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**2015's
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Computer **active**

We're too busy on our phone to think of a line here **p11** ... Your friendly guide to technology



WINDOWS 10



PLUS
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Step-by-step

THE DEFINITIVE REVIEW

Best new tools and how to use them **p50**

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From the Editor

Windows 10 is the best version of Windows ever. That's Microsoft's verdict, anyway. But we're not so sure. Yes, it has several useful new features, but some are just reversing the mistakes Microsoft made with previous operating systems. And yes, it's free, but there are odd privacy flaws and security quirks that concern us (and should worry you too). We examine these and more in our specially extended review of Windows 10. I'm not giving much away by revealing that we think it's better than Windows 8. But the best OS ever? Turn to page 50 to find out.

Before I go, I want to let you know that our



Back Issue CDs have almost sold out on Amazon. At the last count we had less than a hundred copies left of our 2013 (www.snipca.com/16010) and 2014 (www.snipca.com/14981) CDs – and they're selling at a rate of about 10 a day. If you want one, please buy it as soon as possible.

Daniel Booth

editor@computeractive.co.uk



THIS ISSUE IN NUMBERS

1,000,000,000,000,000,000

The number (a quintillion) of tasks a proposed US supercomputer would perform in one second – p9



24 hours

How long Google could lock you out of your account – p69

20 feet

How close a drone came to an annoyed Stuart Andrews – p74

HOW TO USE SNIPCA URLS

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

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Daily charging can be a thing of the past with our guide to prolonging the life of your device's battery



50 most useful Command Prompt tips **p59**



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See page 62 for our special subs offer

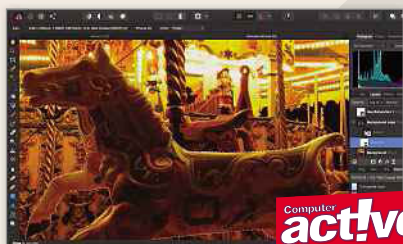


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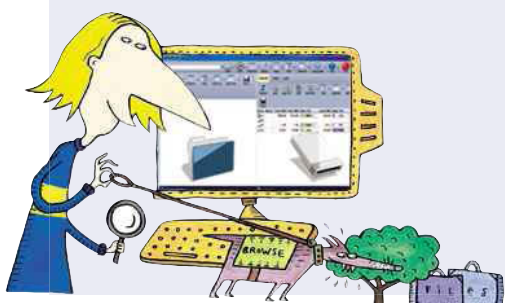
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Computeractive 2014 Back Issue CD

Buy for only £11.41* on Amazon (normal price £15) see page 34



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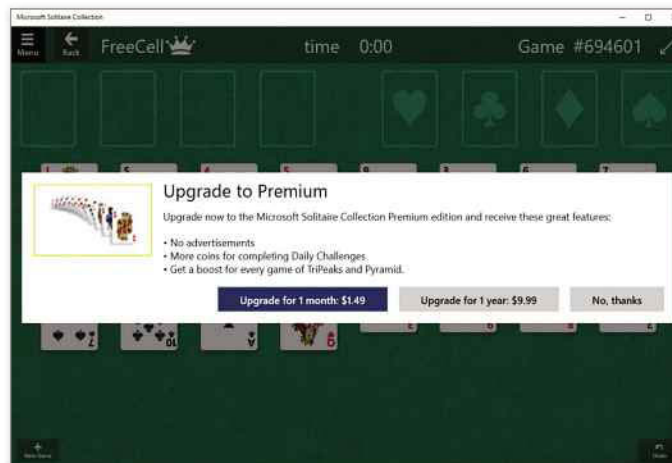
Windows 10: Now the hidden costs start to appear...

Microsoft has revealed some of the ways it hopes to make money from people who have upgraded to Windows 10 for free.

It is charging users to remove adverts in the card game Solitaire, and to use its new Windows DVD Player app.

Days after the operating system launched on 29 July, people playing Solitaire started complaining about the fee they had to pay to block adverts – some of which are 30-second, full-screen videos.

The advert-free Premium version of the game costs \$1.49 a month or \$9.99 a year (around £6.44), and contains bonus features such as extra coins, which is the currency won in the game.



You have to pay a monthly or annual subscription to remove adverts in the card game Solitaire

It is the same fee you had to pay to play Solitaire on Windows 8, but the game wasn't installed by default on that operating system – you had to download it from the

Windows Store.

Many so-called 'freemium' games are free when you start playing them, but ask you to pay to unlock elements such as extra levels and more features.

What's upset many people is the appearance of adverts in a native application, which are programs and tools built into an operating system.

However Microsoft would argue that the Windows 10 edition of Solitaire represents value for money because it comes in several designs, ranks players in leaderboards and contains more versions of the game than before.

Disappointed players expressed their dismay on Twitter. One Windows user called Will O'Neill wrote: "Windows Solitaire: It isn't even free to be alone now". Another, Nick Reineke, said: "I can officially say I've made some mistakes in life when I start paying a monthly fee to play Microsoft's Solitaire game in Windows 10".

COMMENT

Solitaire isn't an essential part of Windows 10, but playing it brings a lot of pleasure to millions of people. Plastering the game with adverts suggests that Microsoft doesn't really understand this. It should have kept Solitaire free of adverts, and charged only for extra features (which most people can live without anyway).

We're less annoyed about having to pay for the DVD Player app. Even if it was free, we'd still recommend using the superior VLC. But both costs are a reminder that somewhere deep within Microsoft's accounting department there must be a top-secret spreadsheet calculating how the company will make money out of giving away Windows 10 for free. In it an optimistic employee would have listed all the fees the company hopes to persuade users to pay. You can bet there will be more to come.

Despite the negative reaction, it seems unlikely that Microsoft will change its mind. The company said in a statement: "The Microsoft Solitaire Collection game experience and Premium Upgrade features such as Double Coins for Daily Challenges, and removal of advertisements, is identical to the Windows 8 version that has been available for purchase for years".

BEWARE WINDOWS 10 RANSOMWARE EMAILS

Cybercriminals have wasted no time in exploiting the release of Windows 10. Security researchers at Bitdefender detected a campaign of scam emails claiming to offer an installation kit to download the new operating system. The emails come attached with a **Zip file**. Downloading it infects your PC with **ransomware** called CTB Locker, which encrypts all your personal data and gives you 96 hours to pay \$600 (around £390).

The email (pictured above) contains the subject line 'Windows 10 Free Update' and appears to come from



the email address 'update@microsoft.com'. It has fewer spelling mistakes than many phishing emails, but there are some telltale signs that the email is not genuine, such as incorrectly displayed apostrophes. Bitdefender says the emails were sent from spam servers located in several countries including France, Russia, the US, Thailand, Ukraine, India, Kazakhstan and Taiwan.

WILL YOU BUY THE WINDOWS 10 DVD PLAYER APP?

What you told us on our Facebook page:
www.facebook.com/computeractive

Oh right. They muck up our computers with Windows 8 and expect us to 'compensate' their mistakes by charging us for stuff. I think not.

Karen Llewellyn

I've always found VLC (pictured right) better in general. Why pay for an

inferior product?

Christopher Walters

No. The Toshiba media player still works on my Toshiba laptop after upgrading to Windows 10.

Brian Christopher Winter

Not when you can get a decent DVD player in VLC. You can also get a decent antivirus for free – Avira (www.avira.com). Most of the software I have is free and still

working great.

Michael Bradbrook

I am using the unfortunately discontinued Winamp, which beats Microsoft's media player hands down.

John Laverock

No and they can keep the so-called 'free' Windows 10. Nothing is free.

Roger Mansell Williams

Not just no, but hell no! VLC can



play DVDs and other things.

Matthew Day

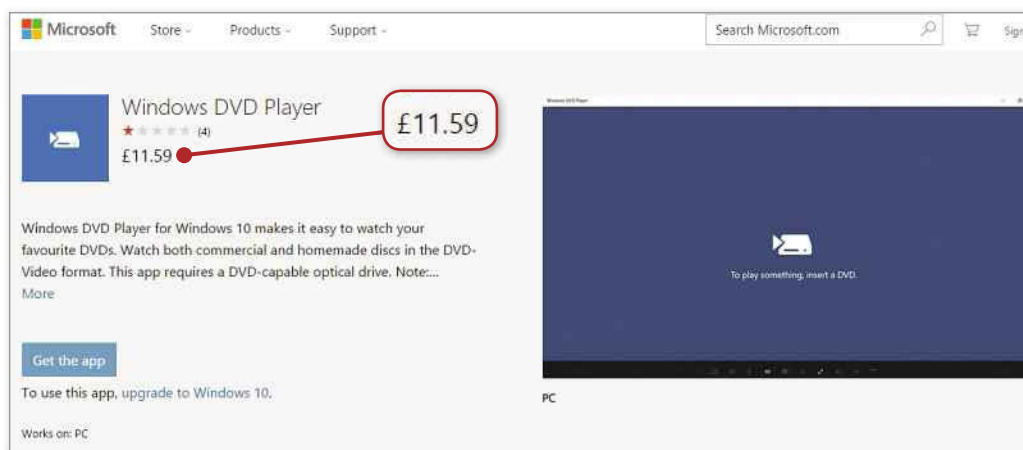
- For advice on using VLC, see Secret Tips in Issue 453

PAY £11.59 FOR WINDOWS DVD PLAYER?

Another cost that has angered users is the £11.59 Microsoft is charging for its Windows DVD Player app.

The app is "free for a limited time" to people upgrading to Windows 10 from Windows 7 Ultimate, Professional and Home Premium. It's also temporarily free for those upgrading from Windows 8.1 who bought the Media Centre app on that operating system.

Microsoft doesn't specify how long the app will be free, stating that the offer "will end at or before the free Windows 10 upgrade offer". That means it will end at any time between now and 28 July 2016.



The Windows DVD Player costs £11.59 in Windows 10

Microsoft didn't include DVD-playback capabilities when Windows 8 launched, citing rising manufacturing and licensing costs. Windows

Computeractive readers reluctant to pay told us that they'll use free software, such as VLC (www.videolan.org/vlc, see box above).

Even those who have paid for the app are angry, as indicated by several scathing reviews on the Windows Store.

A Windows 10 user called 'Ray' wrote: "Abysmal. Tried two different Region 2 DVDs and none will play. All that happens is the DVD is recognised then the Store opens trying to get me to buy something else to play it with. Avoid until Microsoft sort the bugs".

Another frustrated user, 'Colin', complained that the app "does not work - same as a lot of things on Windows 10. Going back to windows 8.1".

At the time of press, all four reviewers who have rated the app have awarded it just one star out of five.

“The Windows DVD Player app is abysmal. Avoid it until Microsoft sort the bugs”

Once the free offer is over, Microsoft will charge £11.59 to install it from the Windows Store (www.snipca.com/17556, see screenshot above).

10 doesn't come with Windows Media Player, meaning the ability to play DVDs no longer comes as standard.

WINDOWS 10: THE DEFINITIVE REVIEW

Turn to page 50 for the Computeractive verdict.



You'll like this...

Microsoft has extended free group video calls on Skype (www.snipca.com/17552)



... but not this

Hackers infected Yahoo's network of sites with malicious adverts (www.snipca.com/17565)

IN BRIEF

UPDATE FIREFOX NOW AFTER RUSSIAN ATTACK

Mozilla has urged all Firefox users to update the browser to fix a security flaw. The vulnerability has been exploited by hackers, who placed an advert on a Russian website that automatically steals your files without you knowing. For more information read Mozilla's Security Blog: www.snipca.com/17541. To update Firefox visit www.snipca.com/17542.

Tomorrow's world

Here's a new term for you to drop into polite conversation: 'robophilia'. It means being sexually attracted to robots, a predilection that will be considered "normal" in 50 years according to Dr Helen Driscoll from University of Sunderland, who claims some people will prefer robot partners to human ones (www.snipca.com/17538).

Android devices to receive monthly security fixes

One of the most serious Android bugs ever discovered has led to Google introducing monthly security fixes for their phones and tablets.

Security researchers at US company Zimperium identified the Stagefright bug in late July, saying it could let hackers take control of your phone simply by sending you a text message. The flaw is so severe partly because you wouldn't even need to open the message to become infected. It can be passed between devices by video and picture messages.

Researchers said it affects any phone running Android 2.2 (nicknamed Froyo) or later, which figures suggest is 95 per cent of devices - around 950 million worldwide. However there's no evidence that hackers have actually exploited the flaw to target phones.

Google fixes security flaws only on its own Nexus devices, leaving phones and tablets made by other



manufacturers at risk. Until now these have been released when vulnerabilities were exposed, not as part of a schedule - unlike, for example, Microsoft's 'Patch Tuesday'.

But stung by criticism that it had reacted too slowly to Stagefright, Google said it will roll out monthly security updates for Nexus devices every month. On the Android Official Blog (www.snipca.com/17539), Google said that the first update was released on 5 August.

Other phone manufacturers have followed suit. Samsung said it would "fast-track" updates, saying this will "vastly improve" the security of its devices. LG will do likewise, saying it's important to show that security is their "highest priority".

Google also said it will continue to support phones and tablets up to 18 months after it withdraws them from sale, meaning customers will be protected even if they own a device that's no longer made.

Is there life on Mars? Find out driving the Curiosity rover

You can explore Mars through the eyes of the Curiosity rover on a new Nasa website.

The Experience Curiosity simulator (<http://eyes.nasa.gov/curiosity>) lets you drive the rover across 3D imagery of the red planet.

Using data fed back from Curiosity, Nasa's Jet Propulsion Laboratory has built a simulation of the 96-mile-wide Gale Crater, where the rover landed in August 2012.

To make the rover move to a location, click that point on the landscape. You'll get a rover's-eye view of the journey through the Hazard Camera at the bottom right



of the website.

Alternatively click a map marker to go to one of three locations visited by Curiosity - places where it has taken some of its most iconic images.

Using the left-hand menu you can adjust Curiosity's antenna and camera arm, and learn how its parts work, such as the drill that collects rock samples from the

planet's surface.

Nasa says the simulator works better in Chrome and Firefox than Internet Explorer. It works well in Apple's Safari browser too.

Nasa also recently launched Mars Trek (<http://marstrek.jpl.nasa.gov>), which is like a Google Maps for Mars. You can see what the planet looks like gazing down on its north and south poles, and follow three spacecraft - Express, Odyssey and Reconnaissance - as they orbit overhead.

Scientists at Nasa are using Mars Trek to help pick out possible landing sites for future missions.

Web pirates could face same jail term as sex offenders

A government proposal to raise the maximum sentence for online piracy to 10 years would mean offenders could face the same length of time in jail as sex offenders.

The Intellectual Property Office (IPO) has launched a consultation aiming to determine whether the maximum sentence for the mass illegal distribution of copyrighted content, such as films and music, should be raised from two to 10 years. This would bring it in line with the current maximum prison time for the piracy of physical goods, such as bootleg DVDs.

Other, more serious crimes carrying a jail term of up to 10 years include sexual assault, and grooming a child for sex and then meeting them, as well as a number of firearms



offences.

The consultation paper says “there is no doubt that copyright infringement is serious and there is no strong case for treating online infringement any differently to physical infringement”.

It also claims that criminal gangs make “vast sums of money” out of pirating films, music and other works of art online. There is a link between digital piracy and more serious crimes like drug dealing, assaults, people trafficking and prostitution, the IPO says.

The consultation document states that raising the maximum custodial tariff for online piracy to 10 years is “supported by the Conservative manifesto commitment that sentencing should reflect the seriousness of the crime”.

The Government says a change in sentencing guidelines “will send a clear message to rights holders and criminals that copyright infringement will not be tolerated”.

But legal experts criticised the proposals. “That the maximum sentence for online piracy would be the same as sexual assault is not appropriate,” Natalie Reeves, a paralegal at the Citizen’s Advice Bureau (CAB) said. “It shows that we value

IN BRIEF

APPLE TO TURN VOICEMAILS INTO TEXTS

You may soon never have to listen to another rambling voicemail message again. Apple is rumoured to be testing a service that lets its voice-controlled assistant Siri answer your calls and transcribe your voicemails. Reportedly called iCloud Voicemail, it will allow iPhone owners to divert their calls to Siri, instead of their network’s voicemail inbox. Siri will greet the caller and invite them to leave a message, which will then be sent to the recipient as a text message.

OBAMA WANTS WORLD’S FASTEST PC

President Barack Obama wants the US to build the world’s fastest supercomputer by 2025. He has signed an executive order to intensify research into ‘high-performance computing’, with the aim of building a machine set to be 20 times more powerful than China’s Tianhe-2, currently the world’s fastest PC. If completed, it would be the world’s first **exaflop** PC, and perform one quintillion (that’s a 1 followed by 18 zeroes) operations every second.

AMAZON PRIME MUSIC LAUNCHES IN UK

Amazon has launched its music-streaming service in the UK, adding it to the range of features available only to people who pay £79 a year for Prime membership. Prime Music contains around a million songs, much less than the 30 million offered by Apple Music and Spotify. But those services cost £9.99 a month, so Prime Music works out cheaper over a one-year period. For more information visit www.amazon.co.uk/prime.

Ofcom to networks: make switching easier

Ofcom wants to make it easier for phone customers to switch mobile networks.

Currently users who wish to switch and keep their number must obtain a PAC (Porting Authorisation Code) from their existing provider, then give it to their new network.

Ofcom says this makes it “unnecessarily hard” to switch to a better deal. The

regulator says that just six per cent of customers switched mobile operator in 2014, down from nine per cent in 2013.

Under Ofcom’s proposed update the customer would need to make just one phone call, to tell the new network they want to switch. This company would then take over the burden of switching by contacting the existing network and moving the customer’s account.

At no point would the customer need to speak to their existing network.

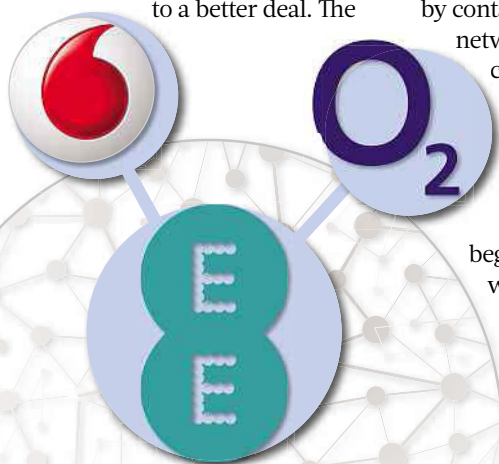
The regulator has begun a consultation with networks and the public to see how changes can be implemented. You can give your

opinion on Ofcom’s website at www.snipca.com/17512.

It will follow this up with a consumer survey in 2016 that will aim to find out what difficulties people have experienced when switching.

Ofcom claims that making it easier to switch will promote competition between networks, driving down prices. It said: “If switching is easy, providers face strong incentives to provide good-value, high-quality services. They may also compete to offer innovative services with the aim of winning customers from competitors”.

The plans were announced a month after Ofcom made it easier for customers to switch broadband provider (see News, Issue 454).



Named & Shamed

In a one-off special, Jane Hoskyn puts the boot into Shakespeare-length T&Cs

WARNING - Terms & Conditions ahead

T&Cs offender: PayPal, Apple, Google...

Here's a fun game. Go to the 'Terms and Conditions' page ('T&Cs' for irritating brevity) on a big website and press Ctrl+A to select all the words. Then cut and paste into Word and wait a few moments while Word calculates the number of words in the document. You'll see the total in the grey bar at the bottom, as in our screenshot. Just wait until you see the size of these things.

PayPal's UK User Agreement (www.snipca.com/17557) clocks in at 27,388 – that's just a few words off Shakespeare's *Othello*. If you add its privacy policy and UK billing agreement terms, you get more than 36,000 words – longer than *Hamlet*. Not even Shakespeare wrote anything longer than *Hamlet*.

Apple's UK iTunes T&Cs (www.snipca.com/17562) are shorter, at 20,085 – a mere *Julius Caesar*. Google's 'Terms of Service' (www.snipca.com/17560) and Privacy Policy (www.snipca.com/17561)



PayPal's basic User Agreement is 27,388 words long – just short of *Othello*

together manage 5,098 words – a few more than Coleridge's *The Rime of the Ancient Mariner*. But then, Coleridge didn't include dozens of links down the side, each of which led to thousands more words of brain-aching legal jargon. And Coleridge had the excuse of being intoxicated at the time.

Why this matters

It's easy to poke fun at epic T&Cs (one freelancer web designer does it brilliantly on his own site: <http://visualidiot.com/articles/terms>), or to tolerate them with

an eye-roll, like when the checkout says "Unknown item in bagging area" again.

But T&Cs are legally binding documents – including the one on the aforementioned designer's site. The fact they're so long that no-one reads them doesn't mean they don't count.

I think that's tantamount to entrapment. Preposterous word-counts encourage you to skip reading T&Cs, but according to Citizens' Advice (www.snipca.com/17563), the fact that you haven't read a set of terms doesn't mean they don't apply to you.

The same goes for any type of written clause, including disclaimers in software installers. So if a software company buries adware in an installer, and you (as anyone would) click 'I Agree' at the end of an unreadably long disclaimer giving the company permission to bury the dodgy file in your PC, it's your responsibility to get the menace out of your computer.

What are they talking about?

Size is not the only problem with T&Cs. Most of these epics are so badly written they're incomprehensible. I tried understanding them, so you don't have to.

PayPal (www.snipca.com/17557)

What they say: "If your PayPal payment funded by a Special Funding Source is rescinded at a later time for any reason, PayPal will keep the amount that represents the portion of that PayPal payment that was funded by your Special Funding Source and reinstate the Special Funding Source."

What they mean: If there aren't enough funds in your first-choice payment source (say, PayPal balance), you'll pay through the second-choice source (say, debit card). eBay helps here: www.snipca.com/17564.

Google (www.snipca.com/17560)

What they say: "The total liability of Google and its suppliers and distributors for any claims under these terms, including for any implied warranties, is limited to the amount that you paid us to use the Services."

What they mean: Google won't pay you any more in compensation for a faulty app than you paid for the app in the first place.

Facebook (www.snipca.com/17567)

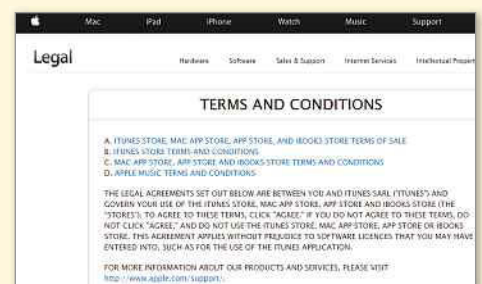
"You specifically give us the following permission, subject to your privacy and application settings: you grant us a non-exclusive, transferable, sub-licensable, royalty-free, worldwide license to use any IP content that you post on or in connection with Facebook."

What they mean: Facebook can use your photos in any way they want.

Apple iTunes (www.snipca.com/17562)

What they say: "The Stores do not provide price protection or refunds in the event of a price reduction or promotional offering subsequent to purchase."

What they mean: Prices can change.



Question of the Fortnight

Have smartphones ruined our manners?

As phone use hits a record high, is public politeness at an all-time low?

If you've ever thought that smartphones play too big a part in people's lives, here's a statistic that lends weight to your suspicion. A third of adults now check their phone within five minutes of waking. Before they have a shower, get dressed, eat breakfast and probably even say 'Good morning' to their loved one, these phone addicts make a beeline to check the latest posts from their Facebook friends.

We have Ofcom to thank for this worrying insight into the lives of the British public. Every year it publishes a survey of how people in the UK use the internet. The central message of this year's Communications Market Report (www.snipca.com/17524) is clear: we are now officially a "smartphone society".

“For the first time, more people prefer to browse the web on their phone than a laptop”

Ofcom has the evidence to back that up. Forty per cent of people admit to checking their phone at the dinner table, even though more than half think it's bad manners to do so. Around 1.2 billion (yes, billion) selfie photos were taken on a phone in the past year. And 66 per cent of UK adults own a smartphone, up from 39 per cent in 2012. Its popularity crosses generations, too: half of people aged 55-64 now own one.



But the standout finding is that, for the first time, more people prefer to browse the web on their phone than on a laptop – 33 per cent for the former, 30 per cent the latter. Ofcom said it was a “landmark moment”. On average last year we spent two hours a day

“couldn't live without” their phone, 10 per cent more than all smartphone users.

All this is great news for mobile networks, tech companies and makers of selfie sticks. And as a tech magazine, we're pleased that the web can be enjoyed on many types of device. But what has been the effect on public manners? Have we developed a phone etiquette for this brave new world of constant communication? Emails we receive from readers would suggest not.

You tell us about dodging 'smartphone zombies' as they zig-zag all over the pavement; being trapped next to chatterboxes on trains who ruin your journey; and being stuck behind people taking ages at the supermarket checkout as they gabble loudly, ignoring everyone else.

Ofcom has some good news for those lamenting our addiction to technology. The UK has yet to embrace the smartwatch, despite the high-profile launch of the

THE FACTS

- A third of adults check their phones within five minutes of waking
- UK adults took 1.2 billion selfie photos in the past year
- For the first time more people prefer to browse the web on their phone than on their laptop

Apple Watch, with only five per cent owning one. But it's early days, and Ofcom expects that figure to rise sharply.

Perhaps we need more publicised cases of irritable phone syndrome, like the recent incidents when Kevin Spacey and Daniel Craig snapped at members of the audience when their phones went off during plays. If more celebrities grumpily refused selfies, or complained about loudmouths in restaurants, then maybe Britain's phone manners would improve. But we suspect it may already be too late.

browsing the web on our phones.


Ofcom says the growth of smartphone use has been “supercharged” by the increasing numbers of people signed up to 4G contracts. Over 23 million people use the 4G's faster speeds, half of them doing so to shop online. 4G users also watch more video clips on their phone than those on 3G because the better connection reduces buffering. Sixty-two per cent of 4G phone owners said they

Letters

Tell us what's on your mind


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www.twitter.com/computeractive

Windows 10: Everything works...

 Having read several months of *Computeractive* articles on Windows 10, I thought 'Go for it!' I've installed it and everything is working as before. I've just made a few changes, like altering the date format, getting rid of MSN and importing website favourites. Everything works. Phew!


Michael Sutton

...but it's not as good as Windows 7

 At the moment, Windows 10 isn't as good as 7. There are things missing in the new browser Edge that were in previous versions of IE, such as choosing your own zoom level. Also I can't use advert blockers in Edge at the moment, nor can I open new tabs in the same window using a middle mouse button click. Compared with Windows 7, 10 is only half finished.

David Lincoln


Windows 10 'wasn't ready to be launched'...

 I've been using Windows 10 for a while on the Insider program and have seen it get better over time. But there are still problems and I don't think it was ready to be launched. I noticed the Start menu sticks now and again, and some windows disappear for no reason. There's more integration to the cloud and it seems Microsoft wants us to permanently connect to its servers. I'm not 100-per-cent comfortable with that.

I'm using it on a triple-boot machine, with Linux and Windows 8.1. I don't think I will update to 10 as my main operating system. I'm even thinking of going back to Windows 7.


Adrian C Symonds

...but will be 'the best version ever'

 I upgraded to Windows 10 with no problems, and love the new interface. That said, it does feel like a work in progress. There are some problems, such as with the Edge browser, which is fast but a bit buggy. But it will be the best version ever once the problems have been patched.

Kevin O'Hare

Old Nvidia hardware restricts me to Windows 7


 Overall, I'm a satisfied Windows 7 user. My PC is almost five years old and was Sony's best all-in-one PC at the time. *Computeractive* is the main reason I can bluff my way through tech knowledge. Somehow your magazine never fully embraced Windows 8, so neither did I.

You make Windows 10 seem more exciting. Maybe here was a new operating system that could speed up my PC? My wife, a tech philistine, asked me the cost. I told her it was free. She remarked "there's going to be extra cost in there somewhere". Three days later, I clicked the Windows icon on my Taskbar to see if my machine could run Windows 10. As always the old girl was right. It said that my PC can't run Windows 10 because of my Nvidia GeForce G210M graphics card.

I contacted Nvidia who said there were no plans to provide any updates, but would contact me if they decided to do so. That sounds like limbo to me. So Windows 7 forever is my fate, if not my plan. "Free"? Bah!

John M Brooks

Ripping DVDs: the voice of 'sanity'

 I read with interest your news story about it being illegal again to

rip and copy CDs and DVDs (Issue 455). May I introduce a bit of sanity?

Let's say that I buy a box-set of *The Hobbit* on DVD for my own use. I sit and watch the three discs – all good so far. A couple of days later my son comes round and asks to watch it also, but the film's producers get no money from this. Two weeks later my girlfriend asks to borrow it. She watches it one evening with her two friends. Again the film company gets no money.




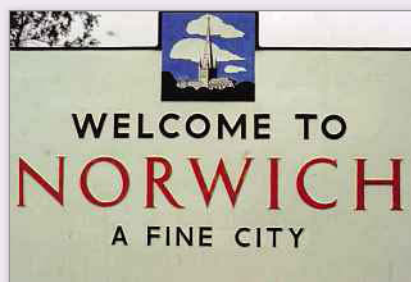
In the fullness of time I may take the DVD to a charity shop, which will resell it. I doubt the film company benefits from this. I may take it to a car boot sale and sell it to someone. I have no intention of telling the film company of the sale.

I can't see the difference between freely lending a film or music on CD and making it available on a pirate website. If I save music from my TV to my recorder, how is it different from saving it to a disc?

Film and music industry bosses say

Move over tech slang – we were naughtier in World War II

 I enjoyed Stuart Andrews' rant against faddish tech slang, and daft acronyms and abbreviations (The Final Straw, Issue 455). But I'd like to point out that acronyms have been with us for decades – centuries, even.



And they've often been as naughty as those used by young people now.

As a young kid in the 1940s, I spent ages trying to work out the location-based acronyms used by soldiers during World War II. I was rather shocked when I discovered what 'Norwich' meant, let alone 'Egypt'. I wouldn't like to startle *Computeractive* readers of a delicate nature by revealing what they stood for. I bet today's teenagers would be shocked to know that 60 years before texting people were already creating risqué acronyms to use when talking to their lovers.

Pamela Johns

they will lose money if we don't buy their CDs and DVDs from shops. They are being disingenuous. Most of the money from CDs and DVDs bought in shops goes to the manufacturer and the retailer. Very little goes to the music and film moguls.

I accept that films and music videos cost a great deal of money to make. The problem is their business model is all wrong. They need advertising and product placement. Banning the copying of CDs and DVDs makes us all criminals and gives the police an excuse to harass us.

Gerald Cooper

How I create the perfect password

I read your article in Issue 455 about creating the perfect password, and you're right to say that longer passwords are harder to crack. My passwords are all 16 digits long. They contain a town name (a Welsh one – though obviously not where I live), then a special character, and a series of numbers (not my date of birth). To



make up the 16 characters I simply add the first and last letters of the site I'm logging into (for example, 'y' and 'o' for Yahoo). This means my passwords are the same apart from the site I am visiting. This makes them easier to remember.

Evan Jones

Couriers pressurise us to answer the door

I disagree with Mark Everest (Star Letter, Issue 454) that customers should make life easier for time-pressed couriers. Which courier does he work for? As a disabled pensioner, I and others are sick of being pressurised to rush about in an age when technology should be reducing the need for this. It takes me 40 seconds to get off a riser recliner chair and another 10 to get to the door. If a courier cannot wait 50 seconds, then there's something wrong with their company's organisation and probably their pay and conditions too. I bet the managing directors are on a nice little earner though.

Lloyd Ridgwell

As a reader of many years, I must, for the first time, disagree with your Star Letter in Issue 454. The working

STAR LETTER

Windows 10: A tale of two downloads

It was the best of downloads, it was the worst of downloads (apologies to Charles Dickens). I'm referring to my efforts to install Windows 10 on my PC, which did run Windows 8.1. First of all, why did Microsoft bother to ask me to 'reserve' my free upgrade? I still had to wait more than 24 hours after it was supposedly available before starting the download.

But that's just me being grumpy and impatient. Eventually, I began the download, then waited. And waited. Several hours passed, the download got to 76 per cent, and then... disaster! The screen went black. To (very badly) paraphrase Gene Pitney, I was only 24 per cent from Windows 10. What the Dickens was going on (apologies again)?

So I gave up, and went to bed. Next morning, with everything crossed (fingers, toes, legs), I tried again. OK, it took four hours, but that gave me the time to finish off the crossword in the local paper, and clear out the garage. Exciting stuff.

Finally Windows 10 was installed. First impression? It looks good. Do you know who at Microsoft decided to bring back the Start menu? I would like to buy that person a large whisky. It's



speedy. It seems easy to use. And it just 'feels' better than Windows 8.1. Don't ask me to explain why. Maybe I'm so desperate for it to be better than Windows 8.1 I'm fooling myself into thinking it is. Better a happy fool than a sad expert, I suppose.

Ted Cooper

CA says Ted's tale is one of hundreds we've received since Windows 10 launched on 29 July. Many readers like the new operating system, but there's a significant minority who think Microsoft has rushed its release, launching it before all the bugs were fixed. You'll read more opinions on the opposite page. If you have any trouble with Windows 10, please email our Problems Solved team: noproblem@computeractive.co.uk. They consider every problem for publication in a forthcoming issue.



The Star Letter writer wins a Computeractive mug!

conditions for couriers should be made illegal. And the customer? We don't know which day the courier will arrive let alone the hour. Sometimes they don't ring the bell, but merely leave a note to say 'parcel over gate'. On one occasion a parcel labelled 'Handle with care, this way up, do not drop' was thrown over a seven-foot gate. It contained a teasmade which, needless to say, was shattered.

My friends agree not to shop at stores which use such courier disservices. Instead they use a 'click and collect' service, or shop at Amazon who operate their own civilised couriers.

Prof Reg Austin

Puzzled by BBC's free PCs

I must be missing something. In the very week I read that John Whittingdale MP (you know, the 'anti-BBC' Culture Secretary?) wants the Beeb to trim back its activities, I see your news article (Issue 454, page 8) saying the corporation plans to give away a million free mini-computers to year-seven pupils. No doubt highly commendable, and all of us have an interest in the extension of computer skills among kids. Nevertheless, can someone explain how this ambitious plan fits with the generally accepted responsibilities of the BBC?

Colin Hague

Consumeractive

Why is my BT internet much slower now?

Q BT is giving me the runaround about the promised speed I should be receiving on its Infinity 2 broadband. I did manage speeds of between 54 to 76Mbps when I first signed up in September 2014, but by January this year it had dropped to around 41Mbps. BT is telling me that my line will only support up to 46Mbps, so why have things changed?

Lawrence Bradbury

A It will be hard to know why the speed of Lawrence's broadband has dropped so sharply, because we can't test the copper line to his house. We agree with him that it is perplexing that he was initially able to get the speeds advertised by BT. We've asked the company to investigate.

To be fair to BT, it hasn't ignored Lawrence's grievance. It told him that he can pay less per month for the remainder of his contract, downgrade it to Infinity 1 or switch to another ISP without paying a penalty fee. None of these is ideal given the satisfactory speeds Lawrence was enjoying, but at least BT is acknowledging his frustration.



If dispatch says 24 hours, shouldn't I get items within a day?

Q On the 9 July I ordered a digital sports watch from an online retailer. On the site it states worldwide shipping and dispatch within 24 hours. So far I've not heard a thing from the company and they've not responded to my emails. What can I do now?

William James

A At the heart of this case is the difference between dispatch and delivery. The company promises to dispatch items within 24 hours, but all that means is that the item has been posted. There is no guarantee that it will arrive at a customer's home within 24 hours.

Unless it states otherwise, or you paid for express delivery, a UK-based retailer actually has 30 days to get an item to you. However the retailer in this case is based in Hong Kong, so it's not bound by UK law. In fact, there is no minimum delivery time in international law, so the watch could take longer than 30 days to arrive.

Alan needs to decide how long he is

prepared to wait before assuming the watch isn't going to arrive. He should then make a claim with the bank that issued his credit card. He should also do this if the watch *does* arrive, but doesn't work, or doesn't fit the description on the retailer's website. Under Section 75 of the Consumer Credit Act, the bank is equally liable with the retailer in refunding a customer for purchases between £100.01 and £30,000. Sometimes the bank will re-credit your account even if the purchase was less than £100. Several *Computeractive* readers have benefitted in the past from this goodwill gesture.

After looking at the website Alan bought the watch from, we've decided to investigate the company further. This means for legal reasons we won't reveal its URL, although we will say that it also sells on eBay and Amazon, and so has a potentially huge customer base. Online reviews left for the company are extremely poor. It appears some people didn't get their orders, while others claimed the goods are fake.



EE is threatening me with bailiffs. What can I do?

Q In April, I signed up to an EE mobile broadband service costing £15 per month. Four days later I received a letter from EE saying they would be charging me £20.22 a month instead. I wrote back saying £15 was the agreed price, but EE took £20.22 by Direct Debit on 29 April. I cancelled this and wrote again explaining why, including a cheque for £9.88 to make up payments to £30 for April and

May. I've now received a letter saying that unless I pay £10.96 EE will pursue me for arrears through bailiffs. Can you help?

Alan Morgan



A We've advised Alan to contact EE *immediately* and tell the company he's seeking legal advice because he's disputing the bill. Internet Service Providers like EE are notoriously quick to hand matters over to debt-collection companies. We've previously

heard from readers who have faced bailiffs over debts as small as £5. And, of course, the cost of hiring a bailiff is ultimately added to the customer's overall bill.

Alan told us that he's never actually used the service, but that's not an issue here. EE needs to answer two questions: why is Alan being charged £20.22, not £15, and why is he being chased for arrears when he's already paid what is owed. We'll let you know what EE says.





✉ Contact us so we can investigate your case

Email: consumeractive@computeractive.co.uk

Write: Consumeractive, 30 Cleveland Street, London W1T 4JD

Please include both your phone number and address.

Unfortunately, we can't reply to all your letters.

We stand up for your legal rights

What are my rights for a failed screen repair?

Q I have already had the screen of my Samsung Galaxy S3 phone replaced because of screen burn. But seven months on and the replacement screen also has an image burnt on to it. I bought this phone from a Samsung shop three years ago, so I want the company to replace the screen again. They told me I'd have to pay for a new phone because the two-year warranty has run out. Can you help?

Kamal Uddin

A Kamal's phone is three years old, so he can still use the Sale of Goods Act (SOGA) if the phone is inherently faulty. Not only does he have up to

six years (five years in Scotland) in which to do this, but SOGA also states repairs must be 'fit for purpose' – and a repair that keeps a phone working for only seven months clearly isn't.

Samsung has acknowledged Kamal's rights under SOGA, but washed its hands of the problem, telling him to contact the retailer he bought the phone from. That's correct, but the customer service assistant he spoke to totally missed the point because in this case Samsung is the retailer, not just the manufacturer. We've pointed this out to Samsung ourselves, and told Kamal to do likewise.

CASE ONGOING



CASE UPDATE

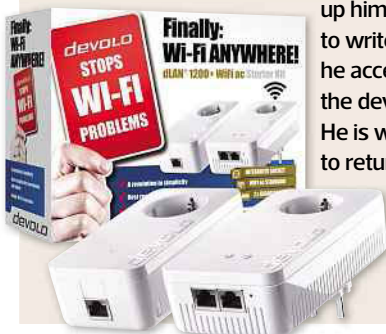


Devolu sends reader pre-configured Starter Kit

We've got news on Pat Bellay's problems with his Devolo DLAN 1200+ Starter Kit, which we reported in Issue 454. When he started using it, his neighbour said he lost connection to his broadband, and that he was able to log into Pat's Sky network. Pat suspected that the Starter Kit was to blame.

Devolu got in touch with us after reading about his case in *Computeractive*. They were keen to fix Pat's problem, so a support engineer from the Customer Care team emailed him claiming that the Starter Kit wasn't faulty, but needed to be "properly configured". The engineer advised Pat to follow the installation instructions on this PDF: www.snipca.com/17546. Pat replied saying that's what he'd done when first installing the Kit, and doubted whether doing so again would make much difference.

After a few emails back and forth, Devolu offered to send Pat a pre-configured Starter Kit, so he wouldn't need to set it up himself. Pat had been prepared to write off the cost of the Kit, so he accepted Devolu's offer, and the device arrived three days later. He is waiting for his neighbour to return from a stay in hospital before trying the Kit. He'll let us know whether it works without the earlier problems.



THIS WILL COME IN USEFUL

Password-reset information

Amazon

www.snipca.com/17372

Apple

<https://iforgot.apple.com>

BT

www.snipca.com/17365

EE

www.snipca.com/17369

eBay

<https://fyp.ebay.co.uk>

Facebook

www.snipca.com/17371

Google

www.snipca.com/17363

Kaspersky

<http://support.kaspersky.co.uk/10261>

LastPass

www.snipca.com/17418

Microsoft

www.snipca.com/17361

Outlook

www.snipca.com/17368

Plusnet

www.plus.net/forgotpassword

Sky

www.snipca.com/17366

Skype

<https://login.skype.com/recovery>

TalkTalk

www.snipca.com/17367

Virgin Media

www.snipca.com/17364

Yahoo

www.snipca.com/17362

YAHOO!



Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

'Court case' emails from the Home Office

What happened?

The National Fraud Intelligence Bureau (NFIB) warned PC users about scam emails that claim to come from the Home Office or Ministry of Justice. The emails urge you to open an attachment to find out more information on a forthcoming court case. Doing so infects your PC with the TorrentLocker ransomware. This horrible piece of malware encrypts all the files on your PC and demands that you pay a ransom fee (typically around \$550 – about £350) to unlock them.

First spotted in Australia in September last year, TorrentLocker is a descendent of the lethal CryptoLocker, which infected countless PCs earlier in 2014. It actually calls itself CryptoLocker in the



message that appears on your screen (see screenshot), but uses a different technique to encrypt files. The results are just as severe.

Sending emails that claim to be from government departments is a favourite tactic of hackers. One of the most popular forms of attack is to send an email purporting to come from HMRC, often offering a fake tax refund.

What should you do?

We'll start with advice so important that we'll never grow bored of repeating it: never open an attachment from an email you weren't expecting, or that appears suspicious. Also, never click a link in a dubious-looking email. To check the legitimacy of an email from the Home Office, hover your cursor over any link it contains. If the URL that appears ends in .gov.uk, then the link should be safe.

The Government itself does a good job of updating its advice to warn people about phishing scams. You should bookmark the Announcements page (www.snipca.com/17446), and also read HMRC's details on genuine emails it sends, and how to spot the fakes: www.snipca.com/17444.

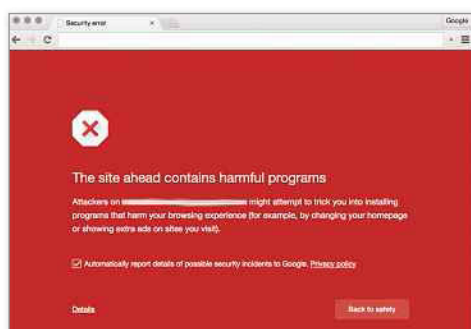
New tools

Safe Browsing for Chrome

www.snipca.com/17518

Have you been seeing more of this warning message in recent weeks when browsing the web in Chrome? If so, it's because Google has broadened its definition of 'unwanted' software that triggers it. You'll see the message whenever Google's Safe Browsing tool thinks you're about to visit a website containing dodgy stuff. Previously, this mostly comprised ad-injectors, which are horrid programs that plaster web pages with adverts. Google has now widened its net to include all types of dubious software, including tools that gather too much of your data.

To make sure Safe Browsing is switched on in Chrome, click the top-right Settings menu (three horizontal lines), then click Settings.



At the bottom of the next page click 'Show advanced settings'. In the Privacy section that expands, make sure 'Enable phishing and malware protection' is ticked. If you think Google is guilty of showing too many false-positive warnings, untick the box. Click the link above to read more on Google's Online Security Blog.

ScamWatch

READERS WARN READERS

Not fooled by 'Indian' Sky scammer

Recently, we received scam calls from 0203 817 446. The female caller has an Indian accent and claims to be from Sky TV. She told us we reported problems with our digibox and account (untrue). She asked for my wife, saying she is the account holder (actually it's in my name), then asked for my account details. I called Sky. They said they would never ask for our account details over the phone. They also pointed out that the scam phone number doesn't have enough numbers in it to be legitimate. Their fraud department is investigating.

Kenneth J Hindlaugh



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

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Disk Drill

<http://pc.cleverfiles.com>

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



A great website is a reassuring place to start when trying new software. The Disk Drill site, hosted by Cleverfiles.com, is an excellent example of this: colourful, packed with information and blessed with live online technical support in case you get stuck (click 'Contact us'). It makes you feel immediately welcome and even relaxed – not what you'd expect to feel after losing files you're now desperate to recover from thin air.

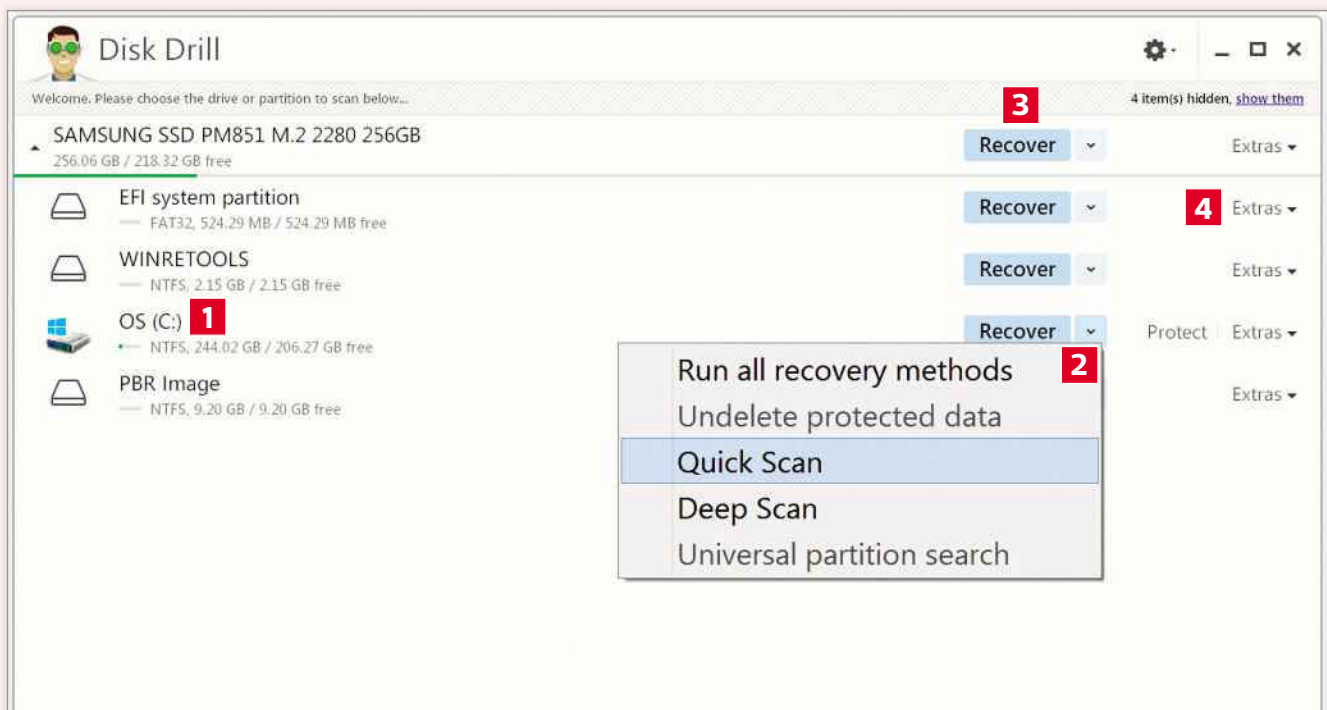
This free program has been available for Mac users since 2010, but this new version finally brings its powerful file-recovery tools to Windows – from XP right up to Windows 10.

The program window (see screenshot below) is rather sparse compared with the lively, info-packed website. But beyond the minimalist design is a wealth of functions,

including **partition** repair, hard-drive reformatting, fixes for corrupted memory cards and, of course, data recovery.

When you're panicking over lost files, the last thing you want is a program that blinds you with jargon, so we're delighted to report that the program is very easy to use. Its years as a Mac-only tool have clearly given its makers time to hone its features, and it's extremely efficient.

There is a portable version of Disk Drill, but we prefer the installable version because it supports deeper scanning and is a doddle to install, with no adware or unwanted extras to worry about. Click the green Download button at the top or bottom of the page and save the installer ('disk-drill-win.msi') to your Desktop, then click to run it and follow the steps in the setup wizard.



1 On the left, Disk Drill lists all the hard drives it finds installed in or connected to your PC, including your local hard drive (C:), partitions and external drives.

2 Click the dropdown arrow next to Recover for the drive or partition you want to scan. Start by clicking Quick Scan to quickly scan that location for recoverable data.

3 Click Recover next to any drive or partition to automatically run all recovery methods for data that can be restored to the drive.

4 To back up a drive, click the Extras arrow and select 'Backup into DMG image', then select 'Disk Image File (iso)' from the 'Save as type' menu.

SYSTEM TOOL

Attribute Changer 8

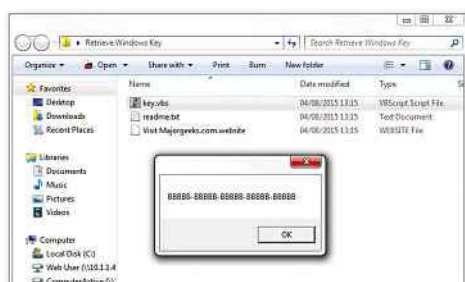
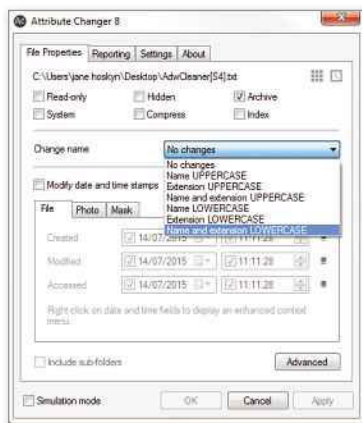
www.snipca.com/17521

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

Incorrect attributes can be the undoing of perfectly good files. A great digital photo, for example, can easily get lost in your PC because its **metadata** contains the wrong date, or because the file was accidentally marked 'Hidden'.

Attribute Changer is a very simple and small (2.6MB) program that lets you change the attributes of a file (or files) with a simple right-click. Select the relevant files, right-click, select Change Attributes and then choose from options such as upper- and lower-case formats (see screenshot), changing the date it was created, and making it Hidden or Read-only. This new version also lets you randomise the date and time of files, and adds support for Windows 10.

To get the program, click 'Get Attribute Changer 8.0a', save and run the installer, which doesn't contain unwanted extras – unless you download it from Cnet (see right), which may add extras to the installer. Once the program is installed, access it from the right-click menu for any file on your PC.



SYSTEM TOOL

Easily Retrieve Your Windows Product Key

www.snipca.com/17516

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

This free new tool was created by a developer at software site Major Geeks when he needed to do a clean install of Windows 10. You don't have to install anything to use the tool. Click the 'Download@MajorGeeks' link and save the ZIP file ('Retrieve Windows Key.zip'), then extract its contents. Double-click the 'key.vbs' file, click Open if prompted by Windows, and your key will be shown (unless, as in our case, you're on a company computer). If you press Ctrl+C the key will be copied (see screenshot) to your clipboard for pasting into Notepad.

WHAT SHOULD I DOWNLOAD?

We tell you what software to use

What partition software should I use?

Q Could you recommend a good free program for creating and managing partitions on my desktop PC? I have a Lenovo C260 all-in-one computer with a 1TB built-in hard drive. Many thanks,

David Morgan

A Partitioning your hard drive is a great idea, especially if you have a large drive with plenty of unused space. Partitioning essentially separates your drive into two or more independent volumes containing different types of data – personal files, installed programs and your main operating system (OS), for example. This reduces the risk of losing programs and files if something goes wrong with your OS.

The simplest tool for creating and managing partitions is already built into Windows. Type **disk management** into Start and press Enter to get going.

However, there are more powerful third-party alternatives. The best-known is EaseUS Partition Manager (www.snipca.com/17514), but we were put off by the constant automatic redirects to the US version (Partition Master) – and the installer refused to work on our PC anyway. So skip that, and try the free version of Paragon's Partition Manager instead (www.snipca.com/17515). The download link takes you to Cnet (www.download.com), whose installers generally make us nervous, but in this case we weren't hit with any adware and installation was fairly straightforward. For more help on partitions, see Fast Fixes in Issue 446.

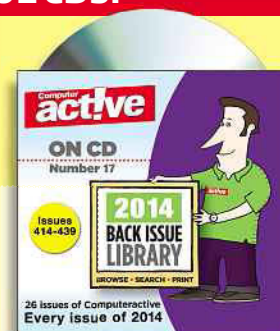


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Reviews

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Chillblast Fusion Centurion

A fast desktop PC with the latest Intel processor



Before we get to the review, we need to talk about **processors**. They're at the heart of every PC in the central processing unit, or CPU. You can't see the CPU, unless you have a scanning electron microscope or X-ray vision, because it's a bunch of tiny slivers of silicon encased in plastic, behind a metal cover under a heat sink. But you'll see the results of its efforts every time you click.

The more capable the CPU, the faster each operation can be completed. This might reduce the short pause as you switch from one window to another, or the couple of seconds it takes to apply a photo filter, or even the half-hour it takes your video-editing app to render your home movie to an **MP4** file. So when you choose a new PC, the CPU is important. Most PCs at the moment use processors from Intel, but AMD makes them too. The two companies use different chip designs – or 'architectures', in the industry jargon – so you can't directly compare them.

Within Intel's range, there's a hierarchy of 'families'. Atom CPUs are the least powerful, in both senses: they don't work very fast, but they don't use much electricity either, which is good for mobile devices. Then come Celeron and Pentium, which now use the same

architecture as Atom, and are typically found in budget laptops. Finally, the Core family, divided into i3, i5 and i7, is for solid all-round PCs. There are also Xeon and Itanium CPUs for high-end specialist machines.

Every year or so, Intel develops each family of processors. Advances are made when the transistors inside the CPU are made smaller. This is

followed by an intermediate step where the architecture is refined. Intel calls this process 'tick-tock'. The last 'tick' for the Core family (codenamed Broadwell) shrank 22 nanometre (22 millionths of a millimetre) transistors to 14. The development proved harder than expected, and was delayed from 2014 to early 2015.

Now it's time for the 'tock' (known as Skylake). We're nearing the limit of how small transistors can get. Quantum physics may seem like exotic theory to most of us, but to chip manufacturers it represents an everyday engineering challenge.

“The fastest processor at this price makes it great for resource-intensive tasks”

Anyway, to this Chillblast tower system, which may not look like it's pushing the boundaries of science but does contain a Skylake CPU – a **quad-core 3.5GHz i5**, to be precise. It's **overclocked** to run even faster, and with a reasonable 8GB of memory and Windows 10 installed on a 120GB **SSD**, there's nothing to hold back performance. The sturdy case (made by Zalman), with its big grilles, includes plenty of fans to keep everything cool. A 1TB hard drive provides space for all your media and documents, but a DVD drive is an extra-cost option.

Although these Intel processors come

SPECIFICATIONS

3.5GHz Intel quad-core i5 6600K • 8GB memory • 120GB SSD • 1TB hard drive • Nvidia GeForce GTX 750 graphics card with 1GB video memory • Windows 10 • 465x192x430mm (HxWxD) • Three-year warranty
www.snipca.com/17526

with their own pretty decent graphics chips, known as Iris Pro, you'll still want a 3D **graphics card** for best results with games. The Centurion's Nvidia GeForce GTX 750 will cope with most games, but its 1GB of memory may struggle with the most demanding, even if you turn down the quality settings.

You could buy a cheaper system that would be better for games, and one with a less impressive CPU could feel just as quick for most purposes. If you do a lot of processor-intensive work, though, such as converting big files, working with databases or editing **DSLR** photos, a fast CPU could pay off. You could also see it as future-proofing: replace the graphics card later, and the CPU will still keep up.

VERDICT: At £650, not the best value PC for everyone, but probably the fastest processor you'll see at this price



ALTERNATIVE: PC Specialist Trion

960 **£650** Despite the previous-generation processor, a more powerful graphics card makes this a better all-round or gaming choice



Intel Compute Stick

A pocket PC with Intel inside...
but not much else

We're seeing more and more 'mini' PCs, some smaller than a paperback. This one is even smaller – about the size of a cigarette lighter or a tin of Smints. It looks like a USB stick, but the plug on the end is actually **HDMI**, ready to slot into a monitor or HDTV.

You could use it in your living room or study, or carry it around and use it with a screen wherever you go.

“A portable PC, but it struggles to load web pages and cope with demanding tasks”

The cheapest Compute Stick costs as little as £85, but when it describes itself as having '8GB', that doesn't mean 8GB of **RAM**. It means 8GB of **flash storage**, the equivalent of hard-drive space. You only get 1GB of memory, which could just about run Windows 8.1 or 10, but actually comes with Ubuntu, the **open-source** Linux operating system.

The model we tested, with a barely adequate 2GB of RAM and 32GB of storage, is better value, not least because it runs Windows 8.1 (letting you upgrade free of charge to Windows 10, saving you around £80 in itself).

Plugging in the Compute Stick isn't as straightforward as it should be. The wide shoulders mean it may not fit in some HDMI ports, or might stick out awkwardly. You can solve this with a right-angle or swivel



adapter from Amazon for a couple of pounds. The second annoyance is that you need to feed at least two amps of five-volt power into the **microUSB** port. The USB sockets on most smart TVs can't supply enough juice, and nor can some phone chargers. This means you'll need a decent USB mains adapter, as well as a USB Type A-to-microUSB cable.

Once this is sorted, click the power switch, switch your TV or monitor to the appropriate input, and you'll see Windows start up. Next, you need to connect a Bluetooth keyboard and mouse. The Compute Stick has fairly mediocre Wi-Fi, so to get online you'll need to be close to your router.

We found the low-power Intel Atom **processor** coped with web browsing and Full HD videos, but stuttered when loading several web pages or running programs more demanding than a text editor – although it did better than the similar Hannspree Micro PC. Frustratingly, the Compute Stick took up to half an hour to install automatic Windows updates.

You could download a free media-server program, such as Serviio (www.snipca.com/17445), and play music and videos from the built-in storage or the **microSD card** slot. But Windows seems like overkill for such basic tasks, and more demanding ones are beyond this device.

SPECIFICATIONS

1.33GHz Intel quad-core Atom Z3735F • Intel HD Graphics • 1GB memory • 32GB flash storage • 1x USB • HDMI • 802.11n Wi-Fi • Bluetooth 4.0 • Windows 8.1 • 103x37x12mm (HxWxD) • One-year warranty
www.snipca.com/17447

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

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

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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: We're not convinced by a PC that doesn't do anything well, even if it's small and cheap



ALTERNATIVE: Lenovo Ideacentre Stick 300 £120 Based on Intel's specifications, this (like various other PC sticks) is almost identical, although Intel's case seems better ventilated



Reviews

FITNESS BAND | £130 from www.snipca.com/17461

Jawbone Up3

Multi-function fitness sensor band



Before the Apple Watch and its fancy health apps came along, lots of people were already wearing futuristic gadgets around their wrists. The Jawbone Up dates back to 2011, and this latest model doesn't run apps or tell you the time, but does measure your skin temperature, respiration, heart rate, movements and heat flux – or how fast you're losing energy (perhaps a polite way of saying how much you're sweating).

Strangely, we could find no reference to respiration, temperature or heat flux in

the Jawbone Up3's companion app, which is available for Android and iOS devices. We assume that this app, along with others made by third-party developers that support Jawbone, will eventually be able to use the data. The data itself is gathered by metal sensors that press, though not uncomfortably, into your skin. There's no screen on the bracelet – only **LED** indicators.

For now, the Up3's best feature is analysing your sleep. You'll soon find out how many hours you're really getting, and how much of it is the deep sleep that really matters. The Apple Watch can't do this. It can take your heart rate while you're awake, though, while the Up3

oddly insists on waiting until you drop off to get a 'resting' level.

Both are splashproof, but the fully waterproof design that Jawbone had intended for this version has failed to materialise – not the first time the company has promised more than it delivered. The choice of two stylish designs makes the Up3 attractive, but it should have been a better product.

VERDICT: A fashionable band with some promising features, but expensive for what it is

★★★★☆

ALTERNATIVE: Fitbit Charge HR £99 Its claims aren't as ambitious, but this bracelet does more that's useful, including telling the time



SPECIFICATIONS

Hypoallergenic TPU rubber bracelet with aluminium casing and stainless-steel electrodes • Splashproof (no IP rating quoted) • 7-day battery • Wrist size 140–190mm www.snipca.com/17462



SMARTWATCH | £150 from www.snipca.com/17482

Garmin Vivoactive

GPS smartwatch with sports features



Garmin is a leading name in fitness gadgets, and this one will appeal to users outside its usual markets of gym addicts and triathletes. The touchscreen isn't as big, sharp or colourful as Apple's, but it works both in sunlight and darkness without eating away at the battery. And although there are only a few apps so far for Garmin's Connect IQ platform, there's already a better choice of clock faces than for the Apple Watch.

In contrast to the Jawbone Up3, the Vivoactive has no sensors except an **accelerometer**, which provides pedometer-style tracking for walking, running and cycling. More advanced

options can be added via ANT+ – the professional standard for wireless health sensors. That makes it more flexible for serious users, but the rest of us might have appreciated a heart-rate monitor at least, as on the similarly priced Basis Peak (Garmin's heart-rate monitor costs about £40 extra).

Unlike the Up3, but in common with the Peak and the Microsoft Band (www.snipca.com/17481), the Vivoactive has its own GPS, so you can see where you've gone as well as how far. While Garmin claims the battery can last up to three weeks, that falls to 10 hours with GPS switched on. Even without it, we reckon a week is more realistic, which is still good.



The Vivoactive has only basic sleep tracking, but its golf features are excellent and it's waterproofed for swimming. The software is comprehensive, and it's able to pass on notifications from your Android or iOS device.

VERDICT: Fitness tracking is limited unless you add sensors, but the Vivoactive still offers a lot for the money

★★★★☆

ALTERNATIVE: Microsoft Band £160 The screen is more basic, but this odd-looking GPS wearable has more built-in sensors and functions



SPECIFICATIONS

Black or white smartwatch with plastic or leather strap • 1.4in transreflective display • GPS • Waterproof to 50m • 3-week battery life • 8x43.8x38.5mm www.snipca.com/17463

LAPTOP-TABLET | £199 from www.snipca.com/17451

Toshiba Satellite Click Mini

A cheap hybrid laptop that might just convert you

Everyone knows netbooks are dead. Truth be told, they were never really alive, making them even less enticing than your average zombie (and just as likely to start falling apart halfway through a video). But somehow the idea of a £200 portable PC keeps getting resurrected.

Like the Acer Aspire Switch 10E (see our review, Issue 454), the Satellite Click Mini combines a tablet-style screen section with a detachable keyboard, letting you use it as a laptop or something more like Microsoft's Surface Pro 3 (see our review, Issue 431). Available in white or gold, it comes with Windows 8.1, upgradable free to Windows 10.

The 8.9in touchscreen is bigger than an iPad mini but smaller than a full-size iPad, making the Click Mini more compact than any laptop. With 1920x1200 pixels, though, it's much sharper than you'd expect, so the amount of room for apps is limited only by how good your eyesight is. You can adjust how big things appear using Windows' settings.

The keyboard only works when physically attached. It clicks into place easily, but the hinge doesn't recline much more than 90 degrees, so if you use it on your lap you'll find yourself ducking down to see the screen. The keys aren't quite full size, and the number keys are one place to the right of where they usually are (thwarting accurate typing). Because the touchpad isn't hugely responsive, you may resort to swiping the screen, which makes the whole thing tip backwards.

The keyboard's battery charges when it's attached and the tablet section is



charging via its **microUSB** port. The main battery lasted just over nine hours.

Like the Acer Aspire Switch 10E, the Click Mini uses Intel's Atom Z3735F **processor**. It's a bottom-of-the-range chip that, combined with just 2GB of memory, means you won't want to attempt anything too ambitious. In general use, though, it doesn't feel horribly slow, though the case does get quite warm around the top-left corner of the screen.

The Click Mini is less powerful than most Windows PCs, but does more than a Chromebook (see our reviews, Issue 455), and the decent screen makes it more of a pleasure to use, even if the keyboard lets it down. Overall, we'll put down our axe and give it the benefit of the doubt.

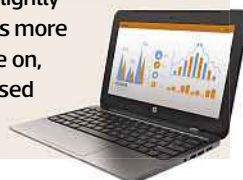
SPECIFICATIONS

1.33GHz Intel Atom Z3735 quad-core processor
• 2GB memory • 32GB SSD • 8.9in 1920x1200-pixel touchscreen • 5-megapixel rear camera • 2-megapixel webcam • 1x USB 2.0 • SD card slot • MicroSD card slot • 802.11n Wi-Fi • Windows 8.1 • 20x235x171mm (HxWxD) • 978g • Two-year warranty www.snipca.com/17452

VERDICT: As a low-cost portable, the Click Mini is appealing



ALTERNATIVE: HP Stream 11 £180 This mini-laptop has a slightly bigger screen and is more comfortable to type on, though it can't be used as a tablet



The best... Internal hard drives

Western Digital Green 3.5in 4TB

£114 from www.snipca.com/17531

This drive, in 3.5in format and with the common **SATA3** interface, reads large files about 40 per cent faster than the similarly priced Seagate Desktop HDD (www.snipca.com/17530), although the difference with small files was negligible.



Western Digital Black2 Dual 1TB+120GB

£133 from www.snipca.com/17532

WD's Black series (www.snipca.com/17533) is a little faster and pricier than its Green range. It is a hybrid or dual drive, which are big hard drives supplemented by smaller **SSDs**. In heavy use with large files, the 2.5in SATA3 Black2 beat the Green by 35 per cent, albeit at four times the cost per GB.



Seagate Laptop SSHD 1TB

£68 from www.snipca.com/17534

With laptops, you have to start looking at the exact thickness of a drive to check it'll fit. This 2.5in hybrid drive is 9.5mm, but others in the series go down to 7mm. Despite its 8GB of **flash memory**, Seagate's **SSHD** was only half as fast as the WD Green reading large files.



Seagate Laptop Ultrathin 500GB

£54 from www.snipca.com/17536

Only if your laptop's even thinner, should you consider this 5mm drive. Otherwise, don't, because with hard drives, leaner doesn't mean fitter – the Ultrathin is relatively slow.



LAPTOP-TABLET | £800 from www.snipca.com/17523

Lenovo Yoga 3 (14 inch)

Can a convertible avoid compromise?
Not on this evidence

Lenovo's Yoga laptop-tablet range has almost as many models as the eponymous spiritual discipline has followers. This full-size hybrid (not to be confused with the Yoga Pro 3) takes the opposite approach to Microsoft's Surface Pro 3. The Surface is a tablet that tries to be a laptop (by adding a keyboard). The Yoga is a laptop that you can also use as a tablet. Either way, you're still carrying a keyboard around with you.

“Not a great screen, but it has a high-end processor and is easy to work on”

But if you're coming to this with traditional ideas of a tablet in your head, you're going to be somewhat disappointed, because the Yoga is a lot bulkier than your average tablet. It's really a touchscreen **ultrabook** with a fancy hinge. The screen can sit at the standard laptop angle, with the keyboard folded under it at the back rather than out front. Or you can turn the whole thing over so it stands like a tent (pictured below). You could also stand it up sideways like a book, but that might be getting a bit silly.



None of this does the Yoga's aesthetics any favours. Mobile devices have a back and a front that look equally good, because whatever side you're not looking at, everyone else will be. PCs, by contrast, sit on a desk, so the underneath (unless it's made by Apple) is typically a mess of grilles, labels and lids. The Yoga's keyboard section is like that. When it's folded out where you can see it, it feels as if there's been some mistake.

Try to ignore that bog-standard silver plastic panel, though, and the rest of the Yoga 3 looks pretty good, whether you buy it in black, white or orange (yes, orange). A proper keyboard with a stiff hinge makes working more comfortable than on most tablets, as does running Windows 8.1 (upgradable free of charge to Windows 10) on a laptop-sized display.

However, the screen itself isn't great. You can view it wide angles, as long as you don't mind the reflections from the high-gloss finish. But colours are relatively dull and the brightness levels aren't enough to compensate. In darker film scenes, for example, we couldn't see what was going on.

£800 is quite a lot to pay for a laptop, so you might wonder where the money's gone. Lenovo has spent it on a high-end Intel Core i7 **processor**, 8GB of memory and a fast solid-state drive (**SSD**). If you'd settle for less power, there's a £650 version with half the memory, a decent Core i5 processor and a standard hard drive.

In our tests, the extra £150 didn't pay off as much as it should

have. The SSD uses the new **M.2** interface, but that didn't result in particularly high speeds. And the processor took about 25 per cent longer to complete tasks than other systems with similar specifications. Even so, this is a capable mid-range laptop, better than cheaper models that can't do much beyond web browsing and word processing.

At eight hours 20 minutes of video viewing, battery life is also more than adequate, and the latest **802.11ac** Wi-Fi standard is supported for good connections. There's a basic set of ports, including **HDMI** for an external monitor. While the keyboard feels fine, its slightly unusual layout kept tripping us up, and the trackpad, as so often on touchscreen machines, didn't always work smoothly.

Compared to a tablet, the Yoga could improve your muscle tone, but a ZenBook might do more for your mental wellbeing.

SPECIFICATIONS

2.4GHz Intel Core i7 5500U processor • 8GB memory • 256GB SSD • 14in 1920x1080-pixel screen 2x USB 3 • 1x USB 2 • Micro HDMI • SD card reader • 802.11ac Wi-Fi • Windows 8.1 • 18.3x335x230mm (HxWxD) • 1.6kg • One-year warranty www.snipca.com/17523

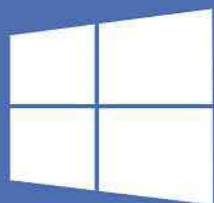
VERDICT: As an attempt at a bigger, better hybrid, the Yoga 3 is undeniably bigger but not better

★★★★☆

ALTERNATIVE: Asus ZenBook UX303LA **£680** It doesn't fold up or have a touchscreen, but this sleek little laptop is a better PC overall



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Prices are correct at time of going to press (23-07-15) E&OE

PRINTER | £385 from www.snipca.com/17453

Canon Pixma Pro-100S

A bigger printer for better photos

If you have a good-quality digital camera, you probably have thousands of great pictures stored at high resolutions. But when you view them, you probably do so on a relatively coarse computer screen. A high-end colour printer might encourage you to commit more of them to paper in their full-size glory.

The Pro-100S is an A3+ inkjet, meaning it can print at more than twice the size of A4 – enough to do justice to a 24-megapixel image. A3 is 297x420mm, but Canon promises anything up to a 360x430mm option (14x17 inches in old money). It can print 'borderless', right to

the edges, on all sizes.

And it prints beautifully. With eight ink tanks, very fine shading is possible both in colour and in black and white. The only limitation is that the inks are dye-based, and so won't survive as long before fading compared with the 'archival' pigment-based inks used by more expensive printers. Canon says prints should last 100 years if they are encased in a photo album, 30 years displayed under glass, but as little as 10 years exposed to the air.

The benefit of dye-based inks is bright, bold colours, especially on glossy paper, and those from the Pro-100S won't disappoint. Our only concern was that blacks could have been a little deeper, but colour accuracy was excellent.

At three-and-a-half minutes for A4 and five-and-a-half for A3, speed is

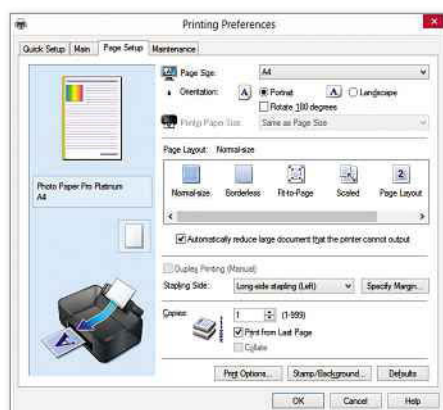
reasonable for top-quality prints. Ink costs start at about 19p for a 4x6in (100x150mm) photo, which is more costly than with an ordinary inkjet, but not prohibitive. To get the best results from the Pro-100S, you'll need to spend as much again on paper, although it copes with all paper qualities.

There's no real difference between this new model and the old Pro-100. Don't buy it if you need an all-round text-and-graphics workhorse, but if you're prepared to invest in a separate printer for big photos, it's still a great pick.

VERDICT: As long as you don't need archival quality, this is an excellent A3+ photo printer, though big and pricey



ALTERNATIVE: Epson SureColor P600
£540 Epson's new A3+ model uses nine pigment inks for over 100 years' display life, but is expensive to run



The Pixma offers a wide range of print options

SPECIFICATIONS

4800x1200dpi maximum print resolution • 8 ink cartridges • USB 2.0 • Ethernet • 802.11n Wi-Fi • 215x689x385mm (HxWxD) • 19.7kg • One-year warranty www.snipca.com/17454

WHAT SHOULD I BUY? We solve your buying dilemmas

What's the best camera for shooting artwork?

Q Can you recommend a point-and-click digital camera for photographing artwork? My 14-megapixel Fujifilm JZ isn't up to it, often giving false colours (cream mounts come out white, blues are washed out) and images are not sharp even using flash.

D Darden

A Photographing flat artwork is tricky. It would be better to use



a flatbed or overhead scanner, but models big enough for large originals aren't cheap.

Camera flash will light unevenly and 'blow out' light areas, such as mounts. If you have room, use a pair of 'soft box' photography lights (£57 from www.snipca.com/17486). Or try a 'daylight' 85-watt fluorescent bulb (£8.99 from

www.snipca.com/17477) in a basic table or floor lamp, kept at a distance to avoid glare. Adjusting the white balance in the camera or in

your photo-editing software can help with colour problems.

To improve image quality you need a better sensor, not more pixels. The 12-megapixel Fuji X30 (£319 from www.snipca.com/17484) would be a good choice. If you don't want to spend that much, consider the Canon Ixus 275 HS (£136 from www.snipca.com/17485). Use the zoom to take a step back.

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

PHONE | £210 from www.snipca.com/17459

EE Harrier

A great mid-range Android phone

We're not sure we like the trend of networks offering their own devices. It's easier to get the best deal if you can pick from a range of models that aren't locked to any one provider. Here, though, EE at least demonstrates that a phone doesn't need a hardware brand logo to be good.

This model has been launched alongside the Harrier Mini, which – at less than £100 – undercuts the likes of Vodafone's Smart Ultra 6 (see our review, Issue 455). At the time of writing this full-size Harrier wasn't listed on EE's website as pay-as-you-go, although it was on the company's Amazon store (see snipca.com URL above). We hope the non-contract option isn't disappearing, because

SPECIFICATIONS

5.2in 1920x1080-pixel screen • 13-megapixel rear camera • 2-megapixel front camera • 802.11n Wi-Fi • 3G/4G • 8.9x74x147mm (HxWxD) • 145g • One-year warranty www.snipca.com/17479

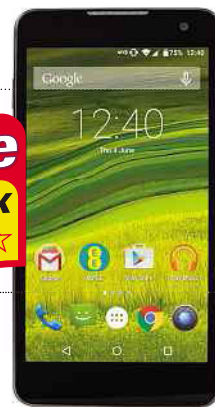
it's good value. But £16.99 per month (including 500MB of data) with no up-front cost is also reasonable.

With an **eight-core** Snapdragon **processor** and 2GB of memory, the Harrier is much faster than most phones at this price, meaning apps and settings appear with less delay, everything feels smooth, and 3D games work well. There's 16GB of storage, expandable with a **microSD card**.

The screen's Full HD 1920x1080-pixel display matches the iPhone 6's **resolution**, although it's slightly smaller. Contrast, colour and brightness are good, though not outstanding, and overall it's a better screen than you'd expect for the price. This number of pixels usually takes its toll on battery life, but we still got 10 hours 40 minutes of video playback, which beat the pricier HTC Desire 820, for example, by an hour. Despite its 13 **megapixels**, the main camera didn't

produce great shots in our tests, needing lots of light for sharp results, and the selfie camera is basic at 2 megapixels.

For a big-screen phone, the Harrier is slim and light, and if you can get it on terms that suit you, it's a very good device for its price bracket.



VERDICT: If EE is the right network for you, this could well be the right mid-priced phone



ALTERNATIVE: Samsung Galaxy A3 £190 A very different phone for similar money, the smaller, metal-cased A3 has a coarser screen but better camera and battery life



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SAFE MONEY



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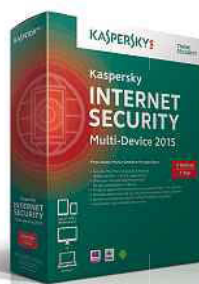
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Reviews

PHOTO-EDITING SOFTWARE | £40 from www.snipca.com/17487

Serif Affinity Photo

A serious new rival to Photoshop for Mac users



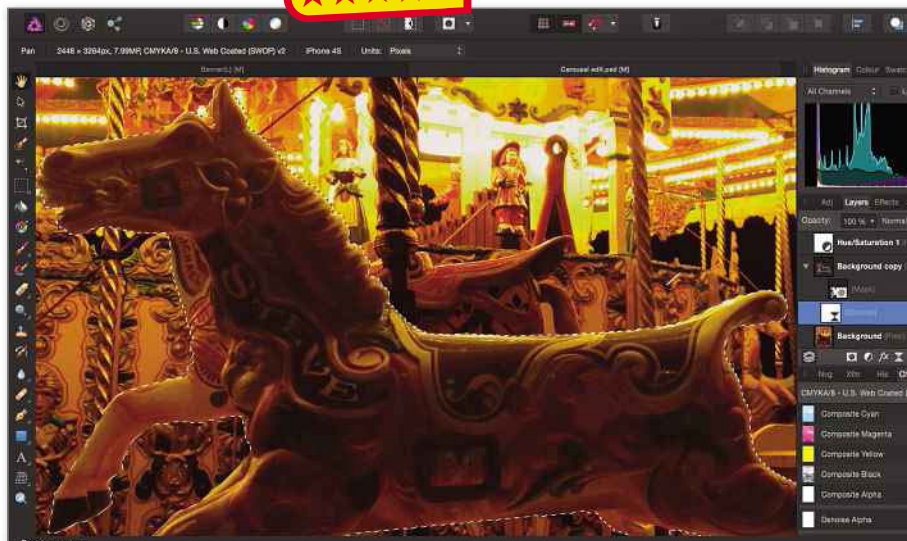
No image-editing program compares with Adobe Photoshop (see our review, Issue 455), with its ridiculously comprehensive range of tools covering everything from medical scanning to 3D printing. But quite a few mimic some its features at a lower price. For PCs, Serif's PhotoPlus X7 is one of the best. For Macs, the company has launched Affinity Photo, a different program with a new approach that could make it the best Photoshop rival yet.

Affinity Photo looks like Photoshop, so experienced users will find everything almost immediately in its dark-grey toolbars and palettes. The way layers and masks are listed is slightly different, but arguably more logical. What matters most is that there's a full set of tools for selecting areas, cutting them out into new layers, and controlling how those layers interact with each other. This is what's missing from the basic photo-adjustment programs that proliferate these days, which may be fun but don't let you take your creative ambitions to another level.

“Without dumbing down, Affinity makes things easier”

Some of Photoshop's more advanced features also have their equivalents here, such as Liquify, Warp Mesh (distorting an image using an editable net of points), and Lighting, where you can add multiple lights and create 3D-effect artwork from 'bump maps' (simulating bumps and wrinkles on the surface of an object). You can edit in CMYK mode, to control colours for commercial printing, or Lab, which separates colour and lightness for retouching. There's even a unique Frequency Separation feature, which takes an advanced technique used by Photoshop pros, involving laborious layer-tweaking, and automates it – although you'll still need advanced skills to use it effectively.

You can open and save Photoshop's



multi-layer PSD files, so collaborating with other users shouldn't be a problem, and there are lots of other export options for print, screen and web use. Everything works lightning fast, and effects are demonstrated instantly in the main window, not via tiny previews. We did miss Photoshop's Preview tick box to quickly compare an image with and without an effect, and it was just as tricky as in Photoshop to make changes to images that have multiple layers, despite an Edit All Layers button.

As with Photoshop, you can use Adjustment layers to apply changes non-destructively, which means you can edit or reverse them later. Live Filters apply other kinds of changes (including blurs, sharpens and distortions) in a similar way. In Photoshop, you need to convert layers to Smart Objects to do this, a flexible but confusing process. In Affinity, you just pick an Adjustment or Live Effect from the palette and a layer is created for it.

This reflects a very user-friendly ethos that makes things straightforward without dumbing down. This doesn't mean things are hidden or over-simplified: you can tweak things as much as you like.

SYSTEM REQUIREMENTS

OS X 10.7.5 (Lion) or later • 2GB memory • 1280x768 or larger display • 600MB of available hard-drive space • Graphics tablet optional www.snipca.com/17488

It's just that when the program can make things easier for you, it does.

If you have little or no experience with image editing, Affinity Photo may still not feel quite as accessible as an overtly hand-holding program like Photoshop Elements (Adobe's home user version), which offers you 'quick' and 'guided' options. There is an introduction for beginners among the tutorials on Serif's website (www.snipca.com/17475), but the rest are aimed at intermediate users.

But it's perfect for those who don't mind a learning curve. It's cheaper than Photoshop Elements and has most things a professional could need. The fact that no Windows version is planned reminds us that Apple's computers are still *the* platform for creative work, and everyone who's bought a Mac for that reason should take a long, hard look at Affinity Photo.

VERDICT: A full-blown pro photo editor for £40? Buy it immediately



ALTERNATIVE: Acorn £23

This simple and attractive program applies a range of reversible filters and effects, but isn't as good for selections



VIDEO-EDITING SOFTWARE | £260 from www.snipca.com/17490

Sony Catalyst Production Suite

Video editing for more than just home movies



There are plenty of options for editing videos. Windows Movie Maker is free and surprisingly good, and other software from Adobe, Corel and Pinnacle come in at under £100. But there's a gap between these 'enthusiast' programs and what the professionals use, such as Adobe Creative Cloud (which is expensive) and Avid Media Composer (which makes Creative Cloud look cheap).

Catalyst Production Suite aims to fill that gap. It comes in two parts. Catalyst Prepare (also available separately) is used to get your video files ready for editing. Although compatibility focuses on Sony and Canon models (see www.snipca.com/17491), common MOV and AVCHD



where you find the clips you want to use, and a timeline that you drop them on to to make your film.

With a minimum of toolbars and menus, the interface is clear and uncluttered. Catalyst doesn't provide a lot of quirky transitions, nor is it a special-effects studio; what you get is a professional editing workflow for quick, accurate results. Drag one clip next to another and it snaps into place. Drag it over the edge and you create a cross-fade. There are also tools for creative colour tweaks, known as 'grading', and sound editing. You can edit using a touchscreen, but a mouse or trackpad is also fine.

Don't assume Catalyst offers more than cheaper programs; in some ways it does less. The difference is that it feels like a serious tool rather than one for the occasional dabbler.

“It aims to fill the gap between enthusiast and professional level – and succeeds”

video formats used by DSLRs and action cameras are supported, at up to 4K resolution. Bear in mind you'll need a 2GB graphics card and a fast drive, such as an SSD, to edit 4K.

Having made your basic corrections, such as fixing poor exposure, and set 'in' and 'out' points to determine which section of a clip will be used, you can move on to Catalyst Edit. This looks reassuringly similar to other video-editing software. There's a preview window for your work in progress, a media browser



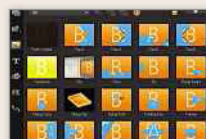
SYSTEM REQUIREMENTS

Windows 7 or later • 4GB memory • Graphics card with 512MB video memory or Intel CPU with SSE 4.2 • 500MB of available hard-drive space • Also available for Mac www.snipca.com/17492

VERDICT: With depth rather than breadth of features, Catalyst is a solid choice for serious editing



ALTERNATIVES: Corel VideoStudio Ultimate X8 £70 Consider this if you want lots of features, or Adobe Premiere Elements (£60) for ease of use



COMING SOON



SEPT 2015

Europe's biggest tech show, IFA, takes place in Berlin from 4 September. We could see new Windows 10 tablets, Samsung and Sony are likely to reveal phones ahead of Apple's next iPhone, and there are hopes of a new smartwatch from Motorola.



AUTUMN 2015

Intel's Skylake processor series has made its debut (see our the Chillblast Fusion Centurion review, page 20), and there are more to come, including options for laptops. It means PCs will get faster, but memory will cost more as the new CPUs require different RAM.



AUTUMN 2015

Google's next Nexus phone will introduce the Android M operating system. It's widely expected to be an update to the medium-sized Nexus 5 with a faster processor, but both LG and Huawei are being talked about as possible manufacturers. Fingerprint scanning is a likely feature.



LATE 2015

Project Ara is a phone that comes as a sort of skeleton into which you slot whatever parts you want. The idea of a device that you can customise and isn't out of date after a year is undeniably interesting.



NEXT ISSUE

ON SALE
2 Sept



HP Pavilion x2
Affordable
Windows 10
hybrid

**Acer
Iconia One 8**
£150 tablet with
a super-sensitive
screen



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www.snipca.com/14981 *At time of press



Our pick of products that have won the Buy It award

LAPTOP

Asus X555LA-XX290H
£300 from www.snipca.com/16158
Tested: Issue 446



Asus has made all the right choices with this budget Windows 8.1 laptop. Its comfortable keyboard, fast performance, respectably lengthy battery life and bright screen are all the more impressive given its low price.

ALTERNATIVE **Asus Chromebook C200**
A cheap Chrome OS ultra-portable laptop with a bright screen, lengthy battery life and a great keyboard. £214 from www.snipca.com/17296

DESKTOP PC

PC Specialist Trion 960
£650 from www.snipca.com/17254
Tested: Issue 454

You could spend less on a usable PC, but this solid tower system has great all-round performance, including decent Nvidia GTX 960 graphics card. A 120GB SSD and 1TB hard drive offers speed and space, but Wi-Fi costs £15 extra.



ALTERNATIVE: Palicomp Intel i5 Elite
For £50 less, this is a similar PC in many respects, but compromises on graphics with the cheaper GTX 750 card. £600 from www.snipca.com/17297

TABLET

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



Apple's mini tablet from 2013 is now available at an even lower price. The only thing it lacks compared with the 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/16717

PHONE

Samsung Galaxy A3
£190 from www.snipca.com/17193
Tested: Issue 454



Similar in size to an iPhone 6, this Android phone doesn't have a high-res screen or high-end performance for advanced games and creative apps, but it lasts over 14 hours on a charge, has a great camera and is reasonably priced.

ALTERNATIVE: Sony Xperia Z1 Compact
We recommended this back in March 2014 (Issue 419) and it's still a great phone. £215 www.snipca.com/11579

DIGITAL CAMERA

Panasonic Lumix DMC-GF6
£260 from www.snipca.com/17548
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: Sony A5000 A rival CSC with better low-light performance, although its controls and range of available lenses aren't quite as good. £249 from www.snipca.com/15854

E-READER

Kobo Aura H20
£140 from 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. £170 from www.snipca.com/14451

HOMEPLUGS

Devolo dLAN 1200 Triple+ Starter Kit

£119 from www.snipca.com/15369

Tested: Issue 444



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

ALTERNATIVE: Devolo dLAN 650 Triple+ Starter Kit These HomePlug adapters have a sensible, space-saving design as well as three Gigabit Ethernet ports for connecting devices to your network. £78 from www.snipca.com/16019

SMART TV

Samsung UE40H5500

£349 from www.snipca.com/17549

Tested: Issue 446



A 40in smart TV with great picture quality and apps for all the terrestrial TV catch-up services. It has plenty of extras too, such as recording to USB storage, playing media files stored on a NAS or USB stick and plenty of HDMI ports.

ALTERNATIVE: Sony KDL-42W705B Excellent image quality, stylish looks and a 42in screen. £420 from www.snipca.com/17550

WEB DESIGN

Xara Web Designer Premium 11

£70 from www.snipca.com/16955

Tested: Issue 453



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

ALTERNATIVE: Serif WebPlus X8 Comes with lots of templates, but creates separate desktop and mobile versions instead of responsive sites, and can be slow to use. £90 from www.snipca.com/14964

MULTIFUNCTION PRINTER

Canon Pixma MG4250

£60 from www.snipca.com/12457

Tested: Issue 382



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

ALTERNATIVE: Epson Expression Photo XP-760 A MFP aimed at photographers with an excellent scanner and peerless photo print quality. £124 from www.snipca.com/16497

SOLID-STATE DRIVE

Crucial BX100 1TB

£259 from www.snipca.com/16017

Tested: Issue 445



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

ALTERNATIVE: Samsung 850 Pro 256GB An even faster SSD, but it is much more expensive per gigabyte. £110 from www.snipca.com/16498

SECURITY CAMERA

Y-cam HomeMonitor HD

£147 from www.snipca.com/11646

Tested: Issue 420



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

ALTERNATIVE: D-Link Wireless N Day & Night Camera A good-value security camera with excellent night vision. £84.50 from www.snipca.com/15275

SECURITY SOFTWARE

Kaspersky Internet Security 2015

£17.99 from www.snipca.com/14212

Tested: Issue 437



Kaspersky Internet Security 2015 has won our past four antivirus tests – an unprecedented set of results. The 2015 edition is available at an exclusive reader discount on our Software Store. Go to the link above for a one-device licence, or buy a three-device licence for just £39.99 at www.snipca.com/14221.

ALTERNATIVE: Avast Free Antivirus

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

PHOTO EDITING

Adobe Photoshop Lightroom 6

£104 from www.snipca.com/16952

Tested: Issue 453



Adobe's Photoshop is ideal for image manipulation, but Lightroom is the better choice for managing and tweaking photos. The first choice of professionals, it's easy for anyone to use, combining technical and artistic adjustments with rating, keywording and archiving.

ALTERNATIVE: Adobe CC Photography Plan

Rather than buying Lightroom, you can subscribe for a reasonable £8.57 a month (paid annually) to use Lightroom and Photoshop www.snipca.com/17270

COMPETITION

Win a... Netgear Arlo home security system

Winner of a Great Pick four-star award in Issue 454, the Netgear Arlo is a truly exceptional device for keeping your home safe. Once you've set it up, you'll be able to watch footage on your iOS or Android device, or over the web. The quality of the footage is outstanding. The system is completely wire-free, making it easy to position anywhere – even in the garden (it's waterproof). To enter, email your address to cacomp@dennis.co.uk by midnight 1 September.



The Netgear Arlo home security system is available to buy now priced £280 from www.snipca.com/17164. For more information visit www.arlo.com and follow Arlo on Twitter @ArloSmartHome

PC MONITOR

Dell UltraSharp U2412M

£190 from www.snipca.com/15271

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. £140 from www.snipca.com/16706

ROUTER

Trendnet TEW-812DRU

£112 from www.snipca.com/15855

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. £180 from www.snipca.com/14950

NAS

Synology DiskStation DS215j

£134 from www.snipca.com/16187

Tested: Issue 449



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

ALTERNATIVE: Synology DS414j A four-drive NAS that's generally fast, easy to set up and use. £243 from www.snipca.com/16707

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Bethers2603 ★★★★★

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Dave ★★★★★

I have the full set apart from No 2, and they just sit on a shelf till I want them. Very good for reference

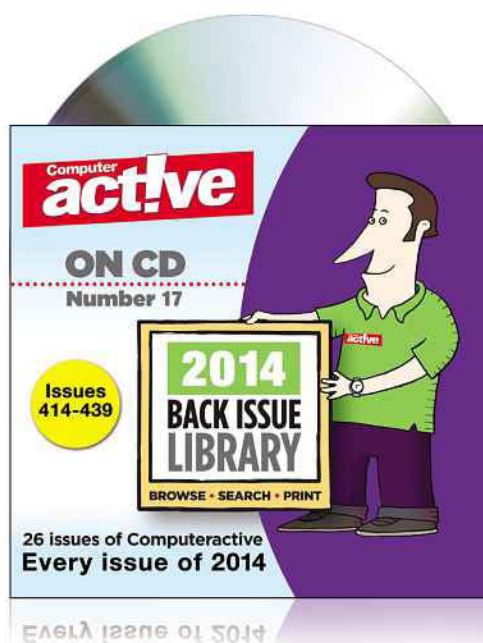
Sproggit ★★★★★

I can now recycle all the mags I've collected over the past 12 months

Col Chris ★★★★★

Very good. I would like a Back Issues CD for every year in the future

Mr Pimlott ★★★★★



Due to my own fault, I thought the disk was faulty. I contacted Computeractive, they contacted me immediately, established my error, and then later checked with me that all was well. Excellent customer service not often seen today

David ★★★★★

I always get these, as they save storage space and make searching easy

Nephron8 ★★★★★

Easy to use, does what it says on the tin!

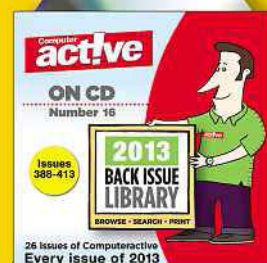
Allan Feeney ★★★★★

Also selling fast...

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PLUS



Workshops & Tips

PULL OUT
& KEEP
Issue 456

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

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38 Protect yourself from 2015's biggest hack

40 Find your PC's largest files
42 Send emails that self-destruct

PLUS

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44 Phone & Tablet Tips
46 Make Windows Better

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

Make Windows 7 and 8 hardware faster than ever

What you need: Windows 7 or 8.1; USB drive or SD card **Time required:** 1 hour

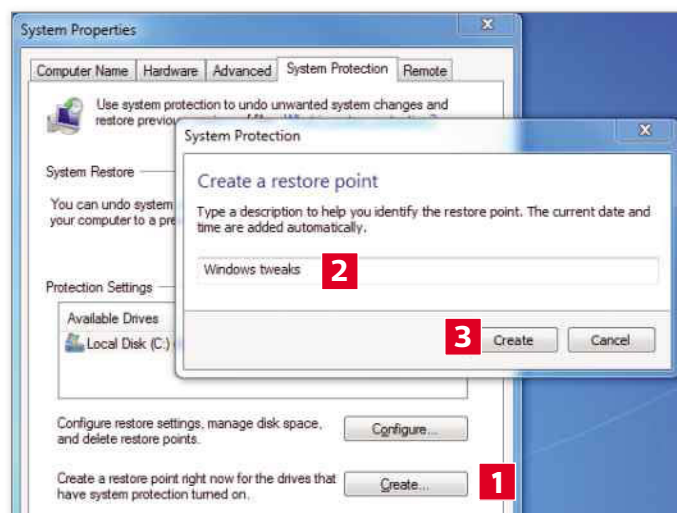
The hardware components of your Windows 7 or 8 PC slow down over time. Both operating systems have a built-in tool called the Windows Experience Index that shows you how these components – namely your

processor, RAM, graphics card and hard drive – are performing (on a scale of 1 to 7.9). We'll explain how to generate your scores and how to improve them by making tweaks to your PC that will optimise its overall performance.

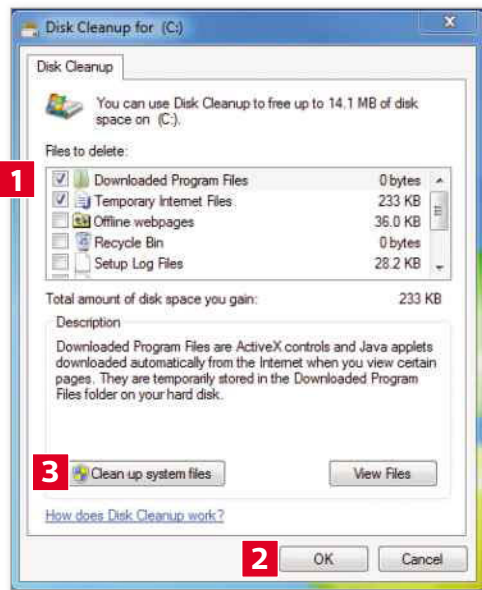


STEP 1 To view your Windows Experience Index (WEI) in Windows 7, open your Control Panel, click the 'View by' dropdown menu at the top right and change it to 'Large icons'. Next, click 'Performance Information and Tools'. Windows 8.1 has a WEI but you can't access it from the Control Panel. To see it, download a free tool called ChrisPC Win Experience Index. Go to www.snipca.com/17566, click the green Download Now button and follow the instructions to install it. You'll see 'subscores' **1** beside each hardware component – ranging from 1 to 7.9. You'll also see a base score **2**, which represents the score of the worst-performing component **3**. You can read more about what these scores mean on Microsoft's website: www.snipca.com/17547.

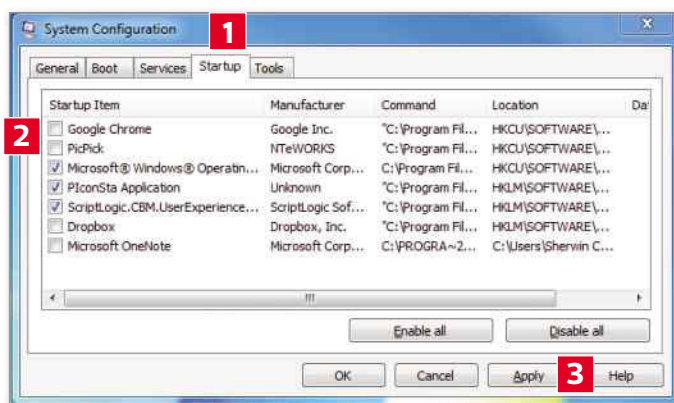
Your computer's performance		
Index assesses key system components on a scale of 1.0 to 7.9.		
What is rated	Subscore	Base score
Calculations per second	7.0	3.2 Determined by lowest subscore
Memory operations per second	7.1	
Desktop performance for Windows Aero	3.2	
3D business and gaming graphics performance	5.6	
Disk data transfer rate	5.9	



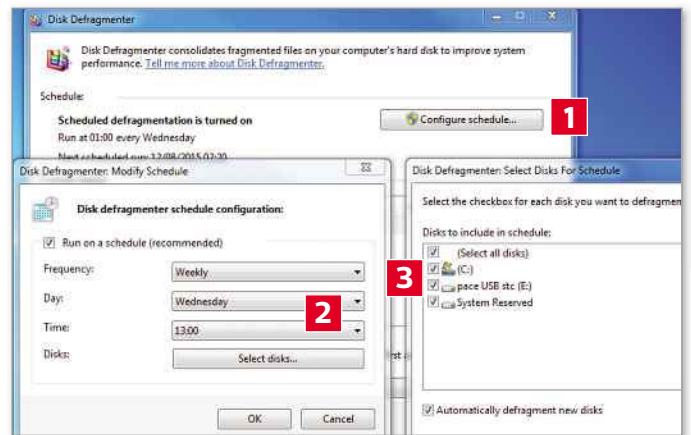
STEP 2 We'll now show you a few tweaks you can make to improve your subscores. First create a **system restore point**. Press the Windows key, type **create a restore point** and press Enter. Click Create **1**, name your restore point **2**, and click Create **3**. When that's done, click Close. One of the best ways to optimise any PC is to free up storage space. This makes your hard drive perform better, speeds up your processor and RAM and ensures your PC doesn't have problems storing files (such as your **cache**) in its memory. Thankfully, there are several ways to increase your PC's storage space.



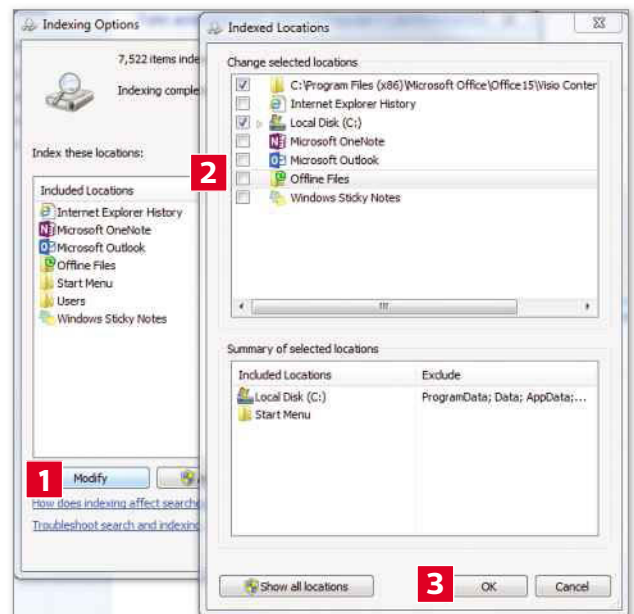
STEP 3 First, move any large files (such as HD videos) to an external drive. Next, uninstall any large programs you no longer use. Open your Control Panel and click 'Programs and Features' to see a list of all your installed programs. Now click the Size tab to sort installed programs according to size, then uninstall any larger ones you no longer need. We'll now use Disk Cleanup to delete unwanted files. Press the Windows key, type **disk cleanup**, press Enter, then click OK. By default, unnecessary files (setup files, temporary internet files and so on) will be ticked **1**. Click OK **2**, then Delete Files. After that's done, open Disk Cleanup again. Now click 'Clean up system files' **3**. If you upgraded from an earlier version of Windows (from 7 to 8, for example), you'll see another window with your earlier OS. Tick it to select it, click OK, then click Delete Files.



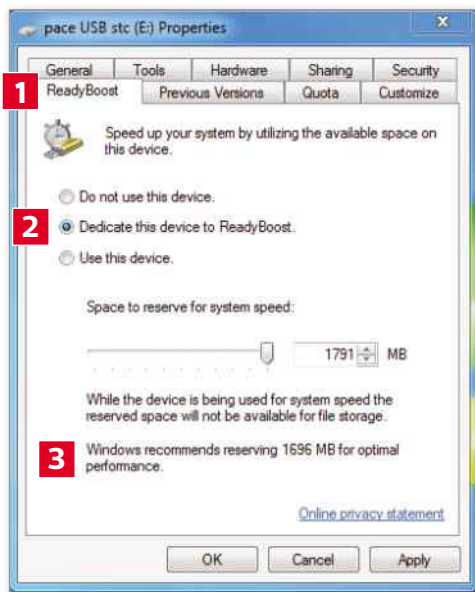
STEP 5 If your PC takes a while to start up, it's likely that many of your installed programs are automatically starting up with Windows. To disable these programs at startup, press the Windows key+R to open the Run dialogue box, type **msconfig**, then press Enter. Now click the Startup tab **1**, and untick any programs **2** you don't need at startup, including common culprits like Chrome, Dropbox and OneNote. If you're unsure of a particular program, leave it ticked because it may be needed for your PC to function normally. Finally, click Apply **3**, then OK.



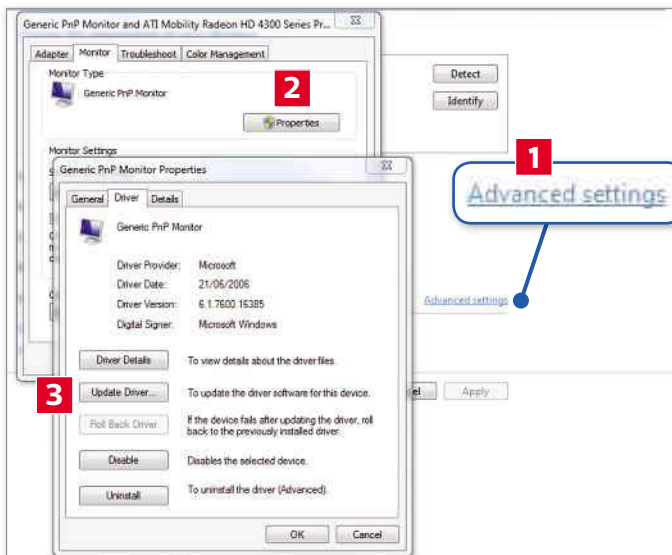
STEP 4 Windows has a built-in tool called Disk Defragmenter, which improves your hard drive's performance by rearranging files on your PC so they are easier to access. By default, Disk Defragmenter is scheduled to run at a particular time. However, if your PC is switched off at this time, then it won't defragment files. To reset the schedule, open Disk Defragmenter by pressing the Windows key, typing **disk defragmenter**, then pressing Enter. Now click Configure Schedule **1**. In the window that opens, ensure 'Run on a schedule (recommended)' is ticked, set the frequency to Weekly, and set a day and time your PC is likely to be on **2**. Next, click 'Select disks...', ensure all your drives are selected **3**, then click OK (twice).



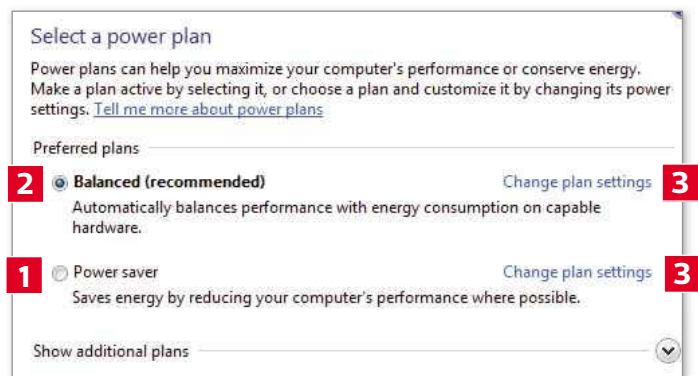
STEP 6 Another feature that slows your PC is 'search indexing'. When you search for a file, Windows simultaneously looks for it in different areas of your PC, which can put a strain on its processor. You can reduce this burden by removing certain areas from the search index. Go to the WEI screen (see Step 1), then click the 'Adjust indexing options' link at the top left. You'll see a list of indexed options. Click Modify **1**, untick the areas you don't want to search (in this case, including Outlook, OneNote and Internet Explorer history) **2**, then click OK **3**.



STEP 7 If your RAM's WEI subscore is low (below 2), then you should consider buying more memory. However, there's an easy way to give it a temporary boost. This involves using a spare USB stick/SD card as additional RAM. Insert your chosen storage device into your PC, open My Computer, right-click the inserted drive, click Properties, then the ReadyBoost tab **1**. Now select 'Dedicate this device to ReadyBoost' **2**. Next, assign the amount of space on your drive you'd like to assign to your PC by moving the slider (you'll see the minimum amount Windows recommends **3**). Click Apply, then OK.



STEP 9 If your WEI graphics subscores are low, it could also mean that your display driver is out of date. To check whether there's a pending display driver update, open your Control Panel, click Display, then click the 'Change display settings' link at the top left. Now click the 'Advanced settings' link at the bottom right **1**, click Properties **2**, then click the Driver tab. Next, click Update Driver **3**, then 'Search automatically for updated driver software'. Follow the onscreen instructions to update it.



STEP 8 Keeping your PC on for prolonged periods (especially when idle) puts unnecessary strain on your processor and graphics card. It's advisable, therefore, to set your PC to automatically turn off your display and switch to 'Sleep mode' after a set time. Open the Control Panel and click Power Options. If your Processor and Graphics WEI subscores are lower than 2 (see Step 1), select 'Power saver' **1**. Otherwise leave it on the default 'Balanced (recommended)' setting **2**. Now click the 'Change plan settings' link **3** beside the option you selected. Here, using dropdown menus, you can choose the length of time before your PC automatically switches off your display and puts your PC to sleep (options range from '1 minute' to '5 hours').



STEP 10 Finally, you should set your PC to receive Microsoft updates automatically. This will ensure constant improvements to your system, including crucial driver updates. To do that, press the Windows key, type windows update, press Enter, then click the 'Change settings' link at the top left. Now click the 'Important updates' dropdown menu and set it to 'Install updates automatically (recommended)' **1**. Set the new updates dropdown menu to 'Every day' **2**, set a time your PC is likely to be switched on **3**, then click OK. Finally, make sure your antivirus programs are up to date (see Step 6 of the following Workshop on page 39). After a few days, check your WEI (Step 1) again and you should notice an improvement in your subscores. ●

Protect yourself from 2015's biggest hack

What you need: RookMilano; Windows 7, 8 or 10 **Time required:** 40 minutes

Hacking Team is a security company that helps law enforcement and national security agencies 'hack' into people's PCs and monitor them remotely. Ironically, the company was hacked in July and more than 400GB of its data was released online in one of the biggest security breaches of

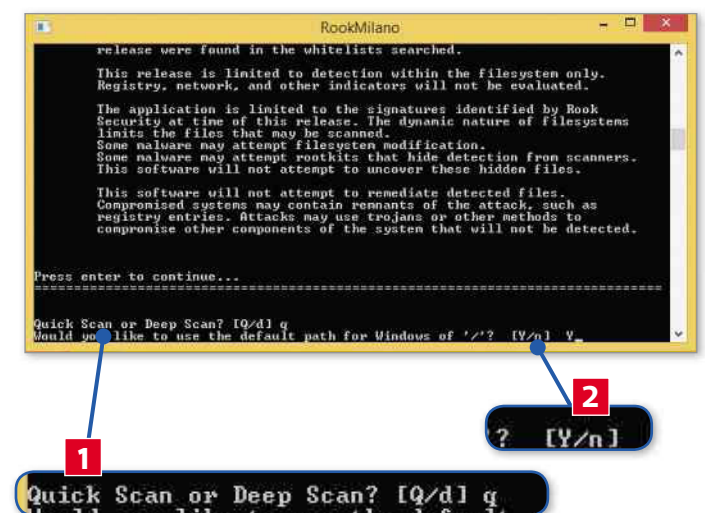
the year. Thankfully, security company Rook Security has released a free detection tool called Milano to scan your PC and tell you if any of your data was hacked. We'll show you how to use it, then scan your PC, eliminate any leaked files and protect your PC against future attacks.



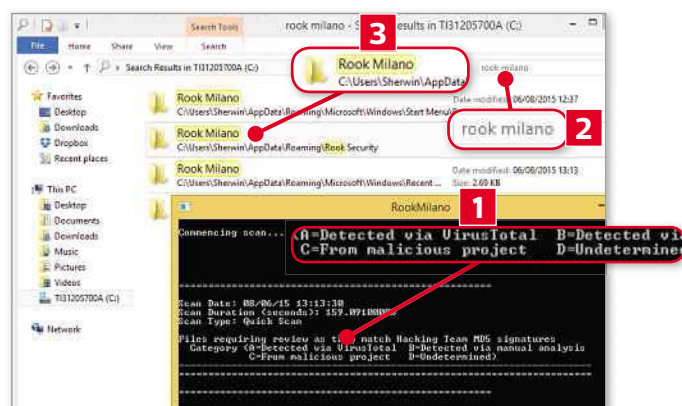
STEP 1 To download the free Milano tool, go to www.snipca.com/17489, scroll down the page, then click the yellow Download button **1**. Open the

zipped file **2**, launch the 'RookMilano.msi' file, click Run, then Yes. Nothing will appear to happen because the program installs in the background. To launch it,

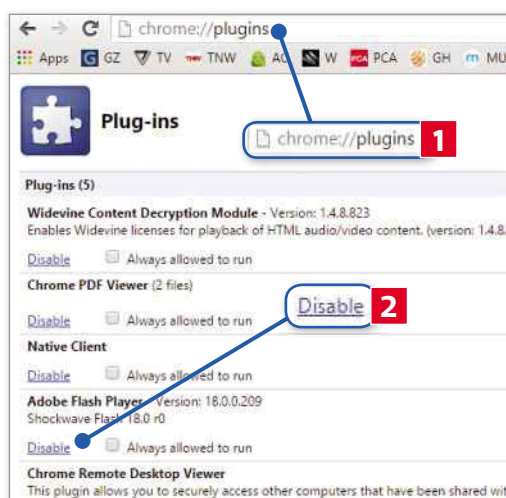
press the Windows key, type **rookmilano**, then click the file to open it. You'll see an MS-DOS-like screen with the words – 'Milano – Powered by Rook Security'.



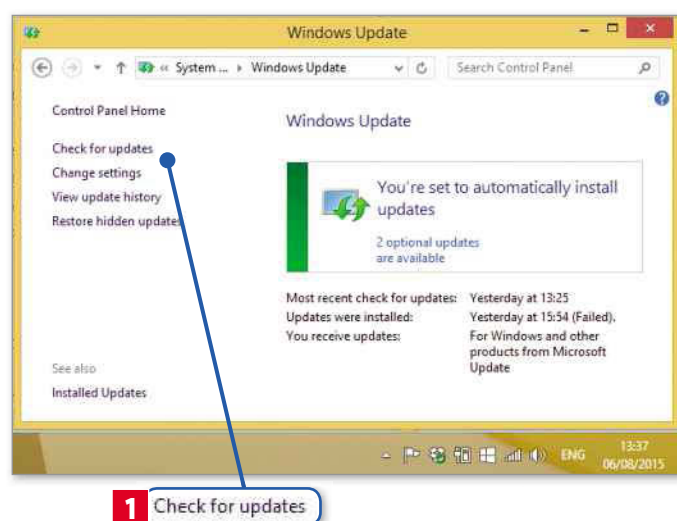
STEP 2 Press Enter three times to accept the software agreements. You're now given the option to perform a quick scan or deep scan by pressing the 'q' or 'd' keys **1** on your keyboard. The former only checks your system files (and takes about five minutes), while the latter scans every file on your PC (and can take up to 30 minutes). Select the scan you want, then press Enter. Now press the Y (Yes) key **2**, then Enter.



STEP 3 At the end of the scan, you'll see a screen telling you your results have been saved and that any hacked files are marked under four scan categories – A, B, C and D **1**. Basically any files marked A, B or C are files that were hacked by Hacking Team. Files marked D are those that cannot be determined. To see your scan results, open your C drive, click the search box, type **rook milano** **2** and press Enter. Now open the Rook Security folder **3**, then click to open the notepad file named 'last_scan_results'. Hopefully, like us, you won't see any hacked files. Regardless of whether you've been targeted or not, you should carry out the next few steps to beef up your PC's security.

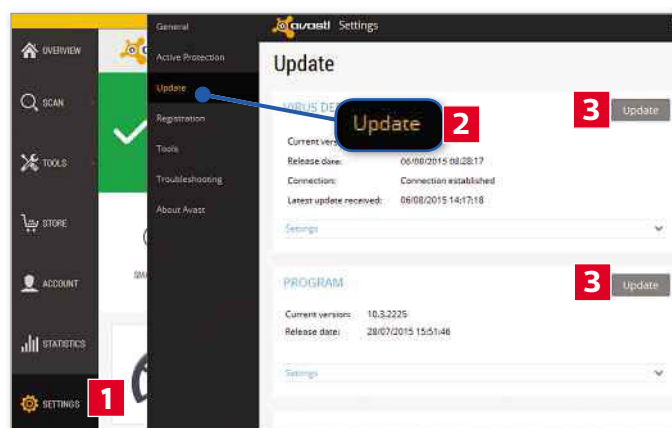


STEP 4 One of the programs often exploited by Hacking Team to compromise a PC user's security is Adobe Flash. Given how vulnerable Flash has become, you should consider uninstalling it. To do that, open your Control Panel, click the 'Uninstall a program' link, right-click Adobe Flash, then click Uninstall and follow the steps to remove it. Flash also runs on the Chrome browser by default. To remove it from there, open Chrome, type **chrome://plugins** into your URL bar **1**, then press Enter to see a list of your **plug-ins**. Now click the Disable link **2** below Adobe Flash Player to do that.



STEP 5 You should now update your PC to ensure it has the latest Microsoft security updates. Press the Windows key, type **windows update**, click that option, click the 'Check for updates' link **1** and install any pending updates. Restart your PC afterwards if prompted. We'll now show you three ways to eliminate any hacked files and protect your PC using your own antivirus program, as well as free tools Malwarebytes Anti-Malware and AdwCleaner. Each program finds and eliminates different types of harmful files.

STEP 6 First update your antivirus program's **virus definitions**. We'll show you how to do this using Kaspersky Internet Security 2015 (see page 68 for our Reader Offer) and Avast Free Antivirus 2015 (www.snipca.com/17527). In Kaspersky, click Update at the top right, then click 'Run update'. If you found any corrupted files in Step 3, then navigate to them, right-click them, click 'Scan for viruses' and follow the steps to quarantine or remove. In Avast, click Settings **1**, Update **2**, then click the two grey Update buttons **3**. Now right-click the infected file(s), then click the Scan option beside the Avast logo and follow the steps.



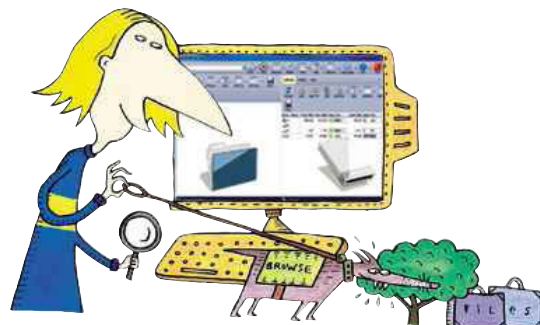
STEP 7 Malwarebytes Anti-Malware eliminates malware on your PC. Download it from www.snipca.com/17528 (the download starts automatically). Launch the setup file and follow the onscreen instructions to install it. Open the program and click Update Now. Once it's updated, click Scan Now to run a full PC scan and follow the prompts to deal with any vulnerable files. Finally, install AdwCleaner to rid your PC of any **PUPs**. Download and install it from www.snipca.com/17529, then click Scan **1**. After that's done, click Cleaning **2**, then OK. When it's finished cleaning, you'll be prompted to restart your PC. ●

Find your PC's largest files

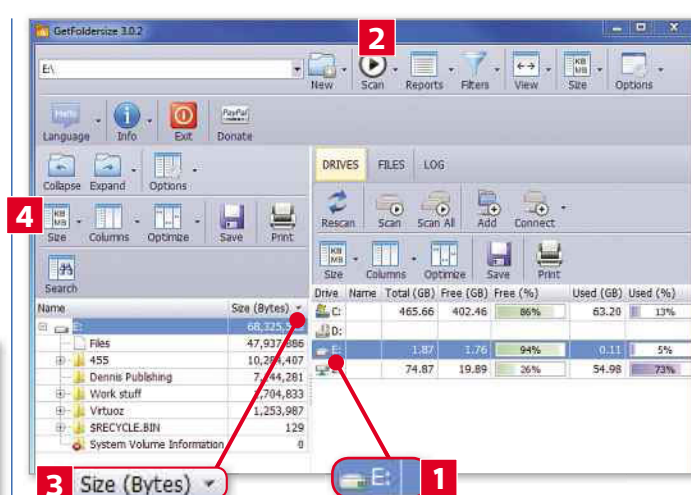
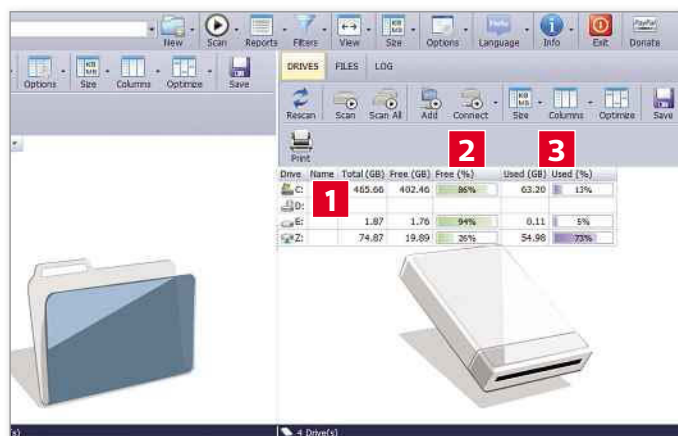
What you need: Windows XP, Vista, 7, 8 or 10 **Time required:** 25 minutes

Large, unwanted files on your hard drive can slow down your PC and may cause it to crash. It's possible to find these space-hogging files using Windows/ File Explorer, but the process is complicated and long-winded. The best alternative is

GetFoldersize – a free program that identifies your largest files, so you can decide whether to move or delete them. It gives you a quick, at-a-glance view of everything that's clogging up your PC and also lets you generate a report of your findings as an Excel sheet.

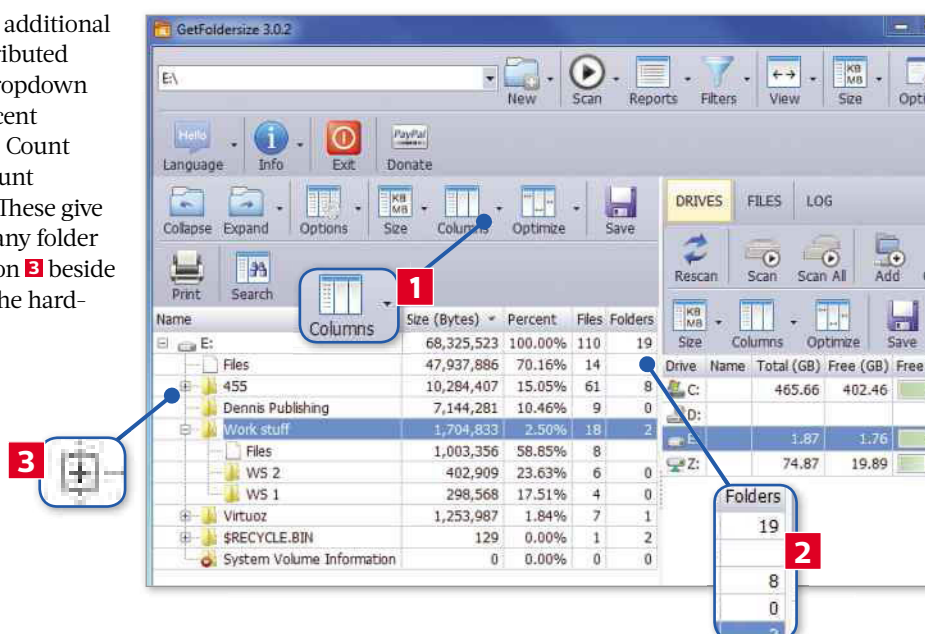


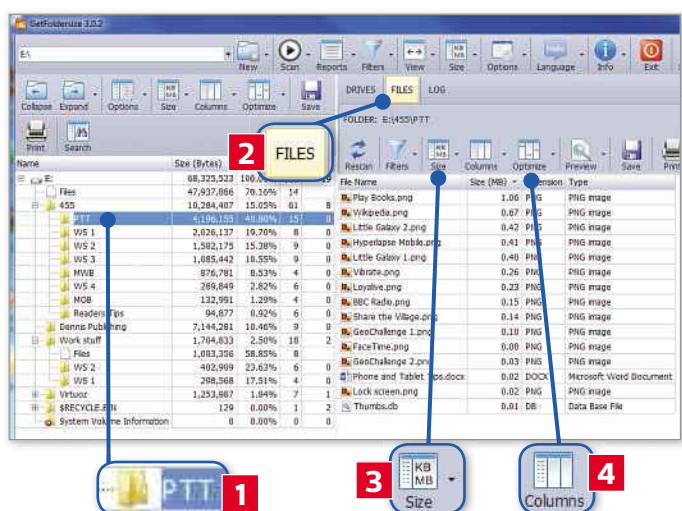
STEP 1 To download the program, go to www.snipca.com/17440 and click the Download #1 button under Windows Installer. Click the downloaded setup file, Run, Yes, OK, Next, accept the T&C's, then keep clicking Next until you need to click Install. When that's done, click Finish. Now open GetFoldersize on your Desktop and you'll see two panes. The right-hand pane lists all the drives on your PC **1** (including any external drives you've connected, such as USB sticks). Next to these you'll see the amount of free space on each **2** and the amount of space that's been used **3**.



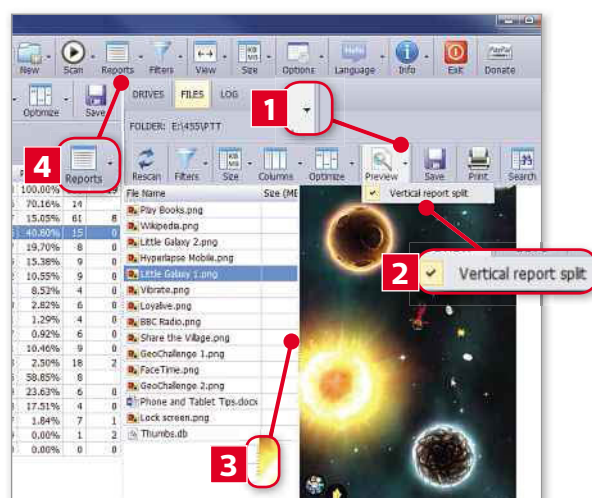
STEP 2 Click a drive to select it **1**, then click Scan **2**. The program will begin analysing the drive. When that's done, you'll see a list of the drive's folders (in descending order of size) in the left-hand pane. Click the Size column header **3** to sort the folders in reverse order. The file size is represented in Bytes by default. Convert it to MB (or GB) by clicking the Size dropdown menu **4**, then selecting Megabytes (or Gigabytes).

STEP 3 You can add more columns to get additional info on how your folders are distributed across that drive. The Columns dropdown menu **1** lets you add columns such as Percent (percentage of space a folder is using), File Count (number of files in a folder) and Folder Count (number of subfolders within a folder) **2**. These give you a detailed, at-a-glance breakdown of any folder within the drive. Now click the Expand icon **3** beside any large folder to see its sub folders and the hard-drive space they take up.

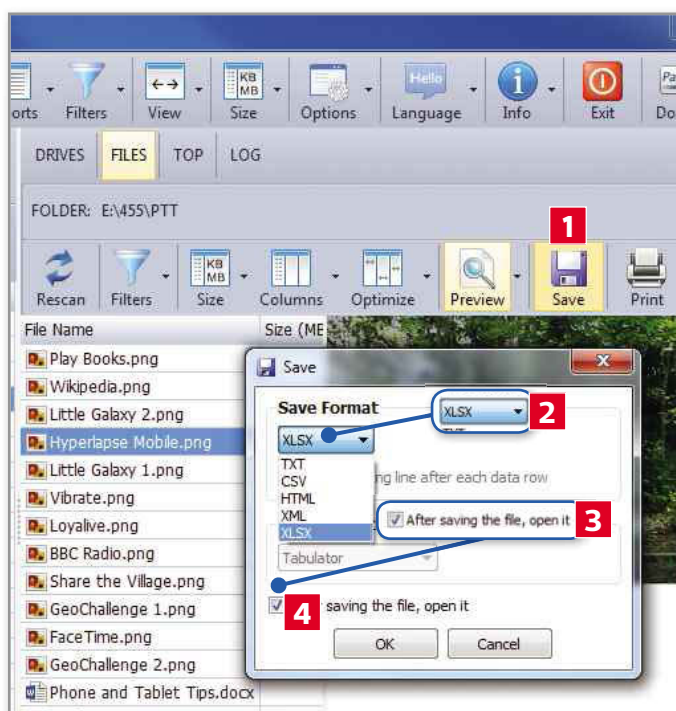




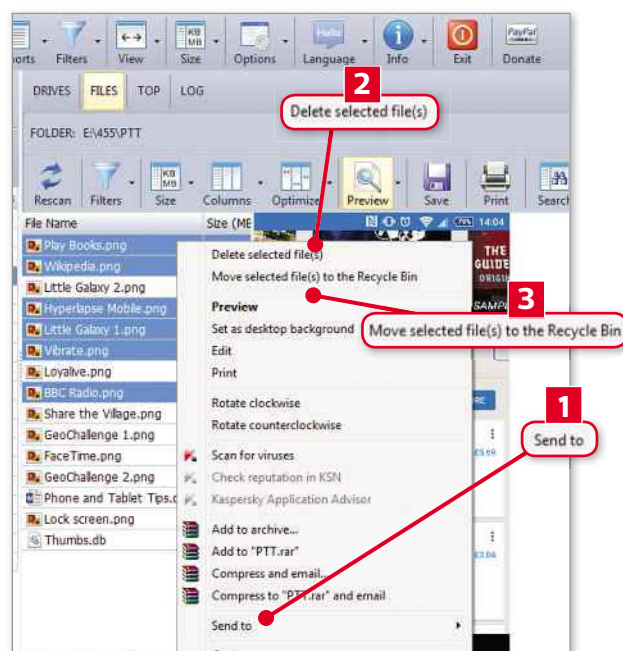
STEP 4 Once you've identified which sub-folders are taking up the most space, you can identify the largest files within them. Click the sub-folder **1**, then click Files **2**. You'll see a Size column beside the list of files on the right. As you did with the folders in the left column, convert the Size column into the measurement you want (from B to MBs or GBs) **3** and add more columns **4** (including File Extension and File Type). Doing this gives you a better idea of the files and the space they occupy.



STEP 5 There's a hidden Preview pane you can use to view your files. To add this, click the dropdown menu to the right of Preview **1**, then select 'Vertical report split' **2**. Now click and drag the File Name pane **3**, then click any file to see a preview of it on the right. Another useful feature is the ability to generate an automatic list of the largest files in a particular sub-folder. To do that, click the Reports dropdown menu **4**, then select 'Build a report with the 20 largest files'. The results appear in the right-hand column.



STEP 6 You can export your file list (with the columns you added) as an Excel sheet. This is useful if, for example, you want to send the list to a friend to find out if a particular file is safe to delete. To create this Excel sheet, click the Save button **1**. Now click the Save Format dropdown menu at the top and select XLSX **2** (it's set to HTML by default). Tick 'After saving the file, open it' **3**, then click OK **4**. Now select where you want to save the Excel spreadsheet on your PC, name the file, then click Save. The spreadsheet will now open in Excel.



STEP 7 It's perfectly safe to delete large documents and media files (such as photos, music and videos) to make space on your PC. However, you should refrain from deleting any files you're unsure of, especially those on your C Drive because these can be critical for your PC to function. If you want to move files to an external drive, keep the Ctrl key pressed and select the files you want to move. Now right-click any of the selected files, move your cursor to 'Send to' **1** and select the drive you want. Finally, Ctrl+right-click the files, then click 'Delete selected file(s)' **2** (to permanently delete them) or 'Move selected file(s) to the Recycle Bin' **3**.

Send emails that self-destruct

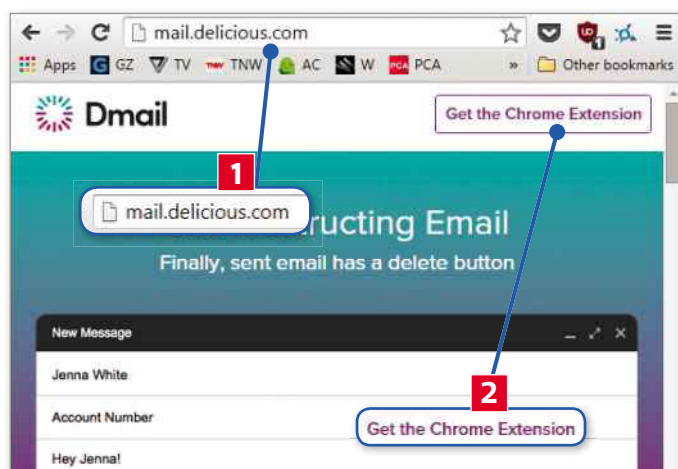
What you need: Gmail account; Chrome web browser **Time required:** 10 mins

Google recently introduced a new 'Undo Send' option in Gmail that lets you recall a message up to 30 seconds after you've sent it (see Readers' Tips, Issue 453). However, if you want to prevent someone reading an email after 30 seconds,

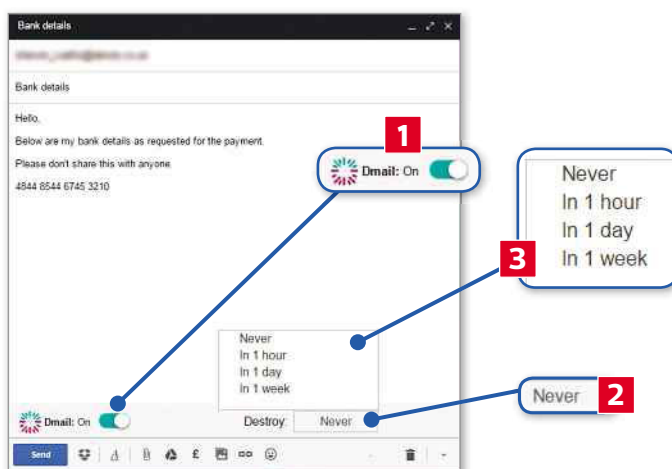
you should use Dmail. This new, free Chrome extension lets you set an email to delete itself an hour, a day or a week after you've sent it. You can also manually delete the email if you don't want to schedule it to self-destruct.



STEP 1 To add Dmail as a Chrome extension, open your Chrome browser, go to mail.delicious.com **1** and click the 'Get the Chrome Extension' button **2**. In the Chrome Web Store, click Dmail's blue Add To Chrome button at the top right, then click Add. Wait until you see a 'Dmail has been added to Chrome' notification at the top right of your browser. Now go to Gmail, log into your account, then click the Compose button at the top left.



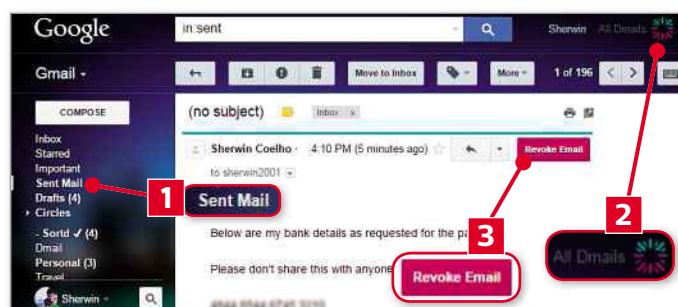
STEP 2 In the 'New Message' field, you'll see a new Dmail slider **1** at the bottom right, which is turned on by default. Type your email then click the Never button **2**. You'll see three options: 'In 1 hour', 'In 1 day' and 'In 1 week' **3**. Select the option you want and your email will automatically self-destruct after that time period. You can also manually prevent access to a sent email at any time you want. For this to work, you need to select Never before sending your email (then see Step 3).



STEP 3 When you send your email using the Dmail extension, the recipient will see your email's subject line, but when they click it they won't see its contents. Instead, they'll see a green 'View Message' button. When

they click that, they'll see your email message in their default browser. To revoke their access to the email, simply open Gmail and click Sent Mail **1** (you can also click All Dmails **2**). Next, select the email you want to revoke access to,

click the pink Revoke Email button **3**, then click OK. Now, whenever the recipient clicks the email's 'View Message' button, they'll see 'Message Unavailable - This message is no longer available for viewing' in their browser.



NEXT ISSUE

ON SALE
2 Sept

- Run a second antivirus without clashing
- Add Edge's browser tools to Chrome
- Get app notifications on your PC
- Try Windows 10 without downloading it

Subscribe to Computeractive at getcomputeractive.co.uk

TIP OF THE FORTNIGHT

Send directions from your PC to your phone

I love to go walking and hiking, so (unsurprisingly) Google Maps is my favourite app. A friend tipped me off about a way you can instantly send a specific location from your PC to your Android phone or tablet using Google Maps. This makes it much easier to navigate to that location using your device. This is a godsend if you have clumsy fingers (like yours truly) that struggle to type accurately on mobile devices or if you're travelling through remote areas where the mobile signal is poor.



First, go to Google Maps (maps.google.co.uk) on your PC, click the blue 'Sign in' button at the top right, then log in with the Gmail account you use on your Android device. Now type your

destination into the search field at the top left and click the correct autosuggest option. You'll now see a new 'Send to device' link. Click it to see the device connected to your Gmail account, then click that (see screenshot).

Now swipe down from the top of your screen and tap Navigate (to receive step-by-step instructions using Google Maps). Alternatively, tap Directions to see the whole route.

Nigel Spence



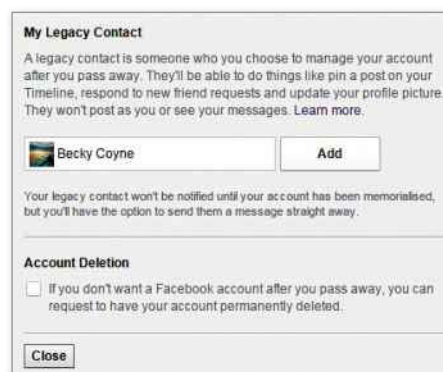
The winner of every Tip of the Fortnight wins this exclusive Computeractive mug!

SOCIAL MEDIA

Bequeath access to your Facebook account

I recently read that Facebook now lets you nominate a 'legacy contact', someone to whom you bequeath access to your account after you pass away. That person will be able to write one post on your wall (announcing your passing) that will remain as a 'pinned post', respond to friend requests and update your profile info. However, they won't be able to read any private messages sent to you or act on your behalf (by liking other people's posts logged in as you, for example).

It's easy to do, so I nominated my son. First, log into Facebook, click the small triangular dropdown menu at the top right, then click Settings. Now click Security at the top left, then the Edit link beside Legacy Contact. Type the name of the person you want, then click Add (see screenshot below). You'll see a pre-written message informing them they have been nominated as your legacy



contact. Click Send. If you'd prefer to delete your account after you pass away, tick the Account Deletion field at the bottom, then click Delete After Death.

Wayne Parry

ANDROID

Locate lost screenshots on your device

I was happy using a BlackBerry phone for many years, but last year my daughter bought me a Nexus phone, telling me I needed to 'keep up with the times'. Any time I had a query, I captured a screenshot (by pressing the volume down and power button simultaneously), sent it to her and she'd advise me.

My device received the Android Lollipop update a few months back and ever since I've had problems taking screenshots. Basically whenever I try to take one, I see a notification saying I've captured my screenshot with options to share it. However, if I dismiss the notification or take another screenshot, the previous screenshot disappears and I can't find it at all. The Google Photos app doesn't help because it only saves photos I've taken.

My daughter told me of a way to find these screenshots (albeit using a PC). You first connect your device to your PC via a USB cable, then click 'Open device to view files' in the AutoPlay pop-up window. Now click 'Internal storage', Pictures, then Screenshots. To see the ones taken on a particular date, right-click the Name heading at the top left and

select Modified. Now simply click the Modified column header to sort your device screenshots by date, and you should find your captured screenshot.

Charles Atlee

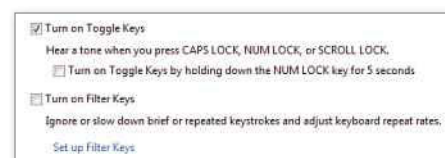
WINDOWS

Hear an alert when you press the Caps Lock key

Thanks for your useful tip on 'See a notification whenever you switch caps' in Issue 454 (Make Windows Better). It's a useful way to alert you whenever you inadvertently hit the Caps Lock key. However, there is another way to get alerts when you hit the Caps/Scroll/Number Keys – without using a third-party program.

On a Windows 7 or 8 PC, open the Control Panel, click the 'Ease of Access' link at the bottom right, then click 'Change how your keyboard works' in the 'Ease of Access Center' section. Now tick 'Turn on Toggle Keys' (see screenshot below), then click Apply and OK at the bottom. Now, whenever you press the Caps Lock, Num Lock or Scroll Lock keys (accidentally or intentionally), you'll hear a sound (high-pitched when you enable them; low-pitched when you disable them again).

John Batch



Phone and Tablet Tips

Brilliant things to do on your device

ANDROID & iOS

Translate foreign-language signs into English



One big problem when travelling abroad is trying to understand signs that are in the native language. This is where Google's brilliant free app Translate comes into its own, because it instantly translates foreign-language text into English. All you need to do is point your device's camera at the sign.

The app previously translated text from seven European languages (including French, Spanish, German, Italian and Portuguese) into English. But it's recently been updated to add 20 more languages (including Polish, Bulgarian and Turkish).

Open the app, (Android: www.snipca.com/17493; iOS: www.snipca.com/17494), set the dropdown menu at the top left to the foreign language you want to translate (we set it to French in the screenshots below) and the dropdown menu at the top right to English. Aside from English, you'll notice small



Download signs beside other languages. These are 'language download packs', which are useful if you want to use the app to translate that language when you're offline (without mobile data or Wi-Fi).

Now tap the photo icon, then point your device at a sign you want to translate. The screenshot below left shows the French sign we wanted translating and to the right of that is what we instantly saw via the app. For more information on how the app works, watch this amusing video (www.snipca.com/17495) showing how the lyrics of *La Bamba* are instantly translated.

ANDROID & iOS

Download BBC radio shows to listen to offline



The free BBC iPlayer Radio app has been revamped and now lets you download programmes to listen to offline. This means you can download a show on your Wi-Fi connection, then listen to it when you're out and about without using up any of your mobile data.

Open the app (Android: www.snipca.com/17496; iOS: www.snipca.com/17497) to see the new interface. Swipe across the dial-through menu at the bottom to select the radio station you want, then tap the pink play icon to listen to it live. You can set this station to



stop playing automatically after a set time, which is useful if you're listening at bedtime and likely to nod off. To do that, click the Zzz option at the bottom right, then select the length of time before the app stops (options range from '5 minutes' to 'One hour').

From the main menu, swipe right to navigate across the sections at the top, including programmes and podcasts that have already aired. Tap one to open it. You'll see the pink play option and a new Download icon with the programme's file size (see screenshot). Tap the icon to see its download progress. To access your downloads (which remain on your device for 30 days), tap the Menu option at the top left, then Downloads.

ANDROID & iOS

Send someone your location pin



Many people prefer using WhatsApp Messenger instead of standard text messaging because of its useful features,

Best New Apps

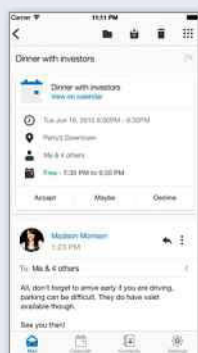
What you should install this fortnight

Boxer Free

Android: www.snipca.com/17500

iOS: www.snipca.com/17501

Version six of this popular email app brings a revamped interface. But the best



new feature is a calendar, which comes integrated into the iOS version and is available as a separate Android app. Using it, you can accept or decline event/meeting invitations without leaving your inbox.

Storage Cleaner Pro Free

Windows Phone: www.snipca.com/17502

Android phones give you the option to delete your **cache** and reclaim valuable storage



space. Windows Phones don't offer this option, but Storage Cleaner Pro has come to the rescue with an excellent one-tap solution. It's especially useful if your phone doesn't have expandable storage.

Her Story £3.99

iOS: www.snipca.com/17503

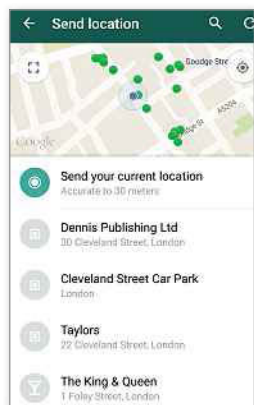
Critics are raving about this compelling murder-mystery game. A woman's husband has been murdered. Two decades later the case is reopened and you're the detective. Find the killer by sifting through a police video database of interrogations. Determine the chronology of events using keywords to search for relevant videos.



including the ability to chat with anyone in the world for free, create group chats and share photos and videos. One of the app's lesser-known features is the ability to send a pin of your location to another person. This is useful if you're meeting someone and want them to know exactly where you are or where you live, for example.

To do that, open the app (Android: www.snipca.com/17498; iOS: www.snipca.com/17499) and select the contact/group you want to send your location to. On an Android device, tap the paper clip icon at the top right, then tap Location. On an iOS device, tap the up-arrow icon to the left of the text box, then tap Share Location.

You'll now see a blue dot (indicating your current location) and green dots (representing the places of interest around you – see screenshot below).



Either tap 'Send your current location' to do that, or tap any of the alternative places to send that location. The recipient will receive this as a map with a dot on your selected location. By tapping the

map, they can get directions to your location using their default maps app.

iOS

Delete old iCloud backups to free up space in your account



Whenever you set up a new iOS device, you're asked to back it up to iCloud (Apple's online storage service) using your Apple account. We recommend doing this because the app saves all your files, settings, contacts and so on and lets you export them to a new device if necessary.

However, once you've exported your backup to a new device, you should delete all previous backups on your iCloud account to save space (because you only get 5GB of free storage). To do this, tap Settings, General, Usage, then Manage Storage (under iCloud). Here you'll see your previous backups listed. Tap to select your old device, tap Delete Backup, then Yes.

WINDOWS PHONE

Change the default font appearance of the News app



The MSN News app features all the latest stories from some of the most reputable sources, including *The Guardian*, Press Association, Sky News, *The Telegraph* and *The Independent*. It's easy to customise the app's font to one of your choice. To do that, open the app, then tap to open any article. Now tap the three dots at the bottom right, then 'text style'. You'll see options for five font sizes, three spacing options and two font styles (see screenshot right). Tap any



of them to see how your text will look. Now simply tap the article to set your selection as the app's default.

Games With Kids

What to play together on your phone and tablet

AGES 0-5

Peppa Pig's Golden Boots

£2.99 www.snipca.com/17509 (Android)
£2.99 www.snipca.com/17504 (iOS)

The choice of games in this app will thoroughly entertain your little one. They can dress up Peppa by tapping to position the items of clothing, drag a rocket to fly it through space, tap to find items in Peppa's room and sing along to the Muddy Puddles Song. Each game earns them a pair of sparkling golden boots.



AGES 6-10

Angry Birds 2

Free www.snipca.com/17505 (Android)
Free www.snipca.com/17506 (iOS)

The sequel to the popular mobile game notched up 10 million downloads in the first three days. As well as the usual bunch of feathered creatures, there's now a silver bird that launches a looping dive-bomb attack. Unlike in the original, you can now choose in what order you want to propel your birds.

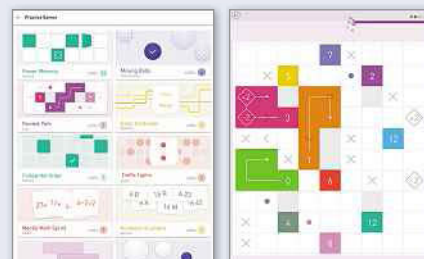


AGES 11-16

Memorado – Brain Games

Free www.snipca.com/17507 (Android)
Free www.snipca.com/17508 (iOS)

Created by a team of neuroscientists, Memorado contains 19 games aimed at improving your memory, logic, concentration and reaction times. You can choose to only play games that focus on specific skills; for example, games that improve your memory for names or mathematical knowledge.



WINDOWS 7, 8

Download Desktop themes with panoramas and sounds



The Windows Store now offers some brilliant new Desktops themes, including panoramic themes (though you will need a dual-monitor setup with a Windows 8 PC to make these work) and themes with sounds.

To access these, right-click anywhere on your Desktop, click Personalize, then the 'Get more themes online' link at the top right – this takes you to the Microsoft Themes webpage. You'll see the new categories – including 'Panoramic (dual monitor)' and 'With custom sounds' – at the bottom left of the page (see screenshot below). Select a category, click the Download link below the theme you want, then click the downloaded file to set it as your wallpaper. The themes with sounds only play a short audio clip at startup. For example, we installed the 'Beach Sunsets theme' which plays a short three-second clip of waves crashing against the shore (very relaxing).



WINDOWS 7, 8

Add items to OneDrive quickly



Microsoft's OneDrive is an excellent online cloud-storage option for backing up your files (especially photos, PDFs and documents). It comes with 15GB of free storage space, which should be more than enough for most people. What's more, OneDrive comes pre-installed with Windows 10, so you'll have easy access to your synced files if you upgrade your PC.

The fastest way to move files to OneDrive in Windows 7 and 8 is to install the Desktop program, then add OneDrive as a destination to your PC's right-click Send To menu. If you don't have the OneDrive Desktop program, go to www.snipca.com/17520, click the 'Download now' button on the left, launch the setup file, follow the onscreen instructions to install it, then log in with your Microsoft account.

To add OneDrive as a Send To menu location, press the Window key+R to

WINDOWS 10

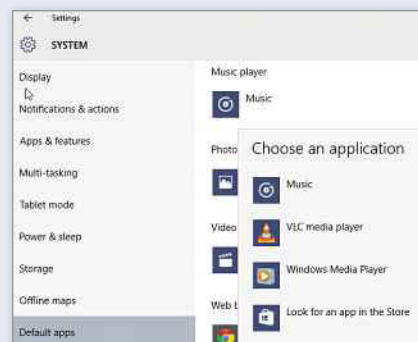
Change your default programs in Windows 10



Windows 10 has mostly received favourable reviews, and over 20 million users installed it within the first week. See our special Workshop on page 56 on how to install it safely on your PC, and our review on page 50.

However, one common gripe with Windows 10 relates to setting the default programs. You probably selected 'Express settings' during installation, which sets all your defaults to Microsoft programs (the Edge browser, Photos app, Music app, and so on). Unlike in earlier versions of Windows, it requires more than a few clicks to change your default programs. This even frustrated the CEO of Mozilla to the point where he wrote an open letter to Microsoft highlighting the issue (you can read it at www.snipca.com/17519).

We'll show you how to change your default browser from Microsoft Edge to Chrome and your default music player from the Music app to VLC media



player. The same instructions apply to re-set any of your other defaults, including photo editing, email and online-storage programs.

Open the Start menu, click Settings, System, then click 'Default apps' at the bottom left. You'll now see a list of all the default (Microsoft) programs on your PC. To change your browser, click Microsoft Edge under 'Web browser', then click Chrome. Similarly, to change your music player, click Music under 'Music player', then select 'VLC media player' (see screenshot).

open the Run dialogue box, then type `shell:sendto` and press Enter. You'll see a folder containing all the locations in your PC's right-click Send To menu. Drag the OneDrive icon from your Desktop into this folder to add it as a location. Now whenever you want to move your files/folders to OneDrive, simply select those items, right-click any of the selected ones, move your cursor to Send To and click OneDrive. This tip won't work in Windows 10, but you should add OneDrive to your Desktop for easy access. To do that, open the Start menu, click 'All apps' at the bottom left, navigate to the OneDrive tile and drag it on to your Desktop.

WINDOWS 8

Track your weight using your PC



Windows 8's default Health & Fitness app mostly contains articles on fitness and nutrition. However, it has a useful weight-tracking feature that lets you log your weight whenever you want. The app then automatically plots these values on a graph, helping you keep track of your

weight over a period of time.

Open the Health & Fitness app (a heart-shaped icon), click the Health Tracker tile (in the Fitness section), then click the Start Tracking button at the bottom left. In the Weight field (see screenshot below), enter your weight (you can change the measurement from kilos to pounds by clicking the 'kgs' button). The date is set to the current day by default. Enter any relevant notes in the Note field (optional), then click Add. After a few weeks, go to the same Health Tracker tile, click Add Measurement at the top and enter your new weight. You'll now see your weight change automatically plotted on a graph.



SWAY

Customise the font design of your presentation

In Issue 442, we showed you how to use Microsoft's free online presentation tool Sway (See the 'Make presentations using Microsoft Sway' Workshop, page 38). Since then, Sway (www.sway.com) has been updated with an improved interface and lots of new features. One of these lets you customise the font design of your sways.

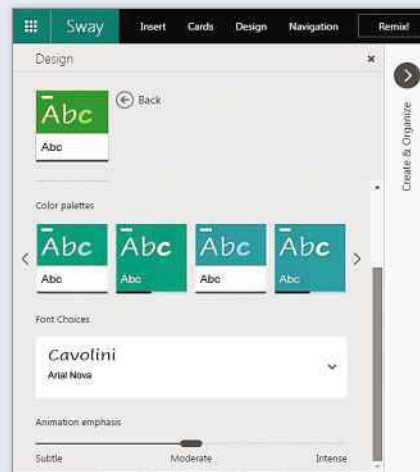
Refer to the Workshop to create your sway. Ensure when you highlight text that you make use of the Heading, Emphasize (bold) and Accent (italics) options at the top of each section. Doing so gives you a wider variety of styles to choose from when customising your font.

To customise your font, first click the Design option at the top left. Next, click

to select from the 24 font-design options (colours and font styles). To tweak these options further, click the Customize button at the top. Now click the left and right arrows beneath 'Color palettes' (see screenshot) to browse through the various colour options, then click to select the one you want.

You can also set specific fonts for headings and body text by clicking the Font Choice dropdown menu and selecting from a range of options. The font shown at the top of the Font Choice box (Cavolini in our screenshot) will be applied to headings and the one below (Arial Nova) to body text.

Depending on which animation styles you've selected for your sway, you can change the 'Animation emphasis' by moving the slider at the bottom (from



Subtle to Intense). Click anywhere on the right to see your sway with the changes you've applied. Close the Design panel to save your changes.

EXCEL

Use Excel 2013's brilliant predictive auto-fill feature

Compared with its earlier versions, Office 2013 has loads of nifty tricks up its sleeve. Excel, for example, can identify whatever you type in one column and suggest options for automatically filling out the cells in adjacent columns.

To demonstrate this, we'll type seven (fictional) email addresses in column A, using the **name.surname@emailprovider.com** format. We'll then show you how Excel autofills the names, surnames and email providers in columns B, C and D respectively.

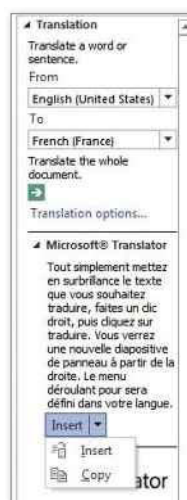
First, type the first person's name in cell B1 (adjacent to the email address), then start typing the name of the second

person in the cell below (B2). As you do this, you'll see the remaining cells (below B2) automatically fill with the other names – albeit greyed out. Simply click the bottom cell (B7) to confirm these values. Repeat this process to add surnames (see screenshot below left) and email providers.

OFFICE

Get text translated in seconds

One of Office's lesser-known features is its ability to instantly translate anything you type into other languages. This works in all of Office's text-based programs. Simply



highlight the text you want to translate, right-click it, then click Translate. A new panel will slide in from the right (see screenshot above right). The From dropdown menu will be set to 'English (United States)' (there's no option for British English but this won't affect any translation). Now click the To

	A	B	C
1	georgie.musson@dennis.co.uk	Georgie	Musson
2	chloe.brown@gmail.co.uk	Chloe	Brown
3	sherwin.coelho@yahoo.com	Sherwin	Coelho
4	kevin.nunes@hotmail.com	Kevin	Nunes
5	shay.maven@yahoo.com	Shay	Maven
6	kilian.kent@gmail.com	Kilian	Kent
7	ricky.lambreth@yahoo.com	Ricky	Lambreth
8			

highlight the text you want to translate, right-click it, then click Translate. A new panel will slide in from the right (see screenshot above right). The From dropdown menu will be set to 'English (United States)' (there's no option for British English but this won't affect any translation).

Now click the To

WORD

Replace all double spaces with single spaces in one go

Double spaces in a Word document are usually highlighted with squiggly red lines, but sometimes Word can overlook them. There's an easy way to replace all double spaces with single spaces in one go.

To do this, press Ctrl+H to bring up the 'Find and Replace' window. Now click in the 'Find what' field and enter a double space (by pressing the spacebar twice). Next, click the 'Replace with' field and hit the spacebar once. Finally, click the Replace All button below. You'll now see how many replacements Word made across your entire document.



Pushbullet

Get Desktop alerts, copy and paste anywhere and create chat heads

Put Pushbullet in its own window

We recently named Pushbullet the best free app ever (see Issue 453). It also has a superb Windows version (www.pushbullet.com) that's been greatly improved recently (see Best Free Software, Issue 454).

But if you'd rather not add another program to your hard drive, you can still use Pushbullet in its own windows on your Desktop by adding its free extension to your browser. Just click the Pushbullet **bookmarklet** followed by the diagonal arrow next to the cog icon.

Copy text between devices

Pushbullet has a really useful hidden feature that lets you perform a copy command on one device and then paste the clipboard contents to another – it feels like magic!

You'll need to enable it on all your devices, and in both the browser extension and PC program (if you have the latter installed). Just visit the Settings page by clicking the Pushbullet button followed by the cog in Chrome or Firefox,

the three-stacked-lines menu button in the Android app, or the cog icon on an iPhone or iPad; then either tick 'Universal copy & paste' (Desktop/browser) or flip the switch (mobile apps).

See alerts after closing browser

If you use Chrome and have the Pushbullet extension installed, then you can still receive Pushbullet notifications after closing your browser – and even without the PC program installed.

To enable this, click the Pushbullet bookmarklet in Chrome, then click the cog icon followed by Settings. Now click General and tick 'Keep Pushbullet running when my browser is closed'.

Create chat heads

The latest version of the Pushbullet PC program has introduced 'chat heads'. These let you detach multiple conversations or device threads to their own floating windows, just by hovering your mouse pointer over the person or device and clicking the small, diagonal arrow.

To collapse a chat head so that it



Create a chat head to detach a conversation or device thread, then position it where you want

shrinks to an icon, just click its icon – and then drag and drop the icons to wherever you want. This trick also works with the Notifications pane.

Right-click to send

If you've installed the Pushbullet extension for either Firefox or Chrome – and you really should, so grab it from www.pushbullet.com/apps – then pushing messages and other content is as simple as right-clicking, pointing to Pushbullet then clicking a device. This works for almost any type of content, from photos and videos to adverts. You can even push whole passages of text: just click and drag to highlight it before right-clicking to push it.

Add or create channels

Pushbullet's great for pushing your own stuff between your devices, but did you know that you can add 'channels' to let others push their stuff to you? It's really simple, too. Click Following, then 'Follow something' (or visit www.pushbullet.com/channels); find a channel that tickles your fancy, then click Follow. To unfollow later, just click Following.

If you run a website, you can even create your own Pushbullet channels, based on your site's **RSS** feeds and keyword triggers. Visit www.pushbullet.com/my-channel, fill in the form and click 'Create channel'. Other Pushbullet users can now subscribe via the URL in the 'Share this link' box, or use the embedding code to add a button to your website. To manage your channels, click Settings followed by Channels.

If this, push that

IFTTT (www.ifttt.com), aka If This Then That, is a popular service that lets you build your own tools with simple 'recipes' that trigger an event if something else happens. For example, get an iPhone notification if you receive an important email on Outlook (www.snipca.com/17432). It can be integrated with Pushbullet to create almost any imaginable alert.

Launch your browser and sign in at www.pushbullet.com. Next, visit IFTTT's Pushbullet channel (www.ifttt.com/pushbullet), click Connect, type your email address and password followed by 'Create account' to sign up for an IFTTT account, then click Approve to allow IFTTT access to your Pushbullet account.

Scroll through IFTTT's Pushbullet channel to browse the recipes. In many cases you just click Add, but look out for 'Advanced settings' links, as these allow you to tailor a recipe so it does what you want. For example, with the weather forecast recipe (www.snipca.com/17317, see screenshot), you can tweak the weather conditions that will trigger a notification.



3D XPoint

Move over RAM and flash – a new type of super-fast memory is set to revolutionise home computing

What is it?

A new type of computer memory that's up to a thousand times faster than existing **NAND flash** storage used in memory cards and **SSDs**.

Crikey, that's pretty nippy. Who's made it?

It's a joint venture by Intel and Micron, who have spent 10 years developing the technology. They say it's the first new "mainstream" type of memory since NAND flash arrived in 1989. Previously, the two companies have focused on the production and development of flash memory chips.

How does it work?

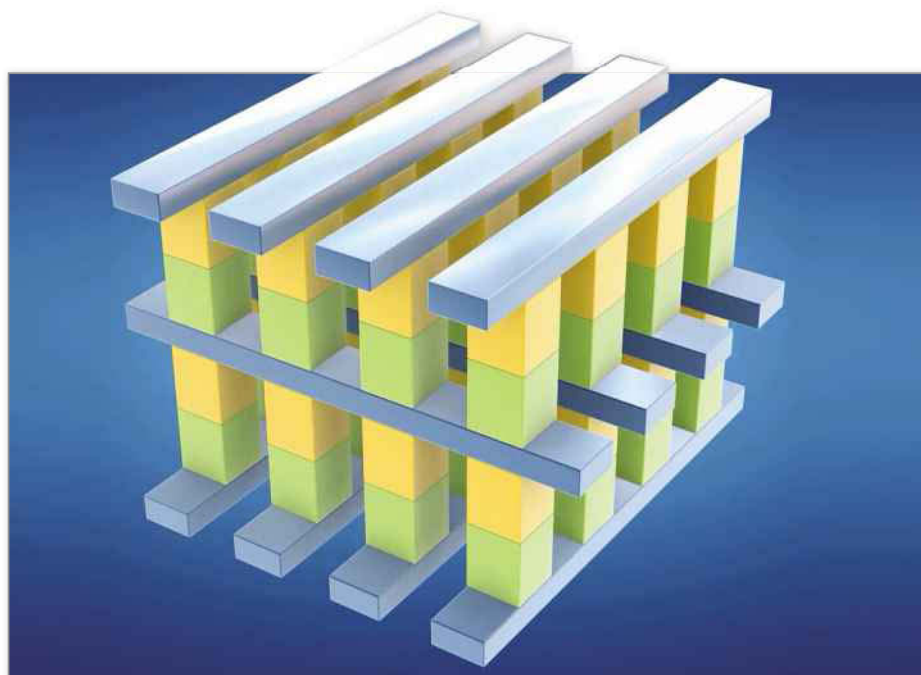
By combining the strengths of **RAM** and **SSDs**. RAM is extremely fast, but forgets all data when it loses power, while the flash memory in SSDs is much slower, but stores data when switched off.

3D XPoint sits in the middle. It's 'non-volatile', which means that (unlike RAM) it doesn't lose data when switched off. And it's a thousand times faster than flash. But Intel insists it won't replace RAM and flash; instead it will be used alongside them to store data "closer" to a **processor**, letting PCs access it much faster than is currently possible.

The companies say its benefits will go beyond home computing, helping 'big data' tasks in scientific work, such as DNA sequencing.

But will it make my computer faster?

Not the one you use now, but perhaps the next one you buy. That PC, if it's powered by 3D XPoint, will certainly start faster than today's computers, even those with SSDs. But the key difference is the "always on" nature of 3D XPoint, which means you'll never have to wait for anything on your PC to open.



For example, your processor won't have to wait to load a photo or video from your hard drive or SSD – it will appear instantly. The same goes for software and apps.

Is there a catch?

Not so much a catch, more several unknowns. How easy will it be to build PCs that can take advantage of 3D XPoint's speed? Will they cost an arm and a leg? Would Windows cope with the new technology? Come back in two years and we may have some answers.

How does it manage to be so fast?

It's all to do with its shape, which Intel has kindly illustrated (see main image).

It's a 3D structure comprising layers of wires, which run

Solid-state drives like those made by Crucial are fast, but 3D XPoint will outperform them



at right angles to those on the layer below. Each layer is connected by sub-microscopic columns at the points where the wires criss-cross.

Intel's video at www.snipca.com/17466 explains this in more detail.

It all sounds like a big deal. Is it?

Yes. At last, a new type of memory has leapt from the drawing board to the factory floor. Production is due to begin later this year in Utah. If all goes well, the first PCs to feature 3D XPoint will go on sale next year, though they are bound to be expensive. Solid-state drives will remain considerably cheaper than 3D XPoint for some time to come. But we'd like to think that by 2017 3D XPoint will become more affordable.

Is it pronounced 'ex point'?

You'd think so, wouldn't you – like Windows (e)XP, but no. Annoyingly, it's 'cross point'. We're all in favour of lightning-fast memory, but why can't technology companies stop messing with the English language?



THE DEFINITIVE REVIEW

Microsoft's new OS has landed, but is it a perfect 10 or another Vista-strophe? *Computeractive* gives you the only verdict you need, free of jargon and hype

This year marks the 30th anniversary of the first ever Windows launch – a fact that Microsoft's PR machine kept oddly quiet about in the months before the release of the latest incarnation of the operating system (OS). Three decades on and the decimal point has

moved one place to the right, but that's not all that's changed from Windows 1.0 to Windows 10. In fact, 2015 could be much more than just a symbolic milestone year for Microsoft – Windows 10 may well be the most important release for the company since 1985, when Windows made its debut on PCs. 'Make or break' might be putting it a bit strongly but, after the omnishambles of Windows 8, the company is in dire need of a hit.

Free for (almost) all

The latest version of Microsoft's PC OS has at least one enormous thing in its favour: it's free. Or at least it is if you're upgrading a Windows 7 or 8.1 computer. That's a significant incentive for anyone thinking of adopting the new OS. But

cost (or lack of it) isn't the only factor to consider. And now we've been able to spend time with the final version of Windows 10, we're in a position to give you the complete lowdown on all the areas that count – features, performance, security, ease of use and more.

In this special extended review, we're going to dig deep and examine all areas of the new OS to find out where it succeeds – and where it fails. And if, after reading our verdict, you decide that Windows 10 is for you, then we'll show you exactly how you can upgrade for free on page 56.

Some people will love Windows 10, we're certain of that. But is it really "the best Windows yet" as Microsoft claims (www.snipca.com/17455)? Read on to find out.

WHAT YOU CAN DO

- Discover how easy it is to upgrade to Windows 10
- Read our verdict on the operating system's new tools
- Learn what's been added to Windows 10, and what's been removed
- Follow our Workshop to upgrade by downloading it or going through Windows Update



INITIAL IMPRESSIONS

Editions and cost

Windows 10 is available in the usual range of editions, including Enterprise and Education variants, but the main two are Home and Pro. The Pro edition may appeal to corporate users and computer enthusiasts, because its additional benefits – including BitLocker (hard-drive encryption) and Hyper-V (a virtualisation tool) – will be most useful in the workplace. For the vast majority of home users, the only edition worth considering is Windows 10 Home.

You can buy PCs with Windows 10 pre-installed, but the vast majority of Windows 10's initial users will be those who come to the operating system via Microsoft's free upgrade. There are no catches, no hidden costs and no subscription fees. Once you've upgraded, Windows 10 is yours to keep. Wait until after July 2016 to upgrade, however, and you'll almost certainly have to pay (£99.99 give or take), unless Microsoft changes its mind.

The edition you get if you upgrade for free is determined by your current Windows edition. If you're running Windows 7 Home Premium, you'll be upgraded to Windows 10 Home. But if you're running a Pro or Ultimate edition of Windows 7 or 8, then you'll be upgraded to Windows 10 Pro.

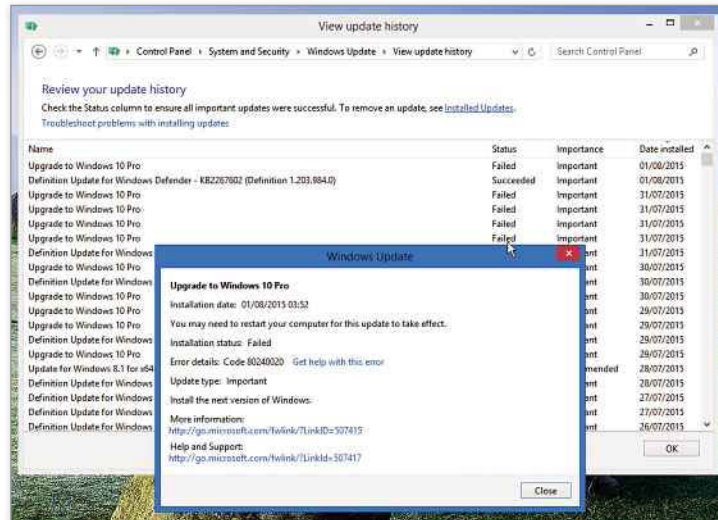
If you're coming at Windows 10 from XP or Vista, the upgrade isn't free – a copy of Windows 10 Home currently costs £100 at the Microsoft Store (www.snipca.com/17456), while Windows 10 Pro costs £190. See page 56 for more on upgrading from XP or Vista.

The upgrade experience

If you've ever upgraded to a new version of Windows in the past, you'll know that



Upgrading from Windows 7 or 8.1 is relatively straightforward – see page 56 for our guide



Not received the upgrade? Getting Windows Update errors? Don't worry – we've got a fix for you

it can turn into a somewhat hair-raising task, with plenty of opportunity for disaster. But, by and large, our experience upgrading to Windows 10 proved to be fairly painless. The wizard is clear and easy to follow, and it's actually pretty hard to mess up (though we'd definitely encourage you to back up first). One of our test systems (a Windows 8.1 desktop PC) took just 40 minutes to complete the process, while another laptop took just over an hour. In both cases, once the process was complete, all our files and programs were exactly as we'd left them.

That's not to say everything went without a hitch. Our brush with Microsoft's official Windows Update reservation and upgrade rollout system, for example, has been confusing and annoying. At the time of writing, at least three of our work PCs remain un-upgraded, with multiple 'Upgrade to

Windows 10 – Failed' errors in their Windows Update history. It's a common problem that Microsoft claims is "expected" (www.snipca.com/17457), advising users to wait for the notification that their upgrade is ready. However, it's possible the error is due to incomplete or corrupt download files. Thankfully, it's possible to bypass the whole reservation/rollout thing altogether and download the OS yourself at a time that suits you.

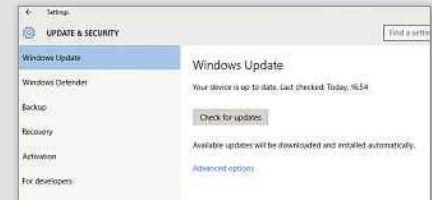
Desktop and Tablet modes

When Windows 10 first starts, you'll be greeted by a very familiar-looking Desktop, complete with the Taskbar along the bottom, the Notification Area on the right and, yes, the Start button on the left. Quite rightly, Microsoft has refocused the Windows 10 interface around the Desktop – or at least it has if you're using a PC. Like Windows 8,

HOW OS UPDATES WORK IN WINDOWS 10

If you already hate the hassle of OS updates, then we've got some bad news for you – Microsoft's strategy is to regularly update Windows 10 well beyond launch, rather than issue big service packs as it's done in the past. This is essentially good for users because new features may be added as the OS evolves, while flaws can be ironed out quickly.

However, Windows 10 Home users are forced to allow the OS to install updates automatically (Pro users get the option to defer them). Unlike in previous versions of Windows, the only option you get is to choose when your computer



restarts. Predictably, this policy has already proved troublesome. And when a flawed **graphics-card driver** update recently started causing problems, Microsoft backtracked a little by releasing a special tool (available from www.snipca.com/17458), that allows you to block or uninstall certain updates.



Windows 10 works like a tablet when used on a tablet, but like a PC when used on a PC

Windows 10 is meant to be used across the increasingly varied range of devices available – PCs, laptops, tablets, all-in-ones, hybrid devices, games consoles and, eventually, mobile phones, Raspberry Pi computers and **internet of things** devices. But, unlike Windows 8, the new OS is intelligent enough to know what type of device it's running on and

adapt accordingly.

A new system called Continuum allows Windows 10 to switch automatically between Desktop mode and a more touch-friendly Tablet mode, depending on your situation. Say you have a hybrid laptop/tablet, for example. Attach the keyboard and Continuum will switch to Desktop mode. Remove the keyboard

and it'll revert to Tablet mode. You can manually switch between Desktop and Tablet mode too. Touch support is automatically enabled for devices that have touch-sensitive screens, regardless of which mode you're using. But the bottom line here is that, when you're using Windows 10 on a PC, it *feels* like a PC.

THE NEW INTERFACE, APPS & SETTINGS

The look and feel

Overall, the new interface is clean and modern-looking. Windows 8's Start screen is gone, along with the dreaded Charms bar and many of the other annoying UI elements. Windows 7 users may miss Aero's transparency effects and rounded corners, but Windows 10's design feels sharp and no-nonsense. In some places, we felt that the interface makes slightly awkward use of blank space, while some of the new icons look a little basic, but this is possibly just a taste thing.

The Start menu

As most of you will already know, Windows 10 brings back the Start menu. By default, it's quite large, though you can resize it by clicking and dragging the edges. At the top of the left-hand pane you'll see your user account – click this to quickly lock your screen, log out or jump to your account settings. Below are shortcuts for your most used apps, and further shortcuts for File Explorer (the new name for My Computer, This PC or Windows Explorer), Settings, Power and 'All apps'. It's great to be able to click Start and turn off or restart your PC straight away without having to hunt for hidden power options, as you do in Windows 8. Clicking 'All apps' turns the left-hand pane into a scrollable list of all the programs and apps installed on your PC,



Yes, the Start menu is back, and it's better than ever

like All Programs in Windows 7.

The right-hand pane of the Start menu looks like a mini version of Windows 8's Start screen, with large, coloured buttons representing apps and animated Live Tiles. You can pin, unpin, resize, reorganise and re-categorise these any way you like. If you really dislike the Windows 8-style tiles, you can unpin the lot and resize the Start menu to a single pane. Anyone who ended up preferring Windows 8's full-screen Start can even switch back to it if they wish. You can also change the menu's colour, add or remove shortcuts and more. And for even more customisation options, Classic Shell

(www.classicshell.net) is Windows 10-compatible, too.

Apps

Traditional programs and applications will install and run on Windows 10 as normal, but the new OS has a big focus on 'Universal apps' – mobile-style apps designed to work across different types of device. Many of the settings and built-in tools come in app form, while the Windows Store offers a range of additional apps and games to install – some are free, others are not. Costs are roughly in line with those you'd expect from the iTunes App Store or Google Play.



Apps open in windows on your Desktop just like they should – the clue is in the name ‘Windows’

At the moment, the selection is relatively modest, though we’d expect it to grow over time.

Apps themselves aren’t new to Windows – they were introduced in Windows 8, along with the Windows Store. But the way they work in Windows 10 is so much better. Crucially, they no longer default to filling the entire display (unless you’re using Tablet mode). Instead, they behave like any other program, appearing in re-sizable windows on your Desktop, which is much less confusing and frustrating than Windows 8’s enforced full-screen apps.

Settings and Control Panel

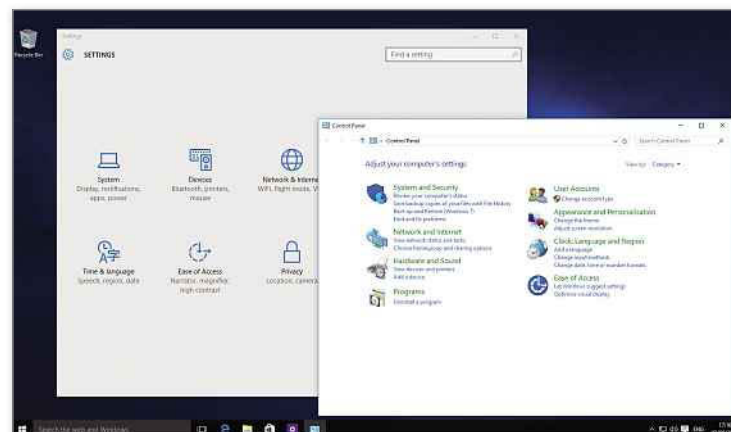
While apps work better in Windows 10, there’s still a sense that the OS is caught between two ecosystems: the new world

of apps and simplified computing and the old world of traditional Windows geekery. A good example of this is the strange way that its settings are split across the old-style Control Panel and the new-style

Settings app.

The Settings app neatly divides itself into nine different sections – System, Devices, Network & Internet, Personalisation, Accounts, Time & Language, Ease of Access, Privacy, and Update & Security – each of which contain their own subsections.

The settings themselves are mostly easy to understand, but the trouble is that they are not all found here – some are still only accessible via the good old Control Panel. The upshot is that, during testing, we’ve continually found ourselves switching between the Control Panel and the Settings app. The saving grace here is the Search box in the Settings app. Type a keyword for the setting you’re looking for – you don’t even need to know the setting’s actual name – and a list of all related settings will appear below, including options from both the Settings app and the Control Panel.



The new Settings app and the old Control Panel aren’t the easiest of bedfellows

THE BEST NEW FEATURES

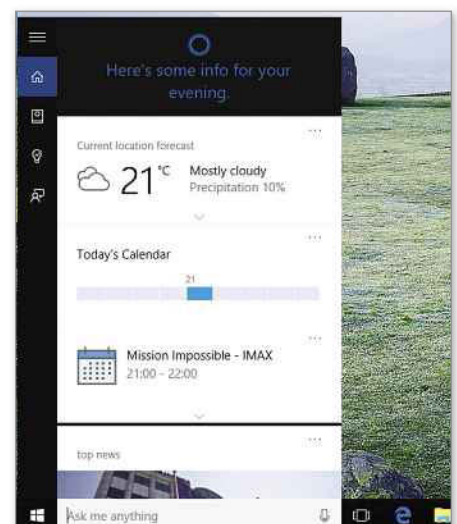
Unlike Windows 7, which came jam-packed with features galore, Windows 10 is comparatively conservative with its built-in tools. Some of the features found in previous versions have even been removed, including Windows Media Center. The main new additions are Cortana (Microsoft’s voice-controlled digital assistant) and the Edge web browser, but there are also lots of less obvious new features and interface refinements, such as Task View and Snap Assist.

Speak to your PC

Let’s start with Cortana. You’ll need a microphone if you want to interact with it using your voice and you’ll have to tweak a few settings to get it working properly – we’ll be explaining how to

optimise Cortana in a future issue. At first we were pretty impressed and speaking commands like “hey Cortana, open Word” or “hey Cortana, what’s on at the cinema?” is a novelty that has yet to wear off. But it soon becomes clear that there are limits to Cortana’s powers. Rather than providing answers for everything herself, for instance, it frequently defaults to opening a page of Bing results, which you’ll need to sift through manually.

Perhaps more impressive than Cortana is the improved Desktop search feature that powers it. Searching your PC for files, programs or tools has never felt quicker or more natural, whether you’re using your voice or typing into the Start menu Search box. It makes locating missing files, forgotten applications and obscure settings easier than ever.



The PC search tool that powers Cortana – the much-hyped digital assistant – really impresses

The Edge browser

As far as the Edge browser goes, we're going to suspend judgement for the time being, because it's such early days. Updates and improvements are likely to come thick and fast over the coming months, radically changing (hopefully improving) the new browser's performance and usability. Support for browser extensions is currently absent, for example, making it less flexible than Chrome or Firefox. Microsoft says it will add this later this year.

In terms of its much-touted speed benefits, we've yet to see any persuasive evidence from our labs tests to suggest that Edge performs significantly faster than Internet Explorer. But that could change over time too, as improvements are applied.

That said, we definitely appreciate Edge's useful built-in browsing tools. Reading View offers a pleasant distraction-free way to read web pages and news articles; Reading List makes it



The Edge browser has yet to live up to its promise but offers great tools like Reading View

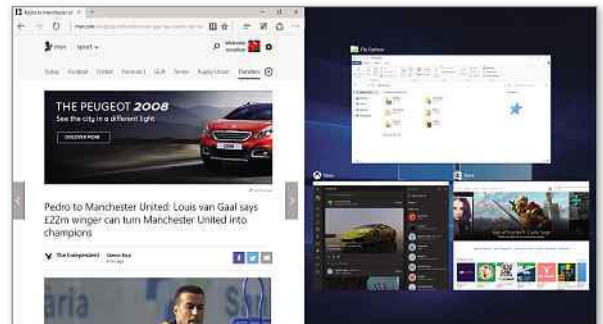


All your open windows at the click of a button – Task View is a simple, brilliant enhancement

easy to save pages to read anywhere; and Web Notes is a clever tool for annotating and sharing online content.

New ways to work

Small, but noteworthy changes can be found throughout Windows 10 and, for the most part, they help to improve the interface. Two good examples are Task View and



Snap Assist makes it easier than ever to work with multiple windows at the same time

Snap Assist. The former works a bit like Alt+tabbing, presenting you with thumbnails of all your open windows – except it does so at the click of a handy Taskbar icon. Why did no one think of that before?

Snap Assist improves on Windows 7's Aero Snap. Drag a window to one side of the screen and it will 'dock' to fill that half of your display as before. The difference is that all your other open windows automatically appear as thumbnails on the other side of the screen allowing you to snap one (or more) to the free area of your display.

An honourable mention should go to the new Action Centre, which sits in your Notification Area as before but now opens a handy panel of quick shortcuts and notifications when clicked. The new Mail app is a quiet revelation too. For a start, it actually works (Windows 8's was barely serviceable). It's also clean, well-organised and easy to set up, regardless of your account type.

One change that may throw users a little at first is the new File Explorer. When you launch it from the Taskbar or Start menu, it no longer defaults to the classic view of all your drives, instead displaying 'Quick access' lists of oft-used folders and recent files. Apart from this, it works more or less how it always has, though it's worth noting that a tabbed ribbon of useful tools can be accessed by clicking a down arrow to the right of the top toolbar.

WINDOWS LEAGUE TABLE

Back in Issue 411, we polled *Computeractive* readers and staff to find out which of the 12 versions of Windows they thought was the best. Windows 7 was hailed the all-time favourite by some margin. So where do we think Windows 10 fits in to the best – and worst – versions of all time? Here's our revised rundown:

THE TOP THREE...

1 Windows 7 (launched July 2009)

Windows 7 is showing its age a bit these days, but there's still a lot of love for what many people see as the definitive version of the OS.

2 Windows 10 (July 2015)

It's already very good and, with more features to come via regular updates, has the potential to eclipse even the great Windows 7.

3 Windows XP (Aug 2004)

Microsoft might have killed it off, but XP is still well liked. Service Pack 2 was the best – and safest – version.

...AND THE BOTTOM THREE

10 Windows Me (Sept 2000)

This crash-happy version of Windows introduced huge swathes of its very own millennium bugs to users' computers.

11 Windows 8 (Oct 2012)

A PR disaster for Microsoft. The pre-8.1 version in particular was widely criticised for completely misunderstanding how people use PCs.

12 Windows Vista (Nov 2006)

Vista actually had a lot of great features, but few people ever made much use of them – largely because the lumbering OS made many PCs slow to a crawl.



FINAL VERDICT

WHAT WE THINK ABOUT WINDOWS 10

So you've read our impressions of Microsoft's new OS – now it's time to reveal how well it scores in each of the categories below. If you decide to upgrade to Windows 10 after reading our verdict, then turn the page for our hassle-free guide to installing Windows 10 on your PC for free

Features

Windows 10 provides a solid selection of built-in tools and useful new features but doesn't overload you with stuff you don't need. It's lean and we like it that way. Cortana and Edge are interesting additions, but the majority of the best new features are actually old ones – like the Start menu, for example. Yes, a few features have fallen by the wayside – as mentioned, Windows Media Center has gone (though the more popular Windows Media Player remains). But most of these can be added or replaced by free alternatives. We'll show you how in forthcoming issues.

★★★★☆

Performance and stability

In our tests, startup was quick and the OS felt responsive and nippy, even on low-power devices and older PCs that we upgraded. Performance-wise, it's a big improvement and Windows 7 users, in particular, will appreciate the difference. So far, the OS has proved to be a fairly stable platform too – even at this early stage. Previous versions of Windows have been plagued with bugs post launch, but rigorous public testing has meant Windows 10 is reliable right out of the gates – aside from a couple of minor quirks that we encountered.

★★★★★

Security and privacy

Built-in security is better than Windows 7 and roughly the same as Windows 8.1. Antivirus, spyware, firewall and browser privacy tools all come as standard, though some may prefer to install third-party protection instead. The new facial-recognition system (Windows Hello) requires very specific hardware to work, so we're not counting this. We have a few concerns about Windows 10's privacy. By default, it shares access to your personal Wi-Fi network security key to anyone in your contacts, and not everyone will be comfortable with the level of personal data the OS collects.

★★★★☆

Ease of use

Windows 10 is quite possibly the most user-friendly version of the OS ever. It dumps the confusing interface quirks of Windows 8 completely and returns to a much more familiar working environment for PC users. Not only that, but the new search tools and Cortana's voice control make everything – from finding files and programs on your PC to customising the way it looks and works – much more intuitive. The built-in apps, meanwhile, are simple, focused tools that get the job done without any fuss. Usability is definitely Windows 10's strong suit.

★★★★★

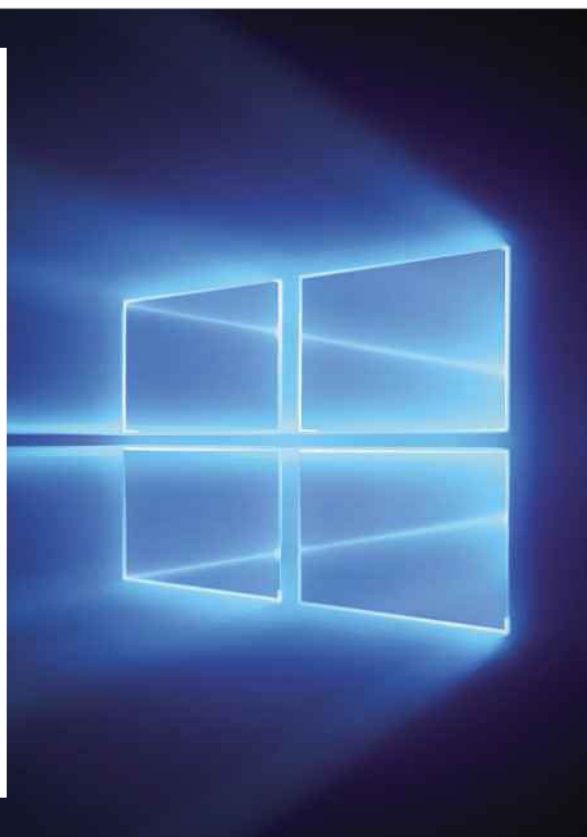
CONCLUSION

It's hard to make a judgement call on an operating system so early in its lifecycle. It's often not until you've been using a new OS for a while to carry out all your day-to-day tasks that its true pros and cons come to light. This is perhaps particularly true of Windows 10, which – thanks to Microsoft's new policy of drip-feeding important updates – has the potential to evolve quite radically over the coming months.

As it stands, Windows 10 isn't perfect. But this time around Microsoft has, without a doubt, got a lot of things right. Barring a few niggles – which could well be ironed out over time – Windows 10 has everything you could want from a modern Desktop operating system. In terms of usability and features, it's a vast improvement on its immediate predecessor. If you're currently running Windows 8 or 8.1, then this is the upgrade you've almost certainly been waiting for – and it's free.

We reckon many people will find they prefer Windows 10 to Windows 7 too, particularly when it comes to its performance and ease of use. Windows 7 users may be less inclined to let go of the past, even for an upgrade that costs nothing. But, for our money, we reckon Windows 10 is a great way to refresh and rejuvenate your PC, allowing you to continue using it long into the future.

OVERALL SCORE: ★★★★★



HOW TO UPGRADE FROM WINDOWS 7 OR 8.1 PROBLEM-FREE

What you need: Windows 7 or 8.1, a 6GB (or larger) USB stick or blank DVD (optional), broadband internet access **Time required:** 1-2 hours

Microsoft claims that more than 14 million users downloaded the new OS within the first 24 hours alone. But not everyone has been so lucky, and those who still haven't received the 'Your upgrade is ready' notification have been told to wait patiently. Failed Windows Updates and corrupted installer files have been causing problems, too. So, over the next three pages we're going to show you a way to jump the queues and upgrade to Windows 10 whenever you like. It's the same upgrade – and it's still free. You're just manually downloading it yourself rather than waiting for Windows Update to sort itself

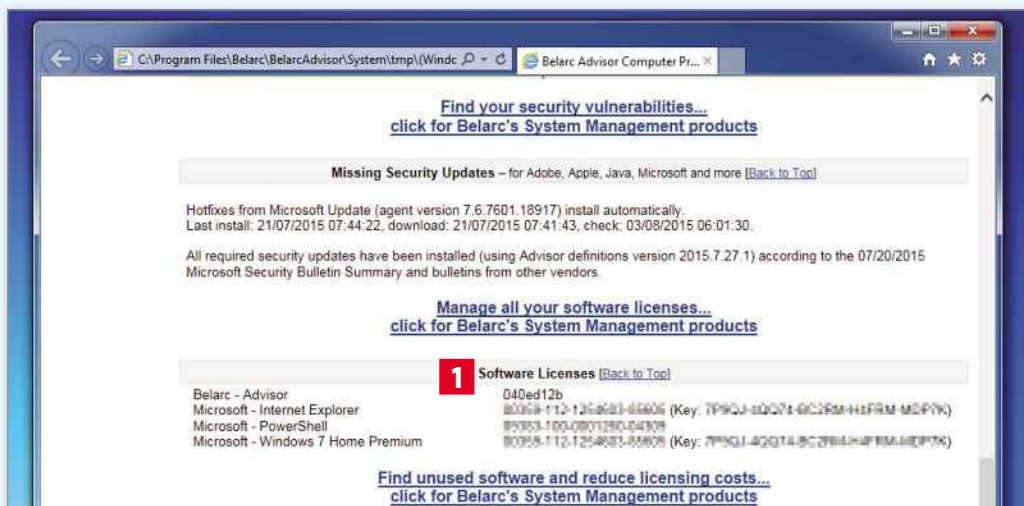
out. If you *are* upgrading via Windows Update, then we've got you covered too – you can skip straight to Step 6.

Installing Windows 10 using our steps below will leave your files and programs safe and intact. But, as with any OS upgrade, it's very important to back everything up first. We'd encourage you to do a system-image backup of your entire hard drive, to make it easy to get your PC back the way it was in the event that something should go wrong. See our Workshop on page 35 of Issue 455 for more advice on how to prepare for the upgrade.

HOW TO UPGRADE FROM XP OR VISTA

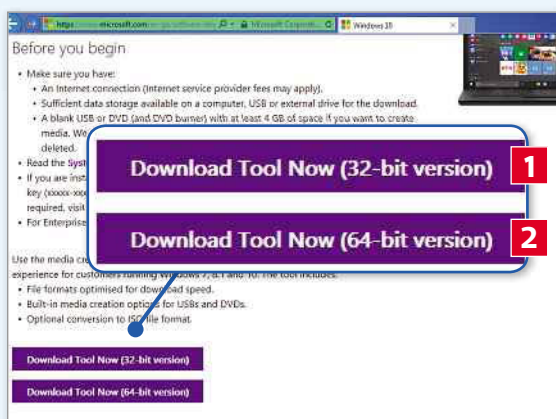
While it's possible to upgrade from Windows XP and Vista (as long as your PC meets Windows 10's system requirements – see www.snipca.com/17474) the process of doing so is different to that for Windows 7 and 8.1, and we simply don't have room to cover it in any detail. Essentially, it involves buying a copy of Windows 10. It's currently only available as a download (£99.99 from www.snipca.com/17517), but boxed copies (pictured), which include the operating system on a USB stick, should be on sale before the end of August.

The big difference is that you can't upgrade over the top of XP or Vista and leave your files in place as you can with Windows 7 or 8.1. Instead, you'll need to back up everything first, gather the discs or installer files for your tools, then restore/reinstall everything when the process is complete.

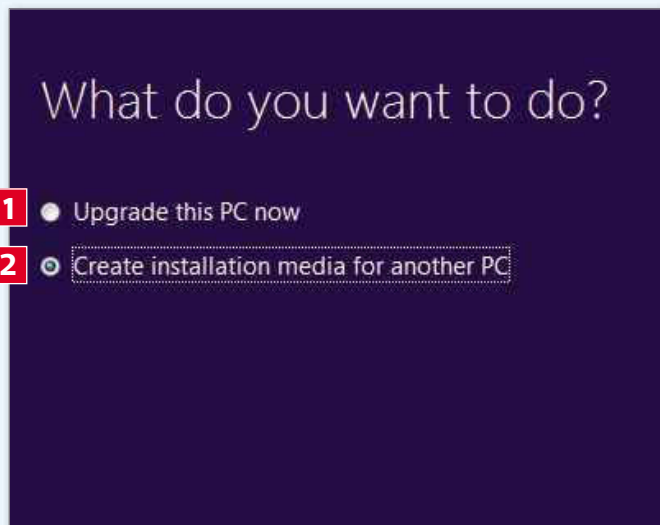


STEP 1 Whichever way you upgrade, before you start, we recommend downloading and running Belarc Advisor (www.snipca.com/17465), then making a note of your current Windows product key for safekeeping – you'll find this listed under Software Licenses **1** towards the bottom of the Belarc report.

If you're performing a manual upgrade, first click Start (or right-click it in Windows 8.1), click Control Panel, 'System and Security', Windows Update and check to see if there are any updates to install. If so, apply these, then restart your PC and run Windows Update again. Repeat this until there are no updates outstanding.



STEP 2 To bypass Microsoft's rollout and upgrade manually, visit the official Windows 10 download page at www.snipca.com/17464. To get Windows 10, you'll need to download a media-creation tool first. At the bottom of the page you'll see two options – for the **32bit 1** and **64bit 2** versions. You need the one that corresponds to your current system type. To find this, click Start, then right-click Computer and select Properties (Windows 7) or right-click Start, then click System (Windows 8.1) – look for 32-bit or 64-bit under 'System type'.



STEP 3 Run the media-creation tool. You'll be presented with two options – 'Upgrade this PC now' **1** or 'Create installation media for another PC' **2**. Even though the second option claims to be for upgrading another PC, we recommend using this, as we've heard reports that the straightforward 'Upgrade' option doesn't always work. What the second option does is download the installation files to your computer and let you make your own USB stick or DVD from which to upgrade. It's also convenient if you're planning to upgrade more than one computer or should you need to reinstall later, because you'll only need to download Windows 10 once.



STEP 4 Select the 'Create installation media for another PC' option, then click Next. Choose your language from the top menu. Next to Edition **1**, select the version of Windows 10 you want to upgrade to. If you're upgrading from a Home version of Windows 7 or 8.1, you'll need to select Windows 10 Home. Select Pro only if you're upgrading from a Pro or Ultimate version of Windows and ignore the 'N' options. Next to Architecture **2**, select either 32bit or 64bit depending on your current system type (see Step 2). Click Next.



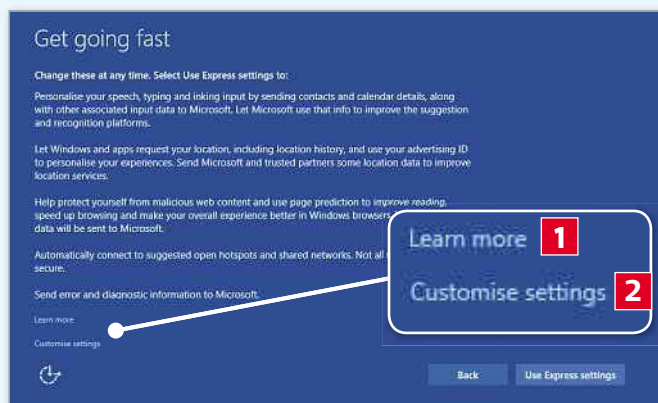
STEP 5 On the next screen, choose the type of media you want to create. To make a USB installation drive, insert it into a spare USB port, then select the 'USB flash drive' option **1**, click Next, select your drive from the list and click Next again – this will download the installation files directly to your chosen drive. To make an installation DVD, select the 'ISO file' option **2** then click Next and select a download location. When the download is complete, insert a blank DVD, then right-click the ISO file and select 'Burn disc image', then Burn.



STEP 6 If you're upgrading via Windows Update the wizard will launch once you click the option in the notification you receive. If you followed Steps 2 to 5, insert your DVD or USB drive, then open the drive in Windows Explorer (press Windows+E) and double-click the 'setup.exe' file to launch the upgrade wizard. If you're prompted to 'Download and install updates', select this option and click Next. After a few more 'getting ready' screens, click Accept when you see the licence terms. Eventually you should see a 'Ready to install' screen – note that 'Keep personal files and apps' **1** is ticked. Click Install. ▶



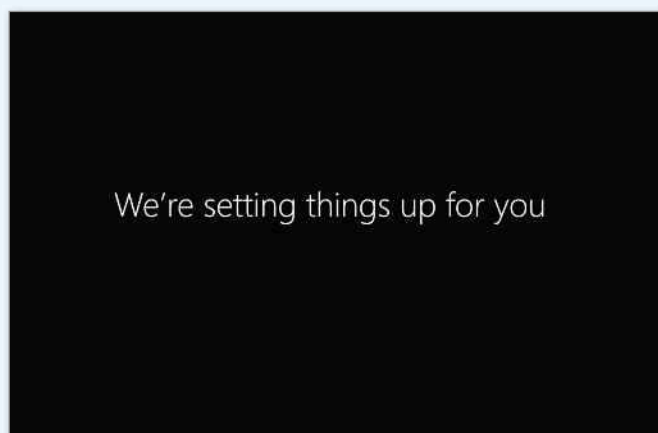
STEP 7 You'll see a big 'Installing Windows 10' screen at this point with little more than a progress percentage and a cancel button. If you're upgrading from a USB drive or DVD, stay near your computer (this is important). As soon as your PC restarts, you need to remove the USB drive or eject the DVD, otherwise your computer may boot to the clean install wizard instead, and you definitely don't want this! Once the PC has restarted you should see a light-blue Windows 10 logo followed by a screen like the one shown above. Your PC will restart a few more times as the installer does its job.



STEP 8 Eventually, you'll see a screen saying 'Hello there, welcome back', with your user account picture as a thumbnail. Click Next. The following screen is titled 'Get going fast'. Have a read through the statement – you can click 'Learn more' at the bottom **1** if you're concerned about any of the points it raises. Click 'Customise settings' **2** just below to switch off some of the default privacy settings. Once you're happy, click 'Use Express settings'.



STEP 9 Next, you'll be asked whether you want to switch to using Windows 10's new apps for your Photos, Music, Films & TV and make Microsoft Edge your default web browser. Doing this will mean that double-clicking, say, a photo file, will open it in Windows 10's Photo app from now on. If you're happy with that, click Next. But if you want to carry on using your previous programs, then click 'Let me choose my default apps' **1**, then untick the apps you don't want. You can always change your default programs later, should you wish. Click Next **2** when you're ready.



STEP 10 Once you've worked through those setup options, Windows will display the Lock screen. Click anywhere and log in with your user account and password as normal. You'll see a series of screens saying 'We're just setting things up for you', 'This won't take long' and so on, as your apps and settings are configured in the background. Once this is complete, you should be greeted by the familiar sight of your Desktop, complete with your old background and shortcuts. Click Start, type **windows update** and press Enter to check for new updates, restarting when prompted. Welcome to Windows 10! **ca**

NEXT ISSUE On sale Wednesday 2 September

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WINDOWS 10 PROBLEMS SOLVED



The fixes you need now – or when you decide to upgrade

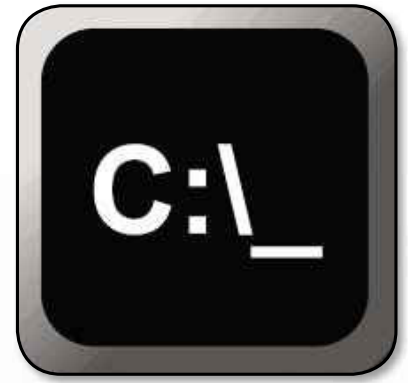
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PART 3

50 most useful Command Prompt commands



This issue, Jane Hoskyn reveals 10 command-line tricks for finding files and hidden information on your PC

21 Instantly open the Control Panel

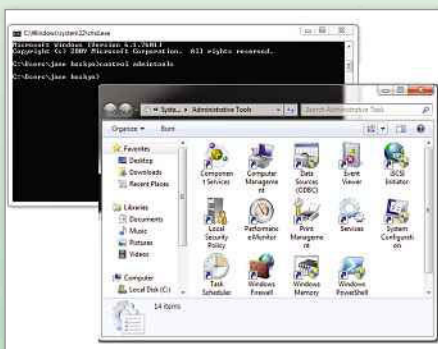
Some of Windows' best built-in tools are buried deep in your PC. You could create shortcuts that clutter up your Desktop and have a habit of not working – or you could use the Command Prompt to find and open them instantly instead.

For example, type **control panel** at the prompt then press Enter, and the Control Panel will open instantly on your Desktop. Bit easier than rummaging around in the Start menu, isn't it?

22 Find a Control Panel setting

Instantly open any one of dozens of Control Panel settings by adding the appropriate word or phrase after the 'control' command.

For example, to instantly open the Administrative Tools window, which is buried in the 'System and Security' section of the Control Panel and contains tools such as Event Viewer, System Configuration and Task Scheduler, type **control admintools** and press Enter. Remember to include the space between 'control' and 'admintools'.



Instantly open the Control Panel's Administrative Tools window

23 Find a font

Type **control fonts** to instantly open previews of all fonts installed on your computer. To see a character in a particular font, click 'Find a character' on the left.

OPEN CMD PROMPT

To open the Command Prompt in any version of Windows, type **cmd** into Start and press Enter. Type a command at the 'prompt' ('>') and then press Enter to carry out your chosen task. Most commands are case-insensitive, so you can type upper- or lower-case letters (or both) and get the same result.

24 Find a scheduled task

Type **control schedtasks** to open the Windows Task Scheduler, then click Display All Running Tasks to see what tasks you've set your PC to carry out.

25 Find text in a file

The 'find' command can't find files on your PC, but it beats Windows Search hands down for finding strings of text in documents.

On the downside, it's very tricky to get the hang of (we speak from teeth-grinding experience). This is largely down to the endless parameters required to make the command work. You can't just type **find badger**, for example, or even **find badger name.txt**, which would be a logical way to find the word 'badger' in the document 'name.txt', in whatever directory the prompt is currently located.

Instead, you have to include a parameter such as **/b** ('beginning of line') to make the command work. You can find the entire list of parameters in Microsoft's TechNet Library (www.snipca.com/17471).

26 Find even more text in a file

'Find' has largely been superseded by its more powerful little brother, 'findstr' (short for 'find string'), which uses the same parameters referred to above and is even more useful for finding strings and incidences of letters, numbers, words and so on in documents. For example, it'll

find all occurrences of your surname in a long document, and specify the lines it appears in.

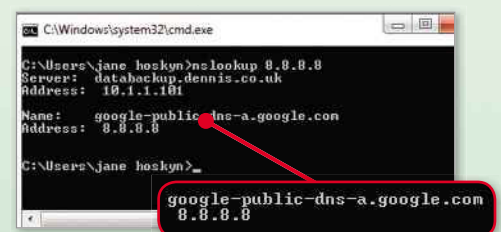
For a more comprehensive explanation of 'findstr' and its variations, check out the Computer Hope guide (www.snipca.com/17472). You'll need a basic understanding of the Command Prompt to make sense of it, so make sure you've read all three parts of our series so far before you get bogged down.

27 Find your router's address

Type **nslookup** and press Enter to instantly see your router's **server** and **IP address**.

28 Reverse-search an IP address

You can also use the Command Prompt to find out who (or what site) owns a particular IP address. Type **nslookup**, then a space, then the IP address. The IP address 8.8.8.8 is owned by Google (see screenshot below).



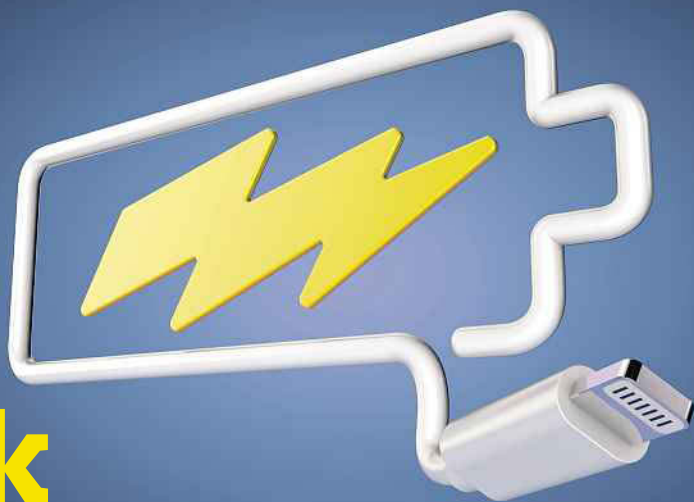
29 See the contents of a file

The type command is mainly used for checking the contents of batch (.bat) files, but you can try it on any file. Move the prompt to the file's location, then type **type filename.extension**, substituting the appropriate name and extension.

30 Re-type a command

This command isn't about finding things on your PC, but we thought you deserved a gentle counterpoint to those tricky 'findstr' commands. Simply press and hold the right arrow on your keyboard, and your last-typed command will re-appear. **ca**

Make your tablet battery last all week



Why do your tablet and phone need plugging in every day? Actually, they don't. Jane Hoskyn reveals how to double your battery life, or even make it last for days

Scientists can explore Pluto and even do head transplants, but they still can't make a tablet battery last for a couple of days without having to plug it in.

OK, you *could* make your battery last for weeks if you were to close all apps, switch on aeroplane mode and leave it in the sock drawer. But if you do that you might as well not have a tablet at all.

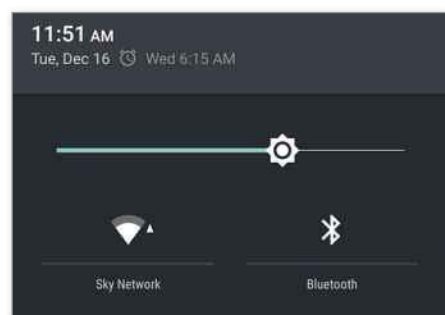
Many of the best ways to make your battery last longer are well-known – don't run a zillion apps at once, for example. So we won't insult your intelligence by filling two pages with them, but we will start with a few basic battery tips you may have forgotten. Then we'll reveal the latest battery tricks, including a couple of hacks the manufacturers don't want you to know.

EVERYDAY BATTERY TIPS

Kill your brightness

Certain battery-saving tips have been around since the dawn of 1G (yep, there was a 1G: www.snipca.com/17537), but many are as relevant as ever. First, turn your screen brightness down.

In Android, you can quickly access the brightness slider (see screenshot below)



Bright screens blitz your battery – and mess with your sleep

from any screen by swiping down from the top with two fingers. In iOS, swipe up from the bottom of the screen and move the slider.

Use the lowest setting that's comfortable for your eyes. Keep it especially low if you're reading in bed at night. A bright screen at night is as bad for your eyes as it is for your battery, and can prevent you getting a good night's sleep (here's a detailed study in PDF format: www.snipca.com/17540).

Use plane common sense

Short of actually switching off your tablet, the best way to extend its battery life is to switch to 'Aeroplane mode' (or 'Airplane mode', to use the Americanised spelling you'll see on some devices).

Aeroplane mode disables several



Aeroplane mode instantly disables several battery-draining services

battery-killers at once: Bluetooth (how often do you use it? Exactly); Wi-Fi (there's no point having it switched on when you're away from home, because your tablet will be constantly looking for Wi-Fi signals) and mobile data.

Mobile data (3G/4G) is useful if you're the type who checks Facebook

constantly in the car, but we're guessing you're not.

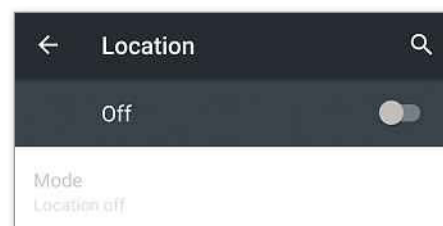
You'll find Android's 'Aeroplane mode' switch by swiping down from the top of the screen, and iOS's 'Airplane mode' switch by swiping up from the bottom.

Hide your location

GPS location services are now commonplace in tablets and phones, and they're amazingly useful. Map apps, weather apps and, of course, live traffic apps such as Waze (www.waze.com), number 33 in our recent chart of the top 40 free apps (Issue 453), depend on location-detection – and can save you money on expensive in-car GPS devices. But GPS is a huge battery hog.

What's more, having location services switched on by default compromises your privacy by embedding your whereabouts in every message you send, every photo you take and every move you make. And many apps that require location permissions have no reason for needing to know where you are.

To switch it off in Android, go to Settings, tap Location and then move the slider to Off. In iOS, go to Settings, tap Privacy, tap Location Services and then switch it to Off. This will disable location services for all apps.



Switch Android's Location slider to Off to take a weight off your battery

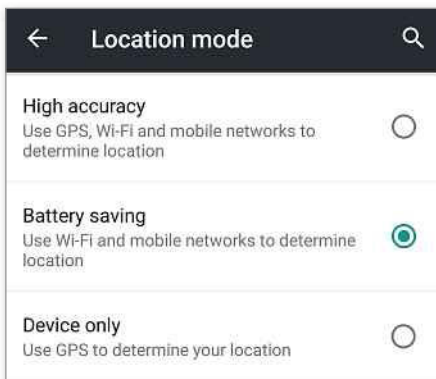
NEWER BATTERY TRICKS

Use location without GPS

In iOS 7 and 8 there's an easy way to prevent location services draining your battery – enable it for certain apps only. Very few apps actually need to know your location. Weather apps, maps apps and not many others.

Android doesn't give you this choice (a rare case of Android giving you less control than iOS). However Android Lollipop has a 'Battery saving' mode that dramatically cuts the power cost of location services by forcing them to use Wi-Fi and, if you allow it, mobile data instead of GPS (a rare case of Android Lollipop giving you something to smile about). Android now also lets you see which apps and tools are having the greatest impact on your battery.

To enable this mode, go to Settings, then Location and move the switch to



Android's 'Battery saving' mode prevents location services using GPS

On. On the 'Location mode' screen that appears, tap 'Battery saving' (see screenshot below left). You can also opt to use GPS only, and not Wi-Fi or mobile data. This is useful if you don't have internet access, but it's a big battery drain.

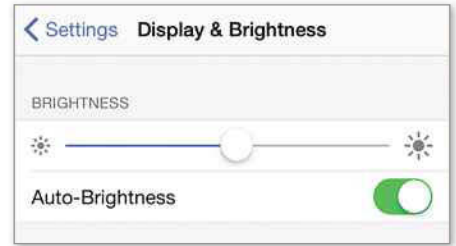
Hack Aeroplane mode to use Wi-Fi

You can actually turn on Wi-Fi when you're in Aeroplane/Airplane mode. Mobile data is still disabled completely, but it means you can use Wi-Fi with minimal impact on the battery.

To do this in iOS, swipe up from the bottom of the screen and tap the Airplane icon so it goes white. The Wi-Fi icon will automatically go grey. Then tap the Wi-Fi icon and it'll turn white again, so you can get online.

In Android, swipe down from the top of the screen, tap 'Aeroplane mode' and then tap the Wi-Fi icon. We had to do this a couple of times before it would come on, so it may be best to wait a minute after switching to Aeroplane mode before trying to switch on Wi-Fi.

Be aware that this trick will reduce your tablet or phone's performance by limiting most background data. If you just want a few more hours (or even days) of battery life to read an ebook, reduced performance shouldn't worry you much. It might force you to cut down on your video-selfie-sharing habit, though. (We're joking.)



Android's 'Battery saving' mode prevents location services using GPS

Don't believe the auto-brightness hype

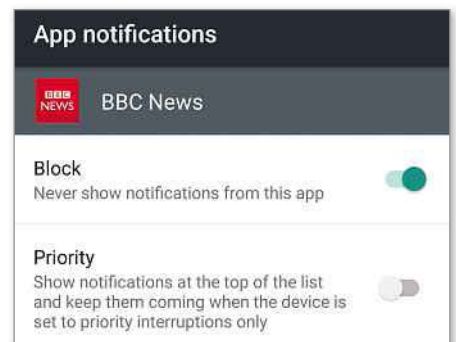
Android and Apple both recommend using automatic (or 'adaptive') brightness settings to save your battery, but we don't. Auto-settings draw on your device's sensors and involve background process that run constantly and drain your battery. Choose your own brightness to suit your eyes and save your battery.

Ditch notifications


Notifications are supposed to be useful. Actually, they're battery-draining irritants. Worse, they can ruin your day. Earlier this summer, I was recording the Wimbledon final to watch after doing the shopping, and a BBC News notification spoiled the result for me while I was in the Asda queue. You can *not* be serious!

Even those notifications you actually enjoy getting, such as Facebook 'likes' and family emails, aren't necessary. Why not just check these apps manually? Your battery will benefit greatly, and people will enjoy your company much more if you're not constantly looking at your tablet or phone screen.

In iOS, go to the Notification Centre and choose None. In Android, go to Settings, 'Sound & notification', 'App notifications' and block notifications for apps you don't want to hear from (see screenshot below).



Block notifications if you want a peaceful life and a long-lived battery

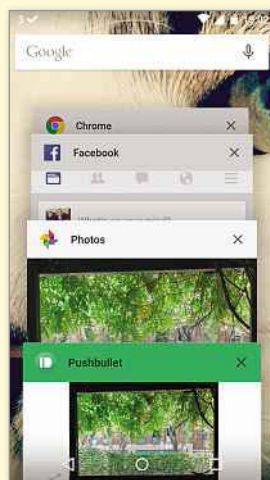
Some devices bury notification settings in obscure places, so explore your tablet or phone's settings for the easiest notification-killing method. 

GREAT APPS, SHAME ABOUT THE BATTERY

We love these free apps, but they don't half murder batteries...

SKYPE: Skype's app (www.snipca.com/17543) lets you make free video and audio calls via Wi-Fi or mobile data. Great – but doing so for hours on end is wanton battery abuse.

PUSHBULLET: Our favourite free app of all time (www.pushbullet.com/apps, see Issue 453) gobbles battery life, especially if you use it to share photos and videos (to be fair, the same goes



for other media-sharing apps). To avoid battery problems, close it when you're not using it.

CHROME: On some devices, Chrome's app (www.snipca.com/17544) launches multiple windows when it really only needs to launch one. This idea is that separate windows don't clutter your screen like tabs, but the result is harder work for your tablet.

FACEBOOK: Facebook's app tops charts of battery-eating apps simply because people use it for hours on end (AVG Android App Performance Report, www.snipca.com/17545).

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Problems Solved

PROBLEM OF THE FORTNIGHT

Why is Skype using so much data?

Q We use Skype to have video chats with our daughter, who lives in the US. After 53 minutes we ran out of mobile broadband data and found we'd used almost 1GB. We checked our usage and found we'd used 417MB uploading and 562MB downloading. This has never happened before. Please can you throw some light on what has changed?

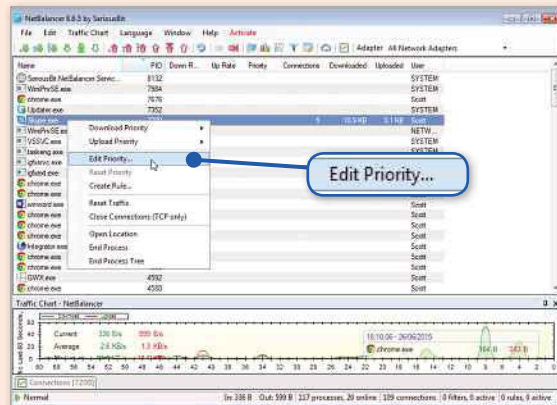
Brian Paddy

A If you read Issue 454's Fast Fixes (page 70) you'll know that Skype manages **bandwidth** automatically. That being the case, there's nothing you could have done inadvertently (or intentionally) to make Skype use more data.

As far as we know, Microsoft (which owns Skype) has not changed the amount of bandwidth that Skype uses, though it does use data depending on the speed of the connection. For video calls, Microsoft states that Skype needs a minimum bandwidth of 128Kbit/s. However, it recommends more, which would be anything up to 1.5Mbit/s for high-definition (HD) video. You can see the full chart at www.snipca.com/17165.

At the lowest end of Microsoft's bandwidth scale a 53-minute video call would consume around 120MB of data, and around 600MB at the upper end. Clearly your use is at the high end of the scale, so we can conclude that your connection is capable of high speeds – and Skype is simply exploiting that for the best possible video quality.

You didn't tell us which device you're using to connect, but it'll either be a smartphone with **tethering** enabled or, more likely, a portable personal **hotspot** – sometimes called a Mi-Fi.



Use free program NetBalancer to restrict how much bandwidth Skype uses

So what's changed? We have a couple of theories. First, it could be that you've simply moved positions in your house, so your smartphone or hotspot is receiving a better-quality signal – and that means it's able to upload and download faster. The alternative is that your mobile network has upgraded its service, perhaps even switching on 4G services. Most UK networks are busy rolling out 4G services, so check with yours to find out if that's happened.

Remember, Skype manages bandwidth automatically and will use as much data as it can get away with. If your network has switched you to a 4G service, Skype will just drink as much data as it can to give you the best possible video and call quality.

Until Microsoft adds an option to manage bandwidth, one solution is to use a 'limiter' tool to restrict how much data Skype uses. The free version of NetBalancer (www.netbalancer.com) is able to restrict the bandwidth of up to three programs simultaneously, so it's fine for your needs.

Right-click Skype in NetBalancer's main window and choose Edit Priority (see screenshot). Next, both Download Priority and Upload Priority menus to Custom, then type your limits in the two Limit boxes: 16 (Kbytes/s) would be equivalent to Skype's 128Kbit/s minimum requirement.

How do I disable the right mouse button?

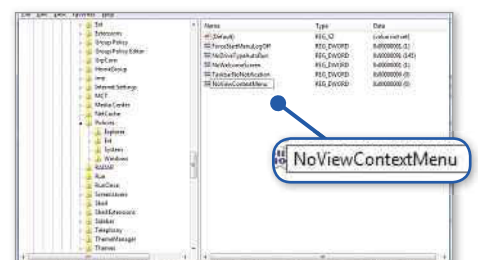
Q In reply to John Clarke's problem in Issue 454's Problems Solved (page 64) you suggested it's possible to disable the right mouse button with a Registry tweak. You did point out that this only works in Windows Explorer, but as I use this a lot and suffer a similar middle-finger twitch as Mr Clarke, I'd like to apply this hack to my Windows 7 PC. Can you tell me how to do it?

Annabel Hughes

A Sure. First, as with anything related to editing the Registry, we strongly recommend that you back up your PC.

With that done, log into Windows with an administrator account then click Start, type **regedit** and press Enter. In the Registry Editor window that appears, use the left-hand pane to navigate to and select the following key: **HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\Explorer**. Next, on a blank part of the right-hand key, right-click, point to New then click 'DWORD (32-bit) Value'. Name this new key 'NoViewContextMenu' (see screenshot below) and press Enter. Now double-click the newly created key and change the 'Value data' field from '0' to '1', and click OK.

Close Registry Editor (by clicking the red cross at the top right-hand corner) then restart your PC. If you don't like the results and wish to re-enable Windows Explorer's right-click action, simply repeat these instructions changing the 'Value data' field back to '0'.



Disable the right mouse button in Windows 7 with this simple Registry tweak

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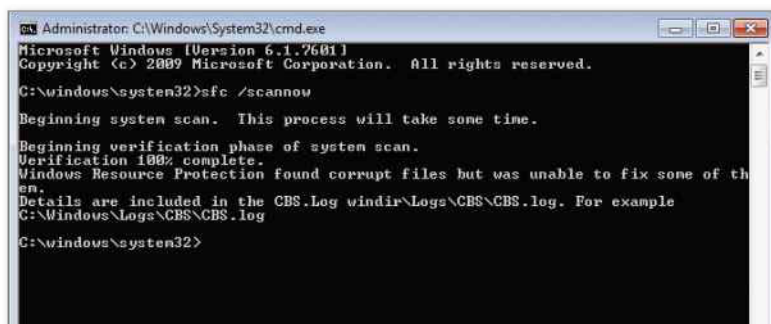
Why won't Resource and Performance Monitor work?

Q I followed Issue 451's Double Your PC's Life cover feature, but fell at the first hurdle. The Resource and Performance Monitor window opened and said it was collecting data. This was soon replaced by the message "Generating the report". However, I then got two error messages: "An error occurred while attempting to generate the report" and "The wait for the report generation tool to finish has timed out". My laptop runs Windows 7. Can you help?

B R Dent

A This could be down to corrupted system files or a background process that's preventing Resource and Performance Monitor from completing its job.

First, we'd suggest using Microsoft's System File Checker (SFC) to scan for and fix corrupted files. Click Start, type **cmd** into the search box, then right-click



```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>sfc /scannow

Beginning system scan. This process will take some time.
Beginning verification phase of system scan.
Verification 100% complete.
Windows Resource Protection found corrupt files but was unable to fix some of them.
Details are included in the CBS.Log windir\Log\CBS\CBS.log. For example
C:\Windows\Logs\CBS\CBS.log
C:\Windows\system32>
```

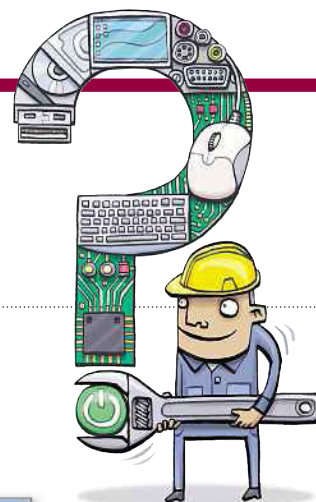
Use System File checker to fix corrupted Resource and Performance Monitor files

cmd.exe and choose 'Run as administrator'. In the Command window that appears, type **sfc /scannow** and press Enter. Wait a few minutes while System File Checker does its job, then close the Command window by clicking its red cross. Try Resource and Performance Monitor again.

If this doesn't work, try launching Windows with a 'clean' boot. To do this, click Start, type **msconfig.exe** and press Enter. In the System Configuration utility's General tab, click the 'Selective startup' button and tick the 'Load startup items' box. Switch to the Services tab, tick 'Hide all Microsoft services' then click

likely to be a lengthy process of trial and error. You need to re-enable each item in the Services and Startup tabs, one at a time, restarting your PC after each so you can retry Resource and Performance Monitor.

If or when Resource and Performance again fails, you'll have found the cause of your problem – but not the solution. If you can live without the offending program or service you could leave it disabled. Alternatively, search for the program or service name in conjunction with 'Resource and Performance Monitor' on Google and see if a solution comes up.



'Disable all': this will stop all services other than Microsoft's launching when Windows starts up.

Restart your PC, and try Resource and Performance Monitor again. If it works, return to the System Configuration utility and steel yourself for what's

Can I transfer my SSD data to a bigger model?

Q I run Windows 8.1 and have previously installed a 55GB SSD. That was a mistake because it's too small for my needs. Is it possible to transfer all my data on to a bigger 240GB SSD, or is the solution to buy an external USB SSD and install all future software on that? Your advice would be appreciated.

Maldwyn Evans

A You can transfer your 55GB drive's data to a larger model using cloning software such as HDClone 5, which is a free download from www.snipca.com/17191. You could make the transfer by fitting the new SSD internally, alongside the existing one, before swapping them; or by using

a **SATA**-to-USB cable (such as this one for £10 from Amazon: www.snipca.com/17192) to do the job externally.

Once hooked up, launch HDClone, click Drive under Cloning, select the source drive (the 55GB SSD), click Next, select the target drive (the new SSD), then click Next twice, followed by Continue and then Start. When the job's finished, replace the 55GB SSD with the new one and you're good to go.

Using an external drive to store new software would also work, but to feel the benefit of SSD speed your PC will need a **USB 3.0** port (usually coloured blue inside). Even then, you



Use HDClone to transfer data from one SSD to another

might not get the full effect, as USB 3.0 can't keep up with today's fastest SSDs. The new USB 3.1 (Gen 2) standard resolves this, but it's unlikely your PC will have one of these.

Problems Solved

How do I clear emails from the server?

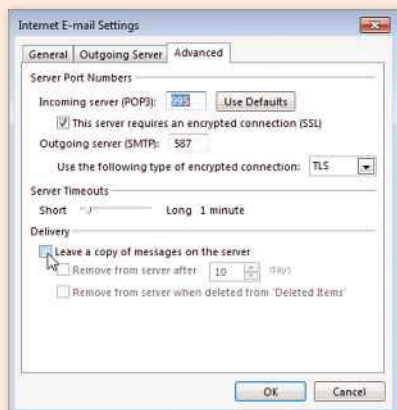
Q I received a warning from my internet service provider (ISP) that my mailbox is almost full and I won't be able to receive new messages. It included instructions on what to do in Outlook Express. I use Outlook and I can't find the tickbox mentioned. I'm worried about missing new messages. Whatever your advice, I use several computers so will I need to apply it to all of them?

Una Ash

A Your ISP's guide is severely out of date, referring as it does to a program Microsoft stopped making over 10 years ago. Regardless, the essence of its advice is correct, but you need to look in a different place in Outlook.

In the 2010 and 2013 editions, click File followed by Account Settings and then Account Settings again. Now select your email account and click the Change button, followed by More Settings.

Next, click the Advanced tab. Here, you could clear the tick from the 'Leave a copy of messages on the server'. However, as you have several computers, keep it ticked and also tick the 'Remove from server after' box (as this affords each PC a set number of days to retrieve messages from the server). And yes, you need to do this on all your PCs.



Free up space in your Outlook mailbox via your Account Settings

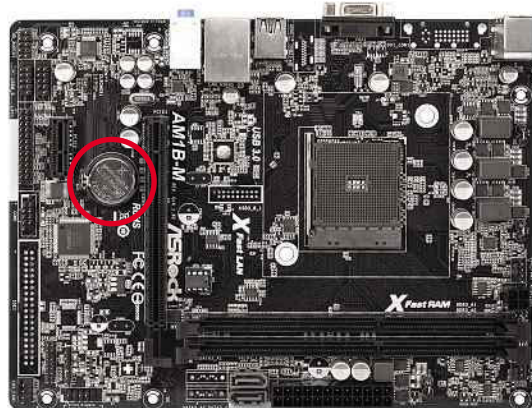
How do I bypass an unknown BIOS password?

Q I fitted an additional hard drive inside my Vista PC, so I could install a separate operating system. The additional drive is working well, but I want to change my PC's drive boot and, when I try this, a message pops up asking me to enter the current password. To my knowledge I've never set up a startup password and know nothing about this. How do I deal with it?

Barrie Archer

A This is a BIOS password. Assuming you bought the PC new then it will have been applied by the PC's manufacturer, perhaps in a misguided effort to stop people accessing areas it thinks are best avoided. If you still have the PC's original documentation, you might find the default password in there; or by searching for your PC's make and model on Google.

Alternatively, you might be able to remove the password by resetting the



Remove the CMOS battery from your motherboard to get rid of your BIOS password

BIOS by removing your PC's CMOS battery, which serves to keep the BIOS settings backed up when the mains power is switched off. To do this, switch off the mains power then open up your PC and look on the motherboard for the CMOS battery – it'll be a disc-shaped cell about the size of a 10 pence piece, probably somewhere near the middle (highlighted in photo above). Pop it out with your finger or screwdriver tip, wait for a minute and then pop it back. Now restart your PC and try accessing the BIOS.

What is Rich Preview Handler and do I need it?

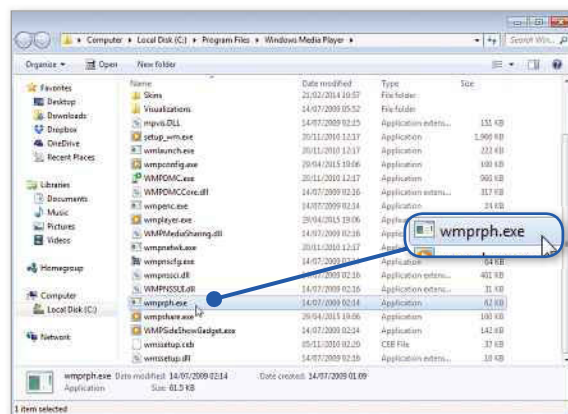
Q Sometimes when I'm watching films or my own video clips on Windows Media Player (WMP) playback stops and a message pops up telling me that Rich Preview Handler (RPH) has stopped working. The only options are to let Windows find a solution (which it never does) or to cancel. Is RPH necessary and if not, how do I disable it?

Stuart Hillier

A RPH is part of WMP, and is necessary for that program's operation. There is a bug that sometimes causes RPH to crash, taking WMP down with it.

Until Microsoft gets around to fixing it (which could take a while, given that it's a minor and occasional bug) one

workaround is to relaunch RPH when this error occurs. To do this, press Windows key+E to open Windows Explorer, navigate to the WMP folder (typically C:\Program Files\Windows Media Player) then double-click wmprrh.exe.



Relaunch Rich Preview Handler whenever it crashes via Windows Explorer

Why has my PC stopped launching normally?

Q One of my old desktop computers runs Windows XP. I only use it for doing some accounts. Recently it froze, and the only way I could get any response was to switch it off and on again. This caused it to launch in Safe Mode. If I try to launch it normally, it displays a “No signal” message. Can you give me any ideas please?

James Smith

A The “No signal” message is actually from your monitor, because your PC isn’t sending it a picture. You can still launch in Safe Mode, so your **graphics card** must be in some kind of working state – leading us to think that your graphics card’s **drivers** have become corrupted.

To test this theory, restart your PC and tap F8 repeatedly before Windows launches. When the Windows Advanced Options Menu appears, use the cursor (arrow) keys to select Enable VGA Mode,



When in VGA mode, maximise your screen's resolution in Display Properties

then press Enter. Unlike Safe Mode, this launches Windows normally – but with only VGA-resolution graphics enabled.

If this works, right-click a blank part of the Windows Desktop and choose Properties, then select the Settings tab

and move the ‘Screen resolution’ right to match your display’s maximum resolution (which will probably be all the way to the right). Click Apply.

Our guess is that your monitor will now flit to the “No signal” message, but don’t worry: wait 15 seconds and Windows will revert to VGA mode, putting you back in control. Now press Windows key+R, type **devmgmt.msc** in the box and press Enter.

In Device Manager, double-click ‘Display adapters’ then right-click your graphics card and choose Properties. Note the card name and manufacturer then go to the manufacturer’s website to download the latest driver – assuming the card manufacturer is still in business (we’re guessing your PC is quite old). If not, in the Properties box click Update Driver and follow Windows’ prompts to reinstall the existing driver from the discs supplied with your PC – or let Windows search online, because Microsoft might have the driver available.

What’s eating up my hard-drive space?

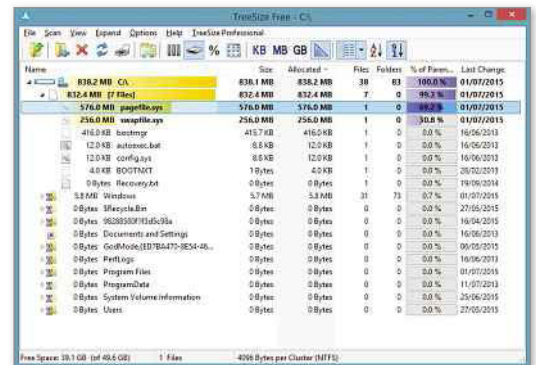
Q Recently, I noticed that the free space on my C: drive is being eaten away, to the tune of about 4GB per day. I only use this PC for a few hours a day, and the drive is 500GB, across two **partitions** – with drive C: having around 300GB capacity. I’m using Windows 8.1. I’ve tried checking the files on drive C: – particularly recent ones – but I can’t find what’s going on. Any ideas?

Peter Day

A One prime suspect is System Restore, which quickly consumes substantial amounts of storage – at least up to a set limit. If System Restore is set up to use five per cent of your drive’s storage, for example, then your 300GB C: partition has 15GB reserved for Restore Points, while the 200GB (drive D:, we assume) has another 10GB put aside. So, with a new PC you could see lots of space mysteriously disappearing during the first few days or weeks.

To check, in Windows 8.1 press Windows key+X, then click Control Panel followed by ‘System and Security’, System, then ‘System protection’. Select drive C: and click Configure, then check the figure next to ‘Current usage’. If it roughly matches your missing space, this is your answer. Either live with it or move the Max Usage slider to lower than what System Restore can use. Repeat for drive D:.

If not, install a free tool such as TreeSize Free (www.snipca.com/17172) to quickly locate the largest files on your drives. Once installed, TreeSize Free will



Use free tool TreeSize to identify the files that are taking up most space on your hard drive

sort your folders from biggest to smallest: just click to scroll down to see more.



Restrict the amount of space System Restore uses in the System Protection window

NEXT ISSUE

ON SALE
2 Sept

- How do I add captions or signatures to photos?
 - How did my PC send emails when it was switched off?
 - How do I move the My Documents folder?
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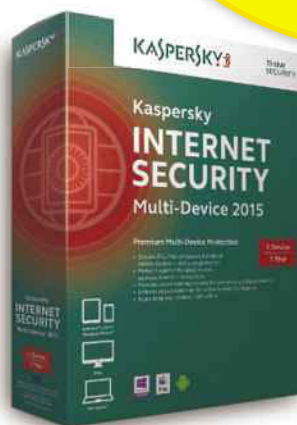
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Gmail

Make garbled messages readable, speed up Gmail and stop it logging you out

Emails contain gibberish

Unreadable message text is usually the result of mismatched language-encoding settings. Your sender's encoding settings are different to those of your browser. Gmail is usually good at rectifying this automatically, but it can miss the odd one – and that's when you see gibberish.

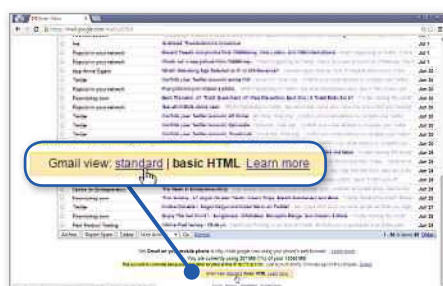
If this happens, click the little down arrow at the top-right of the email (next to the Reply arrow) and choose 'Message text garbled?'. This may fix it automatically.

If the message remains unintelligible, click the arrow again but this time choose 'Show original'. Scroll through, looking for mentions of 'encoding' or 'charset'. Make a note of what you find alongside them – such as 'UTF-8' or 'Chinese Simplified' – then temporarily change your browser settings to match.

To do this in Chrome, click the menu icon (three lines), then point to 'More tools' followed by Encoding. In Internet Explorer (IE) or Firefox, open the View menu then click Encoding (IE) or Character Encoding (Firefox).

Some Gmail features don't work

If Gmail features such as spell-checking and keyboard shortcuts aren't working then you might have switched into **HTML** mode, which is a stripped-down version of Gmail designed to work in older web browsers. This could have been intentional or accidental (if Gmail detects that it's running slowly it sometimes displays a clickable link that switches you over). The solution is to switch back to standard mode by scrolling down to the



If Gmail isn't displaying properly or certain features don't work, click here to switch back to standard mode

bottom of the inbox and clicking the 'standard' link.

Gmail is very slow or won't load

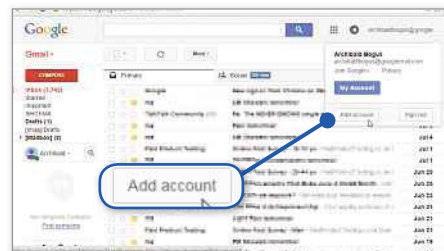
First, check to see if the Gmail service is working by visiting Google's Apps Status Dashboard (www.google.co.uk/appsstatus). If Gmail has a green dot next to it, the service is working fine. If it's orange or red, there are problems at Google's end: click one of the coloured dots on the calendar for more information. Also try temporarily disabling your antivirus software, because in some configurations security tools can interfere with Gmail. Google recommends that pop-up blockers be disabled and **cookies** be enabled for Gmail. Finally, switching to HTML mode will offer an instant speed boost, albeit at the expense of some features – find out more about this at www.snipca.com/17224.

Your account is locked

Sometimes, Gmail will tell you that your account is locked. What's worse, this is probably not your fault. If Google detects what it considers to be 'abnormal' activity it'll lock you out of your account for up to 24 hours. The commonest cause is a high-volume receipt of 'undeliverable messages', which happens when a spammer spoofs your email address to send emails using your email address as the 'sender'. There's nothing you can do to prevent this. In case someone really is using your account to spam from, Gmail locks it, and you just have to wait until the timer resets. Account-locking can also occur when you have too many Gmail windows open at once, so avoid having more than a handful open at any given time.

Gmail keeps reloading or logging you out

This happens if you attempt to log into a second Gmail account using a new tab in the same browser. First, clear your browser's **cache**. In Chrome, click the menu icon, point to 'More tools' and then click 'Clear browsing data'. In IE, open the Tools menu, click 'Internet options',



Using the 'Add account' button stops repeated reloads or log-outs

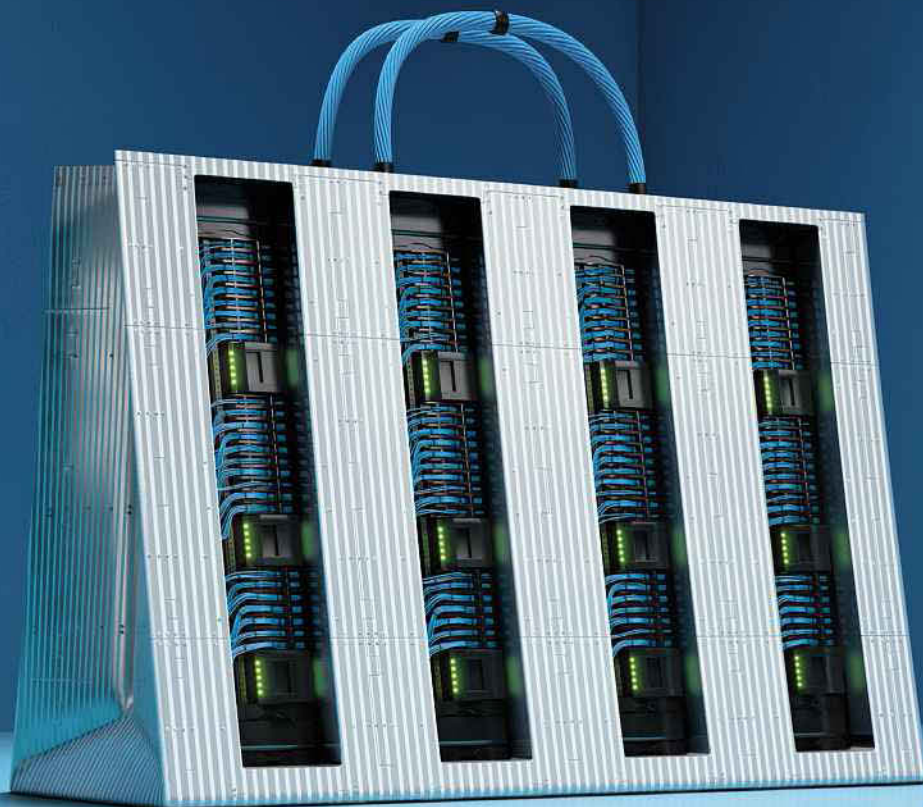
select the General tab and then click Delete in the 'Browsing history' section. In Firefox, click the menu button, History and then Clear Recent History. When you next sign into a second Gmail account, sign in with your main account first, then click your username or photo at the top right followed by 'Add account', then just log in as normal.

You see an 'Oops' error message

Seeing an 'Oops... Gmail encountered a problem' error message usually indicates a temporary hiccup, and refreshing your browser tab page may clear it. If not, clear your browser cache (see previous tip) and, if the problem persists, disable installed browser extensions. In Chrome, click the menu icon followed by 'More tools', then Extensions. In Internet Explorer, click the cog icon followed by 'Manage add-ons'. In Firefox, click the menu icon and then 'Add-ons'. In all cases we'd recommend disabling all extensions, before re-enabling one at a time to identify the culprit. Then, either leave the offender disabled, or look for an updated version.



Disable extensions to isolate the cause of Gmail error messages



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A3 25 sheets **£15.99**
A3+ 25 sheets **£19.99**
Smooth Pearl 310gsm:
6x4 100 sheets **£14.99**
7x5 100 sheets **£17.99**
A4 25 sheets **£12.99**
A4 100 sheets **£39.99**
A4 250 sheets **£84.99**
A3 25 sheets **£25.99**
A3+ 25 sheets **£35.99**
Smooth Gloss 310gsm:
6x4 100 sheets **£14.99**
7x5 100 sheets **£17.99**
A4 25 sheets **£12.99**
A4 100 sheets **£39.99**
A4 250 sheets **£84.99**
A3 25 sheets **£25.99**
A3+ 25 sheets **£35.99**

Premium Matt Duo 200 gsm:
A4 50 sheets **£12.99**
A3+ 50 sheets **£34.99**
Heavy Duo Matt 310gsm:
A4 50 sheets **£17.99**
A3+ 50 sheets **£44.99**

PP-201 Plus Glossy II 275gsm:
6x4 50 sheets **£9.99**
7x5 20 sheets **£11.99**
A4 20 sheets **£11.99**
A4 20 sheets **£27.99**
A3+ 20 sheets **£36.99**
SG-201 Semi-Gloss 260gsm:
6x4 50 sheets **£9.99**
A4 20 sheets **£11.99**
A3 20 sheets **£27.99**
A3+ 20 sheets **£42.99**

More Ink Cartridges...

EPSON
T0711-T0714 Cheetah Inks
Originals:
Set of 4 **£32.99**
Black 7.4ml **£8.99**
Colours 5.5ml each **£8.99**
Compatibles:
Set of 4 **£14.99**
Black 7.4ml **£4.99**
Colours 5.5ml each **£3.99**

T0791-T0796 Owl Inks
Originals:
Set of 6 Colours 11.1ml each **£72.99**
£12.99
Compatibles:
Set of 6 Colours 11.1ml each **£19.99**
£3.99

T0801-T0806 Hummingbird Inks
Originals:
Set of 6 Colours 7.4ml each **£49.99**
£8.99
Compatibles:
Set of 6 Colours 7.4ml each **£19.99**
£3.99

T0871-T0879 Flamingo Inks
Originals:
Set of 8 Colours 11.4ml each **£66.99**
£9.99
Compatibles:
Set of 8 Colours 11.4ml each **£27.99**
£3.99

T0961-T0969 Husky Inks
Originals:
Set of 8 Colours 11.4ml each **£69.99**
£8.99
Compatibles:
Set of 8 Colours 11.4ml each **£27.99**
£3.99

Many more in stock!

PermaJet
Smooth Pearl 280gsm:
6x4 100 sheets **£12.99**
7x5 100 sheets **£18.99**
A4 50 sheets **£18.99**
A4 50 sheets **£18.99**
A3 50 sheets **£35.99**
A3+ 25 sheets **£28.99**
Oyster 271gsm:
6x4 100 sheets **£12.99**
7x5 100 sheets **£18.99**
A4 50 sheets **£18.99**
A3 25 sheets **£22.99**
A3+ 25 sheets **£28.99**
Gloss 271gsm:
6x4 100 sheets **£12.99**
7x5 100 sheets **£18.99**
A4 50 sheets **£18.99**
A3 25 sheets **£22.99**
A3+ 25 sheets **£28.99**
Double Sided Matt 250gsm:
A4 100 sheets **£24.99**
A3 50 sheets **£27.99**

EPSON
Premium Gloss 255gsm:
6x4 40 sheets **£40 FREE** **£9.99**
7x5 30 sheets **£9.99**
A4 15 sheets **£15 FREE** **£9.99**
A3 20 sheets **£29.99**
A3+ 20 sheets **£24.99**
Ultra Gloss 300gsm:
6x4 50 sheets **£9.99**
7x5 50 sheets **£12.99**
A4 15 sheets **£11.99**
Premium Semi-Gloss 251gsm:
A4 20 sheets **£14.99**
A3 20 sheets **£29.99**
A3+ 20 sheets **£24.99**
Archival Matte 192gsm:
A4 50 sheets **£14.99**
A3 50 sheets **£33.99**
A3+ 50 sheets **£44.99**
Heavyweight Matte 167gsm:
A4 50 sheets **£11.99**
A3 50 sheets **£34.99**
A3+ 50 sheets **£44.99**

Originals:
No.38 Colours 27ml each **£26.99**
No.300 Black 4ml **£10.99**
No.300 Colour 4ml **£12.99**
No.301 Black 3ml **£9.99**
No.301 Colour 3ml **£11.99**
No.350 Black 4.5ml **£11.99**
No.351 Colour 3.5ml **£14.99**
No.363 Black 6ml **£13.99**
No.363 C/M/Y/C/PM each **£9.99**
No.363 SET OF 6 **£39.99**
No.364 Black 6ml **£7.99**
No.364 PB/C/M/Y 3ml each **£6.99**
No.364 SET OF 4 **£21.99**
No.364XL Black 14ml **£13.99**
No.364XL PB/C/M/Y 6ml each **£12.99**
No.364XL SET OF 4 **£49.99**
No.920XL SET OF 4 **£46.99**
No.932XL SET OF 4 **£43.99**
No.950XL SET OF 4 **£69.99**
Compatibles:
No.15 Black 46ml **£4.99**
No.21 Black 10ml **£7.99**
No.22 Colour 21ml **£11.99**
No.45 Black 45ml **£4.99**
No.56 Black 24ml **£9.99**
No.57 Colour 24ml **£12.99**
No.78 Colour 36ml **£9.99**
No.110 Colour 12ml **£10.99**
No.300XL Black 18ml **£14.99**
No.300XL Colour 18ml **£16.99**
No.301XL Black 15ml **£14.99**
No.301XL Colour 18ml **£16.99**
No.337 Black 21ml **£10.99**
No.338 Black 21ml **£10.99**
No.339 Black 34ml **£12.99**
No.343 Colour 21ml **£12.99**
No.344 Colour 21ml **£14.99**
No.348 Photo 21ml **£12.99**
No.350XL Black 30ml **£14.99**
No.351XL Colour 20ml **£16.99**
No.363 Black 6ml each **£4.99**
No.363 SET OF 6 **£24.99**
No.364 Black 10ml **£4.99**
No.364 Colours 5ml each **£3.99**
No.364 SET OF 4 **£15.99**
No.364XL Black 18ml **£8.99**
No.364XL Colours 11ml each **£7.99**
No.364XL SET OF 4 **£31.99**

Originals:
No.15 Black 46ml **£4.99**
No.21 Black 10ml **£7.99**
No.22 Colour 21ml **£11.99**
No.45 Black 45ml **£4.99**
No.56 Black 24ml **£9.99**
No.57 Colour 24ml **£12.99**
No.78 Colour 36ml **£9.99**
No.110 Colour 12ml **£10.99**
No.300XL Black 18ml **£14.99**
No.300XL Colour 18ml **£16.99**
No.301XL Black 15ml **£14.99**
No.301XL Colour 18ml **£16.99**
No.337 Black 21ml **£10.99**
No.338 Black 21ml **£10.99**
No.339 Black 34ml **£12.99**
No.343 Colour 21ml **£12.99**
No.344 Colour 21ml **£14.99**
No.348 Photo 21ml **£12.99**
No.350XL Black 30ml **£14.99**
No.351XL Colour 20ml **£16.99**
No.363 Black 6ml each **£4.99**
No.363 SET OF 6 **£24.99**
No.364 Black 10ml **£4.99**
No.364 Colours 5ml each **£3.99**
No.364 SET OF 4 **£15.99**
No.364XL Black 18ml **£8.99**
No.364XL Colours 11ml each **£7.99**
No.364XL SET OF 4 **£31.99**

Many more in stock!

Albums & Frames

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

Grace Albums
Available in Burgundy or Blue.

Travel Albums
Over a dozen designs in stock.

Grafton Albums
Available in Burgundy or Blue.

Baby Albums
Multiple different designs available.

Memo Style Albums:
Grace 6x4 100 photos **£5.99**
Grace 6x4 200 photos **£9.99**
Grace 6x4 300 photos **£14.99**
Grace 7x5 100 photos **£7.99**
Grace 7x5 200 photos **£13.99**
Grace A4 100 photos **£15.99**
Grafton 6x4 200 photos **£9.99**
Grafton 7x5 200 photos **£13.99**
Baby 6x4 200 photos **£9.99**
Travel 6x4 200 photos **£8.99**

Traditional Style Albums:
Grace 29x32cm 100 pages **£14.99**
Grafton 29x32cm 100 pgs **£14.99**
Baby 29x32cm 100 pages **£12.99**
Accessories:
Photo Corners Pack of 250 **£2.99**
Photo Stickers Pack of 500 **£1.99**

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

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32GB: **£9.99**

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266X (40MB/s)
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64GB **£24.99**
SanDisk Extreme
400X (60MB/s)
16GB **£10.99**
32GB **£17.99**
64GB **£34.99**

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16GB **£15.99**
32GB **£24.99**

SanDisk Extreme
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16GB **£26.99**
32GB **£32.99**
64GB **£47.99**
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SanDisk Ultra
320X (48MB/s)
16GB **£6.99**
32GB **£12.99**
64GB **£24.99**

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Delkin SD Card (x8) Case **£6.99**
Delkin CF Card (x4) Case **£6.99**

Many more in stock!

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

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

Grafton Albums
Available in Burgundy or Blue.

Plastic Bevel, Glass Front:
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Frisco 8x6 seven colours **£2.79**
Frisco 9x6 seven colours **£3.49**
Frisco 10x8 seven colours **£3.79**
Frisco 12x8 seven colours **£4.59**
Frisco A4 seven colours **£3.99**
Frisco A3 seven colours **£8.99**

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

SanDisk
USB Pen Drives
8GB: **£3.59** 16GB: **£5.49**
32GB: **£9.99**

Batteries

BP-511 for Canon **£12.99**
LP-E6 for Canon **£16.99**
LP-E8 for Canon **£12.99**
LP-E12 for Canon **£12.99**
EN-EL3e for Nikon **£14.99**
NB-2L/LH for Canon **£9.99**
NB-6L for Canon **£9.99**
NB-10L for Canon **£12.99**
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NPW126 for Fuji **£12.99**
EN-EL3e for Nikon **£14.99**
EN-EL14 for Nikon **£19.99**
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Skylight Filters from: **£6.99**
Circular Polarising Filters from: **£14.99**
ND4 and ND8 Filters from: **£11.99**

P-Type Square Filters
49-82mm Adapter Rings **£4.99**
Filter Holder **£5.99**
ND2 Filter **£12.99**
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2		Sky: Broadband & Calls	£10.00 (FREE for 12 months)	12 months	17Mbps max speed	∞ unlimited	£0.00
3		TalkTalk: Broadband	£5.00 (HALF PRICE for 12 months)	18 months	17Mbps max speed	∞ unlimited	£30.00
4		EE: Broadband & Calls	£9.95 (£2.95 for 12 months)	12 months	17Mbps max speed	∞ unlimited**	£35.40

Terms & Conditions apply - see ISP sites for details

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

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The fees Microsoft is sneaking into its 'free' operating system
- **BEST EVER MAPPING TOOLS**
Amazing new things you can do with maps online
- **MAKE YOUR BROWSER FASTER**
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Jargon Buster

32bit A measure of how much information a computer can process at once. Most older computers are 32bit.

4G A set of technologies that delivers faster mobile broadband, so called because it is the fourth generation of mobile data networking standards.

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

64bit A technology that processes information in larger chunks. Most modern computers are 64bit.

802.11ac A standard for wireless networks that allows for higher transfer speeds than 802.11n.

AVCHD Advanced Video Coding High Definition. A standard for storing high-definition video.

Bandwidth A measure of how much data can be transferred through a connection at one time.

BIOS Basic Input-Output System. Essential software built into every PC that connects the vital components.

Bookmarklet A small, very simple program stored as a bookmark in your web browser.

Boot The process of starting up a PC after it's been turned off.

Buffering Downloading a certain amount of data before starting to play a video. Can cause delays to your streaming.

Cache A temporary space for storing information.

CMOS Complementary metal-oxide semiconductor. Can refer to both a type of image sensor chip used in some digital cameras and another chip on PC motherboards that stores the date and time.

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

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

DSLR Digital single lens reflex. A digital camera that uses a moving mirror so its viewfinder looks out through the lens.

Eight-core A standard processor has one core, but most modern processors are dual-, quad- or even eight-core, making them faster.

Emulator A program that makes one PC act like another, allowing it to run that computer's software.

Exaflop A measurement of computer speed: 10¹⁸ floating-point operations per second

Exposure The amount of light collected by a camera's sensor.

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

Flash memory A type of memory that can retain information without a power source.

Flash storage A data storage device that includes flash memory with an integrated USB interface.

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

Graphics-card driver A program that controls how your graphic components work with the rest of your computer.

HDMI High-definition media interface. A type of connection that transmits high-definition video and audio signals.

Hotspot A public area covered by a wireless network that allows you to access the internet, either free or for a fee.

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

Internet of Things Umbrella term for electronic devices – often found in the home but not PCs – that are connected to the web.

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

LED Light-Emitting Diode. An electronic device that emits light. Used on almost all electronic devices, and to provide the backlight for some LCDs.

M.2 A specification for internally mounted computer expansion cards and associated connectors. It replaced the mSATA standard.

Megapixel A measure of the amount of detail that can be recorded by a digital image.

Metadata A set of data that gives information about a file.

MicroSD A small type of memory card. Can be converted to SD size using an adapter.

MicroUSB A miniature version of USB, often found on smartphones, tablets and portable hard drives.

Motherboard The main circuit board inside every PC into which all other parts connect.

MOV A type of video file that can be played using Apple's Quicktime software.

MP4 A type of digital movie file often used for portable players.

NAND flash A type of non-volatile storage technology that does not require power to retain data.

Overclocking Making a processor work faster to improve performance at the cost of it getting hotter and requiring more power.

Partition A large hard drive can be split into two or more partitions or 'virtual' drives. Once partitioned, each section is treated as though it were a separate, smaller hard drive.

Plug-in A small program that adds extra features to your web browser or to other applications, and is loaded only when it's needed.

Processor The processor – or central processing unit – is the brain of a computer.

PUP Potentially Unwanted Program. A program that may not be desired, despite the user consenting to it being downloaded.

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

RAM Random-access memory. The PC's working area, used for data storage while the PC is on.

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

Resolution The amount of detail shown in an image, whether on screen or printed.

RSS Really Simple Syndication. A simple format for automatically distributing news headlines and other content from the web.

SATA Serial ATA. An interface for connecting modern hard drives and optical discs to a computer.

SATA3 Also known as SATA 600. The latest and fastest version of the SATA interface for connecting internal storage devices to a PC.

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

SSD Solid-state drive. Storage that uses no moving parts.

SSHD A hybrid drive that combines NAND flash solid-state drive with hard drive technology.

System restore point The collection of system files stored by System Restore on a given date.

Tethering A way of providing internet access to a computer by connecting it to another device.

Ultrabook A brand by Intel for a class of high-end laptops that are thin and light.

USB 3.0 A faster version of the USB standard used to connect devices to a computer.

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

ZIP file A file that can contain a number of compressed documents or files.

The Final Straw



STUART ANDREWS is
Computeractive's Mr Angry

In this issue, Stuart Andrews is trying to dodge...

Drones

Just when I thought the selfie stick was the worst gizmo of our time, I've been proven spectacularly wrong. Several weeks ago, my wife, our daughter and I were sitting on the decking in our back garden having dinner. There we were, relaxing, eating pizza, when a loud buzzing hit my ears. For a minute or two I couldn't work out what it was. It sounded like a garden house strimmer, but I could swear it was coming from above. Then I saw the offending object: a drone.

If you haven't seen one up close, you probably will soon. They're extremely compact aircraft that fly and hover with the aid of rotors, controlled remotely using Wi-Fi and often sporting a camera too. On its first visit the drone just lazily circled around, zipping over the neighbourhood before disappearing whence it came. It was irritating and a bit invasive, but not the sort of thing to get too het up about. When it came back a couple of days later, though, it not only came closer, hovering about 20 feet above our hillside plot, but stopped for a minute or so to have a good, long look. You could see the camera dangling underneath it, giving me the nasty sense that I was eye to eye with someone, but not revealing who that might be.

Maybe the pilot was just someone having a good time, checking out the neighbours and thinking that they're just saying a remote-controlled 'hello.' All the same, it made us uneasy, then pretty

“

At best, drone pilots are nosey parkers.

At worst, they are high-tech peeping toms

”

angry. What was this person watching or recording us, and why? At best, irresponsible drone pilots are nuisances or nosey parkers. At worst, they could be

high-tech peeping Toms. Plus, what happens when these things get in the hands of burglars or – worse – letting agents? The

Civil Aviation Authority has taken steps to stop these miscreants using drones to spy on tenants, but it just shows: we can't let them fall to the wrong hands.

There are more drones coming, too. Sales went up 24 per cent last year, with huge spikes in the summer and at Christmas. They may well be the must-have 'toy' again this year. You don't have to have a licence or even be an adult to fly one, and the only regulations are that they can't be used within 50 metres of a person or building, and must remain within a defined line of sight. I'm sure my nemesis flouted both restrictions, but unless they post their footage on YouTube, who's to know?

It's not just the privacy issues that bother me, but safety too. Last December, a drone hit the chimney of an Essex house, while at least two weddings have been spoilt by a drone hitting one half of the not-so-happy couple. Last Christmas, a TGI Friday's publicity stunt in New York backfired when a drone carrying mistletoe cut off the tip of a photographer's nose. As drones proliferate, who else will be hurt by the damn things?

Of course, there will be prosecutions, like the one for the guy who flew a drone too close to a nuclear power plant. Yet the law seems fuzzy. Is this just a civil aviation issue or a data-protection issue? It could even be a sexual offences issue depending on what the drone catches you doing. No one seems to know.

I know lots of people are doing great things with drones. They take amazing aerial footage of our countryside and coastline, check risky roofs and chimneys, and monitor endangered birds. But not everyone is going to use them so sensibly, and some are going to be an absolute menace. We need better controls, or it might end up with me in hot water. Next time that drone flies over, I'll get my low-tech, boyhood catapult and take it down.



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



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