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# Computer **active**

ISSUE 445 | 18 – 31 MARCH 2015

No more cold calls? If only! **p11**

Your friendly guide to technology

# WINDOWS 10 ALL YOUR QUESTIONS ANSWERED

**Q** Is it *really* free?

**Q** What's the catch?

**Q** What can it do?

**Q** Is it any good?

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**Q** Should I upgrade?

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## From the Editor

Within minutes of Microsoft announcing that Windows 10 would be free, I received my first sceptical email from a reader. The subject line said it all: "So, what's the catch?". He went on to say that Microsoft was guilty of an "insidious marketing con", and wanted us to investigate what they were "really" up to.

Since then, hundreds of readers have emailed us questions about the operating system. Some have echoed the suspicion that Microsoft is up to something sneaky, but many others are intrigued and excited by the prospect of upgrading for free.

In this issue's Cover Feature (page 50), we answer those questions. Well, most of them.



For those questions we don't yet know the answer to, we've indulged in some informed guesswork. We may turn out to be wrong, but it's fun to speculate. If you have other questions about Windows 10, please email me. We'll try to answer them all in the months leading up to the release later this year.

Daniel Booth

[editor@computeractive.co.uk](mailto:editor@computeractive.co.uk)



## THIS ISSUE IN NUMBERS

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**£500,000**

Maximum fine cold-calling companies face – p11



**Five stars**

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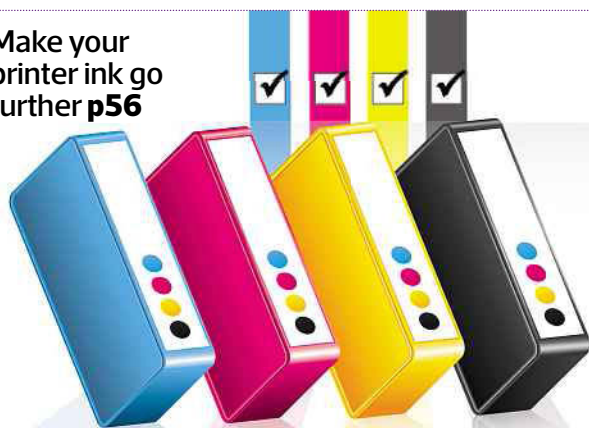
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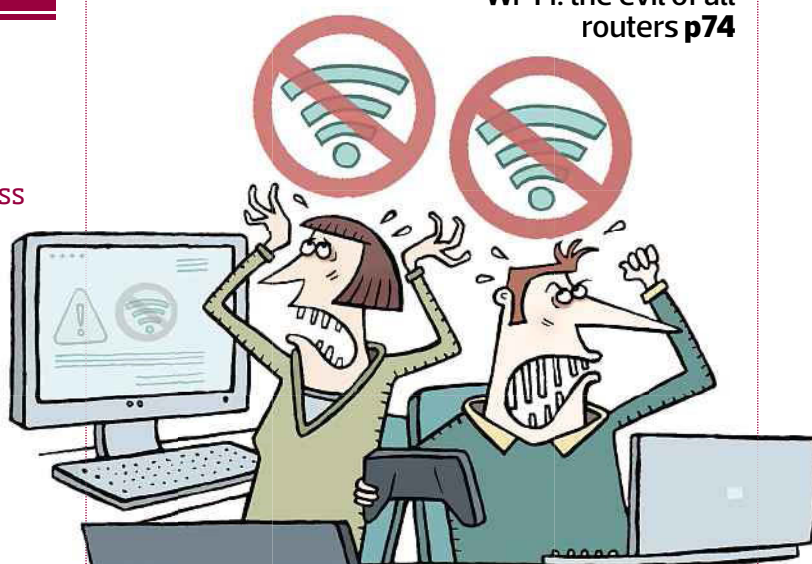
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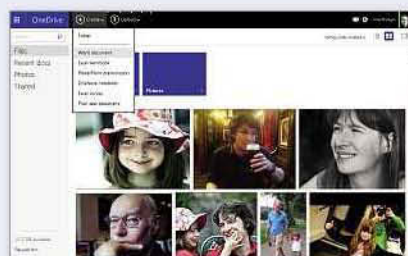
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## Computeractive offer of the fortnight

**Kaspersky Internet Security 2015 page 68**



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## Freak out! Windows users are at risk from old security flaw

Microsoft has admitted that the FREAK security flaw affects all versions of Windows, leaving millions of people worldwide at risk of attack.

The bug was found in the **SSL** and **TLS** security technology that encrypts data being sent between web **servers** and browsers. A hacker could exploit the flaw to force data to use weak encryption, making it easier for them to steal personal information.

A French-based team of security experts announced on 3 March that it had discovered the bug, and that it had lain undetected since 1999.

Initially the flaw was believed to only affect some BlackBerry and Android phones, plus Apple's Safari web browser. However, two



days later Microsoft said that Windows is vulnerable too.

Microsoft said it is investigating the flaw and will "take the appropriate action to help protect customers". This will probably mean a security update in its monthly 'Patch Tuesday' series, or perhaps an emergency fix outside this schedule.

Other tech companies acted quickly to fix the flaw. Google updated its version of Chrome for Macs, while Apple was expected to release a fix for

Safari the week beginning 9 March.

However, Google has yet to say whether it will update Android to fix the flaw.

Security experts advised PC users to switch to Firefox, which isn't vulnerable to FREAK. They also recommended that Android users should only use Chrome on their phone or tablet, not the default Android browser. Mac users should avoid using Safari until Apple releases the update.

It has been estimated that of

### COMMENT

It gives us no satisfaction to say that we saw this coming. The discovery of the Heartbleed flaw last year suggested that the internet is riddled with outdated security systems waiting to explode like forgotten mines in a warzone. To find out if you're safe, visit the FREAK Attack Client Check website ([www.snipca.com/15742](http://www.snipca.com/15742)), which displays a message at the top saying whether your browser is vulnerable. If it's bad news, consider switching to another browser, or wait until a fix is released.

the 14 million websites offering encryption, around five million remain vulnerable to the flaw.

## Give your local MP marks out of five online

A new website gives you the chance to mark your MP out of five by answering questions related to their performance and integrity, including 'Do you trust him/her?' and 'Do you think he/she represents you well in local issues?'.

The creators of RateYourMP ([rateyourmp.com](http://rateyourmp.com)) want to make it easier for you to find

the information that reveals how hard your MP works.

To start, type your postcode or constituency, or your MP's name, on the homepage then press enter. On the resulting page you will see how much they have claimed in expenses, how much money they spend running their office, and how many debates



they have taken part in. The data covers the period 7 May 2010 to 31 October 2014.

Once you've analysed the statistics, click 'Your Rating' to deliver your verdict (you'll need to register to do this). You can also see how your MP compares with their colleagues on the site's MP Index.

The website promises more features nearer to the General Election on 7 May, although it will charge for some of these.



**You'll like this...** Lenovo will cut adware from its PCs following the Superfish controversy ([www.snipca.com/15736](http://www.snipca.com/15736))



**...but not this** The EU has postponed plans to ban data-roaming charges ([www.snipca.com/15734](http://www.snipca.com/15734))



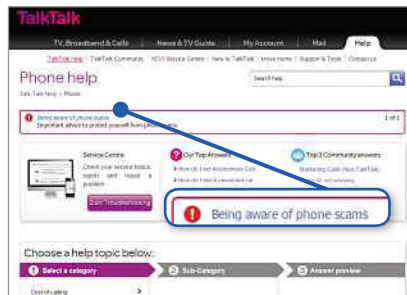
# TalkTalk customer? Beware phone scams following shocking hack

TalkTalk has warned its customers that they may receive phone calls from scammers after hackers stole addresses, phone numbers and names from its computers.

In an email sent to every customer, the company said that scammers claiming to be calling from TalkTalk try to con people into revealing their banking details and downloading malware.

TalkTalk discovered the theft after it received a sudden increase in complaints about scam calls between October and December 2014. It said that only a few thousand phone numbers were stolen, but took the precaution of emailing all its four million customers. No payment data was stolen, the company said.

TalkTalk said that a third-



party contractor that had legitimate access to its customer accounts was involved in the theft. It is taking legal action against the unnamed company.

A spokesperson confirmed that the Information Commissioner's Office, which is responsible for enforcing the Data Protection Act, has been made aware of the security breach.

Customers who have been targeted by scammers should

ring a helpline set up by TalkTalk: 0800 083 2710.

Some customers reported losing thousands to the scammers. HR consultant Graeme Smith told *The Guardian* ([www.snipca.com/15717](http://www.snipca.com/15717)) that the callers tricked him into downloading software on to his PC after they claimed they had detected a hacker attempting to access his internet account via his router.

The scammers used the software Mr Smith downloaded to steal £2,800 from his online bank account.

TalkTalk didn't mention the hack on its homepage. Instead, it wrote about the theft on a page in its Help section ([www.snipca.com/15718](http://www.snipca.com/15718)), which was only flagged up via a link on the 'Phone help' page (see screenshot).

## Police arrest hackers sending scam emails in cybercrime crackdown

Hackers involved in sending phishing emails have been arrested as part of a cybercrime 'strike week' that saw 25 operations across the UK.

In total, between 2 and 6 March, police arrested 57 people suspected of various types of cybercrime, including building malware, online fraud and launching DDoS attacks.

In the biggest operation, carried out in London and Essex, 25 people were arrested on suspicion of stealing money and laundering cash through the internet.

Other people arrested included a 21-year-old London man believed to be involved in the 2012 theft of 400,000 email addresses and passwords from Yahoo.

Police also visited small and medium businesses to explain how they could be hacked.

The officers identified 5,531 security compromises on UK servers used by around 60 legitimate companies. These security flaws could be used by criminals to send spam, launch attacks on websites and run phishing scams.

The series of operations was co-ordinated by the National Cyber Crime Unit, part of the National Crime Agency (NCA), together with officers from regional crime squads and the Metropolitan Police.

As part of 'strike week', police in London, Reading,



Derby and Manchester set up 'pop-up' shops in town centres where members of the public had their devices examined for malware, and received advice on staying safe online.

Visit the NCA's website for more information on the arrests: [www.snipca.com/15723](http://www.snipca.com/15723). You can watch one of the raids, carried out near Marlborough in Wiltshire, on the NCA's YouTube channel: [www.snipca.com/15722](http://www.snipca.com/15722).

## IN BRIEF

### WINDOWS XP REFUSES TO DIE

The number of computers running Windows XP has grown, despite Microsoft ending support for it in April 2014. Figures from NetMarketShare show that XP use increased by 0.22 per cent between January and February this year, a faster rate than Windows 7. Nineteen per cent of computers still run XP worldwide, five per cent more than Windows 8. Read our next issue for our new 'Things to do with your XP PC' series - out Wed 1 April.

### GOVT SITE EXPLAINS NEW PENSION RULES

The Government has launched a website to explain the radical new pension options that kick in on 6 April. Currently in beta, Pension Wise ([www.pensionwise.gov.uk](http://www.pensionwise.gov.uk)) is a "free and impartial" service that provides lots of help, including how to work out the size of your pension, and what scams to avoid. It doesn't recommend any products, but does tell you how to shop around to find the best deal.

## Tomorrow's world

Researchers at Oxford University have made a technological breakthrough that can deliver an astonishing 224Gbps broadband - through your lightbulb. Called LiFi (light fidelity), the technology uses visible light primarily produced by LEDs to transmit data to computers. Previously, the fastest speed achieved was 3Gbps. At 224Gbps, you'd be able to download 18 1.5GB movies in just one second!

## IN BRIEF

### NEW FOLDABLE KEYBOARD FOR TABLETS

Microsoft has made a foldable version of its portable keyboard that it launched last year for Windows mobile devices, iOS and Android. Called the Microsoft Universal Foldable Keyboard, it uses magnets to stay folded. It is due to go on sale in July priced \$99.95 (around £65). Visit Microsoft's website for more information: [www.snipca.com/15693](http://www.snipca.com/15693).

### PHONES SHOULD CARRY HEALTH WARNINGS

Smartphone apps such as Facebook and Candy Crush are so addictive they should come with health warnings, a psychology lecturer has said. In a report into phone usage, Dr Zaheer Hussain from the University of Derby classified 13 per cent of participants as being addicted to their phones, and said the average user spends 3.6 hours per day on their device.

## Ban motorists who use phone while driving says police chief

One of the UK's leading police officers has called for tougher laws to ban motorists caught using their mobile phones while driving.

Gloucestershire Chief Constable Suzette Davenport (pictured below), who speaks on road issues for the Association of Chief Police Officers, told the BBC: "My view is that if someone is caught twice using a mobile phone within a period of time, we should be considering things like disqualifications for short periods of time".

She said using a phone while driving was still seen as socially acceptable because the penalties for doing so aren't severe enough. In February, a Government report claimed that more than 500,000 motorists used their mobile phones while driving in 2014, an increase of almost 50 per cent since 2008.




Currently motorists caught using a hand-held phone at the wheel are fined £100 and receive three penalty points. By comparison, convicted drink-drivers face a £5,000 fine, six months behind bars and a driving ban for at least a year.

Ms Davenport went on to say that MPs have avoided introducing stricter laws because they didn't want to upset voters so near to a General Election.

Roads Minister Robert Goodwill MP repudiated her claim, saying: "I've certainly not had representations from colleagues saying, 'Don't do this, because of the election'".

Instead, he called on the police to put more resources into tackling the use of phones while driving "as opposed to other more easy-to-detect crimes like speeding".

 Do you think motorists caught using their phone should be banned? Please let us know at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk).



## Islamic State threaten to kill Twitter staff

Supporters of Islamic State (Isis) have threatened to kill Twitter staff, including the site's co-founder and current boss Jack Dorsey, in response to the company closing accounts that recruit jihadists and encourage Islamist violence.

An anonymous statement posted on image-sharing site JustPaste.it said: "We told you from the beginning it's not your war, but you didn't get it and kept closing our accounts on Twitter, but we always come back".

It called Dorsey "helpless Jack" and asked him how he would protect his employees

"when their necks officially become a target for the soldiers of the Caliphate?"

The statement, which was written in Arabic, featured an image of Dorsey with crosshairs superimposed on his face (see screenshot). Both the words and image have now been removed.

Twitter moves swiftly to take down content posted by Isis. These can include photos and videos of violent acts, such as beheadings and stonings.



In one tweet an Australian jihadi published a photograph of his seven-year-old son holding up a severed head.

The 'Rules of Twitter' ([www.snipca.com/15707](http://www.snipca.com/15707)) explicitly ban 'direct, specific threats of violence against others'.

Twitter said that its security team is investigating the legitimacy of the threats with law-enforcement agencies.

## What's new from Google

There's just no stopping Google's Street View team. Their latest adventures have taken them to Greenland ([www.snipca.com/15690](http://www.snipca.com/15690)) and the Amazon rainforest ([www.snipca.com/15689](http://www.snipca.com/15689)). In the Amazon, the team used ziplines to capture images of the forest's canopy. Further north, and wearing more layers, they took photos of Greenland's stunning glaciers and the location of Erik the Red's Viking colony, established in 982.



# Amazon 'misled' you by burying Prime cost in small print

Amazon has been rebuked by the advertising watchdog for burying the true cost of its Amazon Prime subscription.

The Advertising Standards Authority (ASA) upheld complaints from six individuals, who argued that Amazon failed to make it clear that a paid subscription would automatically kick in after a free trial had ended, and didn't state what the cost of that subscription would be.

Amazon Prime launched in 2005 as a subscription service offering unlimited next-day deliveries, but has since grown to include access to Amazon's video-streaming service, Kindle ebooks and unlimited photo storage. An annual subscription costs £79.

It is aggressively marketed to new and existing customers alike, but many – including *Times* critic Giles Coren ([www.snipca.com/15692](http://www.snipca.com/15692)) – have complained that they weren't aware they were committing



to a subscription after the free trial had expired.

The specific complaint handled by the ASA concerns a direct mailshot sent to Amazon account holders, which included a plastic card offering a “30-day free trial” of Amazon Prime. In the small print of the accompanying letter it revealed that a “paid subscription starts automatically after free trial unless cancelled”.

In its defence, Amazon claimed the offer terms

“would have been easily noticeable to customers when reading the letter, given its relative size”. It also pointed out that customers could cancel their Prime subscription the day after signing up and still receive 30 days of Prime for free.

That didn't wash with the ASA, which ruled it was insufficient “to include the information about the automatic paid subscription in the small print of the ad only” and was “likely to mislead”.

## New Ikea coffee table charges your phone

Swedish furniture giant Ikea has unveiled a range of furniture containing pads that charge phones and tablets wirelessly, letting you reduce the amount of cables cluttering your home.

The retailer's Home Smart range will initially include lamps, bedside tables and a coffee table. Ikea is also launching a small pad designed to let you add wireless charging to any surface

The pads use Qi wireless technology to charge compatible devices placed near or on the furniture. They emit an alternating current via a transmitter coil, which triggers a voltage in the

phone's receiver coil, generating an electrical field around the device. Electric toothbrushes are already charged this way.

Over 80 phone models can be charged using Qi, according to the Wireless Power Consortium ([www.wirelesspowerconsortium.com](http://www.wirelesspowerconsortium.com)), an industry body whose members include Microsoft, Panasonic and Samsung.

Such phones include the Nexus 5, the LG G3, and the Samsung Galaxy S5 and the Galaxy Note 4. Samsung's new phones, the S6 and S6 Edge, also contain Qi.

Jeanette Skjellmoose, Ikea's business area manager for lighting and wireless



charging, said: “Through research and home visits, we know that people hate cable mess. They worry about not finding the charger and running out of power”.

The furniture will be available to buy from April, with prices starting at around £30.

## IN BRIEF

### MAKE SURE YOU PASS ON YOUR ACCOUNTS

People should take legal measures to make sure relatives can access their online accounts after they die, according to Co-operative Funeralcare. Sam Kershaw, the company's director of operations, said that clarifying with relatives what you want to happen “may greatly help should they ever need to access, manage or close accounts on your behalf”. A survey by the company found that 75 per cent of people who bank online haven't made arrangements to pass on their details. For more advice read the ‘Pass on your accounts’ feature in Issue 444.

### ENTER MOTORING OFFENCES PLEA ONLINE

Motorists in England and Wales charged with minor motoring offences, such as speeding or not having insurance, will soon be able to make a plea online. The Government is launching the Make A Plea website following a successful trial in Manchester. Courts Minister Shailesh Vara said that the scheme will reduce “case time and costs for the courts and the police, ensuring they can focus on the most complex cases”.

### PAYDAY LENDERS MUST USE COMPARISON SITES

Payday lenders such as Wonga have been told they must publish details of their deals on at least one price-comparison website, in order to make it easier for customers to compare interest rates. The Competition and Markets Authority announced the measure following a 20-month investigation into the payday lending market.

## Named & Shamed

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

### WARNING - Junk ahead

#### Junk offender: Free Editor

Free Editor (<http://freeditor.com>) promises to be many things in one installable bundle of joy: file converter, document editor, ebook reader, printing tool and even photo editor. 'All this, at no cost to you!' says its good-looking website, crossing its fingers behind its back and swivelling its eyes.

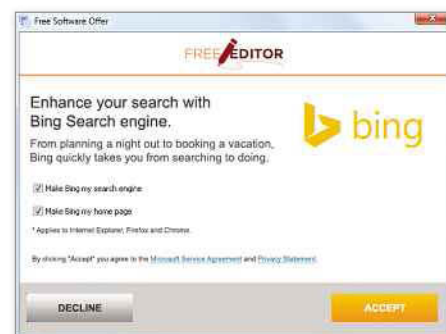
I ignored my internal "sounds too good to be true" voice, as I always do when I'm itching to write about a program in Best Free Software, and clicked Download Now. Look – there's even a McAfee Secure logo at the top of the homepage. What could possibly go wrong?

Your browser, as it turns out. Free Editor's installer includes an "offer" for Bing, the search engine that Microsoft seems hell-bent on turning into a universal emblem of irritation by bundling it, uninvited, with programs

such as Skype. Microsoft even snuck Bing on to the taskbar in early builds of the Windows 10 Technical Preview, possibly as an in-joke for early adopters (oh haha, you guys!)

Skype's installer does at least let you opt out by unticking a couple of Bing boxes. Free Editor's installer ignores your unticked boxes and installs Bing anyway if you click Accept.

You can remove Bing using AdwCleaner ([www.snipca.com/15726](http://www.snipca.com/15726)), but why should you have to? Here's an easier solution: don't install Free Editor. There are plenty of free online tools you can use instead. Zamzar ([www.zamzar.com](http://www.zamzar.com)) lets you convert between hundreds of file formats. Google Docs ([www.snipca.com/15727](http://www.snipca.com/15727)) and Office Online ([www.snipca.com/15728](http://www.snipca.com/15728)) cover all your document-editing needs. And Pixlr ([www.snipca.com/](http://www.snipca.com/)



Free Editor's installer tries to sneak Bing into your PC with a misleading Accept button as well as pre-ticked boxes

15729) is one of the best photo editors I've ever used. All these tools work in your browser, quickly and safely, without the need to download or install a program. The more tools you use online, the less junk you'll add to your PC.

### What are they talking about?

#### What they say

Google ([www.snipca.com/15730](http://www.snipca.com/15730)): "For devices supporting full-disk encryption, the full-disk encryption SHOULD be enabled all the time after the user has completed the out-of-box experience."



#### What they mean

This gem is part of Google's long-winded admission that devices running Android Lollipop won't be encrypted after all. The company had announced last September that all data on Lollipop devices would be encrypted by default, but now you have to enable this feature manually – unless you've got a Nexus 6 or 9, in which case encryption is switched on by default.

### Jane's villain of the fortnight 'Death threat' scam caller

In early March, Canadian Jakob Dulisse answered the phone to someone claiming to be from Microsoft's support team ([www.snipca.com/15737](http://www.snipca.com/15737)). The caller told Dulisse there was a virus on his PC, but it could be fixed, at a price.

Dulisse sussed out pretty quickly that the caller had nothing to do with Microsoft or support; he was a hacker. Instead of trying to hack into Dulisse's PC using fake software, he was trying to hack Dulisse himself.

Dulisse fought back, asking the scammer why he was trying to steal from people. The scammer fought back harder, threatening to kill Dulisse.

The good news is Dulisse is alive and well, but the bad news is this is

far from being an isolated incident. In just six months last year, Action Fraud ([www.actionfraud.police.uk](http://www.actionfraud.police.uk)) received more than 12,000 reports of fake tech support calls, with victims handing over £210 on average.

It would be nice to think that the new regulations introduced in February will cut cold-calling scams, but as we report on page 11 (Question of the Fortnight) that seems unlikely. Just keep reminding yourself (and others) that no genuine tech support person will ever call, unprompted, about a virus.



Want to nominate a villain of the fortnight? Email us at [editor@computeractive.co.uk](mailto:editor@computeractive.co.uk)



## Question of the Fortnight

# Will you now stop receiving cold calls?

It's now easier for regulators to hammer phone spammers with huge fines, but nuisance calls may still continue

There was a rare outbreak of optimism in the media when, at the end of February, the Government announced stronger measures to discipline cold-calling companies. The *Daily Mail* even plastered the story on its front page, claiming it was the 'end of line for cold callers' ([www.snipca.com/15599](http://www.snipca.com/15599)). But doubts remain about whether it will have the desired effect.

The cause of this tabloid glee was the news that the Information Commissioner's Office (ICO), the UK's data-protection regulator, no longer needs to prove that nuisance calls or text messages have caused recipients "substantial damage or distress" before taking action. This should make it easier for the ICO to clobber



website ([www.snipca.com/15607](http://www.snipca.com/15607)), in 2013/14 it had 383 staff and a budget of £20million, yet it issued just 19 fines (called "civil monetary penalties"), and applied only 11 enforcement notices.

The ICO has regularly been accused of lacking bite. In 2013, a report from the

interview tapes, and a £200,000 fine for the British Pregnancy Advice Service, a charity targeted by hackers.

In the meantime, multinational corporations like Google have repeatedly escaped fines for infringements such as collecting personal data using its Street View cars. Croydon-based firm Kwik Fix Plumbers was recently fined a mere £90,000 for making calls to vulnerable victims, including pensioners, who were tricked into buying boiler insurances they didn't need.

There's another problem the ICO faces – its limited jurisdiction. When countless cold calls flood in from foreign call centres, the ICO's only option is to contact "the appropriate regulatory authority" in that country. In other words, it can't prevent the calls. Given this, it seems highly unlikely that Indian scammers, claiming to be from Microsoft, are going to stop pestering you any time soon.

“It seems unlikely that Indian scammers, claiming to be from Microsoft, are going to stop pestering you any time soon”

offenders with the maximum fine of £500,000.

Ed Vaizey, minister for Culture, Communications and Creative Industries, said it will "send a clear message to others that harassing consumers with nuisance calls or texts is just not on".

But will the ICO use its new powers effectively? Its track record isn't good. According to the "key facts" on the ICO's

University of East Anglia described it as "lamentably weak and ineffective". It has also been lambasted for choosing soft targets. Nine of its 15 most recent enforcement actions were taken against public bodies, including councils and NHS care trusts. Fines in the past year have included a £100,000 penalty against Kent Police for failing to properly dispose of old

## THE FACTS

- New powers make it easier for regulators ICO to fine cold-callers the maximum amount of £500,000
- Critics say the ICO pick on soft targets, such as councils and charities
- The ICO has no power to stop foreign-based companies bombarding you with phone calls

*Computeractive* readers welcomed the new powers, but questioned the overall potency of the ICO. Writing on our Facebook page ([www.facebook.com/computeractive](http://www.facebook.com/computeractive)) Brian Winter said: "Until they deal with the issue of the use of auto-dialing software, and call centres outside of the UK, the problem will not go away".

Still doubtful that the ICO has the requisite powers to stop phone spamming, readers are taking matters into their own hands. Michael Bradbrook bought TrueCall's Call Blocker ([www.truecall.co.uk](http://www.truecall.co.uk)) for £99.99 and insisted it's "the best money he's spent". Others have signed up to the Telephone Preference Service ([www.tpsonline.org.uk](http://www.tpsonline.org.uk)), though opinion among our readers is divided about how effective it is.

One thing readers do agree on is that persistent cold-calling is a modern-day scourge. To fight it, the ICO needs to show its teeth and go after the real villains.

# Letters

Tell us what's on your mind




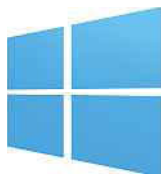
Email: [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)  
Facebook: [www.facebook.com/computeractive](https://www.facebook.com/computeractive)



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

## Windows 8 is trouble-free and doesn't crash


 I don't know what all the moaning over the so-called inadequacies of Windows 8 is all about. I have been using Windows 8 for over a year now and have found it to be trouble-free, with no crashes. I had used XP and 7 for many years, becoming familiar with how they work, and I have been able to make Windows 8.1 operate in a very similar way. All the changes I've made by myself and I do not consider myself to be particularly computer literate.



My computer starts up in Desktop mode with a background picture of my own choice (which I added easily). The screen has shortcut icons to most of the folders and programs that I use regularly. The Taskbar has other icons that are very similar to those on a Windows 7 or XP computer. And best of all, the computer starts up in a fraction of the time, typically 30 seconds as opposed to the five to ten minutes taken by Windows 7 or XP.

Windows 10 will have to offer a lot more than a Startup folder and voice control to tempt me. Having said that, if it's offered as a free upgrade and it builds on the good features of Windows 8.1, I may try it.


Arthur Gray

 I have recently come back to *Computeractive* after a long break, and find it just as useful as I did several years ago. However, my main reason for writing is because I'm somewhat bemused as to why everybody is so anti-Windows 8.


This time last year, my seven-year-old PC and my three-year-old Notebook both failed mechanically, so were consigned to the scrapheap. I replaced both with a Toshiba Laptop and an ASUS Notebook, thereby going from Windows XP to Windows 8. I came close to lobbing the laptop out of the window in the first week, but I persisted with it and now find it easy to use. It has its quirks – I sometimes wonder where it has put something – but otherwise I have no major problems.

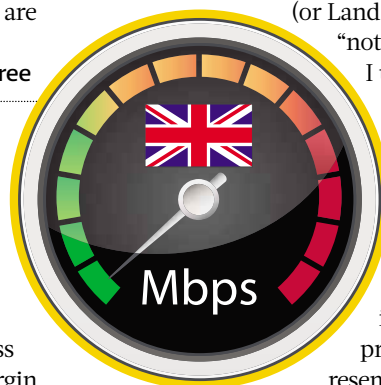
Martin Perman

## Broadband speeds: UK is becoming two nations

 At several points in Issue 443 you refer to slow broadband speeds in 'remote' areas. I do not regard myself as living in a remote area at all, except in terms of broadband! I live about 3.5 miles from the ancient city of Wells and around 20 miles from Bristol, Bath, Weston-super-Mare, Yeovil and Taunton. It's not a remote place, yet my broadband speed on a very good day crawls up to 1Mbps, though it's normally 0.8Mbps – useless for all but the most basic tasks. My nearest cabinet should be fibre-connected by October, but what speed will I get then? I could use mobile, but my 2G signal is dodgy, while 3G and 4G are a pipe dream, leaving only expensive satellite broadband. A clear example of the two nations that we are becoming.

John Castree


 I sympathise with Gary Atkins in Issue 444 ('22 miles from London, but no broadband'). I live in a well-populated area of Birmingham, but get less than 2Mbps with BT. Virgin



say it is too expensive to cable my road, although their cables already run along the top and bottom of it. Two hundred metres of fibre would do the trick nicely, but as BT won't fit fibre in their cabinets we are stuck with narrowband.


There are dozens of broadband 'black-holes' in our cities, even in London itself. So by all means put fibre in rural areas, but they seem to be nowhere near finishing the major cities. Now, should I be upset that someone in the Mekong Delta in Vietnam gets better broadband than me? Er, well yes, actually!

Morris Coleman

 Here we go again. Every time there's a report about faster broadband, countryside campaigners throw their wellies out of their pram (or Land Rover?) screaming "not fair" (News, Issue 444).

I understand their frustration that broadband speeds in the sticks are slow, but it seems illogical to complain that they can't get a hi-tech service in an area that is considered desirable precisely because it resembles England in the 1950s.

## Reporting crime online is a good idea

 I think Martin Washington is guilty of living in the past ('Reporting crime online will damage police-public relations', Issue 444). I'm a recently retired police officer, and therefore believe I'm in a better position than Mr Washington to discuss the merits of reporting crime online. He seems to want police officers to be community helpers, rather than serious law enforcers. The local bobby of Mr Washington's youth may have been "friendly but firm", but how good was he at actually catching criminals and keeping the peace? He was probably spending too much time as a glorified social worker rather than a proper crime fighter.

Today's police officers are a different



breed. They're not Dixon of Dock Green, ready to give kids nicking sweets a clip round the ear. They have more serious tasks to perform, and a lot more paper work to complete. Anything that cuts their workload has to be a good idea, which is why reporting relatively trivial crime online seems like such an obviously good idea.

Mr P Phillips



There are lots of things you won't find in countryside: a Selfridges department store, an underground train system, the homeless huddled in sleeping bags in shop doorways, major museums, internationally acclaimed symphony orchestras, millions of commuters elbowing each other to grab the last seat on a train. You can add fast broadband to this list. It may not be "fair", but it's the way things are.

George Parks

### Abusing phone scammers 'is a waste of time'

✉ Of late you have printed several letters from readers who like to share the "clever" ways they deal with phone scammers. The latest, in Issue 443, is from Robert Reeves, who says he will give the caller his "undiluted abuse" whenever they call. Why?

Let's examine the facts. People choose to have telephones because they want to make and receive calls. The majority of calls they receive are from people they want to hear from. Very occasionally, they will get a call purporting to be from Microsoft or the like. On a scale of 1 to 10 of criminality, where 10 equals being murdered, what score would these calls merit? Less than zero would be my guess, so why do people go to all the trouble of antagonising these callers? What satisfaction do they get?

Leaving these callers on hold may mean an important call won't get through. Giving them a piece of your mind will have no effect because they will simply move on to the next call. They've probably got another eight hours ahead of them, so wasting their time is pointless.

When I receive one of these calls I politely say, "Thank you for letting me know, I will look into it". I then replace the receiver before the caller has time to respond. It disrupts my time by only a few seconds and neither party needs to resort to offensive language.

Alan Ingrey

✉ In response to Barry Sutton's letter about being nice to phone scammers (Issue 442), we are rung almost daily by people asking if we would complete an online survey. It isn't the fault of the people ringing, but the companies on whose behalf they ring. Some months ago I answered all the questions asked, but incorrectly. I said

## STAR LETTER

### I like Windows 8's Charms bar – does that make me a freak?

✉ Sorry Stuart Andrews, I disagree with you for once (The Final Straw, Issue 444). You seem ecstatic that Microsoft is ditching the Charms bar in Windows 10, but I think you're exaggerating how bad it is. I won't be joining you as you dance on its grave.

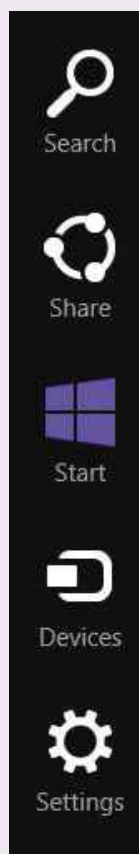
Maybe I'm a freak, because I know the Charms bar is widely loathed. At my local computing club, fellow members bore me silly moaning about it. Of all the things they most regret about upgrading to Windows 8, it's the Charms bar (my best friend calls it the "Harms bar", because it "harms" his brain every time he uses it). Yet it just seems to work for me. It seems to perfectly understand how my mind works. Perhaps I pick things up more quickly than others. Or perhaps I was so fed up with Windows Vista (my previous operating system) that I was just relieved to try

something new.

So I doubt I'll upgrade to Windows 10, even if it is free. I like the Charms bar, and I don't care who knows it!

Dennis Starkey

**CA says** Are users finally learning to love Windows 8? We ask that question because Dennis's email is one of many in praise of Windows 8 that we've received in this year (see opposite page for more). For the first few months after the operating system launched your emails were almost all negative, with many readers lamenting their decision to upgrade. But things seem to be changing. Recently, many of you seem to be warming to Windows 8, and can't understand why it gets such a bad press. What do you think – is Windows 8 underrated? Please let us know your thoughts.



### The Star Letter writer wins a Computeractive mug!



that my name is Stuart (it isn't), that I'm single (I'm not), that I'm aged 24 (I was once), that my house insurance is due for renewal in May (it isn't) and that we have a Zanussi washing machine (we don't).

Since then we have been inundated with calls from a number of companies trying to sell services that we either don't need or at the wrong time of year. I then explained to them that they had the wrong information and why.

If everyone did this then the companies involved would soon realise they are wasting their money paying for these surveys and the calls would stop. However, the other day I had a call from a leading charity asking for Stuart and when I told him what I had done he had the cheek to have a go at me for wasting the charity's money!

'Stuart' Parnell



### Accessing accounts after people die

✉ Issue 444 contained a news story about Windows 10 allowing people to use biometrics, such as fingerprints and eyes, to log into their computers. The same issue also contained an excellent article about passing on your accounts following your departure from this world. So, in future, will the bereaved need to remove the departed's eye or finger in order to access their computer?

S McArdle

# Consumeractive

## Why is Amazon refusing to publish my review?

**Q** Amazon is refusing to post a negative review I wrote about a flash drive I bought, which turned out to be fake, claiming it breached their guidelines ([www.amazon.co.uk/review-guidelines](http://www.amazon.co.uk/review-guidelines)). I've posted another review to say a product is "absolute rubbish". I bet that won't be posted either. What do you think about this?

Malcolm Adnett

**A** We think customer reviews help the public to trust online retailers such as eBay and Amazon, no matter how harsh the comments are, so it's worrying to hear that Malcolm's feedback was rejected. However, Malcolm used the word 'fake' in the review Amazon refused to publish. The company selling the flash drive may have regarded this comment as libellous and sued Amazon (rather than Malcolm).

It's true that new defamation laws introduced last year make it more difficult for companies to sue websites for libel, but Amazon probably feels it's not worth the risk. We've asked Amazon to comment.

**CASE ONGOING**

[amazon.co.uk](http://amazon.co.uk)

## Can I get a new phone if a repair fails?

**Q** I upgraded to a Sony Xperia Z3 phone with Vodafone at the end of November last year. I soon noticed that the speakers were faulty, so I wanted it replaced, but Vodafone would only agree to send it for repair. When I got it back it still had the same problem. It's been sent for repair again, but I'd rather have a new phone. Can you help me get one?

Babu Periyasamy



usually put at 30 days, so Vodafone should have automatically offered a new phone.

The ambiguity arises because Babu didn't initially reject the phone, has now owned the phone for over three months, and has allowed Vodafone to conduct a second repair. Vodafone may argue that, in the eyes of the law, he has now accepted the phone, which would mean he isn't entitled to a new

**A** We can help Babu demand a new phone if the latest repair doesn't fix the problem. This is because, after two failed repairs, he will be entitled to a replacement phone.

The reason he'll have to wait for a second failed repair before demanding a new phone is slightly complicated. Vodafone told him that to be entitled to a new phone he had to reject the phone as faulty within 14 days of signing the contract. This isn't correct. The Sale of Goods Act states that consumers can reject faulty goods within a reasonable time. This is

repaired. He could challenge this by taking Vodafone to the small claims court, saying that he didn't reject the phone because the company gave him incorrect advice.

We'll happily take on his case if the second repair fails because we strongly believe consumers shouldn't have to put up with repeat repairs. The good news is the automatic right to a replacement after only one failed repair is expected to be included in the new Consumer Rights Bill, which should become law this summer.

**CASE ONGOING**

## Can I be charged a fee for using a warranty?

**Q** I have two seven-year-old recliner chairs, both of which came with free 10-year warranties. I needed to have one repaired, but the repair company charged me £50 for this. Shouldn't the warranty have covered the payment?

Allan Grainger

**A** We don't normally take on cases involving non-technical goods, unless they've been bought online. However, we've included Allan's case because his

question highlights the confusion that exists over free warranties.

It's often normal practice for a company to charge customers a call-out fee, or to make them pay for delivery, when repairing large items under a



free warranty. It's also legal because retailers and manufacturers can stipulate their own specific terms and conditions in free warranties. And because they're free, you can't challenge them legally if you think they are unfair. It's likely that the terms of Allan's warranty stated that a call-out fee would be charged.

However, extended warranties are paid for, which means you can challenge them if you think the small print is unfair. If this is the case, contact Citizens Advice ([www.snipca.com/15533](http://www.snipca.com/15533)).

**CASE CLOSED**



## ✉ Contact us so we can investigate your case

Email: [consumeractive@computeractive.co.uk](mailto: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

## Should I take TalkTalk to the small claims court?

**Q** In October 2012 I signed up with TalkTalk to swap my broadband to fibre. Recently it took nearly nine hours to download a large file, and I also discovered I will never be able to get the speed I'm paying for because of a mistake made by the TalkTalk engineer. I want TalkTalk to refund me £270, which is the amount I paid for a service I can't get. Should I try the small claims court?

Peter Stocks

**A** We don't think Peter should take TalkTalk to the small claims court - at least, not yet. First, he should give TalkTalk the chance to make



him an offer. Peter told us he should've been getting around 37Mbps, but could often only get around 400Kbps, which is shockingly slow.

Peter should write to TalkTalk explaining why he wants a refund. If the ISP doesn't make him an acceptable offer,

he should ask them to send him a deadlock letter. He should then send this to the Communications - Ombudsman ([www.snipca.com/15501](http://www.snipca.com/15501)). This mediating organisation will investigate his complaint and make a ruling, which TalkTalk will have to abide by. However, if Peter disagrees with the ombudsman's conclusion, he should then consider taking TalkTalk to the small claims court.

But we'd advise him to carefully consider its findings before embarking on this action as TalkTalk could argue that he should have raised a dispute much earlier into his contract. We'll let you know what happens.

**CASE ONGOING**

## CASE UPDATE



### Vodafone agrees to replace reader's faulty phone

We've got good news for Gordon Thrower, whose case against Vodafone we covered in Issue 444. The company has said it will replace his faulty Sony Xperia Z3 phone, after its first

repair failed to fix the device's broken camera. He wanted a replacement, not a second repair, but Vodafone refused. The company's sales assistant told him that Vodafone's policies took precedent over consumer law, which is of course nonsense.

After we contacted Vodafone to point this out, a spokesperson told us: "We're sorry Mr Thrower had this experience with us. We'll speak to the advisers involved and make sure we learn from this".

They added: "Our normal process when a handset develops a fault is to send it away for repair - even on the second occasion. However, given that our level of customer service was not up to standard we will replace the phone for him".

Vodafone's policy of sending devices for a second repair will have to change if, as expected, the new Consumer Rights Bill becomes law later this year. The new Bill says that a company is only allowed one attempt at repairing an item. If that doesn't fix the problem, the customer can demand a replacement. If the device can't be replaced, the company must refund the customer in full. This much-needed amendment to the law will make it significantly easier to solve Consumeractive cases.



## THIS WILL COME IN USEFUL

### Contact the BBC

#### Accessibility Team

Email: [accessibilityteam@bbc.co.uk](mailto:accessibilityteam@bbc.co.uk)

#### Apply for tickets

[www.snipca.com/15451](http://www.snipca.com/15451)

#### Book a BBC tour

[www.snipca.com/15495](http://www.snipca.com/15495)

#### BBC Radio

[www.bbc.co.uk/radio/help](http://www.bbc.co.uk/radio/help)

#### BBC Travel

Email: [travel.news@bbc.co.uk](mailto:travel.news@bbc.co.uk)

#### BBC Weather

Contact form: [www.bbc.co.uk/weather/contact\\_us](http://www.bbc.co.uk/weather/contact_us)

#### Complaints

**03700 100 222**

Online contact: [www.snipca.com/15448](http://www.snipca.com/15448)

#### Newswatch

**0370 010 6676**

Email: [newswatch@bbc.co.uk](mailto:newswatch@bbc.co.uk),  
Twitter: [@newswatchbbc](https://twitter.com/newswatchbbc)

#### Submit a news story

[www.snipca.com/15452](http://www.snipca.com/15452)

#### TV Licensing

**0300 790 6131**

Email: [support@tvlicensing.co.uk](mailto:support@tvlicensing.co.uk)  
Contact form: [www.snipca.com/15449](http://www.snipca.com/15449)  
Twitter: [@tvlicensing](https://twitter.com/tvlicensing)





# Protect Your Tech

Scams and threats to avoid, plus new security tools

## WATCH OUT FOR...

### Amazon phishing emails

#### What happened?

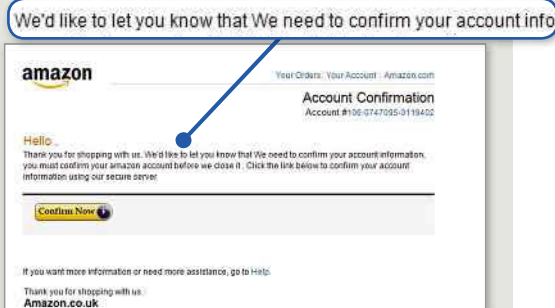
A new spate of phishing emails claiming to be from Amazon targeted customers who had recently made purchases. Some members of the *Computeractive* team, along with several readers, received them in late February. The emails managed to bypass Outlook's 'Junk E-mail' filter, which is usually very effective at blocking spam.

One email claims to be from 'orders@amazon.com', has the subject line 'Account Confirmation', and urges you to click a 'Confirm Now' button. It looks convincing enough to fool people unfamiliar with phishing scams, but contains the same old clues that characterise most fake emails, such as bad grammar. The rogue capital 'W' in this sentence is a giveaway: "We'd like to let you know that We need to confirm

your account information, you must confirm your amazon account before we close it" (see screenshot).

Another phishing email informs you that Amazon has changed your email address to one that comprises two names totally unrelated to you. It goes on to say that if you haven't made these changes, you should download the attached form and log in with your old password and email. The scammers know full well that you haven't made these changes.

Both emails thank you for shopping with Amazon. The *Computeractive* staff members targeted had indeed bought products from Amazon within the past week, so the scammers may have stolen this information from somewhere.



#### What should you do?

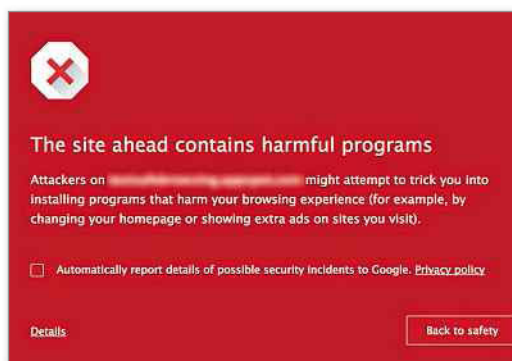
As always, be suspicious of emails that are badly written and ask you to log into your account. Be especially vigilant if you've recently bought something on Amazon. If in doubt, forward the email to us ([letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)) or report it to Amazon: [stop-spoofing@amazon.com](mailto:stop-spoofing@amazon.com). Also, bookmark Amazon's 'Identifying spoof emails' page: [www.snipca.com/15594](http://www.snipca.com/15594).

## New tools

Chrome SafeBrowsing  
[www.snipca.com/15596](http://www.snipca.com/15596)

If you see this warning while browsing the web in Chrome, think twice about continuing to the website you were about to visit. The message, from Google, is telling you that downloads from the site could "harm your browsing experience". These programs may not be malware, but they could contain nasty adware, **browser hijackers** and other online nasties.

It's the latest addition to Google's SafeBrowsing feature, which works in the background in Chrome to warn you about web hazards (read more about the update on the official Chrome Blog: [www.snipca.com/15595](http://www.snipca.com/15595)). Google also said that it has begun to "disable" adverts that link to such sites, and has



also tweaked its search results so that fewer sites containing dodgy downloads will appear.

You don't need to add anything to Chrome to ensure you see the warnings, but it's worth reading more about SafeBrowsing (click the link above).



**ScamWatch**  
READERS WARN READERS

#### Fake Tesco survey

On 14 February I received an email claiming to be from Tesco asking me to complete a customer-satisfaction survey. It promised me £100 for doing so, payable into my Tesco ClubCard account. The survey had questions about staff attitudes and store layout. Then the last line of the survey asked for my Tesco credit-card number and PIN. That rang alarm bells, so I emailed the survey to Tesco's customer services, then deleted it. Tesco replied to confirm it was a phishing scam. See Tesco's advice on how to spot phishing emails at [www.snipca.com/15528](http://www.snipca.com/15528).

Keith Mansford



Warn your fellow readers about scams at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



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# Best Free Software

Brilliant new programs that won't cost you anything

## FILES AND FOLDERS

### TreeSize Free 3.3

[www.snipca.com/15612](http://www.snipca.com/15612)

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



TreeSize Free may not be as big and handsome as some of the programs we've featured on this page, but it's a darn sight more useful. Run it to see how much space is being taken up by every folder on your local hard drive (usually C:), including the stuff that doesn't show up in Windows Explorer (or File Explorer in Windows 8/8.1). You can also use it to scan external hard drives and **partitions**, if you have them.

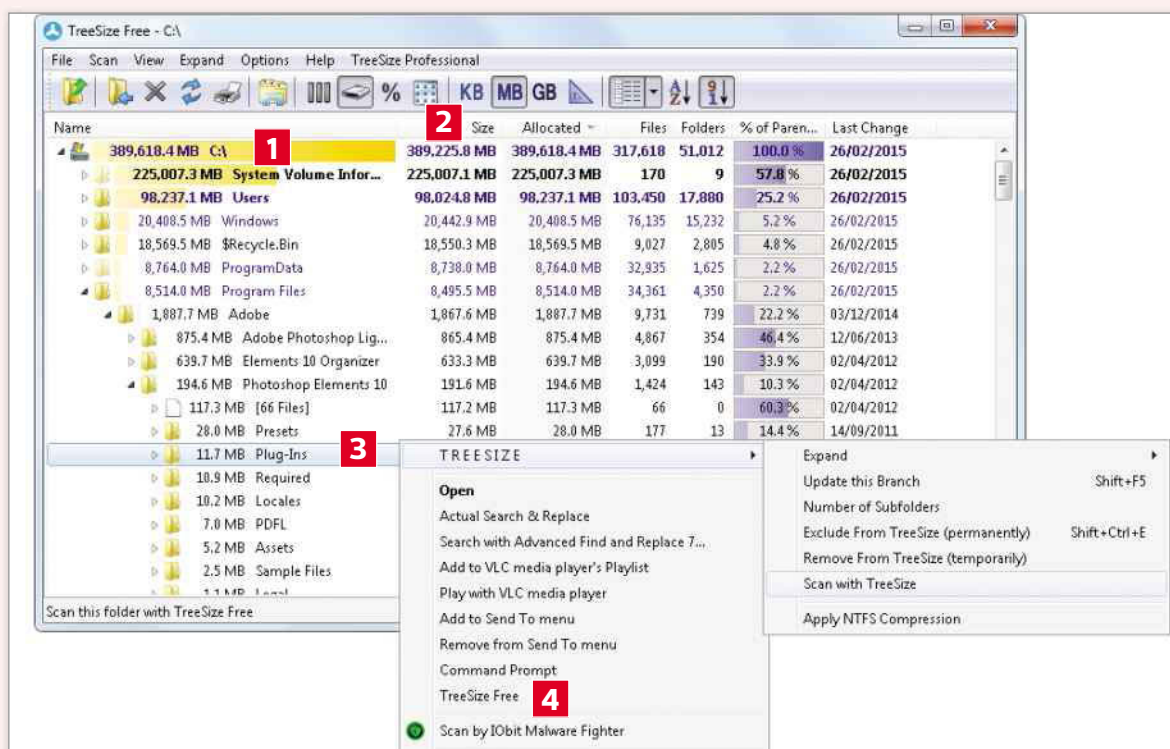
By default, everything is arranged in size order (from biggest to smallest), with a bar-chart-type view so you can compare individual folder sizes at a glance. Click the little arrow next to a folder to see its subfolders (and sub-subfolders, and sub-sub-subfolders, and so on.)

This new version has had an attractive redesign, partly to make it easier to use with touchscreens (Windows 8/8.1). Its

performance has been improved, too, to accommodate increasingly popular **SSDs**.

TreeSize Free is available in three versions. The one in our screenshot is the version you install. This adds a TreeSize Free option to the right-click menu for any folder in Explorer (see Step 4 below). The program also comes in two portable versions, including one you can download straight to a USB stick and run on any PC (all the way back to Windows 2000) to quickly scan the folders on it.

To get started, click Download, then choose your desired version from the dropdown menu, select 'Download for Europe' and click Download. The installed version takes up a mere 9.4MB on your hard drive and has a quick, adware-free setup wizard.



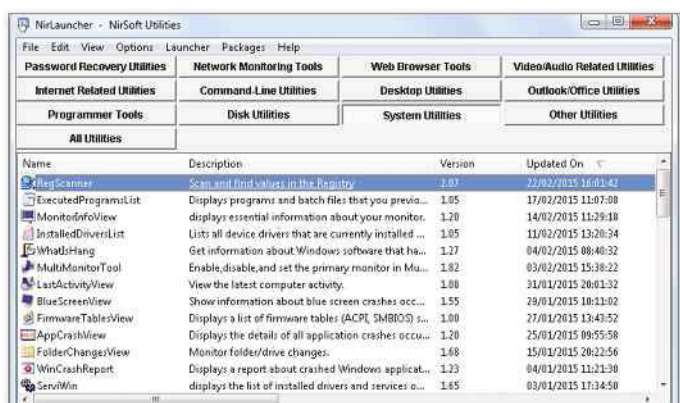
**1** When you run TreeSize Free, the yellow bars will gradually extend as the program scans folders in your C: drive (or other selected drive).

**2** By default, folders are sorted by size. Click the column headings to sort them in other ways. For example, by the number of files they contain ('Files').

**3** Right-click a folder in the program window to access the usual Explorer right-click options. Click 'TREESIZE' for more options, including 'Scan with TreeSize'.

**4** Right-click any folder in Windows/File Explorer then click TreeSize Free to launch the program and scan that folder and its subfolders.





## SYSTEM TOOLS

# NirLauncher 1.19

[www.snipca.com/15617](http://www.snipca.com/15617)

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

NirSoft (which is one man – software developer Nir Sofer) is our favourite source of safe, portable tools that reveal information about your PC, such as ProduKey ([www.snipca.com/15615](http://www.snipca.com/15615)) and WifiInfoView ([www.snipca.com/15616](http://www.snipca.com/15616)). To make it easier to download and manage these tools, Sofer has now made NirLauncher, a package of more than 180 (yes, 180!) programs that you previously had to download separately from the NirSoft website ([www.nirsoft.net](http://www.nirsoft.net)). NirLauncher, like most NirSoft tools, is portable, so you don't need to install it – just download the ZIP, then extract and run the EXE ('NirLauncher.exe').

Now for the downside. Your antivirus or browser may try to block NirLauncher as malicious, possibly because it includes password-recovery tools. We downloaded it successfully, but it did take a while, so be prepared to wait a few minutes while the file is scanned by your security software.



## ONLINE NOTEPAD

# OmPad

[www.snipca.com/15611](http://www.snipca.com/15611)

**What you need:** Any browser and an internet connection

This free online tool is so simple, it confused us at first. Where's the Download button? Where are the system requirements? Where's the Help section? Or *any* sections, for that matter? In fact, all the instructions are right in front of you. Select the on-screen text and type over it, using the pop-up formatting bar to add bold, italics and so on. When you've finished, copy and paste into an email, Word, Facebook or wherever you want.

## SCREENSHOT TOOL

# Dowce

[www.dowce.com](http://www.dowce.com)

**What you need:**

Windows 7 or 8/8.1

Tell someone there's a brilliant new free tool for saving screenshots, and they'll say "you can do that in Windows already". Well, yes – you have to press the PrtScn ('print screen') key, open a program that supports pasting images (say, IrfanView), press Ctrl+V, crop the image, press Ctrl+S, name your file and decide where to save it. Actually, it's quite a hassle.

Dowce makes screenshots genuinely quick and easy. Once you've installed it, go to the Dowce icon in your system tray, click 'Make a selection' and drag your mouse across the part of the screen you want to capture. You can then tell Dowce to save your cropped screenshot to your PC, copy it to the clipboard or save it online using a unique URL and password of your choice.



## WHAT SHOULD I DOWNLOAD?

We tell you what software to use


# How do I convert my printed email to on-screen text?

**Q** I printed out a very long email to make it easier to read. Now I want to insert the email into a document for editing, but I've deleted the original from my PC. Is there a way to convert my printed email back into text on my screen? Typing it would take a long time!

David Joslin

**A** You'll need to scan the printed email with a flatbed scanner first. Next, upload the image file to Online OCR ([www.onlineocr.net](http://www.onlineocr.net)), a free web tool that lets you convert the file to Word, Excel or plain text. OCR (optical character recognition) is the technology that makes scanned text editable. The big brand name in this field is Abbyy ([www.snipca.com/15619](http://www.snipca.com/15619)), which makes scanners with built-in OCR and the FineReader OCR program (£99) – all a bit expensive. If you have a tablet or phone, you can turn it into a very basic OCR scanner for free using Abbyy's Fine Scanner app ([www.snipca.com/15620](http://www.snipca.com/15620), iOS only) or CamScanner (Android [www.snipca.com/15621](http://www.snipca.com/15621), iOS [www.snipca.com/15622](http://www.snipca.com/15622)).



 Do you need our advice on what software to use? Just email us at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)

# Reviews

New products tested by our experts

PC | £469 from [www.snipca.com/15593](http://www.snipca.com/15593)

## Alienware Alpha

A fast and quiet mini PC from Dell

Alienware is Dell's brand name for gaming PCs and the Alpha is the latest model in the range. It has plenty to recommend it, even if you have no interest in gaming. For starters, it's approximately the size of two paperback books.

Many gaming PCs go for an ostentatious look, but not the Alpha. The only frills on its plain black plastic casing are a lit-up Alienware logo (which doubles as the power button) and a small triangular **LED** on one corner (see image). You can change the colour of these lights, or turn them off, using a pre-installed program. It's sold without a keyboard, mouse and monitor so you'll have to supply your own.

Unusually for a mini PC, the Alpha is

“Fast performance in a compact, quiet, easy-to-upgrade design that's also very affordable”

easy to upgrade. You simply remove a few screws to prise off the top cover. Disconnect the two cooling fans and you can upgrade the memory (to a maximum of 16GB) and the **processor**, though the **dedicated graphics chip** is not removable. If you flip the PC over and remove the bottom panel, you can replace the 500GB hard drive with a larger model or an **SSD** without much fuss.

The Alpha is remarkably fast given its diminutive size. The 2.9GHz Intel Core i3 4310T **dual-core** processor zipped through most of our benchmark tests. It only began to struggle somewhat when we ran multiple programs simultaneously, no doubt due to the relatively meagre 4GB of memory, but you can easily fit more yourself.

Unlike the vast majority of mini PCs, the

Alpha has a **dedicated graphics chip**. It's an Nvidia GeForce GTX, although neither Alienware nor Nvidia will confirm which model it is. Either way, it coped well with our 3D graphics tests. However, while it easily handles the vast majority of older 3D games, it will probably still struggle with the very latest, most graphically demanding titles. It will also speed up programs such as Nero and Roxio Creator. For comparison, this Nvidia GeForce GTX is faster than almost any dedicated graphics chips we've seen in laptops costing £1,000 or less.

Desktop PCs are often quite large and noisy because they require cooling fans to dissipate the heat generated by their fast components. The Alpha has two moderately large fans tucked inside, but we could barely hear them, even in a quiet room.

Alienware has included a few extras for gamers, so they can hook the Alpha up to a TV and use it as a games console. One pre-installed program adds a customised interface on top of Windows 8.1. Its simplified menus, large text and conspicuous icons are designed to be visible and easy to control when you're sat a few feet away on your sofa. The interface was a little buggy when we tested it, but it's great for launching Steam games and changing the settings for the included Microsoft

### SPECIFICATIONS

2.9GHz Intel Core i3 4310T dual-core processor  
• 4GB memory • 500GB hard drive • Nvidia GeForce GTX dedicated graphics chip • 802.11a/b/g/n/ac  
• Windows 8.1 • 50x200x200mm (HxWxD) •  
One-year warranty • E-Value Code: D00ASM01  
[www.snipca.com/15593](http://www.snipca.com/15593)



wireless controller.

Oddly, the Alpha lacks a few common features. Although there is a second **HDMI** port, it's not meant for connecting a second monitor, which is a shame. Instead, the idea is that you connect your **PVR** or satellite TV box to the second HDMI port when the Alpha is hooked up to your TV, so you can switch between the two more easily than if you used your TV's remote control. An **optical audio** port is present for connecting a surround-sound system, but there's neither a standard 3.5mm audio jack nor an **SD card** slot.

These are minor quibbles though, because otherwise the Alienware Alpha has everything we could want from a Windows mini PC – fast performance in a compact, quiet, easy-to-upgrade design that happens to be affordable too.

**VERDICT:** This mini PC has it all – performance, upgradeability and a low price too

★★★★★

### ALTERNATIVES:

Intel NUC  
D54250WYK £280  
An even smaller mini PC that you assemble yourself, but graphics performance is much slower

Apple Mac Mini (2014) £569 Faster general-purpose performance, but slower 3D graphics and it can't be upgraded





# Raspberry Pi 2

Have your Pi and eat it with the most powerful version yet of the single-board computer

The Raspberry Pi is a computer built with students and hobbyists in mind and is one of the biggest British tech success stories of recent years. The new Raspberry Pi 2 is the best version yet of this popular computer.

The most significant new feature in the Pi 2 is the new **quad-core** 900MHz ARM Cortex-A7 **processor**. What's more, there's now 1GB of **RAM**, compared with 512MB in the previous Pi Model B+ (see our review, Issue 434). To test the difference in performance between the two, we used a Blowfish **encryption** benchmark.

“One of the biggest British tech success stories continues”

In these tests, the lower the score, the faster the processor completed the task. The Pi 2 scored 62.19, beating the Pi Model B+'s score of 99.63. In comparison, Imagination Technologies' more expensive CI20 (see our review, Issue 442) scored 65.71. To put this in perspective, these are still far slower than a standard modern Windows PC, which would ordinarily score well under 10.

One practical consequence of this improved performance is that Desktop applications run much smoother, with far less delay when you have multiple programs or browser tabs open. If you're a programmer, software will **compile** more quickly too.

Like the Model B+, the Pi 2 has a 40-pin GPIO (General Purpose Input/Output) connector so you can attach and control circuit boards and external devices. All other ports and connectors, as well as the VideoCore IV graphics chip, are also unchanged. These means almost all projects designed for older Pis should



work with the Pi 2. It's almost exactly the same size and shape as the Model B+, though some snug cases may not fit.

A **microSD** card slot provides the computer's main internal storage. The easiest way to get up and running is to put the free NOOBS operating system installer on an **SD card** and boot from it to install Raspbian Linux. Not all of the other Pi operating systems have been updated for the Pi 2, but many of the most useful, such as the Kodi (formerly XBMC) media centre operating system, are ready to go. Microsoft has promised a version of Windows 10 for the Pi 2, but has yet to provide any details.

If you already use a Raspberry Pi for programming and simple electronics projects, then you probably won't need to upgrade. If you're just starting out or have moved on to more demanding projects, then there's little reason to opt for the less powerful Model B+, especially as it costs only £10 less. The Pi 2 is a great little PC, whether you want to learn to program, build an electronics project or want a cheaper alternative to a Windows PC.

## SPECIFICATIONS

900MHz ARM Cortex-A7 quad-core processor • 1GB memory • microSD slot • Dual-core VideoCore IV integrated graphics chip • 40-pin GPIO connector • 1x 10/100Mbps Ethernet port • 57x86mm (WxD)  
[www.snipca.com/15582](http://www.snipca.com/15582)

## 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.

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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:** If you've ever been tempted by the Pi in the past, now's the time to buy one



## ALTERNATIVE:

Imagination Technologies MIPS Creator CI20 **£50**

The CI20 has a few advantages over the Pi 2 (such as built-in Wi-Fi), and it's almost as powerful. But it has limited community support and is pricier





# Reviews

**ROUTER** | £59 from [www.snipca.com/15545](http://www.snipca.com/15545)

## TP-Link TD-W8980

A budget router that's almost perfect

The TP-Link TD-W8980 is a budget router made from sleek, black, glossy plastic. It's a **dual-band** 802.11n model with a maximum theoretical speed of 300Mbps. The web interface is well designed and there's an easy-to-follow Quick Setup program if you're using the built-in **ADSL** modem for your internet connection. Otherwise, you can connect your cable or fibre modem to one of the four **Gigabit Ethernet** ports.

On the bottom of the router you'll find the default network password and login details for the web interface. We were disappointed to see that there's no support for a guest network, so you'll have to give your password to visiting friends and family.

### SPECIFICATIONS

Dual band 802.11n, 802.11a/b/g • 4 x Gigabit Ethernet ports • 1 x ADSL2+ port • 33x243x161mm (HxWxD) • Three-year warranty [www.snipca.com/15546](http://www.snipca.com/15546)

You can plug USB printers and drives into the router's two USB ports, so they can be used by multiple computers. The web interface provides helpful instructions on how to set these features up. There's no physical eject button on the router, so you'll need to access the web interface to eject your storage drives before pulling them out.

When we used our laptop's built-in Intel dual-band wireless adapter, performance on the 2.4GHz network in our near and far tests was underwhelming. At 10m we saw transfer speeds of 14.2Mbps and at 25m speeds dropped to a poor 7.9Mbps. Things looked up considerably when we tested the 5GHz band – 116.5Mbps at 10m and 93.2Mbps at 25m are both very impressive, especially for such a cheap router.

The TP-Link TD-W8980 is a good 802.11n ADSL router. Its web interface is

easy to use, while its wireless speeds over 5GHz are excellent for an inexpensive router. However, if you're planning on connecting devices on the 2.4GHz band, then you should look elsewhere.

**VERDICT:** If it wasn't for its slow 2.4GHz performance, this router would get our unconditional five-star recommendation

★★★★☆

**ALTERNATIVE:** Securifi Almond £69 It's easy to set up and fast on 2.4GHz, but isn't dual-band capable



**HARD DRIVE** | £75 from [www.snipca.com/15613](http://www.snipca.com/15613)

## Toshiba Canvio Desk 3TB

A blisteringly fast USB 3.0 hard drive

**SSDs** are brilliant, but if you need lots of storage, there's no substitute for a hard drive. The Toshiba Canvio Desk is an external **USB 3.0** desktop hard drive and its glossy plastic casing is available in either black and white or black only.

We tested the 3TB model (1, 2, 4 and 5TB alternatives are also available) and this excelled in our benchmark tests. Large files were copied at an average speed of **178.2MB/s** – the fastest speed we've seen from a USB 3.0 desktop hard drive. Small files performance didn't quite hit those heights, but it was still quick at 48.7MB/s. It's whisper quiet too because it doesn't



have any cooling fans, but this does mean you'll have to take care not to block its cooling vents.

The 3TB Canvio Desk costs just 3p per GB. This, along with its top-notch performance levels, make it great value.

**VERDICT:** Fast, plentiful storage at a low price.

★★★★★

**SSD** | £284 from [www.snipca.com/15634](http://www.snipca.com/15634)

## Crucial BX100 1TB

A spacious, lightning-quick SSD

The BX100 models represent Crucial's budget SSD range, starting at £54 for the 120GB version to around £290 for the 1TB model reviewed here. This equates to 29p per GB, which is the lowest price we've seen yet for a 1TB SSD.

The BX100 excelled at copying large files, with a blistering average speed of 544MB/s – 58MB/s faster than the older MX100 (see our review, Issue 427). This comes at the expense of small-files performance though. While still very quick at an average speed of 77.3MB/s, this is markedly slower than the 120.6MB/s average speed achieved by the MX100.



While this is a shame, the 1TB BX100 is still a cracking SSD overall. The MX100 is still available if you want to squeeze out every last drop of speed when copying small files, but the BX100 is a great-value SSD for everyone else.

**VERDICT:** A large, fast SSD that's simply great value

★★★★★

**PRINTER** | £127 from [www.snipca.com/15541](http://www.snipca.com/15541)

## Brother DCP-1610W

A cheap, compact mono laser MFP

Brother's DCP-1610W is a surprisingly small laser MFP capable of prints, scans and photocopies. It can only print and make copies in monochrome, although scans are, of course, in full colour. While it lacks a fax modem and an SD card slot – so you can't print directly from a storage card – several people can connect to it over Wi-Fi.

Fit the remarkably small and light toner cartridge and you're ready to go. The separate imaging drum is already fitted, and should last for around 10,000 pages – we doubt that many people will ever need to replace it. However, the toner lasts for just 1,000 pages. Even when excluding the cost of a replacement drum, running costs are a high 2.8p per page.

Build quality is good, apart from the thin and flexible scanner lid. As expected for a laser printer at this price, the paper input tray is uncovered and there's no bypass slot for feeding single envelopes or sheets of headed paper.

The control panel consists of a simple black-and-white screen with a few buttons, including one for scanning. This works unusually well: load up a document, press the button, and you're asked whether you want to create an image, a PDF file or an email attachment. If you have more than one, you're asked which PC or mobile device to send the result to. With this done you simply press Start and wait for the scan to finish. You can, of course, also control scans directly from a PC and here the DCP-1610W is quick enough, taking just 18 seconds to capture an A4 document at

### SPECIFICATIONS

2400x600dpi maximum print resolution • 20ppm mono quoted speeds • 600x1200dpi maximum scan resolution • USB • Wi-Fi • One-year warranty  
[www.snipca.com/15542](http://www.snipca.com/15542)



300 dpi (dots per inch), which is a reasonably detailed resolution.

Prints were also swift, with a first page of text arriving in 12 seconds, and five pages completing in 23 seconds. Five pages of graphics took only a second longer. Text was excellent while graphics and photos were surprisingly good for a cheap mono laser. Photocopies – often a weak point for budget laser printers – were also good, and quick, with a single A4 page completing in just 12 seconds.

Overall, this is a good choice if you want a no-frills MFP and don't need colour printing or a fax modem. However, it's certainly not as cheap to run as a good inkjet MFP such as Epson's WorkForce WF-3540DTWF.

**VERDICT:** This is a great MFP for anyone who doesn't need colour printing or fax, but high running costs mean it's only suited for occasional or light printing



**ALTERNATIVE:** Epson WorkForce WF-3540DTWF  
£130 A colour inkjet MFP with lower print costs – 1.7p per page of black-and-white text



## The best... Accessories

### Hama Polarising Filter

£25 from [www.snipca.com/15668](http://www.snipca.com/15668)

Attach this twist-on filter (available in various sizes) to the lens of your CSC or DSLR camera and certain colours (such as sky blue) will really stand out while reflections and glare will be reduced.



### TP-Link Power Bank

£23 from [www.snipca.com/15669](http://www.snipca.com/15669)

This USB power pack can charge two mobile devices simultaneously and even has a built-in torch. It added an extra 20 hours 44 minutes of video playback to our Moto G smartphone.



### Astropad

£34 from <http://astropad.com>

This app lets you use your iPad as a graphics tablet for your Mac, so you can draw and paint in a more natural way.



### Aspyre PhotoCaddy

£4 from [www.snipca.com/15670](http://www.snipca.com/15670)

A handy iOS app that provides tips on getting the best results from your camera in various situations, from zoos and art galleries to night-time portraits.



# Reviews

**VIDEO CAMERA** | £130 from [www.snipca.com/15585](http://www.snipca.com/15585)

## HTC Re

A quirky video camera with time lapse and slow motion

The HTC Re video camera is a surprise package in more ways than one. First off, its manufacturer HTC is best known for its Android phones. Secondly, its unconventional design means it lacks a screen and looks like a periscope.

Most video cameras that come without a screen are designed as 'action cams' for use while out and about, so they're tough enough to survive impacts and drops. While the Re is less robust than your average action cam, it is waterproof at depths of one metre for up to 30 minutes. It is comfortable to hold though and, conveniently, a grip sensor automatically turns the camera on when you pick it up.

It has no screen to speak of, so you control it using the free iOS or Android app, or simply leave it recording unattended once you've pointed it at the subject matter. In our tests, the latter approach made for a hassle-free method of capturing fleeting moments at dinner and garden parties – especially as the Re's wide-angle lens captures more than most video cameras. Besides which, its discreet, 'uncamera-like' appearance means people behave more naturally, and

### SPECIFICATIONS

Sony CMOS sensor • No zoom • No screen • Accepts microSD, microSDHC and microSDXC storage cards • 802.11a/b/g/n • 67g • 98x27mm (HxW) • One-year warranty [www.snipca.com/15586](http://www.snipca.com/15586)

are less likely to act up for the camera.

There are still plenty of reasons to resort to the app though. It lets you change the Re's settings, shoot slow-motion video, set it to automatically back up footage to your mobile device, and even stream your footage live over YouTube. It's also the only way to create a time-lapse video, which works by taking lots of photos over a period of time and stringing them together. Disappointingly, you can't change the playback speed of your time-lapse footage, should it look too choppy. The Re does at least save all your images to the included 8GB microSD card, so you could create your own time lapse in a video-editing program, though this isn't easy.

Time-lapse results look best when the Re is mounted on a tripod. Annoyingly, the position of the charging port prevents you from charging the Re while it's mounted or standing on its base. This pretty much rules out lengthy time-lapse projects and longer video shoots – especially given its disappointing battery life (1hr 12 minutes of continuous 1080p recording). It would have made much more sense to put the charging port on the side of the Re.

Image quality at 1080p was average. Outdoors – in grey, overcast conditions – the resulting footage was a little soft



focus and missed lots of detail from a building's brickwork. The scene looked bright, however, and the mic picked up most things. Where it really falls short is in low-lit conditions, which produced stills and video that suffered from noise and soft focus.

The HTC Re is inexpensive and easy to use, but it's a very average video camera. It's not as sturdy as rival cameras and it has far too many design flaws.

**VERDICT:** A quirky video camera with some useful features, but very much a flawed first attempt from HTC



**ALTERNATIVE:** Panasonic HX-A500 £300 More expensive with no wide-angle lens, but has longer battery life, superior video quality and it's wearable



## WHAT SHOULD I BUY? We solve your buying dilemmas

### What's the best visual aid for my blind friend?


**Q** My friend is virtually blind due to a condition called Retinitis Pigmentosa. She has a guide dog to help her get around, but her inability to read, makes everyday life difficult for her. Is there a hand-held gadget that can scan text and then read it back to her?

Sylvia Nicholls



**A** There are dedicated devices that do this, but they cost thousands of pounds. Alternatively, there are smartphone apps that use the phone's camera to recognise text, then use the phone's accessibility features to speak the text out aloud. The majority of these are iOS apps, simply because the accessibility features that let a visually impaired person use a phone have been built into iOS for far longer.

The iOS app KNFB Reader is highly regarded, but costs £80. Cheaper alternatives include Prizmo (£8 from [www.snipca.com/15654](http://www.snipca.com/15654)) and TextDetective (free from [www.snipca.com/15655](http://www.snipca.com/15655)). The only Android app we know of is Georgie (99p from [www.snipca.com/15657](http://www.snipca.com/15657)). It'd be best if your friend tried each of these apps for herself to see which one suits her.

 Do you need advice on what you should buy? Email us at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)





# Chillblast

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- Asus Z97-I Plus Motherboard
- Corsair H55 Liquid Cooler
- 8GB PC3-12800 DDR3 Memory
- Geforce GTX 960 2GB Graphics Card
- 1TB Seagate SSHD Hybrid drive
- Microsoft Windows 8.1

From **£899.00** inc VAT

The Fusion Rhino is ready and waiting to trample new gen consoles under its remarkably small footprint in the excellent Bitfenix Prodigy Mini ITX case. Armed with Nvidia's brand new GTX 960 2GB, the Rhino has an i5 4690K processor overclocked up to 4.3Ghz, a Corsair H55 Liquid Cooler and 8GB of RAM. Add in the 1TB Seagate Hybrid SSHD, an intelligent drive that learns your behaviour, and the Rhino has small form factor gaming in the bag or, y'know, on your desk...

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- Intel® Core™ i5-4690K Processor
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- 16GB 1600MHz DDR3 Memory
- GeForce GTX 970 4GB Mini GPU
- 250GB Solid State Drive
- 1000GB 2.5" Seagate SSHD
- Microsoft Windows 8.1

From **£1099.00** inc VAT

### Fusion **Raptor** Gaming PC



- Intel® Core™ i7-4790K Processor
- Asus Z97M-Plus Motherboard
- 16GB 1600MHz DDR3 Memory
- GeForce GTX 960 2GB GPU
- 120GB Solid State Drive
- 2000GB 7200rpm Hard Disk
- Microsoft Windows 8.1

From **£1099.00** inc VAT

### Fusion **Mantis** Gaming PC



- Intel® Core™ i5-4690K Processor
- Corsair H55 Liquid Cooler
- Gigabyte Z97-HD3 Motherboard
- 8GB 1600MHz DDR3 Memory
- GeForce GTX 960 2GB GPU
- 1000GB Seagate Hybrid SSHD
- Microsoft Windows 8.1

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

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**LAPTOP** | £530 from [www.snipca.com/15635](http://www.snipca.com/15635)

## Asus Transformer Book Flip TP300LA (2015)

An inexpensive lightweight laptop with Intel's newest processor

Broadwell is the code name for Intel's new fifth-generation Core **processors**. There are several versions from the energy-efficient (but comparatively slow) Core M range to the more powerful (and power-hungry) Core i7 models. The Transformer Book Flip is the first laptop we've tested that has a Broadwell Core i5, the 2.2GHz 5200U, which lies somewhere between these two extremes and should provide the perfect balance of battery life and performance.

Paired with 6GB of memory, the 5200U was roughly 10 per cent faster than the comparable fourth-generation Core i3 and i5 processors in our benchmark tests. This modest improvement is in line with what we'd expect given the minor technical improvements made since the previous generation of processors. In any case, this laptop is easily fast enough for use as your main computer.

“Asus has missed the chance to address its predecessor's shortcomings”

The difference in battery life was also slight. The previous Transformer Book Flip (see our review, Issue 437), which is identical to this latest model aside from its fourth-generation Haswell Core i3 processor, lasted 11 and a half hours in our light-usage battery test. This Broadwell-equipped model lasted one hour longer.

While this sounds underwhelming, any prolonging of battery life is a welcome development. It's also worth remembering that those Haswell processors were significantly more

### SPECIFICATIONS

2.2GHz Intel Core i5 5200U dual-core processor • 6GB memory • 500GB hard drive • Intel HD5500 integrated graphics chip • 13.3in 1366x768-pixel touchscreen • 802.11ac/a/b/g/n • Windows 8.1 • 1.8kg weight (2.1kg with charger) • 22x326x232mm (HxWxD) • One-year warranty  
[www.snipca.com/15635](http://www.snipca.com/15635)



energy-efficient than their predecessors and these kind of great leaps forward are few and far between. This all means the Flip is great for use on the go, especially given its dainty 1.8kg weight.

What's far more disappointing is that Asus has missed the opportunity to address some of the original Flip's shortcomings. The keyboard's design still leaves a lot to be desired. While the keys have sufficient **travel**, they feel spongy and lack **feedback** when pressed. What's more, the keyboard has a flimsy feel – it flexes and bounces if you tend to hit the keys hard when typing. We got used to these flaws after a little practice, but it's not ideal. At least the touchpad is large, smooth and accurate.

Another limitation in common with its predecessor is a lack of upgrade potential. While the laptop's bottom panel can be removed without much fuss, the memory and the 500GB hard drive are sealed behind metal plates and therefore can't be upgraded. This is acceptable in laptops that sacrifice upgradeability for a thinner, lighter design and larger, longer-lasting batteries – but there's no excuse here.

The 13in screen still has the same modest 1366x768-pixel **resolution**, which is par for the course at this price. More disappointing is the grainy sheen, which compromises image quality, and the highly reflective gloss finish, which can

be very distracting when used under fluorescent lighting. The screen is at least very bright, and can be folded back so that it lies flat against the underside of the keyboard for use as a tablet. It's too thick and heavy to be used comfortably as a tablet though. It's much more likely you'll angle the keyboard to act as a stand for the screen.

The newest Transformer Book Flip is by no means a bad laptop. It's relatively cheap and comes with a bright screen, decent battery life and a sturdy metallic build. But the flaws of its predecessor remain, while the modest improvements to its new processor aren't compelling enough to set it apart. Unless you just want the best performance and battery life for your money, you should buy one of the better-designed budget laptops available.

**VERDICT:** A marginal upgrade over its predecessor and a disappointing debut for Intel's latest processors



### ALTERNATIVE:

Acer Aspire V3 371 £399  
Cheaper, with comparable battery life and a more comfortable keyboard



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# Reviews

**SPEAKER** | £148 from [www.snipca.com/15587](http://www.snipca.com/15587)

## LG Music Flow H3

A wireless speaker with minimalist looks and multi-room features

LG, best known for its range of TVs, is now branching out into speakers. The company's Music Flow H3 is the kind of compact wireless speaker you can tuck neatly out of the way in cluttered or cramped spaces, such as your kitchen or a small bedroom.

It might be small, but the H3's has an attractive, minimalist appearance that oozes class. Its controls are handily positioned on top and comprise a volume dial and a power button. The speaker's cabinet has a metallic look, but is in fact plastic. It nonetheless feels tough and well made.

Unlike most speakers, there's no standard 3.5mm audio port. Instead, you connect your PC, MP3 player, smartphone or tablet via Bluetooth, Wi-Fi, Ethernet or LG's own wireless technology (more on this later). Connecting via Bluetooth can be fiddly, but you can use **NFC** to simplify this process, as long as your smartphone has both built in. When we tapped our NFC-equipped phone against the side of the speaker, a Bluetooth connection was quickly established between the two.

“The H3 sounds flat, with a weak bass and lack of detail in delicate instrumental tracks”

Once it's up and running, you use the Music Flow app (available for iOS, Android and Windows) to stream music to the H3. The app also supports streaming services such as Napster, TuneIn and Deezer, but not Spotify. If you use the latter, you will need to use Spotify's official app instead, but only the mobile app will work and you'll need to be a Spotify Premium subscriber (£9.99 a month).

This lack of Spotify support is disappointing, but the Music Flow app

still has plenty going for it. If you're struggling to connect the H3 to your Wi-Fi network, the app provides clearly illustrated instructions. The app can also play music stored on your computer or **NAS**.

But what does it sound like? Sadly, overall audio quality is disappointing. The H3 sounds flat, suffering from a weak bass and lack of detail in delicate instrumental tracks, so to hear it at its best you need to stand directly in front of it. It's not all bad though – vocals are crystal clear and the H3 is surprisingly loud for a speaker of its size, although the sound did begin to distort when the volume approached its upper limit.

The H3 is one of the few speakers to support high-resolution audio, though it's restricted to **WAV** and **FLAC** formats. The apparent superior sound quality of high-resolution audio is down to it being mastered to sound as close to the original studio recordings as possible. The distinction can be hard to make out even using other much better quality speakers than this, and we were unable to tell the difference between high-resolution files and standard MP3s, particularly given the H3's mediocre audio quality.

You can create a multi-room speaker system by connecting multiple H3 speakers (or in combination with other speakers in the Music Flow range) using an LG Music Flow R1 Bridge (£40 from [www.snipca.com/15590](http://www.snipca.com/15590)). This creates a dedicated wireless network for the speakers, which should reduce the

### SPECIFICATIONS

1 x 10/100Mbps Ethernet port • Bluetooth • 802.11b/g/n • 175x125x115mm (HxWxD) • 2.3kg • Supports MP3, FLAC and WAV files  
[www.snipca.com/15588](http://www.snipca.com/15588)



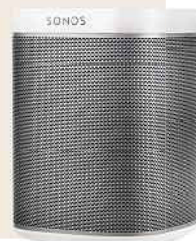
likelihood of audio dropouts. However, unlike Sonos' speakers you can't have different songs playing on different speakers.

Overall, the LG Music Flow H3 is a workmanlike wireless speaker. While it's compact, attractive and easy to set up, the sound quality is disappointing. In comparison, Sonos' speakers are more suited for multi-room use because of their flexibility – no longer needing a dedicated bridge device, for example. Moreover, Sonos' cheapest speaker, the Play:1 (£167 from [www.snipca.com/15592](http://www.snipca.com/15592)), is only slightly more expensive than the H3, but has significantly superior audio quality.

**VERDICT:** Not bad, but you can get better wireless speakers for only a little more money

★★★★☆

**ALTERNATIVE:** Sonos Play:1 £167 Superior audio quality, more elegant Spotify support and better multi-room features in an equally compact design



**PC MONITOR** | £252 from [www.snipca.com/15597](http://www.snipca.com/15597)

## Eizo Foris FS2434

A top-notch 1080p monitor with lots of extras

Eizo is best known for making monitors aimed at graphic designers, publishers and other professional users. The Foris FS2434 monitor is therefore a surprise because it's aimed squarely at everyday users. It's more expensive than other 24in 1080p monitors, but it more than justifies this relatively high price.

The base rests on a rotating turntable, letting you easily swivel the screen to the desired angle, while the stand can be adjusted by anything up to 60mm. There's even a built-in carry handle at the rear, which will come in handy should you ever need to relocate it. The incredibly narrow (6mm) borders edging the screen are ideal for a multiple-monitor setup. Put two or three of these monitors side-by-side and you'll barely notice where one starts and another finishes.

Speaking of which, managing multiple monitors is extremely easy, thanks to

“With deep blacks and high contrast, our photos looked superb”

Eizo's G-Ignition software, which lets you adjust picture settings on your monitor without having to use its onscreen menus. To use the software, the monitor must be plugged into your PC via **USB 3.0**. Any subsequent FS2434s you buy are then **daisy-chained** to the first display via USB. G-Ignition contains the same image-quality settings that you'd find on the monitor itself. It lets you adjust each monitor separately or as a group, so you can customise your setup very precisely.

If you're not using a multiple-monitor setup, or simply don't want to install yet more software, you can use the included remote control instead. This is far easier to use than the fiddly buttons found on

### SPECIFICATIONS

24in • 1920x1080-pixel resolution • 2x HDMI and 1x DVI ports • 398x539x200mm (HxWxD) • 4kg • Five-year warranty [www.snipca.com/15598](http://www.snipca.com/15598)



many monitors, and makes adjusting your settings a breeze.

In addition to **DVI** and **HDMI** connectors, there's a two-port USB 3.0 hub built in, as well as a 3.5mm audio jack for connecting headphones – handy if your PC is tucked away under your desk and beyond the reach of your audio cables. This is just as well because the built-in speakers sound very tinny.

We were impressed by the FS2434's accurate colour reproduction. With deep blacks and high contrast levels our test photos and HD videos looked superb. There are a few alternative colour-mode presets for gaming, but they merely give the graphics a harsh, blown-out look that are unpleasant to look at and are therefore pretty much unusable.

The Foris FS2434 is a very good monitor with many useful extras. If you don't need these trimmings however, you can save a few pounds by opting instead for the Dell U2412M, which also has superb picture quality.

**VERDICT:** The Foris FS2434 is a superb monitor with narrow borders, great image quality and useful extra software

★★★★★

**ALTERNATIVE:** Dell UltraSharp U2412M  
£214 A cheaper 24in monitor with excellent image quality and an adjustable stand



## COMING SOON

### APRIL 2015

Panasonic is targeting photographers with its CM1 Android phone.

The phone's camera sensor will apparently rival those found in dedicated cameras.



### JUNE 2015

The Sony Xperia Z4 Tablet will have an improved waterproof casing, Android 5.0 Lollipop, a 10in screen, a **64bit eight-core processor** and weigh just 389g. Pricing has yet to be confirmed.



### SUMMER 2015

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



### AUTUMN 2015

Humax has announced it will make Freeview Play-branded PVRs. These set-top boxes will have catch-up TV apps and built-in Wi-Fi in addition to video recording.



## NEXT ISSUE

ON SALE  
1 April



**Philips BDM4065UC**  
A massive 40in 4K monitor

**Motorola Moto E**  
The cheapest 4G Android phone yet



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## LAPTOP

**Asus ZenBook UX303LA**  
£683 from [www.snipca.com/15113](http://www.snipca.com/15113)  
Tested: Issue 442



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

### ALTERNATIVE: Asus Chromebook C200

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

## DESKTOP PC

**Palicomp AMD Kaveri Evolution**  
£500 from [www.snipca.com/11804](http://www.snipca.com/11804)  
Tested: Issue 422



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

### ALTERNATIVE: Chillblast Fusion Rhino

A very powerful and compact PC sold without a keyboard, mouse or monitor.  
£899 from [www.snipca.com/15252](http://www.snipca.com/15252)

## TABLET

**Apple iPad Mini 2**  
£239 from [www.snipca.com/14467](http://www.snipca.com/14467)  
Tested: Issue 416



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

### ALTERNATIVE: Apple iPad Air 2 A

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

## PHONE

**Motorola Moto G 4G**  
£130 (without contract) from [www.snipca.com/14162](http://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](http://www.snipca.com/10171)

## DIGITAL CAMERA

**Panasonic Lumix DMC-GF6**  
£300 from [www.snipca.com/12607](http://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](http://www.snipca.com/13701)

## E-READER

**Kobo Aura H20**  
£140 from [www.snipca.com/15490](http://www.snipca.com/15490)  
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](http://www.snipca.com/14451)



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: Microsoft Windows 8.1 (64Bit)

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: Microsoft Windows 8.1 (64Bit)

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### HELLION 1000 O.C. GAMING PC

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: 8GB DDR3 1600MHz Memory  
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: Microsoft Windows 8.1 (64Bit)

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## SECURITY SOFTWARE

### Kaspersky Internet Security 2015

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Tested: Issue 427



Kaspersky Internet Security 2015 has won our past four antivirus tests – an unprecedented set of results. 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](http://www.snipca.com/14221).

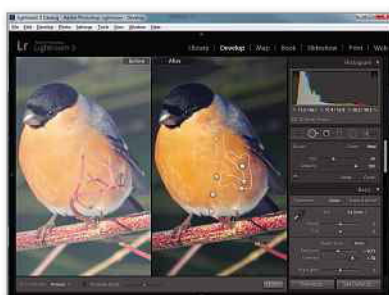
**ALTERNATIVE: Norton Internet Security 2014** An affordable program, but sometimes blocked legitimate software. £30 from [www.snipca.com/15115](http://www.snipca.com/15115)

## PHOTO EDITING

### Adobe Photoshop Lightroom 5

£98 from [www.snipca.com/14348](http://www.snipca.com/14348)

Tested: Issue 402



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

**ALTERNATIVE: Adobe Photoshop Elements 13** A fast and polished photo-editing program with excellent advanced editing tools. £64 from [www.snipca.com/14731](http://www.snipca.com/14731)

## COMPETITION

### Win 1 of 2 Crucial BX100 1TB SSD

Winner of a five-star Buy It recommendation on page 22, Crucial's new BX100 solid-state drive gives you fast storage at great value. The 1TB model costs just 29p per GB, which is the lowest price we've ever seen for that size (it's also available in 120GB, 250GB and 500GB). The BX100 excelled at copying large files, with a blistering average speed of 544MB/s – 58MB/s faster than the older MX100. To enter, email your address to [cacomp@dennis.co.uk](mailto:cacomp@dennis.co.uk) by midnight 31 March.



Crucial's BX100 1TB SSD is available now priced £284. For more information visit <http://uk.crucial.com/gbr/en>, 'like' Crucial's Facebook page ([www.facebook.com/CrucialMemory](http://www.facebook.com/CrucialMemory)) and follow Crucial on Twitter @CrucialMemory.

## PC MONITOR

### Dell UltraSharp U2412M

£200 from [www.snipca.com/14610](http://www.snipca.com/14610)

Tested: Issue 378



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

**ALTERNATIVE: AOC i2360PHU** A good quality budget 23in monitor that's easily adjustable and has a built-in USB 2.0 hub too. £153 from [www.snipca.com/15274](http://www.snipca.com/15274)

## SECURITY CAMERA

### Y-cam HomeMonitor HD

£147 from [www.snipca.com/11646](http://www.snipca.com/11646)

Tested: Issue 420



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

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

## ROUTER

### Trendnet TEW-812DRU

£140 from [www.snipca.com/15492](http://www.snipca.com/15492)

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. £200 from [www.snipca.com/14950](http://www.snipca.com/14950)



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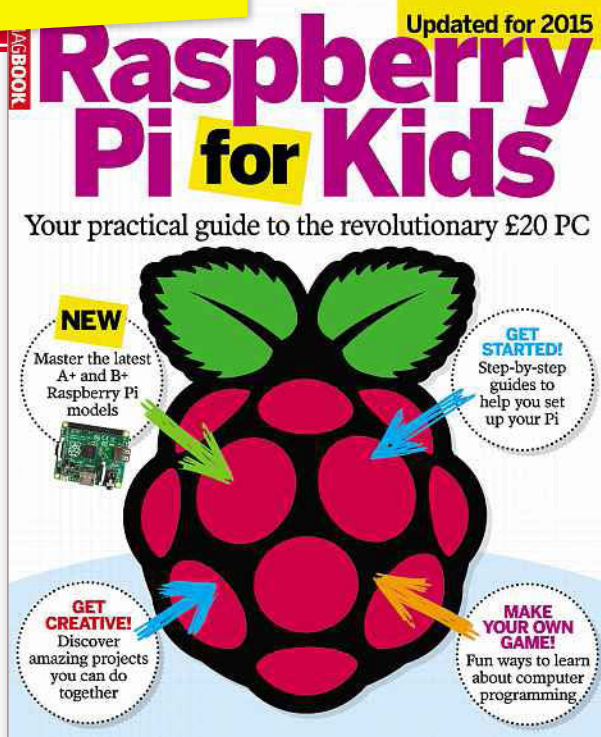


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# Workshops & Tips

PULL OUT  
& KEEP  
Issue 445

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

**35** Use Google's £260 Earth Pro for free  
**38** Try Apple's free office software on your PC

**40** Rename, move or convert files in one click  
**42** Send WhatsApp messages from your PC

## PLUS

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

**47** Make Office Better  
**48** Secret Tips For... OneDrive

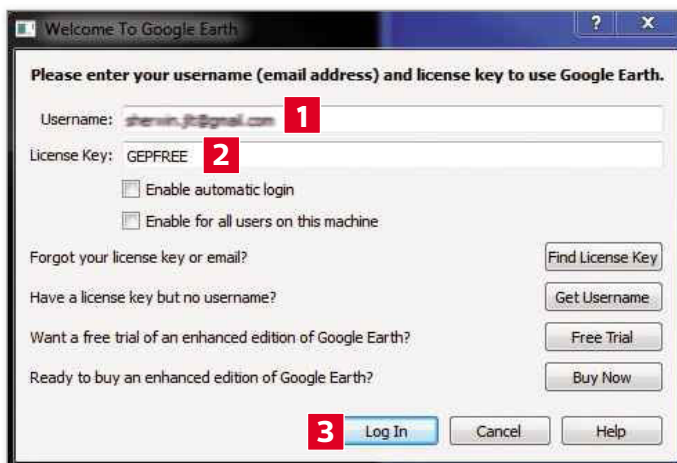
## Use Google's £260 Earth Pro for free

**What you need:** Windows XP, Vista, 7 or 8 **Time required:** 45 minutes

In Issue 443's Best Free Software (page 18), we revealed how Google was making its £260 program Earth Pro available for free. Here, we'll show you how to install the Pro version and explain how you can then record your own 3D flyover virtual tour of any place in the world. You can then add your own commentary and convert your recorded tour into a

high-definition version.

You can also use Pro to quickly measure distances between two locations, calculate the distance of any route, and print high-resolution images of famous landmarks, none of which you can do in the free version. Despite Windows 8 being omitted from the system requirements on Earth Pro's homepage, it is compatible.



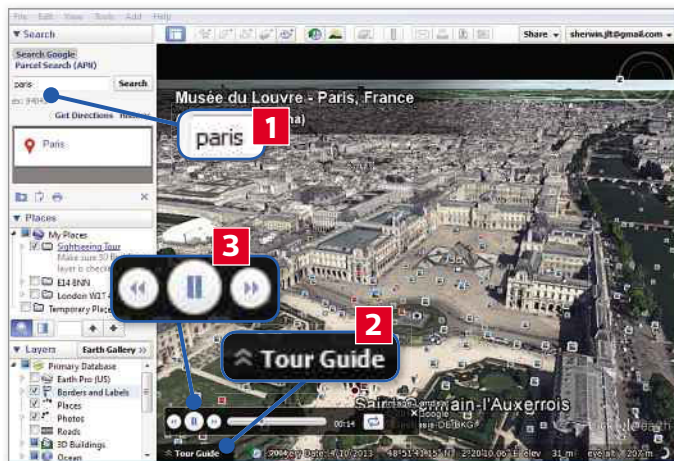
**STEP 1** Go to [www.snipca.com/15715](http://www.snipca.com/15715) and click the blue 'Agree and Download' button at the bottom. Click the setup file that downloads to your PC. Yes, then wait for Google Earth Pro to download and install. On the login window, enter your Google email address in the Username field **1**, type **GEPPFREE** **2** in the License Key field, then click Log In **3**. Next, close the Start-Up Tips window, click 'Sign in' at the top right and log into your Google account using the same email address.



**STEP 2** You'll now see the Google Earth globe. Click and drag it to rotate. Move the scroll wheel on your mouse up and down or use the slider **1** to zoom in and out. The two options at the top right **2** let you navigate the globe by tilting it on its axis and moving up, down, left and right. To switch on/off the globe's various layers (country borders, weather, photos from users, and so on), tick/untick those options in the Layers menu **3**.



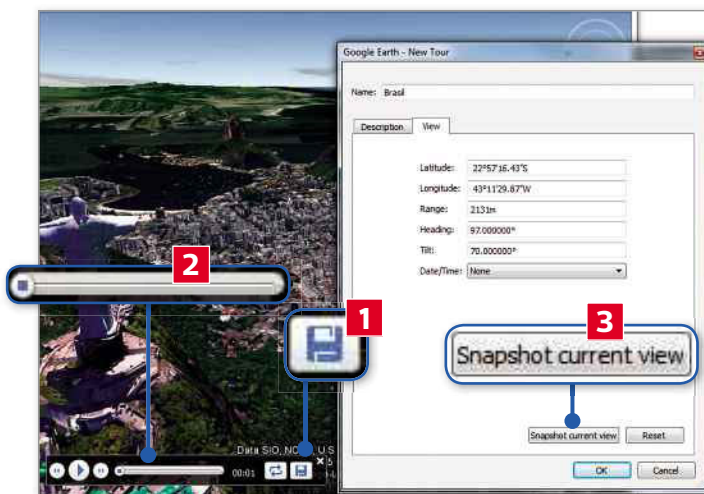
# Workshops



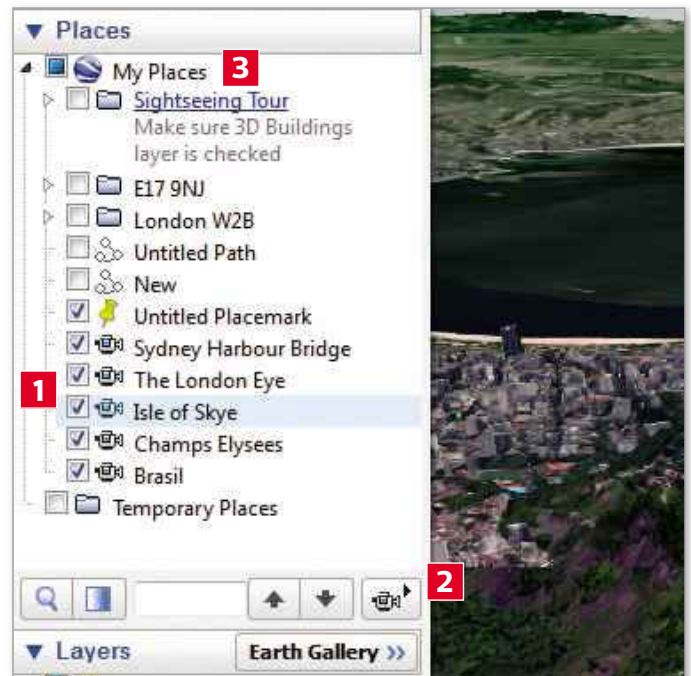
**STEP 3** The Tour Guide thumbnails at the bottom contain short clips of 3D flyovers created by other users, which let you 'explore' a city. Type a city's name in the search field **1**, then press Enter. If you don't see the thumbnails, click the Expand icon beside Tour Guide **2**. Click a thumbnail and use the playback controls **3** to view that tour and close it.



**STEP 4** While the standard Google Earth lets you record your own city guide, Pro lets you do this in HD. To record your tour, find your chosen city/location on the globe. Use the onscreen controls to navigate from one point to the next (you'll find the transitions are smoother than if you use your mouse). Click the 'Record a tour' icon **1**, then click the red Record icon **2** at the bottom left to begin recording. Click the mic icon **3** to record a voiceover for the tour. After you've finished, click the record icon again to stop recording and play back your tour. To re-record your tour, click the close icon and repeat this step.



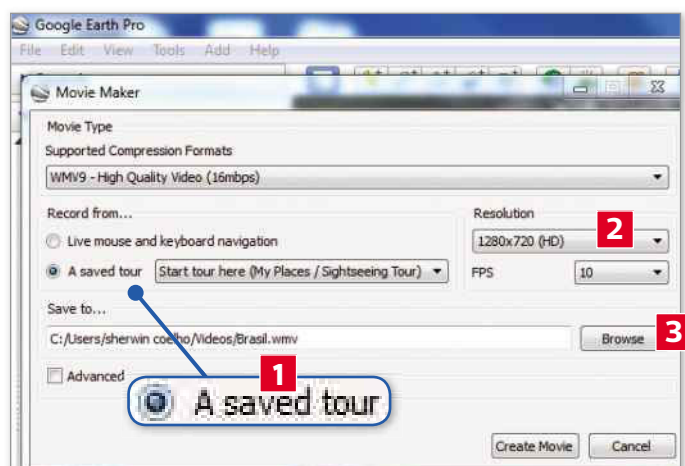
**STEP 5** When you're happy with your tour, click the small floppy disc icon **1**, name it, type a description in the Description field, then click the View tab. Here you can save the exact location of your recording as a 'snapshot'. Using the playback slider **2** navigate to a point in your video that best represents it, then click the 'Snapshot current view' button **3**. This automatically fills out all the fields in the View tab based on the location of your snapshot. To add the date and time, click the Date/Time dropdown menu, click 'Time stamp', then click the month, date and time options and set them by moving the arrows.



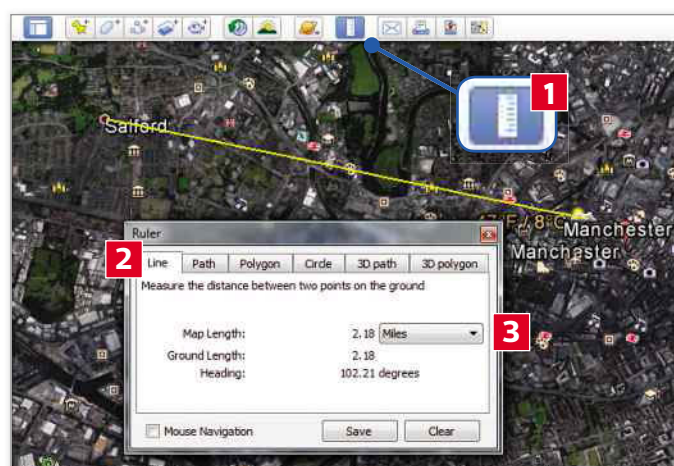
**STEP 6** Recorded tours appear with a small videocam icon in the My Places section on the left **1**. Double-click any tour to begin playing it, or click the tour, then click the video icon **2**. Right-click any tour to see options to delete, rename or email it. Double-click any option other than a tour in the My Places section **3** to exit the tour mode.



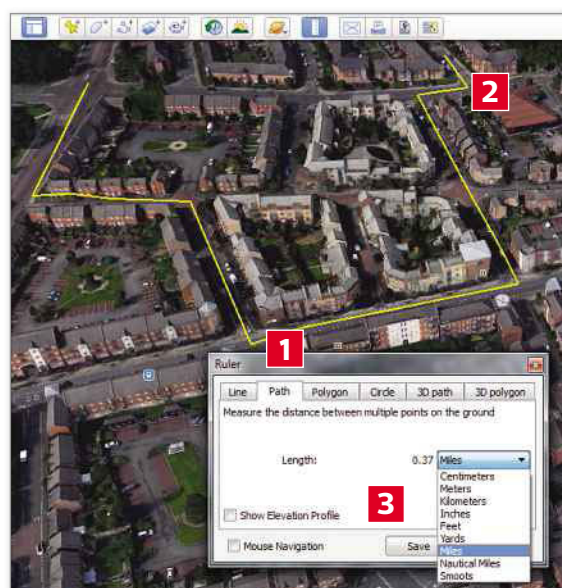
## Use Google's £260 Earth Pro for free



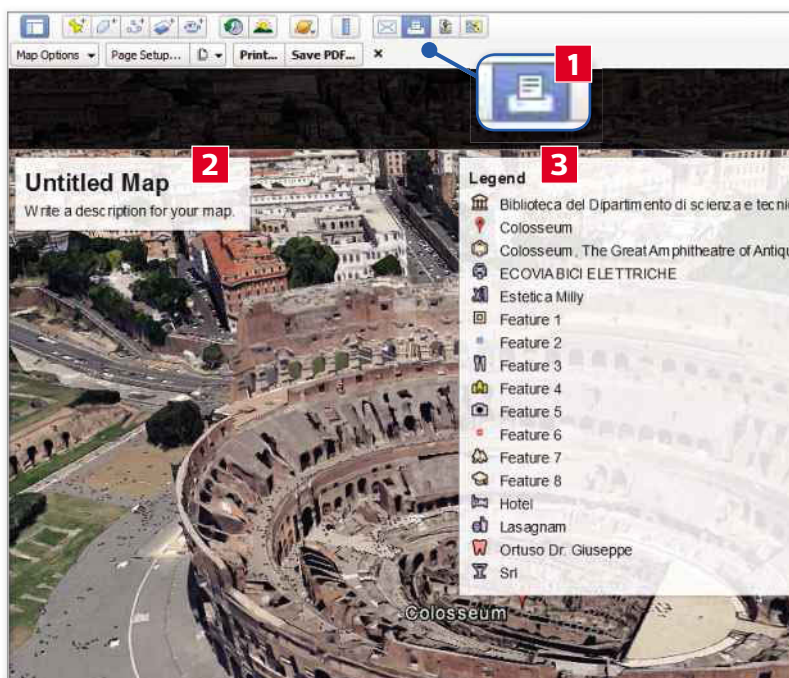
**STEP 7** To convert your tour into HD, first click the Tools options at the top left, then Movie Maker. Select 'A saved tour' **1** and use the dropdown menu beside it to choose the tour you want to convert. Click the Resolution dropdown menu and select the resolution you want – 1280x720 (HD) **2** is ideal. Click the Browse button **3**, navigate to the folder you want to save your HD tour to, name the file, then click Save. Next, click Create Movie. You'll now see a progress bar and once the creation process is finished, click Yes to watch the movie in your default video player.



**STEP 8** Google Earth Pro lets you measure the exact distance (as the crow flies) between two points on a map, then save this for future reference. Pro calculates the distance in any unit of measurement (anything from centimetres to nautical miles). Click the Ruler icon at the top **1**, then click the Line tab **2**. Click your first point of reference, then move your cursor to the second point and click it (to connect them with a yellow line). Click the Map Length dropdown menu **3** to choose the unit of measurement. Click Save and name it to store this measurement in the My Places section.



**STEP 9** To calculate the distance of a route (via roads, for example), click the Path tab **1**. Now click the starting point, then click a second point on your route (the first time you change direction, for example) **2**. Continue clicking to plot points on your route until you reach your final destination. Press Delete on your keyboard if you need to undo the last point you clicked. Again, you can use the Length dropdown menu to change the unit of measurement, then click Save **3** to save this path to My Places.



**STEP 10** Another unique feature in Google Earth Pro is the option to print high-resolution images of any location on the map. Navigate to the place you want to print, then click the Print icon **1** at the top. You'll see two panes on the left and right. Click the left-hand pane **2** to name and describe your printout. Click the Legend pane on the right **3** and untick all the boxes to remove map markers (hotels, photos and so on). Next, click the Print button at the top, select your printer, then click Print. ●

## Try Apple's free office software on your PC

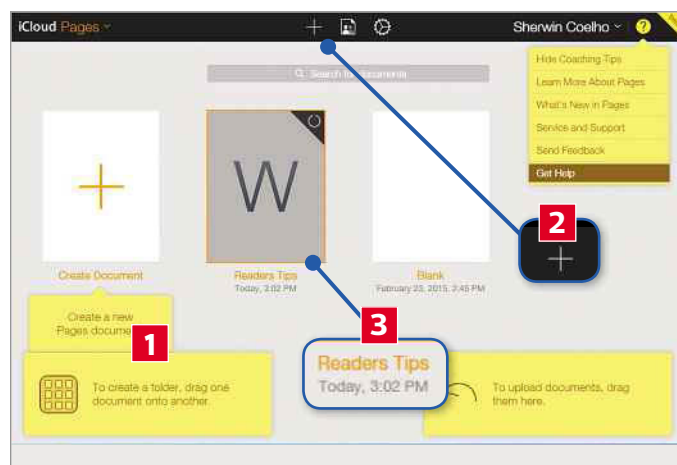
**What you need:** Any web browser **Time required:** 35 minutes

You can now use Pages, Numbers and Keynote – Apple's Mac equivalent of Word, Excel and PowerPoint – via any web browser on your PC. Although still in a **beta** version, the apps (known collectively as iWork) are good, free alternatives to Microsoft's Office suite. As in Microsoft

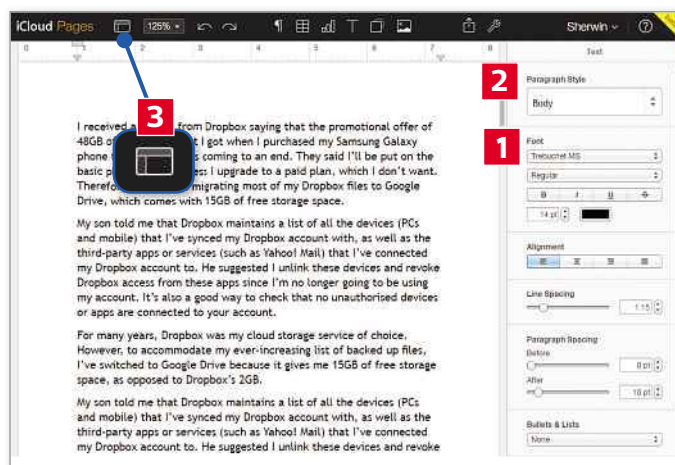
Online and Google Drive, you can create and edit files, then access them from any PC. We'll show you how to use Pages' different features to edit an existing Word document on your PC. You can then download, print or password-protect and email the document.



**STEP 1** Go to [www.icloud.com](http://www.icloud.com) and log in with your Apple ID or the email account you use to download and buy apps from the App Store on your iPhone or iPad. If you don't have an Apple account, click the 'Create one now' link at the bottom and follow the steps. If you've set up **two-step verification** on your iOS device, click the Verify link at the top, select the device (or email address) where you want to receive your verification code, then click Next at the top. Type the verification code you receive in the box that appears. You'll now see a list of iCloud apps, including Pages **1**, Numbers **2** and Keynote **3**.

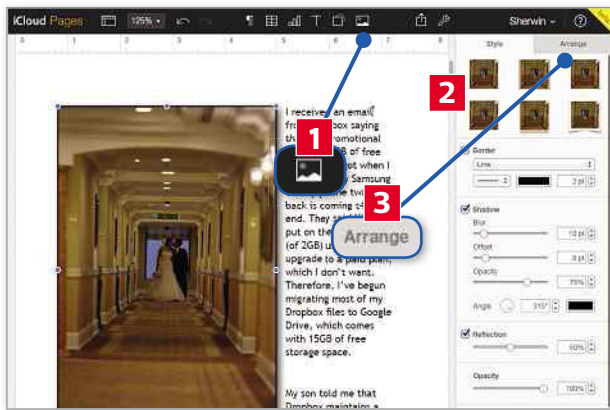


**STEP 2** Anything you do in these iWork apps will sync with your iOS devices as long as you have them installed. You can install all three apps to your iOS device (each app is £7.99) by searching in the App Store. Click Pages on your PC to see a new web page containing tips in yellow boxes **1** on how to use the app. The '+' symbol **2** shows you different document formats (including reports, letters, envelopes and posters) that you can customise. To add a Word document from your PC, drag and drop it into Pages **3**.

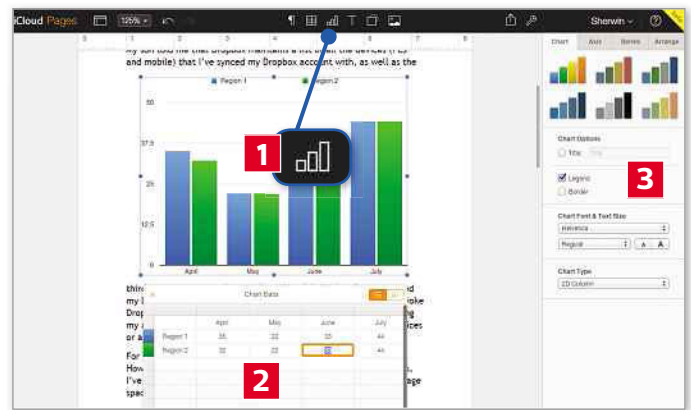


**STEP 3** Double-click the file to open and start editing it in a new tab. Any changes you make in Pages are automatically saved. The Font section **1** in the Format Panel on the right lets you change your font type, size and colour using dropdown menus. You can also amend your paragraph formatting (from Body to Heading, Title, Caption and so on) using the Paragraph Style dropdown menu **2**. To hide/show the Format Panel, click the icon at the top left **3**, then click Hide/Show Format Panel. To zoom into your text, use the percentage dropdown menu to the right of this icon. The two icons beside the percentage menu let you undo and redo any edits you've made.



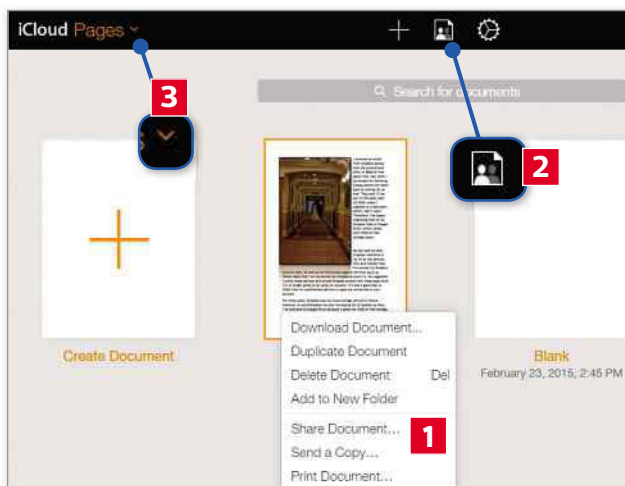
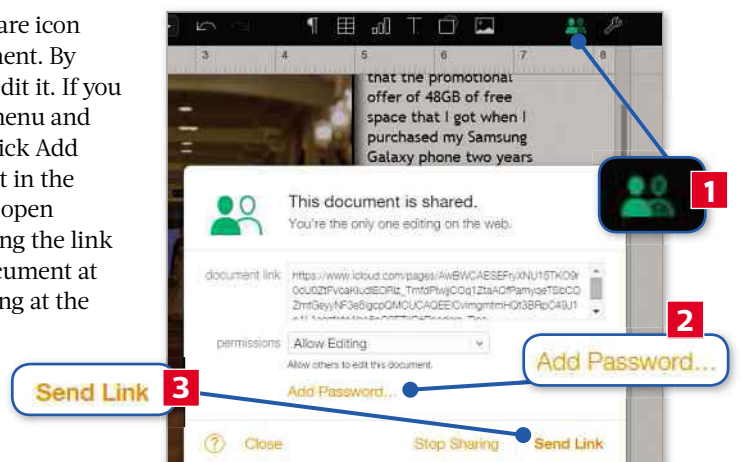


**STEP 4** You can add other elements (such as charts, tables, text boxes, shapes and images) to your document using the icons at the top. To add an image, click in your document where you want to insert it. Next, click the Image icon **1**, click Choose Image, navigate to the image on your PC, then click Open. Tick the Border, Shadow or Reflection boxes in the Format Panel for options to add (and modify the intensity of) those effects using sliders and dropdown menus. You can also simply click any of the six pre-set effects at the top **2**, then modify it using the same three options. The Arrange tab **3** lets you rotate your photo by clicking and dragging a Rotate dial.



**STEP 5** To add a chart to your document, click in your document where you want to insert it, then click the Chart icon **1**. Next, choose one of the chart types (options include bar charts, pie charts, columns and lines) to insert a default chart in your document. Click Edit Chart Data at the bottom to see a data table **2**. Change the values in this table and your chart will change accordingly. Use the options in the Format Panel **3** to change the colours, font and text size of your chart.

**STEP 6** To share your document after editing it, click the Share icon (which then turns green) **1**, then click Share Document. By default, the people you share it with will be able to edit it. If you want them to read it only, click the 'permissions' dropdown menu and change it to View Only. To password-protect the document, click Add Password **2**. Type and re-type a password and a password hint in the fields provided, then click Set Password. Click Send Link **3** to open your default email program with a pre-written email containing the link to your document. Send the email. To revoke access to the document at any time after sharing it, click the Share icon, then Stop Sharing at the bottom.



**STEP 7** To see all the files you've created and uploaded, click the spanner icon (beside the Share icon), then click 'Go to My Documents'. Right-click any document for options to download, duplicate, delete, print, share or add it to a new folder **1**. Click the Shared icon **2** to see documents that other people have shared with you. Using the Pages dropdown menu **3**, you can access your other iCloud apps (see Step 1). Click Numbers (or Keynote) to create or edit Excel (or PowerPoint) files in a similar way. ●



## Rename, move or convert files in one click

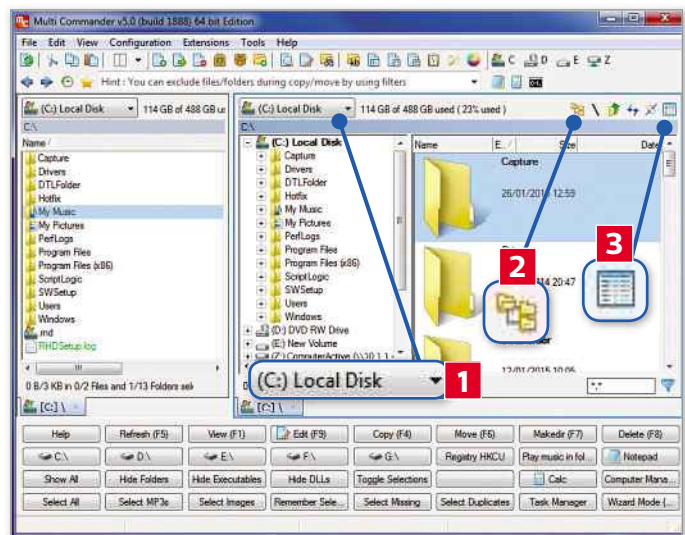
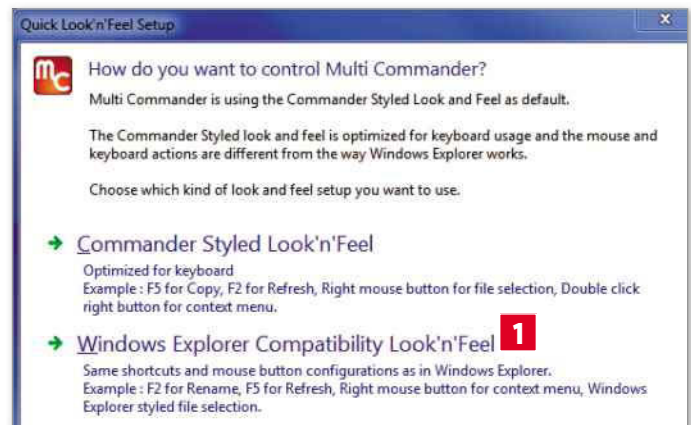
**What you need:** Multi Commander; Windows XP, Vista, 7, 8 or 8.1 **Time required:** 30 minutes

Even though Windows Explorer (File Explorer in Windows 8) is a handy way to manage your files, it has its limits. For example, you can't choose how you want to batch-rename your files, nor can you create multiple new folders in one go.

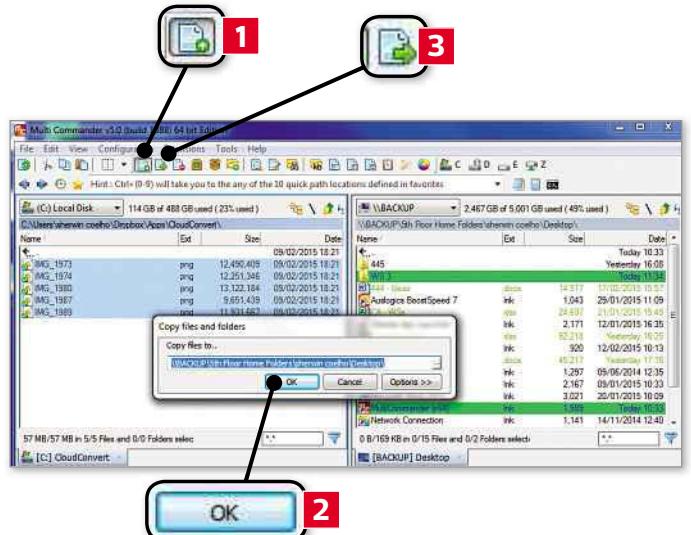
Free program Multi Commander lets you do all this. It also has options to batch-convert your files and move files between folders with one click. Though it looks overwhelming compared to Windows Explorer, it's easy once you know your way around it.



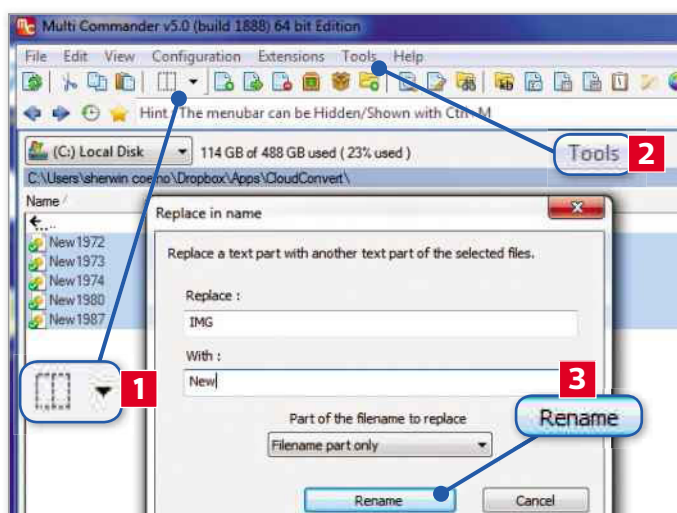
**STEP 1** First, find out if you have a 64bit or 32bit PC. Right-click Computer on your Desktop (or in your Start Menu), click Properties and check your 'System type' (in the System section). Next, go to [www.snipca.com/15589](http://www.snipca.com/15589) and click the link that's appropriate for your operating system to download the setup file. Click this file and follow the instructions. In the 'Select install type' screen, select Single User. Once installed, open Multi Commander and click OK (to set English as your language). Now click Windows Explorer Compatibility Look'n'Feel **1**, then close the pop-up window that appears.



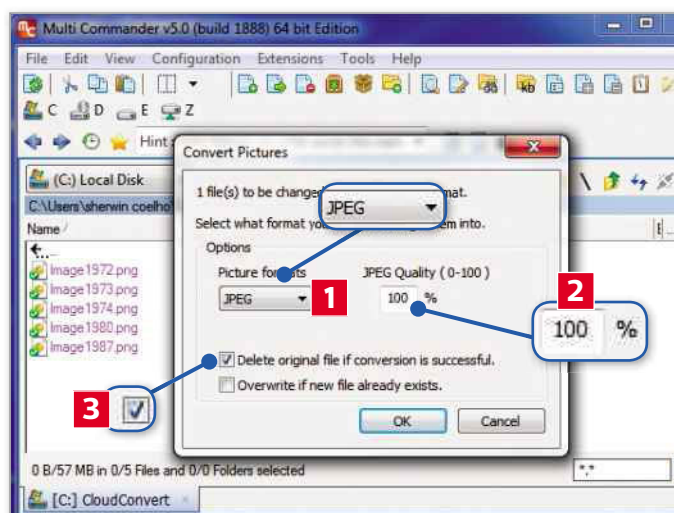
**STEP 2** You'll now see two panes (both set to your C Drive), with icons at the top and a panel of buttons at the bottom (see Step 7 to hide these). You can change the drive/folder shown in each pane by clicking the dropdown menu **1** and navigating through the folders. To see a tree dropdown menu in either pane, click the Tree icon **2**. To view your folders/files as thumbnails, click the View icon **3** and select Thumbnail List. To see your hidden files and folders, click View at the top left, move your cursor to Explorer Panel then click 'Show hidden files and folders'.



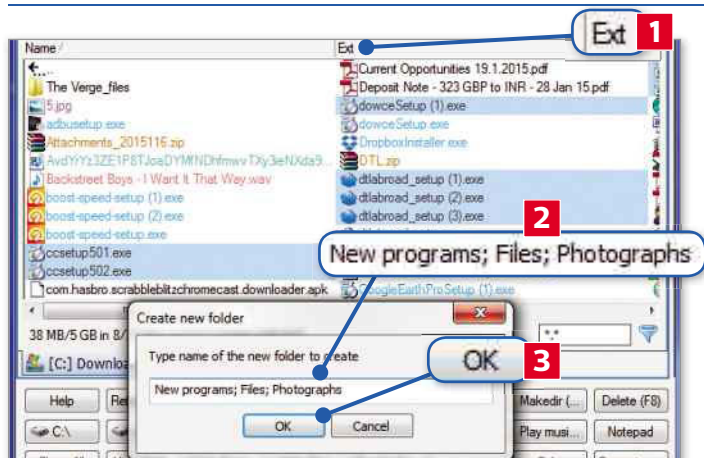
**STEP 3** We'll now show you how to copy or move files from one folder to another. This can only be done from the left pane to the right, so navigate to the folder you want to copy files from in the left pane, then navigate to the destination folder in the right pane. Select the files to copy in the left pane (press Ctrl while clicking the files you want, or press Ctrl+A to select all). Click the 'Copy selected files' icon **1**, then OK **2**. To move files, click the 'Move selected files' icon **3** then OK. You can delete files in either pane by selecting them, pressing Delete, then clicking Yes.



**STEP 4** You can also batch-rename files, for example, image files you've uploaded from your phone or camera. You'll only need one pane for this, so click the 50/50 dropdown menu **1** and select 100/0. This expands the left panel, while hiding the right. Select the files to rename, click Tools **2** and move your cursor to Rename. Select 'Replace text in name'. Type the text you want to replace in the Replace field and the text you want to replace it with in the With field, click Rename **3**, then OK.

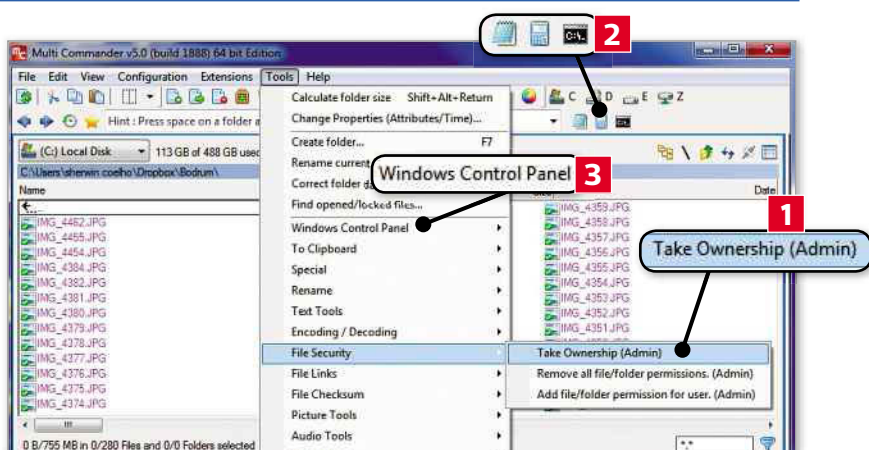


**STEP 5** Multi Commander also lets you convert, rotate or resize multiple photos in one go. First, select your photos, click Tools, then move your cursor to Picture Tools. You'll see options for 'Convert picture format', 'Rotate picture' and 'Resize picture'. We'll show you how to convert, but the rotating and resizing options work in a similar way (using tick boxes and dropdown menus to select values). Click 'Convert picture format', select the conversion format you want from the dropdown menu **1** and type **100** **2** in the Quality box. To delete your original files after converting them, tick the box below **3**, then click OK.



**STEP 6** Multi Commander makes it easy to identify different file types within a folder by colour-coding each type (setup files are blue, documents green, and so on). To sort your files by type, click Ext **1** at the top. Another useful feature is the ability to create multiple folders – each with a different name – in one go. Within Multi Commander, navigate to where you want to create these folders, then press F7. In the 'Create new folder' pop-up window, type the folder names you want, separating each one with a ; (semi colon) **2**, then click OK **3**.

**STEP 7** Some files on your PC won't work unless you run them as an administrator. Unlike Windows Explorer, Multi Commander lets you do this easily. Click the file, click Tools at the top, move your cursor to Security, then click Take Ownership (Admin) **1**. If you find the menu icons at the top and button panels at the bottom distracting, you can hide/show these by pressing Ctrl+M (menu bar) and Ctrl+B (button panel). You can access Notepad, Calculator and Command Prompt from the options at the top **2**. To access other Windows programs, click Tools, move your cursor to Windows Control Panel **3** and select the option you want. ●





## Send WhatsApp messages from your PC

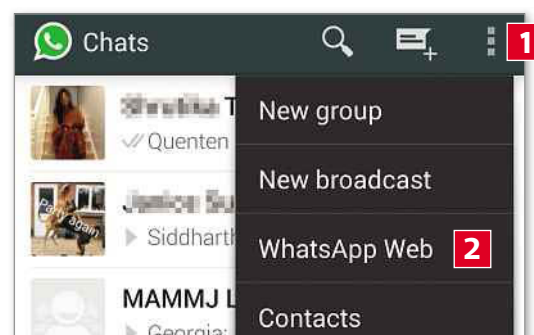
**What you need:** Android phone or iPhone; Google Chrome **Time required:** 10 minutes

WhatsApp Messenger is one of the most popular free phone messaging apps. Besides text messages, it also lets you send and receive videos, photos and audio files. WhatsApp has now launched a website (which only works in the

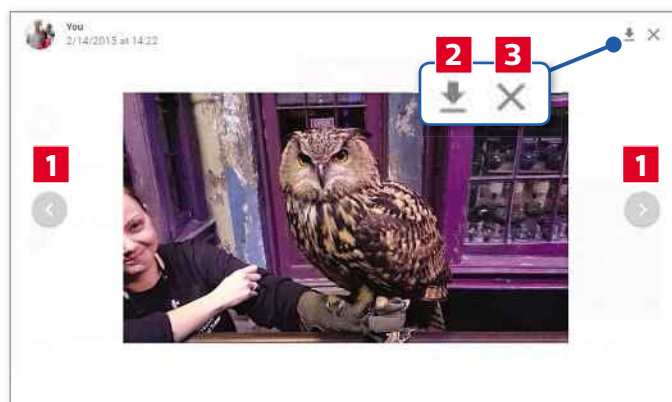
Chrome browser) that lets you access the app's content on your PC. We'll show you how to set this up, send messages and photos from your PC, and download photos and videos you've received via the app to your PC.



**STEP 1** For this Workshop we shall use the Android phone app ([www.snipca.com/15561](http://www.snipca.com/15561)), but the iPhone app ([www.snipca.com/15562](http://www.snipca.com/15562)) works exactly the same. Open WhatsApp on your phone, tap the three dots at the top right **1**, then tap WhatsApp Web **2**. Tap 'Ok, Got It' to launch your phone's camera within WhatsApp. Next, open Chrome ([www.snipca.com/15564](http://www.snipca.com/15564)) on your PC and go to [web.whatsapp.com](http://web.whatsapp.com). Point your phone's camera at the QR code on the web page. The WhatsApp app will automatically scan the code and open a WhatsApp web page (listing all your WhatsApp conversations) on your PC. You'll need to repeat this step every time you want to access the website.



**STEP 2** Click any of your WhatsApp conversations (on the left) to read or continue them. The 'New chat' icon **1** lets you start a new conversation. To send a photo or video from your PC, click the Attach icon **2**, then the Gallery icon (immediately below it), select the file you want and click Open. To take a photo using your PC's camera, click the Photo icon (below the Gallery icon). To see more information about your contact or groups, tap the three dots **3**, then tap 'Contact info'. This opens an information panel on the right.



**STEP 3** You can browse all photos and videos exchanged with a particular contact (or group) and download them to your PC. Click any photo or video in the conversation, then the Right and Left icons **1** to browse. Click the Download icon **2** above the file you want, then Close **3** to return to the conversation. Click the top-left 'Turn on desktop notifications' link, then Allow to see new WhatsApp messages displayed in the notification area of your PC. Once you've finished, click the three dots at the top left (beside the 'New chat' icon), then Logout.

### NEXT ISSUE

ON SALE  
1 April

- Try Word and Excel in Windows 10 for free
- Recover your files when Windows crashes
- Browse the web faster than ever
- Create your own Word fonts

Subscribe to Computeractive at [getcomputeractive.co.uk](http://getcomputeractive.co.uk)



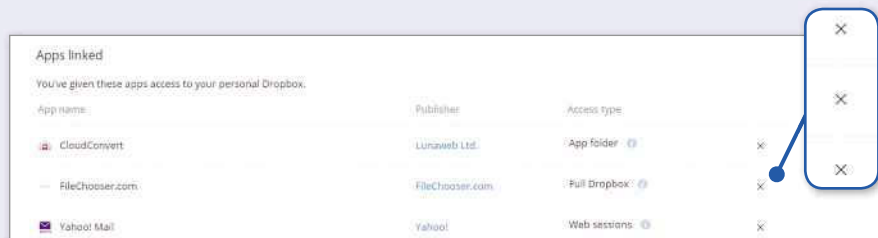
## TIP OF THE FORTNIGHT

### Unlink devices and apps from Dropbox account

Recently, I switched from Dropbox to Google Drive because it gives me 15GB of free storage space, as opposed to Dropbox's 2GB. My son told me I can access a list of all the devices (PCs, phones and tablets) I've ever synced with my Dropbox account, as well as any linked apps or services (such as Yahoo Mail). He said, because I no longer intend to use my account, it'd be a good idea to unlink these devices and apps.

This is because any devices you've linked to Dropbox may continue to sync your data in the background, while revoking permission for apps to access your Dropbox lets you delete any data from that app (for example, email attachments) stored within your account.

Even if you intend to carry on using



your account, you should unlink devices you don't use anymore, because they may continue to sync data in the background and eat up your storage space.

First, go to [www.dropbox.com](http://www.dropbox.com) and log into your account. Next, click the dropdown menu beside your name at the top right, then click Settings. Click the Security tab at the top left and scroll down. The Devices section lists all devices you've ever synced with

Dropbox. Click the 'x' beside a listed device, then click Unlink.

In the 'Apps linked' section at the bottom, you'll see all the third-party apps you've linked to your Dropbox account. To revoke access, click the 'x' beside an app (see screenshot), untick the box at the bottom (to remove that app's details from your Dropbox account), then click Uninstall.

Jim Tate



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

#### SCREEN CAPTURE

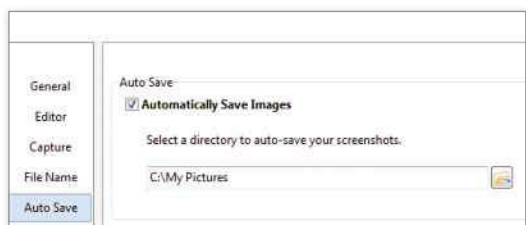
##### Save screenshots to any folder with one click

In Issue 443, you had a Workshop (page 42) on taking screenshots with one click using the free program PicPick ([www.snipca.com/15176](http://www.snipca.com/15176)). I now use it to send screenshots to a helpful friend whenever my PC is playing up.

While exploring PicPick I found you can automatically save screenshots to a folder of your choice when you press the Print Screen key (PicPick's default keyboard shortcut for taking screenshots). This is much faster than having to open the screenshot in PicPick first, then saving it to a particular location.

Open PicPick, click File at the top left, then Program Options. Next, click the Auto Save option on the left, then tick Automatically Save Images (see screenshot). Click the small folder icon below, navigate to where you want to save your screenshots, then click OK (twice).

Terry Fakenham



#### BROWSER

##### Mute noisy Chrome tabs

In Chrome, I usually work with several tabs open at the same time. It really frustrates me when some websites suddenly start playing adverts. Last year, Chrome added a small speaker icon that flagged up noisy tabs, helping you identify the culprit.

There's now a way to convert that speaker icon into a button you can click to turn that tab's audio on and off. Type <chrome://flags/#enable-tab-audio-muting> in your Chrome URL bar and press Enter. Next, click the Enable link below 'Enable tab audio muting UI control', then scroll to the bottom of the page and click Relaunch Now. When Chrome relaunches, you'll be able to click the speaker icon to mute noisy tabs (see screenshot above right).

Emma Kay



from a good deal, I signed up and instantly realised just what I was missing. Even though there is a free (more restricted) version, I will definitely continue using Spotify Premium (which costs £9.99 a month) after my offer ends.

One particular Spotify feature appealed to me. Apart from searching for content by song, artist and album, I realised you can also search for tracks released in a particular year or decade.

This works on both the Desktop program (download from [www.spotify.com](http://www.spotify.com)), as well as the mobile apps (Android and iOS). In the Desktop program, the search bar is at the top left; on your mobile app, tap the three lines at the top left, then Search.

For top tracks released in 1965, for example, type [year:1965](#) in the search box. Type [year:1960-1969](#) for all the greatest songs of the Sixties. Cool!

Pete Connell

#### MUSIC STREAMING

##### Find and listen to the best tracks of the Sixties

In January, the music-streaming service Spotify ran a promotion offering three months of its unlimited Premium service for just 99p. Never one to shy away

# Phone and Tablet Tips

Brilliant things to do on your device

## ANDROID

### Change Chrome's default homepage and search engine



Chrome's homepage is set to [www.google.co.uk](http://www.google.co.uk) or a default site set by your device's manufacturer, but there's an easy way to change this. You can also change your default search engine from Google (to Yahoo or Bing, for example) if you prefer.

To change your homepage, tap the three dots at the top right, Settings, then Homepage. Now untick the Default box, type the website address you want as your homepage in the URL field at the top, then tap the Homepage slider to switch it on (see screenshot below). Next, tap the top-left Back button, then 'Search engine' and select your search engine (options include Google, Bing and Yahoo).

From now on, the results of any search terms you type in the URL bar (at the top) will open in the search engine you have set. You can access

your homepage in Chrome whenever you want by tapping the top-left Home icon.

## ANDROID

### Send files via Bluetooth



You can send files quickly from one Android device to another using Bluetooth – as long as both devices are within range (usually about 20 feet). First, ensure you've switched Bluetooth on in both devices' settings. To do this, swipe down from the top of your screen to bring up your notification panel, then tap the Bluetooth icon.

Next, on the sending device, navigate to the relevant file (for example, a photo or document), tap the Share icon (usually at the top or bottom), then tap Bluetooth. Your device will begin searching for all the Bluetooth devices that are within range. When you see the device you want to send it to listed (usually the model name, such as the Nexus 5 in the screenshot above right), then tap that option.

On the receiving device, you'll see a notification telling you someone is trying to send you a file via Bluetooth. Tap the notification, then tap Accept to receive it. You'll now see the transfer progress (as a percentage) in your notification panel. Tap the file to open it once the transfer is complete.



## ANDROID

### Read web-linked online articles at your leisure



If you're reading through your emails or posts on your social-media app (in Gmail or Facebook, for example) and you tap a link to an online article, it will open in your default browser. Flynx is a brilliant, free app that lets you save linked articles (minus the ads) to read later.

We'll show you how to use Flynx with the Gmail app, but it works basically the same with all email, social-media and chat apps. First, install and open the Flynx app ([www.snipca.com/15638](http://www.snipca.com/15638)), then follow the on-screen instructions. Next, open your Gmail app, tap any web link you've received in an email, then tap Flynx and Always (to set it as your default reading app).

You'll now see a circular icon (called a 'bubble') on your screen (you tap this to access your saved articles). Tap and drag the bubble to where you want and continue browsing your emails.



## Best New Apps

What you should install this fortnight

### Perfect Shot by TapMedia

Free

iOS: [www.snipca.com/15640](http://www.snipca.com/15640)

We've all taken group photos only to realise later that one person had their eyes closed or wasn't smiling. Perfect Shot's face-detection technology makes sure everyone in shot has their eyes open and smiles in place before taking a photo. The Eye Detection feature costs 79p, but this also removes the annoying in-app ads.



### Alt-C

Free

Android:

[www.snipca.com/15641](http://www.snipca.com/15641)

Alt-C lets you transfer any text (including URLs, articles and phone numbers) from your phone and tablet to your PC in seconds.

Download the free PC program ([www.altcopy.net](http://www.altcopy.net)) and use the code you see on your screen to sync your app and PC. Now any text you paste into the mobile app will appear in your PC program and vice versa.

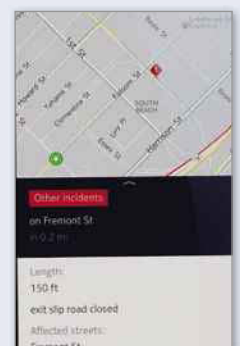


### Here

Free

Android: [www.snipca.com/15642](http://www.snipca.com/15642)

A great alternative to Google Maps, Nokia's Here has been updated with lots of new features. You can now use the app on your tablet, find out the live traffic news on your journey and use offline maps as soon as you start downloading them (previously you had to wait for the download to finish).





Whenever you see more web links you'd like to save, tap them. The number of articles you've saved will be shown on the bubble icon.

To read your saved articles, tap the bubble, then the relevant website logo at the top (such as *The Guardian's* in the screenshot above). Tap the bookmark icon to save the article to your offline Flynx reading list. When you've finished reading, double-tap any logo to see the bubble again, then drag this to the bottom of your screen and over the X (close) icon that appears.

iOS

## Create Google Play Music playlists on your iPad



If you use Google Play Music on your PC, iPhone or Android device and also own an iPad, you should install the new Play Music iPad app ([www.snipca.com/15639](http://www.snipca.com/15639)). This lets you create playlists and listen to your Google Play tracks on your Apple tablet.

When you're connected to your Wi-Fi network, open the app and log in (using your Gmail account) to see all your albums. Tap the three lines at the top left, then My Library. You can sort your music by genre, artist, album and song using the options at the top. Tap a letter in the alphabetical list on the right to jump directly to the item you're looking for.

To add a song to one of your Google Play playlists, tap the three dots to the right of the song, then tap 'Add to a playlist', and select the relevant playlist. You can also tap 'New playlist' then create a new one. Tap 'Add to queue' (after tapping the three dots) to queue songs to play.

iOS

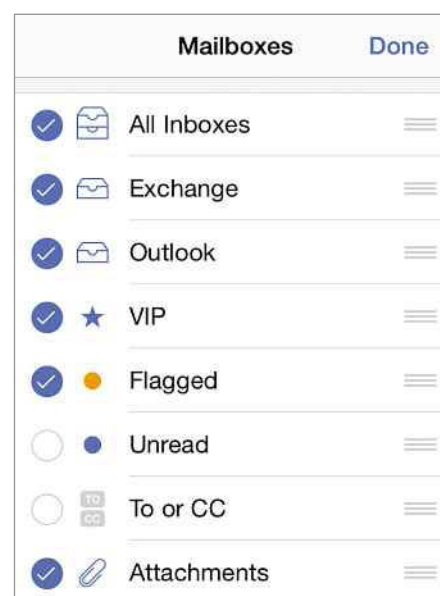
## Show only emails that contain attachments



One of the most useful features in iOS 8 is the option to search your emails to show only those that contain attachments.

To add this option, open the default iOS Mail app, tap Inbox at the top left, your email account (for example, Outlook, Gmail, Exchange – also at the top left), then tap Edit (beside Mailboxes).

You'll now see a list of Mailbox filters you can tick, with some options (such as All Inboxes, VIP and Flagged) already ticked (see screenshot right). Tick Attachments, then tap Done at the top. Next, tap Attachments to see only the emails that contain them.



## Games With Kids

What to play together on your phone and tablet

**AGES 0-5**

### Caillou House of Puzzles

Free [www.snipca.com/15643](http://www.snipca.com/15643) (Android)

Free [www.snipca.com/15644](http://www.snipca.com/15644) (iOS)

In this game, your toddler needs to find three missing objects in every room by tapping its outline. They then need to complete jigsaw puzzles featuring these objects. Upon completion, they'll see short videos of Caillou and his friends.



**AGES 6-10**

### Explorium – Ocean For Kids

£1.59 [www.snipca.com/15645](http://www.snipca.com/15645) (Android)

£2.49 [www.snipca.com/15646](http://www.snipca.com/15646) (iOS)

This will teach your kids about life in our oceans. Their mission is to find, then decorate the mythical lost city of Atlantis by completing five games, including memory challenges, matching pairs and puzzles. Each game rewards them with clues, sea creatures or pearls.



**AGES 11-16**

### F1 Race Stars

Free [www.snipca.com/15647](http://www.snipca.com/15647) (iOS)

An official product of the FIA Formula One World Championship, this app lets you race around the 40 circuits as Lewis Hamilton, Sebastian Vettel and others. You can challenge your children or race as part of the same team. Tilt your device or use the on-screen controls to drive your car and collect gold coins for extra points.





### WINDOWS XP, VISTA, 7

#### Update files in your external drives quickly



One of Windows' lesser-used features is the option to create a 'briefcase'. This lets you save a group of files that you can then move to an external drive or USB stick. You can then edit these files on your PC and the next time you connect your external drive to it, you can update all the files in your briefcase in one go.

Creating a briefcase is as simple as creating a folder. Right-click anywhere, move your cursor to New, click Briefcase and name it. To add files to it, drag and drop them into the briefcase. Now connect an external drive to your PC and drag and drop the briefcase to it. Remove the drive and edit those files on your PC.

To update all the files in one go the next time you connect your drive, open the briefcase in the drive, click 'Update all items' at the top, then click Update.

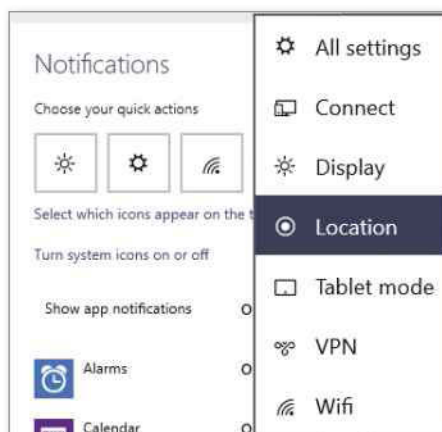
### WINDOWS 10

#### Choose which actions appear in your Notification panel



Clicking the Notifications icon at the bottom right of your Desktop in Windows 10 reveals your PC's Notification panel. This contains your notifications (regarding new emails, recently updated and installed apps and calendar notifications), along with four quick-action icons.

There are seven Notification actions in total ('All settings', Connect, Display, Location, 'Tablet mode', VPN and Wifi), but you can customise which four are displayed in your notification panel. Click the Notifications icon, then click 'All settings' at the bottom. Next, click System, then 'Notifications & actions' on the left. In the 'Choose your quick



### WINDOWS 7, 8, 8.1

#### Organise media files from an external device using Photo Gallery



Windows Photo Gallery lets you import and organise photos and videos from an external device (such as a USB stick, memory card or digital camera). When imported, these files are automatically sorted into folders in your My Pictures folder based on the date they were taken and appear.

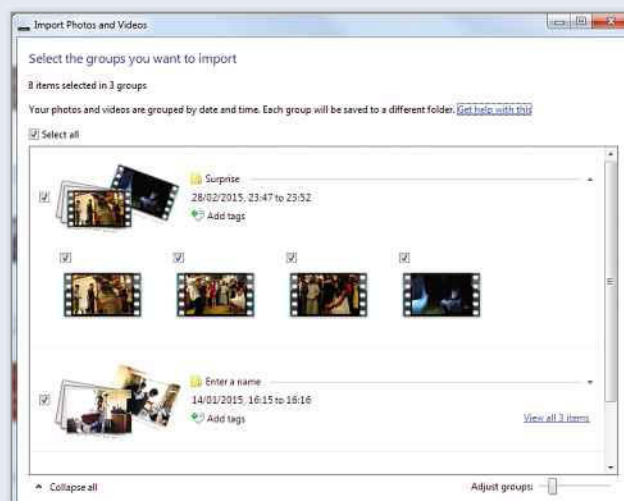
To check whether you have Photo Gallery (which is part of Windows Live Essentials), press the Windows key and type **photo gallery**. If you don't see it, you can install it for free by going to [www.snipca.com/15691](http://www.snipca.com/15691), then clicking the purple 'Get it now' button.

Next, click the downloaded setup file, select 'Choose the programs you want to install', untick all other options except 'Photo Gallery and Movie Maker', then click Install.

Open Photo Gallery and connect an external device.

Your device will be listed in the left panel. Click it to begin scanning for photos and videos, then select 'Review, organize, and group items to import', then click Next.

Photo Gallery will automatically organise your files into folders by date. Click the dropdown menu on the right to see the files contained in the folders (see screenshot). Untick any files or folders you don't want to import. Click 'Enter a name' next to the folder icon, name it, then click Import at the bottom right. Tick 'Erase after importing' to erase the files from your external device.



actions' section at the top, you'll see your four current (default) Notification actions. Click each one in turn and select from the list of seven quick-action options in the menu that appears (see screenshot left).

### WINDOWS 8.1

#### Set an alarm on your PC



Windows 8.1 introduced a new Alarms app that can wake you up even if your PC is in Sleep mode. Type **alarms** in the Modern tile interface, then press Enter. To create a new alarm, click the '+' symbol at the top right, then click Alarm at the top left and rename it. Next, move the minute and hour sliders at the bottom to set the time you want.

In the Occurrence section, click Once (if this is a one-off alarm) or Repeats (if

it's a recurring alarm).


Clicking the latter reveals boxes with days of the week. Tick the days you want the alarm to go off. Next, click the Chimes dropdown menu and change your alarm sound if you want. Click Save at the top right.

If at this point you don't see a message at the top saying 'Notifications will only show if the PC is awake', it means you can set your alarm to go off even when your PC is in Sleep Mode. To do that, move your cursor to the bottom right of the screen to reveal your Charms bar, click Settings, then Permissions. Now turn the 'Lock screen' slider to On.



## ONENOTE

### Create Desktop shortcuts for your notes

 While OneNote has plenty of options for creating and organising your notes, there are a number of free, third-party extensions that let you add even more features, such as OneCalendar (see 'Organise your notes into a calendar' in Make Office Better, Issue 442). Onetastic is another free extension that gives you lots more options when using OneNote 2010 or 2013, including creating Desktop shortcuts for individual notes.

Before downloading it, you need to find out whether you're using the **32bit** or **64bit** version of OneNote (this isn't necessarily the same as your PC's version). To find out, in OneNote 2010, click File at the top left, then click Help and look under the About Microsoft OneNote section on the right. In OneNote 2013, click File at the top left, Account, then About OneNote at the



bottom right.

Now, close OneNote, go to [www.snipca.com/15677](http://www.snipca.com/15677) and click 'Download Onetastic 32-bit' or 'Download Onetastic 64-bit'. Next, click 'I agree, Download', click the zipped file that downloads to your PC, then click the setup file within it. Click Continue and follow the on-screen instructions until you need to click Start OneNote.


Next, click the Home tab to see a list of Onetastic options at the top right (see screenshot). Click Launch OneCalendar, for example, to see all

your notes in a calendar.

Another option lets you pin a OneNote page or section to your Desktop. This is useful if, for example, you're making a list of things to take on holiday and want easy and regular access to it rather than having to find it in OneNote. Navigate to the page or section you want to save, click the 'Pin to Desktop' dropdown menu and choose the option you want – 'Pin this page to OneNote' or 'Pin this section to OneNote'. You can now open that page/section by clicking the Desktop shortcut you've created.

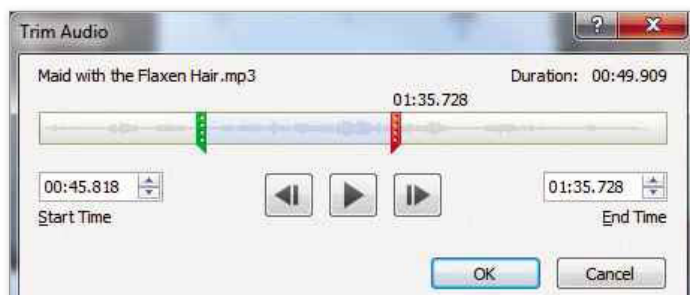
## POWERPOINT

### Edit audio for slides in your presentation

 It's easy to add audio or music to your presentation. Once you've done this, it's also easy to trim these audio files to match the length of a section of your presentation.

First, go to the slide you want to add audio to in your presentation, click the Insert tab, then click the Audio dropdown menu at the top right and select 'Audio from file'. Navigate to the audio file you want to use, click it, then click Insert. You'll see a small speaker icon, which you can click and drag to anywhere on your slide. Moving your cursor over the icon gives you options to control playback and volume.


To edit the audio file, right-click the speaker icon, then click Trim Audio.



You'll see a new Trim Audio window (see screenshot below) with a green slider at the start of your audio timeline and a red one at the end. Drag these sliders to wherever you want and click the Play button (or the spacebar on your keyboard) to listen to your edited audio. When you're happy with it, click OK.

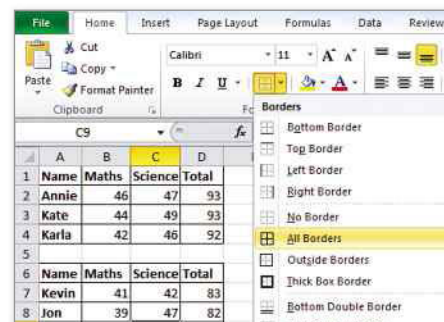
## EXCEL

### Add borders to make your tables stand out

 If your Excel sheet contains a lot of tables, you should add borders to differentiate them. There are two ways of doing this.

The first is to highlight a table, click the Border dropdown menu (beside the Borders icon), then click All Borders (see screenshot above right). You'll need to repeat this for every table you want to add a border to.


A quicker, more intuitive way to do this is to click the Border dropdown menu, then click Draw Border Grid at the bottom. You'll see a pencil icon appear on your screen. Now



simply highlight a table to add the border grid to it. Repeat this for as many tables as you want, then click the Borders icon at the top when you've finished.

## WORD

### Only see document edits made by certain people

 Using Track Changes (in the Review tab) to edit a document makes it easier for the author (the person who created it) to accept or reject any edits made to it. If several people have edited a document using Track Changes, there's an easy way to show only edits made by certain people. Click the Review tab, the Show Markup dropdown menu, move your cursor to Reviewers, then untick all the people whose edits you don't want to see.



# OneDrive

Back up your mobile photos, save your Gmail attachments and use Word and Excel online for free

## Use Word and Excel for free

There's much more to Microsoft's cloud service OneDrive (<https://onedrive.live.com>) than storage space. Your OneDrive account integrates automatically with Office Online (<https://office.live.com>), a

free, slimmed-down version of Office 365 (£7.99 a month, [www.snipca.com/15604](http://www.snipca.com/15604)).

Once you've signed up for, then into, OneDrive, you won't have to open Office Online in a separate tab or window. Just click '+ Create' at the top left of the OneDrive window and choose a file ('Word document', 'Excel workbook' and so on). Any work you do saves to your OneDrive account, automatically and instantly. So if your internet suddenly dies on you, your work is safe.

## Edit your OneDrive documents offline

If your internet connection goes down a lot, install OneDrive on your PC ([www.snipca.com/15606](http://www.snipca.com/15606) for Windows 7 and 8;



Click a file type in OneDrive to open a new Office Online document

it'll open in your installed version of Word or Excel (see screenshot above). Any changes you then make are saved to your OneDrive account the next time you go online. This is ideal if you enjoy working on your laptop in the garden and your Wi-Fi can't quite reach.

## Prevent OneDrive clogging up your hard drive

OneDrive's PC version syncs all your OneDrive files to your PC by default. Frankly, that's daft. The whole point of cloud storage is to give you extra room for your files – not clog up your poor PC.

To change this, right-click the OneDrive cloud icon in your system tray (you'll need to have the PC version

installed and be signed in), click Settings, then 'Choose folders'. Instead of 'All files and folder on my OneDrive' (default), click 'Choose folders to sync' and untick any folders you don't want OneDrive to sync to your PC.

We'd recommend keeping the Documents folder ticked, and perhaps 'Files not in a folder'. That way, any documents you create in Office Online will be available to edit in Word on your PC if you suddenly go offline.

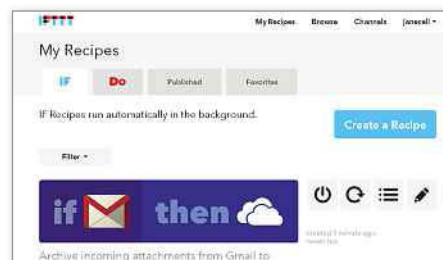
Untick Photos if your online OneDrive contains lots of photo files and you've already enabled Camera Backup (see box below left). Photos and videos take up lots of space, so they're better off stored online and on external hard drives (both, not either/or – it's important to have a backup). To keep them extra safe in your OneDrive account, set up two-step verification ([www.snipca.com/15605](http://www.snipca.com/15605)).

## Back up Gmail attachments automatically

Free online tool IFTTT ('If This Then That', <https://ifttt.com>) lets you automate rules (known as 'Recipes') for various tools. For example, you can tell it to save all incoming Gmail attachments to a OneDrive folder ([www.snipca.com/15609](http://www.snipca.com/15609)). It all happens instantly and securely.

First, you have to create a free IFTTT account, then click Activate in the link above (to connect IFTTT to OneDrive), then Yes and Done (to confirm). Finally, click Add Recipe.

There are dozens more IFTTT Recipes for OneDrive at [www.snipca.com/15609](http://www.snipca.com/15609), including saving your Facebook photos to a OneDrive folder and sending files to OneDrive by email.

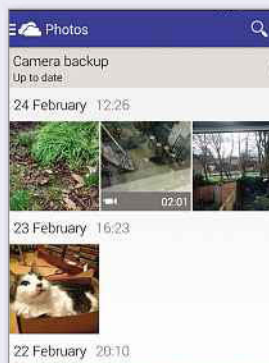


Automatically save files from Gmail and other services to OneDrive using IFTTT

## Back up your photos and double your storage

OneDrive gives you 15GB free the moment you sign up, which is pretty generous (Dropbox only gives you 2GB free). But you can double that to 30GB by installing OneDrive on your tablet or phone (Android [www.snipca.com/15600](http://www.snipca.com/15600); iOS [www.snipca.com/15601](http://www.snipca.com/15601)) and switching on Camera Backup.

Besides expanding your storage, Camera Backup automatically saves all your device's photos and videos to your OneDrive account. By default, it only does this via Wi-Fi, to avoid landing



Save your photos and get more storage with OneDrive's Camera Backup

you with a huge mobile-data bill.

Be aware that if you've already enabled your Camera Backup bonus using one device, you won't get it again by enabling it on a different device. Also note that the recent stories about OneDrive offering 100GB to anyone switching from Dropbox had

prohibitive strings attached: the offer was US-only, and it expired on 28 February ([www.snipca.com/15602](http://www.snipca.com/15602)).





# HTTP/2

The internet is about to get faster and safer thanks to the number '2', though there's a bit more to it than that

## What is it?

An update to the HTTP web protocol, the first since 1999, when HTTP1.1 was introduced. The technical details behind the new protocol are rather complicated, and there are a lot of acronyms involved, but its benefit is easy to understand: it will speed up the internet by making web pages load faster. It is based on Google's protocol SPDY (pronounced "speedy") which has been working in the background since 2009 to make the internet faster.

## Before we go any further, what's a protocol?

It's a set of internationally agreed rules that regulate how computers send information to each other. A protocol decides how this information is structured, and how it is sent and received. Without protocols, the internet would cease to work.

The most famous protocol is HTTP (it's what the 'p' stands for: Hypertext Transfer Protocol), which you'll recognise as the prefix before 'www' at the beginning of a URL. It controls the connection between your browser and the **server** hosting a website. Protocols are approved by international or industry-wide organisations – in the case of HTTP/2, this was the Internet Engineering Task Force (IETF).

## Why do we need a new protocol?

Because the existing one – HTTP1.1 – is ill-equipped to cope with all the information crammed on to today's websites. When you type a URL, your browser has to request the elements of the web page, such as text, photos and videos, from the website's server. When HTTP1.1 was established in 1999, websites contained far less information than they do now, and so had to make fewer requests.



## So how is HTTP/2 faster?

It uses new ways of transporting information between the browser and server. Using two new features, called 'multiplexing' and 'header field compression', browsers can send multiple requests for information at the same time – think of it like sending all the requests in one envelope. Using HTTP1.1, your browser has to ask for each piece of information individually, which is like sending a new envelope for each request. This means you'll notice the biggest difference on web pages that have lots of elements, such as images, videos and text, making them load much faster.

You'll probably notice the biggest increase in speeds when browsing the web on a phone and tablet because page-loading times on mobile devices are currently so slow.

## How soon will I notice the difference?

Don't expect dramatically faster speeds overnight. Mark Nottingham, who chairs the IETF's HTTP working group, says that HTTP/2 "is not magic web performance pixie dust". Instead speeds should start

"incrementally improving" once browsers and servers learn how best to use the protocol. He said that it's "more accurate to view the new protocol as removing some key impediments to performance".

It may take a couple of years before it's used across the web. But most major tech companies have said they will soon adopt it, including Google, Twitter, Facebook, WordPress and Yahoo.

## Will it also make browsing safer?

Yes, because it will incentivise websites to use advanced security protocols that encrypt communications between computers and servers. Google and Mozilla, who respectively run the Chrome and Firefox browsers, say they will only support HTTP/2 if it supports the latest encryption protocol, called TLS. This means, to make sure their web pages are loaded as quickly as possible, websites will have to use TLS encryption.

## Do I need to do anything?

Nope. You don't need to type anything differently in your browser bar. Just sit back, log on, and enjoy a faster internet.

# WINDOWS

# 10

## ALL YOUR QUESTIONS ANSWERED

Q Is it *really* free?

Q What's the catch?

Q What can it do?

Q Is it any good?

Q Free for XP users?

Q Should I upgrade?

Q When's it out?

Q Is Office also free?

Q Will I need a new PC?

Plus many more...

It's rare for the release of an operating system (OS) to generate such high levels of expectation and rumour, but Windows 10 is different. This is partly due to the fact that it replaces – and

promises to resolve problems with – one of the most universally disliked OS versions in Microsoft's history – step forward Windows 8 (though some of you disagree – see Letters, page 12).

The fact that Microsoft recently announced a number of fantastic Windows 10 features, including the new Spartan browser and the Cortana personal assistant (more on these later on), has also helped to fuel levels of expectation. But anticipation truly reached fever pitch when Microsoft revealed in January that Windows 10 would be a free upgrade for all current Windows 7 and 8/8.1 users.

### So far, so good

Since the announcement, we've been able to get a feel for Windows 10, via the

publicly available Technical Preview release. And, so far, so good. The signs have been overwhelmingly positive.

But questions marks still remain about Windows' next incarnation. When we asked you to tell us what you'd like to know about Windows 10, you responded in droves, with dozens of queries and questions. When will the new OS be available? Will it be better than Windows 7 or 8? How free is it, really? And, even if it is free, will it be worth the hassle of upgrading?

Over the next few pages we aim to answer your enquiries and concerns. Then, on page 55, we'll show you how to make the most of those secret goodies hidden away in the Technical Preview, with our favourite Windows 10 hacks.

### KEY POINTS

- Find out what all the Windows 10 fuss is about
- Meet Cortana, Spartan and other new built-in tools
- Discover when Windows 10 is out – and how "free" it really is
- Get your hardware and software ready for the upgrade
- Hack the Technical Preview to get the best of Windows 10 now



## PART 1: WINDOWS 10 Q&A

### Is Windows 10 any good?

**Q** Will Windows 10 be any better than Windows 8? I have a Windows 7 PC and a Windows 8 laptop, and Windows 7 is by far the more usable system. What's to say that Windows 10 won't be even worse?

Shaun Jennings

**A** Obviously, we haven't seen a finished, fully-featured version of Windows 10 yet, but going by the Technical Preview version we've been testing, the signs are promising. Crucially, Microsoft seems to have listened to the negative feedback it received over Windows 8 and has implemented significant changes.

The headline changes are: the Start menu is back and the dreaded Charms bar is gone – at least for PC and laptop owners. Like Windows 8, Windows 10 is designed to run on different types of devices. Along with PCs this includes tablets, phones and even games consoles.

A clever piece of technology called Continuum ([www.snipca.com/15665](http://www.snipca.com/15665)) will intelligently adapt and scale the OS to suit the device you're using. This means, if you use it on a tablet, it will work more like Windows 8's Modern interface, but install it on a PC and it will work more like an updated version of Windows 7.

### What can it do?

**Q** What's so special about Windows 10? Is there anything Windows 10 can do that previous versions can't?

Matthew Lamb

**A** The new OS promises a number of genuinely useful features. For a start, you'll be able to talk to it. Microsoft is



If you've missed the Start menu, you'll be pleased to hear Windows 10 is bringing it back

including a version of Cortana ([www.snipca.com/15660](http://www.snipca.com/15660)), its personal-assistant tool, in Windows 10. As we revealed in Issue 444 (page 60), Cortana works like Siri does on iPhones, letting you search and navigate using spoken commands and questions like "what's in my calendar for today?". Try it out yourself right now in the Technical Preview (see page 55).

Another significant addition to Windows 10 is its new web browser, currently being referred to as 'Spartan' ([www.snipca.com/15661](http://www.snipca.com/15661)), which effectively supersedes Internet Explorer. We haven't been able to try Spartan ourselves yet, because it's not part of the Technical Preview at the time of writing. However, it will be in the next release, which is due out shortly after this issue goes on sale. It's said to be a fast, modern, Chrome-like browser with support for extensions and full integration with Cortana.

Other big features in Windows 10 include support for the Fast Identity Online (FIDO) standard ([www.snipca.com/15666](http://www.snipca.com/15666)), meaning Windows 10 could put passwords to bed and accommodate biometric identifiers, such as fingerprint- and retina-scanning, instead.

Plus, you can switch between multiple virtual desktops, use Windows apps on your Desktop and take advantage of a new, improved Command Prompt. And we haven't even mentioned HoloLens ([www.snipca.com/15633](http://www.snipca.com/15633)) yet. This is Microsoft's show-stopping Windows 10-powered holographic platform which, using a special visor, puts interactive elements of the OS into the real world around you.

### When is it out?

**Q** I've heard lots of good things about Windows 10 and can't wait to ditch Windows 8. Can we expect it any time soon?

John Fraser

**A** Microsoft hasn't formally announced a release date for the final version of Windows 10 at the time of writing. We know it's coming this year and, if the company follows similar release schedules for previous versions of its OS, then an autumn launch seems a likely bet. However, we have heard rumours suggesting it could arrive as early as June. It's not known whether all of Windows 10's built-in features – including international support for Cortana and HoloLens – will be available at launch. ►



Windows 10 promises plenty of new possibilities, including interactive holograms



## Is it really free?

**Q** First Microsoft said Windows 7 and 8 users are getting Windows 10 free. Now I read that it's just free for a year, and then we'll have to pay a subscription. Is this true? Because it sounds like a con.

Martin Greaney

**A** At its January event, Microsoft announced that the upgrade to Windows 10 would be free for all Windows 7 and 8 users for the first year of release (see News, Issue 442).

Then Microsoft filed for a trademark for a product called 'Windows 365' – a similar name to its subscription-based Office 365 suite. This raised suspicions about just how free Windows 10 would turn out to be ([www.snipca.com/15664](http://www.snipca.com/15664)).

Many subsequently interpreted Microsoft's initial promise to mean that Windows 10 would be free for 12 months of use, after which users would need to pay ongoing subscription costs in order to continue running the OS – almost like a year-long free trial.

But, while Microsoft may well be considering a subscription model for its OS at some point, it's likely that Windows 365 (or whatever it'll end up being called) will be an entirely separate product to Windows 10, which the company has promised will be free to all customers running Windows 7, Windows 8/8.1 and Windows Phone 8.1 "who upgrade in the first year after launch".

Microsoft also says: "Once a Windows device is upgraded to Windows 10, we will continue to keep it current for the supported lifetime of the device – at no

cost" ([www.snipca.com/15674](http://www.snipca.com/15674)), which would seem to rule out pretty categorically a switch to subscription costs after a year.

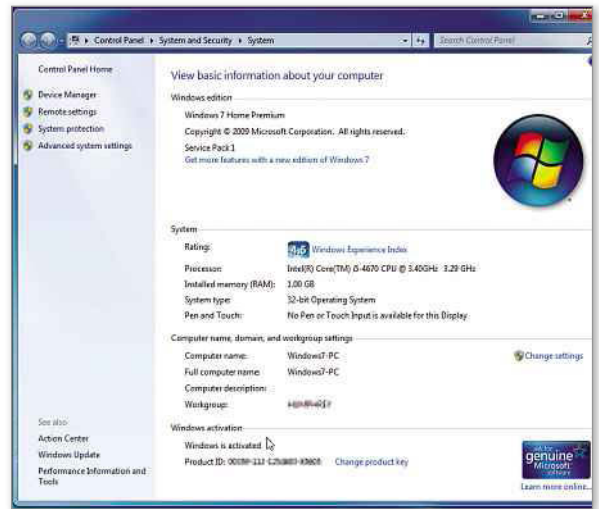
Microsoft hasn't yet provided details of its full pricing structure for Windows 10, and it's unlikely we'll know the full picture until we get closer to the final release. There's no word yet on costs for those upgrading from Vista and XP, who – a little unfairly – seem to have been left out in the cold.

The bottom line is that if you currently use Windows 7 or 8/8.1, you'll have a year from launch to take up Microsoft's free upgrade offer. Those who upgrade to Windows 10 during this time will be able to continue to use the OS for free beyond one year, and will receive support from Microsoft for a roughly similar period as previous versions of the OS – that's to say around five years for mainstream support and 10 years for extended support.

## What if I've lost my Windows 7 CD?

**Q** I have a Packard Bell computer, which came pre-installed with Windows 7. I do not seem to have any Windows 7 installation discs. Does this mean I won't be able to get Windows 10 for free?

Gil Colman



An activated copy of Windows 7 or 8/8.1 should be all you need to qualify for the free upgrade

**A** We don't know exactly how Microsoft will determine eligibility for the free upgrade offer but, you can rest assured, having the original disc for your current OS will not be a factor.

What is important is that you are running a licensed, activated copy of Windows 7 or 8/8.1. You can check this by clicking Start, right-clicking Computer and selecting Properties (or by right-clicking Start and selecting System in Windows 8/8.1), then looking under 'Windows activation' at the bottom. It should say 'Windows is activated'.

We've seen some evidence to suggest that Windows 10 may eventually be delivered via Windows Update, so the upgrade could end up being a relatively smooth transition.

## Will I need to buy a new PC?

**Q** I have an Acer Aspire 7730 laptop that originally ran Windows Vista, and then Windows 7. Will I be able to upgrade to Windows 10 for free? Will Windows 10 even work on my computer, or will I need a new one?

Colin Rout

**A** You didn't provide any detailed hardware specifications for your laptop, but if it's able to run Windows 7, then it's highly likely to be able to run Windows 10 too.

The hardware requirements for the Technical Preview are a 1GHz processor (or faster), 1GB RAM or more (2GB for the 64bit version), 16GB free hard-drive space and a DirectX 9-compatible graphics card ([www.snipca.com/15672](http://www.snipca.com/15672)). The final version's requirements are likely to be very close to these.

## HAVING TROUBLE WITH VIRTUALBOX?

The best way to try out the Windows 10 Technical Preview is to install it in 'virtual PC' software such as VirtualBox ([www.virtualbox.org](http://www.virtualbox.org)). This lets you run the Windows 10 Preview within your current OS, without affecting any files (see our lead Workshop in Issue 443).

However, this doesn't work for everyone. Several of you have written to tell us about problems you've encountered with this procedure. Both VirtualBox and the Technical Preview have been updated since then, and some people may find these updates will have fixed certain problems. However, the fact is that not all PCs cope well with virtualisation, and certain hardware configurations may struggle to install or run Windows in a virtualised environment.

Check VirtualBox's system requirements ([www.snipca.com/15630](http://www.snipca.com/15630)). Some users may also need to enable hardware virtualisation in their PC's BIOS – consult your manual or contact the manufacturer to find out how to do this.

You may be able to get round it by trying Windows 10 in dual-boot mode instead. This involves installing the Technical Preview in its own separate partition alongside your current OS, allowing you to choose which system to launch when you start your PC. Our lead Workshop in Issue 444 shows you how to do this.

Alternatively, if you have an older PC you don't really use any more, you could consider installing the Technical Preview on that instead, as long as it meets the hardware requirements mentioned above.



## Should I wait for the full version?

**Q** Windows 10 will be free when it comes out, but the Technical Preview version is also free and already out. Should I replace my OS with the Preview now, or is it better to wait?

**Toby Reynolds**

**A** The short answer is yes, you should definitely wait before upgrading your current OS. The Technical Preview version of Windows 10 has been available for free for a while now, but it is not the finished version and will expire in April.

The Preview provides a fascinating insight into what's in store, but it's no substitute for a full OS. You can try it out without affecting your current Windows installation by running it in a virtual PC or by setting up a dual-booting system (see box on previous page).

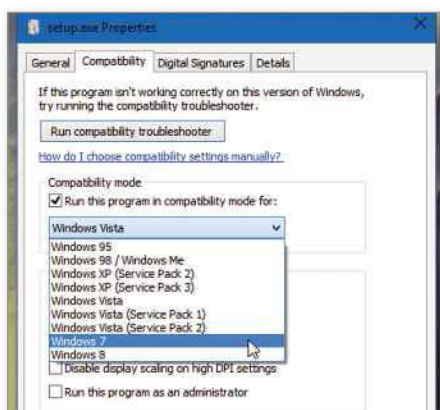
## Will my software still work?

**Q** I'm happy using Microsoft Office 2007 on Windows 7. Will my version of Office still work in Windows 10? If not, should I switch to LibreOffice or another free office package? What about my other programs – will I need to buy and install them all over again?

**Allan Hillman**

**A** As with any new OS, there are likely to be compatibility issues with some older programs and tools. We won't know the full extent of Windows 10's compatibility with specific programs until its final release.

That said, we've found many programs that run on Windows 8/8.1 work fine with the Windows 10 Technical Preview, including Office 2007. Most software companies, including those who create free software like LibreOffice ([www.libreoffice.org](http://www.libreoffice.org)), will be quick to issue Windows 10-compatible updates.



Windows 10's Compatibility Mode will help you run older programs

We know that Windows 10 will include a Compatibility Mode (similar to the one in Windows 7 and 8/8.1), which will allow you to run programs as if they were running on previous versions of the OS.

## Will Office also be free?

**Q** When the free download of Windows 10 becomes available, will I have to buy Microsoft Office again or will this be included? Can I migrate my existing copy from Windows 7?

**J Luxon**

**A** The full version of Office won't be free and won't come included with Windows 10. However, depending on the version of Office you're currently using, you should be able to install it in Windows 10 and carry on using it just as you're using it now.

Meanwhile, you can try free preview versions of Microsoft's new Office Windows apps (see page 55). Also bear in mind that Microsoft already provides free (and often overlooked) online versions of Word, Excel and PowerPoint, collectively known as Office Online. You can access them via OneDrive (<https://onedrive.live.com>) by logging in using your Microsoft account and clicking the Create button. Discover more OneDrive tips on page 48.

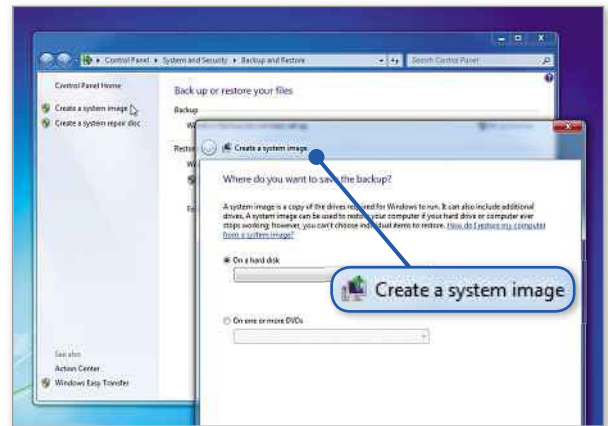
## What if I don't like Windows 10?

**Q** If I upgrade to Windows 10 when it's released and it turns out to be useless, can I return to Windows 7?

**John Leach**

**A** Yes, you can. Just in case you decide to do this, you can make the process of reverting to Windows 7 (or 8/8.1) much easier by creating a system image (also known as a **disk image**) backup of your PC before you carry out the Windows 10 upgrade. In fact, we recommend doing this anyway, as a precaution in case anything goes wrong during the upgrade.

To do this, click Start, type **backup** and click either 'Backup and Restore' (Windows 7) or 'Save backup copies of your files with File History' (Windows 8.1). You should see a system image option on the left – click this and follow the steps. Click Start and type **repair disc**, then click 'Create a System Repair Disc' (Windows



Make a system image backup just in case you need to restore your PC and OS

7) or 'Create a recovery drive' (Windows 8) and use the utility that opens to burn a CD or DVD that you can boot to and use to restore your PC to Windows 7 or 8 from your backup. You'll need to have a large external hard drive handy.

## What if I'd rather have Windows 7?

**Q** I'm interested in Windows 10, but I suspect my old PC would be better off with a clean install of Windows 7 instead. Is it still possible to do this?

**Vic Strong**

**A** Carrying out a clean re-install of Windows 7 would certainly help your old PC run better and faster, as we explained in our Cover Feature in Issue 444. What we would say here, though, is that Windows 7 is heading towards the end of its life cycle. In fact, Microsoft ended its mainstream support for Windows 7 in January this year ([www.snipca.com/15675](http://www.snipca.com/15675)).

There's still life left in the old OS yet, though. Microsoft's extended support period for Windows 7, during which it will continue to provide security patches and fixes, is set to run until January 2020 and, as happened with Windows XP, this may be extended further still if Windows 7 remains widely used.



Re-installing your current version of Windows can breathe new life into your PC

## PART 2: HIDDEN WINDOWS 10 HACKS

### Use Cortana now

If you install the Technical Preview, you'll probably find that Cortana (Microsoft's voice-control tool) is not enabled by default. That's because it still needs to be localised and is only currently available for those using US English as their default language. But if you're eager to try Cortana now, you can do so by altering Windows 10's regional settings so it thinks you're a US user.

Click Start, Settings, 'Time & Language', then 'Region & Language'. Select United States from the 'Country or region' dropdown menu. If 'English (United States)' isn't listed under Languages, click 'Add a language' to install it. Then click it in the list, click Options and download the language pack. Go back to the previous screen, click 'English (United States)' then 'Set as primary'.

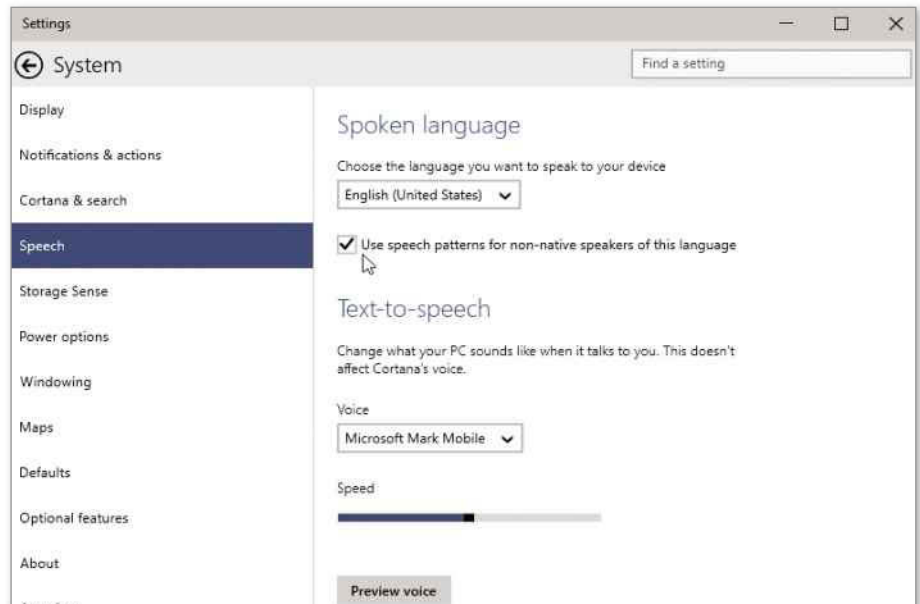


Unlock Cortana by tricking Windows 10 into thinking you're a US user

### Activate Cortana with just your voice

With Cortana enabled, you can type a question in the 'Ask me anything' box on the Taskbar, but to get the most from Cortana, you'll need a microphone. Getting a microphone to work with a virtualised system (such as Windows 10 Technical Preview installed in VirtualBox) is a bit hit and miss, unfortunately. But if you've gone down the dual-boot route or if you're trying out the Technical Preview on an old PC, then setting up a microphone works just like it does under Windows 7 or 8/8.1. Even with a microphone connected, though, you still need to click the microphone icon in Cortana's search box before you speak.

However, there's a trick that will let



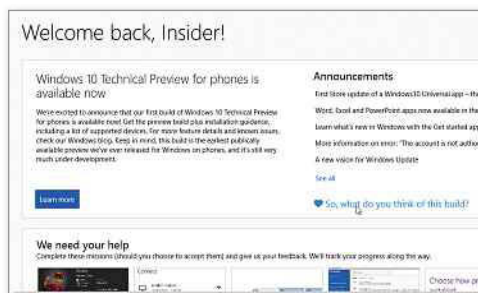
Get better results with Cortana by tweaking Windows 10's speech settings

you activate Cortana with just your voice. Click in the 'Ask me anything' box, then click the menu icon (three lines) in the top left and choose Settings. Switch on the 'Let Cortana respond when you say "Hey Cortana"' option.

If you're having problems getting Cortana to understand what you're saying, try clicking Start, Settings, then System. Click Speech on the left, then tick the box next to 'Use speech patterns for non-native speakers of this language'.

### Tell Microsoft what you think of Windows 10

Microsoft has hidden its user-notification and feedback system in the Windows 10 Technical Preview, by tucking it away in an anonymous-looking app. To get the latest news about the Preview and its related updates, and to let Microsoft know what you think or to suggest features, you'll need to find and run the Insider Hub. Click Start, 'All apps' and scroll down to find the app. From here you can read the latest announcements,



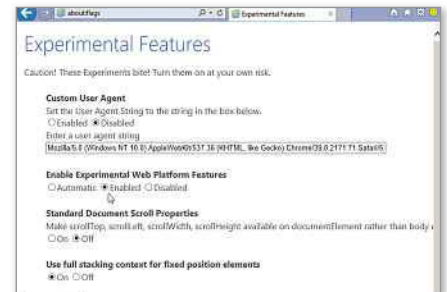
Give Microsoft feedback about Windows 10 via the Insider Hub app

complete tasks or click 'So, what do you think of this build?' to answer a quick questionnaire. Scroll down for further feedback options.

### Get Spartan (sort of)

The next build of the Technical Preview will include Microsoft's new Spartan web browser. At the time of writing, that's still a couple of weeks away. However, if you're running the previous build (9926) you can get an idea of how Spartan will work, by enabling Experimental Features in the version of Internet Explorer that's included in build 9926.

Open Internet Explorer and type **about:flags** into the address bar. Under Enable Experimental Web Platform Features on the page that opens, tick the Enabled option, then click 'Apply changes' and restart the browser. This will activate Spartan's new Edge rendering engine, which is faster, but still somewhat unpredictable at this point in time.



Enable Experimental Features in IE to get a taste of the new Spartan browser





## IS IT WORTH BEING MICROSOFT'S GUINEA PIG?

While many of you have written to tell us you're excited about being given the chance to try Windows 10 before it launches, others have expressed concern about being used as guinea pigs in Microsoft's experiments.

As usual, there's some merit to both sides of the argument. The Windows 10 Technical Preview is unfinished software and, as such, its functions are limited and its stability is not guaranteed.

Those worried about privacy may also have grounds for avoiding it. In order to get a free copy of the Technical Preview, you need to opt into Microsoft's Windows Insider Program (<https://insider.windows.com>).

The company has been quite open about the fact that by using the software, you're effectively choosing to provide usage data and feedback "so that Microsoft



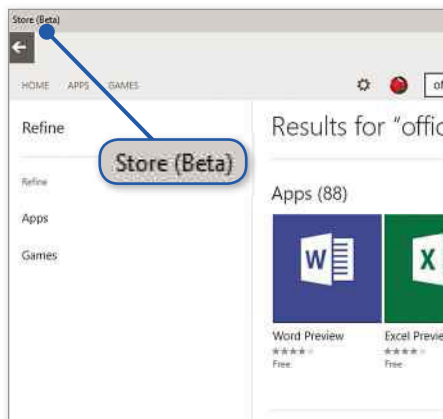
Getting the Windows 10 Technical Preview means joining the Windows Insider Program

and its partners can improve their products and services". Check the Insider Program's terms of use ([www.snipca.com/15631](http://www.snipca.com/15631)) and privacy statement ([www.snipca.com/15632](http://www.snipca.com/15632)) for details on what you're letting yourself in for.

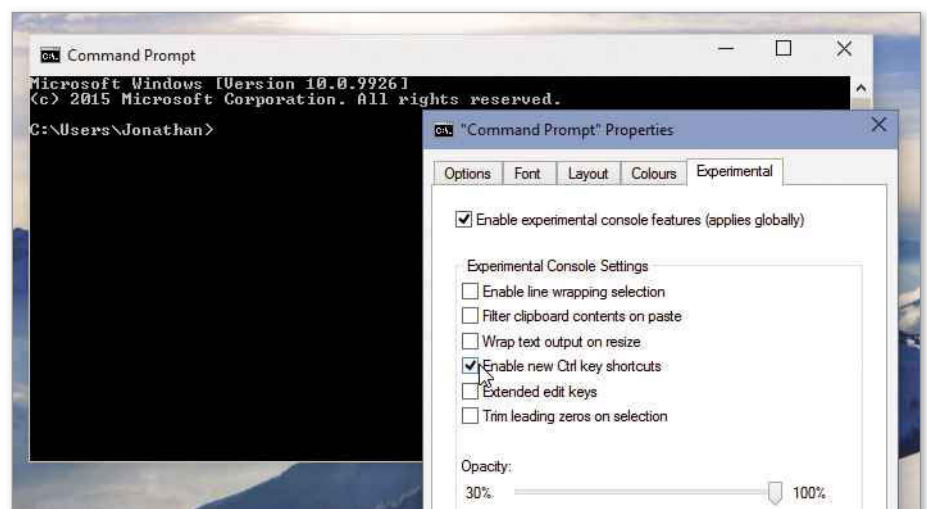
For these reasons and more, we most definitely do not recommend installing the Windows 10 Technical Preview as your main operating system. However, we think that, as long as you use virtualisation or dual-booting, there's no real reason not to give it a go, assuming you're interested. Used carefully and in isolation from your personal data, there are no real risks involved.

## Get the latest Office apps for free

Aside from previewing the next version of Windows, Microsoft is also offering the opportunity to try new versions of its Office apps. These don't come preinstalled and they aren't available through the standard Windows Store (the one with the green tile), but you can hunt them down by using the alternative Beta version of the Windows Store (the one with the grey tile). Launch this, search for 'office', then install the Word, Excel and PowerPoint preview editions you'll find there.



Use the Beta version of the Windows Store to track down free Office apps



You need to enable the Command Prompt's new features before you can use them

## Unlock Command Prompt secrets

The Windows Command Prompt has remained more or less the same for as long as we can remember. But Windows 10 brings with it some useful new features for this much-overlooked tool, including – at long last – the ability to copy and paste commands using Ctrl+C and Ctrl+V keyboard shortcuts.

Currently, this and other new features are hidden away, so you'll need to tweak

Windows in order to enable them. Click Start, type **cmd** and press Enter. The Command Prompt window will appear. Right-click the top title bar and select Properties. In the next window, click the Experimental tab. Tick the box next to 'Enable experimental console features', then tick any features you want to try – the 'Enable new Ctrl key shortcuts' is the one you want for copying and pasting. Click OK, then close and re-launch the Command Prompt to try it out. **ca**

**NEXT ISSUE** On sale Wednesday 1 April

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## REMOVE HIDDEN MALWARE

Obliterate the silent killers your antivirus misses



**Plus** Shut down your PC quickly and safely

New uses for an XP PC – don't let it go to waste!

# Never run out of printer ink

You're paying over the odds for printer ink – but you can beat the system. Jane Hoskyn reveals secret tricks and tools for making your ink go much further



In 2003, printer ink was more expensive per millilitre than fine champagne ([www.snipca.com/15686](http://www.snipca.com/15686)). By the end of 2014, you could buy a computer for £30 and 64GB for a tenner, but printer ink was still more expensive per millilitre than fine champagne ([www.snipca.com/15687](http://www.snipca.com/15687)). Or, if you believe Twitter, per millimetre ([www.snipca.com/15694](http://www.snipca.com/15694)).

Stuart Andrews spoke for many when he described feeling “held to ransom” by printer manufacturers (The Final Straw, Issue 440). Stuart tried saving money by switching to unbranded ‘compatible’ cartridges, and his printer promptly refused to work.

Printer makers, you see, haven’t quite ignored technological advances. They’ve just hand-picked the advances that suit

them and not us, such as encrypted printer chips that detect and block compatible cartridges and refilling. So it’s become harder to cheat the pricey printing system – but, as we discovered, it’s not impossible.

## Hack your cartridges to last forever

When you got your first home printer a decade or two ago, it was easy to refill a cartridge by yourself. You simply stuck some ink in a syringe and stuck the syringe into the cartridge.

Manufacturers soon wised up to this money-saving wheeze and redesigned their OEM (official branded) cartridges to make them harder to refill. They’ll tell you that cheap third-party ink is terrible quality (they would,

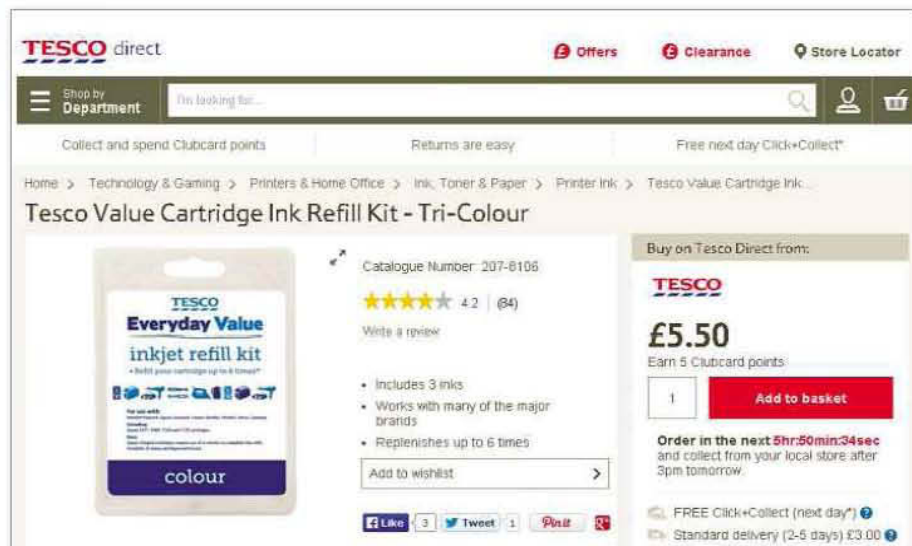
wouldn’t they?) and that only they are qualified to put ink into little plastic boxes.

Don’t be fooled – you can still refill cartridges yourself, and it saves a lot of money. A Tesco Value refill pack costing £5.50 ([www.snipca.com/15702](http://www.snipca.com/15702)) is enough to replenish most brands of inkjet cartridge six times. With one set of Epson T0715 black and colour ink costing £34 ([www.snipca.com/15703](http://www.snipca.com/15703)), that makes refill ink roughly 30 times better value than OEM ink.

The refill process requires more time and effort than unwrapping an OEM cartridge, as you’d expect. But there’s loads of advice online, including video demos on the ‘how-to’ website Instructables ([www.snipca.com/15705](http://www.snipca.com/15705)), professional refilling advice on the UK site InkTecshop ([www.inktecshop.co.uk](http://www.inktecshop.co.uk)) and an entire blog dedicated to the art of refilling HP cartridges (<http://refillhp.blogspot.co.uk>).

If you’ve got a laser printer, your cartridges use powder-based toner instead of ink, and they’re much harder to refill. It can still be done, though. For refills and advice, see URefillToner ([www.urefilltoner.co.uk](http://www.urefilltoner.co.uk)).

Finally, assuming you’re using a more common inkjet printer, here’s a quick trick for getting more ink out of a cartridge that claims to be empty. Remove the near-empty cartridge, put some clear sticky tape over the copper or gold contact points, then put the cartridge back. This should fool your PC and printer into using every last drop of ink.



An ink-refill kit from Tesco works out 30 times cheaper than branded ink cartridges

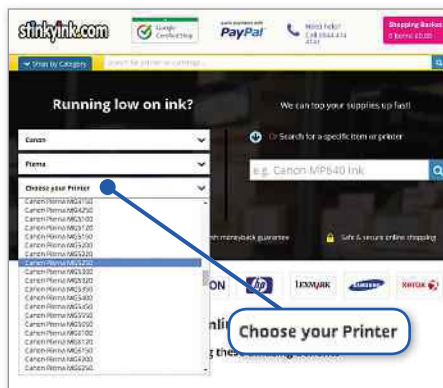
## Buy guaranteed compatible cartridges

Compatible cartridges are easier to use than refill kits, and great value for money – but, as Stuart Andrews discovered, it's a false economy if a cartridge doesn't work.

To minimise the risk, avoid super-bargains on eBay, and buy from UK-based specialists that include money-back guarantees with their ink. Refresh Cartridges ([www.refreshcartridges.co.uk](http://www.refreshcartridges.co.uk)) and StinkyInk ([www.stinkyinkshop.co.uk](http://www.stinkyinkshop.co.uk)) both offer refunds if the cartridges don't work or you're not happy with print quality. These sites also offer phone and online support, and Refresh Cartridges even has its own YouTube channel ([www.snipca.com/15706](http://www.snipca.com/15706)).

Both sites have homepage wizards to help you find the right ink for your printer. Use the dropdown menus to select your printer's manufacturer (such as Canon), series (such as Pixma) and model (such as MG5250). Alternatively, type the cartridge brand and number (such as Canon PG550) into the search box.

One set of Canon PG550 ink currently costs £53.44 on Amazon (already reduced from its eye-watering recommended retail price of £82.50); the equivalent set of compatible ink costs £21.98 from StinkyInk (which also undercuts Amazon slightly on OEM cartridges).



Tell StinkyInk which printer you've got, and it'll find compatible ink that works

## Spread the cost with a subscription

HP's new Instant Ink service ([www.snipca.com/15709](http://www.snipca.com/15709)) offers a way to get OEM ink for roughly the price of compatible ink. It costs from £1.99 for up to 50 pages – that's 4p per page, around the same as HP-compatible ink from StinkyInk – and promises to save hassle as well as money. Once you're signed up to the service, your printer detects when the cartridges are running low and

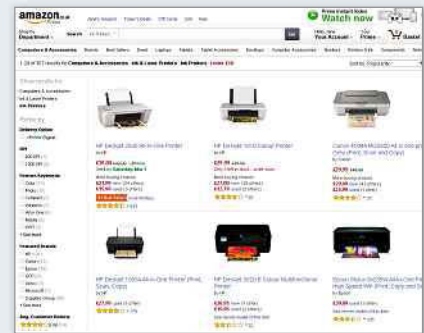
## WHY IS INK SO EXPENSIVE?

Printer ink isn't made out of liquidised unicorn horn. The reason companies charge so much for it is because they can.

There's not much competition at the top of the inkjet business, you see. You've got HP, Epson, Canon and... well, that's it. Rivals Lexmark and Kodak both quit the market in 2012 ([www.snipca.com/15697](http://www.snipca.com/15697)), leaving the big three able to charge what they want for OEM ink.

Ink is how these companies make their money. They're well aware that people like us think it's far too expensive, but they won't drop cartridge prices. Instead, they launch subscription ink schemes and slash printer prices. You can buy a decent inkjet on Amazon for under £40 ([www.snipca.com/15708](http://www.snipca.com/15708)), much cheaper than a few years ago – and often much cheaper than their companion OEM ink.

Subscriptions can save money if you



Printers are cheaper than ink now – but too many printers will mess up your PC

use them enough (see below), and cheap printers are certainly welcome. But be aware of the hidden costs. Continually ditching your printer for a newer, cheaper model is not just wasteful; it harms your PC by leaving behind a litter trail of obsolete drivers and printer software.

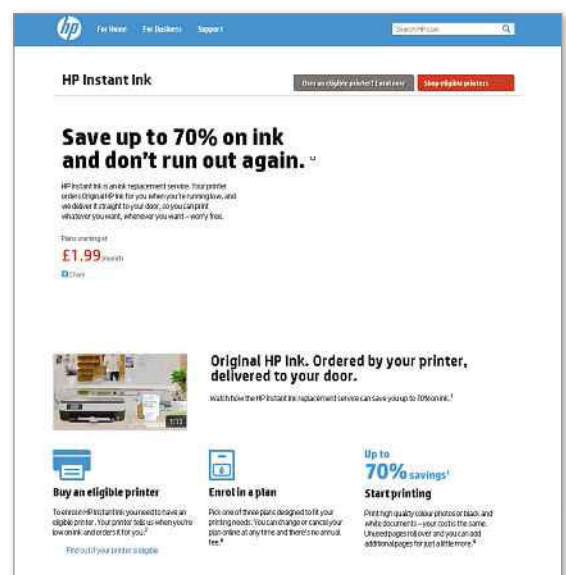
automatically orders replacements via Wi-Fi. The cartridges are then delivered straight to your door, the idea being that they'll arrive before your ink runs out.

There's a catch, of course. At the moment the service only works with a few HP printers (Envy and Officejet models). And because it's a subscription scheme, you may end up paying for far more ink than you use. If you sign up to pay £7.99 per month to print 300 pages, and end up printing two pages between now and Christmas, that's not very good value for money.

Epson, too, has come up with an enticing new subscription service. Its new EcoTank printers ([www.snipca.com/15719](http://www.snipca.com/15719)) contain deep refillable tanks instead of cartridges. The catch this time is that the printers are rather expensive (£250 and £330), although Epson amusingly calls them "ultra-low-cost" ([www.snipca.com/15712](http://www.snipca.com/15712)). Still, Epson is so confident that this will catch on, it's even applied to patent the process of refilling a cartridge ([www.snipca.com/15698](http://www.snipca.com/15698)).

## Hack your printer to use less ink

Let's turn our attention from the ink itself to the way you use it. Whatever ink you use, you can make it go much further



Get replacement cartridges delivered to your door with HP Instant Ink

by tweaking your print settings, or using free software to tweak your settings for you.

Ink-saving software tends to cost money, even when its website claims it doesn't. PretonSaver Home ([www.snipca.com/15713](http://www.snipca.com/15713)), which automatically adjusts your printer's settings, costs \$33.60 (£22) – despite the fact that the site says Free Download. Once you install it, you're hit with a demand for a licence key, which costs money. Sneaky.

There are genuinely free alternatives. iPrint ([www.snipca.com/15714](http://www.snipca.com/15714), Windows 7 and earlier) lets you print multiple



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**Which Antivirus Should You Now Use?**

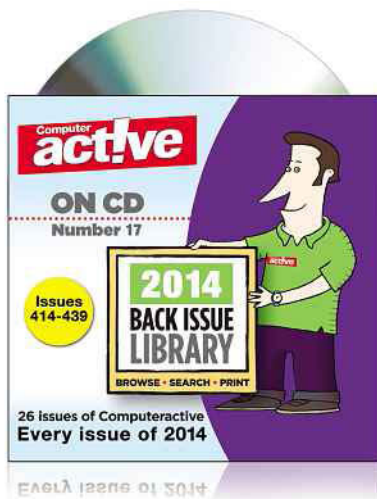
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[www.snipca.com/14981](http://www.snipca.com/14981)

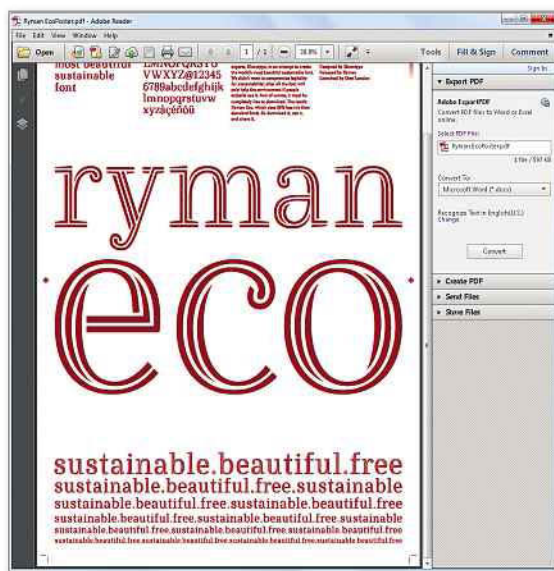
pages on one piece of paper, group print jobs together and omit blank pages automatically. Click Download Now, then click 'iPrint 6 - 7MB' (third link down), run the installer and select 'Yes, restart the computer now'. Now, when you press Ctrl+P to print a document or web page, you'll see iPrint under Printer Name. Click Properties and use the 'Page per Sheet' dropdown menu to group multiple pages, then click OK. The print job will go to your connected printer as usual.

Be aware that if you have more than one ink-saving program installed at once, as we did briefly with PretonSaver and iPrint, they will prevent each other from working properly.

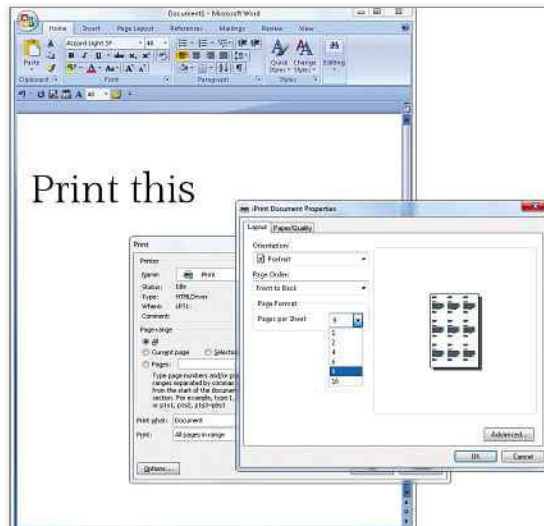
If you'd rather not install software at all, you can save ink by tweaking your settings manually. Press Ctrl+P, click Properties, then click Quality to change how much ink your printer uses. Choose Draft or General mode to print everyday documents, avoid using Photo mode for anything that's not a photo (it uses far more ink), and use greyscale (or 'Grayscale') for documents if available – it uses less black ink than the default 'Black and White'.

## Switch to a lighter font

Last year, 14-year-old schoolboy Suvir Mirchandani caused a stir by telling the US government it could save half a billion dollars per year by printing public documents in a lighter font ([www.snipca.com/15688](http://www.snipca.com/15688)).



Ryman's new Eco font uses less ink and looks very stylish



Print multiple pages on one sheet of paper using free program iPrint

The White House never did change its typeface, but it applauded Suvir's logic. Different fonts do, indeed, use different levels of ink. It's not just about the lightest fonts using the least ink; there are other factors like the little ink-wasting tails in 'serif' fonts like Acta (which we use as our main font). A similarly sized 'sans serif' font, such as Calibri (which these words are printed in) will use slightly less ink each time because it does not have these fancy effects at the top and bottom of letters. These savings soon add up.

You can also download fonts that are specially designed to save printer ink. The letters in Ecofont ([www.snipca.com/15716](http://www.snipca.com/15716), \$24.95/£16.50) are dotted with tiny holes so it uses half the ink of traditional solid typefaces. Stationery shop Ryman recently unveiled its free alternative, Ryman Eco ([www.rymaneco.co.uk](http://www.rymaneco.co.uk)), which has stylish hollow letters.

Click Download and extract the contents of the ZIP, including installation instructions and a PDF poster.

## Print web pages without ink

Web pages, including Gmail emails, are ink-wasters in waiting. They're designed to be read in a browser window, not to be printed, so if you press Ctrl+P and use the default settings you'll get all sorts of sidebars, menus and other printed bits and bobs that you didn't want – a waste of paper as well as ink.

To print any web page without the extra stuff, type or paste the URL into free

## WORD'S MOST (AND LEAST) INKONOMICAL FONTS

We ran a moderately scientific experiment that involved printing eight of the most commonly used Word fonts at 12pt (point) size. Here's how they ranked, from lightest ink usage to heaviest.

Century Gothic  
Calibri  
Garamond  
Times New Roman  
Arial  
Tahoma  
Verdana  
Impact



Convert a web page to an ink-saving version using free online tool PrintFriendly

online tool PrintFriendly ([www.printfriendly.com](http://www.printfriendly.com)) and press Enter. The page will then refresh as a clean, sidebar-free, text-only printable version. Click Print to print it and PDF to save it as a PDF.

Which reminds us – you don't have to print everything. Printing web pages to PDF is the single best way to save ink for free, because it doesn't actually involve printing at all. Instead, it converts the page or email to a PDF that you can read offline, either in your browser or on your Desktop or tablet, or send by email. You can skip PrintFriendly and print to PDF via your browser's Print dialogue if you want. Press Ctrl+P when you're on a web page, then click Change under Destination or Printer and select 'Save as PDF'. **ca**



# MANAGE YOUR FINANCES FOR FREE



As the Chancellor reveals his budget plans, Jane Hoskyn finds the best free software for balancing your own books

On the day this issue of *Computeractive* goes on sale, Chancellor George Osborne will raise a tatty briefcase and reveal his plans for your household budget. A few weeks later, when the next tax year begins, you'll get a pile of letters from the bank and the taxman to remind you how much (or how little) cash you've got.

At which point, you can either cross your fingers and hope you've got enough to get by, or take control of your budget using personal-finance software. Quicken ([www.quicken.com](http://www.quicken.com)) and Microsoft Money (MSM) used to be the programs of choice for balancing household books, but

neither program is now supported in the UK. Microsoft offers a workaround if you still want to use MSM (see box opposite), but there are better, newer options.

A quick Google search for personal-finance software will throw up some great paid-for programs, such as AceMoney ([www.snipca.com/15636](http://www.snipca.com/15636), \$39.99/£27) and You Need A Budget ([www.youneedabudget.com](http://www.youneedabudget.com), \$60/£40). But if you're really cash-savvy, you'll use free software that's just as good.

## Be your own accountant

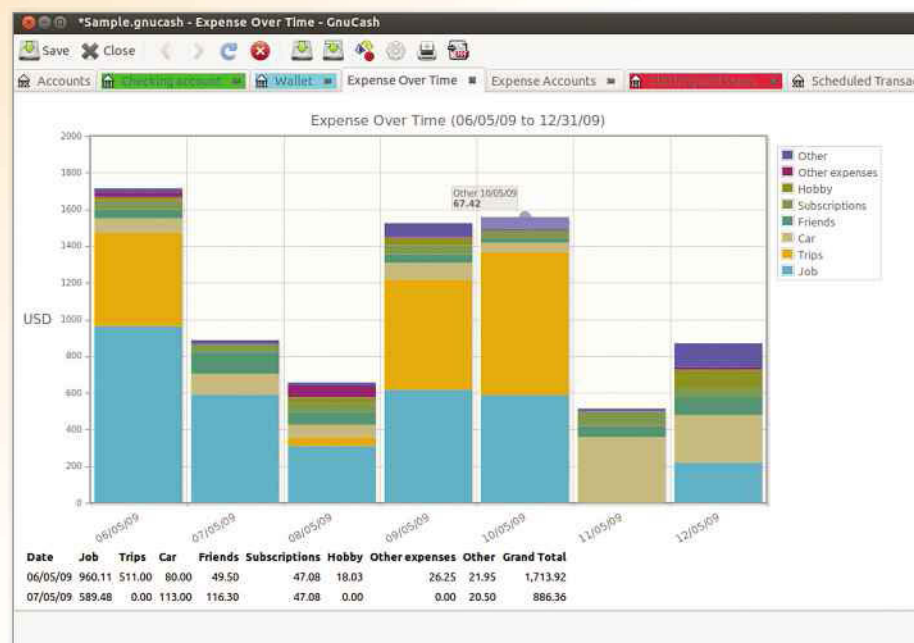
Open-source program GnuCash ([www.snipca.com/15625](http://www.snipca.com/15625)) is the closest thing to

Quicken and MSM, and it's completely free. It's the best choice for those with lots of accounts to juggle: bank accounts, savings, pensions, insurance and so on. In fact, it's so powerful that many small businesses rely on it.

You can see multiple accounts in one window, generate a detailed balance sheet, see your cashflow represented in chart form, and export a valuation of your stocks, shares and other investments.

Like MSM, GnuCash supports OFX (Open Financial Exchange) files, which many banks use to store your bank-account data. You can download the files securely via your bank's website and import them into GnuCash, which saves you having to type in all your transaction history manually. Check with your bank whether you can download your data this way. Barclays, for example, does support OFX files, but it calls them 'Microsoft Money files': [www.snipca.com/15627](http://www.snipca.com/15627). GnuCash has a whole [wiki site](http://www.snipca.com/15626) dedicated to explaining OFX ([www.snipca.com/15626](http://www.snipca.com/15626)). You can also import your old Quicken files (QIF) into GnuCash.

We had a spot of bother installing GnuCash at first, but we got round it by choosing 'Full installation' (default) during setup. Normally, we'd recommend carrying out a 'Custom installation', but this stopped the program installing properly. 'Full installation' went ahead without a hitch, and there were no unwanted extras to opt out of. If you prefer to avoid installing it altogether, there is a portable version of GnuCash ([www.snipca.com/15629](http://www.snipca.com/15629)).



Track your accounts and expenses in detail with GnuCash





## RENEW YOUR OLD MICROSOFT MONEY

Microsoft Money (MSM) is to personal-finance software what Windows XP is to operating systems: long-established and well-loved, but no longer supported by Microsoft. There's been no new version since Money 2006 (despite a campaign by our sister title *PC Pro* magazine: [www.snipca.com/15652](http://www.snipca.com/15652)), and Microsoft withdrew support in 2009. So if you have an old version of MSM on your PC, you can't run it safely. Given that it was a paid-for program, you'd be justified in thinking that Money was a waste of money.

But there may be life in your old MSM data yet. In 2010, Microsoft

released the free program Money Plus Deluxe Sunset ([www.snipca.com/15658](http://www.snipca.com/15658)), which lets you open, convert and manage



Microsoft Money Deluxe Sunset lets you access your old Microsoft Money data

most old MSM files, as well as QIF (Quicken) files.

Initially, MSM Sunset only worked in the US, but we gave it a try and it seems to work fine here. Download and run the installer, accept the licence agreement (which is free) and sign up using your Microsoft account or with a new password.

MSM Sunset can be used as a standalone program too, but we wouldn't recommend it. There's no online support, and Microsoft won't say how long it'll be available for. If you want to start managing your cash from scratch, use GnuCash or BudgetSimple instead.

## Plan your monthly spending

GnuCash may be a powerful tool but it's also rather complex – too complex if all you want is to keep an eye on your monthly outgoings. For basic cash control, we recommend BudgetSimple (<https://www.budgetsimple.com>), which lives up to its name with a wonderfully fast and easy free web-based tool that doesn't require any downloads at all.

Start by creating a free account. Click Register at the top right, choose a password, then click through the welcome screens until you reach a comparison table of the tool's free and paid-for versions. Click Get Started under 'Basic free'. (Even if you wanted to use the paid-for Plus Account, you can't – it's US-only.)

You're then walked through a setup process. This simply involves typing in your sources of income and expenditure, broken down into bills, groceries, savings,

phone contract and so on. You can edit these categories to suit your needs. Anything you type into BudgetSimple is encrypted (hence the 's' in the 'https' URL prefix), so no one, including people who work at the website, can read anything you type or see.

Once you've entered your figures (which you can amend later), the tool works out how much you've got left to spend (or how much you're over-spending) and displays it as a bar chart and pie chart, so you can instantly see your balance.

We love the fact that, even though BudgetSimple is US-based, it displays your accounts in pounds rather than dollars if you're a UK user.

The site also has tools for helping you save money for specific projects (for instance, a long holiday or home improvements) or managing a debt (for example, a credit card or mortgage).

## Back up your budget online

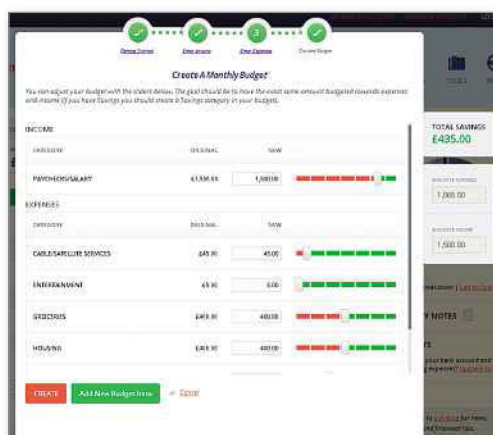
Free new Windows 8.1 app Selffina ([www.snipca.com/15618](http://www.snipca.com/15618)) lies somewhere between GnuCash and BudgetSimple in terms of its complexity. You can keep it simple by just using it to plan your spending, or set it up to track various accounts, credit cards, transfers and investments.

| Day | Description                | Category     | Account      | Debit        | Credit       |
|-----|----------------------------|--------------|--------------|--------------|--------------|
| 3   | Lunch with friends         | Food         | Wallet       | 125,000.00   | 0.00         |
| 5   | Salary                     | Bonus        | Bank Account | 0.00         | 2,990,000.00 |
| 6   | Life Insurance             | Insurance    | Visa 8999    | 100,000.00   | 0.00         |
| 7   | Monthly spending           | Housing      | Bank Account | 450,000.00   | 0.00         |
| 9   | Transfer dari Bank Account | Transfer In  | Wallet       | 0.00         | 500,000.00   |
| 9   | Transfer ke Wallet         | Transfer Out | Bank Account | 500,000.00   | 0.00         |
| 9   | Transfer dari Bank Account | Transfer In  | Visa 8999    | 0.00         | 750,000.00   |
| 9   | Transfer ke Visa 8999      | Transfer Out | Bank Account | 750,000.00   | 0.00         |
|     |                            |              |              | 1,925,000.00 | 4,240,000.00 |
|     |                            |              |              |              | 0.00         |
|     |                            |              |              |              | 2,315,000.00 |

Export your balance sheet to Excel using Windows 8.1 app Selffina

Either way, all your data is password-protected and can be exported to Excel as a backup. You can also link your account securely with OneDrive, so all your plans and transactions are backed up securely in your cloud storage (for tips on getting the best out of OneDrive, see page 48). Selffina also works on Windows Phone but not, as yet, on Android or iOS.

If you want to manage your cash on your tablet or phone, your best bet is to use a secure web-based tool like BudgetSimple. There are plenty of free mobile money-management apps, but their functions are very limited unless you link them to their paid-for Windows counterparts. If you do decide to spend money on a program that syncs between your PC, tablet and phone, You Need A Budget is the best option (Android [www.snipca.com/15650](http://www.snipca.com/15650); iOS [www.snipca.com/15651](http://www.snipca.com/15651)), and it has a very helpful website ([www.youneedabudget.com/support](http://www.youneedabudget.com/support)). **ca**



Balance your books at a glance using BudgetSimple's free online planner

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# Problems Solved

## PROBLEM OF THE FORTNIGHT

### Should I re-partition my drive?

**Q** I bought a Windows 7 laptop a few years ago.

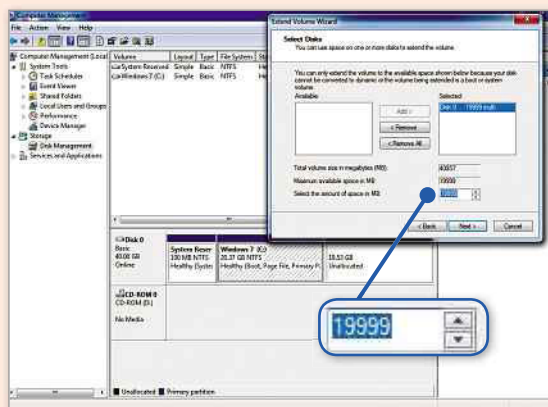
No Windows disc came with PC, but there is a product key. The hard drive is **partitioned** with a 74.5GB C drive (28.4GB free) and a 204.5GB drive D (203GB free). Can I delete drive D to make more room on the C drive? If so, how would I be able to do that and retain the Windows operating system?

Bob Loader

**A** You didn't tell us your laptop model, but by tallying the partition sizes we reckon it has either a 300GB or 320GB hard drive. Astute readers will notice that 74.5GB and 204.5GB add up to just 279GB, but there's no such thing as 279GB hard drive – and just a few years ago 300/320GB models were popular in laptops.

The missing space will be accounted for by a hidden 'recovery' partition that contains Windows (or, more likely, a **disc image** of your laptop as it was when it left the factory). This is why you didn't get a Windows disc with your laptop: the recovery partition in conjunction with the product key is all that's needed to restore the system to its original condition. This is all vital background information to allow us to answer your questions.

Next, you must understand that there is much value in keeping your operating system and applications on one drive (or partition), and all your data on another. This is mainly because having a dedicated data drive or partition makes backing up the really important stuff – your personal files and folders – much easier: you just back up the data drive. If the operating system drive ever fails, it can be



Manage your drive partitions in the Computer Management window

restored from a Windows disc (or recovery partition in your case).

As your D partition is all but empty, it sounds like you've been using C for everything. That's okay but for the reasons above, we'd not really recommend it: you'd be better off using Windows Explorer to move your personal files to drive D.

However, if you want to combine the two partitions into a single, large drive C, use the partitioning tools built into Windows. First, back up whatever's on drive D (as it amounts to just 1.5GB you could simply drag and drop the stuff on to drive C). We'd also advise backing up drive C.

Next, click Start, then right-click Computer and choose Manage. In the Computer Management window, double-click Storage in the left-hand pane then select Disk Management. In the bottom pane you'll see that 'Disk 0' (your laptop's hard drive) is divided into a number of partitions, almost certainly starting with a recovery partition. Right-click the D partition and choose Delete Volume. The partition be marked as Unallocated. Now, right-click the C partition, choose Extend Volume, make sure that the 'Select the amount of space in MB' figure (see screenshot above) is set to the maximum (in the field above), then click Next, followed by Finish.

### Can I make my printer take heavier paper?

**Q** I have a 10-year-old Epson Stylus Photo R300 printer. It has been faultless until now. But it will not accept paper any heavier than 190gsm (grams per square metre) – so I cannot use high-quality photo stock. If I try to insert paper stock heavier than this, it displays a 'printer jammed' message. It also refuses to accept premium-grade envelopes, although bog-standard white envelopes go through fine. Is there any remedy to this problem? I know my printer is very old, but I'm not going to give it up without a fight.

Derek Taylor

**A** Short of offering instructions on fundamentally re-engineering your printer's paper-feed mechanism we're not sure how helpful we can be here.

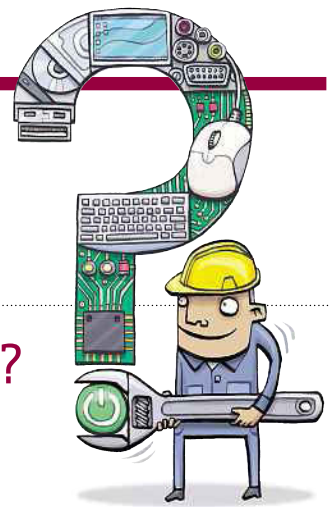
We managed to track down the specifications sheet for the R300 and, while it does say the printer will work with 'premium glossy photo paper', the information doesn't specify a maximum weight. If your printer is baulking at stock heavier than 190gsm, then it's fair to say that you've found its limit – and 190gsm is a pretty heavy stock, after all.

You might have more luck with heavier matte photo paper (such as Go Inks, see image below), rather than glossy, because the **platen** is less likely to slip during the feed. However, if you get the same error message you'll just have to accept that this particular workhorse has reached its maximum load.



Our experts solve all your tech problems

✉ Email us your problem and we'll try to help: [noproblem@computeractive.co.uk](mailto:noproblem@computeractive.co.uk)



## Should my computer beep when I switch it on?

**Q** I was given a Dell Inspiron 531 computer that had been running Windows XP, but the hard drive had packed up. I fitted a 320GB replacement hard drive and installed Linux Mint 16 (Cinnamon). When I switch it on, though, it takes a while to start up and does so with a whoosh sound from the fan and a single beep. The computer has an AMD Athlon 64bit processor and, having looked in the BIOS, something called the Cool'n'Quiet feature is set to Enabled. I'm wondering if this might be the cause? Does the single beep indicate that the power-on self test (POST) is okay? I should say that the computer behaves perfectly once started.

Robin Strachan

**A** We doubt that either the fan noise or beep have anything to do with the Cool'n'Quiet feature because this monitors the Athlon processor during the computer's operation, changing its speed depending on what the computer is doing. While



Disable an old hard drive that you have already removed in your computer's BIOS

your PC's fan will increase or decrease its spin rate to keep the processor cool, this happens automatically as you use your computer. That the fan turns slightly when you power on is not surprising. It could be spinning briefly in reverse to evacuate any built-up dust.

We are more concerned by the beep because, in tandem with the slow startup, it could suggest a hardware problem. According to your computer's manual, a single beep at POST indicates either a

'Possible motherboard failure' or 'BIOS checksum failure'. As you say that the computer appears to work fine, we'd focus on the second of those two possibilities – the BIOS checksum error.

The manual's suggested remedy is to contact Dell, which isn't very helpful.

Instead, we'd recommend you first explore the BIOS some more to see what it makes of the hard drive you've installed. It's possible that the new drive is causing the checksum error (because it differs from the factory-supplied drive) and you might find an option to disable the warning. For example, the old hard drive might still be listed in the Boot section, so the computer will look for it when you switch it on. If it's there, select it in the list and then choose Disable (see screenshot above).

## Why is Outlook so slow?

**Q** I have a 16Mbps broadband connection that works well, but Outlook emails seem to download slowly. It takes several seconds for each one to appear, with batches taking even longer to download. With the small file sizes involved I'd expect them to download much more quickly. Is there anything I can do to speed things up? I use Outlook 2003 with Windows 7.

Larry Lustig

**A** Assuming the emails themselves are truly small (meaning no attachments such as photos or video clips) then the most likely cause is that Outlook's Personal Storage Table (PST) file is slowing down as it becomes larger. Indeed, this sounds very likely to us because you're using Outlook 2003, so you could have been using it for many years.

The solution is to reduce the size of your PST. Outlook has a tool to do this automatically, but first go through your inbox and other folders deleting emails you no longer need, especially those with attachments.

Then, in Outlook 2003, open the Tools menu and choose E-mail Accounts. Next, click 'View or change existing e-mail account', then click Next followed by Microsoft Exchange



Reduce the size of Outlook's personal folder file to reduce the time it takes for emails to arrive in your inbox

Server then Change. Now click More Settings, choose the Advanced tab then click Offline Folder File Settings. Finally, click Compact Now and sit back while Outlook goes about its business – it could take a fair while to complete. When it's finished, click OK twice followed by Next and then Finish.

# Problems Solved

## Why can't I click webpage email links?

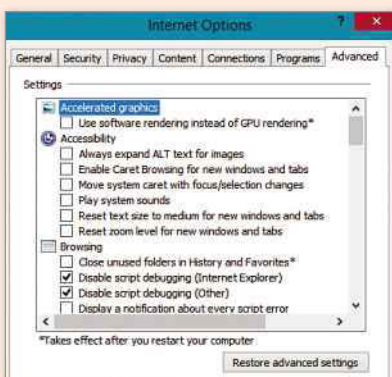
**Q** When I click a webpage link to send an email I get the following message on screen: "The operation has been cancelled due to restrictions in effect on this computer. Please contact your system administrator". I use Microsoft Outlook and the computer is running Windows 8.1. Can you help, please?

John Friend

**A** This is usually because Internet Explorer's settings have become corrupted, perhaps because of an improper shut down – like a power cut. Fixing it is usually easy.

In Windows 8/8.1 launch the Desktop version of Internet Explorer 11 and then click the cog icon at the top right and choose 'Internet options'. Select the Advanced tab (see screenshot below) and, in the 'Reset Internet Explorer settings' section, click the Reset button twice.

This should work, but if not there's another method that involves copying a Windows Registry key from another PC. Because this isn't convenient for many people, Microsoft has released an automated repair. To apply this, visit [www.snipca.com/15383](http://www.snipca.com/15383), click the 'Microsoft Fix it' button under the 'For Windows 8.1 and Windows 8' heading then follow the prompts.



Reset Internet Explorer's settings to make webpage email links work properly

## Why is my email name wrong?

**Q** I have installed the free version of Avast 2015 on my Windows 7 Ultimate PC. However, one problem is that Avast always puts a 'w' into my name on outgoing emails. My surname therefore becomes 'Chewssell' instead of 'Chessell'. This can be very confusing for recipients. I send a lot of emails from my computer, including those relating to business matters – so how do I stop this happening?

Keith Chessell



If your name on outgoing emails is incorrect check your user details in your email settings

**A** We don't think this has got anything to do with Avast, though we can see why you might have come to that conclusion because the software adds its graphical signature to outgoing mails.

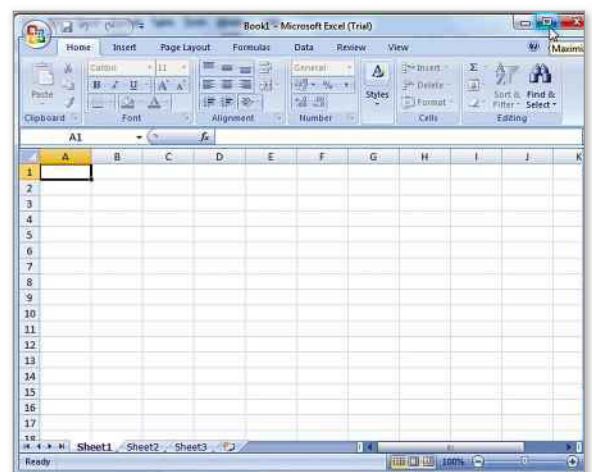
Instead, your problem is probably down to a typing error you've made in your email software. Have you recently installed new email software, changed your email provider or otherwise updated the email settings? The 'w' key is right next to 'e' and above 's' on the keyboard, so it would be easy to tap it accidentally while typing your surname.

You didn't tell us which email program you use but in Microsoft's free Windows Live Mail, for example, click the blue button at the top left to open the menu, then click Options followed by 'Email accounts'. Next, click your email account followed by the Properties button. Select the General tab and here we'd wager the Name field reads 'Keith Chewssell'. Just click in the field, correct the error and click OK, followed by Close.

## Why can't I drag Excel between two displays?

**Q** I have just started using a second monitor with my laptop. The second screen is a TV connected to my laptop via an HDMI cable. It all works very well and I think it's very useful. However, when I open my Excel spreadsheet I can't drag it between the two screens. Any idea why, or how to fix it?

Tony York



Minimise your Excel spreadsheet window to drag it to a second connected monitor, then maximise it again

**A** We're guessing that you're using Excel 2007, as there's a bug in this version of the program that presents exactly this problem if your spreadsheet window is maximised.

Assuming you don't wish to spend money upgrading to a newer version of Excel (or Office), the answer is to first click the Restore Down button (two

overlaid rectangles) at the top right, to reduce the size of the window. You'll then be able to drag it to the second screen, before clicking the Maximize button (one rectangle) to make Excel once more fill the screen. Alternatively, press Windows key+Shift+left or right arrow.



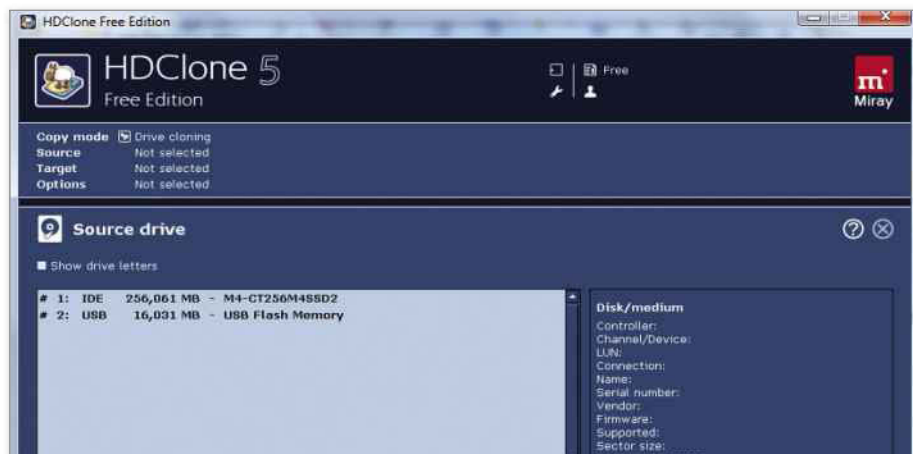
## How do I shift my boot drive on to a new SSD?

**Q** I want to replace the main hard drive on my PC, as the free space is down to 20 per cent. My current drive is a 120GB SSD and I want to replace it with a 250GB SSD. Can I copy the entire contents and settings of the old drive to the new one, so that my computer will boot up from the new drive? If so, how? And would I have to reactivate Windows? Most of my documents and files are stored on a separate 120GB SSD. I also have a new 500GB external hard drive that I could use during the transfer, if necessary. The operating system is the 64bit edition of Windows 7 Home Premium.

Geoff Taylor

**A** First, we'd suggest reading our answer to Bob Loader's Problem of the Fortnight (page 64), because you might be better off simply adding a second drive for storing your personal stuff.

But if you want to proceed then you



Free software HDClone makes it easy to replace your PC's hard drive

can achieve what you want very easily using cloning software, such as the free HDClone ([www.snipca.com/15380](http://www.snipca.com/15380)). Make sure you back everything up first (your 500GB drive would be ideal for this), then attach your 250GB SSD to your PC. You can do this with a SATA-to-USB cable (just a couple of pounds from

Amazon: [www.snipca.com/15381](http://www.snipca.com/15381)).

Then use HDClone's Cloning option to copy your drive C to the new SSD. When done, replace drive C with this new drive and your PC should boot as before. You might need to reactivate Windows, but just follow the displayed instructions.

## Why won't my backup drive appear?

**Q** Before sending my HP computer to be repaired I backed up its contents to my external Buffalo hard drive. When I got the repaired PC back, much to my horror, the Buffalo drive would not appear in the 'This PC' screen. I have lost years of photographs and other things. The Buffalo drive self-loaded before the PC was repaired. This just shows the value of your advice to back up in two different places! Any ideas?

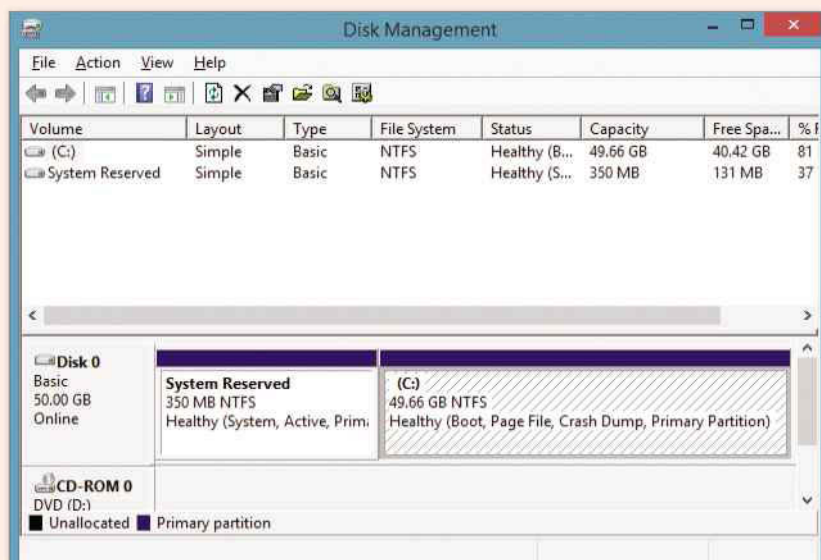
Peter Reeks

**A** Don't despair just yet. We don't know anything about your PC or setup, but because it's been faulty before it's possible that a new or related fault has developed. Have you tried attaching the drive to different USB ports?

If possible, test the drive with another computer, as that would help isolate the problem. If it works on someone else's PC, then you need to focus your fault-finding efforts on your computer (and that might mean a trip back to HP).

We know you're using Windows 8/8.1 because the 'This PC' screen is the heading label displayed by File Explorer, Windows 8/8.1's replacement for Windows Explorer. So, attach the drive as normal, press Windows key+X, then click Disk Management. If your drive appears in the bottom pane of the Disk Management window, right-click it, then choose 'Change Drive Letter and Paths'. If no drive letter is assigned, click Add, select the 'Assign the following drive letter' button and choose a letter (like D:). Click OK twice, then launch File Explorer (Windows key+E) and the drive should appear.

If it still fails to appear then, again, you really need to try it on another computer. If it doesn't work on another computer then the hard drive might be faulty – so you'll need to contact Buffalo.



Use Windows 8's Disk Management tool to make your PC recognise a drive

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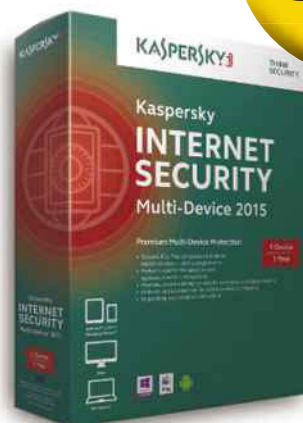
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Issue 415 22 January; Issue 425 11 June; Issue 430 20 August; Issue 437 26 November



## Is Windows 10 eating into my broadband allowance?

**Q** I have fibre-optic broadband from the Co-op, with a 40GB monthly download limit. My normal monthly usage is below 10GB. Recently, I downloaded and installed the Windows 10 trial in a **virtual drive** (using VirtualBox). Not long after this I received an email from the Co-op telling me that 80 per cent of my download allowance had been used, with a quoted figure of 33GB. This is something like five times what I normally use, and in just three weeks. I'm assuming this has got something to do with Windows 10, so to avoid excess charges I've stopped using it. Do you know what is going on here?

Brian North

**A** Yes, while Windows 10 is in its Preview stage Microsoft is sending out updates automatically and the option to stop this is disabled. In other words, if you're using Windows 10 Technical Preview then Microsoft forces you to download

the latest updates. As Windows 10 is a work in progress, Microsoft is issuing regular updates – so that explains your increased downloads.

There's really not much you can do about it, although there is an option that will slow down the rate at which the updates are downloaded and applied. Microsoft doesn't expand on what this means in practice but, to preserve your allowance, it's worth a try.

Click the Start button followed by settings. Next, click 'Update & recovery', followed by Windows Update, then 'Advanced options'. Under 'Choose how preview builds are installed', choose Slow from the dropdown menu.

While you're here, you might be able to shave off a few more gigabytes by removing the tick from the box labelled 'Give me updates for other Microsoft products when I update Windows'. However, this will work only if you have other Microsoft tools installed within your Windows 10 virtual machine.



**Preserve your broadband allowance by changing how fast you receive updates**

## How do I remove all the rubbish from my Android tablet?

**Q** I have an Android tablet that is filled with pre-installed software that I don't want. I know that there are 'decrapifier' tools for Windows PCs, so I'm wondering if there's a way to decrapify my Android device?

Ernie Braithwaite

**A** The answer really depends on your specific tablet model, which you didn't tell us. In many cases it's possible to **root** an Android device to replace the pre-installed setup with a 'pure' version of Android, but the process varies greatly between devices, and changes all the time. It's also not always that easy and not always ideal, because you might lose access to some services or tools. If you still fancy giving this a go, then use Google to search for your tablet model and the words 'how to root'.

But before undertaking this extreme measure, you could try simply uninstalling the apps you don't want. To do this, tap the All Apps icon (six dots), then tap and hold an unwanted app's icon before



**Use the free LauncherPro app to hide any crapware you can't uninstall**

dragging it onto the Uninstall legend/bin icon.

Some 'crapware' apps will simply refuse to uninstall. If you're prepared to root your device to get rid of them, another option is to use an alternative launcher: with this method you'll at least be able to hide the stuff you don't want.

LauncherPro is a good option, and a free download from [www.snipca.com/15379](http://www.snipca.com/15379). Once it's installed, tap your Home button, choose LauncherPro and then tap Always. You'll start with a home screen that's almost completely clear. To add items, tap All Apps then tap and hold an icon to drag it on to a home screen. To remove LauncherPro, tap Settings, swipe to All, tap LauncherPro, then Uninstall.

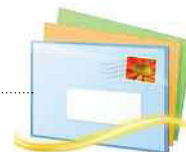
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ON SALE  
1 April

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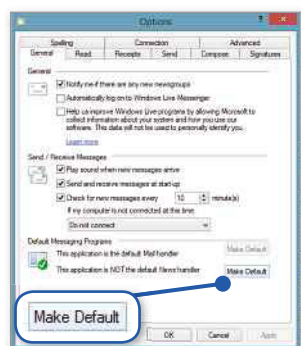
# Windows Live Mail

Sync your inbox, see all messages in date order and beat your ISP's restrictions in Microsoft's email manager

## Windows Live Mail doesn't open automatically

When you click an email address link on a web page or in an **HTML** email, Windows Live Mail (WLM) should open a New Message window automatically. If it doesn't, or if you see a window for a different email handler, it's because WLM isn't set as your default.

To fix this, open WLM, click the blue button at the top left to open the menu (or click the File tab in Windows 8/8.1), select Options and then click Mail. On the General tab, under Default Messaging Program, click Make Default next to 'This application is NOT the default Mail handler', then click Apply.

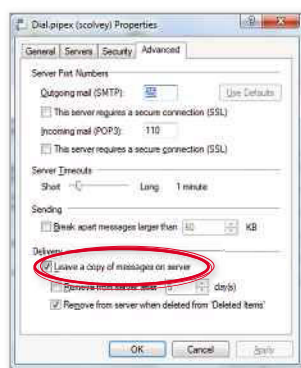


If clicking email address links doesn't work, make Windows Live Mail your default email handler

## Your Inboxes aren't synced

If you use WLM on two PCs, and you sign into both using your Microsoft account, you might expect the contents of your Inbox and 'Sent items' folders on both PCs to be identical. But this is not always the case, and it depends on your email provider (for example, you may be using Gmail in WLM), the **email protocol** you're using and how the protocol is set up.

If your provider offers the **IMAP** protocol, set up WLM to use that on all your PCs. If you're stuck with the less-flexible **POP** protocol, there's a workaround that lets you mirror the Inbox folder (but not 'Sent items'). Open the menu (or click File), select Options and click 'Email accounts'. Select the account you want to sync, then click



Sync your inboxes by ticking the option to leave messages on the server

Properties. Click the Advanced tab, then go to the Delivery section and tick 'Leave a copy of messages on server' and 'Remove from server after', then type a number. For example, if you type **7**, messages downloaded to WLM on one PC will be available to download to your other PC for seven days.

## You can't send emails

If you use WLM to manage your ISP-hosted email account (for example, Virgin Media Mail), you may have trouble sending emails if you're connected using another provider (Wi-Fi in your local library, for example). This is because many ISPs place restrictions on sending emails, to prevent abuse by spammers.

You can either save the emails to send from home, or tweak WLM's settings so it logs into your ISP's SMTP (sending) server. Go to your ISP's email account, open Properties (see previous tip), click the Servers tab, then tick 'My server requires authentication' in the Outgoing Mail Server section. Next, click the Settings button, select 'Log on using', type your login details and click OK.

## Links in emails aren't clickable

If you can't click links in emails, it may be down to over-zealous blocking by WLM's phishing filter, which blocks links to sites it considers dodgy. If you're sure a link is safe, double-click the email so it opens in a separate window, then click

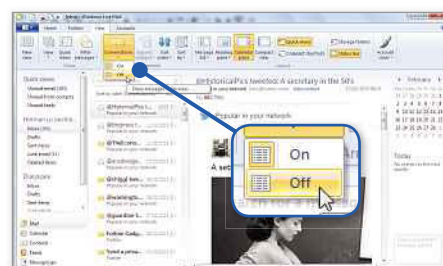
Unblock in the bar at the top.

To disable the phishing filter permanently, open the main menu and click Options, then 'Safety options'. On the Phishing tab, untick 'Protect my Inbox from messages with potential Phishing links', then click OK.

## Messages aren't in date order

There could be a couple of reasons why your emails aren't displayed in chronological order. First, check the column heading above the message list. If it doesn't say 'Sort by date', click the heading and choose that option.

If it says 'Sort by date (Conversations)', you have WLM's Conversations mode enabled, which groups your emails and replies into 'threads'. In this mode, new incoming emails will be sorted into the relevant thread – even if that thread is days or weeks old. If you don't like this style of organisation, select the View tab, then click the Conversations button and choose Off in the dropdown menu.



Sort emails chronologically by disabling Conversations mode

## Emails are marked as read too quickly

WLM's default setting marks emails as read one second after you click them, which is too prompt. It means emails are marked as read before you've actually read them. To fix this, increase the default from one second to something more realistic. Go to the main menu, then Options, then Mail. On the Read tab, increase the value in the 'Mark messages as read' box from '1' to '5' or more.



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| No.34 Black                | £11.99 |
| No.35 Colour               | £12.99 |

|                          |        |
|--------------------------|--------|
| <b>Lexmark Originals</b> |        |
| No.14 Black              | £18.99 |
| No.15 Colour             | £20.99 |
| No.32 Black              | £22.99 |
| No.33 Colour             | £24.99 |
| No.36 Black              | £19.99 |
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| No.100 Black             | £15.99 |
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**Ink Test Winner!**

| Code:             | Originals: JetTec:   | Suitable Printers:                             |                                |
|-------------------|----------------------|--|--------------------------------|
| T007 Black        | <b>£29.99</b> 16ml   | <b>£3.99</b> 20ml, 3 for <b>£10.99</b>         | Photo 790, 890, 900, 915, 1290 |
| T008 Colour       | <b>£23.99</b> 46ml   | <b>£4.99</b> 50ml, 3 for <b>£13.99</b>         | Photo 790, 870, 890, 905, 915  |
| T009 Colour       | <b>£29.99</b> 66ml   | <b>£4.99</b> 70ml, 3 for <b>£13.99</b>         | Photo 900, 1270, 1290          |
| T026 Black        | <b>£39.99</b> 16ml   | <b>£3.99</b> 20ml, 3 for <b>£10.99</b>         | Photo 810, 830, 830u, 925, 935 |
| T027 Colour       | <b>£29.99</b> 46ml   | <b>£4.99</b> 50ml, 3 for <b>£13.99</b>         |                                |
| T040 Black        | <b>£44.99</b> 17ml   | <b>£3.99</b> 20ml, 3 for <b>£10.99</b>         | C62, CX3200                    |
| T041 Colour       | <b>£39.99</b> 37ml   | <b>£4.99</b> 46ml, 3 for <b>£13.99</b>         |                                |
| T050 Black        | <b>£32.99</b> 15ml   | <b>£2.99</b> 16ml, 3 for <b>£7.99</b>          | 440, 640, 660 Photo 700, 1200  |
| T051 Black        | <b>£36.99</b> 24ml   | <b>£2.99</b> 26ml, 3 for <b>£7.99</b>          | 740, 760, 800, 850, 860, 1160  |
| T052 Colour       | <b>£36.99</b> 35ml   | <b>£3.99</b> 39ml, 3 for <b>£10.99</b>         | 440, 640, 660, 740, 760, 1160  |
| T053 Colour       | <b>£26.99</b> 43ml   | <b>£3.99</b> 48ml, 3 for <b>£10.99</b>         | Photo 700, 750                 |
| T0441-4 Set of 4  | <b>£44.99</b>        | <b>£14.99</b> 3 sets for <b>£42.99</b>         | C64, C66, C84, C86,            |
| T0441 Black       | <b>£19.99</b> 13ml   | <b>£4.99</b> 13ml, 3 for <b>£13.99</b>         | CX3600/3650, CX6400, 6600      |
| T0452-4 each      | <b>£9.99</b> 8ml     | <b>£3.99</b> 3ml, 3 for <b>£10.99</b>          |                                |
| T0481-6 Set of 6  | <b>£69.99</b>        | <b>£19.99</b> 3 sets for <b>£57.99</b>         | R200, R220, R300, R320, R340   |
| T0481-6 each      | <b>£15.99</b> 13ml   | <b>£3.99</b> 13ml, 3 for <b>£10.99</b>         | RX500, RX600, RX620, RX640     |
| T0540-9 Set of 8  | <b>£109.99</b>       | <b>£35.99</b> 3 sets for <b>£99.99</b>         | Photo R800, R1800              |
| T0540 Gloss       | <b>£8.99</b> 13ml    | <b>£3.99</b> 21ml, 3 for <b>£13.99</b>         |                                |
| T0541-9 each      | <b>£14.99</b> 13ml   | <b>£3.99</b> 21ml, 3 for <b>£13.99</b>         |                                |
| T0551-4 Set of 4  | <b>£34.99</b>        | <b>£14.99</b> 3 sets for <b>£42.99</b>         | Photo R240, R245               |
| T0551 Black       | <b>£89.99</b>        | <b>£4.99</b> 8ml, 3 for <b>£10.99</b>          | RX420, RX425, RX520, RX525     |
| T0552-4 each      | <b>£89.99</b>        | <b>£3.99</b> 8ml, 3 for <b>£10.99</b>          |                                |
| T0591-9 Set of 8  | <b>£99.99</b>        | Check Website.                                 | Photo R2400                    |
| T0591-9 each      | <b>£12.99</b> 13ml   | Check Website.                                 |                                |
| T0611-4 Set of 4  | <b>£34.99</b>        | <b>£14.99</b> 3 sets for <b>£42.99</b>         | D68, D80,                      |
| T0611 Black       | <b>£89.99</b>        | <b>£4.99</b> 8ml, 3 for <b>£13.99</b>          | DX3800/3850, DX4200/4250       |
| T0612-4 each      | <b>£89.99</b>        | <b>£3.99</b> 8ml, 3 for <b>£10.99</b>          | DX4800/4850                    |
| T0711-4 Set of 4  | <b>£34.99</b>        | <b>£14.99</b> 3 sets for <b>£42.99</b>         | S2021, SX100/105/15200/20521/  |
| T0711 Black       | <b>£89.99</b> 4.4ml  | <b>£4.99</b> 7.4ml, 3 for <b>£13.99</b>        | SX400/405/415/515, D7892/120   |
| T0711-4 each      | <b>£89.99</b> 5.5ml  | <b>£3.99</b> 7.4ml, 3 for <b>£10.99</b>        | DX400/4400/5000/6000/7400/8400 |
| T0791-6 Set of 6  | <b>£74.99</b>        | Check Website.                                 | Photo 1400                     |
| T0791-6 each      | <b>£12.99</b> 10ml   | Check Website.                                 |                                |
| T0801-6 Set of 6  | <b>£51.99</b>        | <b>£19.99</b> 3 sets for <b>£57.99</b>         | RS00, R265/285/360, RX560/585  |
| T0801-6 each      | <b>£89.99</b> 4.4ml  | <b>£3.99</b> 7.4ml, 3 for <b>£10.99</b>        | /685/650, PX700/710/800/810    |
| T0870-9 Set of 8  | <b>£74.99</b>        | Check Website.                                 | Photo R1900                    |
| T0870 Gloss       | <b>£7.99</b> 11.4ml  | Check Website.                                 |                                |
| T0871-9 each      | <b>£79.99</b> 11.4ml | Check Website.                                 |                                |
| T0961-9 Set of 8  | <b>£74.99</b>        | Check Website.                                 | Photo R2880                    |
| T0961-9 each      | <b>£79.99</b> 11.4ml | Check Website.                                 |                                |
| T1281-4 Set of 4  | <b>£29.99</b>        | <b>£14.99</b>                                  | S22, SX125, SX130, SX235W,     |
| T1281 Black       | <b>£79.99</b> 9.9ml  | <b>£4.99</b> 9.9ml                             | SX420W/425W/435W/445W,         |
| T1282-4 each      | <b>£79.99</b> 5.5ml  | <b>£3.99</b> 5.5ml                             | BX305F                         |
| T1291-4 Set of 4  | <b>£42.99</b>        | <b>£16.99</b>                                  | SX255W/420W/425W/435W/445W     |
| T1291 Black       | <b>£10.99</b> 11ml   | <b>£5.49</b> 11ml                              | SX325W/535W/620FW/645W         |
| T1292-4 each      | <b>£10.99</b> 7ml    | <b>£4.99</b> 7ml                               | SX305F/320FW/525W/625FW        |
| T1571-9 each      | <b>£20.99</b> 25ml   | Check Website.                                 | R3000                          |
| T1591-9 each      | <b>£14.99</b> 17ml   | Check Website.                                 | R2000                          |
| T5801-9 each      | <b>£41.99</b> 80ml   | Check Website.                                 | Pro 3800, 3880                 |
| No.16 Set of 4    | <b>£24.99</b>        | <b>£14.99</b>                                  | Workforce WF-2100W, 2510WF     |
| No.16 Black       | <b>£5.99</b> 5.4ml   | <b>£4.99</b> 5.4ml                             | 2520NF, 2530WF, 2540WF         |
| No.16 CMY, each   | <b>£6.99</b> 5.1ml   | <b>£3.99</b> 5.1ml                             |                                |
| No.18 Set of 4    | <b>£22.99</b>        | <b>£14.99</b>                                  | Expression Home XP30,          |
| No.18 Black       | <b>£5.99</b> 5.2ml   | <b>£4.99</b> 5.2ml                             | XP102, 202, 205                |
| No.18 CMY, each   | <b>£5.99</b> 5.3ml   | <b>£3.99</b> 5.3ml                             | XP302, 305, 402, 405           |
| No.24 Set of 6    | <b>£44.99</b>        | <b>No.24XL</b> Set of 6 <b>£69.99</b>          | Expression Photo               |
| No.24 B/L/C/M, ea | <b>£7.99</b> 5.1ml   | <b>No.24XL</b> B/L/C/M, ea <b>£11.99</b> 9.8ml | Photo                          |
| No.24 CMY, each   | <b>£7.99</b> 6.6ml   | <b>No.24XL</b> CMY, each <b>£11.99</b> 9.7ml   | XP750, 850                     |
| No.26 Set of 4    | <b>£30.99</b>        | <b>No.26XL</b> Set of 4 <b>£54.99</b>          | Expression                     |
| No.26 Black       | <b>£8.99</b> 6.2ml   | <b>No.26XL</b> Black <b>£14.99</b> 12.1ml      | XP600, 605,                    |
| No.26 Photo Black | <b>£7.99</b> 4.7ml   | <b>No.26XL</b> Photo Black <b>£13.99</b> 9.8ml | XP700, 800                     |
| No.26 CMY, each   | <b>£7.99</b> 4.5ml   | <b>No.26XL</b> CMY, each <b>£13.99</b> 9.7ml   |                                |



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|----|---|----------------------------------|---|---------------------|-----------------------------|----------------------|----------------------------------|
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| 2  |    | Plusnet: Broadband & Calls       | <b>£9.99</b><br>(£2.50 for 12 months)       | <b>12</b><br>months | <b>17Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£30.00</b>                    |
| 3  |    | TalkTalk: Broadband              | <b>£3.50</b><br>(HALF PRICE for 6 months)   | <b>18</b><br>months | <b>17Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£31.50</b>                    |
| 4  |   | Sky: Broadband & Calls           | <b>£7.50</b><br>(HALF PRICE for 12 months)  | <b>12</b><br>months | <b>17Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£45.00</b>                    |
| 5  |  | TalkTalk Fibre Broadband         | <b>£13.50</b><br>(FREE for 6 months)        | <b>18</b><br>months | <b>38Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£81.00</b>                    |
| 6  |  | Virgin: Broadband & Calls        | <b>£17.50</b><br>(HALF PRICE for 12 months) | <b>18</b><br>months | <b>50Mbps</b><br>max speed  | ∞<br>unlimited<br>** | <b>£105.00</b>                   |
| 7  |  | Plusnet: Fibre Broadband & Calls | <b>£14.99</b><br>(£3.75 for 6 months)       | <b>18</b><br>months | <b>38Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£112.44</b>                   |
| 8  |  | Sky: Fibre Broadband & Calls     | <b>£20.00</b><br>(HALF PRICE for 12 months) | <b>18</b><br>months | <b>38Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£120.00</b>                   |
| 9  |  | EE: Fibre Broadband & Calls      | <b>£19.95</b><br>(£9.95 for 6 months)       | <b>18</b><br>months | <b>38Mbps</b><br>max speed  | ∞<br>unlimited       | <b>£179.40</b>                   |
| 10 |  | Virgin: Broadband & Calls        | <b>£30.00</b><br>(£24.50 for 12 months)     | <b>18</b><br>months | <b>152Mbps</b><br>max speed | ∞<br>unlimited<br>** | <b>FASTEST</b><br><b>£294.00</b> |

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Data supplied by [www.broadbandgenie.co.uk](http://www.broadbandgenie.co.uk). Correct as of 04/03/2015

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# Jargon Buster

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

**32bit** A measure of how much data a PC can process at once. Most older computers are 32bit.

**64bit** A technology that processes information in larger chunks. Most modern computers are 64bit.

**Beta** A version of software that's being tested. Often released so problems can be ironed out.

**BIOS** Basic Input-Output System. Software built into every PC that connects the vital components.

**Browser hijackers** Programs that change your default browser, homepage and search engine, without prior warning.

**Checksum** The result of a mathematical calculation made using a file, which can be used to verify that a file's contents have not been tampered with.

**Compile** After software has been written it must be converted into a program that can be run. This process is called compilation.

**CSC** Compact system cameras. A camera that uses interchangeable lenses, but doesn't have a viewfinder that uses a mirror.

**Daisy-chained** A wiring system in which multiple devices are connected together in sequence.

**DDoS** Direct Denial of Service. A targeted cyber-attack which brings down a web server.

**Dedicated graphics chip** A graphics card or chip that has its own dedicated memory, rather than using system memory.

**Disk image** A file that contains all the information from a CD or DVD. Sometimes known as an ISO.

**Dots per inch (dpi)** Used to measure the resolution of an image both on screen and in print.

**DSLR** Digital single lens reflex. A digital camera that uses a moving mirror so its viewfinder looks out through the lens.

**Dual boot** To set up a PC with two operating systems, so that one must be chosen each time it starts.

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

**DVI** Digital Visual Interface. A common type of display connector.

**Eight-core** A PC that has eight processors on a single chip.

**Email protocol** A method by which a communication channel is established between two PCs and email is transferred between them.

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

**MicroSD** A small type of memory card. Can be converted to SD size.

**Motherboard** The main circuit board inside every computer.

**NAS** Network-attached storage. A hard drive attached to a network.

**NFC (Near-field communication)** A technology that allows devices to communicate by being touched together or placed near each other.

**Noise** Dust-like speckles that appear in camera and TV images.

**Open source** Software that can be modified by anyone, not just by the employees of the company that created it.

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[www.snipca.com/14981](http://www.snipca.com/14981)**

**FLAC** Free Lossless Audio Codec. A digital audio file that can be created from CD with no loss of quality.

**HDMI** High-definition media interface. A type of connection that transmits high-definition video and audio signals.

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

**Imap** Internet Message Access Protocol. A method for email that lets the user manage messages stored on a remote server.

**LED** Light-Emitting Diode. An electronic device that emits light.

**MFP** Multifunction Printer. A combined printer and scanner.

**Optical audio** A socket that provides a high-quality sound signal between PCs, amplifiers, CD and DVD players and more.

**Partition** Process by which a large hard drive can be split into two or more partitions or 'virtual' drives.

**Platen** A rolling cylinder in a printing press that positions the paper and holds it against the inked type.

**POP** Post Office Protocol. A system for remotely accessing email from an ISP.

**Processor** The brain of a computer (aka central processing unit).

**PVR** Personal video recorder. These set-top boxes let you pause and record digital TV.

**QR code** Quick Response Code. A two-dimensional barcode that can be read using smartphones and dedicated QR reading devices.

**Quad core** A PC that has four processors on a single chip.

**RAM** Random-access memory. The computer's working area.

**Resolution** The amount of detail shown in an image, whether on screen or printed.

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

**SATA** Serial ATA. An interface for connecting modern hard drives and optical discs to a computer.

**SD card** Secure Digital card. A popular type of memory card.

**Server** A PC on a network, such as the internet, that distributes information to other PCs.

**SSD** Solid-state drive. Storage that, unlike a hard drive, uses no moving parts.

**SSL** Secure Sockets Layer. A technology for keeping information secure and secret when sent over the internet.

**TLS** Transport Layer Security. See SSL (above).

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

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

**USB 3.0** A faster version of the USB standard used to connect devices to a computer.

**Virtual drive** A set of files seen by Windows as a separate hard disk.

**WAV file** Also known as a Wave file and saved with a .wav extension. An audio file, used for recording music and other sounds to disk.

**Wiki site** A collaborative website that users can easily modify via the web.

# The Final Straw



**STUART ANDREWS** is  
Computeractive's Mr Angry

This issue Stuart Andrews is weeping over his...

## Woeful Wi-Fi



A few months ago, in Issue 437, I wrote about my cable nightmares and my dreams of a wire-free world. Today, I'm eating my words. Over the last six weeks or so, wireless connectivity has been giving me grief like you wouldn't believe. I'm getting seriously tempted to give up, grab some old-school Ethernet and cable up the house.

Like a lot of you, I rely on Wi-Fi. I've got a whole range of PCs and devices to feed, and all but my sturdy, old desktop PC use a wireless connection to access the web. For a year or so, everything has worked swimmingly.

In December, however, things went wrong. Suddenly, my wife's iMac and my



bravely ventured into the router's labyrinthine setup menus to see if there was anything there. Why are routers stuck in the dark ages? Why do they have interfaces only a hardcore nerd could love? After an hour or so of pointless struggle, I just gave up.

At this point, I started wondering about range. Both the Xbox One and the iMac are in an upstairs room. Maybe a weak signal was to blame? As I already had a Powerline AV network feeding my work PC, I could get a wireless range extender and piggy-back on that.

I bought a range extender from the same manufacturer as my existing Powerline boxes, conforming to the exact same standard. I pressed the one-touch connect buttons on two boxes for the required three seconds to sign the new extender on. Nothing happened. The old boxes were chatting to each other merrily, but leaving the new one in the cold. My wife's iMac could see the extender, but the router was still out of reach. The LEDs pulsed red. So did the veins in my forehead (if you don't believe me, see my byline pic above).

Swearing, I pulled all the boxes out of the wall and – following instructions – plugged them all into sockets in the same room. It didn't work. Ditto for typing the password manually. Eventually I did a factory reset on all three boxes. Big mistake. It ensured that no box would talk to another anymore, so that my

desktop PC was now offline too. Still, my wife was delighted. While I was fiddling around, effing and blinding, her iMac had spontaneously found the router.

You'd have thought I'd have learnt my lesson from all this, but I've recently been dabbling in wireless audio too. I'd originally bought a digital radio for the kitchen with built-in Bluetooth to stream music from my phone, but this had a nasty habit of dropping the connection after two or three tracks. I've tried it with different devices, and even with different music. Maybe it doesn't like Bob Dylan? Many people don't, after all.

So I bought a new wireless speaker; one that hooks on to your Wi-Fi network. And guess what? Half the time it works flawlessly, and the other half it either fails to connect, or drops out midway through *Knockin' on Heaven's Door*.

That's why I'm reaching for the cables. A plug in one end, a plug in the other, and everything behaves. This Wi-Fi stuff? When it doesn't work there isn't a damn thing you can do. So here's my plea. Most of us don't need faster speeds or longer ranges – we're not all streaming 4K ultra HD video around our mansions. What we need is something that's easy to use, and works every time. It's an idealistic dream worthy of Bob Dylan himself.

“

Why are routers stuck in the dark ages? Why do they have interfaces only a hardcore nerd could love?

”

Xbox One would not connect. She couldn't work or send emails and – more importantly, of course – I couldn't play my favourite games. I tried everything: making and breaking connections, resetting the hardware, switching the router on and off, and nothing helped. Something was clearly afoot.

After half an hour or so of fruitless tinkering with configurations, IP addresses and other such stuff, my wife was losing her patience, and I my rag. I

✉ Do you agree with Stuart?  
Let us know at [letters@computeractive.co.uk](mailto:letters@computeractive.co.uk)



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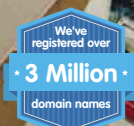
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