

Apple HomePod tested p24

Issue 443

WebUser

21 Feb - 6 Mar 2018

/ Best software / New apps / No ink? Dry this!

**WINDOWS 10's
MOST WANTED
TOOL** p52

Add the feature you've
always wished it had



STAY 100% ANONYMOUS

VPNs

THE ULTIMATE GUIDE p40

Beat internet restrictions to access...

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- ☒ wherever you are
- ☒ on any device



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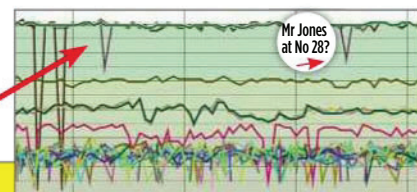
PLUS

**THE MOST INGENUOUS
CHROME HACKS EVER!**

Dare you try Google's secrets? p50

**ARE YOUR NEIGHBOURS SLOWING
YOUR WI-FI? p48**

This software will show you





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4K Ultra HD UltraClear 4K Ultra HD

40" 4K curved display
(BDM4037U)

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PHILIPS

VPNs are Vital Protection Nowadays!

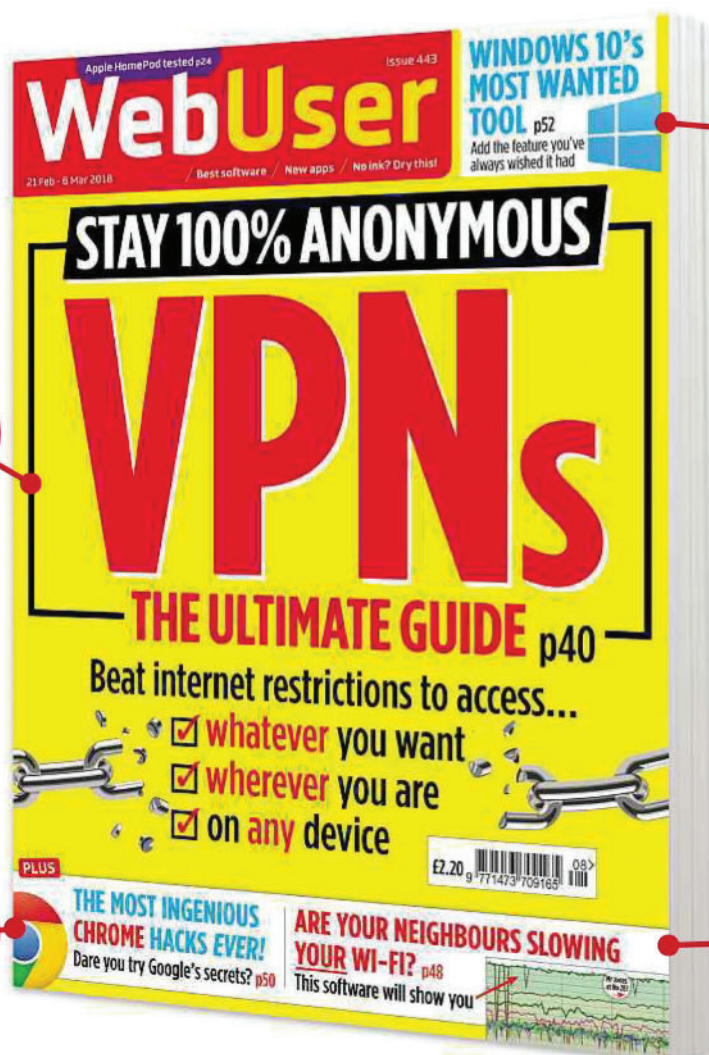
The often crude but sometimes illuminating Urban Dictionary defines 'VPN' variously as "a way to get around your school's web filter", "vodka party night" and "underwear visible through tight clothing". Only the first is technically correct and it barely scratches the surface of the benefits of a virtual private network.

A VPN is your key to unlocking online content that has fallen foul of geographic, political and generally unreasonable restrictions. What's more, you can access the web in total privacy and security, without anyone knowing who or where

you are. In this issue's cover feature, we explain how to make the most of your VPN, recommend the best service for your specific needs and tell you what to look out for when choosing a VPN. We also reveal our favourite VPN tricks, such as finding your selfie lookalike in classic paintings.

Don't forget that our 2017 Back Issues Disc is now available to buy from bit.ly/wudisc17.

Robert Irvine, Editor
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[#webuser](https://www.facebook.com/webuser)



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COVER
FEATURE

VPNs

THE ULTIMATE GUIDE

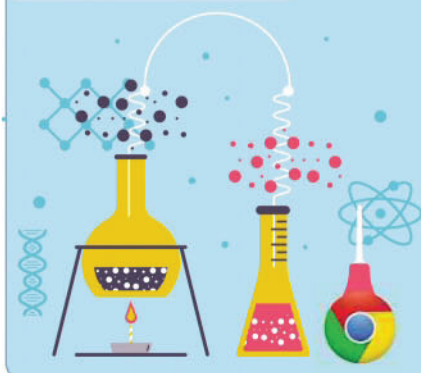
Stay safe and anonymous – and enjoy more control – with a virtual private network

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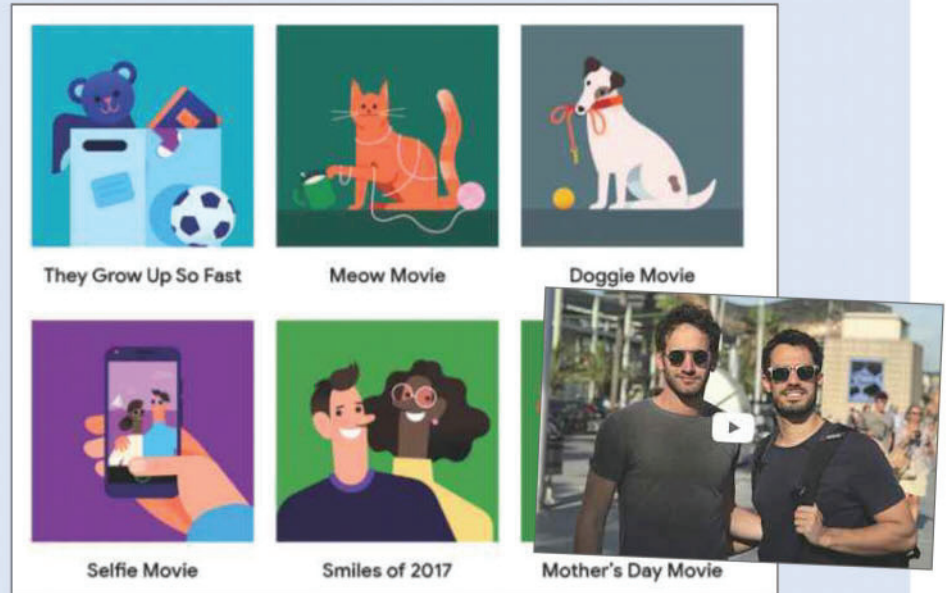
What's New Online

Make themed films in Google Photos

Google Photos has launched a new feature that lets you create and share personalised movies from your pictures, based around a particular theme. Options include 'They Grow Up So Fast', 'Selfie Movie' and 'In Loving Memory'.

In each case, Photos uses machine-learning algorithms to identify the most suitable images, before bringing them together and setting them to different music tracks depending on the theme. It takes a short while before you see the results, but you're notified when the video is ready and you can even edit the result in the Android or iOS app, applying filters such as Action and Cinema.

Even if you're using the Desktop version, the process of making a video is the same. Open Google Photos, select the Assistant tab and tap Movie. Alternatively, just go to bit.ly/movies443, choose a theme,



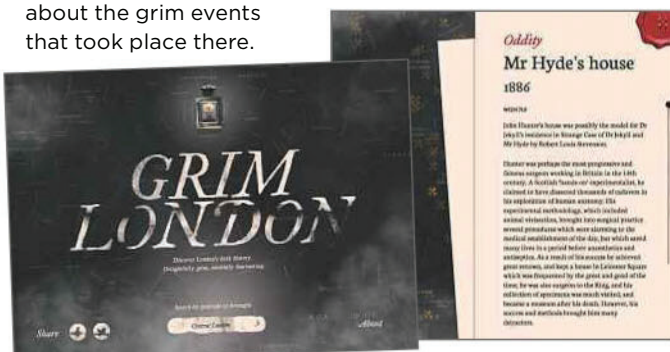
select the people (and pets) you want to appear in your movie, or let Google do it for you, and click or tap Create Movie. Once your video has been

generated, you can add a description, save the video and share it with friends and family. photos.google.com

Explore London's dark history

www.grimlondon.com

You've heard of Jack the Ripper but what about Jack the Stripper? Or the ghost of William Terris that haunts Covent Garden Tube station? Or the plague pit in Elephant and Castle? Spend a while exploring this gruesome interactive map of London and you'll soon become familiar with the capital's murders, executions, hauntings and oddities, stretching back to the 12th Century. It's the work of creative agency Impero, which has done a fine job of mapping London's dark side, complete with fascinating descriptions and sources. Simply search for a borough or postcode, then click the gold crosses that appear on the map to learn about the grim events that took place there.

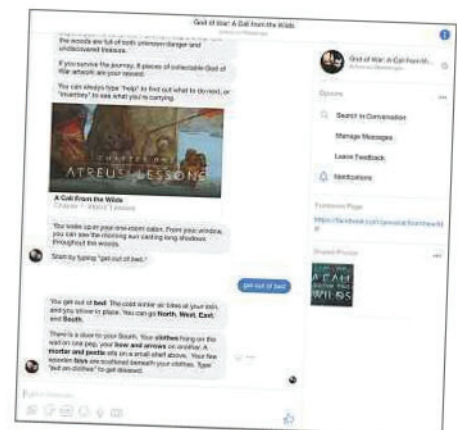


Play a text adventure in Messenger

www.messenger.com

To promote the release of PlayStation 4 game *God of War*, its makers have embarked on a new adventure – one that uses text and Facebook Messenger rather than cutting-edge graphics. It works like the text adventures of old, letting you type commands such as North, West, East and South to move from place to place while collecting items that are emphasised in bold.

As you progress through the chapters, unravelling the story, you can view concept art for the console game and learn more about the characters' past. Don't worry if you've never played this type of game before because it eases you in by suggesting comments you should type. To get started, simply open Facebook Messenger and search for *God of War: A Call from the Wilds*. Then grab a pen and some paper to create a map so you don't get lost!

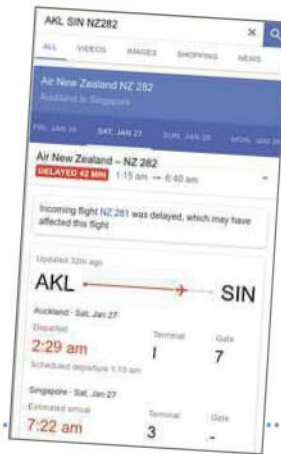


We pick the 10 best things you must do on the web this fortnight

Get flight delay predictions

www.google.co.uk/flights

Search for an airline or route on Google Flights and it will now use machine learning to tell you whether your plane is likely to be delayed. Basing its data on historical flights, location, weather and aircraft, it helps you anticipate long waits when you arrive at the airport and only flags potential delays when it's 80% confident of problems.



NEW VOICE COMMANDS



Wake up to music

Awake to your favourite music using Google Assistant. Say "Hey Google, set an alarm for 7am that plays..." followed by the name of a song, playlist or station. It works with your default music service.



Get a news briefing

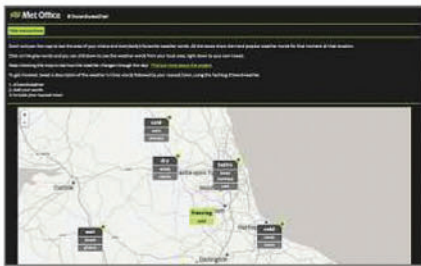
To hear the latest news using Siri, update iOS to 11.2.5 and you'll be able to get a flash briefing from BBC Radio 5 Live, Sky News or LBC. Just say: "Give me the news".



Submit a meter reading

Provide your meter reading to British Gas by saying: "Alexa, tell British Gas I want to submit a meter reading". Enable the skill at bit.ly/bg443 and you can also check your balance.

See the weather in three words



3wordweather.informaticslab.co.uk

The weather in Swansea is cold, bright and nobbling. That's according to Twitter users in this fun experiment to see which words are most commonly used to describe the UK's weather. Created by the Met Office, it maps the three most-tweeted words in a location at any given time, based on people tweeting a weather description, the name of their nearest town and the hashtag #3wordweather. Clicking the '+' symbols shows more of the map while selecting the grey words shows who tweeted what. The map updates throughout the day.

Ask Google to check your internet speed

www.google.co.uk

Rather than using a tool such as Speedtest.net, you can now check your internet speed directly from the Google homepage. Type speed test into the search box, press Enter and click the Run Speed Test button.

Google then connects to performance checker Measurement Lab, which runs a 30-second test of your download and upload speeds, telling you whether they're faster or slower than average, and the type of activities your connection can handle (HD streaming, gaming and so on). The trick works on both desktop and mobile devices.



See how origami folds

bit.ly/origami443

This fun WebVR experiment works with Google Cardboard and your browser, simulating how any origami crease pattern will fold in 3D. You can play around with the Fold Percent slider, rotate the model and upload your own crease patterns.

Check which is the best car for you

bit.ly/whatcar443

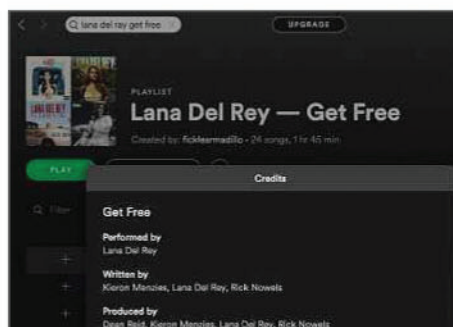
Can't decide whether or not you should buy an electric car? Then answer a few questions using this tool and it will tell you the type of vehicle that's best for you, and which you should avoid.

View songwriter credits on Spotify

www.spotify.com/uk

When you're listening to music in the Desktop version of Spotify, you can now view the song's performer, writer and producer credits.

Compiled from metadata provided by the record labels, the info isn't always complete but Spotify reckons it will evolve over time. To see the data, right-click a track and select Show Credits in the menu.



Convert booze to doughnuts

www.drinklessfeelgood.com

Rather than measuring your booze intake by units and calories, this straight-talking site converts your weekly intake into doughnuts, telling you how far you'd have to walk to burn off the extra weight.

Government websites hit by cryptocurrency mining hack

What happened?

A security researcher uncovered a wide-ranging attack against 4,000 websites – including many run by the British government. The hackers installed code that used visitors' computers to mine a cryptocurrency rival to Bitcoin.

The malware was initially spread by an add-on called BrowseAloud, which reads online text aloud for blind and partially sighted web users. The tool was abused by hackers to infect thousands of websites, including those of NHS hospitals, local councils and even the Information Commissioner's Office (ico.org.uk). The sites themselves were not directly hacked; instead, they hosted a piece of code that was subsequently meddled with.

Scott Helme, an IT security consultant, raised the alarm about the malware after a friend said their antivirus software had flagged a threat on a UK government website. "This type of attack isn't new – but this is the biggest I've seen. A single company being hacked has meant thousands of sites impacted across the UK, Ireland and the United States," Helme told Sky News.

The malicious code on the infected sites used visitors' computers to mine a cryptocurrency called Monero, a rival to Bitcoin. The system is the same as a crypto-miner called Coinhive that popped up in YouTube ads last month (see last issue's Need to Know), which again used victims' PCs to mine without any further data theft.



Such attacks aren't new, but they've become increasingly common as digital currencies increase in value, and the technique could be used to spread more malicious attacks.

How will it affect you?

A cryptomining attack on government websites via malicious code hidden in accessibility tools sounds terrifying, but there's no reason to panic. It just means the code abused some of your computer's processing power while you visited the site. As soon as you closed the browser window or navigated elsewhere, the attack ended. The websites weren't hacked directly, so your council or NHS data is not at risk. The organisations aren't to blame, and sites were infected around the world.

This type of crypto-mining attack is lucrative for hackers, but other than slowing down your PC a bit and perhaps chewing through some electricity, it won't otherwise cause harm. The plugin has since been fixed and the biggest knock-on effect from the incident is that BrowseAloud was offline for a day, which made browsing the web more difficult for those who depend on the accessibility plugin.

That said, it's alarming that it was so easy for criminals to spread dodgy code via an add-on. The developers of tools such as BrowseAloud need to have top-of-the-line security because of the potential to spread malicious content

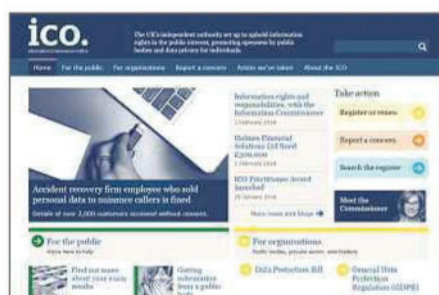
far and wide. It would be easy to abuse this same system to spread data-stealing code, so make sure you're running antivirus software and that your operating system, browser and other key apps are up to date, so you avoid becoming victim to old flaws.

What do we think?

It's not surprising this case made the headlines, given that the UK's own data watchdog, the ICO, was a victim. But there's little any individual user could have done about the attack, and the negative impact is negligible. We must be wary online, but not by overreacting to each and every security hiccup.

That's not to say this isn't worthy of attention, and the security researcher who spotted it deserves plenty of kudos, as does BrowseAloud for so quickly fixing the problem. However, it highlights how much we depend on others taking correct action to keep the rest of us safe online. While we can all do the basics – run antivirus, update our software and so on – if researchers such as Helme don't spot such cunning attacks, there's little we can do.

The ICO is a perfect case in point. It's not the data watchdog's fault that it fell victim to this hack – plenty of other sites did – but hopefully the experience will encourage the ICO to see merit in data-breach notification and tougher sanctions on companies who fail to protect customers online.



The ICO site was one of 4,000 affected by the crypto-mining hack

What we think of this fortnight's top tech news stories and rumours, and how they affect you

Facebook finally adds 'dislike' icon – sort of

What happened?

Facebook is testing a way to let users 'downvote' posts, as it struggles to address the backlash about 'fake news' and other negative content spreading via the social network. The site has stressed that it's not a 'dislike' button as such. Instead, it's a 'downvote' option that will let users flag comments as "offensive", "misleading" and "off-topic".

It's not the first time Facebook has introduced a way for users to express less positive reactions. For a long time, the site famously only let users click 'like' on a post – a virtual thumbs-up that felt inappropriate in some cases, such as photos from a memorial or on consciousness-raising posts containing details of a tragedy or disaster. In response, Facebook last year rolled out a wider range of reactions based on emoji, letting users show anger, sadness, laughter and more.

How will it affect you?

So far, Facebook is only testing the new 'downvote' option in a small number of US cities. It's currently restricted to posts on public pages, so you can't 'downvote' your family

members' silly memes yet.

If you do see and click 'downvote', it won't be shown to other users or the original poster – the information is only for Facebook's use, at the moment.

What do we think?

Facebook CEO Mark Zuckerberg said back in 2015 that he didn't want to turn the social network into a negative community where we could instantly dismiss other users' posts.

Other sites, such as Reddit, have long allowed users to push favourite posts up the rankings and downvote others, but Facebook has favoured a more positive, optimistic approach. But disliking something is important information, and having a way to capture those 'votes' could be useful in the battle against 'fake news', online propaganda and other digital scourges.

Regardless of whether or not this is the solution, it's high time Facebook took some action.



Security concerns over leaked iOS code

What happened?

Code integral to the Apple iPhone operating system was leaked online, with some researchers saying it could be used to hunt for security holes in the software. The code was posted to GitHub, an online repository for open-source software. The code is from iOS 9, released in 2015, and although up-to-date iPhones run iOS 11, some portions of the leaked code may still be in use now.

The entire operating system wasn't leaked, but the code that was posted is key to iPhone security. Labelled 'iBoot', it's what runs the operating system when an iPhone is first turned on, ensuring the device uses the right version of iOS.

How will it affect you?

Apple has forced GitHub to remove the leaked code, though it's likely that plenty of hackers had already downloaded it, which means that those who want to comb through it for bugs and vulnerabilities won't find it too difficult to get a copy.

That said, they may not find any useful flaws before

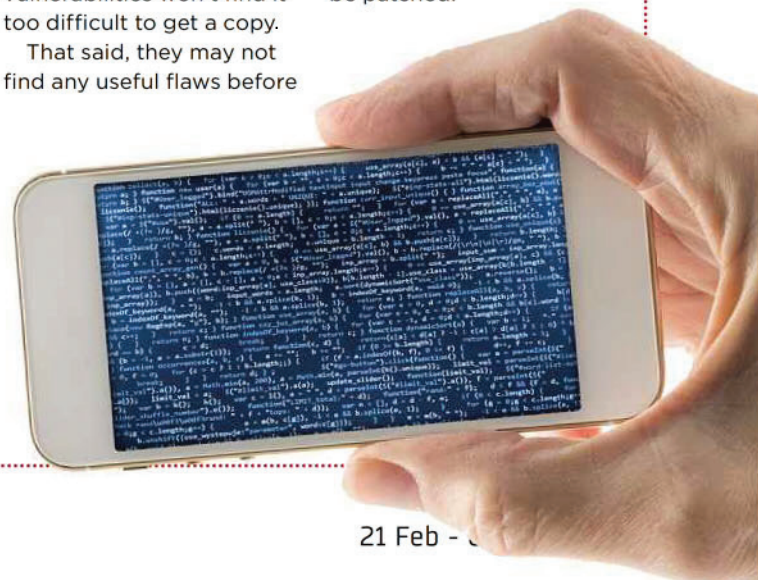
Apple itself or third-party security researchers do. Indeed, Apple pays as much as \$200,000 to those who detect iBoot flaws, so problems can quickly be patched.

Additionally, Apple has stressed that the security of its products "doesn't depend on the secrecy of our source code", with plenty of other layers of protection – in both hardware and software – also in place.

What do we think?

There's no reason to panic if you're an iPhone user. Apple devices are assumed to be more secure than rivals, though incidents like this show there's no such thing as a perfectly safe smartphone.

The best defence is to make sure that the software running on your device is up to date: as long as you've updated to the most recent version of an operating system, on whatever brand of smartphone you use, any known flaws in its OS will be patched.



BT to share malware data with other ISPs

What happened?

BT announced that the data it holds on malware attacks and other security threats will be shared with other ISPs in an attempt to prevent the spread of cybercrime. The information will be shared on a secure online platform, which will also allow other ISPs to post their own data about the latest threats. BT has urged its rivals to contribute for the benefit of every internet user in the UK.

BT's move is in direct response to the suggestion by the National Cyber Security Centre (NCSC) that ISPs share detection events, which they can then block to keep customers safe. "This is an important step in helping the Government achieve its aim of making the UK the safest place to live and do business online," said Mark Hughes, CEO of BT Security. "We believe that only by working together with government and the rest of the telecommunications industry can we collectively succeed in stemming the tide of cybercrime. That's why we're urging other ISPs to join us in sharing threat information in a more open and collaborative way. By sharing our malware data, we're empowering other ISPs to provide their customers with the same level of protection, should they choose to take action."

To date, BT's 2,500 cybersecurity experts have identified and shared



information about more than 200,000 dangerous domains. The company said it has so far prevented 50 million emails, harbouring 2,000 unique attachments, from being delivered every month.

How will it affect you?

If you're a BT customer, you can take some pride and reassurance in the fact that your ISP is leading the way in the fight against cybercrime and malware, and doing so for the benefit of "every internet user" rather than just its own customers. If you're with another ISP, you can only hope yours joins the initiative, too, and shares its malware data with its rivals for the greater good. If not, you may have to ask why not, and

wonder why your provider takes its customers' online security so lightly.

What do we think?

ISPs are notoriously competitive and profit-obsessed, so we're pleased that BT at least is taking steps to combat the ever-increasing problem of cybercrime. It's a shame that major internet providers couldn't have made the collaborative effort sooner, but in the fight against malware, it's better late than never. Many ISPs already provide network-level security for their customers, but pooling their resources and data about malicious websites and software helps protect against future threats, too.



FIRST LOOK

Sony Xperia XA2

bit.ly/sony443

The Xperia XA2 looks set to become Sony's most attractive all-rounder since the Xperia XZ1 Compact. It's not quite as pocketable as the original pint-sized powerhouse – the Full HD screen measures 5.2in but that's still relatively compact in the current climate, where phones measuring 5.7in and bigger are becoming the norm.

It's powered by Qualcomm's latest mid-range processor – the octa-core Snapdragon 630 – and comes with 3GB of RAM and 32GB of internal storage (expandable via microSD card). Additionally, it runs Android 8.0 Oreo straight out of the box and has a very impressive 23-megapixel rear camera, with an 8-megapixel selfie-snapper on the front; in other words,

it has everything a modern mid-range smartphone needs.

The Xperia XA2's design feels sturdy, though we're slightly concerned by the sharp corners that look primed to tear straight through your pockets.

However, the ports and buttons are well placed and the circular fingerprint reader is sensibly positioned just below the camera on the rear of the phone.

The screen is superb and images look beautiful, especially with the phone's slightly saturated 'Super Vivid' display mode engaged. The colours, too, are



reasonably accurate and having such a high-quality display on a mid-range phone is a real treat. Battery life is also decent, with the Xperia XA2 lasting 14 hours and 27 minutes in our continuous video playback test.

Ultimately, though, the key appeal of the Sony Xperia XA2 is its

price. It's set to cost £300 when it hits shelves later this month, putting it in direct competition with the £300 Honor 9, the HTC U11 Life (£345), and the excellent-value Honor 7X, which has a 6in display and costs just £270.



WHAT'S THE RUMOUR

Is Google launching a gaming service?

Google is rumoured to be working on a games-streaming service, as well as its own games console. According to a report by The Information (bit.ly/info443), the 'Netflix for games' service is codenamed Yeti, and would work in a similar way to popular services such as PlayStation Now, with gamers paying a monthly subscription fee to access a collection of games they can stream over the internet. PlayStation Now costs £12.99 a month for unlimited gameplay.

The Yeti project is reportedly being led by two Google hardware executives – Mario Queiroz, VP of product management, and Majd Bakar, VP of engineering – so it's likely that the project will involve developing a new, Google-branded games console and controller. However, insiders also say that initial tests of the service used Google's existing Chromecast device to stream games, although this may just be a software test ahead of the development of a standalone console.

The rumours say that Google has been working on Yeti for two years and that it was supposed to launch before Christmas, but was delayed for unknown reasons. Games developers are said to have been in discussion with Google about Yeti, although it's not yet known if the service will be compatible



with Android games or serve as a platform in its own right. Further details are expected to emerge at Google's annual I/O conference on 8 May.

LIKELIHOOD RATING



Considering the huge popularity of Android games – and of YouTube videos of people playing games – it seems a logical step for Google to enter the gaming market. High-speed internet connections now make streaming games online a much smoother experience.

Even if Google doesn't adopt the subscription model, there's plenty of money to be made via in-game advertising and premium upgrades.



WEBOMETER



WE LIKE...

↑ Redhead emoji are finally approved

After much campaigning, ginger people are finally set to get their own emoji. The Unicode Consortium has approved 12 red-headed designs among the 157 new emoji in its 2018 set, due for release in June.



↑ Mario Kart is coming to phones

Nintendo has confirmed it will be releasing an official Mario Kart game for Android and iOS. The game will be called Mario Kart Tour, and will be free to download, although it's likely to include paid-for elements.



WE DON'T LIKE...

↓ iPhone X bug affects phone calls

Some iPhone X owners have reported a bug that causes them to miss phone calls. Users say the £999-phone's screen doesn't 'wake up' for several seconds when they receive an incoming call. Apple is looking into the problem.



↓ Snapchat redesign upsets users

The new version of Snapchat has been criticised by users, who want the social network to reverse the changes. The app has been completely redesigned, and users say they're struggling to find some of their favourite tools, such as Stories.



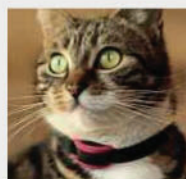
What's new on Kickstarter

Our favourite new project on the crowdfunding site

Digibell

bit.ly/digibell443 | From £11

Cat bells are designed to stop moggies stalking and killing birds and other critters, but savvy felines know how to move without tinkling. Digibell solves this problem by using a microcontroller to detect your cat's movements and trigger an audio or visual alert as it prepares to pounce. Suitably warned, the bird can escape and your doorstep will remain free of unwanted 'gifts'. This tiny, battery-operated device comes with an adjustable collar, or fits to an existing one, and is so light that your cat will barely notice it. The Digibell team hopes to raise £5,750 by 8 March.



Stay Safe Online

News about the latest threats and advice from security experts

SECURITY ALERT! | What's been bothering us this fortnight

NHS fails post-WannaCry security audit

Despite attempts to improve cybersecurity across the NHS, the UK's

Department of Health has admitted that all 200 NHS trusts assessed for vulnerabilities failed to meet the standard required.

The investigation followed the WannaCry ransomware attack on parts of the NHS last year, which resulted in cancelled appointments, phone lines being taken down and ambulances diverted. The ransomware reportedly demanded \$300 in Bitcoin to decrypt files, with the price doubling after three days. The total cost of WannaCry on the NHS is still unknown, but officials set aside £20m to create a security centre designed to constantly probe



the organisation's cyber-defences, as well as issuing best-practice guidance about cybersecurity incidents.

"It was a relatively unsophisticated attack and could have been prevented by the NHS following basic IT security best practice," said the National Audit Office. "There are more sophisticated cyber-threats out there than WannaCry, so the department and the NHS need to get their act together to ensure the NHS is better protected against future attacks."

The Foreign Office has officially blamed North Korea for WannaCry, but the country's regime denies involvement. bit.ly/wanna443

Mozilla patches security flaw in Firefox

Firefox users should update their browsers as soon as possible, security experts have warned. Mozilla has issued an important update for the browser to patch a critical vulnerability, which it says

could allow remote attackers to run malicious code on infected computers.

According to security advice published by Cisco (bit.ly/cisco443), the vulnerability (named CVE-2018-5124) arises from "insufficient sanitisation of HTML fragments". An attacker could exploit the vulnerability by persuading a user to access a link or file that contained malicious content.

Cisco warned that if the user had 'elevated' privileges, the attacker could compromise their system completely and install programs, create new accounts with full user rights and view, change or delete data. The affected browser versions include Firefox 56, 57 and 58. You can download the update containing the patch from Mozilla's website (www.getfirefox.org). bit.ly/firefox443



Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT:
Russell Haworth,
CEO of Nominet
(www.nominet.co.uk)



Q Should parents avoid sharing photos of their children on Facebook?

Jessica Sullivan, Twitter

A According to our research, parents are actually sharing fewer images of their children on social media than before, but they still struggle to control

who can see them. Many parents do not have a good understanding of social-media privacy settings, with fewer than half saying they are very confident at managing them, while more than a tenth have either never reviewed their privacy settings, or have no idea how to do so. This means that even those who only share posts with friends could unwittingly be sharing personal content with people they don't know.

It's reassuring that parents have started to heed warnings and reduce the number of pictures of their children that they post



online. But we can still do much better, especially when it comes to understanding our privacy settings and making sure that the posts we share are only seen by intended recipients. After all, you wouldn't share family photos with strangers you bump into on the street, so why do it online?

We'd like to see more

British parents apply that caution to their social-media presence by pausing for thought before they post. Social media can be a great thing, helping friends and family to stay in touch and

share important moments – but it must be used in the right way to protect our privacy and particularly that of our children. That means checking privacy settings regularly, asking permission before you post content featuring other people and considering the future implications of everything you share.



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G-SYNC

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SCAN

OVERCLOCKERS UK

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★ Best New Websites

Site of the Fortnight

MONEY

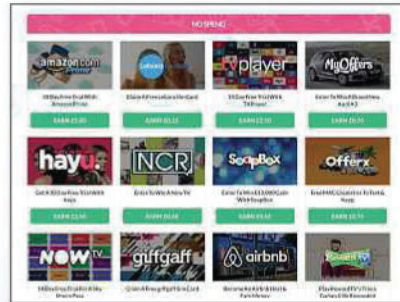
NEW

Oh My Dosh

www.ohmydosh.co.uk

Oh My Dosh works in a similar way to cashback websites, offering you money for signing up to services including Now TV, Audible and Giffgaff. At the same time, you can often make a double saving by taking advantage of special offers: spend £1 on a three-month Gourmet Society discount card, for example, and you'll earn £2. This makes this tidy, easy-to-navigate site very appealing and you even get a quid when you register. What's more, there's extra money to be made by filling in surveys, referring friends and entering competitions. So although you can only cash out when you earn a tenner, that shouldn't take long.

Our rating



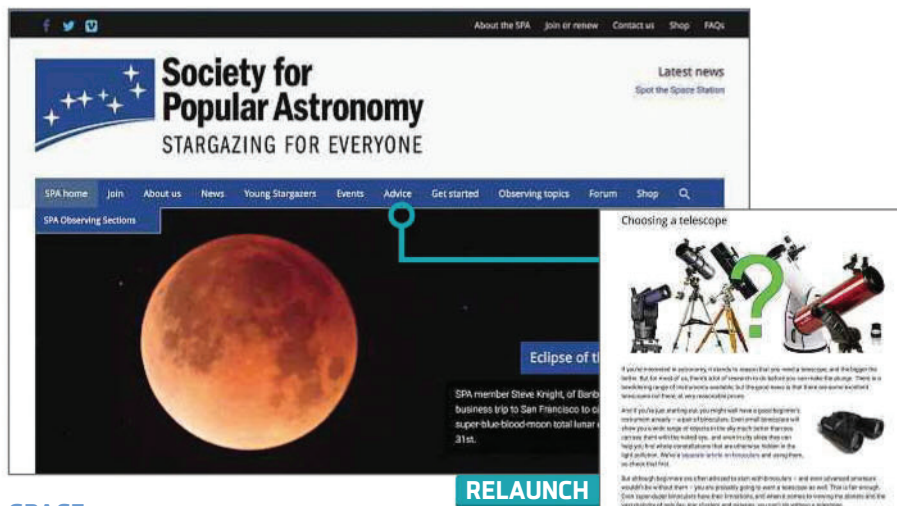
FREE CASH

Some offers don't require cash upfront – just remember to cancel trials

TOP EARNERS		TOP FRIENDS REFERRED	
1	CDive	1	CDive
2	CDive	2	CDive
3	CDive	3	CDive
4	CDive	4	CDive
5	CDive	5	CDive
6	CDive	6	CDive
7	CDive	7	CDive
8	CDive	8	CDive
9	CDive	9	CDive
10	CDive	10	CDive

COMPETITIVE

Earn lots of money or refer many friends and you may find yourself on the leaderboard



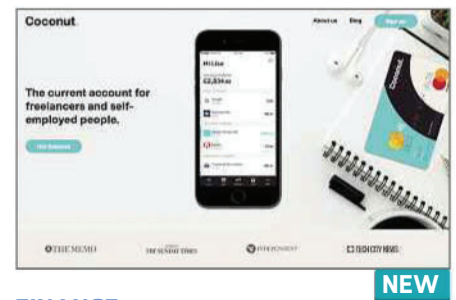
SPACE

Society for Popular Astronomy

www.popastro.com

Interest in astronomy has taken off in recent years but if you're not sure where to start looking at the night sky, this revamped site with its friendly, chatty tone will have you navigating the stars in no time. It explains how to get started, with guidance on choosing a telescope and spotting planets, and shows a map of the sky with in-depth views of objects such as comets, meteors and the Moon. As well as lots of information about current missions, probes and robots, there's a fun section that shows how you can make a sundial or recreate the Moon's cratered surface. Add fascinating videos and fun facts, and you have a site that's out of this world.

Our rating



FINANCE

Coconut

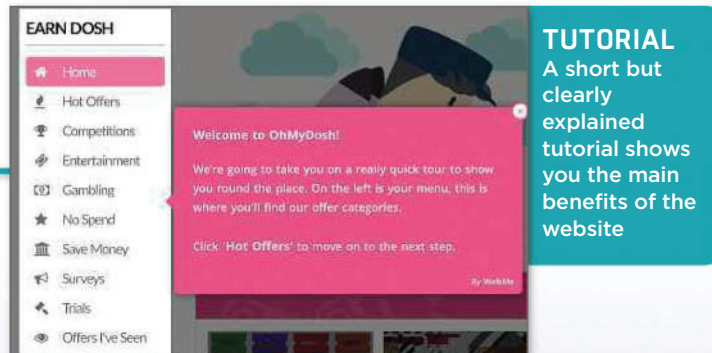
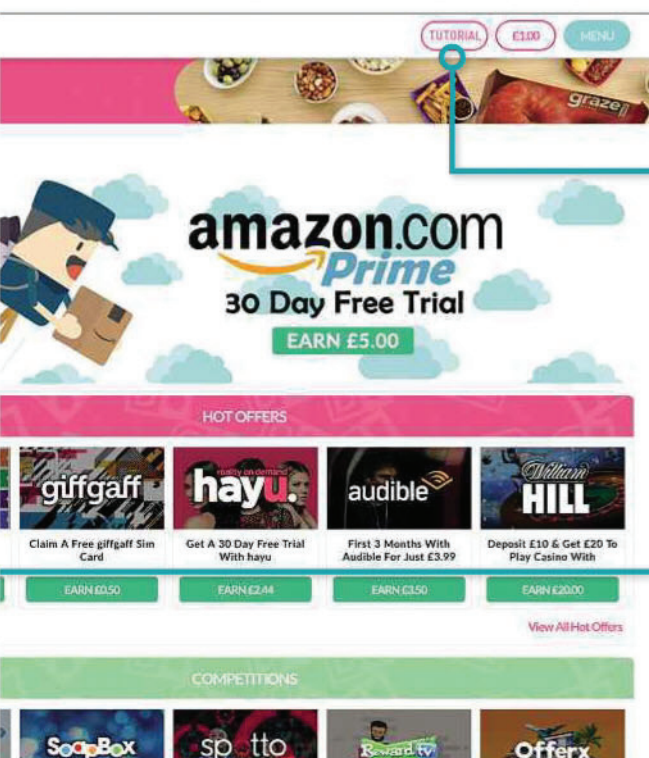
getcoconut.com

For the five million self-employed people in the UK, one of the biggest hassles is the dreaded yearly tax return. Coconut, a new app-based business account, aims to assist by calculating a running tally of the tax you owe and providing useful tools so you can effortlessly manage your money. The site provides a clear explanation of its premise, using large, enticing visuals and well-written bullet points. It also lets you sign up to its waiting list and read advice in its blog. On the downside, Coconut is currently only available for iPhone and is still in beta, so it may have teething problems.

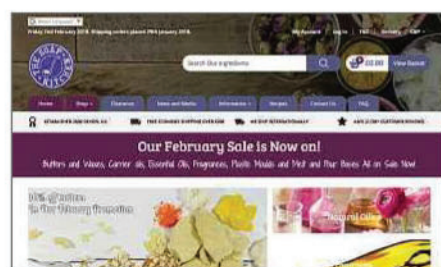
Our rating



We review this fortnight's best new and relaunched websites and rate them for content, design and features



FULL DESCRIPTIONS
Each offer page shows the potential amount you can earn and the terms and conditions



RELAUNCH

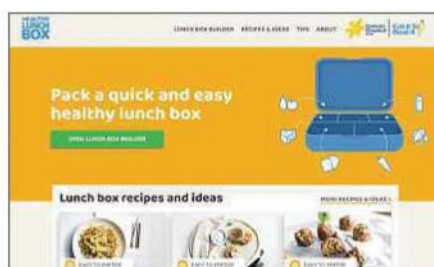
HYGIENE

The Soap Kitchen

thesoapkitchen.co.uk

If shop-bought soap won't wash with you, then how about making your own? The Soap Kitchen provides all the ingredients you need to create DIY soap, toiletries, cosmetics and candles – and with its clean new look, finding the right mix is now even easier. Hovering over the Shop tab lets you view a breakdown of products, while clicking Recipes shows you how to make items such as bath oil and body wash. It's worth reading the Useful Pages section, too, where you can discover how to get a loyalty bonus, take a virtual tour of the physical shop and get tips for successful soap making.

Our rating



NEW

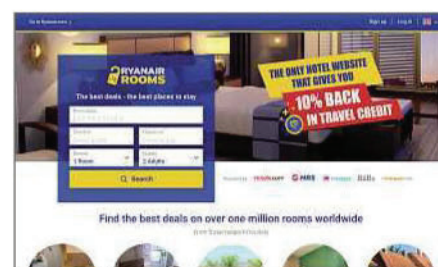
FOOD

Healthy Lunch Box

healthylunchbox.com.au

Instead of settling for an uninspiring daily lunch of sandwich, chocolate and crisps, why not tantalise your tastebuds with this Australian site? Offering lots of recipes and tips, it suggests alternative sandwich fillings, healthy swaps that cut out the bread and ideas for nutritious snacks. The best part is the lunch-box builder, which lets you select food groups and suitable items and, in some cases, shows how you can make them tastier. Just as handy is a large, mouth-watering selection of healthy lunch box examples that are full of links to clearly explained and well laid-out recipes.

Our rating



RELAUNCH

TRAVEL

Ryanair Rooms

rooms.ryanair.com

Get past the potential jokes about Ryanair Rooms – will it charge a quid for spending a penny in the night? – and you land on an efficient if unremarkable site that lets you book accommodation via partner providers such as Hotels.com and Hotelopia. The site's USP is that you can also earn Ryanair Travel Credit, which gives back 10% of the price of your stay to put towards Ryanair flights. Your savings are clearly displayed on the search-result pages, along with the price of a stay, ratings and facilities. Easy to use and with plenty of useful filters, we can certainly see it taking off.

Our rating



BACK ISSUES DISC 2017



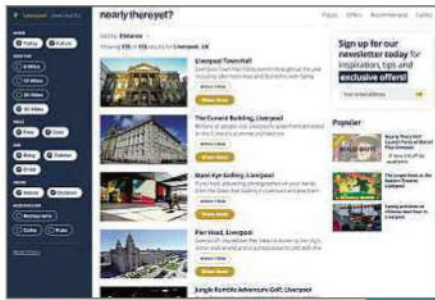
2017 Back Issues Disc

Our **2017 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit bit.ly/wudisc17 or search for 'webuser disc' on Amazon

You can still buy our 2016 Back Issues Disc from bit.ly/wudisc16





NEW

DAYS OUT

Nearly There Yet?

www.nearlythereyet.co.uk

Created by the *Liverpool Echo*, this upbeat days-out guide to the attractions of Merseyside offers lots of ideas for keeping children entertained, along with some fantastic discounts. It's packed with recommendations and events, with each listing providing a comprehensive overview, prices, opening hours, a map and contact information. You also get details of facilities, and ratings and reviews from TripAdvisor, Google and Facebook, and you can leave your own comments. Central to the site is a brilliant location-based search engine with a comprehensive list of filters, and we love the useful ability to view the weather.

Our rating



NEW

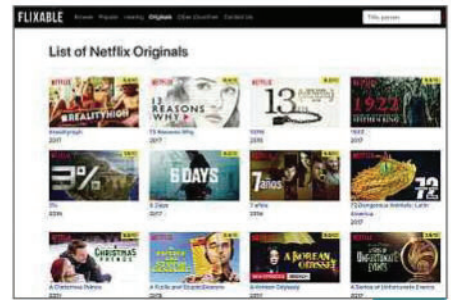
HEALTH

Stay Well in Dorset

staywelldorset.nhs.uk

There are times when the relentlessly cheery and chummy tone of this NHS site grates, but references to *Game of Thrones* and 'Netflix and Chills' aside, it contains lots of sound advice about what to do if you become ill. The site's sections could be better structured, but its abundance of links and season-specific guidance, along with detailed information about Dorset's local services, are delivered via a colourful, cartoony design that makes the information more approachable. For current awareness campaigns, check out the blog, and spread the word on key issues using the posters and social-media images.

Our rating



NEW

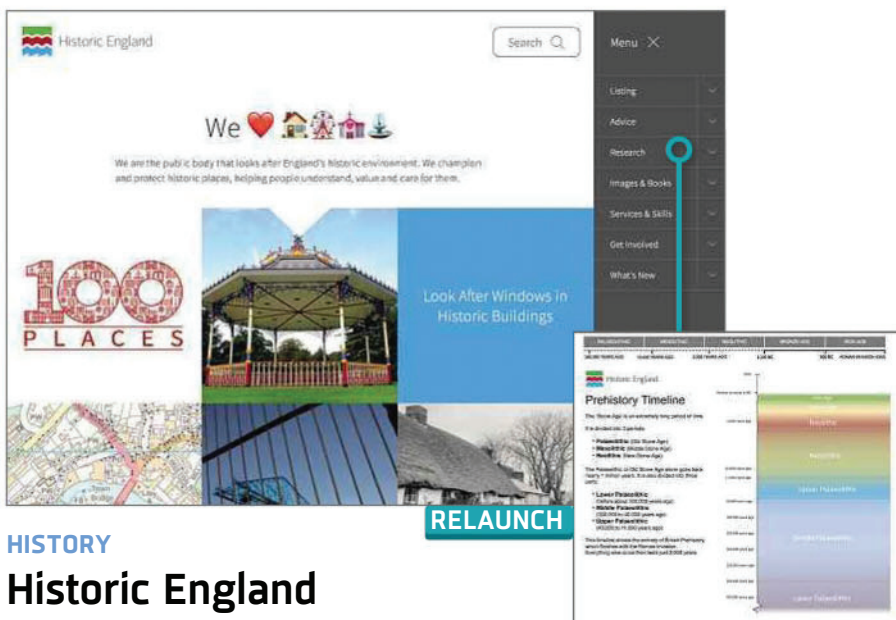
TELEVISION

Flixable

uk.flixable.com

Netflix's slick but poorly organised site can be more of a hindrance than a help when you're searching for something to watch. Flixable keeps things simple with just two tabs – Movies and TV Shows – providing filters such as genre, rating and release date. You can even arrange the results according to when they were added to Netflix or in alphabetical order, all of which should make light work of finding something good to watch. Other useful pages include a list of shows that are set to leave Netflix, an index of Netflix Originals and a line-up of the most popular programmes. The design may be basic, but it's fast and intuitive to use.

Our rating



RELAUNCH

HISTORY

Historic England

historicengland.org.uk

This fresh and modern-looking site includes a new and compelling timeline of Britain's prehistory, charting the changes from the Stone Age to the Iron Age. However, you really have to hunt around for this feature, which the site inexplicably buries within meandering menus (go to Services & Skills, Education, select Teaching Activities and visit the second page). It's a shame because the site is packed with useful advice and gems such as information about the treasures the group protects, a listed-building map, podcasts, loads of news and ways to discover your home's past. If the message of the site is that history is on your doorstep, it should make it easier to find!

Our rating



RELAUNCH

WEATHER

BBC Weather

www.bbc.co.uk/weather

We Brits love to moan about the weather, so it's no surprise that the BBC's revamped Weather site has attracted a deluge of complaints. The layout's a mess, the information is hard to read, favourite locations have been lost, and forecasts are confusing and inaccurate – talk about blustery conditions for the Beeb! It certainly doesn't feel like an improvement over the previous version, although we like the larger, clearer interactive map. In fairness, the BBC says the site is still a work in progress, so here's hoping it listens to some of the more constructive feedback.

Our rating



Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

New Search Console

Google's Search Console has been updated with a new, streamlined display that shows how your site is doing in the search engine's results. The Performance and 'Index coverage' sections make it easy to find the info you want, whether that's the performance of keywords on the site or how many of your pages are (or aren't) being indexed. For now, you can only



access the Search Console if you already have a site registered with Google's Webmaster Central, and Google will have sent you an email with an access link. Alternatively, sign into your Google account and go to search.google.com/search-console.

Don't ignore 'alt' text

If you're not adding 'alt' text to your images, you're missing a trick. It tells search engines what's in your images and can reinforce what your site is about. Either add `alt="image description"` into your HTML image tag, or write them into your content-management system's media uploader when you're sending them.

Annotate your picture as if you were describing it to someone who can't see it, but take care to also include words you think might be important to people searching for your site.

Deal of the Fortnight

Krystal (krystal.co.uk) is offering a trial of its Amethyst hosting for £1.20, with a full money-back guarantee if you're not happy. The regular price is £2.39.

Web-building Helpdesk

THIS ISSUE'S EXPERT:

Nick Akam, CTO,
Easy Internet

(www.easy-internet.co.uk)



Q I have niche content I'd like to put behind a paywall. What's the easiest and best way to set one up?

Harvey Donaldson, via email

A That depends on how you've built your site in the first place. For example, if you used WordPress, there are numerous plugins that will easily do this for you, such as the free Simple Membership Plugin (simple-membership-plugin.com) or Paid Membership Pro (www.paidmembershipspro.com), which has a free version with fewer features than the pricey paid-for version. Most other types of CMS, such as Drupal or Joomla, have their own options for implementing paid-for content. It's much harder to set up if you have a site that you've created yourself.

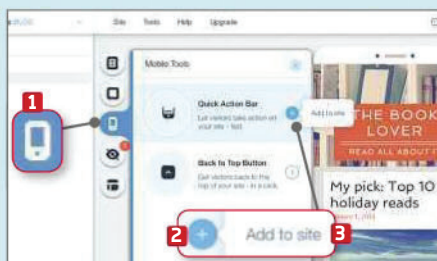


MINI WORKSHOP | Provide quick contact options for visitors to your mobile site
Wix: www.wix.com |  10 mins | [Wix website](https://www.wix.com)

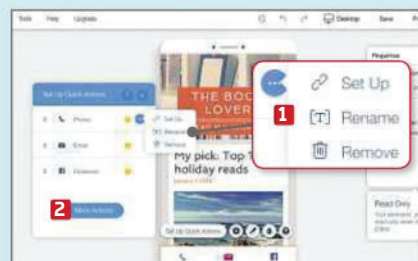
Wix websites look great on mobile devices, but make sure your visitors can quickly contact you by email, find your address and access your social-media accounts by providing shortcuts in the Quick Action Bar



1 Open your Wix website and go to the mobile-editing view by clicking the Mobile button **1** and selecting the Edit Mobile View option. **2** Your website shrinks and is displayed in a website within a representation of a mobile phone, **3** so you can see how it will look on smaller devices.



2 Click the Mobile Tools icon, **1** then click the plus symbol next to Quick Action Bar. **2** An 'Add to site' **3** pop-up appears. Click this to place a bar across the bottom of the mock-up screen with contact icons that visitors can tap to call, email or contact you via Facebook.



3 In the Set Up Quick Actions box, you can rearrange the order of the icons or remove any you don't want. Hover over the box and choose the option from the menu that appears. **1** To add more options, click the More Actions button **2** and choose from a range of alternatives including physical address and various social networks.



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What To Watch Online

Pick of the fortnight

NETFLIX



Unravel *The Cloverfield Paradox* on Netflix

On now

Netflix surprised everyone by releasing this new movie shortly after debuting the trailer during this year's Super Bowl in the US. It's the third movie in the *Cloverfield* franchise (after *Cloverfield* itself and *10 Cloverfield Lane*) and was originally intended to have a cinema release until Paramount changed its mind and sold it to Netflix for a rumoured \$50m. The *Cloverfield* movies actually have very little to do with one another, so you don't need to have watched any of the previous instalments to enjoy this one.

The Cloverfield Paradox takes place on the Cloverfield Space Station orbiting above Earth, which is on the brink of running out of energy. Scientists think they have discovered a way to solve the crisis but things go badly wrong, and they end up facing a dark alternative reality. We won't give any more away, but you can watch the trailer for the movie at bit.ly/paradox443.

From 25 February, *10 Cloverfield Lane* will also be available to watch on Netflix. This second film in the series is a tense psychological thriller in which a young woman (Mary Elizabeth Winstead) finds herself imprisoned in an underground shelter by a seemingly crazy man (John Goodman) who claims the world outside is under alien attack – but is it really?

Stream Sky's new series *Save Me*

From 28 February

This gripping new thriller from the makers of *Line of Duty* stars Lennie James (*The Walking Dead*'s Morgan) and Suranne Jones (*Doctor Foster*). James, who also wrote the series, plays lovable chancer Nelson "Nelly" Rowe whose life is turned upside down when he is arrested on suspicion of kidnapping his 13-year old daughter, a girl he last saw when she was just



three. The series follows James on his quest to clear his name, discover the real culprit and save his child.

The thriller is set on a housing estate in south-east London and features an impressive cast of British actors, including Stephen Graham, Jason Flemyng and Adrian Edmondson.

Save Me is a six-partner, with all the hour-long episodes available to watch from 28 February. There's a 'first look' trailer at bit.ly/saveme443.



Sky's original shows are often a mixed bag, but *Save Me* looks worth watching, and can be streamed without a Sky subscription via Now TV.

Be mesmerised by *Derren Brown: The Push*

27 February

Netflix has snapped up Derren Brown to create a couple of specials for the streaming service, both of which are set to hit our screens later in the year. For now, the famous mentalist's 2016 Channel 4 special – in which he uses social compliance to coerce a member of the public to perform a terrible act (push someone off the roof of a building) – will have to fill the gap while we wait for the new shows.



We reveal what's new on Netflix, BBC iPlayer, Amazon Prime Video and other streaming services



Get bitten by *The Tick* From 23 February

If you like your superheroes to be a little weird, then you can't go wrong with *The Tick*. Played brilliantly by Peter Serafinowicz (*Guardians of the Galaxy*



and *Shaun of the Dead*), this comedy series, based on a cult comic book, follows the adventures of the "Big Blue Bug Of Justice" and his distinctly

un-super sidekick, Arthur. Season one of *The Tick* was split into two halves, with the second chunk arriving at the end of February. The show has already been commissioned for a second series but won't return until some point in 2019, so you've got plenty of time to catch up if you haven't already been sucked into what is unquestionably one of Amazon's best (and funniest) original shows.



Feast on *Ugly Delicious* From 23 February

David Chang is, according to Wikipedia, an American restaurateur, author and television personality, and the founder of the Momofuku restaurant group. Following the trend of many TV chefs,

Chang's latest show sees him travelling the world and exploring local cuisine. In *Ugly Delicious* (the title relates to food that looks bad but tastes great), he chats with entertainers, writers and fellow chefs about food and culture. There's an official – rather expletive-heavy – trailer at bit.ly/uglydel443.



Watch *Unreal* Season 3 From 27 February

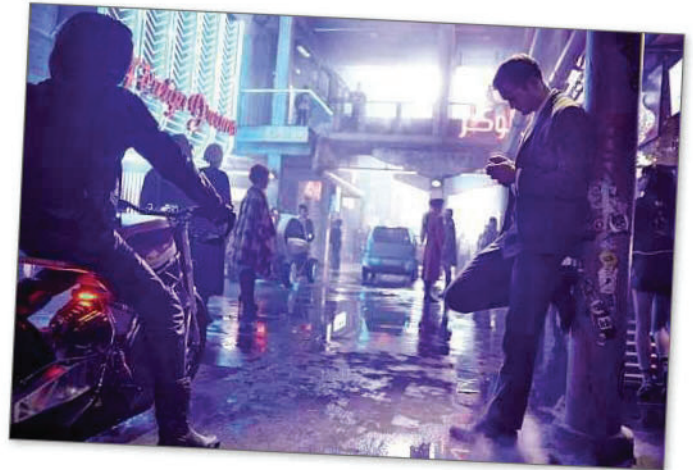
American TV drama *Unreal* takes place behind the scenes of a fictitious dating competition show called *Everlasting*. If you've ever watched any really trashy reality TV, you'll know the kind of outrageous and salacious stories that *Everlasting* strives for, although here there's often more drama going on behind the camera. Shiri Appleby (*Roswell*) plays producer Rachel Goldberg (and also does a spot of directing), and in Season Three, things get even more dramatic when *Everlasting* faces cancellation.

The show starts on Amazon Prime from 27 February, with new episodes arriving weekly, 24 hours after being broadcast in the US. Watch the trailer for the new season at bit.ly/unreal443.

Watch Duncan Jones' *Mute* From 23 February

Duncan Jones isn't the most prolific of film directors. His first full-length movie, *Moon*, came out in 2009, followed by *Source Code* in 2011, and *Warcraft: The Beginning* in 2016. *Mute*, his fourth film, is set to arrive on Netflix a full decade after Jones – who also happens to be David Bowie's son – first came up with the idea. Given the director's previous movies, it shouldn't come as a surprise to hear this is another sci-fi tale. Set in Berlin in the near future (where flying cars are finally a reality), *Mute* stars Alexander Skarsgård (*Big Little Lies*, *True Blood*) as a mute bartender whose girlfriend goes missing under suspicious circumstances.

Watch the trailer for the film at bit.ly/mute443.



Kodi adds support for Google Assistant

Kodi 18 – codename Leia – is currently in development and expected to arrive later this year. Among the more interesting features set to be offered by the updated media-centre software is support for Google Assistant. This will allow users of Android TV devices to search for content using their voice, and ask for recommendations on what to watch. The feature is already available to try in an alpha release from kodi.tv/download, but it's obviously very early days for Leia and this build probably won't be the most stable of releases. It does show, however, that Kodi 18 is already looking very exciting.



Product Test

We test and compare the latest products

Palicomp AMD Gravity RYZ1

The best PC we could find for less than £800, tested and reviewed by **Stuart Andrews**



AMD's processor speed has lagged behind Intel's for a few years, but the chip manufacturer's latest Ryzen processor has caused a revolution. Many PC builders are now opting to install an AMD processor, for its ability to balance impressive power with excellent value for money. As the Palicomp AMD Gravity RYZ1's name suggests, there's one at the heart of this PC – a Ryzen 5 1600, which has six cores (individual processors that can do different things at the same time).

Palicomp has even gone one step further and overclocked the processor beyond its usual speed range of between 3.2GHz to 3.6GHz, up to 3.7GHz. This adds a significant power boost to the PC, as you'll see from our benchmark results in the chart, opposite.

Hardware

The Ryzen 5 1600 processor is fitted within a huge Silent Game Max case that's 230mm wide and 468mm tall, with solid metal panels and a hefty door at the front. The door and side panels are lined with heavy-duty sound-dampening matting, while the vent at the top of the case has a choice

of covers: one is a mesh for improved upward airflow; the other consists of a solid, rubbery material to cut down noise. Overall, the setup does a good job of dampening the noise from the fans, though a steady, dull background

hum is still audible.

Palicomp has tidily routed all the internal cabling to keep the space inside the chassis free of obstruction. The SSD is mounted to the side of the motherboard, while the mechanical hard

drive is tucked away in a side-facing drive cage in a separate compartment, along with the power supply. There's room for another 3.5in drive in the slide-out caddy above, while the motherboard has an open M.2 slot and there's space for a second 2.5in SSD below the first.

With 240GB of storage on the SSD and an extra 1TB on the hard drive, space shouldn't be a problem. You even get a DVD writer thrown in with this model – an increasingly rare bonus since streaming content and downloading software became more popular and manufacturers realised they could save a few quid on hardware.

We were disappointed with the speed of the SSD, though – the read speed was reasonable but it had limited write speeds of 139.8MB/s.

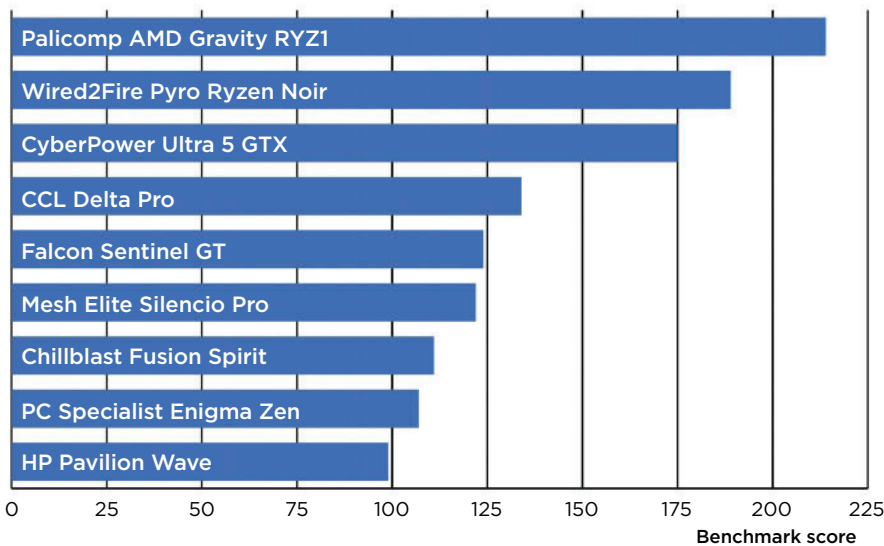
Slots, ports and power

With regard to other future upgrades, the news isn't so good. The Asus B350M-A motherboard has a long PCI-E 3 x16 slot, which houses the graphics card. However, the supplied graphics hardware

“ Palicomp has even gone one step further and overclocked the Ryzen 5 processor beyond its usual speed range ”



Overall Benchmark Performance



We compared the performance of the Palicomp AMD Gravity RYZ1 with eight other similarly priced PCs from other manufacturers

PRODUCT INFO

Palicomp AMD Gravity RYZ1

Price: £799.99

Buy from:

www.palicomp.co.uk

SPECIFICATIONS

- AMD Ryzen 5 1600 processor
- Asus Prime B350M-A motherboard
- 8GB DDR4 memory
- GeForce GTX 1060 graphics
- 240GB SSD
- 1TB hard drive
- 3 x DisplayPort, DVI, HDMI video output
- 475 x 468 x 230mm tower case
- Windows 10 Home 64-bit
- 3-years return-to-base warranty

FOR

- ✓ Powerful all-rounder
- ✓ Great value for money

AGAINST

- ✗ Supply your own monitor
- ✗ Power-hungry

SMALLER CASE

Wired2Fire Pyro Ryzen Noir, £823
bit.ly/pyro443



BETTER FOR GAMERS

Falcon Sentinel GT, £799
bit.ly/falc443



“ Registering 69.2W even when it’s idle, this is a bit of a power-guzzler, but that’s the price you pay for fast performance ”

is so enormous that it completely obscures the two PCI-E 2 x1 slots positioned below it, rendering them unusable. You’ll need to keep this in mind if you plan to fit, say, a video-capture card or an internal Wi-Fi card at a later date.

The motherboard has two USB 3.1 Type A ports as well as the usual four standard USB 3 ports and Gigabit Ethernet port. A further two USB 3 ports and two USB 2 ports can be found, along with mic and headphone sockets, on the top of the case near the front. The inclusion of legacy PS/2 ports is bewildering – not to mention unnecessary – on a modern PC, but there are three DisplayPort outputs, plus HDMI and DVI-D on the graphics card, so you have plenty of options for plugging in a monitor or two.

To keep the processor from overheating, especially given its higher clock speed, Palicomp has inserted a huge

Be Quiet Pure Rock cooler with 12cm of aluminium heat sink and a matching fan. This pumps out a lot of air through the top vent and keeps temperatures below 60 degrees Celsius, even when the processor is working hard. However, it’s not a particularly energy-efficient system, with consumption reaching 224W in our tests when the processor was at full tilt.

Registering 69.2W even when it’s idle, this machine is a bit of a power-guzzler, but that’s the price you pay for fast performance.

Speed

Speed-test results were impressive and in our Windows application benchmark test, which measures general Windows performance, the overclocked Ryzen 5 pulled the Palicomp to the top of a group of nine similarly priced PCs that we tested, with a multitasking score that none of the other machines could reach. You can see the results of the other PCs in our chart, above.

It’s not quite so impressive with games but the 3GB Palit GeForce 1060 card is no slouch, managing smooth near-60fps frame rates at 1080p in both Rise of the Tomb Raider and Metro: Last Light, and still maintaining playable frame rates at 1440p, though you may need to lower the detail in some games.

OUR VERDICT

It’s been a while since AMD has produced processors that outclass Intel’s, but the race for supremacy is finally back on and AMD has gained the upper hand. This PC takes that advantage and pushes it even further, overclocking the processor

to eke out a little extra power, while keeping it stress-free with an equally powerful cooling system.

The internal layout isn’t perfect but most users won’t want to upgrade it any time soon, making this a powerful, well-built,



FEATURES	★★★★★
PERFORMANCE	★★★★★
EASE OF USE	★★★★☆
VALUE FOR MONEY	★★★★★

well-balanced PC, as long as you’re happy to work with an overclocked processor.

Apple HomePod

Apple has launched the HomePod, its first Siri-powered smart speaker. But at £319, is it good enough to justify the high price?

Alexa and Google Assistant have quickly become household names, thanks to Amazon and Google's strategy of selling this new technology built into devices that offer great value. They're cheap enough that people can take a punt on them, whether they think they need a voice-activated assistant in their home or not.

Now Apple is entering the market with its HomePod smart speaker, but the company is taking a different (if not altogether surprising) approach. At £319, Apple's smart speaker is not a device you're likely to buy on a whim. So why is it so expensive?

The simple answer is audio quality. Whether you love or hate Apple, you can't argue with the company's flair for

hardware design, and the HomePod is no exception. Beneath its attractive exterior is the technology necessary to make an exceptional speaker. It sounds a lot better than the £200 Sonos Play One, which is flat and boring in comparison, and it's in a different league to the best-sounding speakers from Google and Amazon, with fuller, deeper, more three-dimensional sound. A speaker this size simply has no right to sound this good.

The HomePod adjusts its sound to suit the space it's in. When you first place it in a room or move it around your house, the HomePod listens to its acoustics and tweaks its settings for the best results. This happens within seconds.

Voice assistant

A smart speaker is for more than just listening to music, though, and it's here that things start to unravel for the HomePod. It responds to your voice when you say "Hey Siri", even from across a room with music playing, but its tricks are limited. The best are reserved for Apple Music. Subscribers to the streaming service can operate the player with their voice, ask questions about what they're listening to and get surprisingly sensible answers. Ask Siri who's playing a particular instrument, for example, and it should be able to tell you.

Beyond Apple Music, Siri's powers are limited. You can't even ask it to play a track on Spotify or tune into a radio station. The HomePod can play audio from these sources, but only if you send it from your iPhone or iPad,



“ The HomePod listens to its acoustics and tweaks its settings for the best results ”

which defeats the object of having a voice assistant.

At least you can ask Siri to read the news from a variety of sources, switching between Sky News, BBC Radio 5 Live and LBC on the fly. Siri can also offer advice on traffic conditions for your commute and perform various home-automation actions if you have other HomeKit-compatible smart devices.

Perhaps the HomePod's worst flaw, however, is in its ability to send and read out text messages. You may want to disable this feature, because it can't distinguish between voices, so anyone can use the speaker to send texts from your iPhone, and ask Siri to read your messages out loud, even if you and your phone are both out of the room.

PRODUCT INFO

Apple HomePod

Price: £319

Buy from Apple:
bit.ly/hpod443

SPECIFICATIONS

- High-excursion woofer
- Seven horn-loaded tweeters
- Six-microphone array for far-field Siri
- Internal calibration microphone
- 802.11ac Wi-Fi with MIMO
- Bluetooth 5.0
- 172 x 142mm
- 2.5kg

FOR

- ✓ Superb sound quality
- ✓ Great for Apple Music subscribers

AGAINST

- ✗ Expensive
- ✗ Smart speaker isn't smart enough

OUR VERDICT



Apple's HomePod has arrived late to the smart speaker party and costs a lot more than most of its rivals. This is partly justified by its phenomenal sound quality. Packed with innovative technology, it blows every other smart speaker out of the water.

However, it isn't as smart as the Amazon Echo or

FEATURES	★★★★☆
PERFORMANCE	★★★★★
EASE OF USE	★★★★☆
VALUE FOR MONEY	★★★★☆

Google Home, bafflingly omitting voice-activated radio playback, Spotify support and other basics. Siri simply isn't as good as Alexa or Google Assistant.



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Immerse yourself in the game with a 32" curved monitor featuring 144Hz refresh rate.

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HARDWARE

PC

Palicomp AMD Gravity RYZ1

£799.99 from www.palicomp.co.uk
Tested: Issue 443

This is the best PC we could find for under £800. It's powerful, well built and well balanced, so long as you're happy to use an overclocked processor.

NEW!



KEY SPECS

AMD Ryzen 5 1600 processor ■ Asus Prime B350M-A motherboard ■ 8GB DDR4 memory ■ GeForce GTX 1060 graphics card ■ 240GB SSD ■ 1TB hard drive ■ 475 x 468 x 230mm tower case ■ Windows 10 Home 64-bit

SMARTPHONE

Samsung Galaxy S8

£506.99 from bit.ly/sams442
Tested: Issue 442

The Samsung Galaxy S8 is a terrific all-rounder. It's fast, looks wonderful, has a superb camera and boasts one of the best screens we've ever seen on a phone.



KEY SPECS

Octa-core 2.3GHz Exynos 8895 processor ■ 12-megapixel rear camera, 8-megapixel front camera ■ 4GB RAM ■ 64GB storage ■ 5.8in 1,440 x 2,560-pixel screen ■ Android 7 ■ 68.1 x 148.9 x 8mm ■ 155g ■ One-year return-to-base warranty

MINI PC

Asus VivoMini

£672.99 from bit.ly/asus440
Tested: Issue 440

With capable performance, generous storage and extensive connectivity, the Asus VivoMini is an impressively versatile mini PC. It's great for use in a home office and usefully offers both a main SSD and a back-up hard drive.



KEY SPECS

Dual-core 2.5GHz Intel Core i5-7200U processor ■ 8GB memory ■ 128GB SSD, 1TB hard drive ■ 6 x USB ports ■ 802.11ac Wi-Fi, Gigabit Ethernet connectivity ■ 190 x 190 x 52mm ■ Three-years return-to-base warranty

KEYBOARD

BakkerElkhuizen UltraBoard 940

£79 from bit.ly/bakk438
Tested: Issue 438

The Ultraboard 940 is designed for all your computing needs – desktop, laptop and mobile. It's very comfortable and has a much better build quality than most portable keyboards.



KEY SPECS

Compact form ■ Scissor-switch technology ■ Multimedia function keys ■ 2 x USB 2 ports ■ Wireless ■ Height adjustment ■ Windows, MacOS, Android, iOS ■ 285 x 147 x 19mm ■ Two-years return-to-base warranty

VOICE ASSISTANT

Amazon Echo

£89.99 from bit.ly/echo437
Tested: Issue 437

With its sophisticated speech recognition, Amazon's second-generation Echo proves that smart digital assistants have a bright future, and it keeps getting better and better.



KEY SPECS

Compatible with Fire OS, Android and iOS devices ■ 802.11a/b/g/n Wi-Fi ■ Line-out with 3.5mm cable or Bluetooth ■ 2.5in woofer, 0.6in tweeter ■ 148 x 88 x 88mm ■ 821g ■ One-year return-to-base warranty

HIGH-SPEED ROUTER

TP-Link Deco M5

£229.99 from bit.ly/tpl435
Tested: Issue 435

This is a finely balanced mesh system with good range, although it isn't the fastest router available. However, it's got great additional features including built-in antivirus and powerful parental controls.



KEY SPECS

Mesh-networking kit ■ 802.11ac Wi-Fi ■ Combined network of 2.4GHz and 5GHz bands ■ WPA2-AES security ■ 1 x WAN port ■ 2 x Gigabit Ethernet ports ■ 120 x 120 x 38mm ■ Three-years return-to-base warranty

SOFTWARE & SERVICES

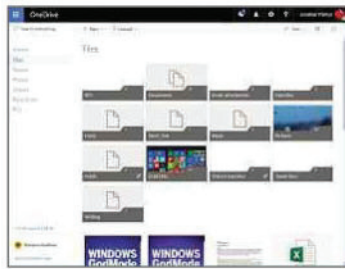
CLOUD-STORAGE SERVICE

Microsoft OneDrive

From free from onedrive.live.com

Tested: Issue 438

If you use Windows 10 or Microsoft Office, then OneDrive is a no-brainer. It's simple to use and already integrated into your PC. Recent improvements have added some excellent new features though we wish Microsoft would increase its free storage allowance. OneDrive also integrates well with both Android and iOS.



KEY FEATURES

5GB free storage ■ Web-based Office Web Apps including Word and Excel ■ 10GB maximum file size ■ Android, iOS and Windows 10 apps ■ Up to 50GB extra storage for £1.99 per month; Office 365 and 1TB of storage from £5.99 per month ■ Files expire after one year of inactivity

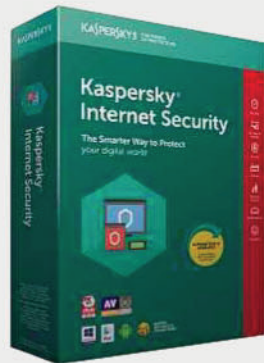
INTERNET SECURITY

Kaspersky Internet Security 2018

£19.95 from bit.ly/kaspersky2018

Tested: Computeractive Issue 493

Kaspersky is rock solid at protecting your PC from the worst of the web, and has come top in nine of our most recent tests, blocking all malware with its robust defences. Use the URL above to save £15.04 on the software (normal price £34.99).



KEY FEATURES

Antivirus and firewall tools ■ Protects online shopping and banking ■ Identity and privacy tools ■ Dangerous-website alerts ■ New software updater ■ Secure-connection VPN ■ Advanced ad-blocking system ■ Multi-device version ■ Compatible with Windows 10

Web User Gold Award winners

EMAIL CLIENT

eM Client

NEW!

Free from www.emclient.com

Tested: Issue 442

eM Client offers a great balance of simplicity and adaptability. Its familiarity makes it a great replacement for older tools, such as Windows Live Mail.



RADIO APP

Radioplayer

Free from bit.ly/radioplayer441

Tested: Issue 441

Radioplayer is limited to UK broadcasts and its interface could do with updating, but it works really well and is very straightforward to use, with lots of useful features.



START MENU REPLACEMENT

StartIsBack++ 2.5.2

£2.23 from startisback.com

Tested: Issue 440

With its familiar look and many customisation options, StartIsBack is the closest equivalent to the popular but discontinued Start-menu replacement program ClassicShell.



PHOTO-EDITING APP

PhotoDirector

Free from bit.ly/phod439

Tested: Issue 439

Easy to use and very effective at enhancing images. It's a free version of a paid-for app but doesn't feel restricted.



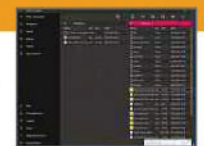
WINDOWS 10 FILE MANAGER

Metro Commander

Free from bit.ly/metr437

Tested: Issue 437

This smart-looking file-management tool offers lots of great features in its free version, including a useful dual-pane view.



WEB USER BACK ISSUES DISCS

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Best Free Software

OFFICE SUITE

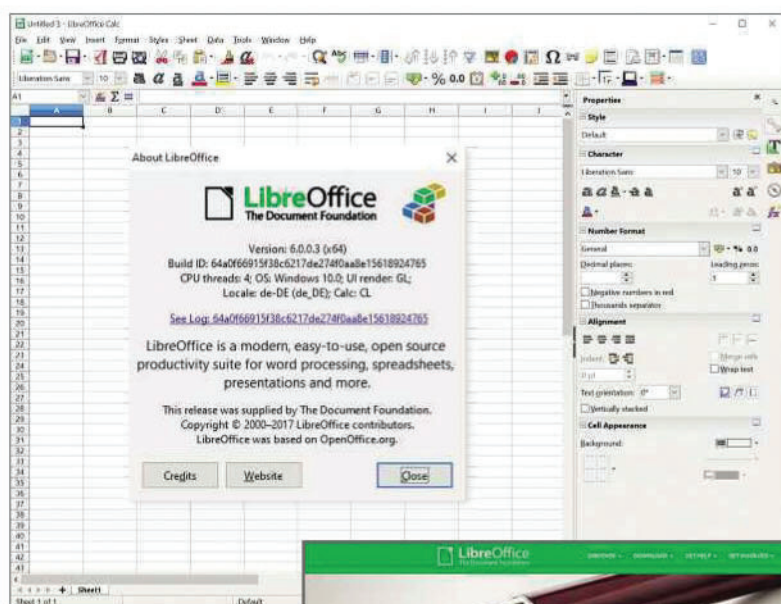
LibreOffice 6

www.libreoffice.org

Min requirements: Windows 7/8+/10, MacOS or Linux **File size:** 261MB

Microsoft Office is an excellent office suite but it's far from cheap. The 2016 Home and Student edition is priced at £120, while Office 365 Home costs £80 a year, or £7.99 a month on a rolling subscription. If you're after a free alternative to Microsoft Office, then look no further than the excellent LibreOffice. This free suite offers six comparable applications – Writer (word processor), Calc (spreadsheet), Impress (presentation and slideshow creator), Draw (a vector drawing program for creating diagrams and flow charts), Base (database) and Math (a mathematical equations editor). The software has just been updated, and the latest major release – launched to coincide with the seventh anniversary of LibreOffice – introduces a number of big changes and improvements.

Among the new additions is an ePub filter that lets you save your documents in the popular ebook format, so you can read them on any compatible device. The new release also offers OpenPGP document signing and encryption, which is useful for anyone wanting to share confidential documents or



spreadsheets. You'll need a third-party PGP tool such as Gpg4win (www.gpg4win.org) to use this feature, though.

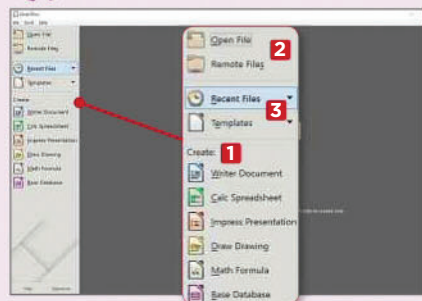
It's now simpler to tailor LibreOffice's interface to your needs – just right-click the toolbar and select Customise to access the new options. Adding special characters to your documents has been improved, and a new icon set – called Elementary – gives the suite a more modern look.



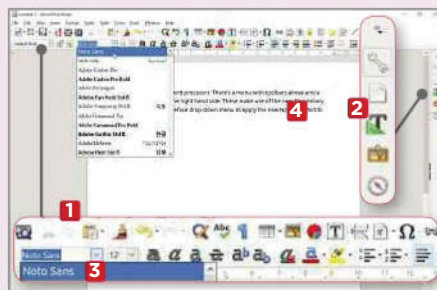
There's a new open-source font called Noto Sans included in this release, while Writer gains new table features, a form menu and a Rotation Angle tool.



MINI WORKSHOP | Try the new features in LibreOffice 6



1 You can launch the different applications through the Start menu, or open the main LibreOffice menu and choose the one you want from the sidebar. **1** You can also open a local file or a remote one, **2** and view recent files and templates. **3** Alternatively, drag a document to the main window to open it.

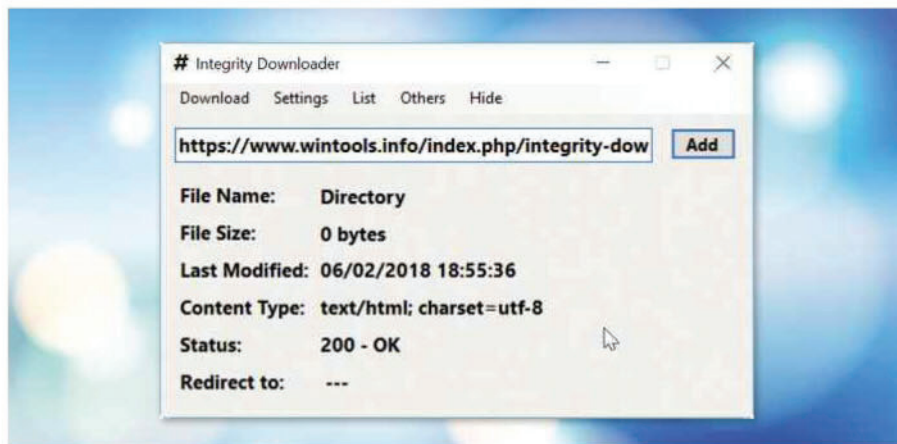


2 Writer is LibreOffice's word processor. There's a menu with toolbars above **1** and a properties sidebar on the right-hand side. **2** These use the updated Elementary icons pack, which has a new, cleaner design. Use the typeface drop-down menu to apply the new Noto Sans font **3** to your document. **4**



3 Calc, LibreOffice's spreadsheet component, also has new features, such as the ability to export cell ranges to a file. Impress, the presentation creator, gains 10 new templates, which you can browse through **1** or search for. **2** Select one and click Open. **3** The default aspect ratio for new presentations is now 16:9.

This fortnight's top new software downloads to help you make the most of your PC, and they're all FREE



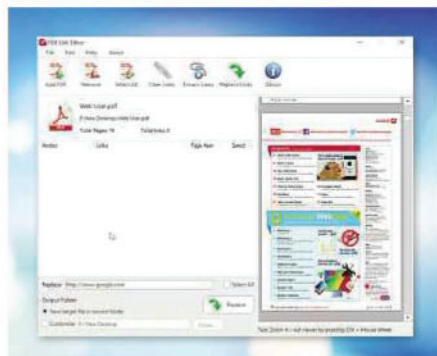
DOWNLOAD MANAGER

Integrity Downloader

bit.ly/integ443

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 219KB

With fast internet connections commonplace these days, download managers are no longer as essential as they once were. The portable Integrity Downloader is a bit different, however, because it focuses on security. You can query important information about a file before downloading it, and check it's safe to open using the VirusTotal service. Integrity Downloader is currently rather basic – you can only download one file at a time and it doesn't integrate with your browser – but for a first release, it looks promising.



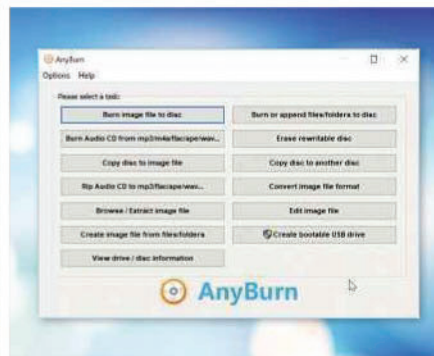
PDF TOOL

PDF Link Editor

www.pdflinkeditor.com

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 6.8MB

As should be obvious from its name, PDF Link Editor lets you edit, replace, remove and extract hyperlinks from PDF files. To use the program, simply open a PDF and it will show you the links the file contains and let you take whatever action you require. Buttons across the top let you select all links, clear links, extract links or replace them. You can save the edited PDF in a folder of your choosing.



DISC-AUTHORING TOOL

AnyBurn 4

www.anyburn.com

Min requirements: Windows XP/Vista/7/8+/10 **File size:** 1.5MB

This lightweight tool can write files and folders to disc, create audio CDs, generate and write image files, and copy discs. It can also create image files from CDs or DVDs, convert between image formats, erase rewritable discs and rip audio CDs, and write to Blu-rays. The various tasks can be selected from the single screen menu. This latest release features several bug fixes and improvements.

New Windows Apps

FeedLab

bit.ly/feedlab443

Min requirements: Windows 10

File size: 132.42MB

FeedLab makes it easy to follow all the latest news from your favourite sites. You can save articles for later, and there's a handy offline mode you can use when away from home.



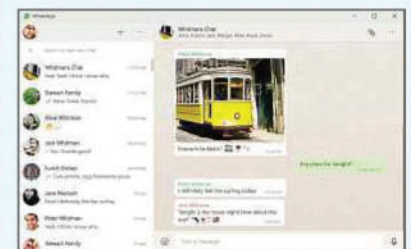
WhatsApp Desktop

bit.ly/whatsapp443

Min requirements: Windows 10

File size: 396.5MB

The official WhatsApp app for Windows 10 lets you seamlessly sync all your messages to your PC so that you can chat on whichever device is most convenient.



CryptoBook

bit.ly/crypto443

Min requirements: Windows 10

File size: 86.69MB

CryptoBook is a portfolio application that lets you keep track of any cryptocurrency you own. It supports Bitcoin, Bitcoin Cash, Ripple, Ethereum, Monero and hundreds of other coins.



ANTI-RANSOMWARE TOOL

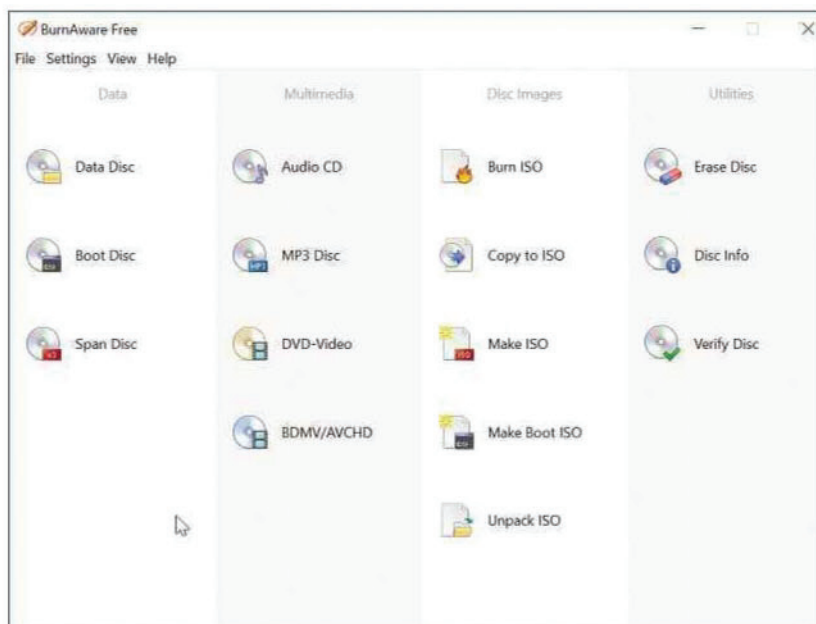
Acronis Ransomware Protection

bit.ly/acronis443

Min requirements: Windows 7/8+/10

File size: 19.7MB

Acronis's new tool helps to protect you against ransomware threats such as Petya, WannaCry, Bad Rabbit and Osiris, and will run alongside your existing anti-malware solution. Real-time monitoring means it can spot bad behaviour and stop it before any damage can be done, and the software can also help you restore any files that might have been infected or altered. It comes with 5GB of free cloud storage for backups, and will update your protected files every 15 minutes. You'll need to create a free account to use the program. See our Workshop on page 56 to find out how to make the most of it.



DISC-AUTHORING TOOL

BurnAware 11 Free

www.burnaware.com

Min requirements: Windows XP/Vista/7/8+/10

File size: 7.5MB

The free version of BurnAware has all the disc-authoring options you're likely to need. It can write to CDs, DVDs and Blu-rays, produce audio discs and video DVDs, create and burn image files, erase rewritable media, and make bootable ISOs and backup discs. The latest release gains a tool that lets you view and extract files from ISO images. You can associate ISO files with BurnAware, so that double-clicking an ISO file will open it in the program. You can now incorporate HD audio tracks into CD compilations, and there's an option to use the original disc name in new sessions (multisession disc). Make sure you decline the bundled junk during installation.

PRINTING TOOL

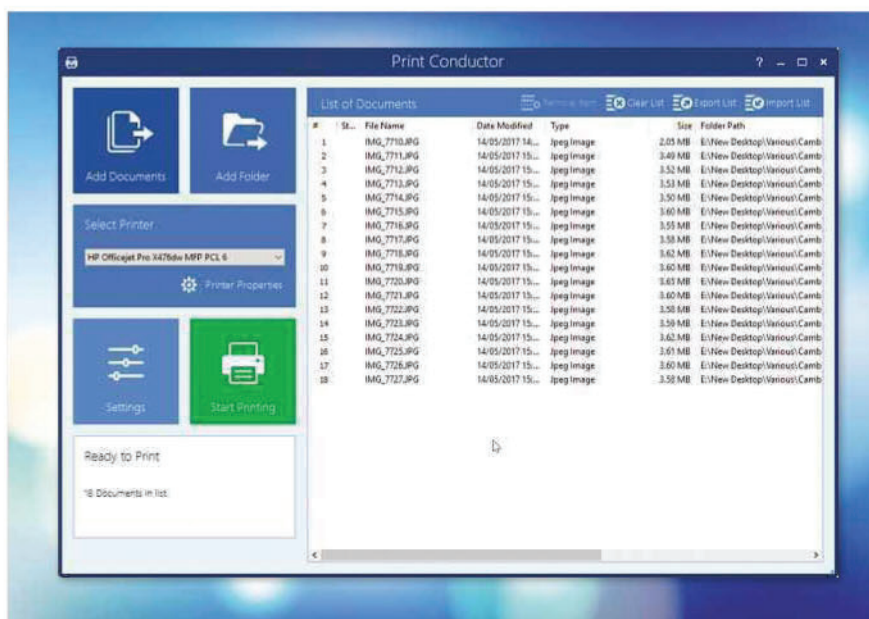
Print Conductor 6

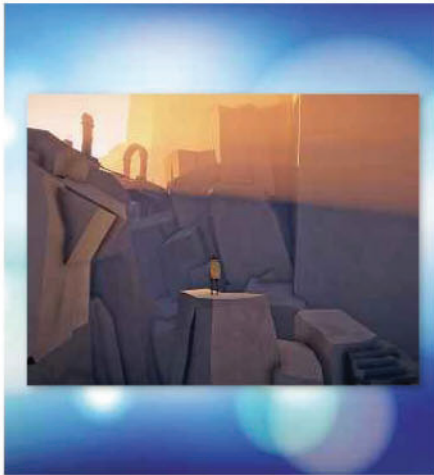
www.print-conductor.com

Min requirements: Windows XP/Vista/7/8+/10

File size: 62.8MB

Print Conductor is a useful tool for anyone who needs to regularly print large numbers of files. All you need to do is drag and drop the files to the program window, then select your printer in the drop-down menu and click Start Printing. The latest version has an optimised printing engine and now supports more than 70 different document and image file formats. You can add crop marks for PDF, Word, and Excel documents and images, validate digital signatures when printing PDF files, and pause the batch-printing process at any set point. See our Workshop on page 57 to learn more.





GAME

The World Begins With You

bit.ly/theworld443

Min requirements: Windows 7/8+/10 or MacOS **File size:** 298MB

The World Begins With You is a gorgeous and very atmospheric exploration game that owes more than a little to the popular third-person action-adventure ICO. It begins with you waking up in a prison cell, but seconds later you're free, and able to begin exploring the world around you.

Don't install...

Free Video Flip and Rotate

www.dvdvideosoft.com

Min requirements:

Windows XP/Vista/7/8+/10

File size: 32MB

This is a useful free tool for flipping and rotating videos that you've captured sideways or upside down, but unfortunately it comes bundled with adware called InstallCore. This foists unwanted junk on your computer unless you're very careful to deselect it during installation, so we'd suggest opting for a cleaner program.



...Install this instead

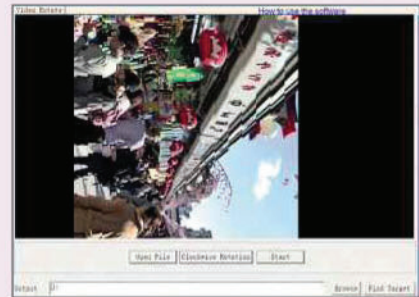
Free Video Rotator

bit.ly/rotator443

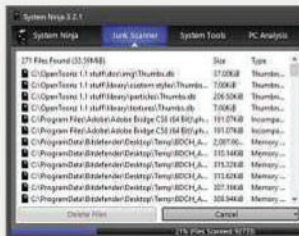
Min requirements: Windows XP/Vista/7/8+/10

File size: 7.4MB

Videos that you capture using your smartphone's camera sometimes display incorrectly – either upside down or sideways. This can be fixed by importing the file into a video editor, but using an advanced tool to fix such a simple problem seems like overkill. Free Video Rotator rotates your clips in 90-degree steps – just load your video and click the Clockwise Rotation button until it looks right (the program only displays the first frame, but this should be enough to check the new orientation). Enter an output location and click Start to save the corrected movie.



UPDATED | New tweaks and fixes for your favourite free programs



SYSTEM CLEANER

System Ninja 3.2.1

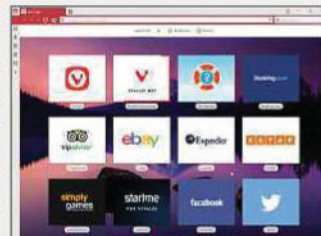
singularlabs.com

Min requirements:

Windows XP/Vista/7/8+/10

File size: 2.3MB

System Ninja removes all manner of junk from your PC. This update adds an Open File Location option to the process manager's context menu. It also improves installation path detection in the App Uninstaller and handling of Windows Store apps in the process manager.



BROWSER

Vivaldi 1.14

vivaldi.com

Min requirements: Windows

XP/Vista/7/8+/10, MacOS or

Linux

File size: 45.9MB

This Chrome-based browser comes from the former CEO of Opera. The latest version introduces a vertical reader mode for a clutter-free reading experience and adds Markdown support for Notes, rearrangeable Web Panels, and the ability to reorder search engines.



PHOTO EDITOR

Fotor 3.4.1

bit.ly/fotor443

Min requirements: Windows

XP/Vista/7/8+/10

File size: 256MB

Fotor is a powerful image editor and photo-collage maker. The latest release optimises speed and stability, and adds vertical distort, horizontal distort and lens distort functions in the crop module, as well as a texture function and noise reduction. It also improves portrait touch-up.



SECURE BROWSER

Tor Browser 7.5

bit.ly/tor443

Min requirements:

Windows 7/8+/10, MacOS

or Linux

File size: 51.2MB

Tor Browser safeguards your online privacy, using the Tor network to disguise where you're browsing from and keep you anonymous. This version adds security updates to the Firefox code, and parts of the interface have been given a makeover, too. ■

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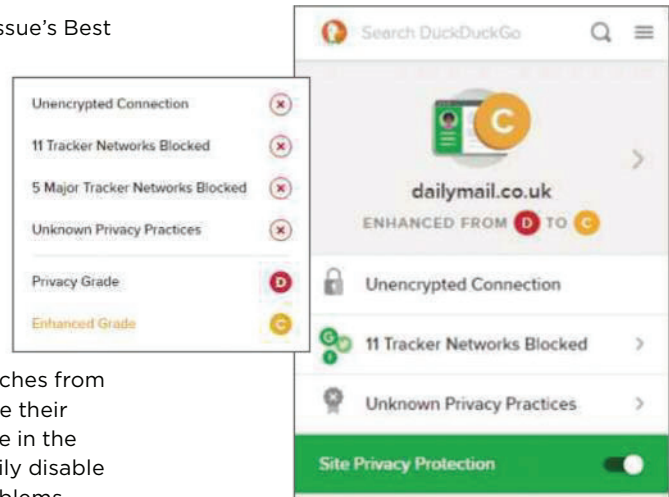
Best New Browser Tools



CHROME

Protect your privacy using DuckDuckGo

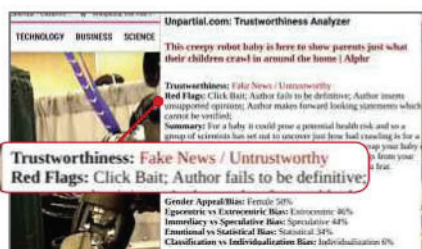
We raved about DuckDuckGo's updated mobile apps in last issue's Best Free Apps section, but its excellent new browser extension deserves a write-up of its own. Available for Chrome (bit.ly/duckchrome443), Firefox (bit.ly/duckfirefox443) and Safari (bit.ly/ducksafari443), DuckDuckGo Privacy Essentials offers a reliable way to protect your data online. The add-on rates every website you visit with a privacy grade (from A to F) that tells you at a glance how protected you are, based on the number of hidden tracker networks, whether your data is encrypted and the site's privacy practices. You can click these categories for more information, such as seeing the names of the trackers and learning what the site does with your data. A private-search box prevents your searches from being tracked and stored, and DuckDuckGo forces sites to use their secure HTTPS versions where available (improving their grade in the process). The extension works automatically, but you can easily disable protection or add sites to a whitelist if you encounter any problems.



Detect fake news stories on websites

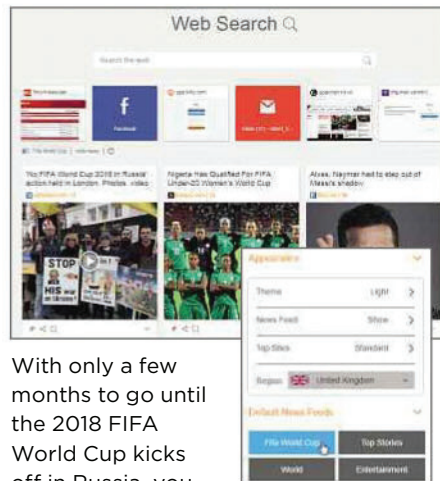
Fake news was everywhere last year and despite companies such as Google and Facebook promising to tackle the problem – if anything, it's getting worse. A new Chrome extension called Unpartial Truthiness Analyzer (bit.ly/unpartial443) aims to prevent you from being hoodwinked by spurious stories by scanning what you're reading for signs of fakeness. Just click its toolbar button to view its analysis of the current article, which it rates for trustworthiness and marks with red flags if the author fails to be definitive, inserts unsupported opinions or is being parodic or satirical. The add-on also provides a summary of the content and 'psychographics' data, such as whether the article is targeted at men or women, is biased towards emotion or statistics, and is generally egocentric or 'extrocentric' (whatever that means).

We found some of its conclusions questionable – flagging legitimate



stories as fake and vice versa – but the summaries are interesting to read.

Follow the World Cup on your new tabs



With only a few months to go until the 2018 FIFA World Cup kicks off in Russia, you can get yourself in the mood for international football action by installing World Cup Tab - Russia 2018 (bit.ly/worldcup443). This extension revamps your New Tab page to display the latest World Cup news, videos, rumours and gossip, providing speedy access to information about teams, players, FIFA ratings and ticket ordering.

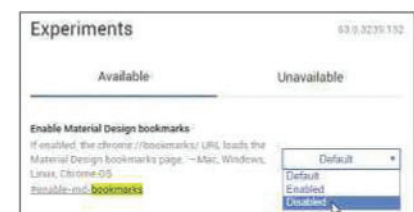
Once the tournament begins, opening new tabs will show real-time scores and video highlights of World Cup matches. In the meantime, you can view stories

from other news sources on topics of your choice. The add-on can be customised with different themes and layouts, and items can be shared by email or social media, and 'pinned' for future reference.

Restore Chrome's old Bookmark manager

Google has been gradually applying its Material Design to Chrome to make the browser look more modern, and the Bookmark manager is the latest section to undergo the transformation. One less welcome change is that URLs no longer appear when you hover your mouse over an entry, so if you prefer how your bookmarks were presented before, you can undo the change.

Type `chrome:flags` into the address bar, press Enter and search for bookmarks. Click the menu next to 'Enable Material Design bookmarks', choose Disabled and restart Chrome to revert to the old Bookmark manager.



This fortnight's most useful tips and add-ons to help you get the most from Chrome, Firefox, Opera and more



FIREFOX

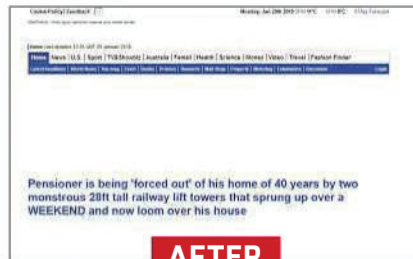
Block all images on all websites

Photos undoubtedly make websites look more interesting, but they can also slow page-loading times, especially on sites that cram every article with as many large pictures as possible (this means you, Mail Online). You can boost your browsing speed and reduce your data usage by installing a new Firefox add-on called Image Block X (bit.ly/imageblock443), which removes all photos and other illustrations from web pages. Just click its toolbar button to instantly turn image blocking on and off, for every site.

You can set pages to reload automatically after you've enabled or disabled the add-on, or refresh them manually. Image Block X also filters static adverts, and it certainly manages to make the web much less annoying.



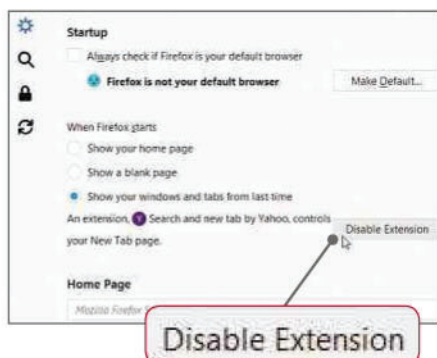
BEFORE



AFTER

Discover what's changed your settings

If you've ever had your New Tab page, homepage and default search engine hijacked by a dodgy add-on, you'll know how tricky it can be to identify and remove the culprit. A new feature in Firefox 58 makes things easier by telling you exactly which tool is responsible for changing your settings, so you can disable or remove the offending extension. Go to Tools, Options, General and you'll see details of the add-on that's overriding your default settings. Click the Disable Extension button to get rid of it, then do the same on the Search page to restore your preferred search provider.

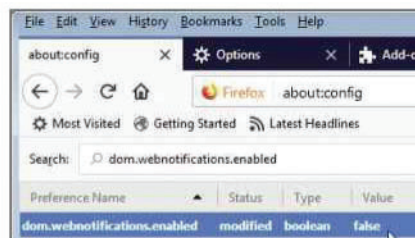


Disable Extension

Block website notifications for good

Firefox 59, due on 13 March, will let you stop websites asking your permission to show push notifications – an option that no sensible web user ever agrees to. This setting will be available by going to Options, Privacy & Security, Permissions, where you can click the Settings button next to Notifications and select 'Block new requests asking to allow notifications'.

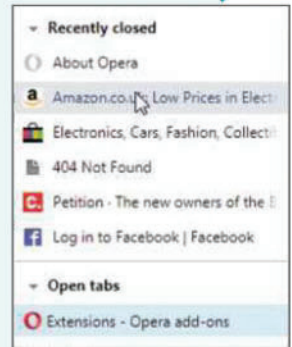
Until then, you can disable notification prompts using a simple browser tweak. Type `about:config` into the address bar, press Enter and agree to the 'dragons' warning. Find the entry 'dom.webnotifications.enabled' and double-click it to change its value to 'false'. This will block all site notifications until you reset its value to 'true'.



OTHER BROWSERS

Navigate Opera tabs more easily

The 51st version of Opera introduces several useful new features that make it easier to switch between tabs and navigate within them. Clicking the Tabs menu in the top-right corner now opens two collapsible lists showing your recently closed and currently open tabs, so you can quickly jump to a particular page, even if it's no longer loaded. Equally handy is the option to jump straight from the bottom of a long web page back to the top, simply by clicking the tab. Clicking it again takes you to the point where you left off.

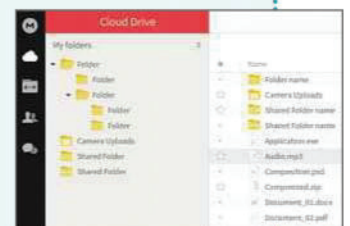


Upload files to Mega in Edge

If you're not keen on Microsoft's online storage service OneDrive, you'll be pleased to hear there's now another option for its Edge browser. A new extension for Mega (bit.ly/mega443) gives you 50GB of free cloud storage (compared to OneDrive's 5GB), and makes uploading and downloading files to and from your account much quicker and easier.

You can also stream music and videos directly from

Mega, and chat to other users. Mega offers end-to-end encryption, so nobody can access your files without your permission.





Best Free Apps



App of the Fortnight

WEB BROWSER

Cake Browser

bit.ly/cakedroid443

bit.ly/cakeios443

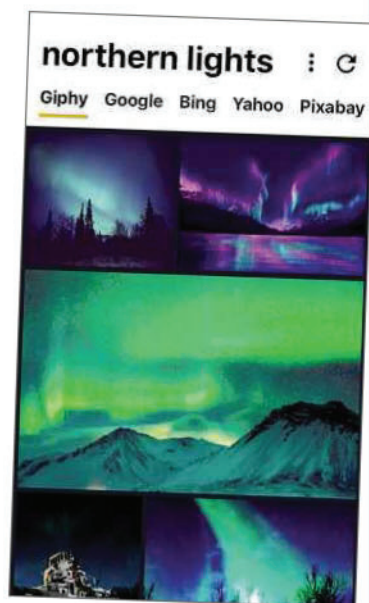
6 10

NEW

Most of us tend to stick with the default web browser that comes with our mobile device – whether it's Safari or Chrome – but this means missing out on all the latest features that alternative options have to offer. Last issue, for example, we looked at DuckDuckGo's excellent privacy-focused browser, and this time a new browser called Cake (for reasons that aren't immediately obvious to us) earns our App of the Fortnight accolade, thanks to some rather brilliant innovations.

Cake has been designed from scratch with smartphone users in mind, so it's not just a desktop browser that has been dumbed down for smaller touchscreen devices. It provides all the features you might expect – tabs, bookmarks and so on – as well as some useful extras, including a built-in ad blocker.

The browser's unique selling point, however, is its inventive approach to searching the web. Like other browsers, it uses Google or Bing as its search engine, but when you perform a search, it skips the results page and instantly loads the top result on the list. It loads further results in the background, which you can view by swiping left. This means you no longer have to tap the Back button to return to the search index for the next result in the list – you can simply swipe back and forth through the results. If you want to see the index page, you can swipe back from the first result to view it. You can even customise your searches so that Cake loads results from your favourite providers first, to help ensure the results are more relevant to you.



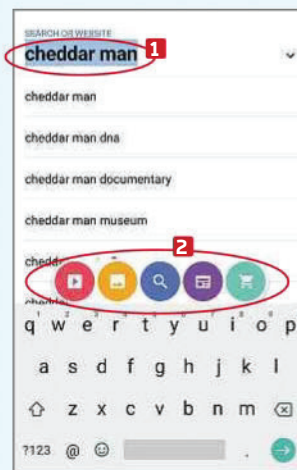
Our rating



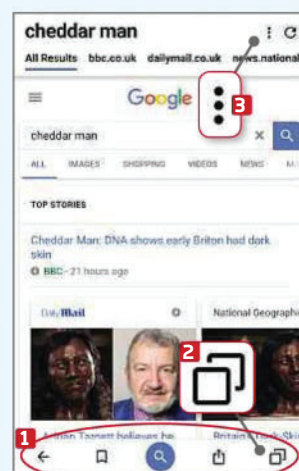
MINI WORKSHOP

Search the web smarter using Cake Browser

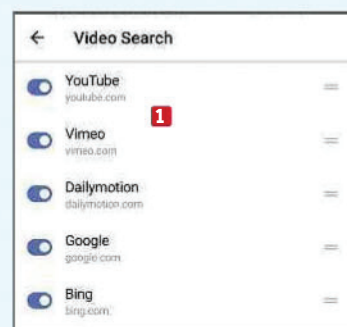
1 Tap the search box at the top of Cake Browser, then type your search query. **1** The icons along the top of the keyboard **2** let you carry out specific types of search – Video, Images, General, News and Shopping. Tap the icon for the type of search you want, and Cake will load the first result. Swipe left for further results. Swipe right to see the search index page.



2 The icons along the bottom of the screen **1** provide more traditional browser controls, including buttons for Back, Bookmark and Share. Press the icon with two interlocking squares **2** to open a new tab. Tap the three-dot menu button in the top-right corner **3** for more options – here, for example, you can toggle the ad blocker on and off.



3 To make the search results more relevant to your interests, you can customise them by reordering the search services so that your preferred providers are at the top of the list. Carry out a video search, for example, then tap the three-dot menu button and select 'Customize Video Search'. A list of search providers appears. **1** Tap and drag them into the order you want.



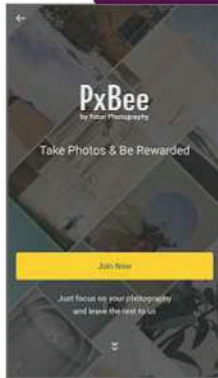
This fortnight's top free and paid-for apps for Android, iOS and Windows phones and tablets

PHOTOS

Fotor

bit.ly/fotordroid443
bit.ly/fotorios443
 (varies) 

Fotor was already one of the best free photography apps around, but now it's even better, both in its Android and iOS versions. For those who are unfamiliar with Fotor, it's like a hybrid between Flickr, Instagram and Snapseed that lets you take, edit, enhance and share your photos and view other people's. You can create collages and even enter your best shots into competitions. Notable new features in this update include the ability to upload multiple photos at once, and the option to sell your photos through Fotor's own professional licensing service, PxBee.



Our rating

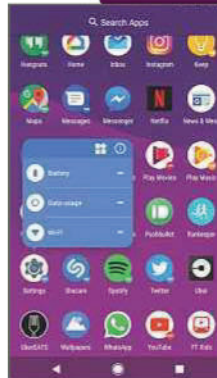


LAUNCHER

Action Launcher

bit.ly/action443
 5

This popular free Android launcher lets you spruce up your device with a smart new Oreo-style interface and customise the way it works. This update makes certain design elements, such as the shape of icons on the home screen, more consistent, although many of the interface's key improvements will only benefit users who buy the Plus upgrade (£4.49) and AdaptivePack (£4.29) add-on. Action Launcher now supports Adaptive Zoom animation, which makes app icons move to the centre of the screen when apps are launched. It also lets you import layouts from other launchers.





Our rating



PHOTOS

Motion Stills

bit.ly/motiondroid443
bit.ly/motionios443
 5.1 

Developed by Google's research labs, Motion Stills is an ingenious free tool that lets you capture videos on your phone or tablet and transform them into looping GIFs and video collages that you can share with friends and family. It works with Apple's Live Photos feature, and the latest update lets iPhone and iPad users capture motion stills from within the app. Other enhancements in the new version include the ability to export collages as GIFs in iOS and a new AR mode in Android that lets you add animated characters to your clips.



Our rating

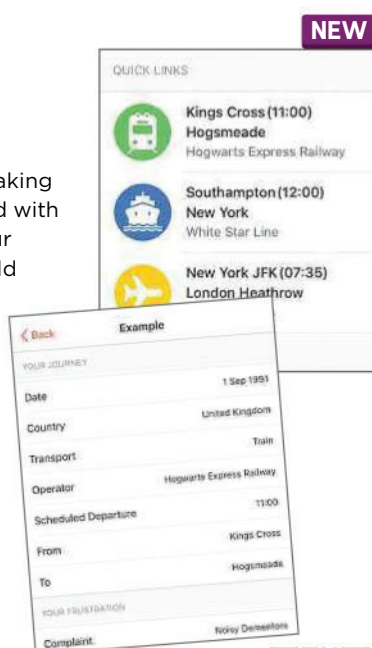


TRANSPORT

GrumpNow

bit.ly/grumpnow443


Fed up with train delays making you late for work? Annoyed with your airline for shoving your carry-on luggage in the hold at the last minute? Well, now you can voice your dissatisfaction instantly with help from GrumpNow, which is currently available for iOS only. Add a journey, then select the type of complaint you want to make and send it to the appropriate transport operator. You can opt to shame them by sharing your complaint on social media or view complaints from similarly cheated-off passengers. The app lets you 'grump' up to five times a day and twice for the same journey.





Our rating

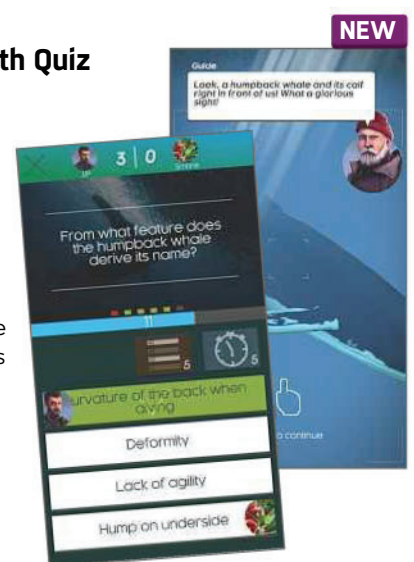


QUIZ

The Official BBC Earth Quiz

bit.ly/earthdroid443
bit.ly/earthios443
 4.1 

If you loved the BBC's recent series *Blue Planet II*, you'll want to dive into this new quiz app. Its aim is to engage fans of the broadcaster's many brilliant natural history programmes – including *Planet Earth*, *Life and Africa* – testing your knowledge with more than 4,000 questions drawn from these series. You can choose to play in single or multi-player mode and correct answers unlock photos from the BBC's wildlife archive. Cool animations of various animals and locations accompany the questions. The app is free, though you can pay to remove ads (£2.69) and buy a 'season pass' (£4.39) to unlock extra levels.



Our rating



5 NEW APPS WORTH PAYING FOR

COOKING

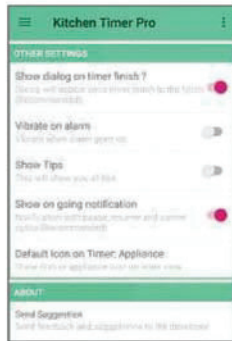
Kitchen Timer Pro

bit.ly/kitchen443

Price: 59p

 4.2

With this essential kitchen aid, you'll never accidentally hard boil your egg or overcook pasta again. The recently updated app displays timers on your lock screen – useful if your hands are covered in flour.



a Canadian university study, this cute sequel to the original award-winning game uses fun, friendly physics puzzles to help teach children aged 6-12 the concept of fractions.

BRAIN TRAINING

MathRoll

bit.ly/mathroll443

Price: 99p

 4.1

Whether you're looking for a fun way to improve your maths skills or you just like number puzzles, this cool-looking, minimalist game involves catching the correct numbers to complete the sum.



GAME

Sonic CD Classic

bit.ly/soniccd443

Price: £1.99

 4.2

One of Sonic's better outings, this game has been re-released as part of the Sega Forever classic games collection. It's definitely worth a spin!



WEATHER

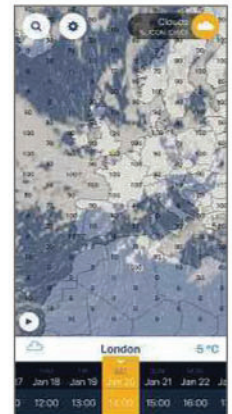
Ventusky: Weather Maps

bit.ly/ventusky443

Price: £2.99

 9

Avoid making prediction gaffes of Michael Fish-esque proportions with this weather app, which displays highly detailed animated maps showing wind direction, air pressure, precipitation and more. This latest update adds weather charts and webcams.



KIDS

Slice Fractions 2

bit.ly/slice443

Price: £3.99

 8

Designed in conjunction with



Kitchen Timer Pro



Sonic CD Classic



Slice Fractions 2



MathRoll



Ventusky: Weather Maps



✗ Don't install...

Property for Sale in UK

bit.ly/property443

Phonier than the phoniest estate agent, this app claims to help you buy and sell property around the country. Instead, it spams you with ads and provides nothing more than a crude list of links to sites such as Country Life, Foxtons and Gumtree, which then open in a separate browser anyway. Moving house is one of the most stressful things you can ever do, so make it slightly less stressful by avoiding this useless app altogether.



...Install this instead

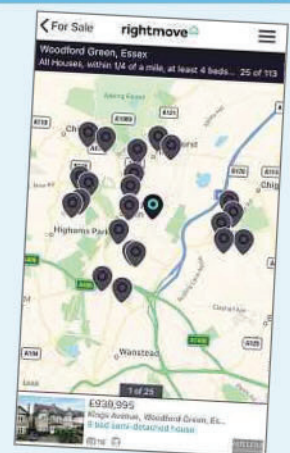
RightMove

bit.ly/rightdroid443

bit.ly/rightios443

 4.2  9

Zoopla and OnTheMarket are excellent property services – and if you're buying a home, you should have these apps installed, too – but RightMove is the undisputed king of property-search apps. It claims to cover around 90% of the market, and the app itself is easy to use. It automatically logs your searches, making it easier for you to check your areas of interest. The Map View is brilliant if you're looking for a property in a specific location – near a station, for instance – and the Nearby Sold Prices tool is very handy for getting an idea of how much houses in the area actually sell for. It's very useful for rental properties, too. ■





Take a Screen Break

Give your eyes a rest from your browser by taking our fiendish fortnightly challenges. Can you guess our website emoji and solve our word puzzle?

**WIN A
WEB USER
BACK ISSUES
DISC 2017**

Email your answers to
webuser@dennis.co.uk
- one correct entry
will win



CAN YOU GUESS THE WEBSITES FROM THE EMOJI?

1



2



3



4



5



6



WEB USER WORD PUZZLE

Enter the answers in the grid to reveal a tech-related term in the highlighted column

- 1 US city, largest in Maryland, setting for TV series *The Wire*
- 2 Director Sam and actor Zoë
- 3 Japanese motorbike manufacturer
- 4 Jewish house of worship
- 5 Yellow meadow flower, common garden weed
- 6 Style of music associated with Slade, T Rex and Alvin Stardust (4,4)
- 7 Last leader of the Soviet Union, presided over Glasnost
- 8 Ground-nesting coastal wading bird with characteristic long bill

1								
2								
	3							
4								
5								
	6							
7								
8								

COMPETITIONS

WIN 1 OF 6 Vegas Movie Studio 14 Platinum

The 14th version of Vegas Movie Studio has 'Multicam Production', letting you switch between four different camera angles with a click of your mouse. You decide which angle to show and when. To enter, email your address to webusercomp@dennis.co.uk with 'vegas' in the subject line. For more information visit www.vegascreativesoftware.com and 'like' www.facebook.com/vegascreativesoftware.



**WORTH
£69.98
EACH**

WIN 1 OF 6 Painter Essentials 6

Corel's Painter Essentials digital art studio is designed for hobbyists, photo enthusiasts and anyone who wants to create incredible artwork. New tools include a 'mirror' mode to automatically create the other half of symmetrical drawings. To enter, email your address to webusercomp@dennis.co.uk with 'painter' in the subject line. For more information visit www.painterartist.com and follow @CorelPainter on Twitter.



**WORTH
£34.99
EACH**

? FAQ

Everything you need to know about the most interesting new technology trends and events

Our guide to WPA3

Wireless networks are about to get a lot safer, thanks to a new Wi-Fi security protocol. **David Crookes** explains all



What is it?

Wi-Fi Protected Access 3 – or WPA3, for short – is an improved wireless security protocol designed to make it more difficult for criminals to hack a wireless network. It was announced to great fanfare at the recent Consumer Electronics Show in Las Vegas, where the Wi-Fi Alliance (see opposite page) said the technology would have four major advantages over the current standard, WPA2. As such, it is set to replace current protocols in the very near future.

Something to get excited about then?

Well, maybe excited isn't the right word, but it's certainly something to look forward to. That's because WPA3 is set to solve known problems with WPA2 – a protocol you'll find built into pretty much every wireless device you can get your hands on today. Most importantly, it will be more secure, which is good timing given the widespread Wi-Fi exploit that WPA2 suffered last year.

What happened to WPA2?

A serious vulnerability dubbed KRACK – short for Key Reinstallation Attack – was found in WPA2 last October, leading to fears that it could be exploited by hackers as a means of reading and stealing data and passwords. It worked by manipulating part of the four-way 'handshake' that WPA2 uses to ensure the correct password is used, and made lots of people realise

that their wireless networks were not as secure as they believed them to be.

Is that still a problem?

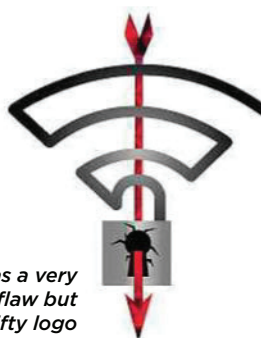
KRACK left many routers and devices vulnerable but it was quickly patched before anyone got around to maliciously exploiting it. Microsoft protected Windows with a security patch in October; Apple swiftly released iOS 11.1 to fix issues affecting the iPhone 8 and above; and Google addressed the problem for its devices in the first week of November. The Wi-Fi Alliance continues to test for the vulnerability, too, advising Wi-Fi users to always install any updates from device manufacturers.

So what does WPA3 do?

To some extent, WPA3 builds on WPA2 and, like its predecessor, it determines what happens when a password-enabled connection is made to a closed Wi-Fi network. It establishes the necessary protocols that protect your router and performs the aforementioned 'handshake' between the devices at your end and those of the network you're joining – one that effectively involves confirming passwords and ensuring strong encryption. Without getting bogged down in the technicalities, the ultimate aim is to stop hackers



WPA3 was announced at CES 2018 and the crowds were clearly impressed



KRACK was a very worrying Wi-Fi flaw but it had quite a nifty logo



WPA3 performs a handshake between wireless devices (rather than people)

WPA3 will make it easier to connect devices like the Echo to your network



Make sure your devices are officially certified by the Wi-Fi Alliance

intercepting your wireless communications. WPA3 looks set to do a much better job than before.

What else does WPA3 add?

Perhaps the important development is the way WPA3 will protect your data when you're using the internet on an open Wi-Fi network. These 'hotspots' offer web access in airports, coffee shops and other public places, but they are actually very risky because anyone can connect to them and the data that is sent back and forth isn't encrypted. It only takes a bit of technical know-how to intercept the traffic and to view - in plain text - the data that's being sent and received. WPA3 will use something called Opportunistic Wireless Encryption to encrypt the data of each individual user, scrambling the connection between the router and every device on the network.

Will it make guessing Wi-Fi passwords harder?

Yes. WPA3 will offer protection for weak passwords so even if you have chosen a string of letters or numbers that fall short of the recommended complexity - 'password' or '123456', for example - you won't be left wide open. That's because it will be far more difficult for hackers to carry out a brute force dictionary attack (trying lots of possible combinations or using a compiled list, until they finally manage to break through). In cases where there have been several failed

login attempts, the Wi-Fi authentication process will be blocked.

Will it make configuring devices more difficult?

No - in fact, it should be easier. Technology has moved on and the way we interact with it has changed, and WPA3 aims to reflect that. If you have a screen-less device, such as a standard Amazon Echo, the Wi-Fi Alliance says configuration will be simpler and more secure. WPA3 will also use devices such as smartphones to get gadgets on Wi-Fi networks with ease. However, the precise details have yet to be revealed

What level of security will WPA3 use?

WPA2 uses 64-bit or 128-bit encryption, but WPA3 will improve this by having a 192-bit security suite - a technology it is aiming at governments, industry and defence. According to the Wi-Fi Alliance, this will bring "the latest in cryptographic strength". The Wi-Fi Alliance has also suggested measures you can take to beef up your own security: enable WPA2 now and then ensure WPA3 is enabled when it becomes available; change the default settings of your equipment; install the latest security updates; and only buy Wi-Fi devices that have the Wi-Fi Certified logo (you can search for such products at www.wi-fi.org/product-finder).

Does this mean the end of WPA2, then?

Actually, no. Even though WPA2 debuted in 2004 and WPA3 is much more secure, the Wi-Fi Alliance says it will continue to support and enhance the earlier technology. The latest configuration of WPA2 is coming soon with the promise of continued cutting-edge protections that include new security checks. That said, while WPA2 needs to hang around for the switch to WPA3 to take place, there will come a time when it falls by the wayside, just as plain old WPA did. Indeed, the Wi-Fi Alliance has said that it will require all new devices wanting a Wi-Fi Certified mark to include support for WPA3.

How do I get WPA3?

By waiting. We expect to see WPA3-labelled routers and other wireless devices launched by the end of this year. There may well be some updates available for existing devices, so long as the manufacturer can be bothered with the hassle of getting its current tech certified for WPA3. But if you do intend to take the plunge and go for a router that supports the new protocol, then bear in mind that you'll only benefit from the new features if *all* the devices you connect to it are compatible. The good news, however, is that you'll still be able to use WPA2 if you need to.



Even wallies with weak Wi-Fi passwords will be protected by WPA3

WHAT IS THE WI-FI ALLIANCE?

The new WPA3 wireless protocol has been designed by the Wi-Fi Alliance - a non-profit organisation that was set up to promote and certify Wi-Fi products (www.wi-fi.org). It formed in 1999 as the Wireless Ethernet Compatibility Alliance and changed its name three years later, and owns both the Wi-Fi trademark



and the Wi-Fi Certified logo. It also works on software updates to patch flaws while ensuring products conform to standards of interoperability -

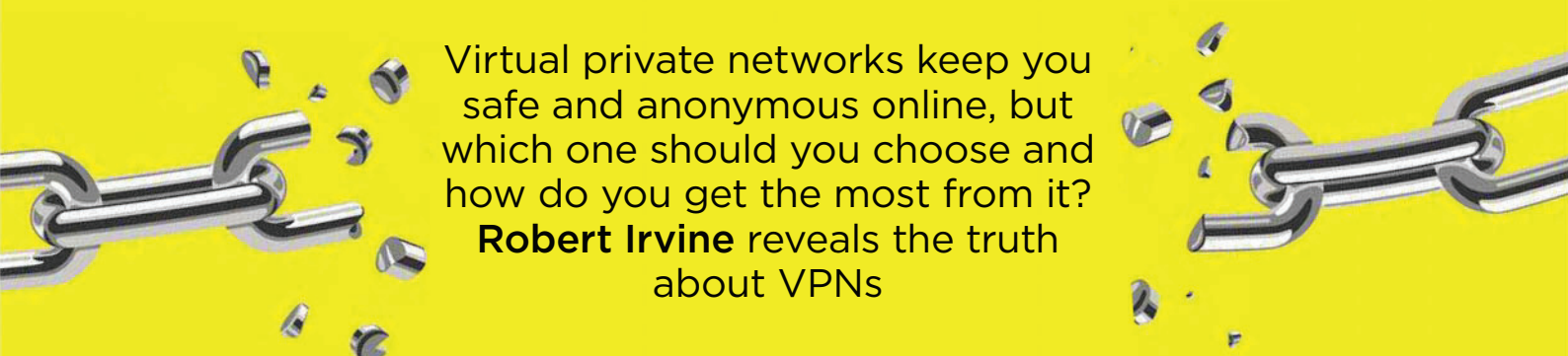
a job that is doubtless made easier by the involvement in the organisation of a host of powerful tech companies, including Apple, Microsoft, Samsung, Sony, LG, Intel, Cisco and Dell.

STAY 100% ANONYMOUS

VPNs

THE ULTIMATE GUIDE

COVER
FEATURE



Virtual private networks keep you safe and anonymous online, but which one should you choose and how do you get the most from it?

Robert Irvine reveals the truth about VPNs

Virtual private networks (VPNs) were primarily developed for business use, as a means of allowing employees to access their company network remotely and securely. But the recent rise in cybercrime, government snooping and internet restrictions means that more and more people are turning to VPNs as a way to stay safe and anonymous online – not because they’re doing anything wrong, but because it’s the wisest action to take.

In the same way that antivirus software is no longer an option but a necessity, a VPN has become a tool that no

sensible web user should be without. From shopping and banking to photos and chat, we share so much personal data online that our security and privacy have become paramount, and the encryption and invisibility offered by a VPN make it a vital security tool.

In this feature, we explain exactly why you need a VPN, what you can do with one and the best service to use based on your web-browsing needs. We also reveal what to watch out for when choosing a VPN, and how to tweak your settings for the maximum benefit. The sooner you start using a VPN, the better – don’t wait until it’s too late!

YOUR VPN QUESTIONS ANSWERED

Want to know how a VPN works and why you should be using one? Read on as we explain the basics behind this essential security tool

What is a VPN?

A VPN – which stands for virtual private network – is a tool that allows you to connect to another network remotely, as if you were accessing it directly. It's most commonly used as a way to conceal and protect your personal data when accessing the internet, so you can browse the web anonymously.



What information does a VPN hide?

Most importantly, a VPN conceals the IP address of your computer or mobile device. By default, websites and apps detect your IP address – a unique string of numbers that reveals your approximate location, internet provider, which operating system and browser you're using, the size and resolution of your screen, and a whole host of other details that could be used to build a profile of you.

Not only that, but when you use an unencrypted connection, you run the risk of any data you send via the web being intercepted, including private correspondence, bank details and other sensitive information.

How does a VPN protect me?

To protect your privacy, VPNs use a process called 'tunnelling', which forms a secure, encrypted connection between your device and the VPN server. By encrypting the data in transit, the VPN prevents 'man-the-middle attacks', in which criminals intercept

and modify the data packets.

The specific types of security protocols and encryption used by VPN providers vary. IPsec, SSH and OpenVPN are among the most common protocols, and many companies now offer AES 256-bit encryption and SHA2 authentication.

Who should use VPNs?

In an ideal world, everybody should be using VPNs – the benefits for security and privacy far outweigh the cost and inconvenience in most situations. However, there are some people who need a VPN more than others.

One of the most common uses for VPNs is to circumvent blocks and restrictions on web content by totalitarian regimes. Many Chinese internet users, for example, use VPNs to bypass the so-called Great Firewall, and the technology is also used by citizens of Middle Eastern countries where social-media sites such as Twitter and YouTube are heavily monitored or banned outright.



Privacy advocates are also strongly in favour of VPNs. The Electronic Frontier Foundation (www.eff.org) recommends their use in thwarting government-backed web-surveillance programs, and many whistleblowers, protest groups and other activists rely on VPNs for their own protection.

Another important use is for security. Public Wi-Fi hotspots are notoriously unsafe, and allow hackers to access your data with very little effort if you don't take precautions. Anyone sharing

sensitive or valuable data would be wise to use a VPN when accessing the internet, because it will protect them against myriad different attacks.

Some people also use VPNs to circumvent geo-blocking, pretending to be in another country so they can stream and download content that isn't available in their own location.

Should I use a free VPN?

When faced with the monthly fees demanded by most VPN providers, it may be tempting to look for a free version. However, many 'free' VPNs come with substantial strings attached. For example, some cover the costs of running their service by selling usage data to third parties, while others only offer a few servers, which leads to slow, congested traffic.

Additionally, free VPNs usually offer limited features and security when compared to paid-for options, which makes them significantly more restrictive and risky to use. However, as we'll explain later in this feature, there are reputable free VPNs available that may suit your needs if you're unable or unwilling to pay.

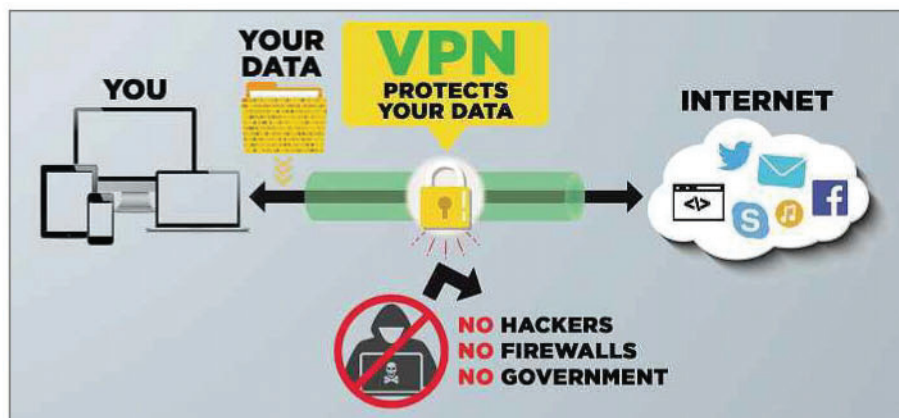
Can I set up my own VPN?

If you really don't want to spend money on a VPN, and you're pretty tech-savvy, there are ways to set up your own VPN server. This can be done using technology you may already have in your home.



Many routers (such as the Linksys WRT1900AC, pictured) include built-in VPN capabilities, which let you set up a home VPN with a minimum of hassle. You can also use third-party router firmware such as OpenWRT (openwrt.org) to add VPN support to routers that don't include it as standard.

Many NAS (network-attached storage) devices can also act as VPN servers, so if you've got one gathering dust, then this might be a good use for it. You can even install VPN server software on a traditional computer, though you need to ensure it's switched on at all times, or whenever you want to access the web securely.



A VPN protects your data by sending it through a secure tunnel to the internet

WHICH VPN SHOULD YOU USE?

Deciding which VPN is right for you depends on your specific browsing needs. Here, we round up the best tools for different purposes

BEST FOR EASE OF USE

TunnelBear

www.tunnelbear.com

What's so good about it:

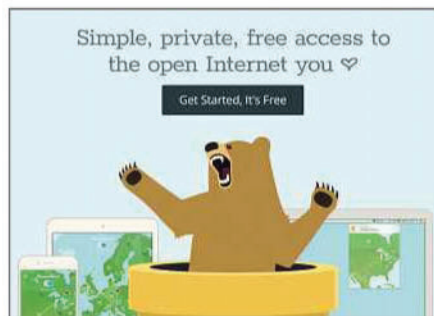
We've recommended TunnelBear so often in *Web User* that you're probably tired of hearing about it, but this ursine-themed VPN thoroughly deserves our regular praise. Its simple, friendly interface makes it the perfect choice for VPN novices, and it's available for multiple platforms, including Windows, MacOS, Android, iOS, Chrome and Opera, with the ability to connect up to five devices at once.

TunnelBear's Little version is completely free to use, and its unlimited Giant and Grizzly options are competitively priced, from \$5.99 (£4.23) per month (if you pay annually). All TunnelBear's plans offer connection to fast servers in more than 20 countries, use AES 256-bit encryption to protect your data and have a clever feature called GhostBear that lets you bypass VPN blocking.

We also like that TunnelBear responded to VPN privacy concerns by conducting a public security audit (bit.ly/tbaudit443) and fixing the detected "low-risk vulnerabilities", and that it doesn't log your activities.



TunnelBear is incredibly easy to use and lets you browse from 22 countries



TunnelBear is free but limits how much data you can use per month

What's not so good:

TunnelBear Little limits you to a meagre 500MB of free data per month, which will be rapidly eaten up by streaming and downloading. You can get an extra 1GB by tweeting about the service, but that's not much help if you don't use Twitter. Also, unlike some VPNs, TunnelBear gives you no indication of its servers' current speeds, so you can't see the fastest option available.

TRY THIS INSTEAD

CyberGhost

www.cyberghostvpn.com



Simple, versatile and armed with lots of features, CyberGhost is a reliable and speedy way to stay private and secure, providing instant connection to more than 1,300 servers worldwide. It recently dropped its free option in favour of a seven-day free trial, but there's a current deal that lets you sign up with the service for three years at just £2.40 per month.

BEST FOR FEATURES

NordVPN

www.nordvpn.com

What's so good about it:

Located in Panama, NordVPN ticks most of the essential VPN boxes. It doesn't log your activity, is located far from prying Five-Eyes governments (see boxout opposite for details) and offers unique features, such as double encryption.

Unusually, NordVPN has two types of automatic 'kill switch' – one that blocks all traffic if your VPN connection



NordVPN lets you connect up to six devices to its servers at the same time

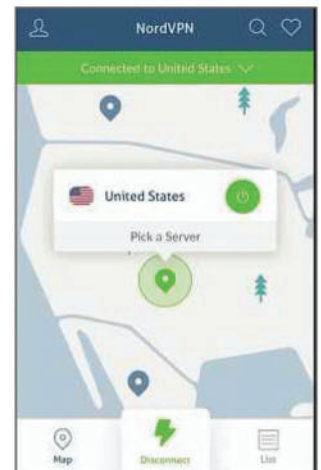
drops and another that closes specific sites and software.

You can connect up to six devices to the VPN simultaneously, choose from more than 3,050 server locations in 60 countries and bypass the geographical restrictions of popular streaming services, such as accessing US-only content from your Netflix account. NordVPN can be combined with Tor for maximum online privacy and was recently updated with a feature called CyberSec that blocks annoying ads, malicious websites and botnets. It also now activates automatically when you connect to Wi-Fi.

Available for Windows, MacOS, Android, iOS, Chrome and Firefox, NordVPN couldn't be more feature-packed if it tried.

What's not so good:

A monthly NordVPN subscription costs \$11.95 (£8.45), which is comparatively expensive, though this is reduced to \$5.75 (£4.06) or \$3.29 (£2.32) per month if you sign up to a one- or two-year plan. The free trial only lasts three days, and it's a bit of a pain to set up. Additionally, NordVPN's connection speeds are variable, but we like that you can choose to prioritise speed or security by deciding between 'superfast' and extra-secure servers.



Some of NordVPN's useful features can't be found elsewhere

TRY THIS INSTEAD

ExpressVPN

www.expressvpn.com



ExpressVPN is based in the British Virgin Islands, has servers in 94 countries and claims to be “the fastest VPN

on Earth”. Its host of powerful tools include a speed test and ‘split tunnelling’, which lets you control exactly which traffic is routed through a VPN server. It doesn’t keep logs, but charges a steep \$12.95 (£9.10) per month.

ideal for streaming, downloading and browsing in privacy. The free version lets you access servers in 11 countries, including the US, Canada, France, Germany and the UK – so you can use it to access iPlayer when you’re on holiday – and doesn’t log your data. Notable features include a built-in firewall and support for peer-to-peer file sharing.

What’s not so good:

As Windscribe itself says: “the Free version is awesome, but the Pro one is even better”, and paying from £2.87 per month (charged annually) unlocks faster connections (Windscribe is notably



Windscribe offers an impressive number of features for a free VPN

slower than many rival VPNs) and lets you choose from 50 countries. It’s also annoying that the ad blocker mentioned on the website is only available in the browser extension and not the Desktop VPN software.

BEST FOR VALUE

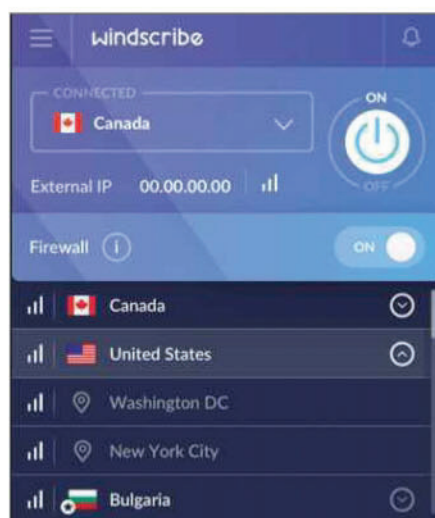
Windscribe

windscribe.com

What’s so good about it:

The free version of Windscribe gives you a whopping 10GB of bandwidth each month. You need to register your email address with the service to claim this generous allowance – but even if you don’t, you still get 2GB of data.

Windscribe can be installed on an unlimited number of desktop and mobile devices, in Chrome, Firefox and Opera, as well as on your router, Amazon Fire TV stick and Kodi box, which makes it



Windscribe gives you 10GB of monthly data and 11 server locations for free

TRY THIS INSTEAD

Hide.me

hide.me



Hide.me gives you 2GB of free data every month and you don’t need to install any software –

just configure the VPN in your Windows, Android or iOS settings. On the downside, it limits you to three locations (not including the US) and offers only “best effort” speeds unless you upgrade to its paid-for version.

WHAT TO WATCH OUT FOR IN VPNs

Virtual private networks are often touted as a totally reliable way to protect your privacy and stay anonymous online but, sadly, this is no longer true. Last year, it emerged that several VPN services had been logging details of their users’ activities, including sites visited, content downloaded and software used, such as BitTorrent clients.

What’s more, if the VPN is based in a country that’s part of the Five Eyes intelligence alliance (bit.ly/fiveeyes443) – Australia, Canada, New Zealand, the UK and the US – the company is obliged to hand over this collected user data to the authorities when requested. For example, last October, information provided by PureVPN was used in an FBI investigation that led to the arrest of a man in



VPNs in Five Eyes – or even 14 Eyes – countries may store and share your data

Massachusetts for cyberstalking his former roommate.

For this reason, it’s important to read a VPN’s privacy policy before you sign up, to find out exactly what data it gathers. Some services merely log IP addresses, data usage and

access times, to help them solve technical problems; but others go much further and actively share your browsing data with third parties, thereby defeating the whole object of using a VPN!

Look carefully, also, at whether the company is based in one of the Five Eyes countries – some privacy advocates go even further by suggesting you avoid Nine Eyes and 14 Eyes regions that now form part of the wider alliance (see bit.ly/eyeslist443 for the full list). This applies to where the service is actually based, not the servers it gives you access to.

However, unless you’re planning to do something particularly confidential or illegal with a VPN, there’s no harm in signing up with a service in an Eyes country, especially if its privacy policy is otherwise sound.

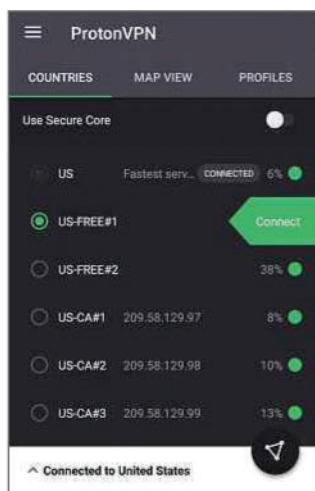
BEST FOR MOBILE

ProtonVPN

protonvpn.com

What's so good about it:

Most paid-for VPNs offer mobile apps alongside their Desktop software, but ProtonVPN's new tool stands out

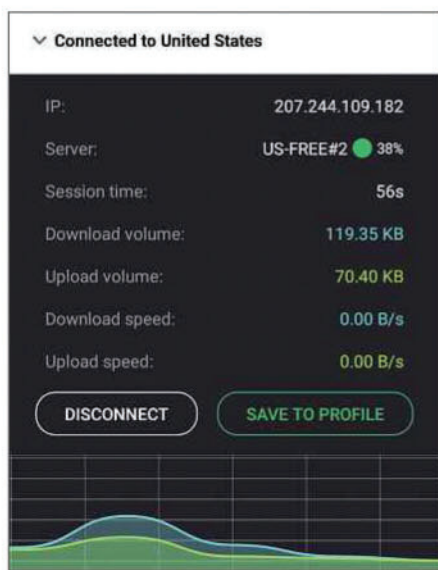


ProtonVPN is free for Android and has several servers to choose from

We particularly like that it shows you how much data you're downloading and uploading, and how quickly.

ProtonVPN is from the Swiss company behind encrypted-email service ProtonMail. Its Perfect Forward Secrecy cryptography ensures encrypted traffic can't be compromised. Also, Switzerland is exempt from global government data requests.

If you need more features, you can easily upgrade to the Plus version for \$8



ProtonVPN tells you how long you've been online and how much data you've used

because you can use it on your Android phone or tablet for free, without many of the usual caveats. This means no adverts to fund the app, no monthly bandwidth limit (unlike TunnelBear) and no logging and sharing of your data (unlike most free VPNs).

(£5.65) per month, which offers Tor integration and Secure Core technology to protect your traffic from network-based attacks.

What's not so good:

ProtonVPN's free service is slower than its paid-for options, can only be used on one device and limits you to servers in three countries: Japan, the Netherlands and the US. However, it's refreshingly upfront about these restrictions and provides a free trial, so you can see if you can live with its limitations. It's a shame there's no iOS app, although it's still possible to set up ProtonVPN on an iPhone or iPad by following the instructions at bit.ly/protonios443.

TRY THIS INSTEAD

Betternet

www.betternet.co



Available for Android and iOS, Betternet offers unlimited free VPN access and is very easy to use: simply

open the app, tap Connect and it instantly finds the 'optimal' server. On the downside, the free version is blighted by annoying ads, doesn't let you choose your locations and (anonymously) collects information about you.

BEST BROWSER EXTENSION

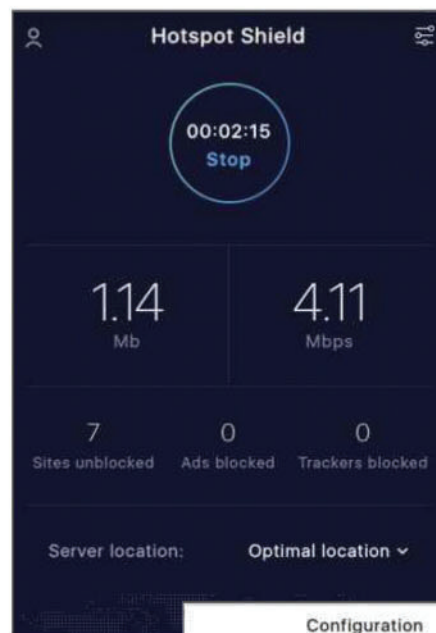
Hotspot Shield

bit.ly/hotspot443

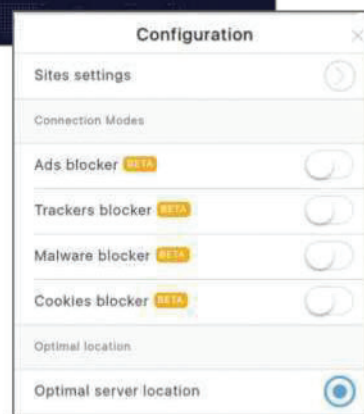
What's so good about it:

You don't need to be a Hotspot Shield subscriber to use its free Chrome extension; in fact, you don't even need an account with the VPN service. It offers all the basic features you need to cloak your IP address, location and identity, and access (some) blocked content, and is very easy to use – just install the add-on and click the On button. Connection speed is fair for such a lightweight free tool, and there are options to block ads, malware, cookies and trackers.

The free version won't let you use servers in the US, UK or France, but it covers 11 other countries including Canada, the Netherlands and India, places no limit on how much bandwidth you use and automatically connects you to the 'optimal' server location'.



Hotspot Shield's extension for Chrome is free to use, offers built-in blocking tools and connects to 11 servers



What's not so good:

As you'd imagine, this free extension isn't shy about nagging you to upgrade to the paid-for Elite version, which costs from £5.99 per month. The lack of a US server means you can't unblock US streaming services (the main reason most people use a VPN), and you can only use Hotspot Shield in Chrome and Vivaldi – we'd like to see a Firefox version, too.

TRY THIS INSTEAD

ZenMate

zenmate.co.uk



ZenMate was once our favourite browser-based VPN, thanks to its fast speed, powerful

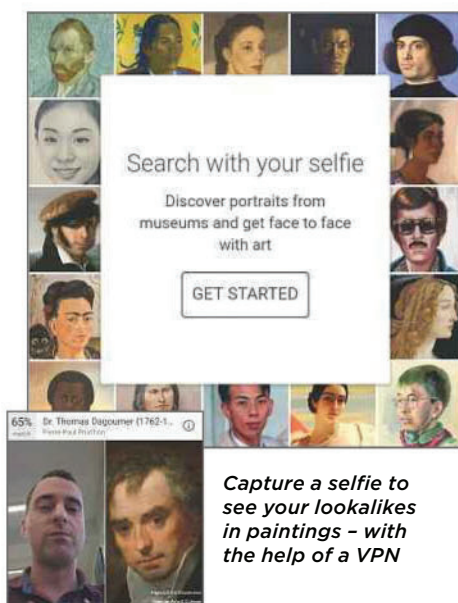
encryption and decent choice of servers. Sadly, you now need to open an account and choose a payment plan to use the Chrome or Firefox extension, with a 14-day free trial replacing the previously free but feature-limited option.

WHAT YOU CAN DO WITH A VPN

VPNs have many more uses than letting you browse the web anonymously and securely. Here are five of the best tricks that a VPN unlocks

Discover your artistic double using Google

Last month, Google added an intriguing feature to its Arts & Culture app called 'Search with your selfie'. This matches photos you take of yourself with 70,000 portraits in art galleries around the world, based on similarities such as the shape and size of the eyes, nose and mouth. Sadly, this fun option is restricted to Australia, Canada, India, New Zealand and parts of the US, which is where a VPN comes in handy. Install the app from Google Play (bit.ly/gacdroid443) or the Apple App store (bit.ly/gacios443), then launch your VPN and choose a US city – New York and Seattle both worked for us. Open Google Arts & Culture, swipe down the home screen and you should see the selfie function. Snap your mugshot and Google will find your five closest artistic matches. Mine was Dr Thomas Dagoumer (1762–1833), as painted by Pierre-Paul Prud'hon (no, me neither!).



View international versions of websites

Ever wondered what BBC News, Mail Online or another UK website looks like outside Blighty? Do you want to shop at the American or Australian branch of an online store without being redirected home? Then fire up your VPN, choose where you want to pretend to be browsing from and revisit the site to view content tailored to that country. Unsurprisingly, Mail Online's US site has a lot more Trump and far fewer soap



You can use a VPN to browse international versions of your favourite sites

stars – but it still shows about the same amount of Kardashians!

Unblock sites that are blocked at work

Many workplaces, universities and schools have an 'acceptable use' policy for the web, which blocks sites such as Facebook, YouTube and Twitter to prevent employees and students from wasting time, hogging bandwidth and leaking information. If you find this approach heavy-handed and unfair, you can use a VPN to secretly bypass the network restrictions. By concealing your IP address and location, a VPN will allow you to access your favourite sites without getting into trouble – and, by encrypting your traffic, it stops anyone seeing what you've been doing if you do get rumbled. If you're unable to download VPN software to your office computer, try a VPN browser extension instead.



Which of these workers is secretly using a VPN to browse Facebook?

Beat unfair streaming restrictions

VPNs have long been used to access streaming services that are only available in one country – for example,

BBC iPlayer TV programmes are available to play in the UK only. Find out why. If you are in the UK and see this message please read this advice.

BBC iPlayer blocks some VPNs to stop people streaming from abroad

to watch Hulu outside the US, BBC iPlayer outside the UK and the many regional variations of Netflix. This led to many VPNs being blocked by these services, although tweaks are frequently made to unblock the blocks.

At the time of writing, NordVPN (see our review on page 42) was still able to access Hulu, iPlayer, Netflix and more from outside the designated countries using its Smartplay feature (see bit.ly/smartplay443 for full instructions), as was ExpressVPN (see bit.ly/express443). Bear in mind that although VPNs aren't themselves illegal (unless you live in China), using them to stream content that's unavailable in your country may breach copyright law.

Save money on holiday costs

It's no secret that websites alter their prices depending on the visitor, and it's especially true of flight- and hotel-booking companies. Find out whether you can save money on your next holiday by using your VPN to pretend you're browsing from another country, or to avoid being redirected to the UK version of a site. You may find prices a lot cheaper, and can use a translation tool and currency converter to avoid hidden costs (you may also need to clear your browser cookies before revisiting a site using a VPN). See SaferVPN's article at bit.ly/safer443 for more info on this "totally legal" trick.



Use a VPN to trick holiday-booking sites into offering you lower prices

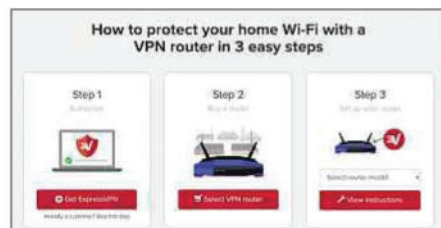
EXPERT TIPS FOR USING A VPN

Most VPNs are straightforward to use, but you can get even more from them by tweaking the following settings

Install your VPN on your router

Some routers can be configured to use a VPN. The advantage of a router-based VPN is that every device in your home that connects to the internet, including computers, phones and tablets, will automatically be secured by the VPN. That said, a router has significantly less processing power than a computer, so you need to decide whether you are willing to compromise speed for convenience.

To set up this combo, log into the setup program by opening a browser and entering your router's IP address, such as 192.168.1.1. If you're not sure of the IP address, press Windows+R, type `cmd` and press Enter. Type `ipconfig` and look for the Default Gateway. Follow the instructions provided by your VPN to configure your router's settings – for example, ExpressVPN has a simple guide at bit.ly/expressvpn443.



Set up your VPN on your router to protect all your devices simultaneously

Change ports to boost VPN speed

Your VPN software connects to servers around the world using a specific networking port on your computer. Some ISPs deliberately restrict the speed of certain ports, to prevent activities such as file sharing, so if your VPN feels frustratingly slow (especially

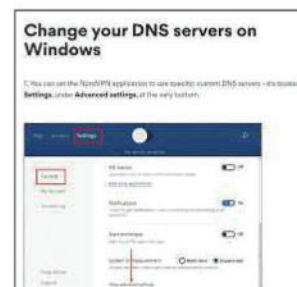
if it's a paid-for rather than free option), try switching to a different port. This can usually be done via your VPN's settings – check your service's help pages for details. The most popular option is TCP port 443, which is used by encrypted HTTPS traffic; or UDP port 1194, which is used by open-source VPN service OpenVPN (openvpn.net).

Stop DNS servers leaking data

For a VPN to completely protect your anonymity, it's essential that all traffic originating from your computer is routed through the VPN network, including DNS requests (which translate domain names into IP addresses). Some devices may revert to their default DNS servers, which means your ISP and

other third-parties can potentially see the websites you're visiting and the data you're sharing.

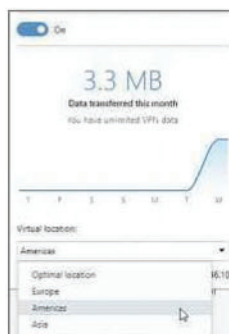
To check for DNS leaks, visit www.dnsleaktest.com, run the test and ensure that your real IP address and location aren't visible through your VPN. If they are, you'll need to configure your device to use your VPN's own DNS servers, by following the instructions it provides in its support pages.



Protect data leaks by using the correct DNS servers for your VPN

WHAT'S WRONG WITH OPERA'S VPN?

Opera is the only browser to offer a built-in VPN, which is free and unlimited, and easy to turn on and off. However, version 50 of the browser made some notable changes to the VPN, switching its servers from those of VPN provider SurfEasy to Opera's own data centres and replacing its virtual countries with regions: Europe, Americas and Asia. These improvements haven't gone down well with some Opera users, who find the updated VPN incredibly slow and all its spoof IP addresses



Opera's built-in VPN has slowed down and switched from countries to regions

to be in the same location – this was the UNESCO Biosphere in Switzerland, in our test. The changes make the tool insufferable for private browsing and useless for beating (non-Swiss) geo-restrictions, whereas it used to work

quickly and reliably. Despite many complaints in its forums, Opera has yet to respond to the problems, although it has indicated that the VPN is still a work in progress. Hopefully it will be fixed soon.

NEXT ISSUE

on sale Wednesday 7 March 2018

DITCH YOUR LANDLINE!

Our complete guide to accessing the web at home without paying for line rental



PLUS...

CREATE ALEXA SKILLS

Design your own commands for your Amazon Echo speaker

SYNC YOUR DESKTOP

Make your workspace the same on every computer you use

ENCRYPT YOUR EMAIL

Most secure way ever to send and receive messages online

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Does it REALLY work?

We test intriguing tech hacks from the web to discover if they're fact or fiction



Revive an empty ink cartridge

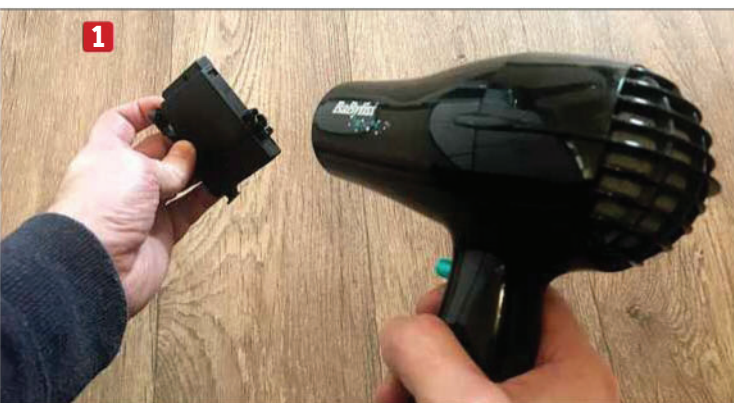
Wayne Williams tries to save money by using a hairdryer to squeeze more printer ink from a spent cartridge

Printer ink isn't cheap, especially if you buy the official cartridges from your printer manufacturer. You could spend as much – if not more – on the full set of replacement ink cartridges than you did buying the printer itself! There are a couple of cheaper options, such as using third-party ink or buying a refill kit to top up old cartridges, but they can cause problems. Some printer manufacturers, like HP, block the use of unofficial ink cartridges, while refill kits can be fiddly and messy.

Although it's far from a long-term cost-saving solution, if you need to squeeze a bit more ink out of an apparently empty cartridge – just enough to finish printing that urgent report, for example – rumour has it that you can do so using a hairdryer. This supposedly heats the little remaining ink and helps it flow through the cartridge's tiny nozzles.

HOW TO FIX A DRY CARTRIDGE

Because we hadn't used our printer in a while, some of the ink cartridges had become clogged. To fix this, we filled a bowl with warm water and submerged the problem cartridges, making sure they were fully immersed. After a short while, we cleaned the area where the ink comes out with a cotton bud. We waited for the cartridges to dry properly, then did some test printing to ensure they were fully unclogged.



Blasting your cartridges with a hairdryer might give you a little extra ink – if you're lucky

up, we placed the still-warm cartridges in the printer and tried printing again.

The result

The warmed-up black cartridge – the one

to the heat, and the printing was much improved.

Buoyed by our success, we tried the same trick on another empty cartridge from a different printer. Disappointingly, this produced zero benefit and the empty cartridge stayed resolutely ink-free. When we returned to our original printer the next day, the black cartridge was empty once more, and blasting it with the hairdryer didn't make any difference this time around.

Ultimately, warming up the cartridges won't hurt them and may give you a little extra ink – or better quality and slightly darker prints – but if you have a printer that accurately monitors the ink levels, this trick isn't likely to fool it for very long, if at all.

How we tested it

In our test printer, the black ink had run out entirely. The ink was also very low in all the colour cartridges and because the printer hadn't been used in a while, the quality of the first test printout was awful, with lots of streaks and banding. Some of the cartridges that had ink in them didn't print because they were clogged. We gave those cartridges a warm bath (see boxout, top) followed by a nozzle check and a head clean.

The next step was to take a hairdryer and blast the spot where the ink comes out on each cartridge for three minutes on maximum heat. **1** The idea here was to heat up the ink, thinning it so that it flowed better. As soon as the time was

the printer said was entirely empty **2** – managed to print a page of black text and was shown as having some ink once more. **3** The coloured cartridges also seemed to benefit from the exposure



The black ink initially shows as being empty and in need of replacing



The black cartridge registers some ink now and other colours improved, too

Wireless network scanning tools

Identify crowded Wi-Fi channels, find free hotspots and reveal your home's wireless dead zones – **Jonathan Parkyn** rounds up the best free wireless network analysers and scanners for your PC



Acrylic Wi-Fi Home | bit.ly/acry443 | ★★★★★

FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

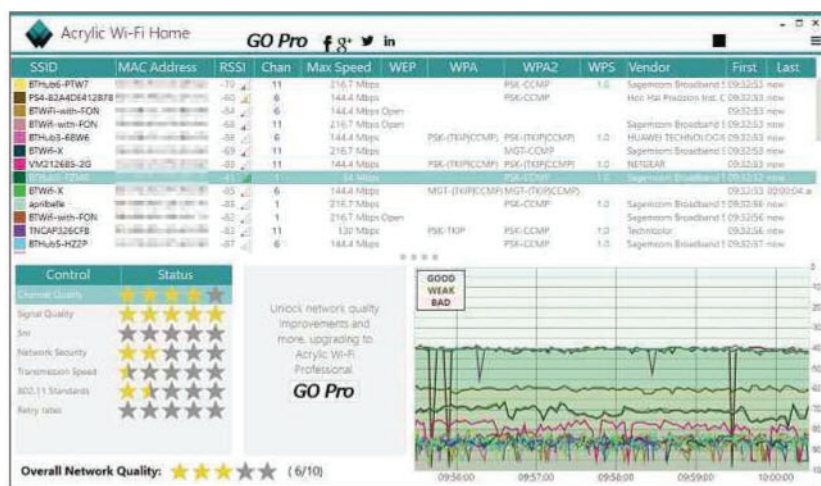
WebUser
GOLD
AWARD

What we liked:

Acrylic Wi-Fi Home is the free version of a professional

wireless-network analysis tool, but it doesn't feel like a cut-down program and offers all the features home users need. It provides real-time monitoring of surrounding Wi-Fi networks, is able to scan both the 5GHz and 2.4GHz bands, and supports the latest 802.11ac wireless standards, as well as older b/g/n networks.

It helps that the program has a very smart user interface that mimics the look and feel of Windows 10's modern apps, even though it's actually a standard program. You can switch between two different views by clicking the menu button and toggling Advanced Mode on or off. If you leave this setting disabled, the program shows a list of available networks at the top of the screen, with a real-time signal-strength graph in the bottom-



right corner and a simple star-rating score for the quality of each network you click. Flip on Advanced Mode, however, and the star ratings disappear in favour of additional tabs that let you view graphs displaying which networks are using which channels.

Acrylic Wi-Fi also lets you personalise its interface. For example, you can colour-code elements and select your own network refresh rate for the real-time monitoring. You can also set the program to launch in Advanced Mode by default, if that suits you better. Click the menu, then select Configure to set up these options and others.

How it can be improved:

One thing that slightly annoyed us about Acrylic Wi-Fi Home was the way it forced us to agree to anonymous usage reports on installation. Luckily, there's a way to opt out of this once the program has been installed – just click the three-line menu

button and select Configure, then choose your preferred options from the 'Error reporting' drop-downs.

Assuming you don't want to spend £30 to unlock the tool's advanced features, you'll also need to ignore the frequent encouragements to 'Go Pro'.

OUR VERDICT

It doesn't have all the features of the Pro version, but Acrylic Wi-Fi Home is generous for a freebie. It's also well laid out, customisable and very easy to use.

Homedale | bit.ly/hoda443 | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

**WebUser
SILVER
AWARD**

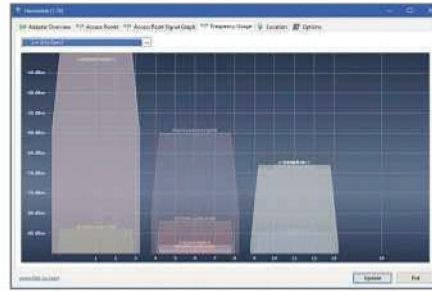
What we liked:

Homedale's main selling point is its simplicity. Data is presented in a clean, unfussy interface with six tabs running along the top of the window, including Adapter Overview (information about your device's wireless adapter), Access Points (networks in range) and Frequency Usage (a graphical representation of the channels nearby networks are occupying). Usefully, there's a built-in Locate Me tool (under the Location tab), which uses Google Geolocation and Open WLAN Map Service data to pinpoint your whereabouts on a Google Map.

Homedale is a portable application – there's nothing to install, you just unzip the download and run the EXE file whenever you want to use the program. This means it won't install any unwanted software on your PC and you can run it from an external drive, if you need to.

How it can be improved:

It's not necessarily Homedale's fault,



but Windows Defender SmartScreen falsely identifies the program as a potentially dangerous app. It's definitely safe, though (we verified this at www.virustotal.com), so just click 'More info', then 'Run anyway' in the warning message that opens when you attempt to run the tool for the first time.

OUR VERDICT

It might not be as exciting to look at as some of its rivals, but Homedale presents lots of information in a straightforward way and offers some useful extra options, such as its location tool.

WiScan | bit.ly/wisc443 | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

**WebUser
BRONZE
AWARD**

What we liked:

WiScan scans both 2.4GHz and 5GHz bands (assuming your PC's adapter supports both) and supplies signal strength, security and other information for all networks found. Tabs at the bottom of the program window let you switch between Beacons (a colour-coded list of all the access points available) and a useful map view of the 2.4GHz or 5GHz channels, which lets you easily see when several networks are crowded together on the same channel. Shortcuts at the top of the window provide quick ways to refresh your scan, set a timer interval, report your results and more. You can name access points with an alias – 'main router', 'upstairs homeplug' and so on – for easy identification.

WiScan comes in two versions – a Windows installer and a ZIP file containing a portable version.

How it can be improved:

Like Homedale, the portable version of WiScan may be falsely accused of being



malware by Windows Defender, but don't let this put you off because it's safe to use. However, the garish, amateurish interface is a bit of an eyesore and there are some archaic language choices – 'beacons' instead of access points and BSSID instead of MAC address – which can be confusing.

OUR VERDICT

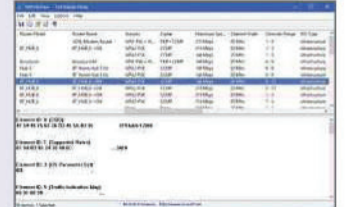
Extra features are few and far between and some of the interface's design elements feel a bit clunky, but WiScan is a very easy-to-use free tool for analysing nearby wireless networks.

BEST OF THE REST

WifiInfoView

www.nirsoft.net

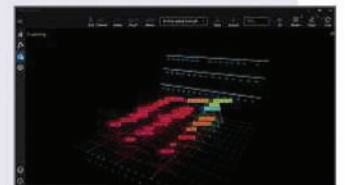
For a basic analysis of the wireless networks around you, this tool (from the ever-dependable NirSoft) may be all you need. It scans the local area and presents lots of information about the networks it finds, including SSID, Mac address, network type, channel number and much more. It lacks graphical views and real-time monitoring of some Wi-Fi tools, but includes useful information, such as router make and model.



WiFi Commander

bit.ly/wcom443

WiFi Commander is notable because it's a Windows Store app rather than a standard program, but it also caught our attention thanks to its rather cool 3D grid view of nearby networks, which makes it easy to see which channels are the busiest. The downside is that it costs £3.29, but there's a free trial you can download to see if it's worth coughing up for.



Ekahau Heatmapper

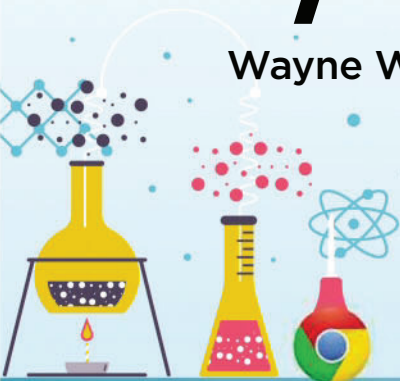
bit.ly/eka443

This tool requires a bit of legwork and works best if you have a floorplan of your home. Wander around clicking your current location on the floorplan to create a 'heatmap' showing where your network's wireless signal is strongest (and weakest). It's free, but you have to sign up for emails before you can download it (you can opt out later). Ekahau Heatmapper is very useful but, sadly, it hasn't been updated in quite a while.



SECRET CHROME HACKS you must try today

Wayne Williams explores the latest tools available through Google's redesigned Experiments page, and explains why you should use them



How to enable Chrome experiments

Hidden deep inside Google Chrome are a vast number of secret, experimental options – or ‘flags’. These are features that are in the testing phase and might make it into the browser in due course, or might equally be removed at any time. You’ll find them on Chrome’s Experiments page, which you can access by typing `chrome:flags` (or `about:flags`) into the address bar and pressing Enter. This was recently redesigned to make it easier to browse and search.

Be warned that while enabling some of these features may improve your browsing experience, their experimental nature means that they could also ruin it, so you should only enable features you fully understand. As Google itself warns: “By enabling these features, you could lose browser data or compromise your security or privacy. Enabled features apply to all users of this browser.”

Once you’ve enabled some flags, you’ll need to relaunch the browser for them to take effect. The option to do so will appear at the bottom of the flags window.

WARNING: EXPERIMENTAL FEATURES AHEAD!



Give Chrome a Material Design makeover

Material Design is a visual language which, in Google's own words: “synthesises the classic principles of good design with the innovation and possibility of technology and science” to make pages look more modern and text more readable. It is now used throughout Google's products and services, but not yet everywhere.

The Experiments page hosts a number of Material Design flags, which you can enable to improve the look of the browser. These include: ‘Material Design in the rest of the browser’s native UI’, ‘New style

notification’ and ‘Material Design Incognito NTP’ (which applies the look to your private browsing). They’re worth applying to make Chrome feel fresher.

As of Chrome 64, Material Design will be applied to the browser’s Bookmark manager by default – turn to page 32 to find out more.

Close Chrome tabs more quickly

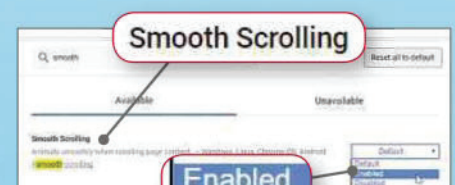
If you tend to have a lot of tabs open when you browse, you may have noticed that closing unwanted ones takes a little time. To fix this problem, Chrome offers a handy flag that speeds up tab closing by instantly hiding the unwanted tab, then closing it in the background.

To find this option, type `fast` into the flags search box and enable the ‘Fast

tab/window close’ flag. After restarting, you should notice that tabs no longer hang when you click to close them.

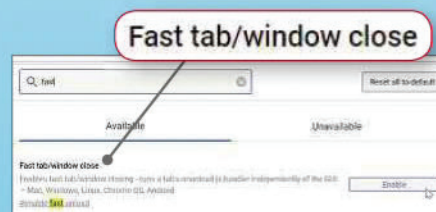
Scroll web pages more smoothly

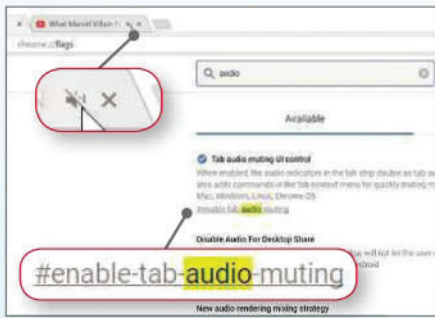
Scrolling down long web pages can sometimes result in jumps and pauses, especially if you have a lot of tabs open in your browser. Google has an experiment that fixes this issue, and it's called – naturally enough – Smooth Scrolling. Type `smooth` into the flags' search box and enable the Smooth Scrolling option.



Mute noisy tabs with a single click

Sites that play audio or video without your express permission are among the biggest annoyances on the web. If you

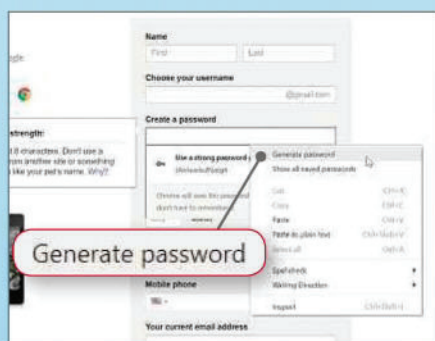




open a bunch of sites in tabs, and one of them turns out to be noisy, you can quickly identify it, thanks to the speaker indicator that appears on the offending tab. Google offers a flag that turns this indicator into a button that can instantly mute that site when clicked. It also adds commands to the tab's right-click menu that will let you quickly mute multiple selected tabs. To enable this flag, type **audio** into the search box and enable 'Tab audio muting UI control'.

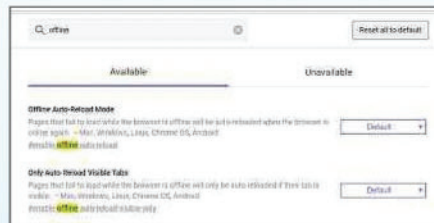
Generate and manage passwords

Chrome has a lot of password-related flags, some of which are definitely worth enabling: 'Password generation' leaps into life when Chrome detects that you are creating an account on a website, and generates a secure password for you; 'Manual password generation' shows a Generate Password option on the right-click menu for all password fields; and 'Manual password saving' shows the password-manager icon when you type in a password. If you click this icon, Chrome will save the password, without you needing to actually log into the site in question.



Reload web pages automatically

If you lose your internet connection when browsing the web – or move from one hotspot to another – Chrome can automatically reload your open tabs once it detects you're back online. There are actually two similar flags for this: type **offline** into the flags search box and you'll see 'Offline Auto-Reload Mode' (which auto-reloads pages that failed to load while the browser was offline); and 'Only Auto-Reload Visible



Tabs', which will auto-reload pages that failed to load but their tab is visible.

Flip Chrome's interface around

An interesting – if not essential – hidden feature is the ability to horizontally flip Chrome's browser interface. This moves buttons that usually appear on the right side to the left, and vice versa. So the Back, Forward and Refresh buttons move to the right of the address bar, and the menu and any extensions appear on the left. This option could prove useful for left-handed Chrome users, or for anyone who fancies a change. There's also the option to have your text direction switch so it reads from right to left, if you're so inclined. To try these flags, type **direction** in the search box.



Make mobile web pages easier to read

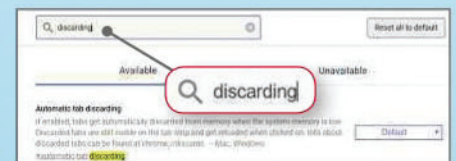
Reader Mode is an excellent feature in the mobile version of Chrome for Android. When enabled, it removes ads and unwanted distractions from the

page, making it easier to focus on the text. The 'Reader Mode triggering' flag lets you choose when the Reader Mode option appears. In the Experiments page of the Chrome app, search for **reader** and click the drop-down menu below 'Reader Mode triggering'. Options include 'With article structured markup', 'Non-mobile-friendly articles', 'Always', 'Never' and 'All articles'.



Stop background tabs wasting memory

Chrome is a notorious memory hog but all browsers are guilty of guzzling resources: the more tabs you have open, the more RAM they'll consume. Chrome has an experimental feature that discards tabs from memory when it detects your system memory is running low, thereby freeing up important resources and preventing the browser, and possibly other software, from crashing. The tabs don't get closed – they still appear on the browser and reload when you click them. If your PC doesn't have loads of memory then this experiment is definitely worth enabling. Type **discarding** into the flags search box and enable it there. ■



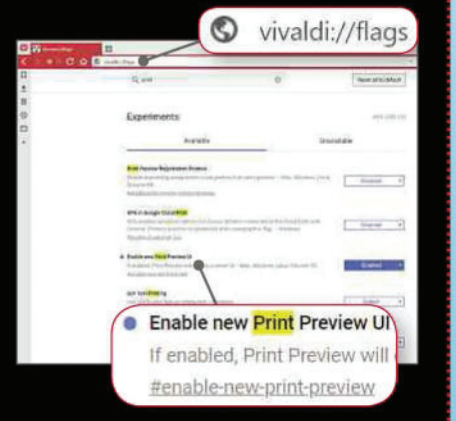
TRY VIVALDI'S SECRET EXPERIMENTS



Vivaldi, the new web browser from the former CEO of Opera, won our Gold Award in Issue 440. It's built on the Chrome

engine, so it offers flags that you can access in a similar way, by typing **vivaldi://flags** in your address bar and hitting Enter. Some of its experiments aren't available for the latest version of Chrome, such as 'New Media Controls' (a new style of built-in player controls) and 'New Print Preview UI' (a better print preview interface). These features are likely to be removed in future Vivaldi

updates (as they were from Chrome), so try them now while you still can.





Practical WebUser

16 pages of workshops, tips, projects and problem solving

Add tabs to Windows programs

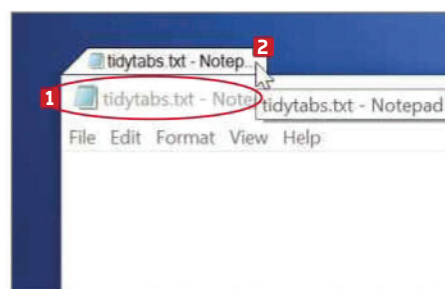
TidyTabs adds tabs to any Windows program, making it easier to use and organise. Here's what you need to know

TidyTabs: bit.ly/tt443 | 10 mins | Windows 7, 8, 10

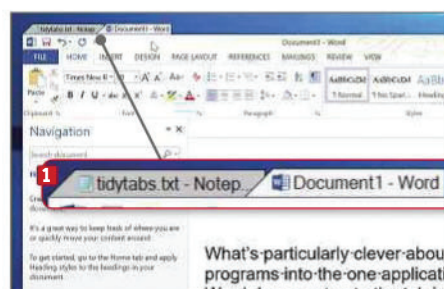
Before the advent of browser tabs, you had to open a new window for every website you visited, which was particularly frustrating when you were trying to find a page among a mass of open windows. Since then, tabs have become ubiquitous, but there are still some programs that continue to resist using them. For example, Microsoft still

hasn't added tabs to File Explorer.

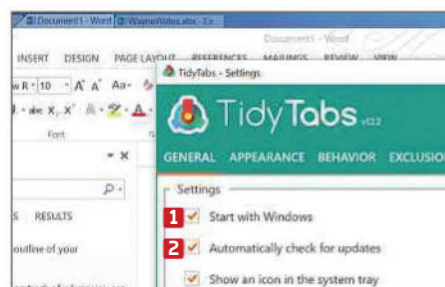
TidyTabs is a handy program that can add tabs to any window. The free version lets you customise the tabs' appearance, auto-hide tabs and set up exclusion lists. If you require additional features, such as multi-monitor support, you can upgrade to the Professional version for \$9 (around £6.40).



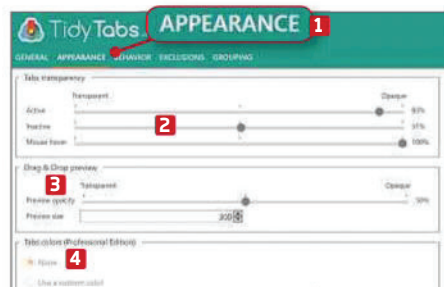
1 Run TidyTabs and choose the option to use the Personal Edition – which is the free version. TidyTabs automatically adds tabs to your software but you won't see them immediately. Move your mouse up to the program icon in any window, **1** then keep moving upwards until the tab pops into view. **2**



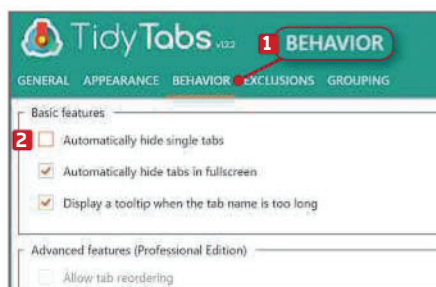
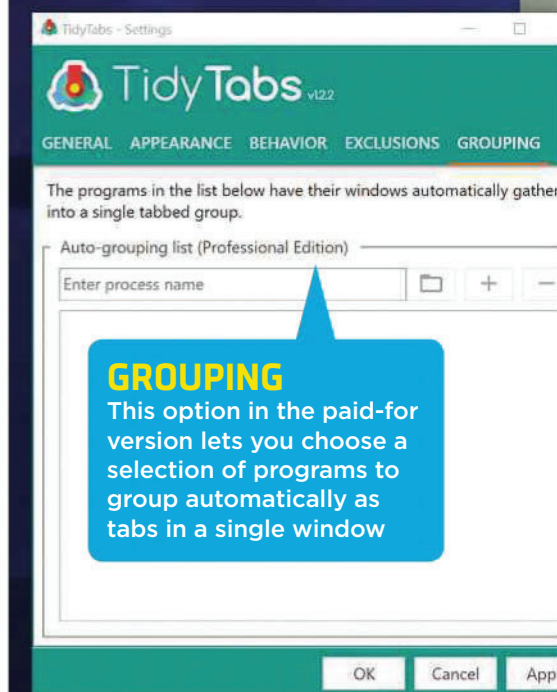
2 TidyTabs lets you combine tabs from different programs into one window. For example, you can drag and drop the tab from a Word document to the tab in Notepad and it will appear alongside it. **1** You can now switch between applications in the same window by clicking the tab you want.



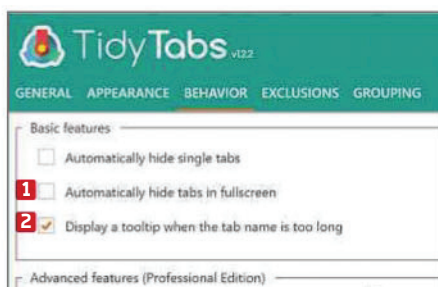
3 The free edition limits you to three tabs per window, although you can have several windows open at any time. Right-click and drag a tab to reorder it. To access TidyTabs' settings, double-click its icon in the notification area. By default, the program starts with Windows **1** and automatically checks for updates. **2**



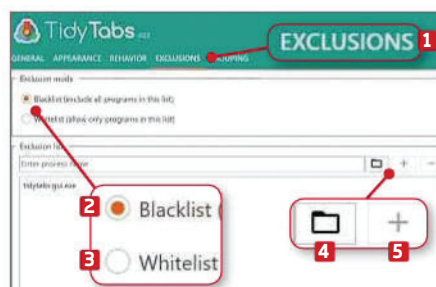
4 The Appearance section **1** lets you customise the look of the tabs. You can adjust the transparency of active, inactive and hovered-over tabs using the sliders. **2** You can also adjust the transparency and size of the 'Drag & Drop preview'. **3** The paid-for version lets you change the tab colours. **4**



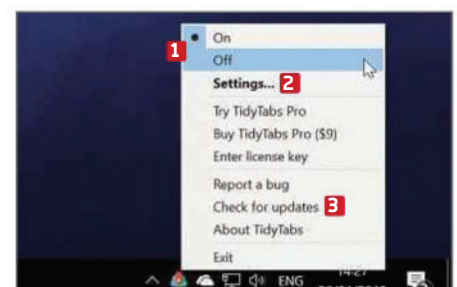
5 Click Behavior **1** to configure how the tabs work. By default, the first tab is hidden until you hover over the program icon (as we saw in Step 1). If you'd rather have tabs visible at all times, untick the option to 'Automatically hide single tabs'. **2** This makes it easier to identify programs that don't have tabs.



6 In full-screen mode, tabs are hidden by default (they appear when you move your mouse up to them). Untick the box if you want them visible at all times. **1** If a tab's name is too long for TidyTabs to display in full, moving your mouse over it reveals the full name in a tooltip. Untick the box to disable this. **2**



7 If you don't want tabs in a particular program, add it to the Exclusions list. **1** You can use a blacklist, which excludes all programs in the list; **2** or a whitelist, which only adds tabs to the listed programs. **3** To exclude a program, click the folder button, **4** navigate to its executable, then click the plus sign. **5**



8 Right-click the icon in the notification area to enable or disable TidyTabs. **1** Turning the program off converts every tab into a separate window. If you then turn it back on, you'll need to set up your tabs all over again. You can access settings from this menu **2** and check for updates here, too. **3**



Spot the PC warning signs you shouldn't ignore

Resource Monitor | 20 mins | Windows Vista, 7, 8, 10

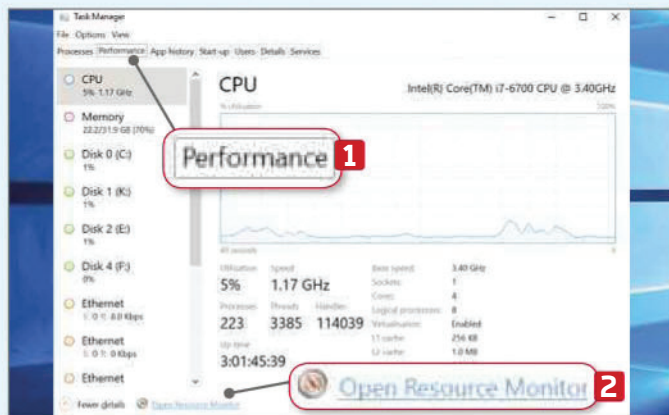


EXPERT TIP

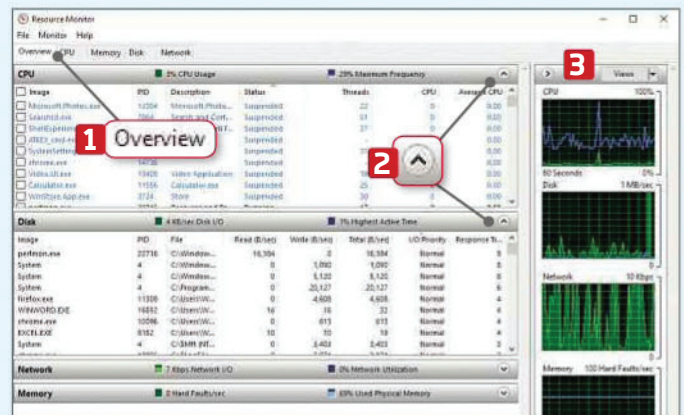
Wayne Williams says

Occasionally, Windows doesn't let you delete a file. This could be an indication that the file contains malware, but it's more likely because it's being used by the operating system. You can find out exactly what's locking it using the Resource Monitor. Click the top CPU tab and expand the Associated Handles section. Type part of the name of the locked file in the search box to see a list of all the programs that have it open.

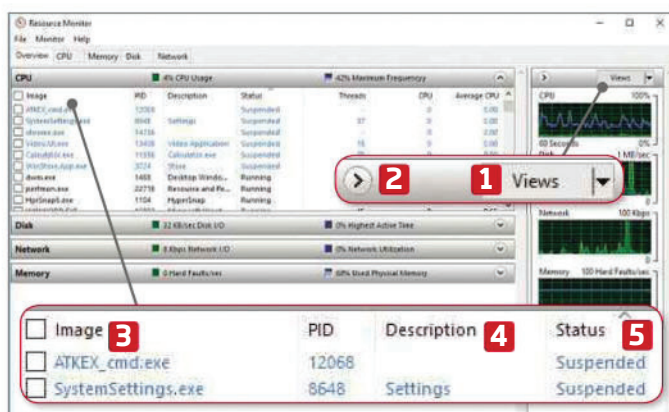
You're probably familiar with the Windows Task Manager (press Ctrl+Shift+Esc to access it), which shows you at a glance the processes running on your PC, and lets you terminate any that have frozen or are using too many resources. The tool also lets you view hardware performance, manage your startup programs and more. Less familiar, however, is the Windows Resource Monitor. Like Task Manager, it comes as part of the Windows operating system – from Vista onwards – and displays hardware and software resource information in real time. It also provides a much more detailed look at what's going on with your PC, helping to identify potential problems that might otherwise go unnoticed.



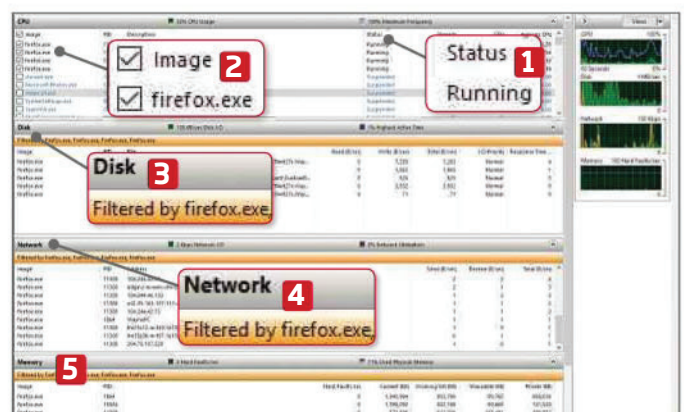
1 You can get to the Resource Monitor through the Task Manager by clicking the Performance tab, **1** then clicking the Open Resource Monitor link **2** at the bottom of the window. Alternatively, type Resource Monitor in the Windows search box and launch it from there.



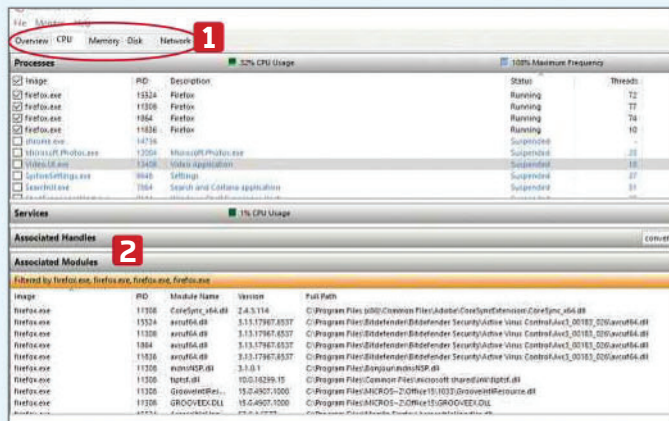
2 The Resource Monitor's Overview tab **1** displays CPU, Disk, Network and Memory data, listing all running processes that are using resources. You can expand and hide any section by clicking its arrow. **2** The sidebar contains graphs showing real-time activity covering the last 60 seconds. **3**



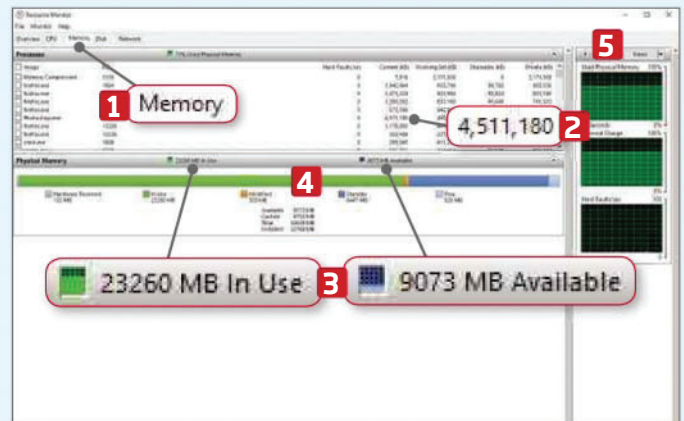
3 The Views button **1** lets you change the size of the graphs. Click the arrow **2** if you want to hide this sidebar. The Overview windows each provide useful detailed information. The CPU section, for example, lists each process by its name, **3** along with a description **4** and the current status. **5**



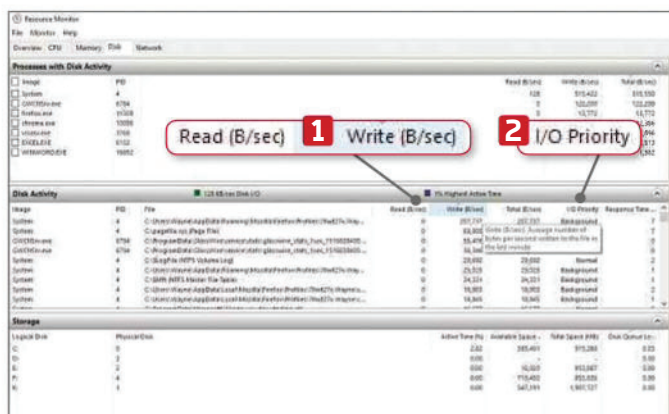
4 You can see a detailed breakdown of exactly what resources a program is using in Windows and whether it's going online. **1** In the CPU window, tick the boxes for the programs you want to analyse. **2** You can then view their details in the Disk, **3** Network **4** and Memory sections. **5**



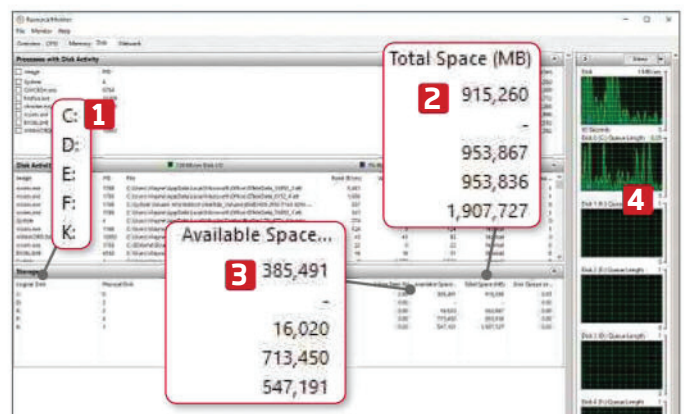
5 Tabs along the top **1** provide access to the detailed CPU, Memory, Disk and Network sections, which allow you to explore further. Items you select in the Overview screen or in any of these tabs will be filtered here, too, so you can focus on potentially suspect programs. **2**



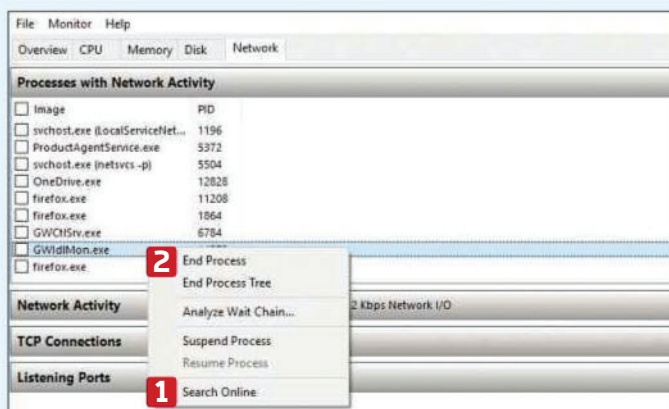
6 The Memory tab **1** lets you see which processes are using the most physical RAM. **2** You can see how much is being used and how much is still available. **3** The coloured bar below **4** breaks this usage down into type. Graphs in the side panel **5** display real-time activity, including any sudden spikes that could indicate problems.



7 The Disk section lets you see which programs are reading and writing to your drive. So if your system suddenly slows down and you hear grinding from your hard drive, you can check in this section to see what the cause is. You can filter the list by Read/Write **1** and Priority. **2**



8 The Storage section at the bottom of the Disk window lists all the drives connected to your PC. **1** You can see how large each one is **2** and how much remaining space is available. **3** Make sure they're not getting too full. The graphs **4** show the queue length (the time it takes for requests to be actioned) for each drive.



9 The Network section shows all processes with network activity. This is useful for seeing which items are connected to the internet. You'll expect to see your browser here, but if you spot anything odd in the list, right-click it to open the context menu and select Search Online **1** to find out more, or End Process **2** to terminate it.



10 You can temporarily pause data collection at any time by clicking Monitor **1** and selecting Stop Monitoring. **2** Restart it by selecting Start Monitoring **3** when you're ready to resume. The File menu **4** lets you save the settings, load them and restore the default configuration, wiping any changes.



Don't get caught out by ransomware

Ransomware is malware that surreptitiously installs on your PC and encrypts your files so you can't access them – unless you pay a ransom to the criminal who's locked your files. Acronis Ransomware Protection combats the problem by

spotting and blocking the encryption before it does too much damage; and backing up your most valuable files to an untouchable vault in the cloud every 15 minutes.

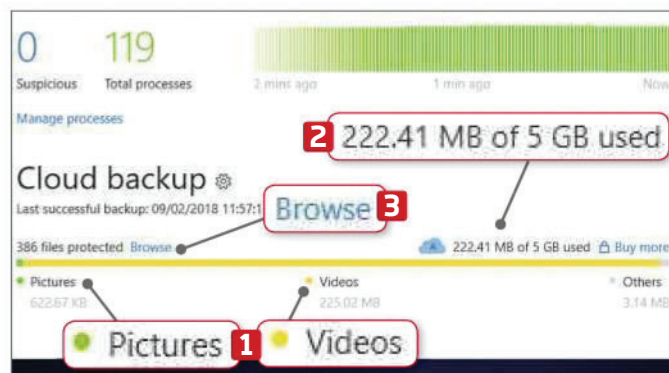
Acronis: bit.ly/acrp443 | ⌚ 10 mins | 🖥️ Windows 7 SP1, 8, 10



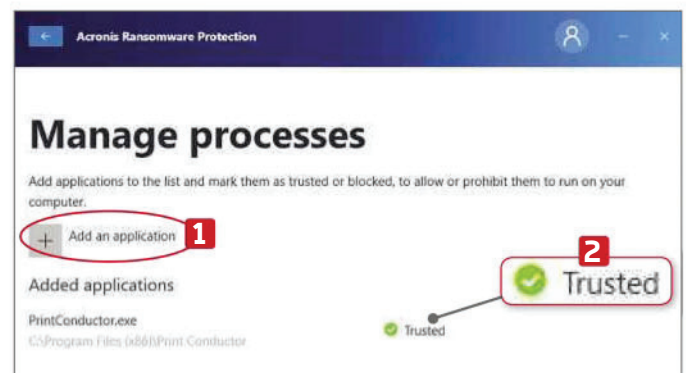
1 Download and install the software, and sign up for an Acronis account (if you don't already have one). Your current security status is displayed, showing the number of active processes that are running on your PC **1** and the number (if any) that are deemed suspicious. **2**



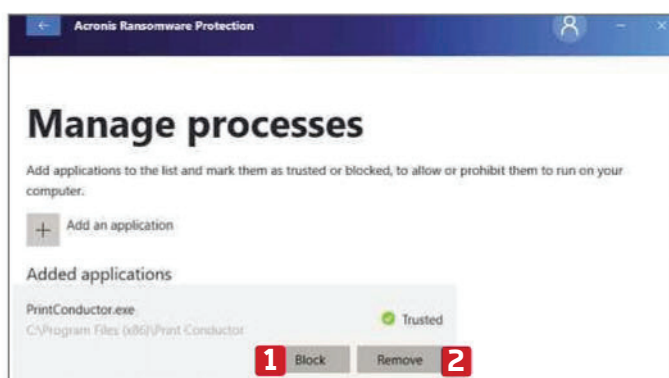
2 You have 5GB of online storage to keep your most important files safe. Drag and drop the files or folders you want to back up to the boxed area, or manually add them by clicking the link and choosing the files or folders. As the files are uploading, Acronis shows you how it's progressing. **1**



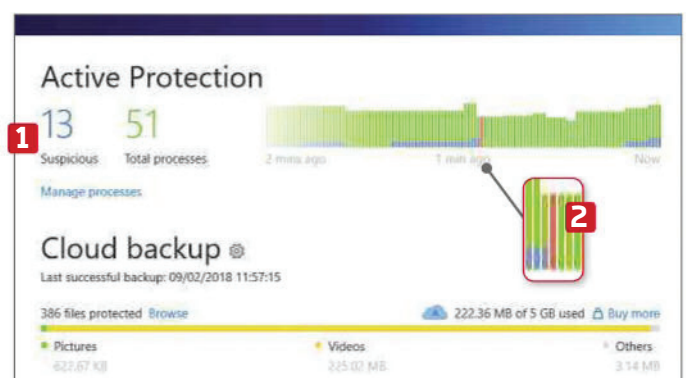
3 Once your files and folders have been backed up, you'll see a colour-coded guide to the types of files included, **1** along with how much space you've used. **2** Click the Browse button **3** to go to the Acronis website, where you can access and download your backed-up files.



4 The software uses blacklists and whitelists to manage programs it suspects are suspicious. Click the 'Manage processes' link, then click 'Add an application'. **1** Choose the EXE file of the program you want to block or allow. The software will tell you whether the software is Trusted or not. **2**



5 Right-click a process to change its status. Click the Block button **1** if you want to transfer the process from the whitelist to the blacklist (to stop it running), or click Remove **2** to take it out of both lists.



6 If the program finds any suspicious activity, the process will be flagged up as such. **1** Acronis attempts to block the process from encrypting your files to stop you getting locked out. When a process is blocked, a red line appears on the timeline **2** to show when it happened.

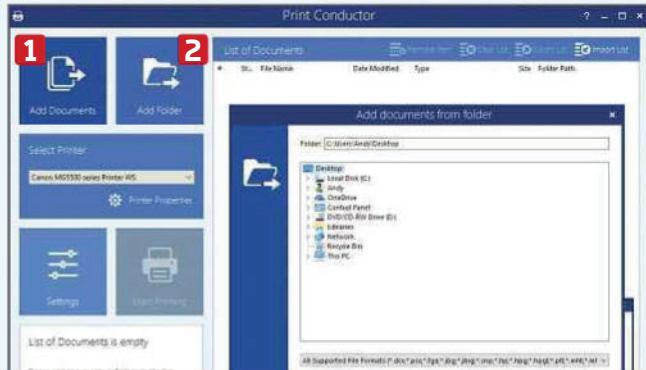


Print a large batch of files in one go

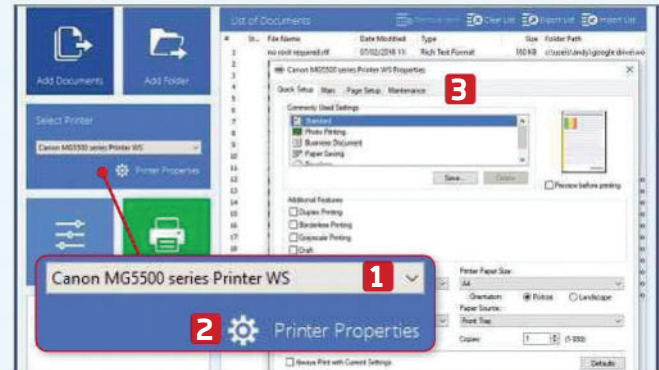
Print Conductor is a handy program that saves you time and effort by letting you print several files in one go. You don't even have to open individual files in their native programs – even if they're compressed into ZIP files.

PrintConductor is effectively a dashboard for controlling and queuing up your printing jobs, and is free to home users.

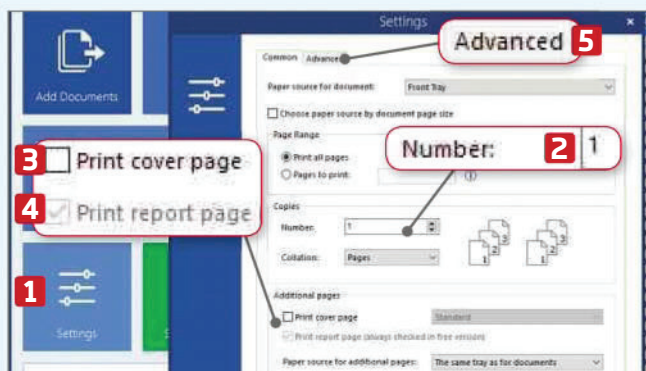
Print Conductor: www.print-conductor.com | **10 mins** | **Windows XP, Vista, 7, 8, 10**



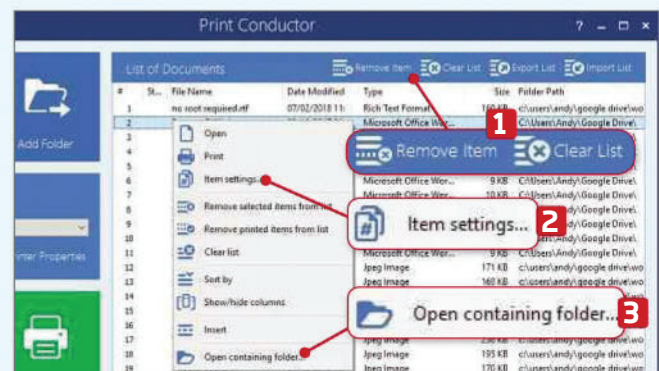
1 Select the files you want to print by clicking Add Documents **1** and selecting them, or Add Folder **2** to include a whole folder of files. You can also drag and drop items from Explorer or your Desktop, or add an entire ZIP file – its contents will be extracted and added to the list.



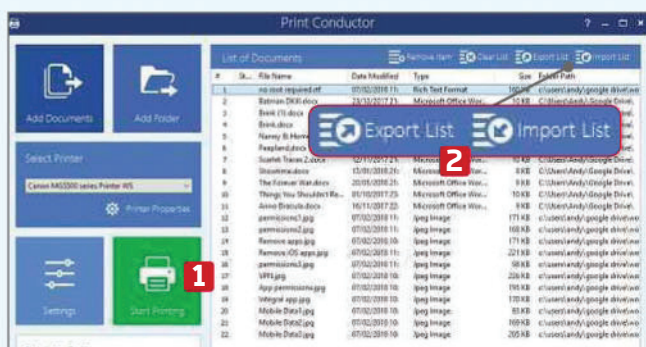
2 If you have more than one printer or you want to do something other than print – such as convert files to PDF – select the option from the drop-down menu. **1** Click the Printer Properties button **2** to open the default printer-properties window for your printer. **3**



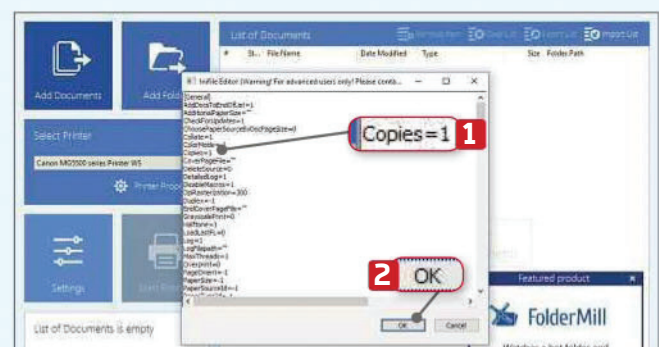
3 Open Settings **1** to choose the number of copies to print **2** and whether there's a cover page. **3** The free version always prints a report page. **4** The Advanced tab **5** lets you override the printer's default settings for paper orientation, two-sided printing, colour options and more.



4 Once you've created a list of items to print, drag and drop them to change the order. Use the buttons at the top to remove an item or clear the list. **1** Right-click an item for more options, such as changing an individual item's print settings **2** or finding it in File Explorer. **3**



5 To print your list of files, click Start Printing. **1** It will change to a Pause button, so you can stop the process if you need to. If your printing list is long, you might end up wanting to save it to print later. Use the Export List button to save it, then the Import List button to reinstate it again. **2**



6 To edit the INI file and make universal changes, press Ctrl+Alt+i. The file contains all the default configuration options. Cut and paste a backup into Notepad first. Changing Copies=1 **1** to Copies=3 for example, will always print three copies of everything in the list. Click OK **2** to save.

Weekend Project

Get to grips with some serious tech tinkering to boost your computer and other devices



How to...

Customise your mobile device without rooting it

Wayne Williams reveals the tweaks you can now make to your Android and iOS devices that used to be forbidden

No device allows you completely free rein to tweak and install whatever you want on it, and while Android is less locked-down than iOS, some phone and tablet makers add further restrictions to limit your options. You can unlock a device to make changes that wouldn't normally be allowed (known as rooting in Android and jailbreaking in iOS), and this has become increasingly popular among savvy device owners, but it's not without its risks and you could end up plagued by malware, voiding your warranty and even killing your device.

As a compromise, with each new version of their operating systems, Google and Apple have introduced features that were previously available only to unlocked devices. We look at the best of these in this issue's Weekend Project.



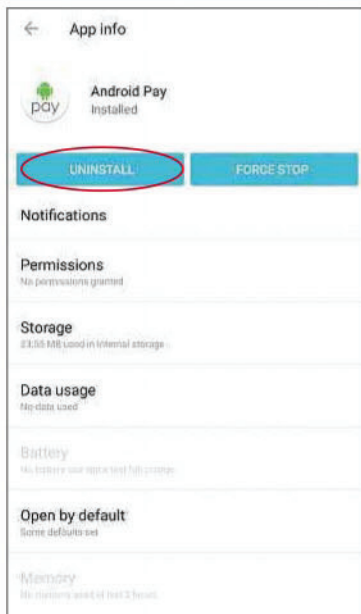
Remove preinstalled apps

Every mobile operating system comes with a selection of bundled apps. Some of these are useful, and you'll definitely want to keep them, but others simply waste storage space and clutter your home screen. Manufacturers tend to include apps on a phone for one of two reasons: either because they add value to the

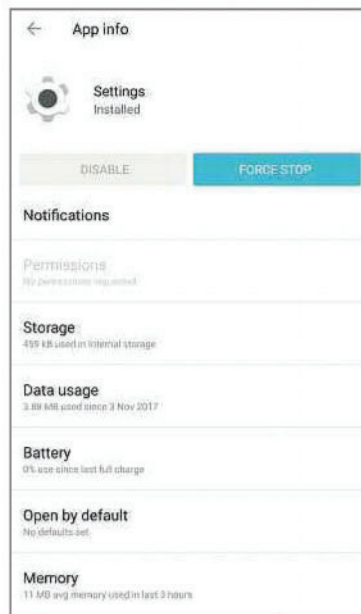
user or because the manufacturer gets something in return for installing them. In the latter case, it could be a financial reward from the app's creator, or the phone maker may simply want you to use its own apps instead of those from rival developers. Either way, removing preinstalled apps is now a lot easier than it used to be.

In Android, open Settings and select Apps (followed by Application List,

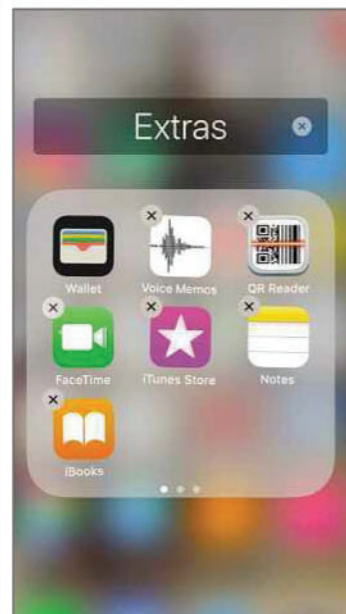
if you're running Oreo). Find an app you want to remove from your device. If it's an app that Android will allow you to remove, you should see an Uninstall button. Tap this and wave goodbye to that particular app. If you see a Disable button instead, it means you can stop the app running but you can't uninstall it. Some apps are integral to Android, in which case you can't uninstall or disable them. You may also find that your phone



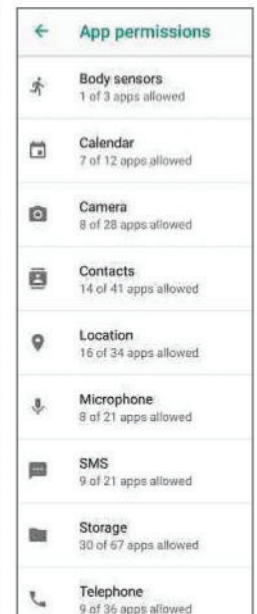
You can now remove many (but not all) apps bundled with Android



Some preinstalled apps are integral to Android and can't be removed



Apple devices since iOS 10 let you remove unwanted Apple apps



Try viewing Android permissions by type

manufacturer simply doesn't let you remove certain preinstalled apps.

Apple has always exerted tighter control over its devices than other manufacturers, and removing bundled apps from its operating system used to be impossible. That changed with the arrival of iOS 10 in 2016, and now removing a bundled iOS app is no different to removing any other app. Touch and hold the app's icon until it jiggles, then tap the 'X' in the corner to remove it. Bundled apps you can remove include Calculator, Calendar, Compass, iTunes Store, Apple Maps, Notes, Weather and Stocks.



Restrict data usage

If your mobile phone contract gives you a limited monthly data allowance, you won't want to blow it all on greedy apps. Android helpfully provides tools to keep a close eye on your mobile (and Wi-Fi) data usage, so you can take steps to rein in any apps that use too much. It lets you see how much data you've used and see which apps have consumed the most. You can also check how much data apps have used in the background (when an app is running and consuming data without you actually using it). We show you how to find this information in our Mini

Workshop, below.

Bear in mind that the figures Android shows in its 'Data usage' screen may not be quite the same as those recorded by your mobile provider.



Revoke Android Permissions

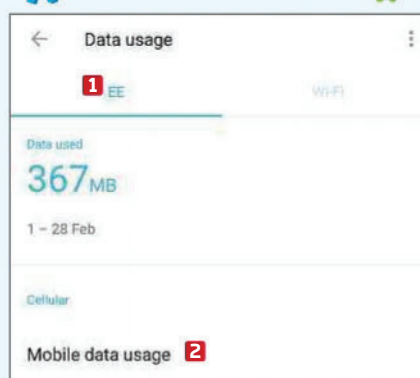
Android used to be terrible at handling permissions. When you installed an app, it would tell you the access it wanted to your hardware and data, and you could either like it (go ahead with the installation) or lump it (cancel it). You couldn't pick and choose which permissions to grant – it was all or



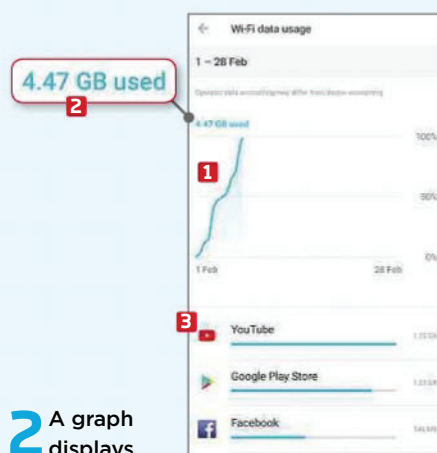
MINI WORKSHOP



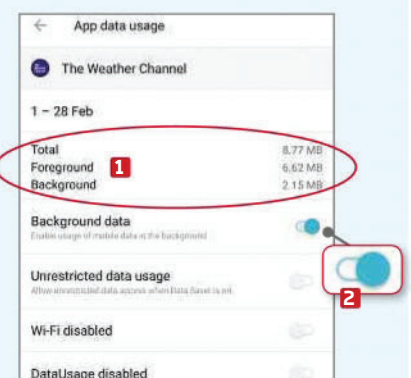
Manage your mobile data usage



1 This is how the 'Data usage' section looks in Oreo, but it may be slightly different in older versions of Android. To see how much mobile data you've used, select your mobile carrier **1** and tap 'Mobile data usage'. **2** The next page shows how much data you've used so far this month.







2 A graph displays your current data usage **1** and the total consumed so far. **2** Apps and services that use mobile data are listed below in order of usage. **3** Scroll down the list to see how much data each app has used. If an app seems to be using too much, tap to select it.



3 The next screen shows you the amount of data an app has used in total, how much of this was while you were actively using the app and how much was used in the background. **1** The toggle switch **2** lets you disable background data use. You can also manage Wi-Fi usage.

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Data supplied by www.broadbandgenie.co.uk. Correct as of 9 February 2018.

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WHY YOU NO LONGER NEED TO ROOT YOUR ANDROID DEVICE

Android is based on Linux, and rooting your device gives you privileged administrator access over the operating system, just as it does in a Linux-based PC operating system such as Ubuntu or Linux Mint. When you root your phone, you become a 'superuser' and can basically do whatever you want. For example, you

can choose which version of Android to run, remove bundled apps and junk, and even overclock the processor to make your hardware run faster.

It's easy to see the appeal of rooting your phone but Android is now much less restrictive than it was. The OS has matured over the years and many of the features you once had to root your

phone to access now come as standard, or can be accessed by installing an app from Google Play.

Rooting your phone is also difficult, and not without risks. It makes installing the latest updates harder, and you run the risk of 'bricking' your device (rendering it unusable) if things go badly wrong.

nothing – and Android apps often requested a *lot* of permissions.

Since then, Google has made some significant improvements, tweaking the way Android handles permissions so that it's a lot more like iOS. Apps now ask for individual permissions when they actually need them, and you can choose whether or not grant them. You can also revoke permissions you've already granted, although this can sometimes stop the app working properly. We show you how in our Mini Workshop, below.



Install a VPN

Connecting your PC to the internet over a Virtual Private Network (VPN) disguises where you're browsing from and helps to overcome geographic restrictions (see our cover feature on page 40). A VPN is just as useful on your phone or tablet.

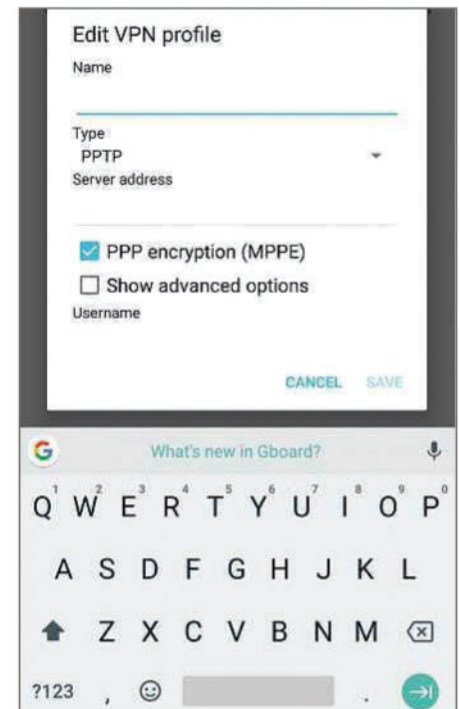
In the past, you had to root your Android device if you wanted to install

Adding a VPN to Android used to involve rooting your device, but not any more

a VPN – but not any more. Most popular VPN services now have apps that you can download directly from Google Play. There are plenty to choose from, including CyberGhost (bit.ly/cybg443), TunnelBear (bit.ly/tb443) and the new ProtonVPN (protonvpn.com).

If you can't find an app for your favourite VPN service, you can always add a profile for it in Settings. Open the menu and tap More under 'Wireless & networks'. Tap VPN (Android Oreo users will find this setting in the Network & Internet menu). Tap the plus sign, then fill in the details to get your VPN up and running. You'll need to set a lock-screen PIN or password before you can configure this feature.

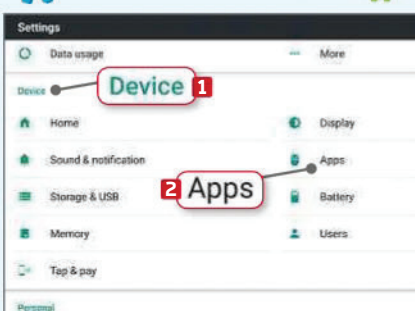
To set up a VPN in iOS, tap Settings, General, VPN, then Add VPN Configuration and fill in the details. ■



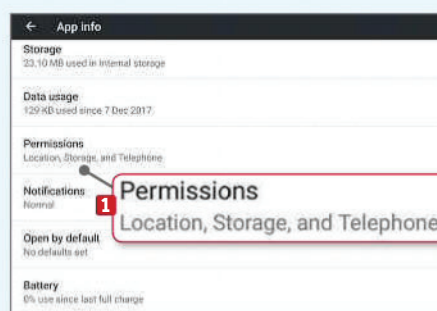
MINI WORKSHOP



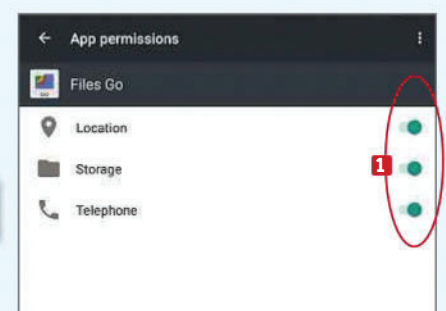
Revoke app permissions manually



1 If your phone or tablet runs Android 6.0 Marshmallow or later, you can manage app permissions and revoke any you've changed your mind about. Marshmallow was released in 2015, so most recent devices will have this ability. Open Settings, scroll down to the Device section, **1** then tap Apps. **2**



2 You'll see a long list of apps and services. Browse the list until you find the one you want. Tap it to open the 'App info' screen, where you'll see the permissions that are available to it. **1** Tap this category heading.



3 The 'App permissions' screen shows all the permissions granted for that app. You can disable them using the toggle switches next to each item. **1** If the app crashes or stops working properly, you may need to go back and re-enable its permissions. You won't see a message explaining the cause.

NEXT ISSUE

How To... Create your own Alexa voice commands

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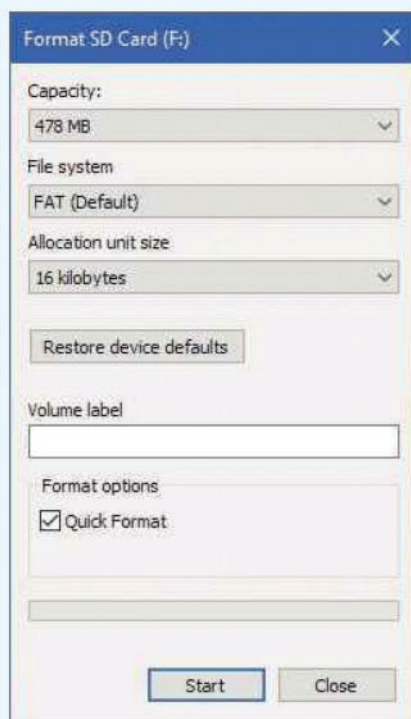
Avoid problems with **memory cards** in your phone, camera and tablet using these tips from our experts

Format cards to reduce errors

All storage devices – including memory cards in phones, tablets, cameras and computers – can be affected by errors. It's therefore a good idea to format your card occasionally, to reset the filing system.

If you have a memory-card reader on your PC, it's tempting to use this to format your card, rather than searching through the menus and options on your camera or phone. However, each device may require a different structure of folders and files for storing photos, videos, audio recordings and other content, and if your PC makes changes to the card's file system, your device could fail to recognise it at all.

Formatting a memory card via the device you want to use it with will automatically ensure the correct type of format is selected, along with the necessary structure, ready for when it's needed.



It's best to format a memory card on the device you're going to use it with, rather than your PC

power mid-write could corrupt the image. This problem doesn't affect phones and tablets, which continue to operate when the screen is turned off.

Watch the battery

Whether you're using a digital camera or a phone, it's best not to write to the memory card when the battery is very low. Don't format it, erase files, move apps or take any photos or videos, because all these actions require power and if your battery level is critical, the camera or phone could shut down part-way through writing to the card. At best, you could end up losing the file; at worst, the whole card could be corrupted.

Before you take a photo or perform any file management, check the battery level. If it's too low, wait until you've had a chance to charge it.

Spread the risk

You can now buy memory cards with capacities of up to half a terabyte, such as the new Integral MicroSDHC/XC Class 10 UHS-I U1 (bit.ly/inte443). Having a large-capacity storage device is convenient because a lot of photos, videos, audio and apps can be stored on it. The downside is that if it is lost, damaged or corrupted, you could lose a *lot* of files.

Weigh the risk against convenience and decide what suits you best. Two 256GB or four 128GB memory cards

Don't fill your card up

Whether you're storing photos, videos or apps on a memory card, it's best not to fill it to the limit of its capacity. Your device may claim to have room for a given number of photos, but this is just an estimate – the size of a photo, and therefore the space required to store it, depends on the resolution and quality settings, and the detail of what is in the picture. So even if your camera or phone indicates there's room for one

more image, it may be wrong.

It's best to replace a memory card when it's nearly full, rather than waiting for an error message saying that there's no more room, or you may miss out on a photo or video opportunity while you're hunting for a fresh card.

Switch off to remove cards

It may be possible to remove a memory card without switching off your device, but it's good practice to avoid this because the card's contents could be corrupted. This will almost certainly happen if the card is being written to as it is removed. Switch off the camera or phone before ejecting the memory card to be on the safe side.

However, you shouldn't switch off a camera too soon after taking a photo because it may take several seconds to save it to the memory card. Cutting the

If you see words that look like they've been typed in a typewriter, follow the instructions and type them exactly as they appear, paying close attention to spaces and punctuation.



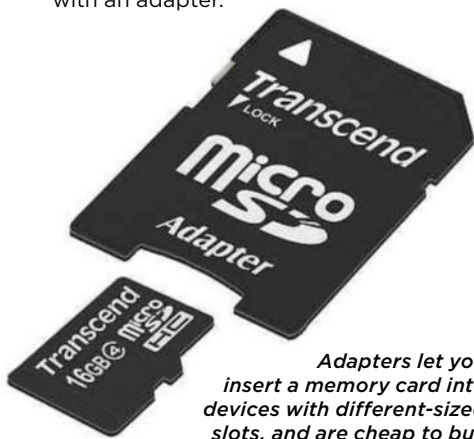
You can now get tiny memory cards that have massive capacities



mean that fewer files will be lost in a disaster. On the other hand, it's easier to keep track of one card that's permanently inserted in your device. Weigh up the pros and cons, taking into account how careless you tend to be!

Use an SD adapter

There have been many different types of memory cards over the years, and physical dimensions and standards are always changing. A microSDHC/XC card can be used in a phone, camera or tablet, but you can also insert it into a computer's larger SDHC or SDXC Card slot using an SD adapter. Search online and you'll find some for well under a fiver. Some microSD cards even come with an adapter.

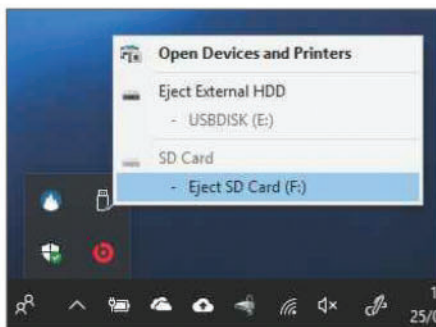


Adapters let you insert a memory card into devices with different-sized slots, and are cheap to buy

Eject the card

If you remove your memory card from a computer or card reader while it is being written to or before files have finished transferring, the entire card could be corrupted and all your files lost. As with a USB drive, the card should be ejected in Windows first, which ensures that all data is saved to the card and that it's safe to remove.

Look for the card's icon in the notification area. If you can't see it, click the arrow to open the panel of hidden icons. Right-click the one that looks like a USB memory stick and select 'Eject SD Card' (or whatever the card is named). After a couple of seconds, it's safe to remove the card.



Eject memory cards in Windows before removing them from the computer

TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

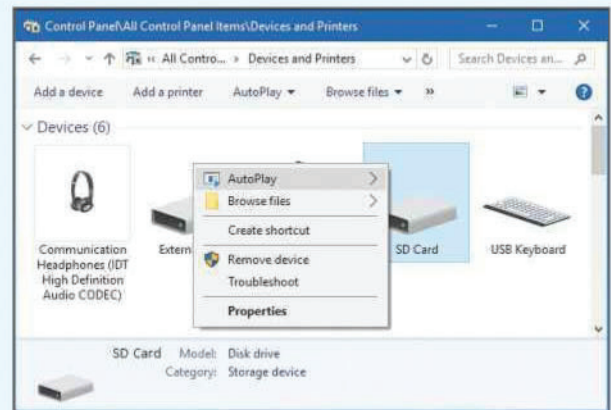
Transfer files to a computer

Most phones, cameras and tablets can be connected to a computer via a USB cable, and Windows is usually able to recognise and display them in Explorer. However, this is often a slow and clunky way to transfer photos and videos and, in some cases, the device may not be recognised.

A quicker and easier method is to remove the memory card from your device and plug it into a slot on your computer to read the files off it. However, if your computer doesn't have a memory-card slot that can recognise the card from your device, you can buy a memory-card reader for around £10. Make sure the reader supports the card you're using.

If your PC has USB 3 sockets, a USB 3 card reader is the fastest way to transfer files. A USB 3 reader will work on a PC with USB 2 sockets but only at the slower USB 2 speed.

There are also wireless memory cards available, such as Toshiba's (bit.ly/tosh443), which make it possible to connect a computer, phone or tablet wirelessly to transfer the files.



The Control Panel's 'Devices and Printers' option lets you choose what happens to files when you insert a card

The memory card is shown in the Devices section and right-clicking it displays a menu with an AutoPlay option. Click it and you can choose what to do with the device from a list of options.

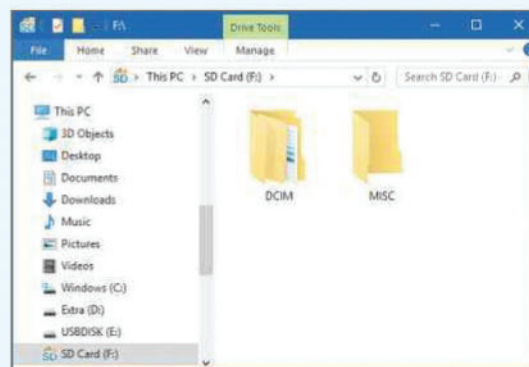
The items on the list depend on the software installed on the computer – photo editors, video players and built-in apps such as OneDrive and the Windows 10 Photos app. Select an item from the menu. Explorer can be selected to browse the contents of the card.

Use space more efficiently

If the memory storage in your camera or phone is nearly full and there's space for just one or two photos, the best course of action is to replace the card with a fresh one that's empty or that you can erase.

If you don't have a spare card to hand, you can create more room by reducing the quality of the photos. Go into the camera settings and look for a quality setting. This affects the JPEG compression, and selecting a lower quality reduces the file size, allowing you to squeeze more photos into the remaining space.

One last option is to reduce the resolution of your photos. Go into the camera or photo settings and select a smaller size. This will reduce the overall file size and you may find you can take another four or five lower-resolution photos instead of just one or two high-resolution snaps.



If your computer has a memory-card slot, you can quickly and easily transfer your files

Autoplay memory cards

When a memory card is inserted into a computer or a card reader, Windows should detect the new device and ask what you want to do with its contents. If you don't see anything on the screen, open the Control Panel, then open 'Devices and Printers'.

Ask the Expert

Roland Waddilove, computer programmer and PC journalist since 1981, answers all your technical questions. Email us for help at webuser@dennis.co.uk



HARDWARE

Defragment or optimise a hard drive?

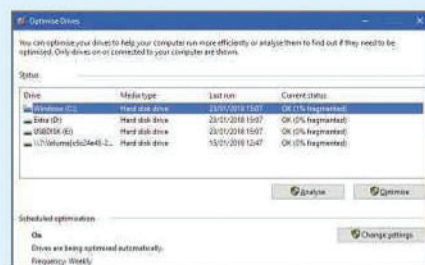
Q In your reply to Philip George in Issue 438 (bit.ly/webuser438), you say SSDs should never be defragged. When I start the Defrag tool in Windows 10, it doesn't mention defragging – only optimising. Are they the same thing?

My desktop PC contains both an SSD and a mechanical hard drive, so should I just optimise the hard drive and do nothing with the SSD?

Clive Tear, via email

A Optimising a mechanical hard drive involves defragmentation – a time-consuming process where fragments of files are reorganised into more efficient blocks. Optimising a solid-state drive (SSD) uses a 'trim' tool to mark unused space so the drive can wipe it. This is very quick.

Windows 10 detects which type of drives you have in your PC and either defrags or trims them as appropriate. The Start menu has an option to 'Defragment and Optimise Drives' in



Only mechanical hard disks are defragmented during optimisation

the Windows Administrative Tools section, but this won't accidentally force defragmentation of an SSD. However, this may not be true of all disk defragmenters, so if you download a defrag tool, don't try using it on your SSD. It won't make your drive any faster but will add to the drive's wear and tear.

Some defragmenters offer more tools than Windows' built-in version, if you want to wring every last drop of performance out of a mechanical hard drive.

buttons do', then 'Change settings that are currently unavailable'. Remove the tick from 'Turn on fast startup'.

Restart the PC and press the Esc key straight away, then press F9. You may not need Esc, and tapping F9 a few times immediately after powering on may work. This displays a menu with the option to select a startup drive.

HARDWARE

Reattach a NAS drive

Q I have a WD My Book hard drive on my home network. It was working fine until recently, but I must have inadvertently changed its settings because now all I see is a location called MyBook Twonky. A green light on the unit shows that it's connected to my network, but I can't access it.

Richard Sowden, via email

A A wonky Twonky is easily fixed. Twonky is the name of the software that turns your WD My Book network-attached storage (NAS) drive into a media server. This allows it to stream video, music and photos to other devices on the network.

Open a web browser and type <http://mybooklive/> or enter the drive's IP address, which will be something like **192.168.1.50**. Click Settings in the menu, then click Media in the panel that appears. You'll see a tickbox to enable or disable Twonky.

To allow your PC to access a network drive, you need to map it, which basically creates a shortcut. Open Explorer and select This PC in the sidebar. Click Computer at the top to show the ribbon toolbar, then click 'Map network drive'. Click the Browse button and you'll be able to see any devices that are connected to the network. Find and select the WD My Book drive.

Back in the Map Network Drive window, you can choose a drive letter and decide whether you want the drive to reconnect automatically when you start Windows. If you select this option, you'll see an error message whenever you start your PC if the drive isn't switched on. It's harmless but irritating.

HARDWARE

Set the boot order

Q I'm having trouble with the Unified Extensible Firmware Interface (UEFI) on my Windows 10 HP Pavilion 15 laptop. I've created emergency CDs and USB memory drives so I can access my PC if something bad happens to my hard drive, but when I go into the UEFI and

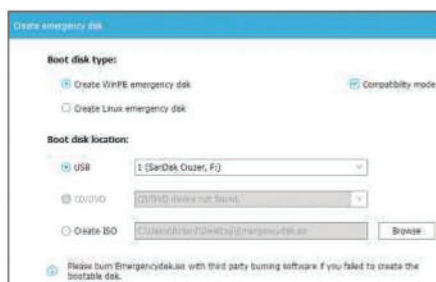
change the run sequence – to prioritise booting from the USB and CD drives – it still boots from the hard drive.

I noticed that there is a 'Legacy BIOS' setting under UEFI. If I enable this, it warns me that my operating system may not start, so I've left it alone. I received no help from the HP Forum, and the HP contact number I have is no longer in use.

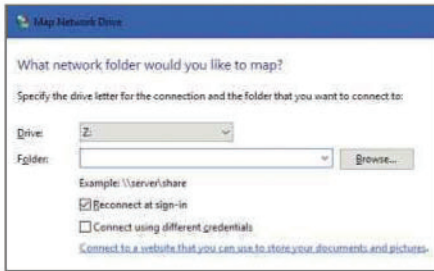
Kevin O'Brien, via email

A Your PC will boot from the first available media in the run sequence, so if you haven't inserted a bootable CD or USB memory stick before switching on the power, the PC will start from the hard drive as usual.

If you want to boot from a different source, right-click the power/battery icon in the taskbar and select Power Options. Click 'Choose what the power



Use backup software to create a boot disc or USB drive to rescue your PC



Before you can access a network drive on your PC, you need to map it

How old is your WD My Book? Windows 10 Fall Creator's Update removed support for very old NAS drives due to security issues. A firmware update from bit.ly/wd443 may fix it.

John Davies, via email

SOFTWARE

Eliminate Word page breaks

Q Can you tell me how to get rid of line breaks that appear mid-page in Word? I'm not sure how I put them in, but I need to know how to get rid of them. Every method I've tried merely moves them up or down a line or so. Word Help is no help.

Philip Welsby, via email

A Word and most other word processors use several different types of break. When you press Enter to end one paragraph and start another, this is a paragraph break. If you hold down Shift and press Enter to start a new line, that's a line break. You can tell them apart because the spacing is different. To insert a page break – where you end a line and jump to a new page – hold down Ctrl and press Enter.

You should be able to delete these breaks by pressing the backspace key. Use your mouse to place the cursor at the beginning of the line following the break, then use the backspace key to delete it. This should connect the lines before and after the break.

If you have a lot of breaks, it may be easier to search and replace each type. Use Word's Replace option on the Home tab to search for ^p (a paragraph break) and replace it with something else, such as a space. Search for ^p^p and replace with ^p to convert double paragraph breaks into single ones.

To find and replace line breaks, search for ^l; to replace section breaks, search for ^m. You could replace ^m with ^p, for example, or replace ^m with a space to remove it completely and let the text flow. It's a good idea to create a copy of your Word document and use it to experiment with the different breaks.

GENERAL PC

Reset your audio volume

Q Since a recent Windows 10 update, my laptop's speakers have become almost inaudible. The volume control is set to 100% and yet the output is very weak. I've tried looking in Settings but can't find a way to reset the volume to its previous level.

James Chu, via email

A The problem is that your PC's original audio drivers and software have been replaced by alternatives from Microsoft Update. The audio still works but isn't optimised for your computer hardware, which is why the output quality and volume aren't as good. The solution is to reinstall the old audio drivers and software.

You don't say which make or model of laptop you have, so we can't give specific information, but go to the manufacturer's website and search for your computer model. Find the section with drivers and software downloads, and reinstall the audio software. Keep a copy of the drivers and software on your PC, so you can reinstall them easily if the next update removes them again.

GENERAL PC

Unstick Windows 10 update

Q I've been trying to update Windows 10 for two months without success. My PC downloads the update and gets to 100% of 'preparing to install', but no further. It then restarts the update.

Robert Cull, via email

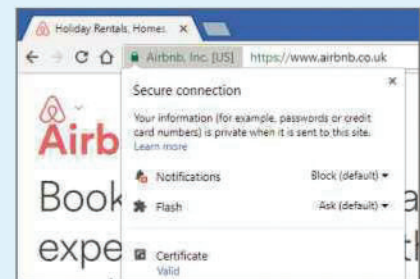
WEBSITE

Is Airbnb safe?

Q When planning our family holiday, the deal is that the children (now in their fifties) do the research and booking, and we pay for it. This time, they have found a great place in France through Airbnb (www.airbnb.co.uk), but two weeks for eight comes to a tidy sum, which we have to pay Airbnb on booking. How can I be sure that the website is genuine before we send the money?

Peter Latham, via email

A To ensure you're on a real website and not a fake one, type the URL rather than clicking links in emails or on web pages. Airbnb (www.airbnb.co.uk) shows a padlock symbol and



Type in a site's URL to make sure it is the correct site and not a fake

the company name 'Airbnb, Inc.' to the left of the address box.

Airbnb is one of the top sites on the internet and is used by millions of people. If you're worried about the accommodation, check the reviews and star ratings to see what other people have said about it. Choose rentals that have lots of good reviews and you should have a great holiday.



This fortnight Roland spent most of his time scanning old photos taken years before digital cameras were popular

Your Top Tips

Our pick of the best advice from our readers. To get help or offer it to others, visit forum.webuser.co.uk



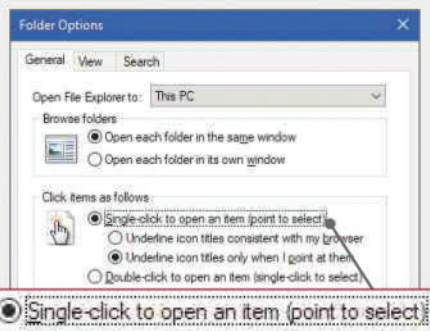
TOP TIP

GENERAL PC

Try web-style single-clicks in Windows

Windows 95 was the first Windows version I used and I remember it had a controversial feature back then. Instead of double-clicking files and folders to open them, you single-clicked, like we now do on web pages. Microsoft introduced this, thinking it was simpler and easier, but Windows users didn't want to change from double-clicking, which they were used to from previous versions. Double-clicking was made the default again and has been ever since.

However, you can switch back to single-clicking if you want to try it. Open an Explorer window, select the View tab and click Options. On the General tab, select 'Single-click to



Why double-click everything when you can single-click instead?

open an item' and click OK. If you don't like it, return and select 'Double-click to open an item'.

Craig Banks, via email

three words. If they enter the words into a compatible tool, it will take them to within three metres of the exact location you were thinking of. It's mind-blowing!

Try it for yourself at map.what3words.com. For example, the location of the Web User office is 'roofs.garage.softly'. So if you go to map.what3words.com/roofs.garage.softly, you'll be taken straight to the relevant spot.

The drawback is that the GPS device has to be compatible with what3words and not many are yet. I expect that will change, though – Mercedes has already said that it will build it directly into the satnavs fitted into all its new vehicles.

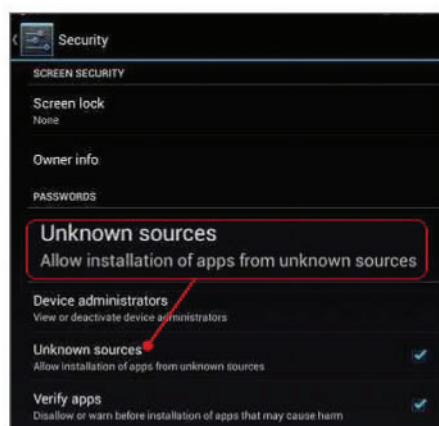
Mason Wallace, via email

ANDROID

Switch off unknown sources

I enjoyed your Workshop about Blokada in Issue 441 (bit.ly/webuser441), but you missed out a very important detail.

In Step 1, you explained how to go into the security settings and switch on the option to let Android install software from unknown sources. However, once people have downloaded the Blokada app, you didn't tell them to go back and disable the setting again.



After installing an app, switch the block on unknown sources back on again

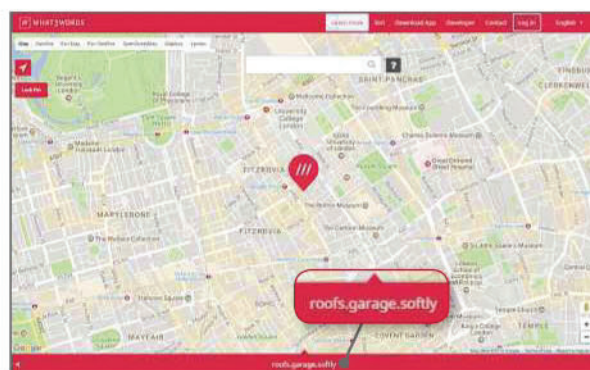
Except during the short length of time that the app is being installed, 'Unknown sources' should always be disabled.

Jim Barton, via email

MAPS

Share GPS coordinates more easily

I've just discovered a wonderful new GPS (Global Positioning System) tool called what3words (what3words.com). Instead of typing a long series of numbers to share GPS coordinates for a location or address, you can simply give the recipient



Ditch complicated GPS coordinates and use three simple words instead

GENERAL PC

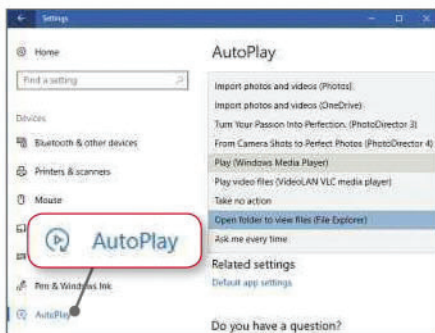
Choose your AutoPlay options

When you plug something into your PC that holds data – whether it's a USB drive, a phone or a CD – Windows can automatically perform an action. If a specific option hasn't been set up, a list of actions is displayed and you are prompted to select one. You don't have to choose an action, and can simply opt to do nothing. That's the option I prefer because I don't like being nagged about what I want to do every time I plug something in.

Open the Settings app in Windows 10 (press Windows+i) and go to Devices.

Select AutoPlay in the menu and you'll see a master switch at the top. This is useful for disabling all pop-up notices. If you prefer, click the item below each listed device and select what you want to do from the menu, such as open as a folder in Explorer, play the content in Windows Media Player and so on.

The options depend on what software you have



Choose what action, if any, you want to take when inserting a device in your PC

installed. For example, VLC is given as an option for playing music and video files, if you've installed it.

Steve Evans, via email

SOCIAL NETWORKING

Switch off Instagram's Last Seen

Instagram recently added an annoying 'last seen' feature, which shows other people when you were last active on the service. I think this is a flagrant abuse of my privacy, not least because it's switched on by default.

To switch off the feature, open Instagram and tap your profile. Tap the gear icon, scroll down and find 'Show Activity Status'. Toggle it off. It's a two-way street, though – information about when you were last online will be hidden from other users, but you won't be able to see the info about them, either.

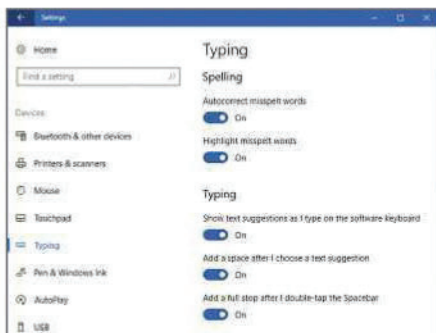
Alan Brunswick, via email

GENERAL PC

Change soft keyboard settings

If you have a laptop with a touchscreen or, better still, a hybrid with a detachable touchscreen that you can use like a tablet, there are some useful settings you can tweak for the on-screen keyboard. They are very similar to the options you get on a mobile phone.

Open Settings (Windows+i) and go to the Devices section. Select Typing and browse through the options. For example, just like a phone, it can autocorrect misspelled words and show



If your laptop has a touchscreen, you can configure the typing options in Settings

suggestions as you type. There's an option for ending a sentence with a full stop and a space if you press the spacebar twice, and you can automatically capitalise the first letter of sentences, too.

James Kendrick, via email

WEBSITE

Save bookmarks online

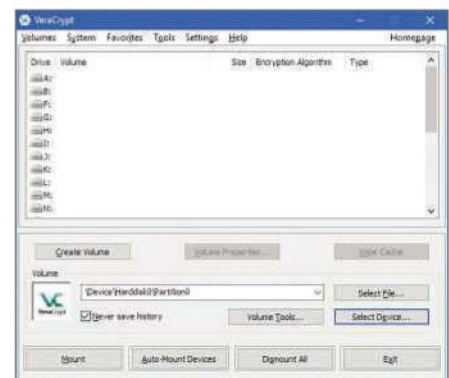
I would like to share a site that I've found brilliant and very helpful. It's a free site that lets you save all your favourite URLs online. You can put them in different categories and then rearrange them. The site is called Bookmarkee (www.bookmarkee.com). If you set it as the homepage of your browser, your bookmarks will always be there when you need them.

Steve Hulse, via email

HARDWARE

Encrypt to wipe an SSD

There are tools that securely erase files on a hard drive so that no-one will ever be able to recover them. This is useful for deleting files that contain private information or ensuring that content



Stop people snooping on your SSD by encrypting it with VeraCrypt

can't be accessed on a hard drive you've disposed of. However, they don't work with SSDs (Solid State Drives).

You can't erase an SSD like you can a mechanical hard drive, so you should encrypt it instead. When the drive is encrypted, no-one can access your files without logging in with the password. Windows 10 Pro has BitLocker, which can be switched on from the Control Panel. I use VeraCrypt (www.veracrypt.fr), which is a free encryption tool.

K Morris, via email

BLUNDER OF THE FORTNIGHT

iOS

Reorder Apple's Open In icons

I download a lot of PDFs to my iPad because I find it's a great way to read digital documents that combine words and pictures, such as the rules for my collection of board games. However, I found it annoying that when you go to a PDF on the web and click the Open In button, the list of apps shows the 'Copy to iBooks' option at the very end, which was ridiculous. I couldn't imagine why I would want to save a PDF to Notes or Gmail.

I've been suffering with this for years, presuming there was nothing I could do about it. However, a friend recently showed me that you can rearrange these icons and bring your favourites to the front of the list. It's a revelation and I can hardly believe I've been getting annoyed with it when I could have changed it ages ago!

Open an app you regularly share things from, such as the Photos app. Open a photo and click the Share icon. On the bottom row, swipe left to the very last option, which should be More.



You can rearrange Apple's default order for its Open In and Sharing tools

Tap it and a menu appears listing all the options that are available to you. You can remove any you don't want by tapping their switches to off, and switching on any currently unavailable ones that you'd like to include. Best of all, you can drag and drop any item and position it in a new place in the list. Click Done when you've finished.

Stephen Donne, via email

Have you managed to fix a PC-related disaster?

If so, please send your story to webuser@dennis.co.uk



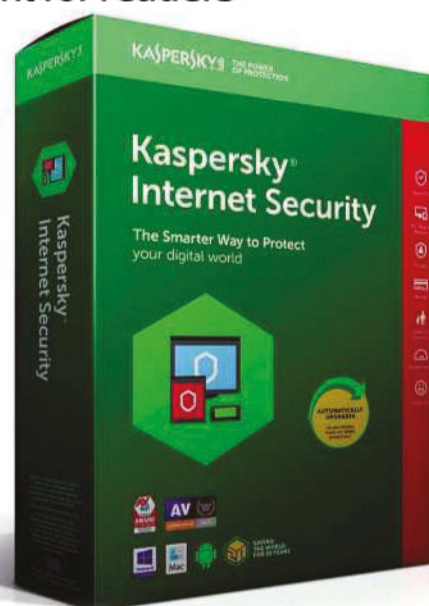
OFFER OF THE FORTNIGHT

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- ✓ Faster startup and update times
- ✓ Stops viruses modifying files on your computer



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NETWORKING

Reconnect a device that can't find the internet

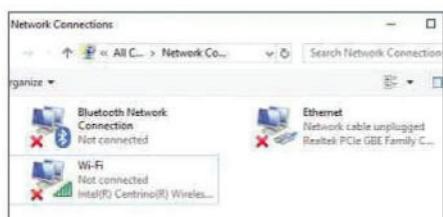
Q I have a Windows 7 laptop, an Android tablet and a Windows 10 desktop PC. They all connect to my router via Wi-Fi. However, the desktop PC won't connect to the internet, though the laptop and tablet connect without problems. I have tried everything I can think of. It's clearly not a router problem, since they're all connected to the same router in the same way.

The login screen of the desktop PC shows a network warning icon with a small yellow triangle. I have already switched off the router and switched it back on again, but that made no difference, and I can still connect via the tablet and laptop.

DavidNewton, via Web User Forums

A Don't forget to try switching all your devices off so they get reassigned local IP network addresses when they're switched back on. If the desktop PC connects okay when it's just been switched on, type **command prompt** into the Windows search box. When it appears, right-click and choose 'Run as administrator'. In the Command Prompt window, type **ipconfig /release**, press Enter, then type **ipconfig /renew** and press Enter again. You'll get an error message about not being able to renew when a device isn't connected, but this just relates to the unused Ethernet connection so ignore it. Close the Command Prompt window.

If that doesn't help, I'd suggest a power cycle of the router. To do this, switch off



If a device won't connect to your router, restart it to establish a fresh connection

PHOTOS

Digitise your photographic slides

Q I have some photographic slides of railways that I took back in the 1980s. What is the best, easiest and cheapest way to scan them?

Jedi, via Web User Forums

A It depends on how many you want to scan and what quality you need. If it's only a few dozen slides, then there are companies that can do this for you and it will probably work out cheapest.

If you have a lot of slides to scan, it's best to use a device designed specifically for the job, which needn't be expensive. There's an Ion device from Amazon (at bit.ly/ion443) that seems affordable. Shop around and



Dedicated slide scanners are a relatively cheap way of scanning a lot of slides yourself

read the reviews.

You can also use some flatbed scanners but take note that the cheaper ones can't scan slides, because you need a device with a secondary light that shines from behind the transparent slide. However, this extra functionality makes the scanner more expensive.

Doublell and pete.i, via Web User Forums

the router and disconnect all cables for a couple of minutes, also switching off any devices that connect to it. Reconnect the cables and only switch the router back on. Once it's connected to the internet and all the lights are on, switch on one device at a time and make sure each one has connected to internet before switching on the next one.

Cantrel, via Web User Forums

HARDWARE

Hard reset to restore a laptop

Q I decided to have a look through my USB memory sticks to see if there were any that I didn't need to keep. Taking one out of the box, I didn't realise it was set up to be used in an emergency to start the PC if the hard drive failed. When I inserted it into a USB port, the computer went dead and now I can't get it working again. I'm worried that I may have short-circuited something.

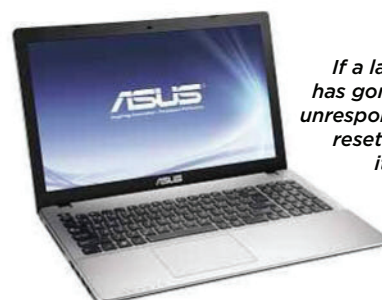
Is there a fuse in a laptop that might

have blown or have I totally lost the entire system? It's an Asus X550C laptop with a 1TB hard drive, which runs an up-to-date version of Windows 10.

fossewayfella, via Web User Forums

A Try a hard reset. Switch off the laptop, disconnect the power supply and remove the battery, if you are able to. Press and hold the power button for several seconds, then release the button. Put the battery back and reconnect the power supply.

Sneakybeaky, via Web User Forums



If a laptop screen has gone blank and unresponsive, a hard reset might bring it back to life

Star Email

Mug
winner



Don't judge people by their email addresses

As somebody who still has a Hotmail address, I take great offence at Admiral charging Hotmail users higher insurance premiums (Need to Know, Issue 442). How does the fact that I have hung on to an email account that I opened 15 years ago – more for convenience than sentimental reasons – affect my ability to drive a car without causing accidents? This amounts to online snobbery on Admiral's part, looking down on people because they're not 'trendy' enough to have a Gmail account (which I do, by the way, as it's required for my Android phone). I use my Hotmail address when websites ask me



to provide my email, as is the case with services such as Gocompare.com, to keep my 'proper' personal address free of rubbish from marketing companies.

I would have thought this makes me wiser than people who give out their main email address willy-nilly, whereas Admiral seems to believe that all Hotmail users are careless-driving thickos. Maybe some of them are, but then I'm sure plenty of Gmail and Yahoo users cause accidents too!

Judging people by their email address is the same as discriminating against them because of their name or postcode, so I hope that the negative press this matter has attracted prompts Admiral to rethink its policy.

Paul Vallance, via email

Expensive hosting has driven me to ebooks

For the last three years, my WordPress blog was getting more than 200,000 visits every year. Not one of these visitors ever made a PayPal donation to enjoy the content I provided, which took me ages to research.

Now, the web host has put up the cost of hosting from \$30 a year to \$100. I also have to factor in the time I spent keeping my website up to date and creating new content. I have now made the decision not to host the site any more and to instead put my hard work into Amazon Kindle ebooks. This has already paid off as I have had some purchases for my books.

I can see a time when only the rich multinationals can afford to run websites and thus only mainstream news will be represented. It is almost impossible to download the WordPress database should you wish to use it again and these hosts never send a disc containing the content that you created.

Adrian Bonnington, Northampton



Apple should let us control our devices

Regarding Barry's column in Issue 441, 'A battery of excuses for poor performance', why doesn't Apple put its money where its mouth is and make the throttling of its devices a user-selectable setting – preferably with a slider?

Those that want to eke every ounce of performance from their device and don't care if it crashes more often than Richard Hammond can wind the slider to maximum speed. Others, who might want to venture away from a wall plug

for more than 24 hours (yes, these people do exist, Apple), could select minimum power. Sure, they will have to put up with sloth-like performance but that's their choice.

Yet another group of people might even restore their device to its former glory by replacing the battery (yes, it can be done, Mr Apple – and not only by an Apple Store!). Why should they be denied the option to run their device at its original speed?

Apple could even include a setting to 'manage my power settings

Quiz Answers: Issue 442

1 **Bangkok**



2 **Singapore**



3 **Baghdad**



4 **Belfast**



5 **Canberra**



6 **Bucharest**



WINNER!

Congratulations to
Grace Farrell
who wins a
Web User
mug



WORD PUZZLE

Autoplay



automatically', in case there is anyone who prefers things as they are.

John Hammond, via email

I do not believe Apple's explanation for slowing phones. Surely, if it wanted to, the company could offer very small security updates for breaches that were detected in the older versions of the iOS software.

My iPad happily lets me send emails and browse the web, which is all I need. When the battery runs out, it will be replaced. Why doesn't Apple release an app that tells *me* when my battery needs changing? After all, it has already built this function into its software – it just hasn't shown me where!

Caroline Beck, via email

Allowing ads is a small price to pay

Many smaller websites rely on income from advertising, and ad-blocking software threatens their existence.



Lots of people say they don't click adverts, so it makes no difference to them. However, nearly everyone at least occasionally clicks ads, even if they don't intend to. Ads are a small price to pay for free content. I know they are over the top on some sites, but you can just avoid those sites and allow them on more responsible sites.

Grim Rob, via email

The facts about 150% faster

Regarding your correspondence in Issue 441 about a 10-minute cleaning process that is "now up to 150% faster": 0% faster means the same speed; 100% faster means twice as fast; and 150% faster

150%

means 2.5 times the speed. So a clean-up that used to take 10 minutes will now take

10 minutes divided by 2.5, which equals 4 minutes. Of course, that ignores the "up to", which are weasel words.

Waggy Gum, via email

What you say...

WINDOWS 10's MARKET SHARE HAS FINALLY OVERTAKEN WINDOWS 7's. BUT WHICH IS BEST?

I prefer Windows 7. It's quick and simple to navigate. Windows 10 is a bit awkward.

Rob Goldring

This is my last Windows laptop. I don't like the password stuff or Cortana. Edge is rubbish. I preferred Windows 7.

Liz F Lambeth

I love Windows 10 and find it very easy to use. Love the fast boot-up time.

Jenny Jacks @JenJacks3

I prefer Windows 7. You don't have to keep signing in. And yes, I unticked the Windows 10 settings to stop it telling me to sign in, but it still does it.

Lori @gadgetgal16

THE GOVERNMENT CLAIMS THAT 95% OF HOMES CAN NOW GET 24Mbps BROADBAND (bit.ly/bband443). DO YOU GET 24Mbps?

I managed to get up to 8.5Mbps after I changed my main phone socket and hard-wired the extension to my router.

Gerrit Max

Not a cat in hell's chance here in the North West. I'm approximately 1.5 miles from the exchange, but as the crow flies, not as wires run!

Noel Abbott

I get a whopping 5Mbps. Don't think I could cope with 24Mbps.

Dave Rutherford

In the last six years I've lived in Lincs, Beds, Glos, Berks, Bucks and Hants. We've never had more than 5Mbps

except for a spell in Lincoln using Connexin (www.connexin.co.uk) when we got about 10-12Mbps on a good day.

Matt Mc

FACEBOOK NUMBERS HAVE DROPPED FOR THE FIRST TIME (bit.ly/fb443). WHY?

It has run its course. It's too depressing, causes arguments with people you've never met and worst of all is the News Feed. Why can't it just be in order like Instagram?

Paul Mudge

Too many trolls, smart alecs and thickos. I've blocked about 10 people and keep my friends to fewer than 40.

Geoffrey Boow

Too many ads, messed-up reading order, fake news, scammers and not enough privacy. It'll go the same way as MySpace eventually.

Sir Cumference @Gary_Olsen

Former work colleagues wanting to be friends – no thank you.

Paul Fald

YOU MAY SOON BE ABLE TO REPORT CAR CRASHES ONLINE RATHER THAN AT A POLICE STATION (bit.ly/cars443). A GOOD IDEA?

My recent claim was all managed online, with an upload of dashcam footage. Efficient and effective.

Alan McClean

There would need to be really stringent checks and balances to ensure honesty and transparency.

Nat Grove

Most things today can be done online, whether it's renewing your insurance or applying for a credit card.

Brian Brown

Yeah, it's a good idea, if only the police bother to act on it.

Wolf Simpson

! Page 404



Hardware companies are in an unholy mess with Meltdown and Spectre, says **Barry Collins**

We'll all suffer from the Meltdown meltdown

The entire computing industry is in a massive pickle. Everything from iPhones to Core i7 computers have been struck by two massive bugs and nobody – repeat, nobody – knows how to deal with it. In fact, the so-called fixes have caused far more problems than the bugs themselves.

As you are no doubt aware, the bugs in question are called Spectre and – appropriately enough – Meltdown. You may have heard about them on BBC News or even the pages of this magazine, where someone's probably struggled to explain exactly what the problem is. That's because these bugs are extraordinarily complicated. I've been working in this business for 20 years and I still don't have a full handle on what they do. More worryingly, nor does the industry.

Meltdown and Spectre attack almost every modern processor in existence: the processor in your smartphone, your router, your smartwatch, your PC, your tablet – they're all potentially vulnerable, and in a big way.

Processors do something called 'speculative execution', where they attempt to speed things along by predicting what data will need to be processed in the future – a bit like Mystic Meg, only with more accuracy and less make-up. Meltdown and Spectre basically exploit this guesswork, potentially handing over your passwords, sensitive documents, bank-account details and all kinds of other stuff you don't want stolen by malware. It's serious stuff.

The industry found out about these gaping holes a few months ago and



began working on fixes, but news of the exploits leaked just after Christmas and sent the entire industry into a tailspin. A rushed-out Windows patch pretty much bricked some older PCs running AMD Athlon processors, leaving their poor owners looking at nothing more than the Windows logo. Ironically, AMD processors were one of the few that

weren't vulnerable to Meltdown, although they could be struck down by Spectre.

On the very day I'm writing this column, Microsoft has released another

patch designed purely to disable Intel's own patch for the Spectre bug – which had the unfortunate effect of causing PCs to randomly reboot. And to add to the general mess and chaos, Microsoft's patch doesn't yet come down the pipe like the regular Windows updates – you have to specifically hunt it down on the Microsoft website.

Even if your PC hasn't been battered by these so-called fixes, it's almost

certainly got slower. Because the fixes for these bugs basically disable the speculative execution that made processors faster in the first place, your PC is now no longer as fast as the day you brought it home.

Windows 10 PCs bought in 2015 or earlier will likely experience "significant slowdowns", according to Microsoft, "and we expect that some users will notice a decrease in system performance". "Some" users is upgraded to "most", for those still running Windows 7 or 8. Even the latest PCs take a minor performance hit.

So, to summarise, your PC is either dead, rebooting randomly or slower than it was previously as a result of these 'fixes'. Is it any wonder people don't trust computing companies – especially Microsoft – when they plead with us to allow security updates to install automatically?

With little or no evidence that Spectre or Meltdown have actually been used by the bad guys, right now this is one of those cases where the cure is almost certainly worse than the bug itself.

“Even if your PC hasn't been battered by these so-called fixes, it's almost certainly got slower”

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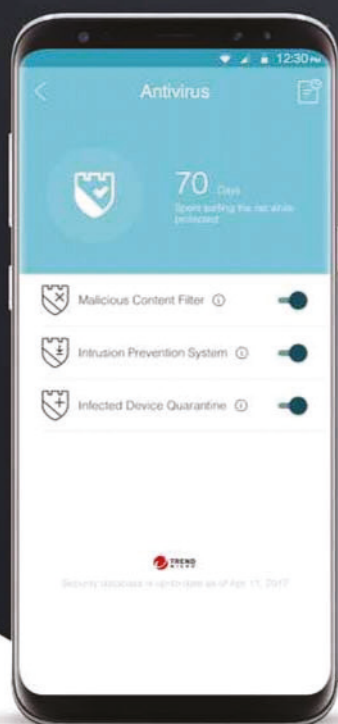
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