 70 for more information on PC ports.

WHAT SHOULD I DOWNLOAD?

We tell you what software to use

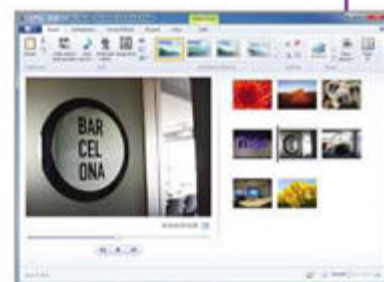
Which free video editor should I use in Windows 8.1?

Q I've recorded lots of video clips with my camcorder, and now I'd like to edit them together into longer films. Which free software should I use? I'm running Windows 8.1.

Liz Standen

A You don't need to look beyond Microsoft for excellent free video tools. First, try Windows Movie Maker (www.snipca.com/14673), which

works on Windows 7 and 8/8.1 and lets you trim and join your clips with ease. You can also speed up and slow down your film, add a soundtrack and include photos, then share the results online. If you have a Windows 8.1 tablet, also look at the new app Movie Creator, currently in **beta** (www.snipca.com/14674). The best program for converting video formats is VLC (www.videolan.org), which is free for all versions of Windows.



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

Reviews

New products tested by our experts

SMARTPHONE £399 (without contract) or free (with two-year £28 per month O2 contract) from www.snipca.com/14595

Amazon Fire Phone

Amazon's oddball 3D smartphone

The ruthlessly competitive smartphone market is dominated by Apple and Samsung, with former front runners like Nokia and BlackBerry now relegated to the status of has-beens, so Amazon is brave to launch its own smartphone. And this is a particularly bold move because Amazon's Fire Phone is the quirkiest, most distinctive phone we've seen in a long time.

Fire OS

Like the Kindle Fire range of tablets, the Fire Phone runs Amazon's heavily customised version of Android, called Fire OS. The interface is easy to get to grips with, but is clunky in places. The homescreen is dominated by a huge carousel that scrolls horizontally. It shows your most recently used apps, and below each icon there's a list of shortcuts specific to that app. For example, the

email app shows you a list of your most recent messages, while below the browser you see a list of your most frequently visited websites – tap the item to go straight to it.

This is all well and good, but the carousel takes up a lot of space and quickly becomes unwieldy once you've opened more than a handful of apps. What's more annoying, icons for most third-party apps don't show a list of shortcuts. Instead they suggest more apps you might like to buy. This makes the homescreen feel more like an intrusive advertising billboard at times.

Swipe up on the taskbar at the bottom of the screen to see a grid displaying all your apps. Swiping from the right of the screen (or tilting the phone to the left) shows you a handy summary of the weather, your upcoming appointments and any unread emails. Swiping from the left, (or tilting the phone to the right) shows you a list of tabs that let you access other content, such as videos and ebooks, whether they're stored on your phone or in the cloud, as long as they've been bought from Amazon.

The grid listing all your apps quickly becomes overwhelming because there's no way to sort it, and creating folders to organise apps is a fiddly process. Meanwhile, the tilt gestures should make the 5in phone easier to use for those with smaller hands because it negates the need to reach across the width of the screen with your fingers. However, it requires a very precise wrist action that we struggled with. We often resorted to using the touchscreen instead.

A bigger problem is the selection of apps. Google Play isn't available, so you're reliant on Amazon's app store. While most of the big titles (such as Facebook and BBC iPlayer) are present, the very latest apps arrive on Google Play first. Amazon's apps



are usually a version or two behind those on Google's store. The Fire Phone's operating system isn't all bad though. Like the Kindle Fire HDX tablets, it has the useful Mayday video help service (see our review, Issue 414, for more details).

3D and Firefly

One reason Amazon customised Android so substantially was so it could include some unique features. The most eye-catching of these is what Amazon calls Dynamic Perspective. This creates a 3D effect with the illusion of depth that you can see without having to wear special glasses. It does this by using four tiny cameras, embedded into the border surrounding the screen, that track your eye and head movements. The onscreen graphics then change instantaneously in



response to these movements to show you a different perspective. This is prominently used on the lock screen, where you can see 3G CGI vistas of ancient Egyptian temples and volcanic landscapes, for example.

There are more practical uses of Dynamic Perspective, but they're all flawed. You can create your own virtual 3D photographs, but to achieve a realistic effect you have to take lots of photos. Each successive photo needs to be slightly different from the previous one, which are then all combined into a single 3D photo. This is fiddly and time-consuming to do. Dynamic Perspective is also used in some apps, such as the Maps app (see right) where more information about landmarks are revealed as you move your head. During our test, this was far too easy to activate accidentally, especially when we were walking down the street, making it intrusive and annoying.

Firefly is a feature that tries to make shopping easier. When you're shopping, press and hold the camera button on the side of the phone, point the camera at something you'd like to buy and Firefly should recognise it and take you to the listing for it on Amazon, so you can buy it without the hassle of typing or searching. It worked best for us when the object we were photographing had few other distracting items around it. But even then it worked fitfully. For example, it mistook a Kindle Fire tablet for a tablet case.

Hardware and call quality

While the Fire Phone's software is a mixed bag at best, its hardware is generally more impressive. While it looks plain, its glass back and rubber-coated metal frame make the phone feel very sturdy, if a little heavy. The 4.7in screen looks sharp thanks to its 720p resolution and is bright with very good contrast and colour accuracy.

The touchscreen was by and large very responsive, while the 2GB of memory and Snapdragon quad-core processor made short work of our demanding benchmark tests. The 13-megapixel camera was far less impressive, though. Shots in broad daylight suffered from a

SPECIFICATIONS

4.7in 1280x720-pixel touchscreen • 2.2GHz Qualcomm Snapdragon 800 quad-core processor • 2GB memory • 32GB storage • 4G • Nano SIM • Fire OS 3.6 • 160g • 139x67x9mm (HxWxD) • Two-year warranty www.snipca.com/14595



soft focus, while colours often looked either over- or undersaturated. Photos taken in dimly lit conditions were far too blurry and full of noise.

Call quality on O2's network in central London was generally very good. Callers reported that our voice sounded loud and clear, and that background noise from a nearby building site was almost completely filtered out. Our only niggle was that caller's voices sounded a touch harsh and high-pitched to us. The Fire Phone's battery lasted a lengthy 12 hours when playing videos on a loop, but it wasn't as impressive when used for calls, browsing the web, GPS and taking photos on O2's 4G network. In this more demanding test, it only lasted a below-average 22 hours.

Conclusion

The Amazon Fire Phone has many interesting and ambitious features, but almost all of them fall flat. This is a real shame, especially because some of them have been designed to make the large 5in phone more comfortable to use for people with small hands. We could've forgiven these flaws at a lower price, but the Fire Phone is expensive for an Amazon device. It costs £399 without a contract and even then it's still locked to O2 (unlocking it for use on other networks costs another £15). We hope Amazon keeps at it, but for now you're better off with another smartphone.

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*.

FAIR AND IMPARTIAL

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 phone with lots of unique and unusual features, but most of them are half-baked



ALTERNATIVE: Apple iPhone 5s **£459** A little more expensive, but with a superior camera, an unrivalled selection of quality apps and a sensibly sized, high quality 4in screen.



Reviews

VIDEO-EDITING SOFTWARE | £80 from www.snipca.com/14549

Adobe Premiere Elements 13

A turning point for home video editing

Software developers often try to make video editing less time consuming and intimidating by simplifying the process with automatic editing facilities. But we've never seen the appeal of twee templates and automatic editing options that randomly throw video clips together. Thankfully, Adobe Premiere Elements 13 has a new Video Story feature that removes much of the effort and complexity, yet produces surprisingly good results.

First, you choose from eight themed templates (including Party, Festive, Birthday Bash and Graduation Day). Two wedding-themed templates seems a tad excessive, and we'd prefer a few more generic Day Out templates, but it's a decent starting point.

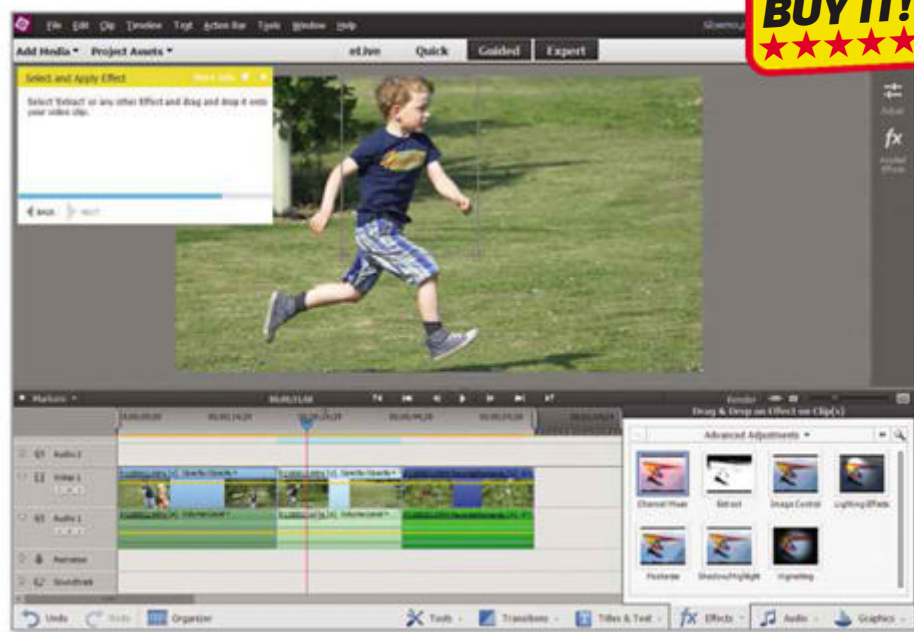
Next, you group your clips into chapters. This is far more convenient than a traditional **timeline** and helps you develop some narrative structure to the video. Chapters are already titled in accordance with the template's theme, but it's easy to rename, re-order and delete them (though not reformat the chapter headings or omit them entirely).

“Removes the effort and complexity, yet produces surprisingly good results”

With your video footage in place, the software analyses it to pick out the best bits. If you don't like its selections, one button click reveals the new Favorite Moments editor, where you can re-select which footage to use. These controls are delightfully simple – drag the highlighted blocks to mark the sections of footage you want, or click the button during playback.

Effects and music are added automatically, but these too can be customised. You can also speed up a video clip or apply a slow-motion effect by choosing the Crisp, Normal or Slow edit speeds.

We've seen dozens of automatic-editing



modes, but this is the first time we've actually liked the results. Being able to arrange clips into named chapters helps to create a coherent narrative and it's usually quite easy to override the automatic editing decisions if you want.

If you don't need this level of assistance, you can still use the Favorite Moments editor to help identify the best bits in your clips. It's quicker and more intuitive than chopping and truncating clips on a timeline.

Premiere Elements also caters for more ambitious users. There's a huge amount of power and lots of advanced functions in Expert Mode, although they aren't easy to find or get to grips with. You can, however, turn on Guided Mode to provide tutorials while in Expert Mode. One new tutorial explains how to make video appear inside text, while another shows how to apply effects to a specific area within a frame. The Guided Mode here is much more successful than the one in Photoshop Elements 13 (see our review, Issue 438), because it helps users get to grips with Expert Mode's controls rather than merely repackaging them and limiting what you can do with them.

SYSTEM REQUIREMENTS

Windows 7 or 8 • 2GHz processor • 2GB memory • 5GB of hard-drive space www.snipca.com/14551

While the most experienced users won't need any of this, they will appreciate the new Shake Stabilizer effect, even though it takes a while to analyse and stabilise footage. One word of advice: avoid Quick mode, which speeds up processing times by deliberately dropping frames. Stick instead with the Detailed mode, which doesn't drop any frames. It also produces steadier results than the old Stabilizer effect in version 12 and produces previews of the stabilised footage that play more smoothly.

Premiere Elements 13 is a great improvement over the previous version. Its export options could be friendlier and some of its advanced features can be fiddly to use. However, no other video editor caters so well for both beginners and advanced users.

VERDICT: Classy and sophisticated video editing for all skill levels

★★★★★

ALTERNATIVE:
Sony Movie Studio
Platinum 13 £60
Fewer bells and
whistles, but this program is quick to
use and it excels at colour correction



LAPTOP | £199 from www.snipca.com/14514

Toshiba Satellite CL10-B-100

This £199 Windows 8.1 laptop is no bargain

Chromebooks are great budget laptops, but they can only run **web apps**, which is limiting if you have a favourite Windows program that has no online equivalent. The Toshiba Satellite CL10 is the first in a small wave of £200 Windows 8.1 laptops designed as an alternative to Chromebooks.

The CL10 looks surprisingly stylish for such a cheap laptop, with a bronze-coloured casing and a subtle checked pattern on the lid. It's reasonably sturdy and weighs just 1.1kg, rising to 1.3kg with its charger. Combined with its respectably long battery life of seven and a half hours, this means it should be ideal for use on the move.

However, its poorly designed keyboard makes using the CL10 a pain. Some of the

“It slowed to a crawl when multiple programs were open”

keys, such as tab and caps lock, are smaller than the others, which will trip up touch typists. The keys' lack of **travel** and **feedback** makes typing frustratingly inaccurate and uncomfortable.

Although the touchpad is smooth and accurate, its small size meant we often inadvertently activated gestures – such as swiping in from the right to show Windows' Charms bar – while its buttons are uncomfortably stiff.

Performance is painfully slow. The **dual-core** Intel Celeron N2840 **processor** is paired with a meagre 2GB of memory and so was only fast enough to run very undemanding programs. While the CL10 just about coped with basic office work

SPECIFICATIONS

2.16GHz Intel Celeron N2840 dual-core processor • 2GB memory • 32GB SSD • Intel integrated graphics • 11.6in screen 1366x768 pixels • 802.11b/g/n • Windows 8.1 • 1.1kg weight (1.3kg with charger) • 20x289x199mm (HxWxD) • One-year warranty • Part code PSKVEE-00300NEN www.snipca.com/14515



and simple image editing such as cropping, video editing is out of the question and the small amount of memory made it slow to a crawl when multiple programs were open. HD video sometimes stuttered, especially in fast-moving action scenes. Even web apps often ran slowly, especially when we had lots of browser tabs open, with Google Docs frequently struggling to keep up with our typing.

At least starting up and waking from sleep were fast due to the 32GB **SSD**. You will probably need to use external or online storage, though, as half of the SSD is taken up by Windows. Handily, 100GB of OneDrive online storage is provided free for two years. As expected the 11.6in display had poor contrast and tight viewing angles. Images also had a blue-ish tint, but it was at least bright.

The Toshiba Satellite CL10 is cheap and has long battery life, but it's horribly flawed in almost every other way. It's such poor value that we can't possibly recommend it.

VERDICT: It may be incredibly cheap, but buying this laptop would be a false economy

★ ★ ★ ☆ ☆ ☆

ALTERNATIVE:

Asus Chromebook C200 **£200** This budget Chrome OS laptop is a far better budget computer, although it can't run Windows programs



Accessories

Microsoft Universal Keyboard

£53 from www.snipca.com/14617

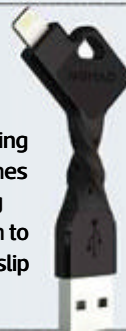
A Bluetooth keyboard that can be used with your iOS, Android and Windows devices at the flip of a switch with no fiddly configuration. On top of that, the keyboard cover doubles as a stand for your phone or tablet.



NomadKey

£22 from www.snipca.com/14620

A compact cable for charging your smartphone that comes in **microUSB** and Lightning versions. It's small enough to hang off your keychain or slip into your wallet.



Proporta SafeKeep

£25 from www.snipca.com/14621

A black leather wallet with a shielded pocket where you can stash one of your contactless payment cards so you're not inadvertently double-charged.



Kjstar Z07-5 Wireless Monopod

£16 from www.snipca.com/14622

Take photos from more interesting angles by attaching your smartphone to this extendable rod (up to one metre) using the secure mount. It works with any Bluetooth-equipped smartphone.



Reviews

SET-TOP BOX | £79 from www.snipca.com/14537

Amazon Fire TV

Tell this set-top box what you want to watch

There are plenty of devices for watching streaming video on your TV, from Blu-ray players and set-top boxes, to smart TVs themselves, but almost all of them get their interfaces wrong. They present you with a grid of icons, similar to the homescreen of a smartphone or tablet, and you then search for what you want to watch either by clicking on each icon and then scrolling through long, juddery lists that are slow to load or by typing search words using a fiddly on-screen keyboard via the remote.

Amazon's Fire TV set-top box takes a different approach that comes close to getting it right. The interface is dominated by a series of carousels that scroll horizontally. The top carousel shows you the TV shows and movies that you've watched recently, and you can resume watching from where you left off. Other carousels show new additions to Amazon's library of content, categories such as Kid's TV or 'Action and Adventure', as well as suggestions based on your viewing history. We found that scrolling through the carousels was fast and smooth, and the interface is refreshingly easy to use compared to the competition.

Although you can tap out search words using the clumsy on-screen keyboard, it's much easier to simply press and hold the mic button on the remote control and speak your search terms into the remote's built-in microphone. Unlike the voice search on smart TVs, the voice recognition here was almost always spot on. The search results themselves were flawed, though. Searching for 'Doctor Who', for example, showed only the most recent series and not older series which we found instead in the carousels. Searching for 'Roman Polanski' and 'film noir' drew a blank even though *Chinatown* is available.

There's plenty to watch with a broad range of movies and TV shows available either to buy or rent, from the usual Hollywood and home-grown fare, to more



exotic Bollywood and continental art house choices. Some content is included in Amazon's Prime Instant Video service which costs £5.99 a month (a free one-month trial is included with the Fire TV). This service lets you watch as much as you want, with no extra charges, from a huge selection. It doesn't include the very latest releases, but does include shows commissioned by Amazon itself.

“The voice recognition was almost always spot on”

If something is missing from Amazon's catalogue, there are apps to fill the blanks. Apps for Netflix, BBC iPlayer, Demand 5, STV and Curzon Cinema's art house film-streaming service are available. ITV Player, 4oD and Blinkbox are missing, though. Apps reveal another flaw in the interface: content from these apps aren't included in voice-search results and don't appear in the carousel of your recently watched programs.

Extra features include games and music-streaming apps, such as Spotify, as well as the ability, with just a few clicks on the remote, to listen to music bought from Amazon's MP3 store and view any photos you've stored on Amazon's online-storage service. The only way to play your own video files is to store them on a NAS and

stream them using an app.

The Fire TV itself is a small, plain black box. Since the remote uses Bluetooth instead of infrared, you don't need to point the remote at the box to make it work. You can therefore tuck the box out of sight. Setting it up is a doddle, with a simple wizard and video tutorial appearing onscreen the first time you use the Fire TV. More tutorials are available if needed.

Amazon's FireTV comes close to being the perfect way to watch streaming video, but its slick interface needs refinement and you have to be happy buying into Amazon's various services to get the most out of it. For now we'd rather use the Roku 3 (see our review, Issue 411), but we hope Amazon improves upon this very promising first step.

VERDICT: This set-top box has the best interface yet for browsing and watching streaming video, but it still has its flaws

★★★★☆

ALTERNATIVE: Roku 3 £99

A set-top box with a more basic but still easy-to-use interface, as well as apps for Netflix, Sky's Now TV and all the terrestrial TV catch-up services. It also lets you play your own media files via USB



SPECIFICATIONS

1x HDMI • 1x 10/100Mbps Ethernet • 1x optical audio
• 18x115x115mm (HxWxD) • 281g • One-year warranty
www.snipca.com/14537

Nero 2015 Platinum

Burn your files to disc or stream them to all your devices using this handy suite of programs

Nero's disc-burning program has been around for ages and has now evolved into a suite packed with other media-related features. The latest 2015 Platinum release includes the core Nero Burning ROM software for burning DVDs, Blu-rays and other optical discs, as well as applications to manage, share and edit your video, audio and image files on your PC.

Burning ROM has always been an excellent program for writing optical discs and it's virtually unchanged from previous versions. It still lets you add files to discs using an easy drag-and-drop interface, while offering a whole range of options, including DiscSpan which automatically spreads your data across multiple discs if it won't fit on one.

While Burning ROM is fairly simple to use, you can make life even easier with the cutdown version, Nero Express. One minor niggle is that the user interface in both applications looks a little dated when compared with other programs in the suite.

“A useful suite, with good apps, but a little expensive”

Of these other apps, the next most useful is MediaHome, which categorises image, video and audio files on your PC by data such as tags, date created and (for the first time) location, so you can browse them more easily. MediaHome now also detects individual faces in your photos, grouping images of the same person and letting you tag an image with that person's name. While this face-recognition feature works fairly well, it can be caught out by sunglasses, facial hair or growth spurts in children, and then tends to create multiple groups of pictures for the same person.

You can view or listen to media files directly from within MediaHome, but as with previous versions the experience isn't particularly slick. For example, you can't queue music up to be played next



while an existing selection is playing. Still, the software supports a huge number of video, audio and image formats.

Where the suite really excels is in sharing media from your PC to other devices on your home network. The previous version of MediaHome added a media server that let you play audio and video stored on your PC on other devices, such as a smart TV or set-top box. Now you can stream media to a mobile device running Android or iOS using the Nero MediaHome Receiver app. Cleverly, MediaHome automatically converts the stream to the optimum format for your mobile device. Bear in mind that streaming only works over your home Wi-Fi network. You won't be able to watch the videos on your work PC during your lunch break, for example.

Three other apps work with the Nero suite: MediaHome WiFi Sync lets you synchronise media files between your computer and mobile device, while Nero AirBurn lets you burn content from your mobile device to a disc, although the process is slower than copying the content from your device to your PC and

then burning it. BackItUp lets you back up a device to your PC or to Nero's servers (you get 5GB of space free). You can download a version of BackItUp for your PC, but you'll need to sign up for a paid plan to unlock key features such as scheduling and support for local storage. Plans start from £11 per year.

As with previous versions, Nero 2015 Platinum is a useful suite with some good apps. There's a lack of consistency in app design, however. The newest look slick, while older ones are cluttered and dated. More importantly, it's rather expensive. Nero 2015 Classic is cheaper (£47 from www.snipca.com/14590) and only lacks 4K video support and a few advanced video-editing features, making it a better buy for most.

VERDICT: This media suite is good, if a little pricey. Unless you need 4K playback and editing, save a few quid by opting for Nero 2015 Classic instead

★★★★☆

ALTERNATIVE: CDBurnerXP Free If you just want to burn files to disc, then this free program is just the thing



SYSTEM REQUIREMENTS

Windows XP SP3 or later • 2GHz processor or faster
• Minimum 1GB of memory • Minimum 5GB of hard-drive space www.snipca.com/14565

Reviews

TABLET | £250 from www.snipca.com/14536

Lenovo Yoga Tablet 2 (10in)

A 10in Android tablet with a quirky design

Many tablets are designed to resemble the iPad, but the Lenovo Yoga Tablet 2 takes a different approach. Not to be confused with the 8in Yogas and those versions running Windows 8, this Android tablet has a cylinder on its bottom edge (in landscape mode) that houses a flip-out stand. This can be used to prop up the tablet at a slight angle for easier typing or at a 45- or 90-degree angle for watching videos.

The stand even has a small hole in it so you can hang it from a hook in the shed or garage, making it easier to refer to when working on a DIY project, for example. The stand is quite stiff however, so it's a little tricky to flip out, and although it's made of sturdy metal, the rest of the Yoga Tablet 2 is cased in creaky plastic that bends and creaks under pressure.

The metal stand is responsible in part for the tablet's hefty 600g weight which, along with the bulky cylinder, makes it uncomfortable to hold for long periods of time. One reason for the cylinder's bulk is that it houses a sizeable battery, which in our tests lasted an impressive 13 hours

SPECIFICATIONS

10in 1920x1200-pixel touchscreen • 1.3GHz Intel Atom Z3745 quad-core processor • 2GB memory • 16GB storage • Intel integrated graphics chip • Android 4.4 KitKat • 600g • 8x261x180mm (HxWxD) • One-year warranty www.snipca.com/14536

20 minutes when playing video.

Performance was also impressive, with the 1.3GHz Intel Atom Z3745 **quad-core processor** and 2GB of memory speeding through our demanding benchmark tests.

Responsiveness was lacking though, with the touchscreen often lagging behind our finger swipes and prods.

Even more annoying was the poor quality of the 10in screen. While it has a high 1920x1200-pixel resolution, text was disappointingly fuzzy, while colours suffered from oversaturation and poor contrast. Turning off Lenovo's screen settings lessened some of these flaws, but not all.

Irritatingly, Lenovo has modified the Android 4.4 KitKat interface so that it imitates iOS by removing Android's app drawer. This means all your apps end up on your homescreen whether you want them there or not. Lenovo has also changed the Notifications drawer by segregating the Settings shortcuts into their own slide-up drawer at the bottom of the screen. You can at least restore the app drawer by installing Google's Now Launcher app (free from www.snipca.com/14535), which also makes the Google Now personal assistant easier to access.

There are some useful enhancements, such as the ability to use two apps on screen side by side, but even this isn't an



unqualified success. But the Yoga has a much smaller selection of compatible apps than Samsung's Android tablets, which have a similar feature.

The 10in Yoga Tablet 2 has a lengthy battery life, fast performance and is affordable. But it's let down by a poor-quality screen, bulky design, irritating interface and poor responsiveness. Unless you'll frequently use the stand, it's worth paying a little more for the Google Nexus 9 instead.

VERDICT: Not without its charms, but this tablet is let down by multiple flaws



ALTERNATIVE: Google Nexus 9 £319 Superior screen quality, performance and responsiveness make this 9in Android tablet far better, despite the higher price and slightly shorter battery life



WHAT SHOULD I BUY? We solve your buying dilemmas

What's the best keyboard for a blind person?

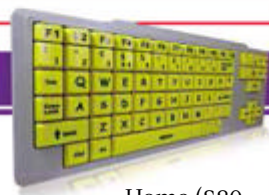
Q I have a friend who is almost blind and needs to buy a keyboard for her PC, but a Braille keyboard isn't suitable for her condition. What would you suggest?

William Hamilton


A There are several keyboards available which are designed for the partially sighted. The Duragadget Special Needs Keyboard (£17 from www.snipca.com/14606) has bright, colourful keys and is designed

for children, but the large keys and lettering make it useful those with impaired vision. The HCL Visually Impaired Keyboard for Special Needs (£17 from www.snipca.com/14607) also has large keys and lettering, but the black letters on yellow keys provide greater contrast (see photo). Other models with white letters on black keys and black letters on white keys are also available.

Alternatively, you should consider voice-recognition software such as Nuance Dragon NaturallySpeaking 13



Home (£80 from www.snipca.com/14608). Your friend will need to spend a few minutes training the software to recognise her voice, but she could find that dictation is much faster and more convenient than typing. Whatever you end up buying, it's a good idea to get it from a retailer with a generous returns policy just in case she doesn't like the product in question.

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

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2000GB SATA 7200rpm Hard Disk
Corsair CX750 Power Supply
24x DVD-RW Optical Drive
Windows 8.1 64bit

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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-lv>

A year of reviews... in review

It may not have been a landmark year for tech products, but 2014 still gave us plenty to get excited about. Reviews Editor **Alan Lu** gives us his highlights

It's all too easy to take technology for granted or to dismiss the latest products as nothing more than trivial gimmicks. Indeed, as I've been reviewing computing and technology products for nine years now, I more than most might be forgiven for being a little jaded. In fact, nothing could be further from the truth. While 2014 hasn't been a landmark year of ground-breaking, awe-inspiring technological wonders, there's still been plenty of products to get excited about over the past twelve months.

PCs, SSDs and monitors

Of late Windows has become something of a chore, with its endless security updates, interface changes and other niggling distractions, when all we want to do is actually use our computers. That's why I like the simple pleasures of Chrome OS, and 2014 finally saw the arrival of high-quality budget Chrome OS computers. Although its reliance on **web**

PCs, such as the **LG Chromebase** (see our review, Issue 435) are quiet and take up minimal space.

The great thing about Chrome OS computers is that they start up and wake from sleep in the blink of an eye, thanks in large part to their **SSDs**. These super-fast hard-drive alternatives finally became affordable in 2014 and we're now starting to see these same benefits in a range of Windows laptops and PCs. The blisteringly fast 512GB **Crucial MX100** SSD outpaces any hard drive at just £150, while the 1TB **Crucial M550** comes in at £330. A 1TB SSD would've cost you twice as much in 2013. Next to adding more memory, an SSD is the best upgrade you can buy for your PC.

4K and **5K** monitors are great, but for now **1080p** monitors are still more than sufficient for most people's needs and won't cost you an arm and a leg. With quality 1080p monitors like the **AOC i2360PHU** costing just £150 (see our review, Issue 422), adding an extra monitor or two to your computer's setup to create more Desktop space for your programs has never been cheaper. I have three monitors connected to my work PC and I could never go back now.

Home tech, TV and Google wearables

Smart home technology has been anticipated for years, but it finally started arriving in earnest in 2014 with products like the **Nest Thermostat** (below) and **Nest Protect smoke alarm** (see our reviews, Issues 430 and 416 respectively). Both are far easier to use than their less smart rivals and enhance your quality of life in small but appreciable ways. You can



control the Thermostat from afar with your smartphone, so you never arrive back to a cold home or rack up huge bills because you keep leaving the heating on inadvertently. The Protect gives you peace of mind with low-battery alerts via its apps and its foolproof indicator lights.

Technology can also be fun of course. The **Humax DTR-T2000 YouView+** is easily the best all-in-one **PVR** and set-top box we've seen (see our review, Issue 433). All the terrestrial TV catch-up services you can handle, and a hard drive that holds up to 500 hours of broadcast TV means you can get the most out of your licence fee and never be short of viewing pleasures on a lazy Sunday.

While **Google Glass** may have gotten all the attention when it finally showed up back in June, it was **Google Cardboard** (see photo above), the company's other wearable computer, that I actually spent good money on (see our review, Issue 435). This cheap DIY virtual-reality, smartphone-based headset lets you enjoy panoramic holiday photos or just have a bit of simple fun.

Smartphones are slowly getting some seriously good cameras, but for image quality you still can't beat an interchangeable lens camera like the **Sony Alpha A5000** (see our review, Issue 428). With a little practice, you'll be taking photos that beat the living daylight out of what you'll achieve with a dedicated compact camera.

In terms of tech products, 2014 has been a year of sliding prices and gradual refinement rather than explosive new breakthroughs, but it's never been dull.



apps and online storage means it won't suit everyone, its simple interface and low-maintenance nature make Chrome OS a hassle-free computing experience. Chrome OS laptops, such as the **Dell Chromebook 11** (see photo above) and the **Asus Chromebook C200** (see our reviews, Issues 425 and 432 respectively), are cheap yet have long-lasting batteries, comfortable keyboards and lightweight designs. Meanwhile, Chrome OS desktop



PORTABLE CHARGER | £149 from www.snipca.com/14591

Intelligent Energy Upp Starter Kit

A portable hydrogen fuel cell for your mobile devices

The Upp is unlike any portable USB power bank we've seen before. Most have a battery, similar to the one in your smartphone or tablet, that's charged from a wall socket. The Upp is a hydrogen fuel cell, which uses a technology that converts hydrogen into electricity.

This technology sounds futuristic and has been mooted as a more energy-efficient alternative to petrol engines and laptop batteries for years. But fuel cells have previously been bulky, so we were impressed that the Upp is small enough to fit in your bag. It's still a beast compared to other power banks though (weighing 620g), and is comparable in shape and size to a large torch.

The Upp actually consists of two parts – a hydrogen cartridge and a converter, which houses the USB port into which you plug your smartphone or tablet. The two sections are attached magnetically. The converter needs a good air supply to work properly, so it would be best not to leave it in your bag when charging. Hydrogen fuel sounds dangerous, but it's safe enough to be allowed on commercial flights.

The Upp Starter Kit comes with one fuel cartridge. With extra cartridges costing a whopping £50 each, it's more economical to swap empty cartridges for new ones at participating shops for just £10. Participating retailers are currently thin on the ground though, with around a dozen in London and just three in Birmingham. You can use the free Upp app to find your nearest shop. When connected, the app can also tell you how much charge is left in your mobile device and your fuel cell.

In our tests, the Upp added an extra 16 hours of video playback time to our first-generation Moto G phone. While this is a respectable score, it's disappointing for a power bank at this price, weight and

size. It's also worth pointing out that the Upp makes a faint clicking sound when charging which, along with its size, can make you feel conspicuous in public.

The Upp's hydrogen fuel cell technology is clever, but the product is flawed. It's big, heavy and expensive, yet delivers a relatively small amount of extra battery time compared to traditional power banks, making it poor value. If you're heading into the wilderness for a long time and need power for your mobile devices, then an Upp and several cartridges might be worth considering, but even then you'll need deep pockets and lots of room in your rucksack.

VERDICT: Heavy and expensive, this futuristic power bank is only for the well-heeled

★★★★☆

ALTERNATIVE: Innergie Pocketcell Duo £89 A cheaper and more conventional USB portable power bank that gave us an extra 19 and a half hours of battery life



SPECIFICATIONS

Converter: 120x40x48mm, 235g • Cartridge: 91x40x48mm, 385g www.snipca.com/14592

COMING SOON

JANUARY 2015

Google's Project Ara is an ambitious initiative aiming to develop an upgradeable smartphone based on a design of easily interchangeable blocks. The first Ara phones and blocks are likely to be **beta** versions, much like the current version of Google Glass (see below).



SPRING 2015

A rival upgradeable Android smartphone to Project Ara from Finnish company Circular Devices is in the works. The Puzzlephone will be less ambitious with just three modular components.



The Verge

SPRING 2015

Echo is Amazon's voice-activated personal assistant, similar to Siri and Cortana, but is built into a standalone mains-powered device for your home rather than into a tablet or phone. UK pricing and availability haven't been confirmed, but it costs \$200 (£126) in the US.



Softpedia

SPRING 2015

A second version of Google Glass with an Intel **processor** is reportedly on the way. It's rumoured that the new processor will extend the Glass' battery life to two days.



NEXT ISSUE

ON SALE
7 Jan



FUZE T2-R

A Raspberry Pi-based PC with a robot arm

Sony Xperia Z3 Tablet Compact

Sony's waterproof Android mini tablet

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LAPTOP

Apple MacBook Air 13in 128GB
£849 from www.snipca.com/10020
Tested: Issue 402



Apple's latest MacBook Air isn't cheap, but it's the best lightweight laptop available. It has excellent battery life, a comfortable keyboard, a sensibly sized screen, a sturdy and classy build and great bundled software.

ALTERNATIVE: **Asus Chromebook C200**
 A cheap Chrome OS ultra-portable laptop with a bright screen, lengthy battery life and great keyboard. £200 from www.snipca.com/13460

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: **Braebo Hemera A**
 A cheap, complete PC system that's powerful enough for basic tasks. £350 from www.snipca.com/12606

TABLET

Apple iPad Mini 2
£239 from www.snipca.com/14467
Tested: Issue 416



Apple's mini tablet from last year 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**
 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

PRICE DROP

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

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SECURITY SOFTWARE

Kaspersky

Internet Security 2015

£17.99 from www.snipca.com/14212

Tested: Issue 437



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 Great antivirus software, but sometimes blocks legitimate software. £29 from www.snipca.com/14479

SMART TV

Samsung UE32H6200

£350 from www.snipca.com/13101

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. £450 from www.snipca.com/12931

COMPETITION

Win 1 of 3 CorelDRAW Home & Student Suite X7

The latest version of Corel's Home & Student software package features advanced photo-editing tools, a redesigned user interface and powerful fill capabilities, all in an easy-to-learn environment. It also provides access to 1,300 high-quality and digital images, 100 high-resolution digital photos, 125 fonts, 75 photo frames, over 100 professionally designed templates, 100 fills, over two hours of training videos, and much more. It's an exceptional product, receiving a five-star Buy It award from *Computeractive* in Issue 436. To enter, email your address to cacomp@dennis.co.uk by midnight 6 January.



CorelDRAW Home & Student Suite X7 costs £99.95. For more info visit www.coreldraw.com/homestudent and follow @CorelDRAW on Twitter.

SECURITY CAMERA

Y-cam HomeMonitor HD

£140 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. £101 from www.snipca.com/12741

ROUTER

Trendnet TEW-812DRU

£104 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. £220 from www.snipca.com/14350

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. £70 from www.snipca.com/12909

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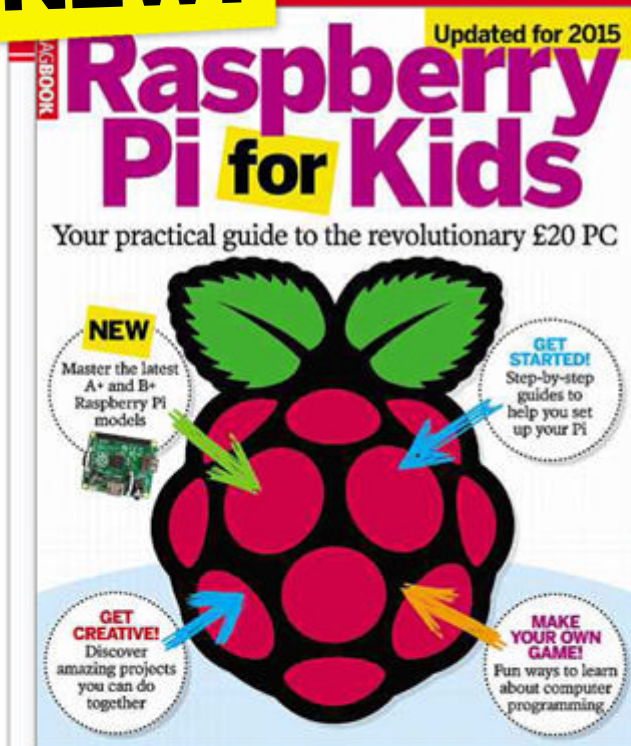
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The Raspberry Pi is the incredible £20 British computer that's taking the world by storm. It's ideal for children of all ages to experiment, play games and learn valuable skills. We've updated this 148-page book for 2015 to include instructions on mastering the new Pi models (A+ and B+), helping children learn the coding skills needed to excel at the new school curriculum. We take you step by step through the basics of setting up and configuring the Pi and introduce many fun projects for families.

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Workshops & Tips

PULL OUT
& KEEP
Issue 439

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

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40 Fix 50 Windows 8 problems in one click
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43 Readers' Tips
44 Phone & Tablet Tips
46 Make Windows Better

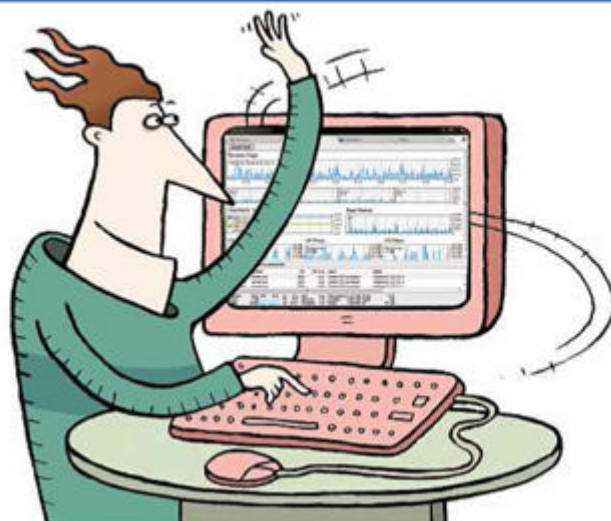
47 Make Office Better
48 Secret Tips For... Task Scheduler

Identify programs that crash your PC

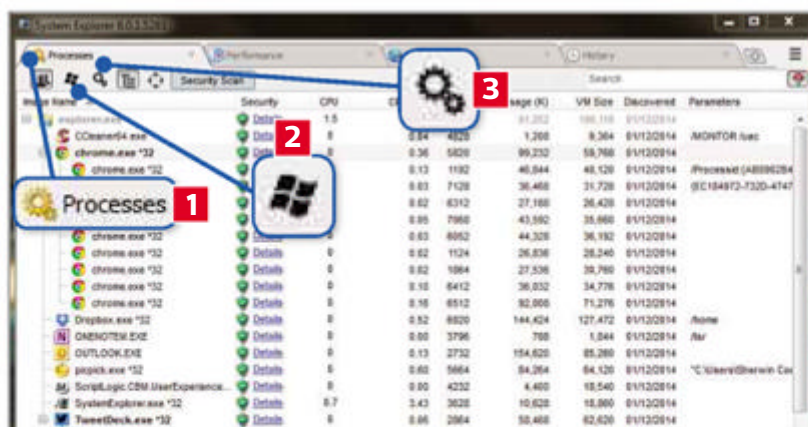
What you need: System Explorer; Windows XP, Vista, 7, 8 or 8.1
Time required: 40 minutes

Windows Task Manager lists all the processes running on your PC and lets you terminate those you don't want. The free tool System Explorer is a more comprehensive alternative to Task Manager. Its latest version lets you

monitor the effects these processes have on your PC's resources over a period of time. You can then use System Explorer to identify any programs that might be crashing your PC and either stop them running or uninstall them.



STEP 1 Go to www.snipca.com/14616, scroll down and click the Download System Explorer Installer (6.1.0) link at the top. Click the setup file that downloads to your PC, Run, select Express Installation **1**, then click Next **2**. Before it launches, System Explorer will prompt you to begin a security check of all the processes on your PC. Click Start Security Check. If you see a message advising you to eliminate any threats or suspicious files, follow the steps to remove them. Click the 'See the results of the security check' link to see a detailed summary of your scan.

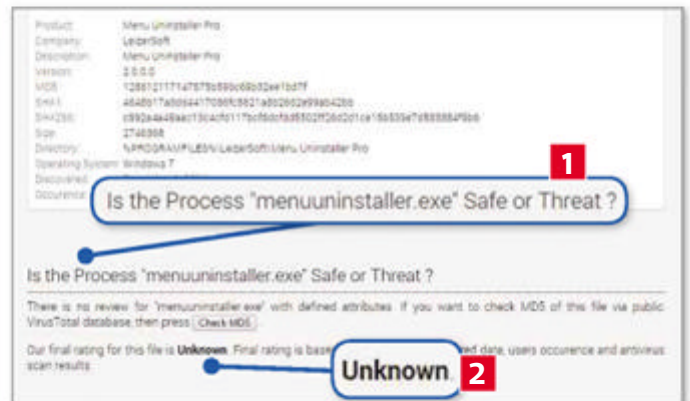


STEP 2 By default, System Explorer opens in the Processes tab **1**, which lists all processes running on your PC. Microsoft programs and your PC's system services are needed for your PC to work. To hide these processes from the list, click the Microsoft icon **2** and the cog icon **3** next to it. By default, System Explorer reveals open processes in a tree dropdown menu. Click the tree icon (to the right of the Services icon) to view the processes individually.

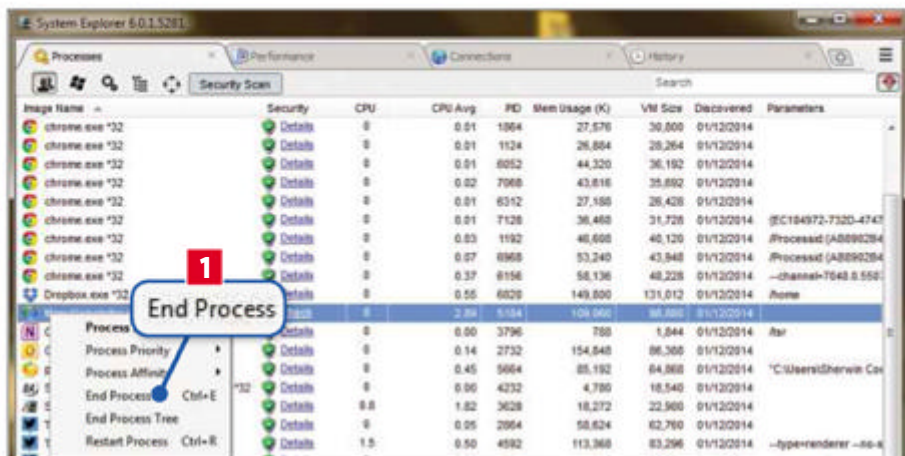
Workshops



STEP 3 Click the Performance tab **1** to see a timeline of your PC processor resource usage. If you see a number of spikes in the Processor Usage timeline **2**, it means that a program (or programs) is slowing your PC down and putting your PC at greater risk of crashing. To identify which programs might be responsible, click the History tab **3**, then click the Time column header to filter your processes by time. Scroll down to the times when these spikes took place and check which programs were running at that time.

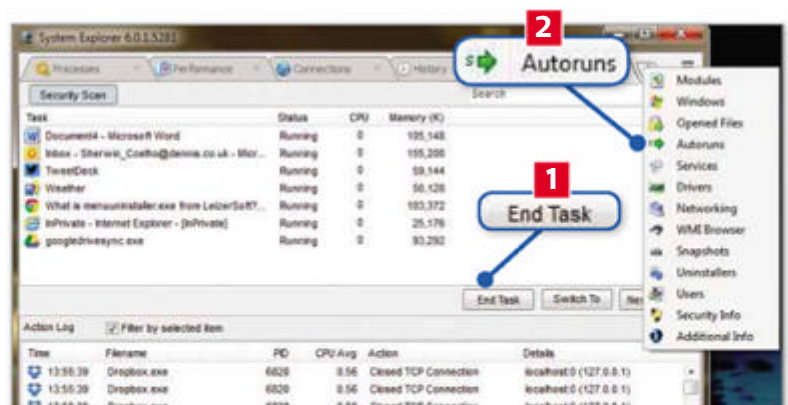


STEP 4 You may find the spikes are caused by your antivirus program running a scan or your cloud-storage service syncing items in the background. But if you suspect another process is responsible, click the Processes tab, find that process in the list, then click Check/Details in the Security column. This opens a new tab with information about the program. Scroll down to the section 'Is the Process (name of the program) Safe or Threat?' **1** and check the final rating **2**.

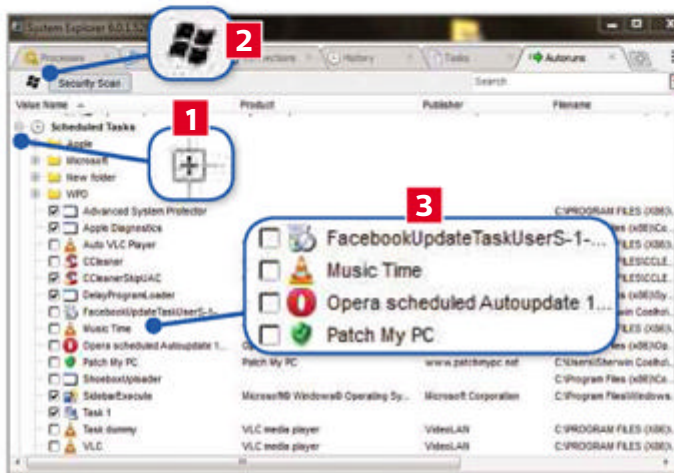


STEP 5 If it's rated a threat, uninstall the program immediately (see Step 9). If you think the process is safe, but want to stop that program running anyway, go to System Explorer's Processes tab, right-click the program, click End Process **1** and then Yes.

STEP 6 You can rearrange System Explorer's tabs by dragging them to the left or right. To add more tabs, click the '+' symbol at the top right, then choose the tab you want to add. The Tasks tab shows all the programs running on your PC. To force-close a program that's causing problems, click it and then click End Task **1**. Another useful tab is Autoruns, which shows you startup items and scheduled tasks. Click the '+' symbol at the top right of the tab bar and then click Autoruns **2**.



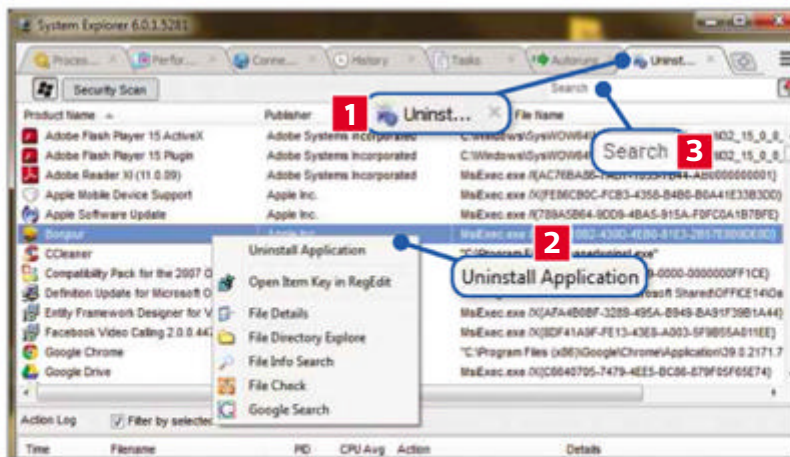
Identify programs that crash your PC



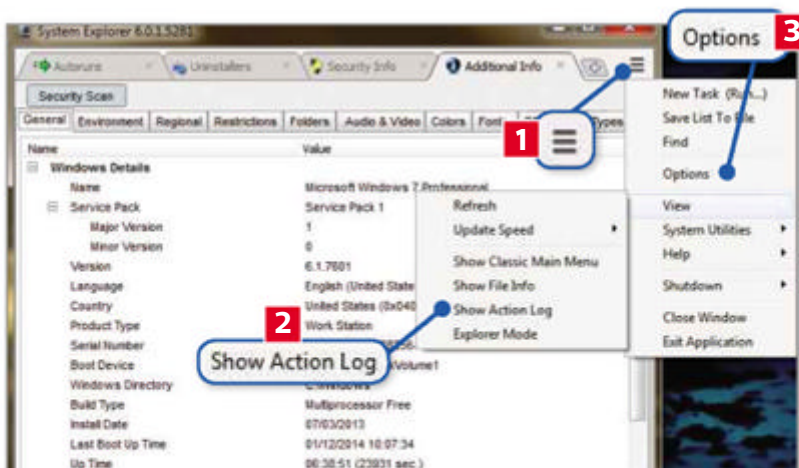
STEP 7 In the Autoruns tab, click the '+' symbol beside Logon (startup items) and Scheduled Tasks **1** to see those tasks. First, hide Microsoft programs by clicking the Microsoft icon **2**. Next, untick the items you don't want to start up with your PC in the Logon menu and any tasks you want to unschedule in the Scheduled Tasks menu **3**. Don't untick anything you're unsure of because they may be required for your PC to operate smoothly.



STEP 8 Another useful tab you can add is Security Info **1**, which tells you if your antivirus, anti-spyware and firewall need updating **2**. If you have more than one antivirus program installed (not recommended), Security Info will tell you which one is currently in use **3**.



STEP 9 There are two other tabs we recommend adding. The Uninstallers tab **1** lets you uninstall programs you don't want. Simply right-click the program in the list, click Uninstall Application **2** and follow the steps. You can find programs you want to uninstall using the search bar **3**. The Additional Info tab gives you a detailed summary of your PC, including the date your operating system was installed, what time your PC was last booted, who the PC is registered to and so on. This is useful should you ever have to provide details of your PC to a technician.



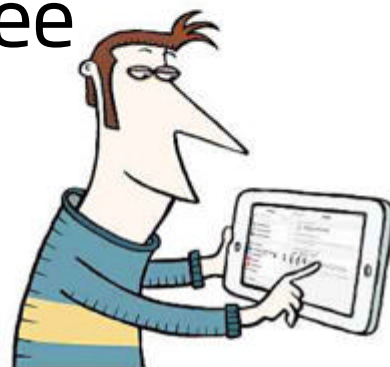
STEP 10 If you want to disable the Action Log panel that appears at the bottom of System Explorer, click the three lines **1**, move your cursor to View and then click Show Action Log **2**. System Explorer automatically starts up with your PC. If you don't want this, click the three lines and then click Options **3**. In the General tab, untick Automatically Start System Explorer After Login and then click Save. When you close System Explorer, the program will minimise to your system tray (in the notifications panel) and run in the background. To exit it completely, click the three lines and then click Exit Application. ●

Share paid-for iPad apps for free

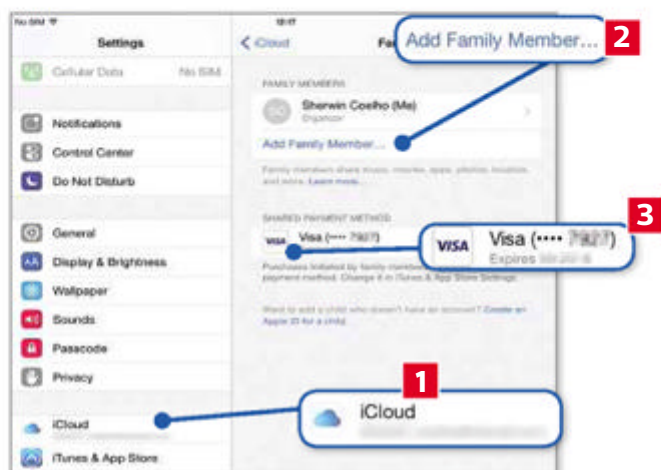
What you need: iPhone or iPad **Time required:** 30 minutes

IOS 8 introduced a new feature called Family Sharing, which lets anyone share content bought on iTunes and Apple's App Store (including apps, music, films and ebooks) with up to five family members. Set Family Sharing up on your account, invite up to five

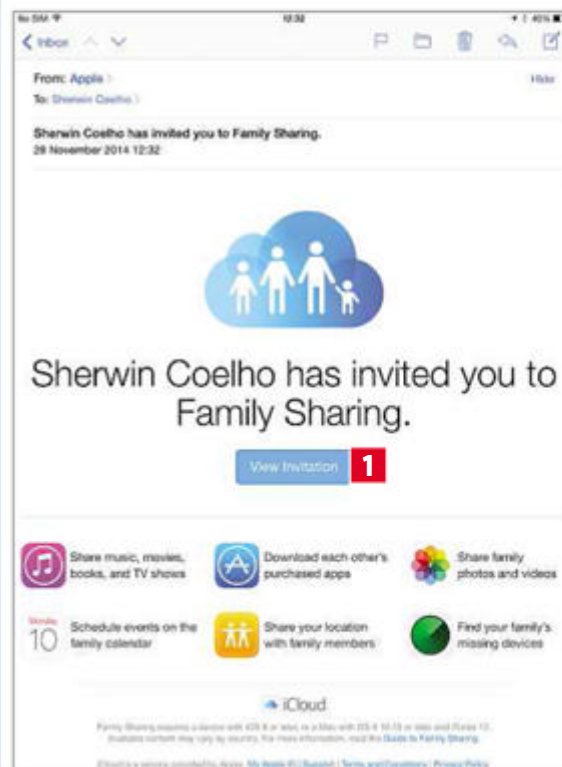
relatives, and everyone within the group can share their paid-for content with the others, who can install it on their devices for free. Family Sharing can also be used to sync shared photo albums and calendars with other members in your Family Sharing group.



STEP 1 First, make sure that you and everyone in the group have updated your devices (iPad or iPhone) to iOS 8. With your device connected to the internet (preferably over Wi-Fi, as iOS 8 is a huge update), tap Settings, General, and Software Update. If you see the option to 'Download and Install' **1**, it means you don't have the latest version of iOS. Tap 'Download and Install', then Install, enter your passcode (if you use one) and then let your device update.

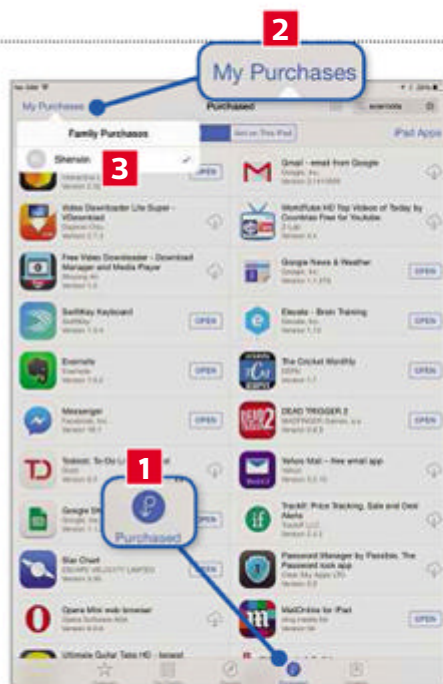


STEP 2 This step needs to be carried out by the person setting up the Family Sharing account (this can be you or someone else in the group). On your device, tap Settings, iCloud **1**, 'Set up Family Sharing', Get Started, then Continue. Next, enter your Apple ID, and accept the terms and conditions (confirming you agree to give others in the group access to your App Store and iTunes Store purchases, and pay for new purchases made by members of the group). You can choose to share your location with other group members by tapping Share Your Location. Tap Add Family Member, type their email address in the 'To' box, then tap Next. Finally, confirm your payment method **3**.

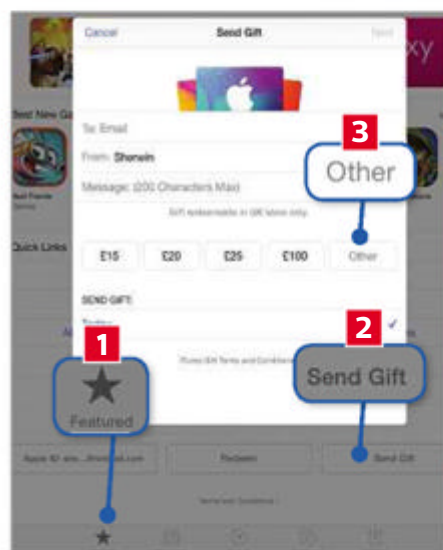


STEP 3 An email will be sent to every family member added to the account, prompting them to accept the Family Sharing invite. They need to open the invitation in the Mail app on their device, click the View Invitation button **1**, then tap Accept on the next screen. This gives the invited family member complete access to the Family Sharing account holder's iTunes Store and App Store libraries, as well as the libraries of everyone else on the Family Sharing account. Bear in mind, you can't create a Family Sharing account if you're already a member of another group.

STEP 4 To access other family members' iTunes Store purchases, tap iTunes Store (for films and music) or App Store (for apps) on your device, tap Purchased **1**, My Purchases **2**, then tap the name of the family member **3** whose library you want to use. From here, you can install any apps (or other content) that they've bought on your device for free. This even works with content that's been paid for and since been uninstalled.



STEP 5 The person who sets up the Family Sharing account is responsible for paying for any subsequent downloads by all members of the group. To avoid this, other members can buy iTunes Gift Certificates (www.apple.com/uk/gift-cards) to add prepaid credit to their accounts and cover the cost of any future purchases they make. On your device, tap App Store, Featured **1**, then scroll to the bottom and tap Send Gift **2**. Enter your Apple email address in the 'To' box, choose an amount of money to credit to your iTunes account (specify another amount by tapping Other **3**, then tap Next). You'll then receive an email with an iTunes redeem code in it. In the App Store, scroll to the bottom, tap Redeem, and enter the code to add this credit to your account.



STEP 6 Family Sharing also gives you access to a private photo album, which is available to everyone on the family account. To access it, first make sure iCloud Photo Sharing is turned on by tapping Settings, iCloud, Photos, iCloud Photo Sharing, then changing the slider to On. Next, go to the Photos app, tap Shared at the bottom **1**, then tap Family. This displays all pictures added to the album by everyone on the account. To add your own photos to this album, tap the '+' symbol **2**, tap the photos you want to add, then tap Done. You can comment on photos by tapping them, then tapping the 'Add a comment' button.



STEP 7 With Family Sharing, group members can sync their calendar events. To sync your calendar, open the Calendar app, tap Calendars **1**, then Family **2**. To change the colour of family events in the calendar, tap the 'i' **3** icon next to Family, tap a colour of your choice, then tap Done. If you created the Family Sharing account, you can tap the 'i' icon next to any event and edit which family members are allowed to create and edit calendar events. If you want to leave Family Sharing, go to Settings, iCloud, Family, tap your name, then tap Leave Family. Any apps, films and music that you bought using your own account during the time that you used Family Sharing will remain on your account. However, you will lose access to everything that you downloaded from other family members' libraries. ●

Fix 50 Windows 8 problems with one click

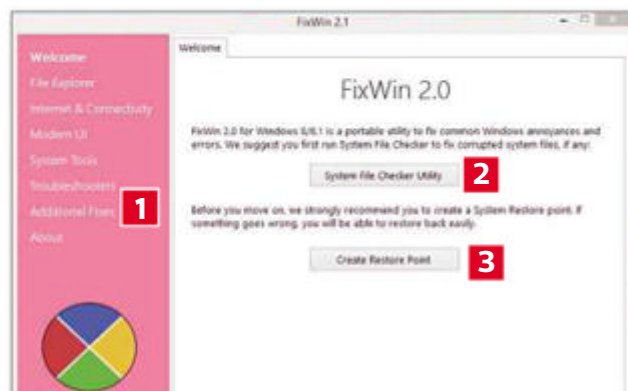
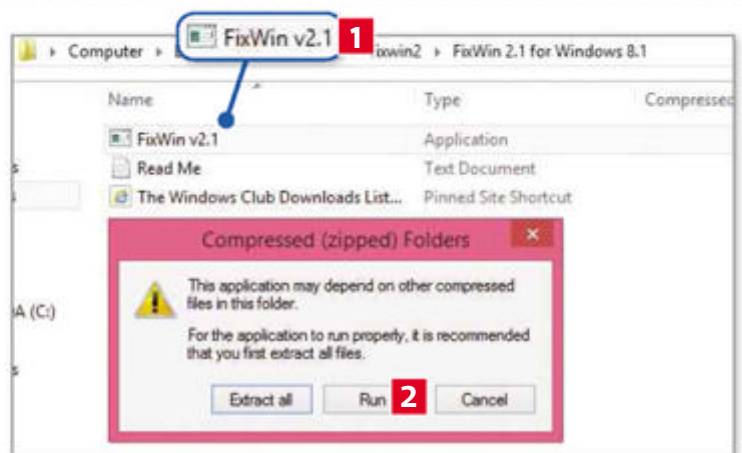
What you need: FixWin 2; Windows 8 or 8.1 **Time required:** 20 minutes

When you have a problem in Windows 8, you can always go online in search of a solution. But there's a much faster way to resolve many of the more frequent problems with just one click. The new free program FixWin 2 lists

more than 50 of Windows 8's most common problems. Simply find the one that applies to your PC and click Fix next to it. FixWin 2 even lets you create a **restore point** so you can undo any changes in case something goes wrong.



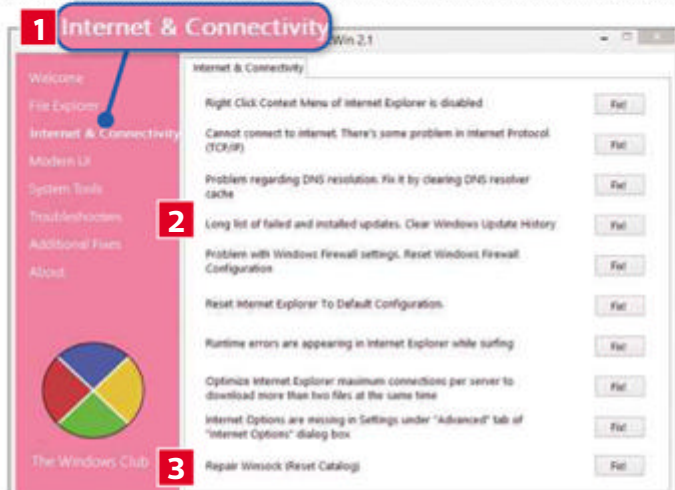
STEP 1 Go to www.snipca.com/14603, scroll down and click the blue Download File button. Click the zipped file that downloads to your PC, then choose a program to extract it (such as File Explorer). Now open the 'fixwin2' folder, then open the folder inside it. Click the 'FixWin v2.1' setup file **1**, Run **2**, then Yes to launch the program. Because FixWin is a portable file, you can use it from a USB stick on any PC. FixWin doesn't create a Desktop shortcut, so you'll need to repeat this step every time you use it.



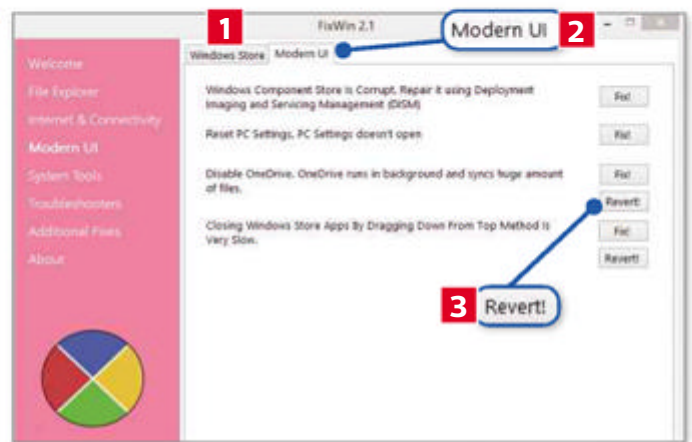
STEP 2 Once you've opened the program you'll see a list of sections on the left **1**. In the Welcome section, click System File Checker Utility **2** to fix corrupted files on your system. The scan runs in the background, so you can click OK to continue using the program. Next, click Create Restore Point **3**. Again, this process takes place in the background, so click OK to fix something else with the program. You'll see a message when the restore point has been created. Click OK.

STEP 3 Next, click File Explorer **1** to see a common list of problems relating to File Explorer, Recycle Bin, folders and CD/DVD drives. For example, one common annoyance is when the Folder Options feature in Control Panel (which lets you choose how you want to view and open your folders) has been disabled by an Administrator or an installed program. To restore Folder Options, click Fix **2** next to the problem in the list, then click OK **3**. If you still don't see it in your Control Panel, you may need to restart your PC. Check out the full list in this section and fix any other problems that apply to your PC.

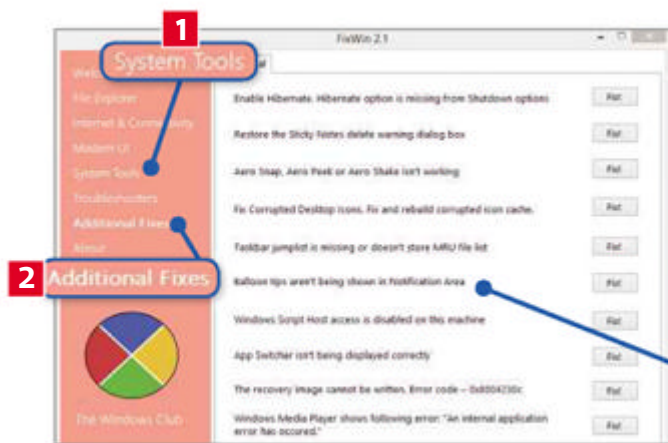




STEP 4 Next, click Internet & Connectivity **1** to see a list of common network connectivity problems. If you can't connect to the internet, for example, click Fix beside the second option. FixWin then finds and fixes any network problems (again you may need to restart your PC). Two recommended fixes that will speed up your PC are the fourth option **2**, which clears your Windows update history, and the ninth option **3**, which repairs your Windows network software.



STEP 5 Click Modern UI on the left to see two tabs. Windows Store **1** features fixes for downloading, installing and purchasing apps from the Windows Store. Modern UI **2** (Modern tile interface) includes options for resetting your PC settings or disabling OneDrive when it's taking too long to sync your files. Some options have a Revert button **3**, which lets you undo any changes made by a fix that you're unhappy with.



STEP 6 System Tools **1** contains fixes for your PC's Task Manager, Command Prompt, Registry Editor, System Restore and Security Settings. It also lets you reset your Windows search to its default settings and fix your Device Manager (if it fails to display devices connected to your PC). If you don't find a specific fix in any of the dedicated sections, you may find it in Additional Fixes **2**. This includes options for adding Hibernate to the 'Shut down' button, adding 'balloons tips' **3** (pop-ups informing you of new notifications) and fixes for common error codes you may encounter when you open image and music files.

Balloon tips aren't being shown in Notification Area **3**

STEP 7 Troubleshooters **1** doesn't include options with Fix buttons. Instead, it features buttons for common PC problems (Printer, Power, Audio and so on). Click the button that relates to your problem to open Windows' default Troubleshooter window **2** and follow the steps to fix the problem. With each new update, FixWin includes more fixes. FixWin doesn't update automatically, so click About **3** and then 'Check for Updates' to update it. ●



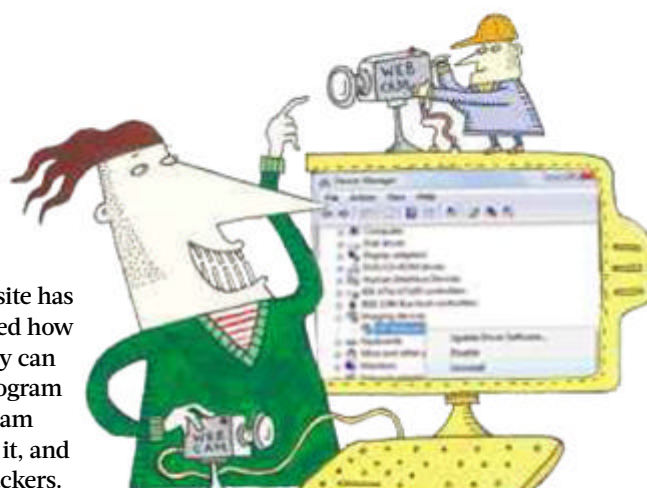
Stop Russian hackers spying on you

What you need: Webcam On-Off; Windows XP, Vista, 7, 8 or 8.1

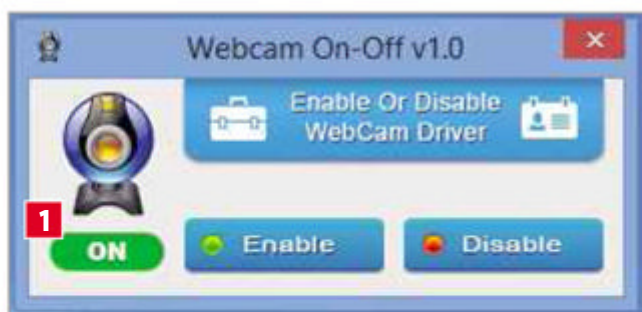
Time required: 10 minutes

In early November, a Russian website was found to be streaming live footage from thousands of hacked webcams across the world. Hundreds of these were in homes here in the UK. People were totally unaware that footage of their home was being

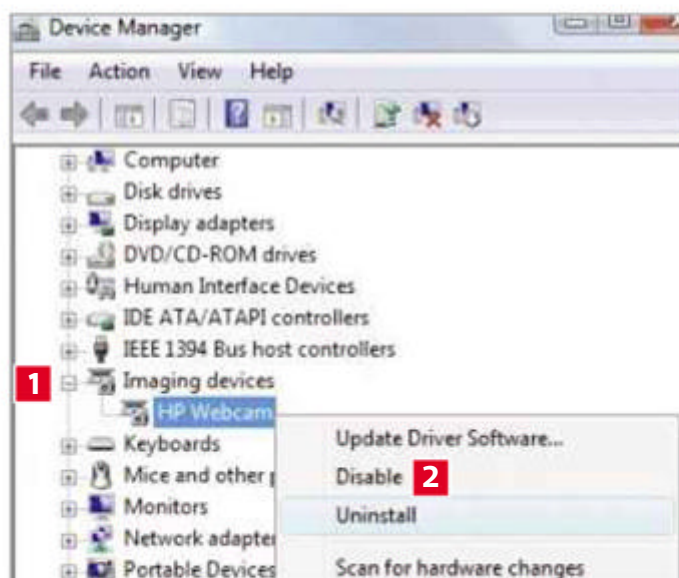
streamed online. Although the site has now been taken down, it exposed how vulnerable our home technology can be. Webcam On-Off is a free program that lets you turn off your webcam securely when you're not using it, and by doing so keep it safe from hackers.



STEP 1 To download Webcam On-Off, go to www.snipca.com/14576, scroll down the page and click the grey Download button. Open the zipped folder, then open the folder named 'webcam_on_off', double-click the 'WebCam.exe' setup file, then click Run. You'll see a small Webcam On-Off window with three buttons: Enable **1** turns your webcam on, Disable **2** turns it off, and the toolbox icon **3** opens the Device Manager on your PC.



STEP 2 If your webcam is in use, you'll see an On indicator **1** under the webcam image. Click the Disable button to switch it off. To make sure it's switched off, open a program you normally use for your webcam (such as Skype) and check there's no footage being streamed. You should also see a message informing you your webcam is off or requesting that you switch it on (depending on which program you use).



STEP 3 Webcam On-Off also lets you access Device Manager so you can double-check whether your webcam is off. Click the white toolbox icon to open Device Manager and open your webcam driver by clicking the '+' symbol to the left of 'Imaging devices' **1**. If your webcam is disabled, you'll see a small red cross beside its entry. To enable or disable your webcam from here, right-click it and then click Disable **2** or Enable.

NEXT ISSUE

ON SALE
7 Jan

- Turn your life into an audiobook
- Add printing tools Windows lacks
- Record Desktop problems as a video
- Update Windows without rebooting

Subscribe to Computeractive at getcomputeractive.co.uk

TIP OF THE FORTNIGHT

Split the cost of Amazon Prime with your family

I used to drag myself to the local shopping centre to do my Christmas shopping and take advantage of the January sales, until the ordeal of waiting in line behind manic shoppers got too much for me, and I vowed never to do it again. Since then, I've discovered that doing my shopping online is a more peaceful experience.

Amazon is now my first choice for online shopping, and I recently found out I can use Amazon Prime (which provides free next-day deliveries for many items for a year) for a fraction of the usual price. The service costs £79 a year, but you can use Amazon's Family Sharing feature to split this cost with up to three other family members. Each family member can still use the service with their own accounts to ship



deliveries to their designated addresses.

You'll need your family's personal details, including their birthdays and email addresses. Next, sign up to Amazon Prime via Amazon (www.amazon.co.uk). After you've done that, move your cursor over Your Account (at the top right of Amazon's homepage) and then click Your Prime Membership.

Click the 'Invite a Household Member' dropdown menu at the bottom, fill in the requested details (see screenshot), then click Invite. They'll receive their invite via email and through their Amazon accounts. They'll need to confirm your date of birth to activate their Amazon Prime access.

Henry Hefferon

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



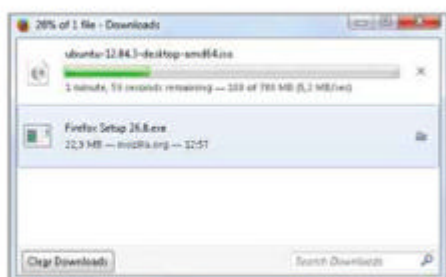
BROWSERS

Manage Firefox downloads in separate window

✓ Firefox has come on in leaps and bounds since I first started using it several years ago. The latest version looks every bit as good as Chrome without the feeling of unease that Google is watching my every move.

One thing it still lacks by default is a separate window where I can manage my downloads. I have a nasty habit of closing Firefox when something is downloading in the background, which results in the download being cancelled and me having to start all over again.

Fortunately, the free Firefox extension Downloads Window creates a separate window where you can manage and pause your downloads, meaning I can shut my browser without interrupting the process.



Open Firefox, go to www.snipca.com/14538 and click 'Add to Firefox'. In future, anything you download will appear in the dedicated downloads window (see screenshot below left).

Michael Knight

EMAIL

Use keyboard shortcuts in Gmail

✓ As an avid *Computeractive* reader, I always take the time to master the countless keyboard-shortcut options that are mentioned in the magazine. However, I haven't yet come across any keyboard shortcuts for Gmail and always assumed it doesn't have any. But after a little digging, I realised that its keyboard shortcuts are disabled by default. To enable them, click the Settings (cog) icon at the top right of Gmail, then click Settings. Scroll down to 'Keyboard shortcuts', select 'Keyboard shortcuts on', then click Save Changes at the bottom of the page.

To see a list of all the Gmail keyboard shortcuts, go to www.snipca.com/14568. My favourite is pressing C to compose a new email (or Shift+C to compose it in a new window). If you're reading a conversation in Gmail, you can press the P (Previous) and N (Next) keys, followed by Enter, to browse through the various

emails in that conversation. The / (forward slash) key lets you start typing in the search bar.

Aaron Werther

VIRTUAL PRIVATE NETWORKS

Watch UK TV abroad, and foreign TV in the UK

✓ I was happy to see your Workshop explaining how to watch US TV here in the UK in Issue 436 as it's something I do myself. I use a free Virtual Private Network (VPN) called Hola! (www.hola.org) when watching Netflix because its US version has a lot more content than its UK counterpart (an injustice, considering we pay more for it!).

Hola's main advantage is that it doesn't require an account and you can browse content for up to four hours each day, which is more than enough for my needs and much more than the 500MB per month cap using TunnelBear (the subject of your Workshop). Once installed, click the Hola icon (a smiley flame) in your browser (it works in all browsers) when you're on a blocked site and choose a country where viewing restrictions on the content don't apply. You can also use Hola to watch UK TV (including BBC iPlayer) when you're abroad.

David McKinley

Phone and Tablet Tips

Brilliant things to do on your device

ANDROID

Upgrade your Nexus to Android 5.0 Lollipop



Google has released the latest version (5.0) of its Android operating system, called Lollipop. This update is only rolling out to Google Nexus devices at the moment, so if you own a device from other Android manufacturers (such as Samsung, LG or Sony), you may have to wait a few more weeks.

There are two ways you can upgrade your device to the latest version. One way is to update manually. To do this, tap Settings, 'About device', 'System updates' and then 'Check now'. If an update is available, you'll be prompted to download it.

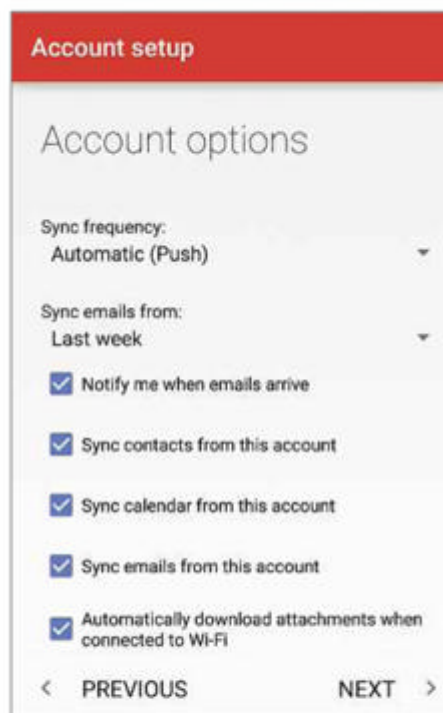
The other way is what's known as an OTA update. Because Android doesn't roll out its updates to all users at the same time (unlike Apple), you're more likely to receive Android 5.0 as an OTA update. This stands for 'over the air' update, meaning you'll see a message in your notification panel when the update is ready to be downloaded and installed. Tap the message, then tap Download. Make sure you're connected to a Wi-Fi network because the update file is quite large (around 480MB). After the download finishes, tap 'Restart & install'. You'll need to wait another 15-20 minutes while your device restarts and apps are updated for the new operating system.

ANDROID

Add multiple email accounts to Gmail



The latest version of Gmail for Android (www.snipca.com/14573) lets you add email accounts from other services, such as Yahoo and Outlook.com (Hotmail). To do this, open Gmail on your device and tap the three lines at the top left to access your account. Now tap the dropdown menu beside your current Gmail account and then tap 'Add account'. If you're adding another Gmail



account, select Google. If you're adding a Yahoo, Outlook or AOL account, select Personal and then tap OK. Enter your email address, tap Next, type your password and then tap Next again.

By default, Gmail will begin syncing all your emails from that account from the past week (you'll still be able to access older emails which will sync in the background). If you want to sync older emails at setup, tap the 'Sync emails from' dropdown menu (see screenshot left) and select 'Last two weeks', 'Last month' or All. Ensure all the boxes are ticked to be notified about any new emails and sync your contacts and calendar from your new account. Click Next (twice) to confirm and set up your inbox for that account. You can switch between accounts by tapping the three lines at the top left and then the dropdown menu beside your current account.

ANDROID & iOS

Create your own group on WhatsApp



WhatsApp Messenger (Android www.snipca.com/14574; iOS www.snipca.com/14575) is one of the most popular free messaging apps for sending texts, photos and voice messages. It's easy to create a group in WhatsApp, which is great for keeping in touch with family members or a circle of friends. We're using Android in this example, but the

Best New Apps

What you should install this fortnight

Photo Editor by Aviary

Free

Android: www.snipca.com/14578

iOS: www.snipca.com/14579

Aviary has been bought by Adobe (the company that owns Photoshop) and its first update after the acquisition includes new filters, such as vignettes, colours and lightning effects, that you can use to enhance your photos. You get 12 effects packs for free and can buy further packs from within the app.



Night Sky Pro

£1.49

iOS:

www.snipca.com/14580

The updated version of this stargazing app includes new, detailed 3D views of stars, planets and satellites. You can now find out the best time to observe the constellations (based on how clear the night skies are going to be in the coming week) and set notifications for eclipses and dates when the International Space Station is expected to pass by.



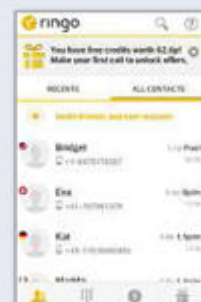
Ringo

Free

Android: www.snipca.com/14581

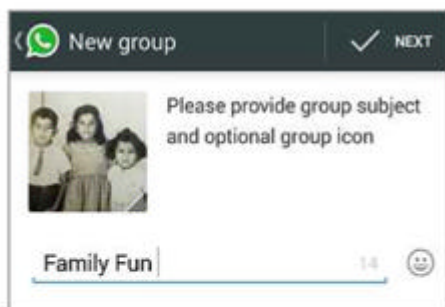
iOS: www.snipca.com/14582

Ringo lets you make cheap calls to any mobile number anywhere in the world. It's probably the best calling app for a couple of reasons: because Ringo connects your call via a local number, you don't need an internet connection and the person you're calling doesn't need to have the app installed.



process for iOS is very similar.

Open the app, tap the three dots at the top right and then tap 'New group'. Name the group (up to a maximum of 25 characters – see screenshot below). Now tap the group photo icon on the top left, and tap Gallery (if you want to use an image from your phone's Gallery app) or 'Search the web' (if you want to search online for an image that's relevant for



your group name). Tap the image you want, tap OK to add it, then tap Next.

To add contacts to your group, tap in the field provided and type your contact's name. Suggestions from among your WhatsApp contacts will appear. Tap the one you want to add to the group and repeat the process to add more people. Once you've finished, tap Create at the top right.

iOS Make sure the second-hand device you're buying is unlocked

Apple's Activation Lock feature is automatically turned on when you enable Find My iPhone. When this is activated, the person whose account the device is registered to can remotely locate the device and even erase all its data. If you're buying a second-hand iOS device, you should first check that this feature has been unlocked by the person selling it to you. There's an easy way to do this.

You first need to find out the device's IMEI number or its serial number, which are both listed on the box your iOS device comes with. You can also find these numbers on your device, by tapping Settings, General and then About. Now open your browser (it's a long number and probably easier to see on a laptop's browser) and go to www.snipca.com/14577. Type the IMEI or serial number of your device in the box provided, enter the Captcha code from the image below and then click Continue. Ensure Activation Lock is Off before buying the device.



iOS Ask Siri what song is playing

With each new version of iOS, Siri – the iOS voice assistant – gets a little smarter. With iOS 8, Siri can now identify songs playing around you and give you the option to buy it.

So any time you have music playing near you (on a TV or radio, for example) and want to identify the song, long-press

your Home button to activate Siri and then say 'What song is this?'. In a few seconds Siri should provide the song's details (see screenshot above) and an option to buy the song from the iTunes store. If you're wondering where Siri gets these magic identification powers from, it's because Siri is now integrated with Shazam – a free existing app that identifies song titles and artists.

Games With Kids

What to play together on your phone and tablet

AGES 0-5

Africa

Free www.snipca.com/14583 (iOS)

This new app has three activities to entertain and educate your toddler. They can drag the stickers to the correct outline, play a memory game by tapping the cards to match two animals, or draw over the animal's outline using the colour palettes. You can then save or print their artwork.



AGES 6-10

Slice Fractions

£1.60 www.snipca.com/14584 (Android)

£1.99 www.snipca.com/14585 (iOS)

This great app introduces your kids to fractions. First they learn some basic concepts by solving arithmetic questions. Then they have to help an elephant complete challenges by solving problems based on what they've learnt. The difficulty level increases as they improve.



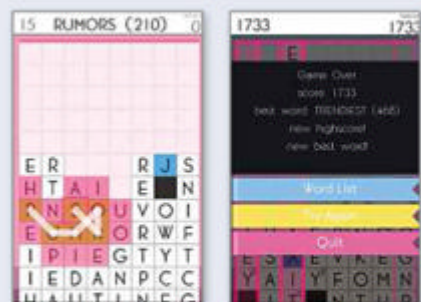
AGES 11-16

Spelltower

£1.32 www.snipca.com/14586 (Android)

£1.49 www.snipca.com/14587 (iOS)

In this spelling game, you need to tap adjacent letter blocks in a grid (or tower) to form words. Those blocks then disappear and the ones above them fall in their place. Compete in multiplayer (Debate) mode to challenge your children to see who can get rid of their tower the fastest.



Make Windows Better

Clever tips for every version

WINDOWS 7, 8, 8.1

Disable startup items to boot Windows faster



Some programs you install automatically start up with your PC and increase its overall boot time. There are free programs, such as Startup Delayer (see 'Delay start-up items to boot faster' Workshop in Issue 436), that let you disable or delay these startup items and therefore speed up your boot time. But did you know you can delete startup items by using a hidden folder on your PC, without having to install any third-party program?

You first need to enable access to your hidden folders. To do this, click Computer, the Organize dropdown menu at the top left, then 'Folder and search options'. Now click the View tab and select 'Show hidden files, folders, and drives' under 'Hidden files and folders'. Click Apply and then OK.

You can change the startup programs for your user account or for all users on that PC. For your user account only, navigate through the following path: **C: Drive\Users\<i>your username</i>\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup**. For all users on that PC, navigate to: **C: Drive\ProgramData\Microsoft\Windows\Start Menu\Programs\Startup**.

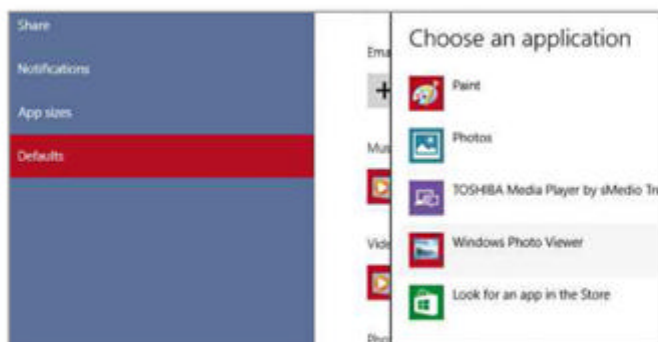
You'll see a folder containing all the programs that start up with your PC. To disable a program from starting, right-click it and then click Delete (this won't delete the program from your PC, only from your list of startup items).

WINDOWS 8/8.1

View photos in Photo Viewer instead of Photos app



By default, Windows 8/8.1 opens any photo or image file in the Photos app, which you'll find on the Modern tile interface. If you'd rather use Windows Photo Viewer (the default



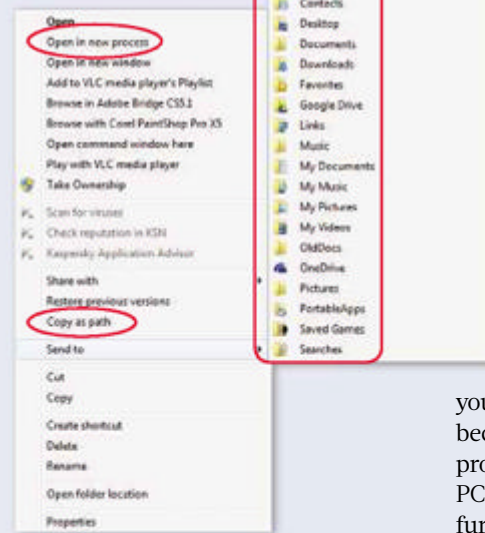
WINDOWS 7, 8, 8.1

Access hidden right-click menu



When you right-click any program, file or folder on your Desktop or in Windows Explorer, you access what Microsoft calls the 'Context menu'. Here you can open, scan, copy, paste or delete the clicked item. But you can also access a hidden Context menu with even more options when you press the Shift key as you right-click any item. To distinguish this menu from the Context menu, we'll call it the Shift-Context menu.

The Shift-Context menu has a 'Copy as



path' option. This copies the exact location of the clicked item (such as **C:\Users\Windows\System32\...**) to your clipboard, which you can then paste wherever you want. So next time *Computeractive* asks you to type a file path into Command Prompt or any other program, you can use this option to speed up the process.

If you move your cursor to 'Send to' in the Shift-Context menu, you'll see a bigger choice of locations (see screenshot left), including the My Pictures, Downloads and My Music folders. If you want to add a location to any of the Send To menus (Context and Shift-Context), open any folder on your PC, type **shell:sendto** in the field at the top and then press Enter. You'll see a list of your Send To locations. Drag any program shortcut (such as Google Drive or Dropbox) from your Desktop to the SendTo folder to add it as a location.

The Shift-Context menu also features the 'Open in new process' option, which opens a new window of the program you're currently running. You should use this to open any of your programs that tend to crash, because opening a program as a new process will use a different part of your PC's memory, which may prevent further crashes.

WINDOWS 7, 8, 8.1


Turn off search indexing to speed up Windows



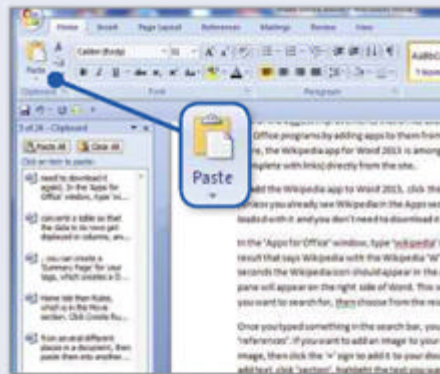
You can speed up your PC's general performance by turning off search indexing (which is set to 'on' by default), although this may slow your Windows searches a little. If you can live with that, click the Start button, then Control Panel. Now click the 'View by' dropdown menu at the top right and change it to 'Large icons'. Next, click Indexing Options, the Modify button at the bottom left and untick all the folders and locations on your PC. Finally, click OK and then Close.

WORD

Cut and paste multiple sections of text in one go

 You're probably aware of the most common keyboard shortcuts for rearranging text or images in a document, such as Ctrl+X (Cut), Ctrl+C (Copy), and Ctrl+V (Paste). But these shortcuts have their limitations. For example, they don't let you move several images or sections of text from various places in a document to another part (or an entirely different document) in one go.

To do this, you need to use the lesser-known Spike feature, which is similar to the Clipboard tool. Select the items (text or images) that you want to move, then press Ctrl+F3 (the keyboard shortcut for Spike). Your selected items will disappear from the document but are saved in the Spike. Do this for all the



items you want to move in the order you want them to eventually appear. Now go to the location you want to paste these items and press Ctrl+Shift+F3. Everything you moved to the Spike will now appear in the new location (in the


correct order).

If you prefer a more familiar (though slightly less effective) method, then you can use Clipboard. To open Clipboard, click the Home tab, then the small down arrow icon at the bottom right of the Clipboard section (see screenshot left). Your Clipboard displays any items you cut or copy. Copy or cut all the items you want to move to see them in your Clipboard. Click Paste All at the top of the Clipboard pane, go to the place in the document you want to move your selected items to and press Ctrl+V.

The advantage of using the Spike over the Clipboard is that the former displays your pasted selection on separate lines, whereas the latter bunches them all together without any spaces.

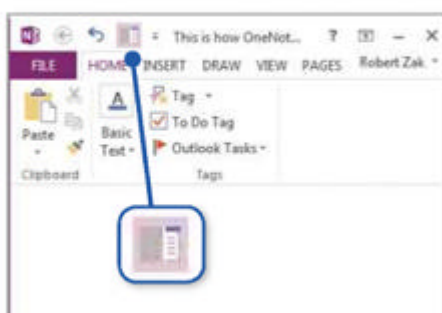
ONENOTE

Add a OneNote window to your Desktop

 Did you know you can 'dock' your OneNote window to your Desktop? This is useful if you tend to use OneNote a lot to copy text from other programs (such as your web browsers). The docked window can be snapped to any edge of your screen, and it can't be hidden by other windows.

To do this, you first need to add the 'Dock to Desktop' option to your Quick Access Toolbar (the small row of icons at the top left of OneNote). Click the small down arrow to the right of those icons and then click More Commands. Next, click the 'Choose commands from' dropdown menu at the top and select All Commands. Scroll down the section on the left, click 'Dock to Desktop', the Add button in the middle and then click OK.

Now click the 'Dock to Desktop' icon (see screenshot below) in your Quick



Access Toolbar, and OneNote will dock and attach itself to an edge of your Desktop. To reposition it, click its header and drag it to another edge.

OUTLOOK

Only receive notifications from people you want


 If you use Outlook 2007 and find yourself constantly bombarded with Desktop notifications for incoming spam, junk emails and other irrelevant messages, there's an easy way to specify which contacts' emails you want to be notified about.

First, you need to turn off your Desktop notifications in Outlook. Click Tools at the top, Options, E-mail Options, then Advanced Email Options. Untick all four boxes under the 'When new items arrive in my Inbox' section and click OK.

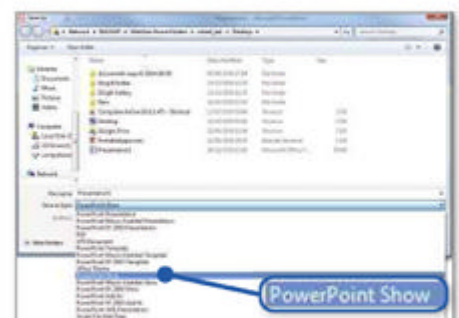
You now need to create a 'rule' for the email notifications you want to receive. To do this, click Tools, 'Rules and Alerts', then New Rule. Click 'Check messages when they arrive', then click Next. Tick the boxes for 'from people or distribution list'. In the bottom box, click 'people or distribution list', select the email addresses you want to receive notifications for (or type them in the 'From' text box), then click OK. Click Next, scroll down and tick the 'display a Desktop Alert' box, and then click Finish.

POWERPOINT

Start your slideshow as soon as you open your PowerPoint file

 The conventional way to start your PowerPoint slideshow is to open your PowerPoint file, click the Slide Show tab, and then click From Beginning (or press F5 after opening PowerPoint). However, there's an easy way to skip this long-winded and clunky process and begin your slideshow immediately, and thereby create a more professional impression.

To do this, you simply need to save your presentation in a different format. Click File at the top left and then click Save As. Navigate to the folder you want to save it to and name your file. Now click the 'Save as type' dropdown menu, click PowerPoint Show (.ppsx) (see screenshot below) and then click Save. Now, when you click the file to open it, your slideshow will begin immediately.





Task Scheduler

Export tasks, create folders and set reminders on your PC

Create reminders to take a break from your PC

Task Scheduler in Windows is primarily used to manage all tasks on your PC, both those set by pre-installed programs and those set by third-party programs that you've installed. But Task Scheduler has other functions. For example, you can set it to remind you to take a short break (every hour, for example) from your computer if you tend to work on it for long periods without a pause. These reminders will appear as pop-ups on your screen.

To open Task Scheduler, click the Start button, type **task scheduler** and press Enter. Click Create Task in the Actions pane on the right. In the Description box, type **Take a break from your PC!** (or something similar). Click the Triggers tab, then New. In the New Trigger window click the 'Begin the task' dropdown menu at the top and select 'On workstation unlock'. Tick the 'Delay task for' box, select '1 hour' and then click OK.

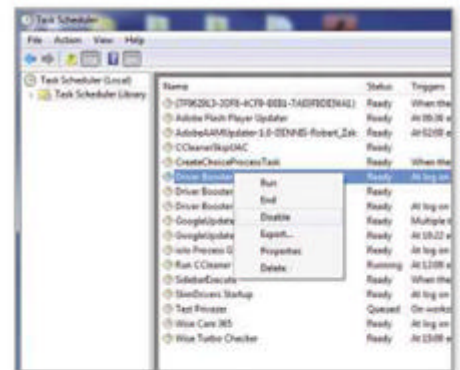
Next, click the Actions tab, New, then in the Action dropdown menu select 'Display a message'. Type a title and a

message telling you to take a break from your PC, click OK, then OK again. For this to work, you need to lock your PC every time you take a break by pressing the Windows key+L. The one-hour timer is triggered as soon as you log back into your computer.

Get rid of unwanted scheduled tasks

Some programs you install will automatically schedule their own tasks. Even after uninstalling a program, one of its scheduled tasks might still run. Many of these tasks run in the background and slow your PC. To monitor, disable and delete scheduled tasks, open Task Scheduler, and click Task Scheduler Library in the left-hand pane. You'll see a list of all the tasks on your PC.

Right-click any unwanted task and click Disable. You can restore the task at any time by repeating this process and clicking Enable. If you're certain that you won't ever need a particular task again, right-click it, then click Delete. Don't disable or delete any tasks you're not sure of, especially those



You can see tasks created by third-party programs in Task Scheduler, then delete them

performed by Microsoft because they are probably needed for your PC to work properly.

Schedule reminders to run PC tasks

You can set some antivirus or Registry-cleaning programs to run automatically at a particular date and time. However, it can be frustrating if that program launches into a scan when you're using your PC for something else. A less irritating method is to use Task Scheduler to set a reminder to run the program.

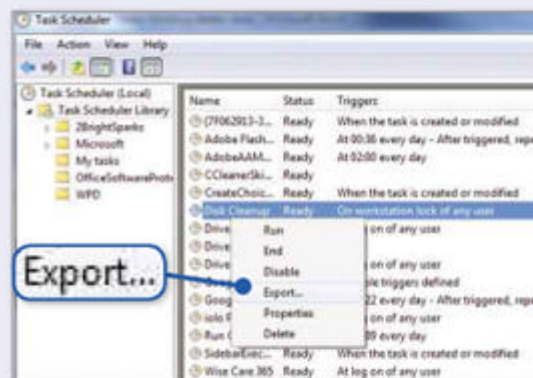
Click Create Basic Task in the Actions pane on the right-hand side, and name it 'PC maintenance reminder'. In the Description box, type the names of the programs you want to run. Click Next, then choose how often you want the reminder to appear (we recommend Weekly). Click Next, 'Display a Message', Next again, then type your reminder message. Finally, click Next, then Finish.

Create folders for your own scheduled tasks

To make it easier to distinguish the tasks you've set up from those created by Windows and other programs, you should create a separate folder for them. In Task Scheduler, click Action at the top left, then New Folder. Name your folder and then press Enter. You can now create new tasks in this folder by right-clicking inside the middle pane or by importing existing tasks into it (see box left).

Export your tasks to other PCs

It's easy to export tasks from one PC to another using a USB stick. This is particularly useful if you're upgrading your PC or buying a new one. In Task Scheduler, click Task Scheduler Library in the left-hand pane, right-click a task you want to export, click Export (see screenshot), then save it to a USB stick. Do this for all the tasks you want to use on your other PC.



Take your scheduled tasks with you when you change or upgrade your PC

To import these tasks to the other PC, insert your USB stick into it and open Task Scheduler. Click Task Scheduler Library, right-click a blank space or

folder in the tasks list, then click Import Task. Finally, navigate to the scheduled task on your USB stick, click it and then click Open.



Lovelace 2.0

A new test aims to demonstrate whether computers can produce stories, poems and paintings with human qualities

What is it?

A proposed new test that aims to show whether artificial intelligence is on a par with that exhibited by humans. It's being developed by Professor Mark Riedl, from the Georgia Institute of Technology.

Is it similar to the Turing Test?

Yes, but it goes further. The Turing Test – set by Alan Turing in 1950 – evaluates whether a computer can impersonate a human in conversation so realistically that it fools a team of judges. Lovelace 2.0 is a more sophisticated test because it challenges a computer to create a story, poem or painting that convinces a person it was made by a human. The thinking behind Lovelace 2.0 is that creativity is one of the chief attributes that distinguishes humans from machines.

It's an intriguing test, though sadly Professor Riedl doesn't make it sound so. He says that a machine would pass "if it develops a creative artefact from a subset of artistic genres deemed to require human-level intelligence and the artefact meets certain creative constraints given by a human evaluator". Perhaps this 'explanation' is part of the test – if a computer can understand what he means, then it has demonstrated human qualities.

Can you have a go at translating that?

We'll try. He's attempting to say that, to pass the test, a computer must create a work of art using criteria set by humans. In his paper outlining Lovelace 2.0 (www.snipca.com/14559), Riedl gives the example of software being asked to "create a story in which a boy falls in love with a girl, aliens abduct the boy and the girl saves the world with the help of a



talking cat". The quality of the story isn't important. What matters is that it contains specific details requested by a human.

However, some experts question how useful the test will be, saying that computer programs have already demonstrated creativity by, for example, writing music.

Why is this test called Lovelace?

Like the Turing Test, it's named after an English mathematician and computing pioneer: Ada Lovelace. In the 1840s, she worked with Charles Babbage on his Analytical Engine, writing what is widely considered to be the first algorithm designed to be carried out by a machine (she is often described as the world's first computer programmer). Read more about this remarkable woman's life on Wikipedia: www.snipca.com/14558.

Didn't a computer pass the Turing Test recently?

Yes. In June, at a competition for artificial intelligence at the Royal Society in London, a computer program called

Eugene Goostman tricked 10 out of 30 judges into thinking it was a 13-year-old Ukrainian boy (see News, Issue 426).

But the result was disputed by some experts, including Ray Kurzweil, a notable 'futurist' and a director of engineering at Google. He said: "I chatted with Eugene Goostman and was not impressed. Eugene does not keep track of the conversation, repeats himself word for word, and often responds with typical chatbot non sequiturs".

Was there a Lovelace 1.0?

Yes, in 2001. It challenged a piece of artificial intelligence to produce a creative item using a method that couldn't be explained by a human. But Riedl says it was flawed because it was hard to tell whether a computer had passed.

Will any computer pass the test?

Ask us again in 12 months. Riedl is pessimistic, saying that "no existing story-generation system can pass the Lovelace 2.0 test". Mind you, he doesn't know how this article was written...



Hack Windows USING Microsoft's Hidden Tools

Your PC's best built-in tools are the ones you can't see. Jane Hoskyn shows you how to make Windows faster, safer and better using tools Microsoft hides from you

The myth that you only use 10 per cent of your brain was debunked long ago (there's even a 'Ten per cent of brain myth' Wikipedia page: www.snipca.com/14600). But while you use nearly all of your grey matter nearly all the time,

the same can't be said for your PC.

Most of us use the same few Windows programs – usually Explorer, Notepad and, if we're feeling energetic, the Control Panel – and ignore the rest. This is partly out of habit and partly because we use third-party alternatives instead (such as Process Hacker, the program that Task Manager should be but isn't). But most of our PC's built-in tools get overlooked simply because we have no idea they're there.

System tools like this aren't hidden by accident. They give you deep, powerful control over your computer's inner workings, so Microsoft has shuffled them out of harm's way in case you accidentally use them in ways you shouldn't.

Other hard-to-find Windows tools are perfectly safe, but Microsoft simply hasn't bothered to give them due prominence. Many of these hidden tools are easy to use, but they look difficult (if you can find them at all) because they're buried in the Control Panel or obscured by Command Prompt jargon.

In this feature we'll reveal the best tools that Microsoft hides by accident or design in Windows 8/8.1, Windows 7 and even Vista or XP – which you may have stopped using without ever realising how much it could do.

KEY POINTS

- Speed up your PC using built-in Microsoft tools
- Create a God Mode folder containing all your PC's hidden tasks and tools
- Remove Windows components without software
- Hack your taskbar and Start screen
- Make your PC safer using hidden firewall tools

Why good Windows tools are hard to find

Microsoft is very good at burying its best tools. For example, Registry Editor, which we explored in our cover feature in Issue 434, appears nowhere in the Control Panel or All Programs, but it's one of the most useful PC programs you'll ever use.



HIDDEN WINDOWS TOOLS THAT MAKE YOUR PC FASTER

See what's slowing down your PC

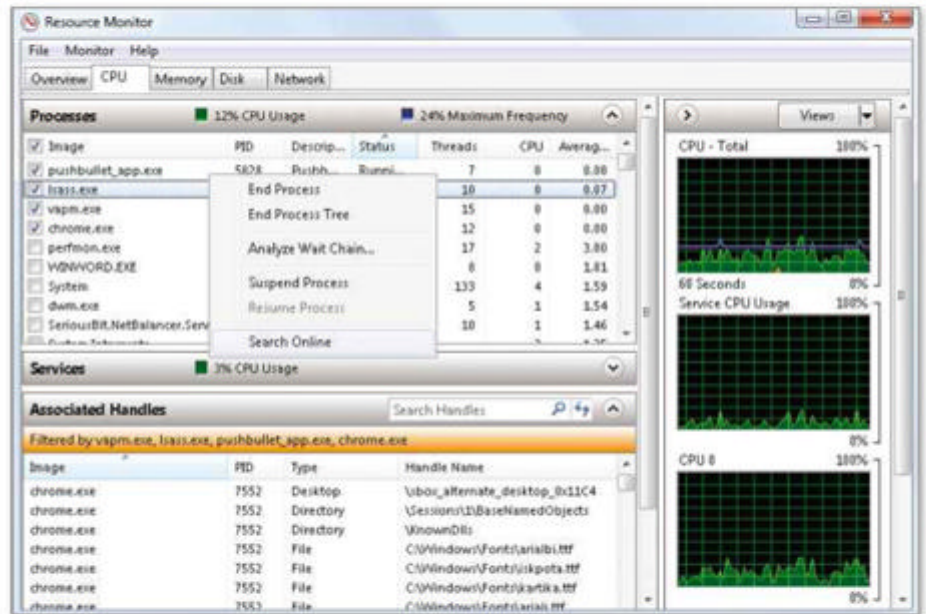
Works in: Windows Vista, 7, 8 and 8.1

Some of our favourite free third-party software is designed to expose memory-hogs. Process Hacker (www.snipca.com/14619) and Process Piglet (www.snipca.com/14618) let you see which background processes are slowing down your PC and making you crash. They give you this information in simple, instantly understandable terms.

Windows' built-in equivalent, Resource Monitor, is far from instantly understandable. But unlike Process Hacker or Process Piglet, it doesn't have to be downloaded from the internet – a process that always entails some risk, especially if you don't have an advert-blocker enabled in your browser.

To open Resource Monitor, go to Start and type **resmon** (or **perfmon** in Vista) and press Enter. The window that opens looks more like something you'd see in the corner of an operating theatre than anything we'd recommend in Best Free Software. Microsoft certainly hasn't gone to any trouble to make it user-friendly. It doesn't even open by default on its Overview tab. But don't be put off by its confusing exterior and wealth of jargon – Resource Monitor is not hard to master, and it takes you straight to Google for extra information if needed.

Click Overview and look at the animated graphs on the right-hand side to see how hard your PC's various hardware components are working. You



Track and investigate all your running processes in Resource Monitor

can find out more about these components – CPU (**processor**), Disk (hard drive) and Memory (RAM) – in our last cover feature (Issue 438). Resource Monitor also lifts the lid on your Network Activity, so you can see how fast your internet really is and which browser processes are eating up all your bandwidth.

Under each tab you'll see a list of processes with empty tick boxes. Tick a box to see that process highlighted in real time on the right-hand graphs, each of which represents a different area of your PC, such as physical memory or local area network (LAN). Untick the box to clear

the graph back to its default view. You can tick several processes at once to highlight them all on each graph.

If you want to find out more about any item, right-click it, then click Search Online to investigate via your browser's default search engine. We found this to be far more useful than Windows' built-in Help tool (the one that opens when you click the blue question mark). For example, when we right-clicked the Network process 'lsass.exe' in Resource Monitor and clicked Search Online, Google opened instantly with the link "lsass.exe Windows process – What is it?" at the top. In case you're wondering (we were, anyway), Lssas is a safe Windows process that helps to verify your identity (www.snipca.com/14623).

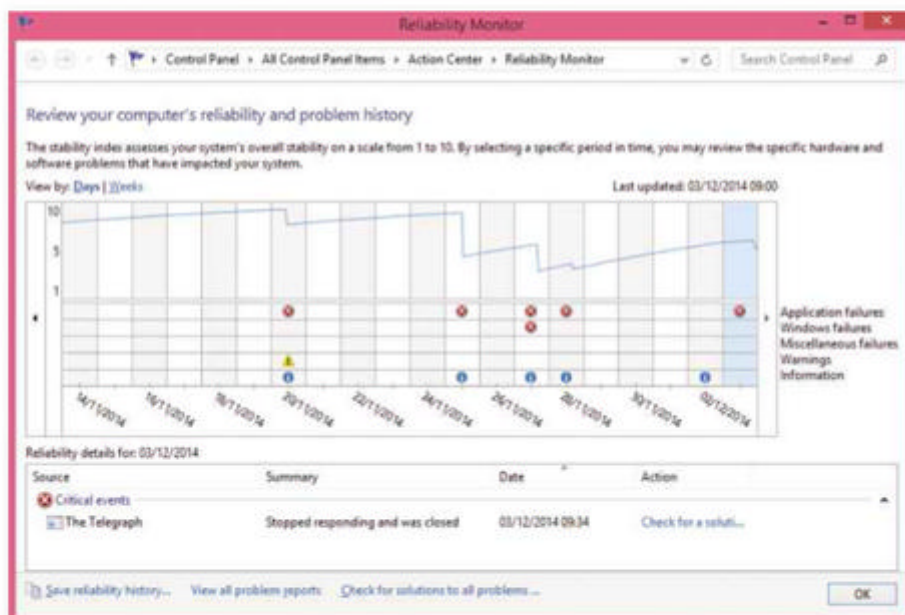
You can stop any process in Resource Monitor by right-clicking it and selecting End Process or Suspend Process, but make sure you know what a process is and does before you stop it.

Investigate your PC's crash history

Works in: Windows 7, 8 and 8.1

While Resource Monitor can help you predict crashes, it can't tell you much about what made you crash last week or last month. For that, you'll need Reliability Monitor, a hidden gem of a tool that tracks the history of your computer and lets you see when you crashed and what caused it.

To open it, type **reliability** into Start and press Enter. (You can also open it by



Find out what made your PC crash on any given day using Reliability Monitor

clicking your way through a string of links in the Control Panel, but we'll save you the bother.) After a few seconds you'll see a visual log of your crash history, with a blue line to represent your PC's stability over recent days and weeks. The higher and straighter the blue line, the more stable your PC.

Crashes are represented on your graph by little red crosses, which coincide with sharp dips in the blue line. The sharper the dip, the more serious the crash.

Click any area of the graph to see a list of any software or hardware problems that occurred on that particular day, along with links to possible fixes such as Microsoft patches and driver updates. You can also see which programs were installed on that day, which Windows Updates were loaded and other important events.

You can't stop any processes in the Reliability Monitor window, but it's an invaluable tool for keeping track of what's going on in your PC and for weeding out problematic programs and processes.

Un-freeze your PC with Exit Explorer

Works in: Windows XP, Vista, 7 and 8/8.1

Even minor crashes tend to send us running for the Restart button, because we instinctively see restarting as the only way to make our PC behave. But a reboot can waste more time than it saves, especially if lots of processes are set to

run at startup.

Next time you reach for Restart, use the hidden Exit Explorer option instead. This instantly kills the 'explorer.exe' process without the need to open Task Manager, and is much quicker than restarting your PC after a crash. It also lets you complete a software installation or Registry edit without doing a full restart.

When we say Exit Explorer is 'hidden', we don't just mean it's hidden down a ridiculously long string of clicks in the Control Panel – you actually need a secret key code to open it. In Windows Vista or 7, open the Start menu and press Ctrl+Shift. Keeping the keys pressed, right-click in the blank space under 'Help and Support'. Normally if you right-click here you'll just see Properties, but if you're pressing Ctrl+Shift you'll see Exit Explorer as well. Click it to restart Windows Explorer. In Windows 8 or 8.1, press Ctrl+Shift and right-click a blank area of the taskbar, then click Exit Explorer.

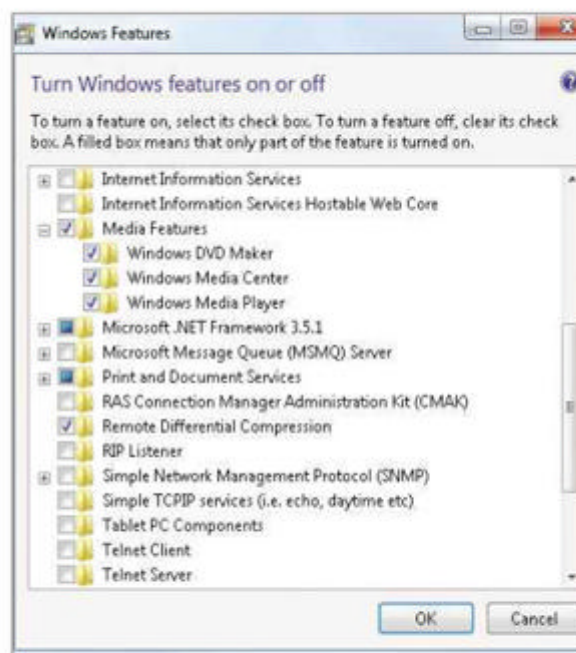
Disable Windows components you don't want

Works in: Windows 7, 8 and 8.1

While some Microsoft tools are well-hidden, others seem impossible to get away from. Internet Explorer (IE), Windows Media Player (WMP) and Windows Search are bundled with all current versions of Windows, and not everyone wants them. These built-in programs take up hard-drive space, run automatically when you open certain file types and litter your PC with **cache** junk and Registry entries that clog it up and slow it down.

Before Windows 7, you had no choice but to put up with them. You could install free alternatives such as Firefox and VLC, but you couldn't disable the Microsoft programs. Finally, in Windows 7, Microsoft quietly included a tool for switching them off.

Go to the Start menu or Start screen and type **optionalfeatures**, then click 'optionalfeatures' in the list of results. Don't blame us for this annoying lower-case

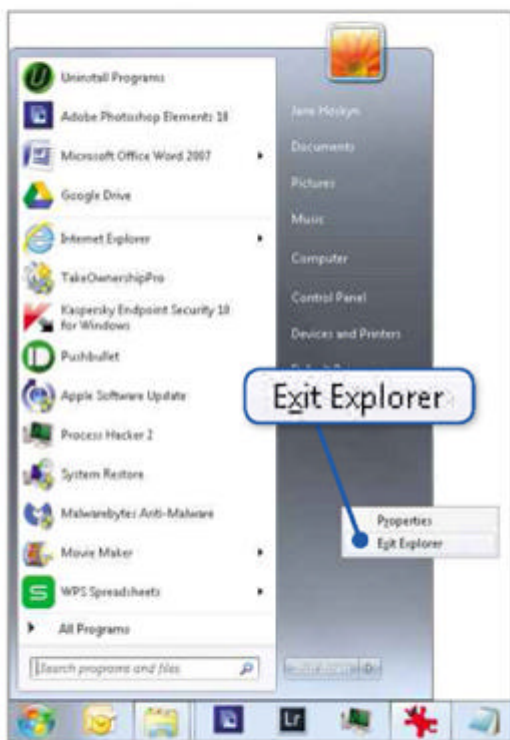


Switch Windows components off and on using the Windows Features tool

all-one-word nonsense – that's Microsoft's fault. If you type 'optional' or 'optional features', the tool won't appear in the results. That's how keen Microsoft is for you to (not) find it.

Clicking 'optionalfeatures' opens the Windows Features tool, where you can tick and untick built-in components including IE, WMP, Windows Search and the useful but sadly (and dangerously) flawed Windows Gadgets (see page 54). Ticked components are enabled, unticked ones are disabled. If there's a little '+' symbol to the left of a tick box, click it to see and manage a list of sub-components. Some of the best-known Windows tools are buried behind these '+' symbols – for example, WMP is listed under Media Features, along with Windows DVD Maker and Windows Media Center.

If you're not sure what built-in features are enabled or available on your PC, Windows Features is a quick way to find out. But it won't tell you anything about the listed components. You can't right-click one for more information, and there's no menu bar with File, Edit and so on. Even if you click the blue question mark icon, you'll have to go searching through the index to find out anything about your built-in components, and even then the information is limited. Before you switch off a component you're not sure about, type it into Google along with your version of Windows to make sure you know what it does. Otherwise, you may discover too late that it was much more important than you thought.



Fix crashes without restarting your PC using the hidden Exit Explorer tool

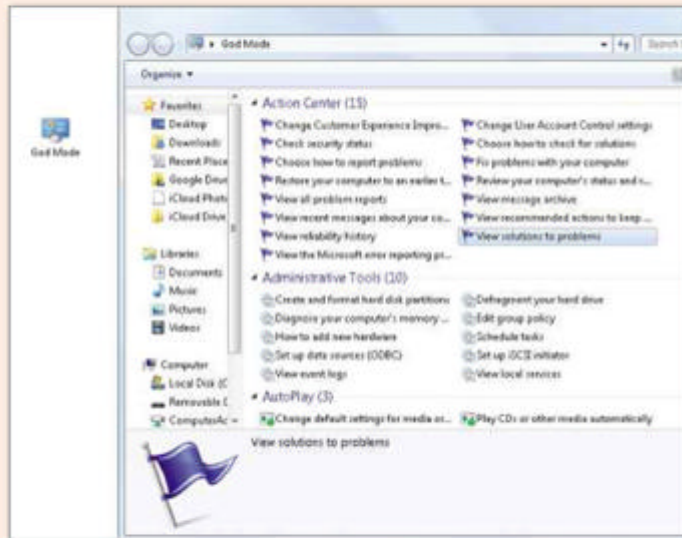


USE GOD MODE TO UNCOVER ALL YOUR PC'S HIDDEN TOOLS

Your PC has hundreds more hidden built-in tools than the handful of gems we mention here. Want to see them all in one folder? Then you'll need to use a hack known to its creators as God Mode.

That may sound grand (and possibly childish), but all you do is make a new Desktop folder and tweak its settings. When you open it, you'll see a big clickable list of all the Windows tools and tasks Microsoft buries deep in the Control Panel and elsewhere on your PC. Your God Mode folder is essentially a gateway to all the extra tools you didn't know you had.

Exactly how many tools and tasks you'll find in your God Mode folder will depend on your PC's configuration and your version of Windows, but there'll be a lot. Our list contained no fewer than 271 items, divided into categories ranging from Action Center to Unspecified (which contained just one link: 'Manage the Send To menu content'). To save you



Find all your PC's hidden built-in tools and tasks in the God Mode folder

wading through them, the God Mode folder includes a Search box so you can find any item quickly by typing key words such as 'updates', 'drivers' or 'keyboard'.

It's quick and easy to create the folder in any version of Windows from Vista onwards. First, create a new folder on your Desktop. By default, it'll be called 'New folder'. Right-click it, select Properties (usually at the bottom of the right-click

menu) and double-click in the text box on the General tab. Replace the words 'New folder' with your choice of folder name (it doesn't have to be 'God Mode' – you can call it whatever you want) followed by this exact string of letters, numbers and characters:

{ED7BA470-8E54-465E-825C-99712043E01C}. You can cut and paste it from Wikipedia: www.snipca.com/14637.

When you click OK to close the Properties window, the folder's icon changes to a Control Panel-style icon. Double-click it to open it, and use the View icon to

change the layout if you wish.

We don't much like the phrase 'God Mode', and we know some of you won't either, but it's a lot less cumbersome than 'Windows Master Control Panel shortcut', the name Wikipedia suggests. One Microsoft developer calls it the 'All Tasks folder', which is much better – both brief and descriptive. Whatever you decide to call it, you'll find this hack divinely useful.

HACK WINDOWS TO MAKE YOUR PC SAFER

Use Windows Firewall's hidden advanced tools

Works in: Windows Vista, 7, 8 and 8.1

Microsoft's own antivirus is worse than useless (see our latest Antivirus Megatest, Issue 437), so you can't rely on hidden

Windows tools to keep your PC safe. Microsoft may be perfectly confident about Windows Defender (which comes built into many PCs) and Microsoft Security Essentials (which is a free download), but we are not. If these tools

are enabled on your PC, they will conflict with your third-party antivirus and leave you vulnerable, so get rid of them.

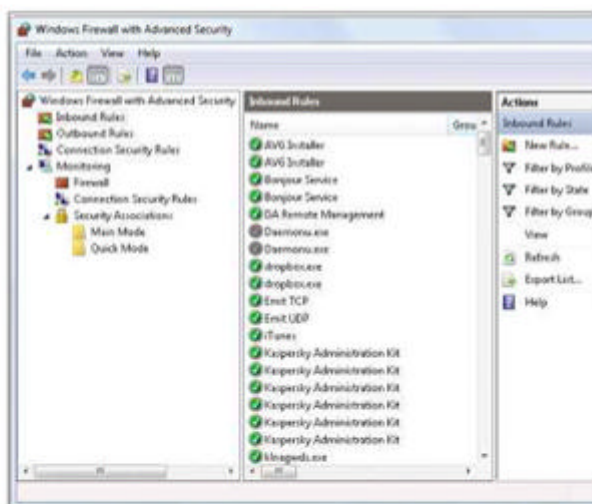
However, Windows' built-in firewall is a very good tool – but you may not be getting the best out of it because it includes optional features that Microsoft keeps quiet about. As a result, your PC may not be as safe as it could be.

If you're running Vista or later, use the 'Windows Firewall with Advanced Security' settings panel to get far greater control over

your firewall by creating detailed rules and exceptions. For example you might want to create a rule that lets Skype send and receive data via the internet on your computer, except when you're connected using unsecured public Wi-Fi.

To check Windows' default firewall rules and create your own, type **firewall** into Start and click the Advanced Security link in the list of results. At the top-left of the window that opens you'll see links for Inbound Rules, which apply to data sent to your PC (such as downloaded files); Outbound Rules, which apply to data that's sent from your PC to the internet (such as typing a web address into your browser); and Connection Security Rules, which apply to data sent between two computers. Click any of these Rule types to manage Windows' default rules, then click New Rule on the right to add your own.

If you've created a God Mode folder (see box, above), you'll find a few extra Firewall-related tasks there. These



Use the Advanced Security window to set up rules and exclusions for Windows Firewall

include 'Check firewall status', where you can check that your Windows Firewall is switched on and what it's blocking, and 'Allow a program through Windows Firewall', where you can edit the list of software and Windows tools that can send and receive data through your firewall.

Switch off Sidebar and Gadgets Works in: Windows Vista and 7

If we'd been writing this feature two years ago, Windows Gadgets would have been right up there with our favourite hidden Desktop tools. These live icons were introduced in Vista and survived into Windows 7, where you'll find them in the right-click menu on your Desktop.

But in 2012, everything went wrong for Gadgets and the technology they're built on, Windows Sidebar, when hackers realised they could use them to funnel malware into people's PCs. Microsoft promptly issued a 'Fix it' tool to disable Sidebar and Gadgets (www.snipca.com/14627), and if you click 'Get more gadgets online' in the Gadgets window, all you'll see is a reminder that they've been dropped in Windows 8 in favour of Apps (www.snipca.com/14601), which is so far proving to be a safer platform.



Windows Gadgets, such as CPU Meter, were useful but have been exploited by hackers

You can still try out Gadgets, for what it's worth. First, make sure your antivirus and firewall are enabled (ominous advice, perhaps, but it applies to everything you do with your PC). Now right-click your Desktop and click Gadgets to open a window full of attractive icons that you can add to your screen to get constant real-time updates about the weather, RSS feeds and more. Some still work, such as the excellent CPU Meter, a dial that sits in the corner of your Desktop and reveals in real time how hard your processor and memory are working. It's a lovely, simple companion to Resource Monitor.

We think it's odd that Microsoft's 'Fix it' page has an 'Enable Windows Sidebar

and Gadgets' button right next to the Disable one. We also wonder why the tools weren't just withdrawn completely in a Windows Update. Instead, Microsoft has put the onus on you to disable once-useful features that may be leaving you open to attack.

Of course, Gadgets aren't the only Windows tools and third-party programs that send data between your PC and the internet. Any tool that does so is a potential opportunity for hackers, which is why your Windows Firewall blocks most programs by default. The sad tale of Windows Gadgets reminds us that even the most friendly looking tools can be used to very unfriendly ends.

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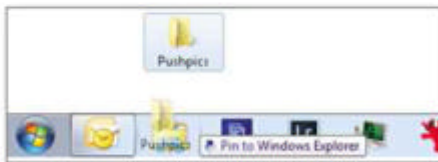
HACK YOUR DESKTOP

Pin folders to the taskbar with customised Jump Lists

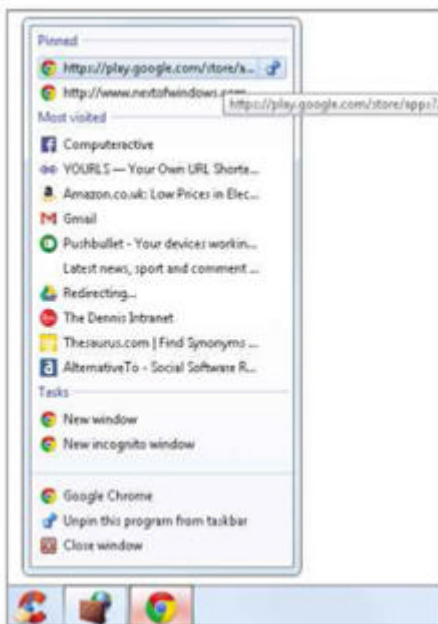
Works in: Windows 7, 8 and 8.1

If you like pinning programs to the taskbar for easy access, and wish you could pin folders and files to it too (and wish it were about 10 times longer so you could fit them all on), Jump Lists can almost grant your wish.

Jump Lists are the pop-up menus that appear when you right-click your taskbar shortcuts. The lists contain recently opened items by default, but you can configure them to contain whatever folders, files, web links and even Windows tasks you want. This effectively lets you pin favourite folders and files to the taskbar without having to juggle



You can't pin folders to the taskbar – but you can pin them to the Explorer Jump List



Pin favourite web pages to the top of your browser's Jump List for quick access

complex Registry hacks. It's a great way to cut your Desktop clutter.

There are various third-party tools for making your own Jump Lists, but you don't need them. All you need is your mouse. Start by finding a folder or file you want to pin to the Windows Explorer Jump List. Drag it to the Explorer icon on your taskbar, and let go when the 'Pin to Windows Explorer' message appears (see screenshot, left). Then, when you right-click the Explorer icon, you'll see your folder or file at the top of the list in the special Pinned category. You can do this with as many items as you want. (Well, within reason. You don't want the list to be so long that it disappears off your screen.)

You can even add favourite web pages to your browser's Jump List. First, you'll need to bookmark the page in your browser. Next you'll need to drag the page's bookmark on to your browser's taskbar icon, and let go.

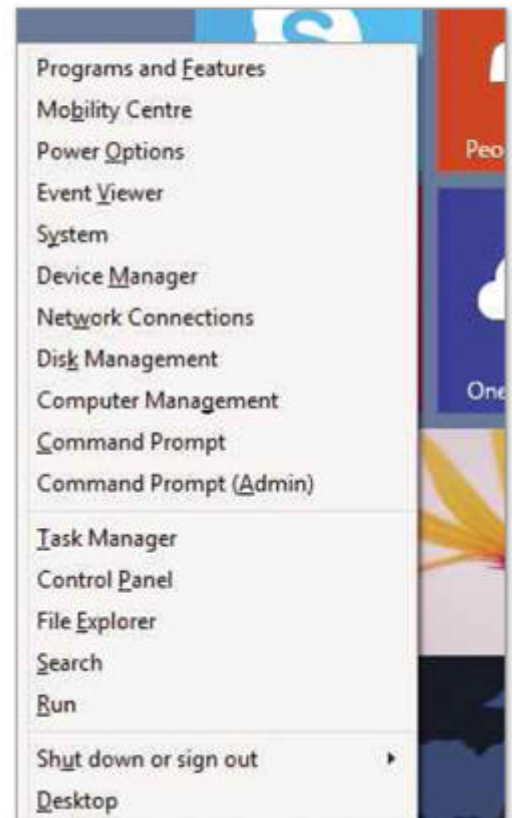
Any item you pin to a Jump List will stay there until you remove it – it won't be nudged off by more recent items. To remove it, hover your mouse over it in the list and click the pin icon.

Make Windows 8 show its hidden system tools

Works in: Windows 8 and 8.1

Microsoft hides its system tricks and tools even more deeply in Windows 8 than in earlier versions. The operating system is just not designed for power users, and sometimes it feels more like a Mac or even an iPad than a PC.

But Windows 8 still lets you get your hands dirty with system admin tools such as Computer Management, Disk Clean-up and Task Scheduler. From the Start screen, type **administrative** and click Administrative Tools. Now you'll see a list of configurable tools that you won't find



Press Win+X from your Start screen to see the system tools that Windows 8 hides

in the Windows 8 Apps list. To pin any of them to your Start screen for one-click access, right-click it in the list and click 'Pin to Start'.

On some Windows 8 PCs, you can also go to PC Settings, click Tiles and enable 'Show Administrative tools' to automatically pin every single admin tool to the far right of your Start screen. Some PC configurations don't support this, but give it a go. We think it's more convenient to choose just a few admin tools to pin to Start.

To get to a selection of system tools instantly from your Start screen, simply press Win+X. This opens the Start-X menu, where you'll find tools including Run, Event Viewer and a powerful Admin version of the Command Prompt.

NEXT ISSUE On sale Wednesday 7 January

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WHAT YOU MUST DOWNLOAD IN 2015

Every free program, tablet app and security tool you'll need this year

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Tidy up your **PC cables**

Messy cables are hazardous as well as untidy. Robert Zak finds ways to bring your PC wires and other cables under control



Cables have a relatively straightforward job, but they can feel like the least manageable element of your PC's setup. No matter how many times you painstakingly disentangle them, they're all snarled up again in no time.

Wireless peripherals, such as Wi-Fi printers and Bluetooth mice offer some respite but tend to be less reliable and slower than their cable-connected counterparts. So it pays to keep those wires under control. Here we round up some of the cleverest and cheapest ways to organise, disentangle and even hide your pesky ubiquitous cables. As Stuart Andrews put it (The Final Straw, Issue 437), "cables are trouble".

Label your cables

Labelling is the simplest way to resolve that most baffling of puzzles: working out which cable leads to which device. As well as saving you time, labelling will help you avoid unplugging the wrong device when you're crawling around on all fours under your desk.

We particularly like this pack of 24 adhesive stickers that you can wrap around individual cables, which costs £4.99 on Amazon (www.snipca.com/14314, see photo below). These 'Cable Labels' come in a variety of colours. There should be enough in a pack to label both ends of all your cables, but if not you can get a pack of



Use adhesive Cable Labels to see at a glance which cable goes where

48 for £8.99 (www.snipca.com/14332).

For a more durable solution, try Cablebug's coloured plastic clip-on labels, which cost £4.95 (plus £2.50 delivery) for a pack of 20 (www.snipca.com/14315). The labels clip on to cables between 2mm and 5mm in diameter, so they're suitable for most phone chargers and keyboard cables. Larger Cablebug labels, which clip on to monitor and power cables, cost £2.95 (plus £2.50 delivery) for 10 (www.snipca.com/14335).

Cover up your cable mess

Wouldn't it be great if you had one cable for all your devices instead of one for each? You can effectively do this with the Fisual Zip Up Cable Tidy (£10, www.snipca.com/14317). This handy zip-up sheath can hold at least five PC cables, measuring up to 35mm in diameter. It comes in 1-metre and 2-metre lengths, in black or white versions.

To tidy your cables even more effectively, use Fisual's cable tidy in conjunction with an under-desk cable basket. You can attach these baskets to the underside of your desk, then run your cables through them so they don't snake across the floor getting tangled up with your feet – which can lead to devices getting unplugged or toppling off desks. A 60cm basket costs £11 plus £8 delivery from Amazon (www.snipca.com/14337) and a 120cm cable basket costs £24 plus £8 (www.snipca.com/14318).

If you have a lot of cable slack lying around, it's not just untidy but dangerous. To cut the slack, feed the cables through the Clippasafe Electrical Cable Shortener (£3.99 for a pack of two, www.snipca.com/14316). Each of these gadgets takes one cable and lets you shorten it by up to 1.2 metres by winding it up in a simple plastic disc.


To unwind the cable again, hold the button in the middle and pull.

Keep each cable separate

To prevent your cables ever getting tangled up again, use a cable tidy that keeps them separate. If you take advantage of our latest subscription offer (6 issues for £6, page 62), you'll receive a free cable tidy that has five rubber clips to hold your cables in place (see photo below). There are plenty of (albeit slightly less robust) alternatives that work in slightly different ways. For example, the Cablox Cable Tidy System (£9.99 for 2, www.snipca.com/14319) is a 10cm square grid of studs that create channels to thread your cables through. The grids have adhesive backs, so you can stick them to the underside or edge of your desk.



Sort out your cable mess with this desktop tidy (see subscription offer on page 62)

You can also prevent entanglement by bunching cables into groups, such as tying all your power cables together so they remain separate from your USB cables. It's also a good idea to keep your audio cables separate, because other types of cable can interfere with their sound quality. To keep a group of cables together, use Fisual's Chunky Reusable Hook & Loop Cable Ties (£4.99 for 20, www.snipca.com/14322), which are made of Velcro so they're reusable and adjustable. If you want to group thicker cables, go for the XL (extra large) size instead (£4.59 for five, www.snipca.com/14338). 

First 100 days of Windows 10



In the penultimate instalment of her Technical Preview diaries, Jane Hoskyn learns a hardware lesson and gets a stocking full of new Windows 10 tools

Day 65 Die hard(ware)

It's the best of times and the worst of times in my tech universe. Software has tickled me pink this year, and I like the way Windows is going (if you don't believe me, just wait 'til you see page 74). But hardware has conspired to ruin my enjoyment, particularly of Windows 10.

This isn't a trivial whinge. You can have the greatest operating system in the world, but if the computer you're running it on doesn't know its mouse from its elbow, you won't get the benefit.

Take my second-hand Acer hybrid, for example. Please, take it. Donate it to medical science or use it for target practice. I hadn't realised quite how badly it had sullied my Windows 10 experience until I tried the Technical Preview on my colleague's Surface Pro and had one of those "oh, *that's* how it's supposed to work" moments.

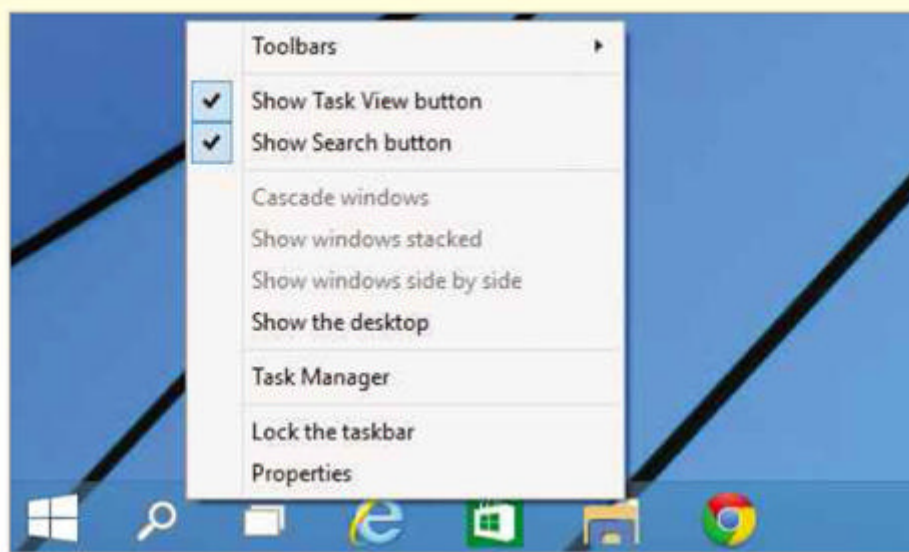
This isn't an advert for the Surface Pro laptop-tablet hybrid, which is heavy and expensive. My point is that if you want to get the best out of software, especially new software, you need hardware that works. Many hardware problems can be fixed for free (see Issue 438), but my Acer needs at least one night with an IT specialist armed with a screwdriver.

Day 69 Hamburgered

Have you noticed how settings cogs seem to be turning into settings hamburgers? You know, those three little lines in the top right of windows. Hamburgers are everywhere in Windows 10. I love the power you get from settings menus, but this lot is making me hungry.

Day 70 Trackpad tricks

Trackpad gestures were rolled out to Windows 10 testers a few weeks ago, but they were wasted on my Acer because its trackpad seemed permanently drunk. One touch with my index finger, and the cursor would go whizzing off to the opposite corner of the screen. Had I tried



Remove Windows 10's annoying Search and Task View buttons with a quick right-click

swiping down with three fingers (a brand new gesture that minimises all active windows), I suspect the screen might just have punched me in the face.

Now that I've switched PCs, I'm a gesture convert. These new shortcuts may sound gimmicky, but they're simple, efficient and a relief for those of us whose wrists have been driven to ibuprofen by years of mouse-clicking.

As yet there doesn't seem to be a way to configure your own gestures using Windows 10's built-in tools. You can create them in Windows 8.1 using an app called TouchMe Gesture Studio (www.snipca.com/14689), which we expect to be updated for Windows 10 once the OS gets its full release.

Day 78 Bing and gone

My favourite hidden Windows tools are the ones that let me show Windows who's boss. So I'm delighted to discover I can remove the hated Search button (basically an advert for Bing) and Task View by right-clicking the taskbar and unticking them into oblivion. This option didn't even exist a few days ago. That's the trouble with betas and previews – as

soon as you find something to hate, it goes away politely, muttering apologies.

Day 79 A new 1D fan

Now Microsoft has even made me want to use OneDrive. I'd always regarded this cloud service as a pointless alternative to Google Drive and Dropbox, but in Windows 10 it comes with a 'selective sync' option that gives you much more control over what's backed up from your PC to the cloud. What's more, you can do it all via File Explorer rather than a silly Desktop app.

I'm also hearing about OneGet, a new Linux-style software download manager that'll be included in Windows 10's Command Prompt-style PowerShell tool. If it works as promised, it could free us all from program setup wizards forever. I'll take a closer look in the next issue.

Windows 10 so far: 9/10

The more time I spend with Windows 10, the more I like it. But a system as powerful and gesture-based as this is only as good as the hardware it's running on.



Run old software on a new PC

Do your favourite old programs refuse to work on your new or upgraded Windows PC? Jane Hoskyn reveals simple and not-so-simple ways to get them running again

It didn't take us long to get over the demise of Windows XP. The anticipation was worse than the event, as it turned out – more people than ever are now happily acquainted with Windows 7, 8 or 8.1 (see News page 8), and a few are even diving into the Windows 10 Technical Preview.

But while we've moved on, our software hasn't. That version of Quicken or Genbox you bought for your XP PC won't feel like quite such good value for money if it refuses to work in your new operating system. It's not just about money – you may have spent months or years getting used to a free program, only to find that it's no longer supported by your new PC.

Don't bury those old installation CDs and licence numbers just yet. Most old programs can be made to work on new versions of Windows, and it may require nothing more than a settings tweak. Here we'll show you how to breathe new life into your old programs, and even your old operating systems.

Run a program in compatibility mode

Compatibility mode is essentially an older version of Windows in disguise. When you switch on compatibility mode for a certain program, you're simply telling Windows 7, 8 or 8.1 to behave like Windows XP, Windows 95 or whatever operating system (OS) the program was originally designed to run on.

It's very quick and easy to do, and you don't even have to open the program you're having trouble with. Right-click its Desktop icon or shortcut, or its installer (**EXE**) file, then click Properties and go to the Compatibility tab. Tick 'Run this program in compatibility mode for:', then choose its original OS from the dropdown menu. Also tick 'Run this program as an administrator' to change your default permissions for that program; this will aid your chances of getting it to open and run. Click OK. Now, whenever you open that program, it will run in your chosen compatibility mode.

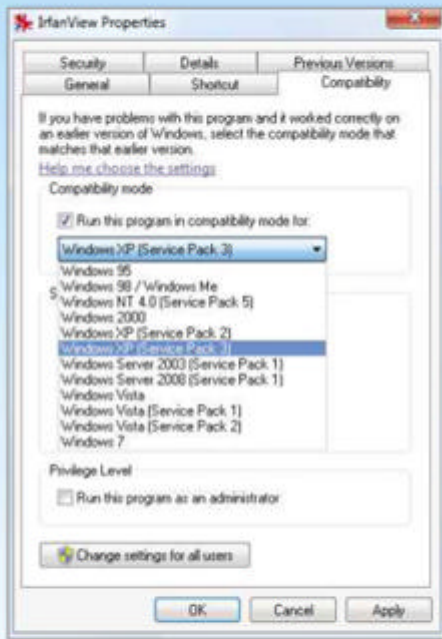
There are a couple of provisos. Compatibility mode isn't a cure-all – it can get most Windows Vista software and some XP software running again, but it may not work with many older programs. More importantly, you shouldn't attempt it at all with some types of software, notably security tools. If you run your antivirus, firewall, backup software, system-cleaning programs or Windows tools in compatibility mode, they may stop working. But if you have old versions of games, music players, photo editors, genealogy software and so on, compatibility mode may be enough to get them working again – and keep them working for years to come.

Fix compatibility problems automatically

The next weapon in your compatibility arsenal is Windows' built-in Program Compatibility **wizard**. This tool applies compatibility mode automatically to your chosen program, and attempts to fix any



Run old software on a new PC



Set a program to run in compatibility mode for its original version of Windows

'issues' (Microsoft-speak for problems) you're having with it.

To open the wizard, type **compatibility** into your Start menu (Windows 7) or Start screen (Windows 8/8.1), then click 'Run programs made for previous versions of Windows' in the list of results. When the wizard opens, click the little blue Advanced link at the bottom-left, then click 'Run as administrator' if you don't already have full admin privileges on your PC. Click Next and wait a minute while the wizard gathers a list of your installed software. Scroll down to the program you're having trouble with, click it, then click Next.

You can skip straight to this stage from a program's Desktop icon or EXE file by right-clicking it and clicking 'Troubleshoot compatibility'.

Now click 'Troubleshoot program' and

tick 'The program worked in earlier versions of Windows but won't install or run now'. Also tick 'The program opens but doesn't display correctly' or 'The program requires additional permissions' if they apply, then click Next. Click the program's original Windows version if you know it, or click 'I don't know' to let Windows automatically choose the best compatibility settings for the program. Finally, click 'Start the program'.

If the program opens and runs successfully, click Next in the Program Compatibility wizard, then 'Yes, save these settings' to always run the program in compatibility mode. If the program still didn't work, click 'No, try again' – or dig out your old installation CD for Windows XP (or 2000, or 95, or whatever system the program ran on) and move on to our next suggested fix.

Run your old OS on your new PC – virtually


Not all old programs can be fooled by compatibility mode. Some stubborn software won't run in anything other than the system it was designed for – so your next step is to install the old OS on your new PC.

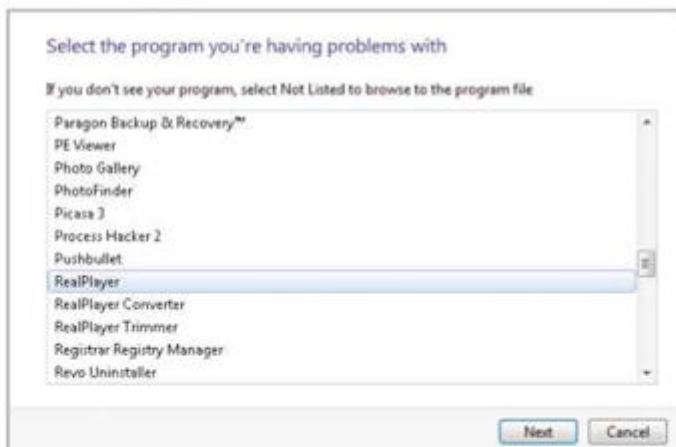
As you may have guessed, this fix is less straightforward than ticking a box in Properties. First you have to create a 'virtual machine' inside your PC, and then install your old version (or versions) of Windows in it. To install any version of Windows you'll need its installation CD, or at least a legitimate installation file (usually an **ISO file**) and your licence number. You can and will find free EXE files on the internet that claim to be full versions of Windows XP and so on, but they are unlikely to be legitimate and may be unsafe, so steer clear.

Microsoft's own virtualisation software, Windows Virtual PC (www.snipca.com/14643), only works in premium editions of Windows 7 (Professional, Enterprise and Ultimate), which rules out nearly all of us. Happily there's a very good, free third-party alternative, VirtualBox (www.snipca.com/14660), which we featured in our workshop on installing the Windows 10 Technical Preview (Issue 434).

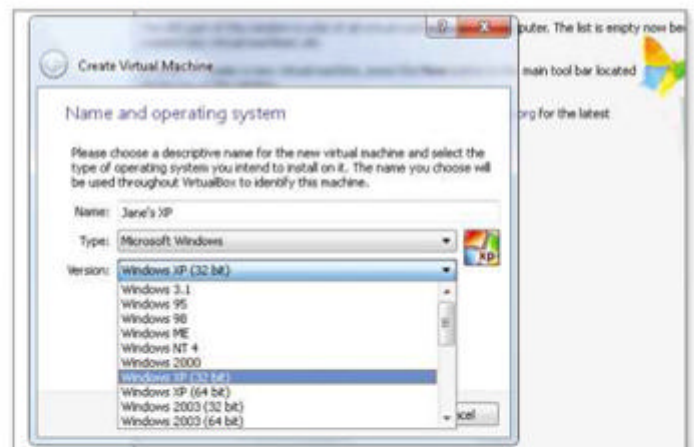
The latest version of VirtualBox (4.3.20) came out just a couple of weeks ago. To download it, go to www.snipca.com/14660 and click the small blue 'x86/amd64' link to the right of 'VirtualBox 4.3.20 for Windows hosts'. Don't worry about the optional dropdown menus when you run the installer – you can safely ignore them and click Next until installation is complete. If you do have any problems, turn to the excellent online user manual for advice (www.snipca.com/14661).

Next, open VirtualBox and click New to create your first virtual machine. This is where you'll install your old version of Windows (or indeed any other operating system), so give it a name that'll help you identify which OS it contains ('Jane's XP' in our screenshot below). You can create multiple virtual machines and install different systems on all of them, then run your old programs in them just as if you were still using your old PC.

Free **open-source** tool Portable-VirtualBox (www.vbox.me; click 'VirtualBox v4.3.18', top right) converts the VirtualBox installer file into a portable program, so you can run your old versions of Windows from a USB stick on any computer. You'll need to download the VirtualBox installer separately. Full instructions are on the Portable-VirtualBox web page. 



Windows' Program Compatibility wizard lets you choose a compatibility mode for your installed programs



Use VirtualBox to create a 'virtual machine' where you can run old versions of Windows

Quiz of the year 2014

Pay attention at the back! It's time to test how closely you've been following the events of 2014 with our mammoth Quiz of the Year. You'll find all the answers in issues of *Computeractive* published in the past 12 months. To help you, we've provided picture clues to one question in each category. Get all the answers correct and you could win a robot vacuum cleaner. Good luck!

GOOD NEWS

- 1 What deadly ransomware was temporarily disabled in June, allowing users to protect themselves from future attack?
- 2 Listings from which 91-year-old magazine were put online by the BBC?
- 3 Which Yorkshire city was announced as the first to get widespread 1GB broadband in the UK (see photo)?



- 4 For how many days can you now watch TV shows on the BBC iPlayer after they are broadcast?
- 5 What modern-day annoyance is Ofcom abolishing from summer 2015?

BAD NEWS

- 6 What nuisance call-blocking service did Ofcom say was only 30-per-cent effective?
- 7 Fake videos of a zookeeper being eaten by what type of snake were responsible for Facebook scams in January (see photo)?



- 8 What did Apple stop Londoner Josh Grant using when his mother died?
- 9 What unwanted record is shared by Corringham, Essex, and Erw Fawr, Conwy?
- 10 Which webmail service updated its terms and conditions in April to admit that it does "analyse" your emails?

WEIRD NEWS

- 11 Which region in Yorkshire did the BBC say swears most on Twitter?
- 12 Facebook said which group of performers can use fake names on the site (see photo)?



- 13 A city in which country introduced a lane for 'smartphone zombies'?
- 14 Which company unveiled a Wi-Fi-enabled coffee maker in November?
- 15 In May, Cambridge company Dovetailed used a 3D printer to create what kind of food?

ALL CHANGE AT MICROSOFT

- 16 Who replaced Steve Ballmer as Microsoft CEO in February (see photo)?



- 17 What did Microsoft do on 13 May that it previously swore it wouldn't?
- 18 What's the name of Skype's new video-calling app?
- 19 Microsoft confirmed that it would end mainstream support for what product on 13 January, 2015?
- 20 What did Microsoft say you should do with the Windows 7 and 8.1 updates issued on 12 August?

THE FINAL WHAT?

Can you remember what Stuart Andrews was ranting about from these illustrations?



SECURITY SCARES

21 Which bug exposed in April was considered so serious that experts advised users to change all their passwords (see image)?



22 Which infamous botnet returned in a phishing email in July?

23 What overtook 'password' to become the most commonly used password online?

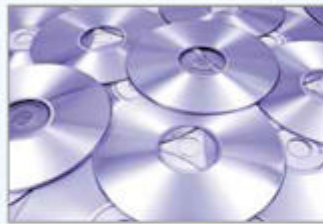
24 Over 233 million passwords from which website were stolen in February (although it only revealed the news in May)?

25 The forums of which antivirus company were hacked in May?

LAW AND ORDER

26 How long will people found guilty of sending 'revenge porn' face behind bars?

27 What activity that millions have been performing for years was finally made legal in October (see photo)?



28 Following changes to the law, how long do you now have to tell a retailer you want to return an item?

29 How much money was phone spammer Jayesh Shah fined for sending 500,000 texts a day?

30 What's the name of the Metropolitan Police's new cybercrime unit?

SPLASHING THE CASH

31 In June, think-tank Policy Exchange said that £875m should be spent on what?

32 What did Facebook buy for \$19bn?

33 Why did the Government pay Microsoft £5.5m in April?

34 What will the Met Office spend £97m on next year (see photo)?



35 Which ISP said in January that it would spend £50m to deliver super-fast broadband to another 400,000 premises?

WHAT'S NEW FROM GOOGLE

36 Which 4,500-year-old landmarks debuted on Street View in September?

37 How fast can Google's first 'self-driving' car prototype go?

38 In which country did Google test its flying drone Project Wing?

39 Which animal did Google use to capture Street View images of the Liwa Desert in United Arab Emirates?

40 Why might you want to lick the latest version of Android (see photo)?



How to enter

Please email your answers, including those for The Final Straw illustrations, to editor@computeractive.co.uk with 'quiz' in the subject line. Closing date: 10 January 2015. A winner will be chosen at random from every person who answers all 40 questions correctly.

What you win

NEATO BOTVAC 85 ROBOT VACUUM CLEANER – WORTH £449.99!

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base to recharge, and then returns to the spot it left off to finish the job. Nothing will do a better job of cleaning up your mess this Xmas!

For more information visit www.neatorobotics.com, or follow Neato Robotics on Twitter [@NeatoRobotics](https://twitter.com/NeatoRobotics).



A shorter quiz

Okay, we realise you may not have time to answer all those questions. Here's a shorter quiz, to win a Computeractive mug:

- 1 Which high-street store is offering 'get online' workshops for £20?
- 2 Tickets for which pantomime in Bournemouth were used in a huge phishing attack in September?
- 3 An Ofcom report in March said which country has the best broadband in Europe?

Please email your answers to editor@computeractive.co.uk with 'mug' in the subject line. Closing date: 10 January 2015



☒ **YES!** Please start my subscription to Computeractive and send me my **FREE Cable Tidy**.

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Problems Solved

PROBLEM OF THE FORTNIGHT

How do I uninstall a program that refuses to uninstall?

Q I would like to uninstall Picasa 3 from my Windows 7 PC. Whether I use the 'Uninstall a program' option in Control Panel or Picasa's own uninstall tool, I get the same message, which is: "The installer is unable to close Picasa. Please check that it is closed and other users do not have it opened". It's not open and other users don't know it's on my PC, let alone have it open! Every time I try to uninstall the program it aborts and I am left facing this message. Do you know why Picasa is being stubborn? And how do I remove it?

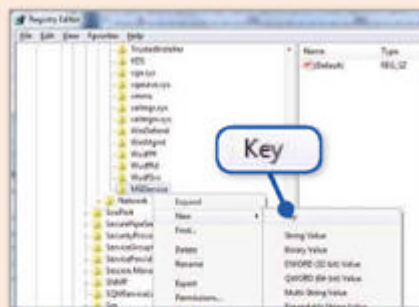
Stuart Hillier

A This is almost certainly down to some background process or service that continues to run even after you've exited Picasa.

You can use Task Manager to disable unruly background operations, but first we'd suggest removing your photos folders and drives from Picasa, so that it's not trying to index them in the background – because that might be the cause of the problem. In Picasa, open the Tools menu then choose Folder Manager. In the Folder Manager dialogue box, click in turn each entry in the Folder List pane and the 'Remove from Picasa' button. Click OK when finished, then close Picasa and try uninstalling it again.

If it still fails then use the Control (Ctrl)+left Shift+Escape (Esc) keyboard shortcut to open Task Manager. First select the Processes and look for Picasa.exe: if it's there, right-click it, click End Process from the menu then click the 'End process' button to confirm. Now try uninstalling again.

If you still have no joy, bring up Task Manager again, choose the Services tab, click the Description heading to sort the entries by that criterion then scroll through the list to look for entries related to Picasa. Only if you're sure



Uninstall obstinate programs by making a small tweak in your Registry Editor

they are related (check online to confirm), right-click and choose Stop Service. Again, try uninstalling.

As a last resort, you can attempt to uninstall using Windows Safe Mode, though this particular aspect of Safe Mode might need enabling on your system (as we'll explain later). First, restart your PC and tap F8 repeatedly until a menu appears. Use the cursor (arrow) keys and Enter to choose Safe Mode. Now try uninstalling.

If Windows' uninstaller tool refuses to launch in Safe Mode, you'll need to carry out a Registry tweak. First back up your PC in case anything goes wrong. Click Start, type **regedit** and press Enter. Next, right-click **regedit.exe** and choose 'Run as administrator'. Now use the Registry Editor window to navigate to **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SafeBoot\Minimal**. Right-click Minimal in the left-hand pane, point to New then click Key (see screenshot above). Type **MSIService** as the key name, then double-click this new entry in the right-hand pane and type **Service** into the 'Value data' field.

Restart in Safe Mode, click Start, type **services.msc**, then right-click 'services.msc' and choose 'Run as administrator'. Locate the Windows Installer service, right-click it and choose Start. Now try uninstalling Picasa.

Why aren't images showing in Outlook?

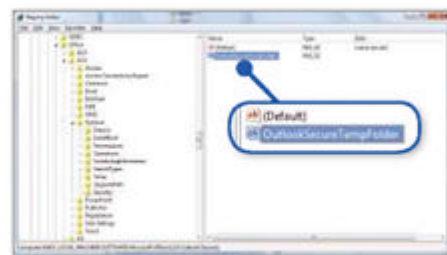
Q I use Outlook 2007 for my emails. In the last few days images embedded in emails are not being shown. Instead there's a small square with a red cross in the middle where the image should be. It seems the only way I can view emailed images now is through a web browser. Any help or suggestions will be appreciated.

Len Priestley

A This can happen when the temporary folder Outlook uses for **caching** images becomes corrupted or is deleted. The fix isn't too difficult but does involve editing the Registry, so back up your PC before proceeding.

Click Start, followed by Run, type **regedit.exe** then right-click **regedit.exe** and choose 'Run as administrator'. Next, use the Registry Editor window to navigate to **HKEY_CURRENT_USER\Software\Microsoft\Office\12.0\Outlook\Security**. In the right-hand pane find the OutlookSecureTempFolder entry: note down the folder path listed under the Data heading. Open Windows Explorer (Windows Key+E) and check that this folder exists. If not, create it or create a new folder anywhere (for example 'C:\OutlookTemp') and change the OutlookSecureTempFolder entry's value to match (double-click to edit it).

If the OutlookSecureTempFolder does not exist, right-click anywhere in the right-hand pane in Registry Editor then go to New, then String Value. Name this new value OutlookSecureTempFolder and then type a valid folder path, as above.



Restore missing images in Outlook emails by checking Outlook's temporary cache folder

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Is switching off my router at night slowing down my broadband?

Q I have broadband supplied by BT and use the company's Home Hub router. I've been in the habit of switching it off when it's not in use, to save the planet and all that. Recently, my broadband speed has reached an all-time low of 0.01Mbps. On contacting BT, I was advised that switching off my Home Hub automatically resets it to a lower speed, because it's programmed to compensate my low usage for the benefit of other users in my area. Is this something you have heard of, or is BT having me on?

Michael Mullaney

A We've never heard the suggestion that BT would reduce a low-usage customer's broadband speed in order to benefit

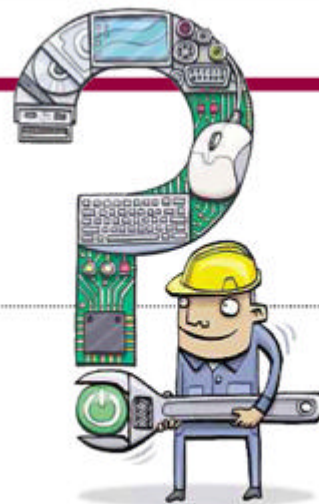
other nearby users but traffic management (or 'throttling') as it's known, is possible. However, throttling is usually applied to customers using a lot of data, not those using very little.



Switching off your router at night can lead to unpredictable speeds, because reconnection can lead to the **signal-to-noise ratio** being adjusted while a reliable speed is determined.

Even so, we wouldn't expect broadband speed to drop as low as yours for any sustained period.

From here, your best bet is to make regular use of a broadband speed test (such as www.speedtest.net) and keep a diary of the results. Test your speed several times each day, at the same times through the day, and then present your findings to BT.



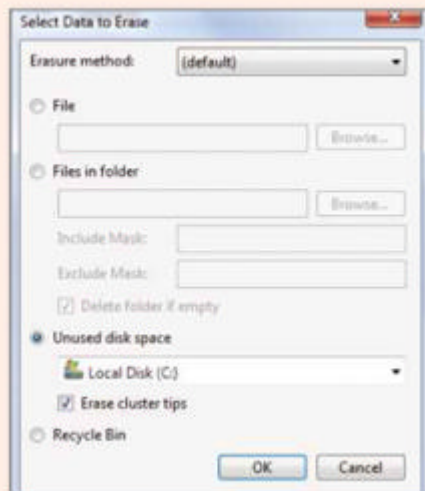
Will saving a new file overwrite the old data?

Q I understand that when a file is deleted from a Windows PC the file's contents aren't really deleted. So, my first question is: if I have a document open in a word-processor program, change some text and then save it, will any evidence of the previous version's contents remain on my hard drive? What about if I replace everything in the document with new text?

I'd like to know if this also applies to spreadsheets. Also, does it make any difference if I'm saving to a USB stick rather than my computer's hard drive? Is there a reliable way to wipe all traces of old data?

Colin Levers

A Replacing the existing contents of a document (or spreadsheet) with all-new material will lead to some or even all the data being



Use the free Eraser program to regularly clean all unused hard drive space

replaced in the related file. However, evidence of the old content may remain somewhere on your hard drive or USB stick.

This is because while Windows' filing system might instruct the drive to overwrite the file's existing physical location on the drive, it might also choose to write the new file version elsewhere instead. Indeed, it might have to if the new file is bigger, marking the

space occupied by the old file version as free (but not actually wiping it). There is, sadly, no easy way to know.

If you want to ensure that the contents of old files are truly erased then you need to overwrite with the new data all those areas on the drive that the old files occupied. That's a process best done with free software, such as Eraser (<http://eraser.heidi.ie>).

Once installed, use Eraser to securely delete (overwrite) individual files simply by right-clicking them and pointing to Eraser, then clicking Erase. But be careful with this because there's no way to restore anything you delete.

Alternatively, set up Eraser to periodically wipe all unused drive space. Right-click the Erase Schedule window and choose New Task. Next, click the Add Data button then choose the 'Unused disk space' button and the relevant drive. Click OK, select the 'Run manually' button then click OK again. Next, right-click the 'Unused disk space' task and choose Run Now from the pop-up menu. The process can take a very long time.

Problems Solved

Is it possible to add pop-up images to Excel

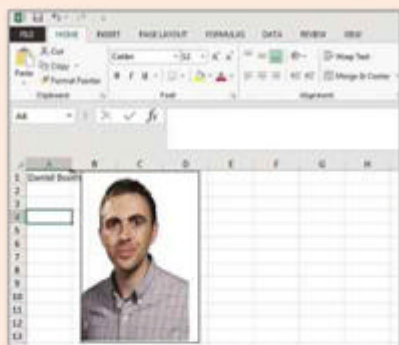
Q I have used Excel 2010 to construct my family tree and I use the Comment facility to make an individual's potted history appear when you hover the cursor over their name. I'd like to show pictures in a similar way but I can't figure out how to do it, or even if it's possible. Is there a way?

Keir Polyblank

A Yes, you can do this, though the method is obscure. First, create a comment box as usual. Next, hover the cursor over the comment box's border and right-click (it's important that it's the border and not the body of the box), then choose Format Comment.

In the Format Comment dialogue box, select the 'Colors and Lines' tab. Now open the Color dropdown menu and choose Fill Effects. In the Fill Effects dialogue box, click the Picture tab. Click the Select Picture button, then click Browse in the 'From a file' section. Navigate to and select the relevant photo then click Open. To avoid your photo looking stretched or squashed we'd advise ticking the 'Lock picture aspect ratio' box. Click OK twice to close both dialogue boxes. The picture will now appear in the comment box when you hover the pointer over the relevant cell.

To make the image bigger or smaller, simply drag and drop the borders of the comment box.



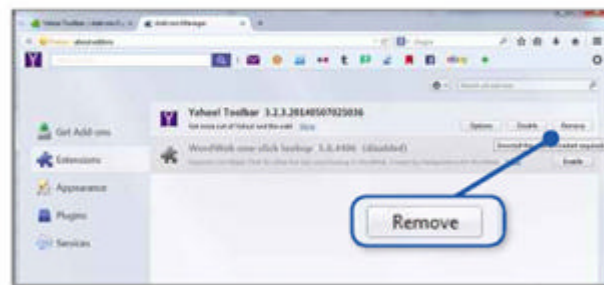
Create comment boxes displaying images via Excel's settings

How do I remove the Yahoo toolbar?

Q Somehow my Firefox web browser on my Windows 7 computer has become blighted by the Yahoo Toolbar. I don't want to keep this, but I don't know how to remove it. Can you explain what I need to do?

Jack Binks

A We're asked this question regularly so we'll explain the process for the main three browsers, to help out both you and other readers with this problem.



Remove Yahoo Toolbar from your Firefox browser via the Extensions tab in the Tools menu

For Firefox, press the Alt key to show the menu, then open the Tools menu and click Add-ons. Next, click the Extensions tab, click to highlight Yahoo Toolbar and then click Remove. Restart Firefox.

In Internet Explorer (IE), click the cog icon at the top right, followed by 'Manage add-ons'. Now select 'Toolbars and Extensions' in the left-hand pane then scroll through the list displayed in the right-hand pane to find and select Yahoo Toolbar. Click Disable and restart IE.

Finally, in Google Chrome, click the menu button at the top right (three horizontal lines) and choose Settings. Now click Extensions on the left-hand side and choose 'All add-ons' from the Show dropdown menu. Click to select Yahoo Toolbar in the right-hand pane and then click the Remove button and follow the prompts, before restarting Chrome.

Why has my Android smartphone stopped connecting to my USB?

Q I have a Motorola G phone, which I recently updated to Android KitKat 4.4. But now it no longer connects to my USB memory stick, which used to work just fine when attached using a little cable that I bought online. I assume this has something to do with KitKat. I'd like to fix it because I store videos on my USB stick.

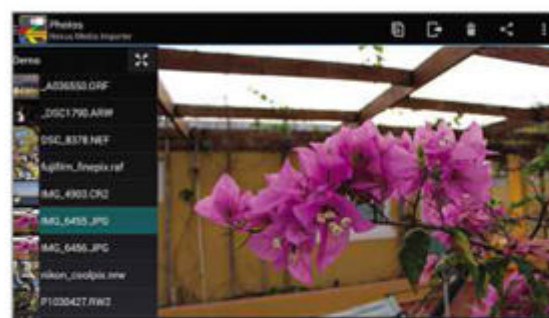
Roger Stevens

A Yes, this is down to KitKat. Your upgrade from Android 4.3 (Jelly Bean) killed support for USB on-the-go (OTG) cables, which is what you've been using with your Motorola.

One option would be to downgrade your Motorola to 4.3, which would restore the OTG functionality. However, that's easier said than done. It's a tricky process that could lead to your device becoming unusable. The process is also liable to change at any time, so we can't offer reliable

instructions in print. If you decide that you'd like to try then follow the guide at www.snipca.com/14195, which contains up-to-date links to the latest firmware necessary for the process.

Alternatively, if you're prepared to spend a few pounds then consider buying the Nexus Media Importer app, which enables access to media files via an OTG cable, with no hassle. We haven't tried it on a Motorola G, but it does work with other recent Motorola smartphones. It costs £2.62 from the Play Store, at www.snipca.com/14196.



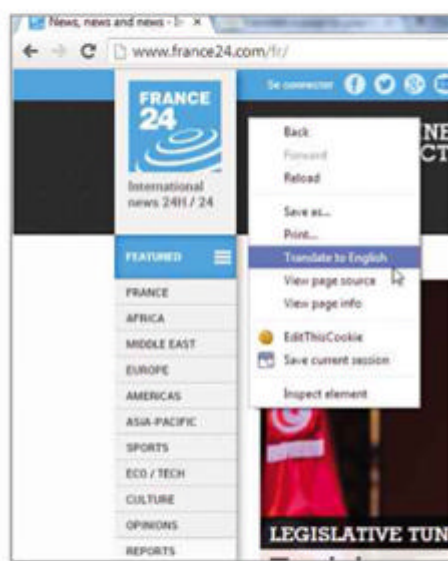
Import photo and video files to your KitKat 4.4 phone by using the Nexus Media Importer app

How do I translate web pages in Chrome?

Q I'm studying French part-time and, as such, I now visit a lot of French-language websites. Sometimes when I visit these pages Chrome offers to translate them. While I do sometimes use this option, often I decline as I like to immerse myself in the foreign text. However, it would be useful occasionally to switch between the original French and the translated version of the page to help me understand some of the harder passages, but I don't know how to do this. How do I get Chrome's Translate button back once I've clicked No?

Josephine Turner

A You can't get the button back, but you can do what you want easily. Just right-click anywhere



Right-click and choose 'Translate to English' to convert web pages in Chrome

on the page and then choose 'Translate to English' from the pop-up menu. When you want to switch back to the original, just right-click and choose reload or use the keyboard shortcut F5.

Why does this mini browser appear on my Windows Desktop?

Q I have an ageing Windows XP that I know I should update but, as it does everything I need, I don't really want to. Recently, something strange has happened to my Windows Desktop: a sort of small browser-like window has appeared, displaying adverts for rubbish that I don't want. If I hover over this window, a toolbar appears at the top, so I can close it, but it comes back again the next time I start Windows. Do you have any idea what's going on here?

Tony Foster

A This sounds like a little-remembered feature of Windows XP called Active Desktop, which lets you set up small browser windows on the Windows Desktop. You haven't set this up yourself so we suspect that some malware has found its way on to your system and done this for you.

In ordinary circumstances Active Desktop windows are easy to get rid of, but afterwards you'll need to run a thorough scan using your security

software to ensure that your PC is clear of interlopers or else your work might be undone.

To start, right-click a blank part of the Desktop and choose Properties from the pop-up menu. Now select the Desktop tab and click the Customize Desktop button. Next, click the Web tab and look in the 'Web pages' pane below: our guess is that you'll find at least one unwanted entry, so click to select it and then click Delete followed by Yes. Now run that security scan!



Delete entries from the 'Web pages' pane in the Web tab to remove mini browsers

Where have the Android developer tools gone?

Q I used to own an Android phone on which I enabled a feature that kept the screen on when the handset was charging. I found this useful on my desk at work, where my phone was left on charge all day. I ditched that phone in favour of a Nokia Windows Phone, but after a year, I've decided to switch back so have picked up a cheap Nexus 5. I can't find this option, which I think used to be in a menu called 'Developer tools'. Any ideas?

David Brooks

A The menu you're looking for is called 'Developer options', but it's now hidden to prevent everyday users from stumbling upon it and potentially creating havoc for themselves. You can make it appear with some secret finger work.

First, tap Settings then swipe to the bottom and tap 'About phone'. Now again swipe to the bottom to find the 'Build number' heading: you need to tap this heading seven times to enable the 'Developer options' menu. You need to tap pretty quickly, else the count will be reset. If you're getting the speed right, your phone will let you know with the message: "You are now [X] steps away from being a developer". When this message changes to "You are now a developer", the menu is enabled.

Return to Settings and then tap the newly revealed 'Developer options' menu. The option you're after is

labelled 'Stay awake'. Just tap it to tick the box.



Tap 'Build number' seven times to get the 'Developer options' menu

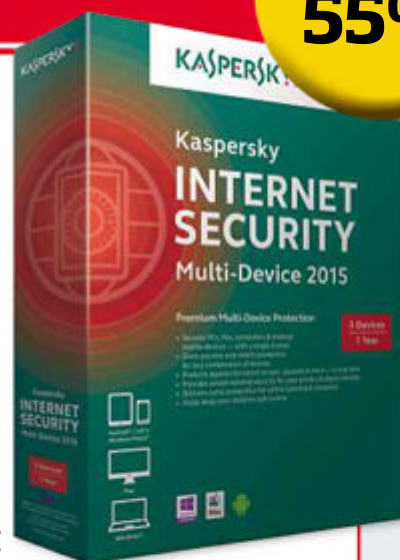
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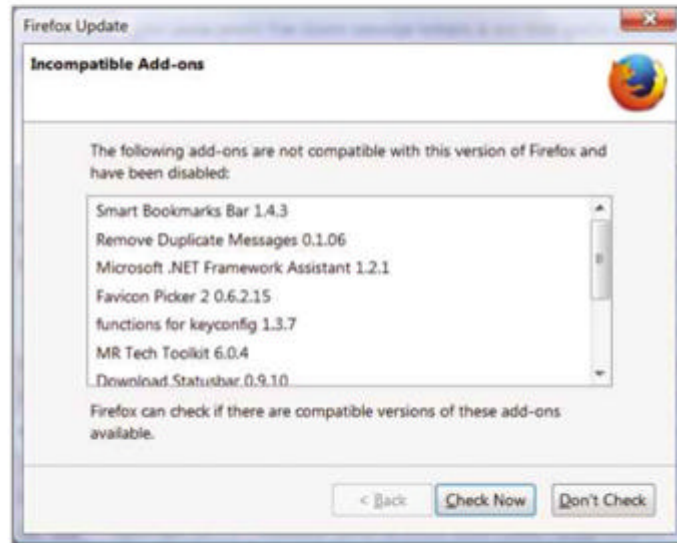
Issue 415 22 January; Issue 425 11 June; Issue 430 20 August; Issue 437 26 November

Should I worry about disabled Firefox add-ons?

Q You recently praised the latest version of Firefox, so I updated my version, which I'd been using for a while and with which I'd been delighted. However, when I did this, the following message was displayed: "Some of your add-ons won't work with this update and will be disabled. As soon as they are made compatible Firefox will up-date and re-enable these add-ons". It listed a number of add-ons, including Kaspersky URL Advisor and Dangerous Website Blocker. I emailed Kaspersky for advice, but as yet have heard nothing. Why won't these add-ons work with the new Firefox and do I need to worry about it?

Tom Whitley

A The add-ons won't work simply because at the time you updated Firefox, Kaspersky would not have updated its add-ons to work with the latest version. By now it



Add-ons may be incompatible with Firefox when the browser updates

will have done, but we're publishing your question because it's a problem that will present itself to anyone who likes to grab the latest program updates right away.

Firefox developer Mozilla is a different company to Kaspersky and it is not Kaspersky's fault that Firefox breaks its add-ons. Nor is it Mozilla's fault that Kaspersky hadn't (at your time

of writing) updated its add-ons to work with the new version of Firefox. Really, it's just a case of timing: while it's fun to live on technology's cutting edge, it sometimes has its problems – like this. Sometimes it's better to wait a few days before updating browsers.

As to whether you should worry about it, the answer right now is no, because these add-ons should have been updated to work (though if it's still happening, click the Check Now button when the warning dialogue box appears). If (or rather when) it happens again then you have to make a

judgement call: how much do you rely on Kaspersky URL Advisor and Dangerous Website Block (and any other add-ons that might be incompatible with any new version of Firefox), and how unsafe would you feel without them? Your computer won't become instantly infected because they're disabled, but you'll obviously lack the protection these tools offer until they're updated.

Is it possible to fast-forward through YouTube videos?

Q Of late I've been watching a lot more videos on YouTube, but sometimes I want to rewind or fast-forward through clips, either to re-watch interesting bits or skip dull parts. I know that I can click and drag the little playback dot under the video, but this is fiddly and it's not very useful when I'm watching something in full screen. Is there any easy way to do what I want?

Trina Woodford

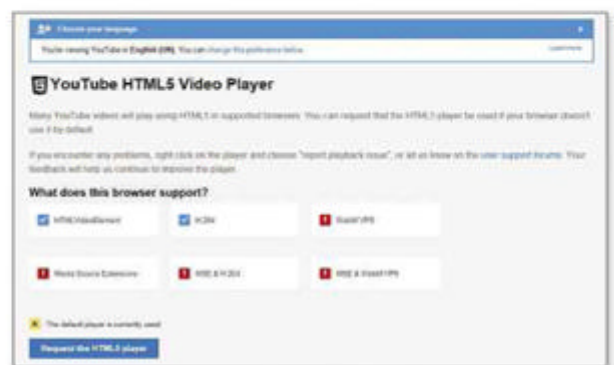
A Yes, if you're using a browser that supports the latest **HTML5** standard and you're using the HTML5 version of the YouTube player. Most modern web browsers support HTML5 so, unless you're using a really ancient version of Internet Explorer or Firefox, say, then this won't be a problem.

To check if you're using the HTML5 version of the YouTube player, launch your usual browser and visit www.youtube.com/html5. If this page displays a little yellow triangle and the warning

"The default player is used" then you won't be able to use YouTube's keyboard shortcuts. But this is easily remedied because if your browser supports HTML5 – as is highly likely – you can just click the 'Request HTML5 player' button to switch (restart your browser after you've done this).

Now when you're watching YouTube videos you'll be able to press the numbers zero through nine on your keyboard to skip to a corresponding percentage through the video – press key 1 for 10 per cent, for example, or key 8 for 80 per cent.

Incidentally, with the HTML5 player enabled you're also able to set the playback speed, to make videos run faster or slower. Just click the little cog icon in the playback toolbar then make your choice from the Speed dropdown menu.



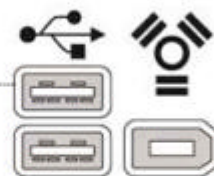
Use the keyboard shortcuts in the HTML5 version of YouTube

NEXT ISSUE

ON SALE
7 Jan

- How do I straighten images accurately in GIMP?
 - How do I update my iPad with only limited spare memory?
 - How do I transfer files to a Mac?
- ...And many more

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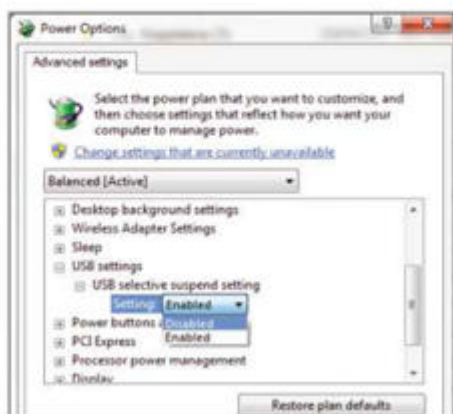
PC ports

Hear through your headphones, connect an old keyboard, and make your USBs work

Your PC doesn't recognise USB devices

Windows has a 'selective suspend' feature that stops power being sent to USB ports when they're not in use. It's enabled by default on most PCs to conserve energy and help laptop batteries last longer. However, this feature sometimes prevents ports from working when you want to use them. In this scenario, any device you plug in via USB (such as a keyboard or USB stick) won't be recognised by your PC.

To disable selective suspend, go to Power Options in the Control Panel and click 'Change plan settings' on the selected power plan. Click 'Change advanced power settings' and, in the window that opens, scroll down to 'USB settings', click the '+' symbol next to it, then click the '+' symbol next to 'USB selective suspend setting'. Click Enabled so that it changes to Disabled, then click OK (see screenshot below).



Disable 'USB selective suspend setting' to fix unresponsive USB ports

No sound through your headphones

You should hear sound automatically through your headphones as soon as you plug them into your PC's 'line out' port (usually a green port with a headphones icon). If you can't hear anything, the port may be disabled. To enable it, right-click the speaker icon at the far right of your taskbar and click 'Playback devices'. Right-click anywhere in the box that opens and click Show Disabled Devices.

Your headphones should now appear in the list, but they will be greyed out. Right-click them and click Enable. Right-click it again and click 'Set as Default Device'.

Second monitor won't work using the VGA port

If you connect a second monitor using your VGA (video graphics array) port but can't get a picture on it, it may be because your PC's dedicated **graphics card** (GPU, or graphics processing unit) has disabled your PC's integrated GPU. All computers have integrated GPUs, but some also have dedicated GPUs to speed up the graphics.

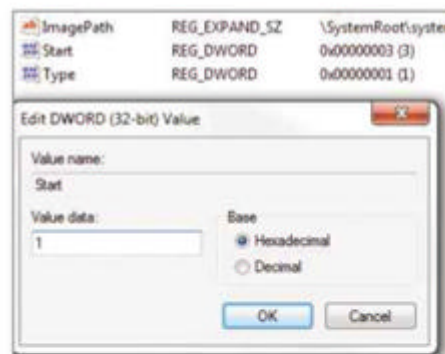
To stop this conflict, set your PC to select the integrated GPU by default.

You can do this from the **BIOS** screen, which you open by pressing Delete or one of the Function keys repeatedly as your PC is booting. Use the arrow keys to navigate to Advanced, System Devices or Onboard Devices, then press Enter. Go to Video Adapter or Onboard Video, press Enter to toggle between video ports (or open a sub-menu), select Onboard, then press F10 to save and exit.

Keyboard and mouse won't work via PS/2

The round green and purple ports at the rear of your PC are PS/2 ports. These ports were used to connect keyboards and mice before USB came along. There are still good reasons to use PS/2 peripherals – not least because they leave your USB ports free for other devices. PS/2 also supports NKRO (key rollover), which means there's no key-blocking if you press multiple keys at once. Read more about PS/2's advantages here: www.snipca.com/14476.

However, if you go back to PS/2 after using a USB keyboard or mouse, it may not work, because Windows sometimes disables the PS/2 ports after you switch to USB. You can re-enable them with a Registry tweak. Type **regedit** in the Start menu or screen, press Enter to open Registry Editor, then follow the path **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\i8042prt**.

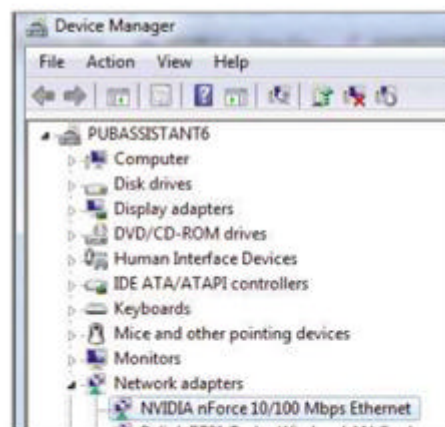


Enable your PS/2 keyboard and mouse ports with a Registry edit

Right-click Start in the right-hand pane, click Modify, change the number in the 'Value data' box to 1 then click OK (see screenshot above).

You can't get online via Ethernet

If you connect to the internet via Ethernet and you suddenly can't get online, check that the light next to the Ethernet port is on. If the light is off, the port may have been broken by a power surge. If the light is on and your Wi-Fi works fine but your Ethernet connection still doesn't work, you may need to reinstall or update your Ethernet driver. Type **device** into Start, press Enter to open Device Manager, click the arrow next to 'Network adapters', then look for a device with GBE, Gigabit or Ethernet in the name. Type the device's full name into Google followed by the word 'driver' to find a driver download link on the manufacturer's website.



Find your Ethernet driver details in Device Manager



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PG545 Black 8ml	£11.99
CL546 Colour 8ml	£13.99
KP-108IP Ink & Paper	£29.99

Many more in stock!



Brother Compatibles	
LC970 / 1000 Black	£3.99
LC970 / 1000 CMY	£2.99
LC970 / 1000 Set of 4	£11.99
LC980 / 1100 Black	£3.99
LC980 / 1100 CMY	£2.99
LC980 / 1100 Set of 4	£11.99
LC985 Black	£3.99
LC985 CMY	£2.99
LC985 Set of 4	£11.99
LC1240 Black	£3.99
LC1240 CMY	£2.99
LC1240 Set of 4	£11.99

Full range of Brother Original cartridges in stock!



Kodak Originals	
ESP Black Series 10 Ink	£6.99
ESP Colour Series 10 Ink	£12.99
ESP Black & Colour Ink	£18.99
ESP Black Series 30 Ink	£6.99
ESP Colour Series 30 Ink	£12.99
ESP Black & Colour Ink	£18.99

Kodak Papers also in stock!

Dell Cartridges	
Comprehensive range of Dell Original and Dell Compatible cartridges in stock - call or check website for details!	



HP Compatibles	
No.15 Black 49ml	£4.99
No.21 Black 10ml	£7.99
No.22 Colour 21ml	£11.99
No.45 Black 45ml	£4.99
No.56 Black 24ml	£9.99
No.57 Colour 24ml	£12.99
No.58 Photo 24ml	£12.99
No.78 Colour 35ml	£9.99
No.88XL Black 58ml	£9.99
No.88XL CMY 17ml	£8.99
No.110 Colour 12ml	£10.99
No.300XL Black 15ml	£14.99
No.300XL Colour 18ml	£16.99
No.336 Black 24ml	£7.99
No.337 Black 24ml	£10.99
No.338 Black 24ml	£10.99
No.339 Black 34ml	£12.99
No.342 Colour 12ml	£10.99
No.343 Colour 21ml	£12.99
No.344 Colour 21ml	£14.99
No.348 Photo 21ml	£12.99
No.350XL Black 34ml	£14.99
No.351XL Colour 21ml	£16.99
No.363 Black 20ml	£6.99
No.363 CMY/PCPM 6ml	£4.99
No.364 Black 20ml	£6.99
No.364 PC/CMY 5ml	£5.99

HP Originals	
No.21 Black 5ml	£11.99
No.22 Colour 5ml	£14.99
No.38 Colours, each	£26.99
No.56 Black 19ml	£19.99
No.57 Colour 17ml	£28.99
No.110 Colour 5ml	£19.99
No.300 Black 4ml	£10.99
No.300 Colour 4ml	£12.99
No.301 Black 3ml	£9.99
No.301 Colour 3ml	£11.99
No.301B/C Combo	£17.99
No.336 Black 5ml	£12.99
No.337 Black 11ml	£18.99
No.338 Black 11ml	£18.99
No.339 Black 21ml	£25.99
No.342 Colour 5ml	£14.99
No.343 Colour 7ml	£20.99
No.344 Colour 14ml	£28.99
No.348 Photo 13ml	£23.99
No.350 Black 4.5ml	£11.99
No.351 Colour 3.5ml	£14.99
No.363 Black 6ml	£13.99
No.363 CMY/PCPM 0.5ml	£9.99
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No.364XL Black 14ml	£14.99
No.364XL PC/CMY 6ml	£13.99
No.901 Black 4ml	£11.99
No.901 Colour 8ml	£14.99
No.920XL Black 49ml	£22.99
No.920XL Colours 6ml	£9.99
No.940XL Black 49ml	£26.99
No.940XL Colours 16ml	£16.99

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Lexmark Compatibles	
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No.2 Cartridge	£11.99
No.3 Cartridge	£14.99
No.16 Black	£10.99
No.17 Black	£9.99
No.23 Black	£11.99
No.24 Colour	£12.99
No.26 Colour	£12.99
No.27 Colour	£11.99
No.28 Black	£11.99
No.29 Colour	£12.99
No.31 Photo	£11.99
No.32 Black	£9.99
No.33 Colour	£11.99
No.34 Colour	£11.99
No.35 Colour	£12.99

Lexmark Originals	
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No.15 Colour	£20.99
No.32 Black	£22.99
No.33 Colour	£24.99
No.36 Black	£19.99
No.37 Colour	£20.99
No.100 Black	£15.99
No.100 Colour	£9.99

Many more in stock!



At Premier Ink, we stock two types of cartridges for Epson printers - **Originals**, which are made by Epson, and **Compatibles**, which are made by a UK company called **Jet Tec**. Using **Jet Tec Compatibles** is a way of saving money, without compromising on the quality of your prints. Here're the results from two independent ink tests that agree...

"Jet Tec's colours were superb, with single greys and blacks very close to Epson...so Jet Tec wins!"

- Total Digital Photography Magazine

"What we're looking at here is not only the best choice of ink for the R300 printer, but also the best ink in this group test, period. There's just no getting away from the superb combination of performance and pricing!"







- Computer Upgrade Magazine

Ink Test Winner!

Code:	Originals: Jet Tec:	Suitable Printers:
T007 Black	£29.99 1ml £3.99 20ml, 3 for £10.99	Photo 790, 890, 900, 915, 1290
T008 Colour	£23.99 4ml £4.99 20ml, 3 for £13.99	Photo 790, 875, 890, 895, 915
T009 Colour	£29.99 1ml £3.99 20ml, 3 for £13.99	Photo 800, 1270, 1290
T026 Black	£39.99 1ml £3.99 20ml, 3 for £10.99	Photo 810, 830, 830s, 825, 935
T027 Colour	£29.99 4ml £4.99 20ml, 3 for £13.99	C82, C8300
T040 Black	£44.99 1ml £3.99 20ml, 3 for £10.99	440, 540, 560 Photo 700, 1200
T041 Colour	£32.99 2ml £2.99 16ml, 3 for £7.99	740, 790, 800, 850, 860, 1160
T050 Black	£36.99 2ml £2.99 20ml, 3 for £7.99	440, 540, 560, 740, 760, 1160
T051 Black	£36.99 2ml £2.99 20ml, 3 for £7.99	Photo 700
T052 Colour	£26.99 4ml £4.99 20ml, 3 for £10.99	Photo 700
T053 Colour	£44.99 £14.99, 3 sets for £42.99 C84, C85, C86, C87	C8400, C8500, C8600, C8700
T0441-4 Set of 4	£19.99 1ml £3.99 12ml, 3 for £13.99	Photo R240, R245
T0441 Black	£9.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0452-4 Set of 4	£19.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0452 Black	£9.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0481-6 Set of 6	£19.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0481 Black	£15.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0540-9 Set of 9	£109.99 £35.99, 3 sets for £99.99	Photo R800, R1800
T0540 Green	£9.99 1ml £3.99 12ml, 3 for £10.99	Photo R800, R1800
T0541-9 Set of 9	£14.99 1ml £3.99 12ml, 3 for £10.99	Photo R800, R1800
T0551-4 Set of 4	£3.99 £14.99, 3 sets for £42.99	Photo R240, R245
T0551 Black	£8.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0552-4 Set of 4	£8.99 1ml £3.99 12ml, 3 for £10.99	Photo R240, R245
T0581-9 Set of 9	£99.99 £35.99, 3 sets for £99.99	Photo R800, R1800
T0581-9 Set of 9	£12.99 1ml £3.99 12ml, 3 for £10.99	Photo R800, R1800
T0611-4 Set of 4	£3.99 £14.99, 3 sets for £42.99	Photo R24

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2		Plusnet: Broadband & Calls	£9.99 (£2.50 for 12 months)	12 months	17Mbps max speed	∞ unlimited	£30.00
3		EE: Broadband & Calls	£9.95 (£2.50 for 12 months)	12 months	17Mbps max speed	∞ unlimited **	£30.00
4		TalkTalk Fibre Broadband	£13.50 (£5 for 12 months)	18 months	38Mbps max speed	∞ unlimited	£60.00
5		Plusnet: Fibre Broadband & Calls	£14.99 (FREE for 6 months)	18 months	38Mbps max speed	∞ unlimited	£89.94
6		Sky: Broadband & Calls	£7.50 per month	18 months	17Mbps max speed	∞ unlimited	£90.00
7		Virgin: Broadband & Calls	£15.50 (£10 for 12 months)	18 months	50Mbps max speed	∞ unlimited **	£120.00
8		Sky: Fibre Broadband & Calls	£20.00 (FREE for 6 months)	18 months	38Mbps max speed	∞ unlimited	£120.00
9		EE: Fibre Broadband & Calls	£19.95 (£5 for 3 months)	18 months	38Mbps max speed	∞ unlimited	£194.55
10		Virgin: Broadband & Calls	£28.00 (£22.50 for 12 months)	18 months	152Mbps max speed	∞ unlimited **	FASTEST £270.00

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Terms & Conditions apply - see ISP sites for details

*First-year cost does not include line rental. Cost is calculated at monthly price x12 with all introductory offers subtracted. Additional charges incurred outside of free inclusive calls not included in first-year cost.

** Fair-usage or restriction policy applies.

Data supplied by www.broadbandgenie.co.uk. Correct as of 28/11/2014

Ofcom

Broadband Genie's helpline is powered by Simplify Digital, the Ofcom-accredited switching service

Jargon Buster

1080p Of the common types of high-definition video, this is the best quality: 1920x1080 pixels.

4K Video with a resolution of at least 3840x2160 pixels.

5K A screen resolution of 5120x2880 pixels or higher.

AMOLED Active-Matrix Organic Light-Emitting Diode. An alternative technology to LCD for creating flat-panel displays. Most commonly used in smartphones, tablets and smartwatches.

Beta A version of software that's being tested. Beta versions are often released so problems can be ironed out.

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.

Bitmap A type of image file made up from a grid of pixels. Bitmaps have a fixed size and cannot be resized without losing quality.

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.

CD-RW A re-recordable CD disc.

Cookie A small text file stored on your computer by a website. Used to store browsing preferences, website log-in details and so on.

Virus definitions A database of known viruses and other malware used by an antivirus program when scanning your computer.

DNS Domain Name System. A technology that associates computers with their addresses on the internet.

Dual core When two processors are combined into a single chip.

EXE A program file designed to run in Windows. Named after the file extension .exe.

Feedback The tactile response that the keys on a keyboard give when they've been pressed.

File extension The part of a file name after the full stop. For example, .doc is the file extension for Word documents.

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

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

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

HDMI High-definition media interface. A type of connection that transmits high-definition video and audio signals. It is found on many new TVs, media PCs and high-definition products such as Blu-ray disc players.

Hotkey A key set up to perform a complex action.

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.

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

NAS Network-attached storage. A hard drive attached to a network that can be shared by other PCs.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

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.

ppsx A PowerPoint presentation file format that automatically opens in full-screen mode and starts playing

Processor The processor – or central processing unit – is the brain of a computer. Processors now are tiny and are capable of carrying out millions of calculations every second.

PVR Personal video recorder. Also known as DVR (digital video recorder). These set-top boxes let you pause and record digital TV.

Quad core A computer that has four processors on a single chip, which allows it to operate faster than standard (single-core) computers.

RAM Random-access memory. The computer's working area, used for data storage while the PC is switched on. Its capacity is measured in megabytes (MB): the more memory your PC has, the more things it can process simultaneously and the faster it will seem. Any information in RAM will be lost when the power is switched off.

Root To perform tasks on Android devices that aren't permitted by the manufacturer.

Ransomware Malware run by hackers who take over your PC and demand a payment to release it.

Rendering engine The part of a web browser that turns HTML code into a readable webpage. Differs from browser to browser.

Server A computer on a network, such as the internet, that distributes information to other computers.

Signal-to-noise ratio Measured in dB, this compares the strength of the wireless signal to interference from other devices such as cordless phones and microwaves. The higher the signal-to-noise ratio, the stronger your wireless signal should be.

SSD Solid-state drive. Storage that, unlike a hard drive, uses no moving parts. Faster but more expensive than conventional hard drives.

Tag A keyword used to describe a file or web page. Many programs use tags to organise related information quickly.

Timeline Part of a video-editing program consisting of a line or bar along the bottom of the screen. Clips and effects are added to the timeline so the progression can be seen visually.

Torrent A file that can be downloaded using BitTorrent software. This method is generally faster than a normal download, which provides a direct connection to other PCs running the software anywhere in the world. Torrent files are not illegal but record and film companies claim many are illegal copies of copyright-protected material.

Travel The distance the keys of a keyboard have to be pressed before the keystroke is recognised.

Trackball A popular alternative to mice, trackballs are cursor-pointing devices with a flat base and an upward-facing ball. You roll the ball around 360 degrees with your fingers or thumb in order to position the cursor.

Two-step verification A system that uses two different means to identify the user. For example, a PIN in addition to a password.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals such as storage devices to your PC.

VPN Virtual Private Network. A technology for keeping all internet communication safe and private, even on insecure networks.

VGA Video Graphics Array. A standard socket for connecting a monitor to a computer.

Web apps Programs that aren't stored on your computer, but on a web server instead and run through your web browser.

White balance Adjusts the balance of colours in an image to make them look more natural.

Widget A small program such as a calendar that runs on the Windows Desktop.

Wizard A step-by-step process that helps you choose settings.

WMA Windows Media Audio. An audio format created by Microsoft.

Zero-day protection Safeguards that protect software against having its vulnerabilities exploited by hackers.

The Final Straw

Hurrah



JANE HOSKYN is
Computeractive's
Features Editor

As a Christmas treat we've given Jane Hoskyn the back page to tell everyone to...

Stop moaning about tech!*

Microsoft – don't you just hate 'em? Remember the good old days when no one knew what '@' was for on a typewriter? And isn't technology rubbish? Sorry, you've come to the wrong page. For one issue only, Stuart Andrews has taken his bellyaching to page 10, and I'm here with a sprinkle of optimism to help the festive bile go down.

Stuart's shoes are hard to fill, partly because they shrivel up and disappear under a house as soon as you touch them, and partly because his choleric view chimes so neatly with our knee-jerk frustrations that he's hard to disagree with. But I do disagree. Behind every piece of "baffling nonsense" is a work in progress – that's the thing about technology. What makes it frustrating and flawed also makes it inclusive and exciting. If the GoPro lamb chop (www.snipca.com/14694) doesn't make you smile, what hope is there for your heart?

Look, I love a good moan as much as anyone. I waded through software installers for a living, after all. I hate them. You hate them, too, and you write in to tell me you hate them, as if I don't, and that makes me hate them even more. These hideous 'wizards' (witches' familiars, more like) force adverts into your eyeballs and sneak adware into your hard drive and mine. Mainly mine.

And yet, that's how their creators (barely) make a living. In a fairer world, we'd all be paying these geeky guys and gals a tanner apiece for every program we download from the websites they have to pay to maintain. Instead, we've developed this casual sense of entitlement to the fruits of their labour, and then we get very cross if it doesn't work perfectly.

A couple of years ago I grew so fed up



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”

with installers and EXEs and INIs and other Windows junk that I switched to Mac. Apple's OS certainly made installing software easier. But believe me, you don't know how good you've got it until you replace it with Mac OS X, which treats its users like children. Want to lift the lid on

your system settings? Can't. Need to drag and drop files between devices? Can't. The Mac's Control Panel equivalent, System Preferences, is as pretty as a set of fridge stickers and roughly as pointless.

So I'm back in the messy bosom of Windows, where my PC takes longer to wake up than Rip Van Winkle, but at least I get to find out why. It's frustrating and unpredictable, but I feel in control again. I've also realised that behind every frustration is an explanation itching to get out, so I learn from Windows every day.

One more thing. If the nerds who make, fix and update your misbehaving free software want to queue overnight for an iPhone because it makes them happy and because they've saved up a year's Google AdWords income for it, let them. That phone plugged in next to your nice warm bed was fuelled by their enthusiasm. So pull up your duvet and stop whingeing.

• But don't worry, there's a double helping of Stuart Andrews on page 10

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