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Issue 476

29 May - 11 June 2019

/ Best software / New apps / Huawei or the highway?

Make sensitive
files and photos
unrecoverable

p48

without resorting to this



THE MISSING MANUAL

Spotify



Unlock its best hidden tools, secret content and maximum power **p40**

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PLUS

**LOCK DOWN YOUR
WINDOWS SETTINGS**

Don't let anyone change them **p54**

**USE CHROME
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ON ANDROID**



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**DOWNLOAD AND STREAM
TORRENTS ANONYMOUSLY**

So nobody knows what you're watching **p56**

CREATE AN UNINTERRUPTED WORK SPACE



XUB2595WSU-B1

Providing excellent picture performance, the ProLite XUB2595WSU is a great choice for office, graphics and CAD applications. The monitor features an IPS panel offering 1920 x 1200 native resolution with accurate colour reproduction and wide viewing angles. Full 180 degrees rotation allows you to easily create an uninterrupted work space for greater viewing comfort and improved productivity.

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Now that's what I call Spotify!

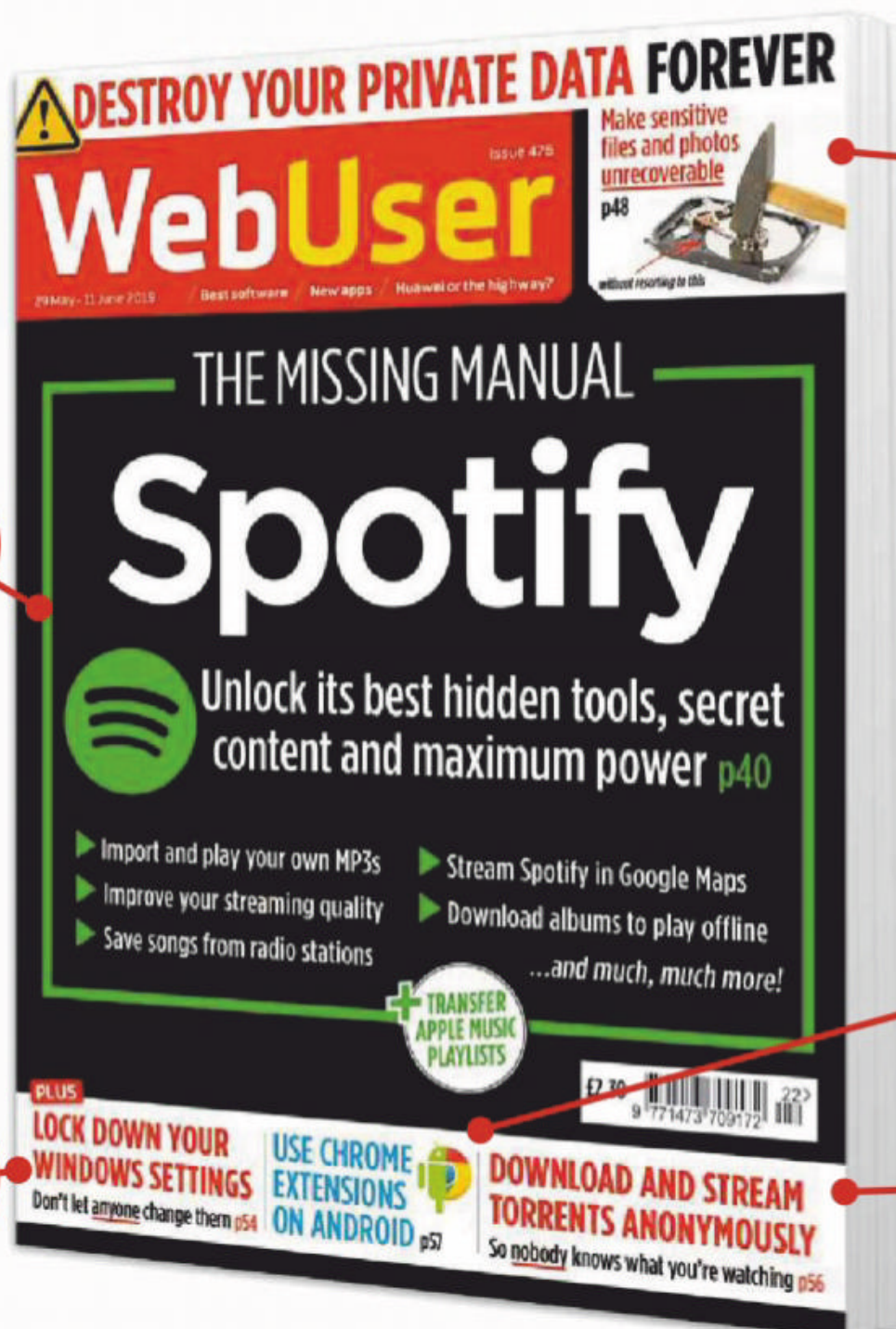
As a music-loving youngster whose pocket money only stretched to buying one 7-inch single a week, I relished the biannual release of the *Now That's What I Call Music* compilations. Thirty-two recent chart hits spread across a gatefold sleeve with a picture of a pig in sunglasses, these albums were a potpourri of popstastic goodness (and Level 42).

Still, they look pretty quaint now compared to the music-streaming behemoth Spotify, which gives you instant access to 40 million tracks for free – or less than the price of one CD a month, if you

want to skip those annoying ads.

In this issue's cover feature, we celebrate the wonder of Spotify by digging beneath its black, white and green surface to uncover the tools and content that even Spotify addicts miss. From importing your own MP3s and playlists to improving the audio quality and setting it as your alarm clock, we've got the manual the world's favourite streaming service forgot to provide.

Robert Irvine, Editor
editor@webuser.co.uk
[#webuser](#)



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COVER
FEATURE

THE MISSING MANUAL

Spotify



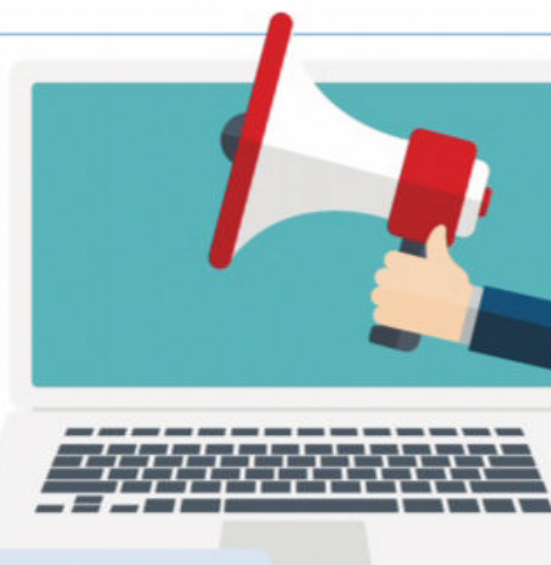
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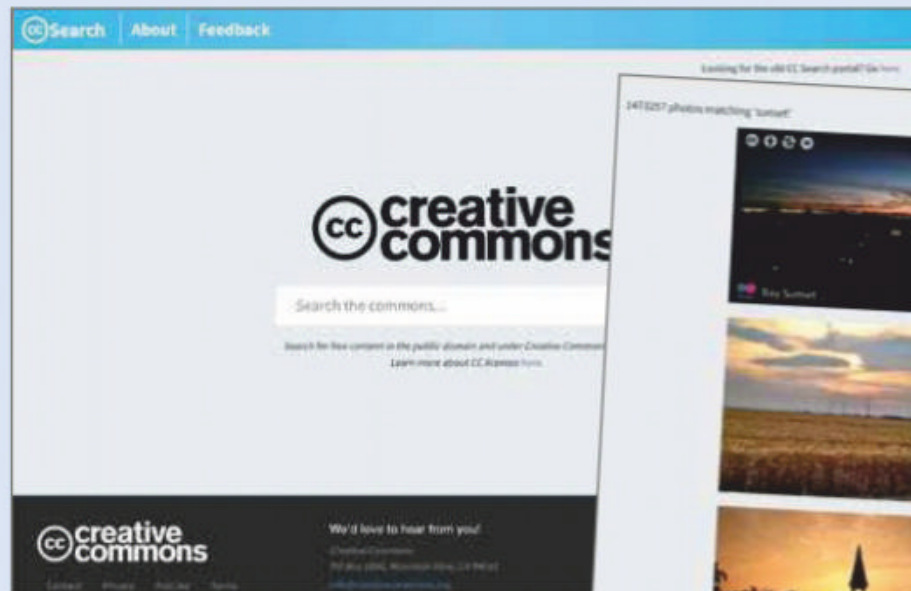
What's New Online

Find copyright-free images online

When you want to find an image to illustrate a blog post, newsletter or project, it's easy to go to Google Images and grab a photo you like the look of. However, doing so runs the risk of breaching copyright.

It's therefore much wiser to find images that are free to use under a Creative Commons licence and, with the new search engine CC Search, you can do just that. Enter words or phrases into the search box and you'll be able to scour 300 million images across 19 collections. They include pictures from museums, Flickr, Rawpixel, Behance and more, using open APIs and the Common Crawl dataset.

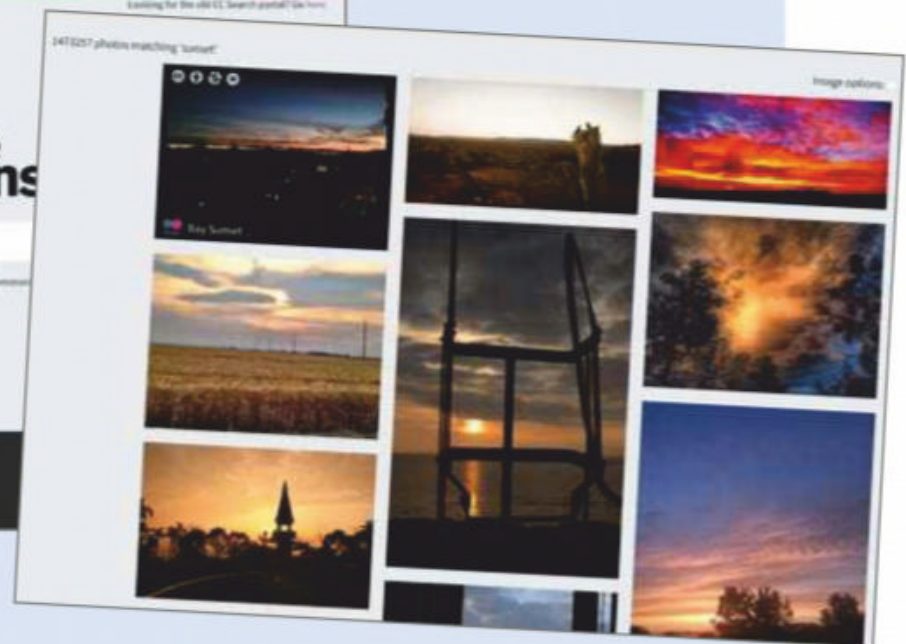
In each case, you can filter by licence type and provider, and indicate whether you want to modify



an image or use one for commercial purposes.

You're then able to click an image to see exactly how it can be used, with the search engine highlighting any required attributions and providing HTML code for embedding.

All information can be verified by clicking to visit the source of the



picture, and you can even complete a quick survey to let CC Search know what you're using the image for. In short, it's an invaluable method of ensuring any images you use are always above board.

search.creativecommons.org

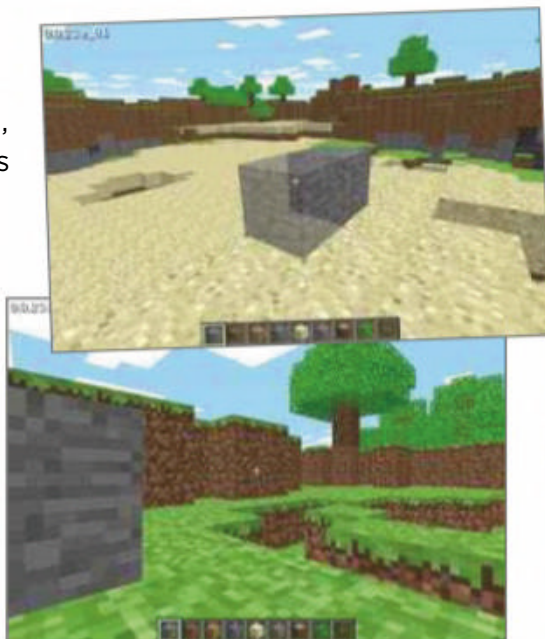
Play Minecraft in a browser

classic.minecraft.net

To celebrate the 10th anniversary of Minecraft, its developer Mojang has released a version that can be played for free in your browser.

It harks back to the classic 2009 original and while that means it's more limited and arguably less user-friendly in comparison to the modern versions, it makes for a wonderful trip down memory lane for seasoned players while acting as a great introduction for newbies.

No downloads or installs are required – just launch the game and you'll be prompted for a username, and can invite up to nine friends to play along. Once you're in the game, a left mouse-click will mine or place blocks, and you can use the keyboard to move around the landscape. The original bugs are intact and you're restricted to the creative mode (explore and build). Even not being able to save what you end up creating somehow adds to the nostalgic charm.



Create infinite patterns from images

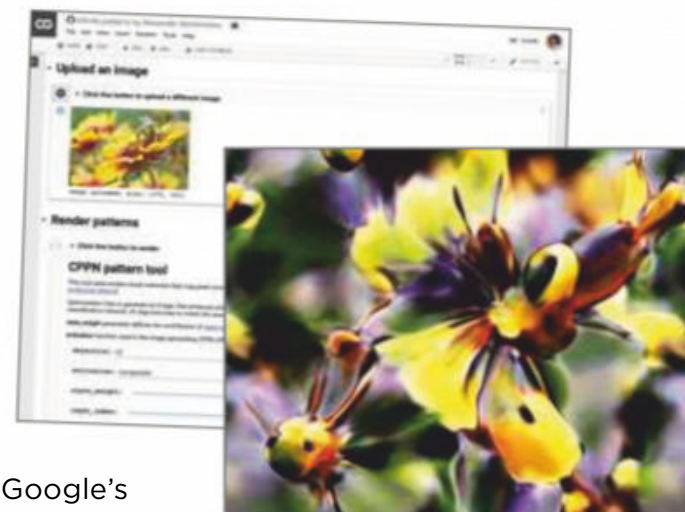
bit.ly/infinite476

Google Arts & Culture's wonderful new tool looks for distinct patterns in any image you upload and uses them to produce a stunning piece of art. Based on a computer vision program

called DeepDream by Google's Alexander Mordvintsev, in

collaboration with digital artists Pinar Demirdag and Viola Renate, it uses a machine-learning algorithm to enhance aspects of a picture to produce a colourful dreamlike image that often looks good enough to print and frame.

While the process is a little fiddly and less than intuitive, full instructions are provided on the website. Essentially, you need to upload an image and render it, while taking into consideration options such as deciding whether to match an average pattern or the whole distribution. Bold images work best, perhaps because they draw on a curated selection of images fed into the tool, but you'll have fun experimenting.

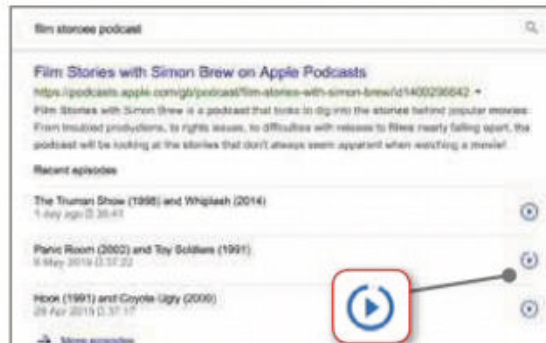


We pick the 10 best things you must do on the web this fortnight

Listen to podcasts via Google results

www.google.co.uk

Podcasts are now included in Google's search results, which means you don't need a dedicated app to listen to them – just search for one, find the card and click the Play button. You'll be directed to podcasts.google.com where you can listen and skip back and forth through the audio. You can even mark podcasts as played.



NEW VOICE COMMANDS

Discover data about you
Google Assistant's new setting helps you understand the data it uses. Launch the Assistant or Home app, go to Settings and tap Your Data In The Assistant to see commands you've issued and turn functions on and off.



Start a healthy run
Use Siri to kickstart a run in the Nike Run Club app and get running tips on your lock screen. Go to Settings and select Nike Run Club, Siri & Search, Use with Siri.



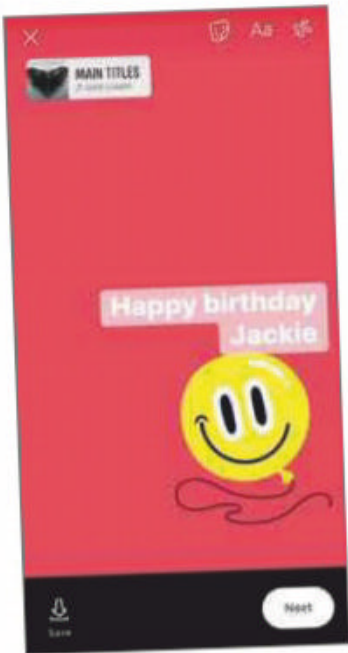
Reduce your carbon footprint
Say, "Alexa, give me a tip to reduce my carbon footprint" for ways to save energy and, in some cases, a bit of cash too.

Create Facebook birthday Stories

www.facebook.com

Does a little note wishing someone happy birthday on Facebook feel too

underwhelming? Well, now you can spruce up your greeting by placing it within a digital birthday card. Tap a birthday notification when one appears and you'll be given the option to snap or upload a photo or video, or select from one of many animated cards. From there, you can add visual

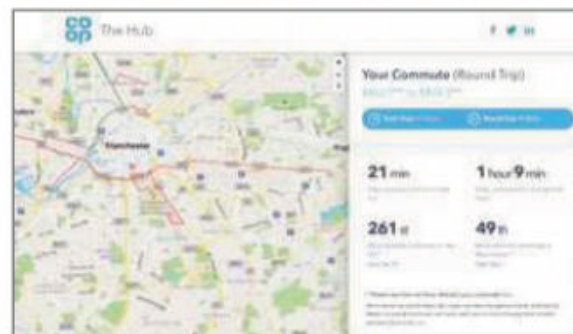


stickers and even a short music soundtrack before sending the card on its way. It's cheaper than buying a physical card and more thoughtful than a couple of words on a wall.

Compare your daily commute

bit.ly/commute476

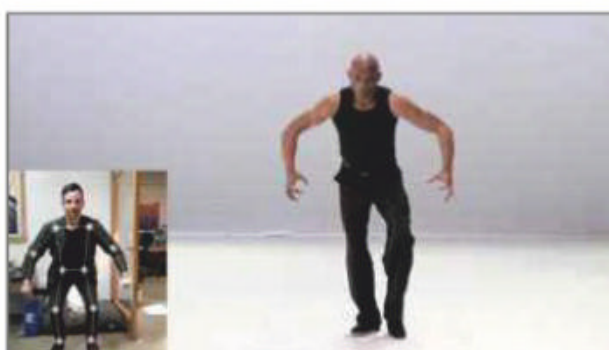
It may only be a 33-mile round trip but the journey from Westhoughton to Manchester during rush hour eats away three hours and 40 minutes of a driver's time! No wonder it's the UK's most stressful commute according to the Co-Op and, if you'd like to see how your journey fares in comparison, simply enter your start and end points to find out. By comparing each trip to others locally and nationwide, you'll get a good idea of how good or bad you have it. You'll also discover how many days the journey consumes each year and the average rush-hour speed.



Explore your body's creative potential

www.billtjonesai.com

Choreographer Bill T Jones throws a series of 21 shapes and invites you to match his pose. By allowing the site access to use your webcam, Google's PoseNet technology uses AI to check your moves for as long as your entire body is within the frame. Once you're done, you can download a GIF of your experience before listening to Jones' reflections.



Pick up Amazon parcels

www.amazon.co.uk

Amazon has launched Counter – a service that lets you pick up your parcels from retail outlets such as Next. Select a retailer as a delivery location at the checkout – you then have 14 days to take your provided barcode to a store for collection.

Check food allergies

allergycheck.ca

This Canadian tool – optimised for mobile – helps you check for allergies by asking about symptoms and indicating whether you ought to be professionally tested.

Pay the government via Apple and Google Pay

bit.ly/paygov476

The UK government is now accepting Apple Pay and Google Pay for some services and testing payment methods for its Global Entry Service, basic Disclosure and Barring Service checks, Electronic Visa Waiver Service and more.

Hackers snoop on WhatsApp users through phone calls

What happened?

WhatsApp has pushed out an update to its more than one billion users after revelations that hackers could gain access to smartphones simply by calling people via the messaging app.

The hackers' targets don't even have to answer the call for the phone to be infected with the malicious code, according to reports (bit.ly/whatsapp476). The hack exploits a weakness in the app that lets the code be sent via data packets in a voice call, spreading to the rest of the device and giving attackers access to the phone's data, camera, microphone and location.

Dubbed Pegasus, the WhatsApp flaw was reportedly created and sold by an Israeli company called NSO Group that specialises in uncovering these kinds of vulnerabilities, developing such methods and allegedly building spyware to sell to governments. It's unclear who exactly was using the NSO Group software to leverage the WhatsApp vulnerability, but we know of a few potential targets, including a human-rights lawyer in the UK, an activist in the UAE named Ahmed Mansoor, and others in Mexico and Saudi Arabia.

How will it affect you?

This is no basic hack, and that's the upside: it's a targeted attack used for



specific victims, rather than malware spread widely to catch anyone it can infect. WhatsApp has said that only dozens of people were affected – a tiny fraction of its overall user base.

The Israeli government reportedly monitors and regulates the sale of NSO Group's products as though they were weapons. Before the WhatsApp revelations, NSO Group's CEO told an US television programme that its software has been used to prevent terror attacks. That doesn't mean it's always used for crime prevention rather than government abuse, as it's clear activists have been targeted using Pegasus. Amnesty International has said it is backing legal action against the company (bit.ly/pegasus476).

Most of us don't need to worry about the flaw. However, if you are an activist or are concerned about such high-level attention, it's worth upgrading to a more secure messaging app, such as Signal (signal.org), which works using the same basic system as WhatsApp but with more security protections.

As for the rest of us, WhatsApp has released an update to patch this particular flaw, so make sure you install it from the Google Play or Apple App store, along with any other updates for your phone's operating system and other apps. And remember – there is no

such thing as perfect security, and that there are trade-offs between easy communication and privacy.

That said, WhatsApp is end-to-end encrypted, so it's safer and more private than most digital communication methods, even in light of attacks such as Pegasus. This incident is no reason for most of us to give up an otherwise useful and popular messaging app.

What do we think?

Whenever one of these high-level hacks hits the headlines, WhatsApp is criticised as being

insecure and we're told we should switch to other apps. But it's worth noting that these attacks are sophisticated and target specific victims, be they activists or terrorists, and services from companies such as NSO Group cost far too much to be used against the wider swathe of people or by run-of-the mill criminals.

WhatsApp isn't perfect – no digital tool is. There may be more secure messaging apps but they usually come with trade-offs, such as being more difficult to use. It's worth exploring an alternative if you need more security, but WhatsApp's balance between usability and security is adequate enough for most people.

Another interesting point is that the use of such vulnerabilities by state authorities should satisfy critics who feel widespread encryption should be curbed. WhatsApp's encryption protects mainstream users but if a government wants to know what you're up to, there are still techniques and methods that allow that. Any claims by the authorities that they simply can't access criminals or terrorists phones because of encryption, requiring companies such as WhatsApp to install backdoors, should be ignored. They can already get the access they want, if they're willing to pay companies such as NSO Group.



Amnesty International is taking legal action against the group behind the flaw

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

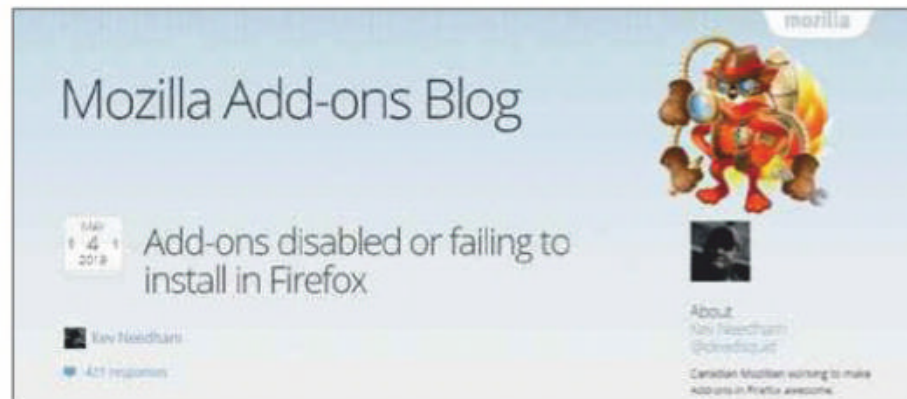
Mozilla apologises for Firefox add-on failure

What happened?

Mozilla apologised after users of its Firefox browser found their add-ons stopped working and new ones couldn't be installed. The company blamed an expiring security certificate (bit.ly/mozilla476), which made it appear to Mozilla's systems that extensions weren't trustworthy or secure. Mozilla pushed out a quick fix to everyone in its telemetry programme, which allows for faster updates; other users received an update within two days.

How will it affect you?

Such an outage is problematic if you use a browser-based password



manager, so it's worth ensuring you can access your login details via other means, rather than relying solely on a browser extension.

Firefox uses a variety of methods to update, so some users got a fix more quickly than others – notably those who opted into the Studies telemetry system, which collects data to help Mozilla develop the software. Mozilla

noted that some people joined this system purely to get the update more quickly, so the company has said it will delete any telemetry data collected around the outage to honour users' preferences. After all, you shouldn't have to hand over data just to get your browser working again.

What do we think?

It's annoying to have an

add-on you depend on suddenly stop working without explanation, but it's good that Mozilla takes the time to secure add-ons. The certificate that expired is used to digitally sign all add-ons after review by Mozilla staff, to help cut the number of malicious ones targeting Firefox users. Mozilla admits that this used to be a serious problem, and while it's annoying that the certificate was allowed to expire, it's better to suffer the inconvenience of an outage than not be able to trust extensions at all.

Hopefully, the next expiration data is now in Mozilla's calendar, so this won't happen again.

Zombieload security flaw found in Intel chips

What happened?

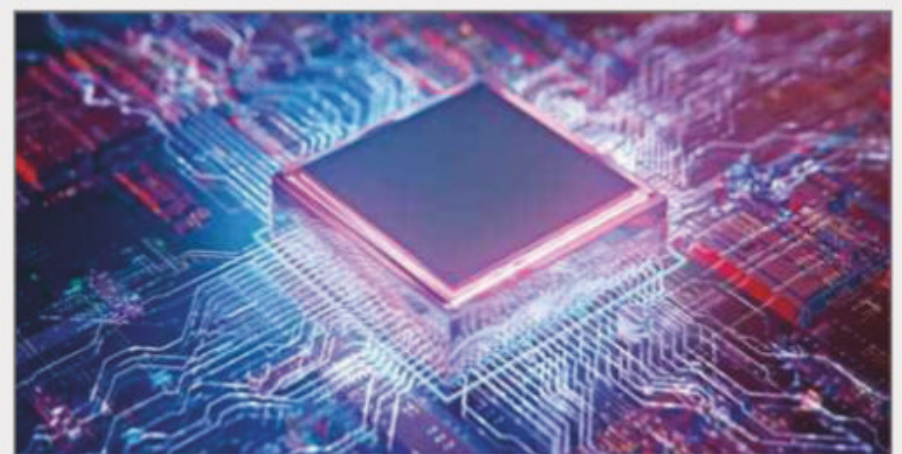
Intel processors have been hit by yet another security flaw, after Meltdown and Spectre last year revealed that the chips in our computers were as prone to vulnerabilities as our software. Uncovered by German and Belgian university researchers, the Zombieload flaw leaks data including browser history and passwords, as well as encryption keys.

The attack exploits – and is named after – a process called a “zombie load”. That's when a processor isn't sure what to do with certain data, so it asks its own microcode for help, which allows data to leak beyond the process that's using it.

How will it affect you?

The vulnerability is in Intel processors from 2011 onwards, but the researchers said it may be on older systems, too. It affects desktop PCs and laptops, including Apple Macs, as well as cloud servers. The researchers admitted they don't know if hackers have used the flaw yet.

As with many of these major flaws, there isn't much that individual users can do – this is a problem for Intel to fix going forward, and for software makers to mitigate against via updates. For this reason, the advice to manage Zombieload is the same as usual: keep your operating system and other software up to date at all times, and download the latest updates



by major developers including Apple, Microsoft and Google.

What do we think?

We tend to think of bugs as a problem that plagues software, but hardware is also capable of leaking data and being targeted by hackers. That said, there's usually little that users can do about it. The headlines

about Zombieload – and the name itself – sound scary, but protection is generally a matter of running updates as usual. It's more complex for advanced users who need full processor performance and are therefore at risk of being targeted by sophisticated hackers – but it's not something most of us have to worry about.

Broadband users to get end-of-contract alerts

What happened?

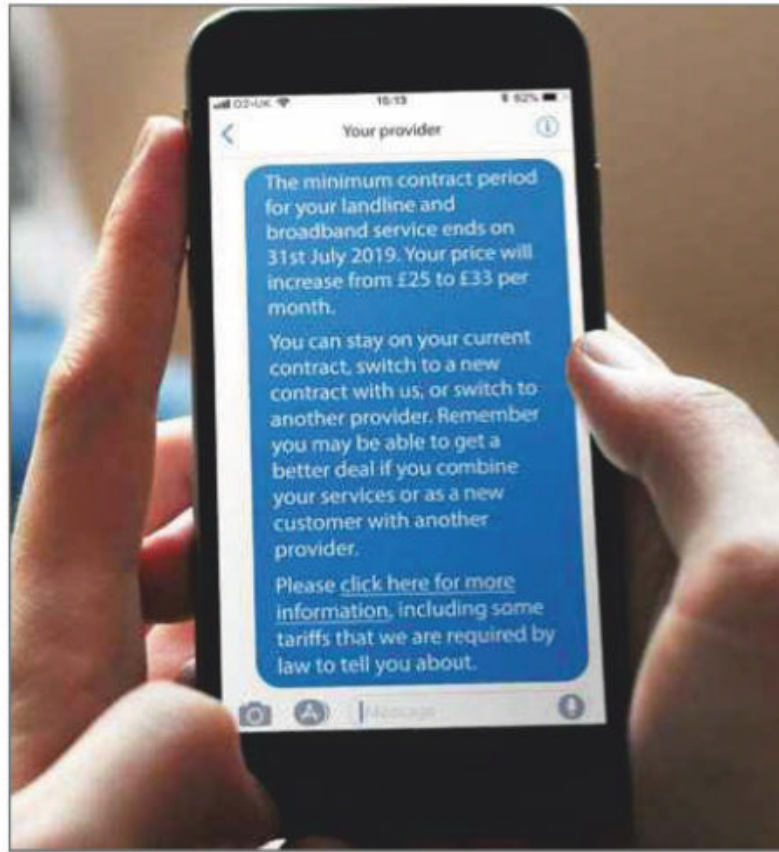
Ofcom has finally ruled that broadband, mobile phone and pay-TV suppliers must tell customers when their contracts are about to end.

According to the communications watchdog, this could benefit more than 20 million customers who unwittingly maintain subscriptions beyond the initial 'lock-in period' – typically, 12 or 24 months.

Ofcom's latest ruling should change that, forcing providers to notify customers by email, post or text between 10 and 14 days before their contract ends. These communications must state when the contract ends, how much a customer is paying and any changes to the terms of service, as well as the notice period required for terminating any contract. They must also highlight any differences in prices for new and existing customers.

What's more, if you decide to stick with your current supplier, it must send an annual reminder of the best deals available to you.

Lindsey Fussell, Consumer Group Director at Ofcom, said: "We're making sure customers are treated fairly, by making companies give them the information they need, when they need



it. This will put power in the hands of millions of people who are paying more than necessary when they're no longer tied to a contract" (bit.ly/ofcom476).

How will it affect you?

The biggest winner will be your bank balance. With so many contracts out there, it's all too easy to continue paying for subscriptions you're no longer legally locked into – or, worse, paying too much for them when better deals are available.

Ofcom reckons that a staggering one in seven consumers don't know whether they're still tied to an existing contract. And one in eight "believe they are 'in contract', but don't know when this period ends."

Don't expect to receive any communications yet, though. Companies affected by the ruling have nine months to comply, so you should start receiving end-of-contract notifications from 15 February 2020.

What do we think?

This is excellent news for consumers. We're also pleased that customers will see the best deals available, which should help us save money without having to scour websites, calculator in hand.

These days, setting up, then forgetting about, a Direct Debit is easily done, while that money drains from your bank account each month. If you bundle your broadband and landline contracts, it's estimated that you'll pay up to 20% more after your contract ends. Add pay TV and that rises to 26%. We hope Ofcom's measure limits this outrage.

It's a welcome change, but we'd be keen to see alerts for monthly subscriptions and rolling contracts, such as Netflix and Amazon Prime, too.

© Ofcom



FIRST LOOK

Lenovo ThinkPad X1 Foldable Tablet

bit.ly/lenovo476

It was perhaps inevitable that once hardware manufacturers deemed folding smartphones possible, they would begin folding everything else. Folding TVs, anyone? Don't bet against it. For example, Royole, the Chinese company that released its own (admittedly, not very good) folding smartphone just before Samsung, is now rumoured to be working on folding wearables.

It's in this spirit that Lenovo has unveiled the latest version of its popular ThinkPad X1 laptop – the ThinkPad X1 tablet. It's still in its prototype stage, but although it has its faults, it gives a tantalising glimpse of where the technology is heading.

The ThinkPad X1 tablet features an impressive OLED screen with 2K resolution, which measures 9.6in in the folded 'laptop-like' position, or 13.3in when unfolded. As it's a prototype, we don't know much about what's really behind that plastic-coated display, which suffers occasional glare. All Lenovo will say is that it runs Windows 10 on an Intel processor. Expect two USB-C ports and Bluetooth connectivity for hooking up a physical keyboard (the on-screen keyboard offers no haptic feedback).

Sadly, the design leaves a little to be desired. At a time when edge-to-edge smartphone screens are commonplace, this tablet opts for thick bezels that give it an unappealingly chunky look. What's more, the screen has an old-style 4:3 ratio, like an old cathode ray tube (CRT) TV. The main issue, however, is that it's



less responsive than we'd like, taking a second or two to register that we had rotated the tablet into a new position.

Niggles aside, we're excited to see how Lenovo develops the technology over the coming years. The Lenovo ThinkPad X1 is due for release in 2020. There's no price information yet, but you can expect it to put a serious dent in your bank balance.



WHAT'S THE RUMOUR

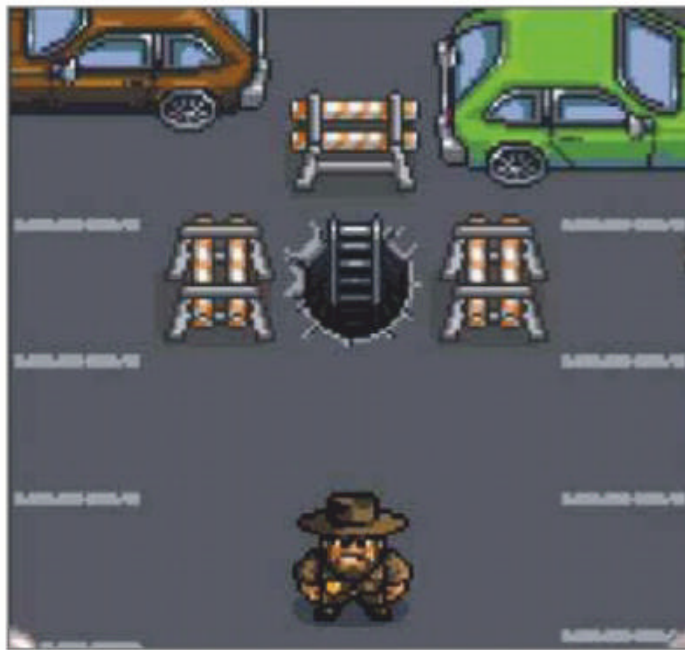
Is Netflix moving into gaming?

It's no secret that Netflix is attending next month's E3 – the annual video games expo in Los Angeles. The streaming service made a show of contacting E3 through its official Twitter account, requesting an invitation to gaming's biggest event of the year, where it's planning a discussion panel called 'Bringing Your Favorite Shows to Life: Developing Netflix Originals into Video Games'.

The Twitter chat was a little too scripted for our liking – as if we're supposed to believe that major companies can just ask for an invitation to a tightly scheduled expo at the drop of a tweet a month before the event. But could there be more to the visit?

When pushed, Netflix hinted that there was more to talk about than just the new *Stranger Things* game, saying "there's definitely more to come". This has provoked speculation that Netflix plans to launch a video games service.

It wouldn't be the media giant's first foray into gaming. In 2017, Netflix teamed up with indie developer BonusXP to produce the retro-style 8-bit *Stranger Things: The Game* (bit.ly/stranger476, pictured) for mobile devices. The streaming site also created last year's *Black Mirror: Bandersnatch*, a choose-your-own-adventure-style show that asked viewers to make decisions that affected the plot.



LIKELIHOOD RATING



It's true that Netflix is trying to plug a financial black hole, which is why the business is pushing up subscription prices and investing in original content, rather than paying for expensive licensing agreements.

Gaming is already a crowded market, however, and beyond the excellent and inventive *Stranger Things*, we're struggling to think of many Netflix shows that could translate to fully fledged games. Instead, expect Netflix to look into the sort of games available on the Amazon Fire Stick – simple mobile-type games aimed at casual users, rather than big-budget epics.

WEBOMETER

WE LIKE...

Google upgrades its smart home hub

Google has launched a new version of its Home Hub smart screen, called the Nest Hub Max. The Google Assistant-controlled device features a 10in display and a wide-angle camera for making video calls. It goes on sale in July for £219.



Microsoft and Sony form partnership

Microsoft and Sony have teamed up on a new game-streaming deal, despite having been fierce rivals in the console market for decades. It is believed that Sony will use Microsoft's Azure cloud platform to host its upcoming PlayStation streaming service.



WE DON'T LIKE...

BT's new logo proves disappointing

BT revealed its rather basic new logo (pictured right), drawing ridicule from around the web, especially as the design has reportedly been in development since 2016. The company plans to roll out the finalised branding in August.



Web legend Grumpy Cat passes away

The internet sensation known as Grumpy Cat has died aged seven, her owners have revealed. The moody moggy, whose real name was Tardar Sauce, starred in thousands of memes and attracted more than two million followers on Instagram.



What's new on Kickstarter

Our favourite new project on the crowdfunding site

AmbaSat-1

bit.ly/space476 | From £35

The AmbaSat-1 is a DIY kit that boldly goes where no man has gone before. It lets you build your own satellite and program it using easy-to-learn coding skills. You then send the kit back and the company will launch it into orbit (well, 1,200 miles up) along with thousands of other AmbaSat-1 satellites. The tiny kits measure just 35mm² but they're loaded with technology, including solar cells, sensors and radio transceivers for transmitting data back to Earth. You can get an AmbaSat-1 for £35, but to launch your satellite into space, you'll need to donate £214 or more.



Stay Safe Online

News about the latest threats and advice from security experts

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

Microsoft fixes critical flaw in Windows XP and 7

Microsoft has released fixes for a critical remote-code execution (RCE) flaw affecting older Windows installations that could allow malware to spread between machines without any user interaction.

The vulnerability has been described as 'wormable', which means that any future malware exploiting it could spread from machine to machine in a similar way to the infamous WannaCry attack in 2017. The flaw affects users running older operating systems including Windows 7, Windows XP and Windows 2003.

"While we have observed no exploitation of this vulnerability, it is



highly likely that malicious actors will write an exploit and incorporate it into their malware," Microsoft said.

"Customers running Windows 8 and Windows 10 are not affected".

A patch for Windows 7 is available through automatic updates, while Windows XP and 2003 users will also receive a special fix due to the severity of this issue. Microsoft said upgrading to Windows 10 is "the best way to address this vulnerability".

bit.ly/microsoft476

British Transport Police website hit by hack

The email addresses and phone numbers of British Transport Police (BTP) staff have been leaked after hackers compromised the newsroom section of the police force's



website. The BTP confirmed it was recently "made aware of a cybersecurity threat" to its website, which is hosted by an external supplier, and entirely suspended its newsroom section as a precaution, temporarily replacing it with a Tumblr feed.

"The Force has worked closely with the National Cyber Security Centre, the National Crime Agency and the external supplier to understand the nature of the threat and if there have been any compromises," a BTP spokesperson said.

Although the hack was first thought to have affected only the news section of the site, early investigations have revealed a "small number" of BTP employees' email addresses and telephone numbers were also exposed. It is not yet clear whether hackers specifically targeted BTP, or whether its web provider was caught up in a non-targeted cyber-attack.

bit.ly/transport476

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT:
Alex Perekalin,
Security Expert
at Kaspersky
(www.kaspersky.co.uk)



Q How worried should we be about the WhatsApp security breach (see story on page 8)?

Andrew Marsden,
Facebook

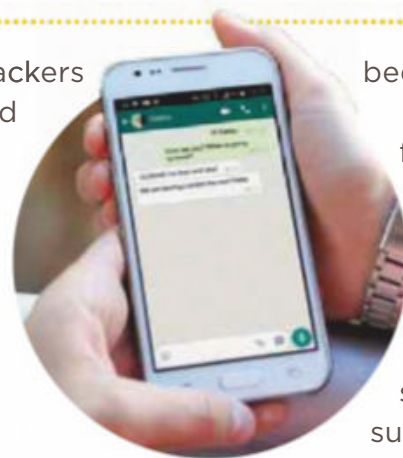
A The zero-day vulnerability discovered in WhatsApp allows hackers

to eavesdrop on users, read their encrypted chats, turn on the microphone and camera, and install spyware to facilitate further surveillance, such as browsing through the victim's photos and videos, accessing their contact list, and so on. What makes it even worse is that to exploit the vulnerability, all the hacker needs to do is call the victim on WhatsApp.

Reliable information on the matter is in short supply but what is known is that a specially crafted call can trigger a 'buffer overflow' in WhatsApp, allowing hackers to take control of the app and execute arbitrary code.

It seems the attackers used this method not only to snoop on users' chats and calls, but also to exploit previously unknown vulnerabilities in the operating system, which allowed them to install a spyware app on the device.

Attempts to exploit this vulnerability have already been spotted in the wild. WhatsApp's security team was able to block attacks that used the vulnerability, but details of how many people were spied on and who they were have still not



been disclosed.

It is also not yet fully clear which spyware app was being installed in the second stage of attack, but some parties suspect it might be Pegasus, the spyware famous for its supremely flexible infection capabilities.

To protect yourself, our best suggestion at the moment is to make sure your WhatsApp is up to date. To do that, go to the Apple App Store or Google Play Store, look for WhatsApp and hit Update.

From Apple to Zeiss, and everything in between



Try these magazines from just £1:
magazinedeals.co.uk/tech

Whether you're an IT professional or a first time buyer, Dennis technology has a magazine for you, all of which are written and produced by expert editorial teams. We cover the whole spectrum of technology news, reviews and features.

★ Best New Websites

Site of the Fortnight

TRAVEL

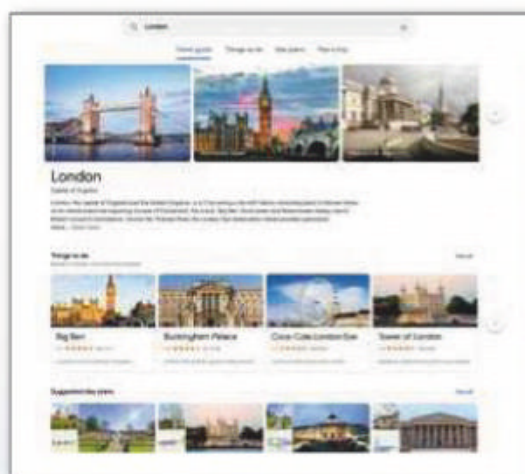
NEW

Google Trips

www.google.co.uk/travel

Just in time for summer, Google has rolled its various travel offerings into one simple hub, which looks set to become an invaluable tool. Trips lets you find and book flights, hotels and holidays, but it really comes into its own when combined with other Google services, such as collating confirmed bookings and past trips from your Gmail account, and monitoring your Google search activity to suggest suitable jaunts. You can edit your travel information, share the details with others and keep track of your trip research, and there are informative online travel guides that suggest things to do alongside articles pulled from the web.

Our rating

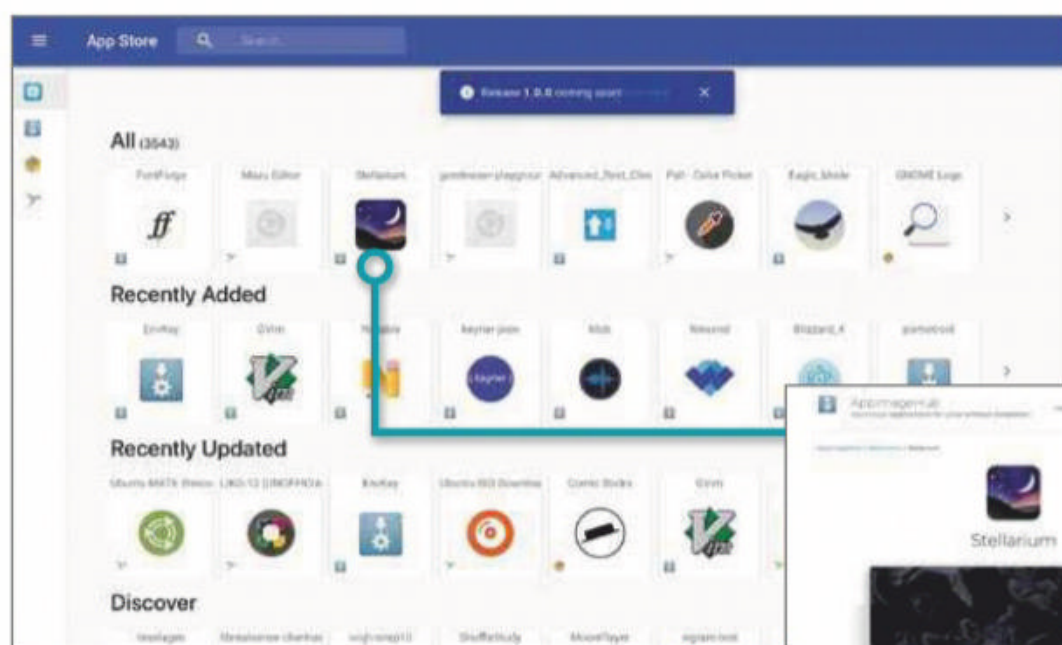
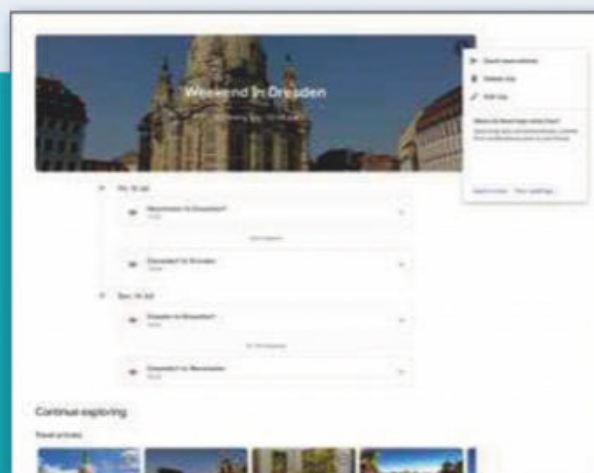


EXPLORE

The travel guides suggest day plans and allow you to organise a trip, showing costs and travel times

VIEW YOUR TRIPS

Any travel confirmations received in Gmail are listed on the homepage. Click to view and edit them



NEW

COMPUTING

Linux App Store

linuxappstore.io

Linux apps are broadly split across three stores: Snapcraft, Flathub and AppImageHub. As such, searching for software to download and install can be a pain, so it's great that this new centralised hub brings them together. The homepage has a clean, simple layout that lets you instantly see recently updated and added apps, and discover unfamiliar ones. Select tabs to browse individual stores and search for specific software, and click an app icon to open the relevant distribution platform. Linux App Store is time-saving and user-friendly, and with promised improvements including an indicator of previously installed apps, it should prove an essential resource.

Our rating



RELAUNCH

HOME

Sleepyzee

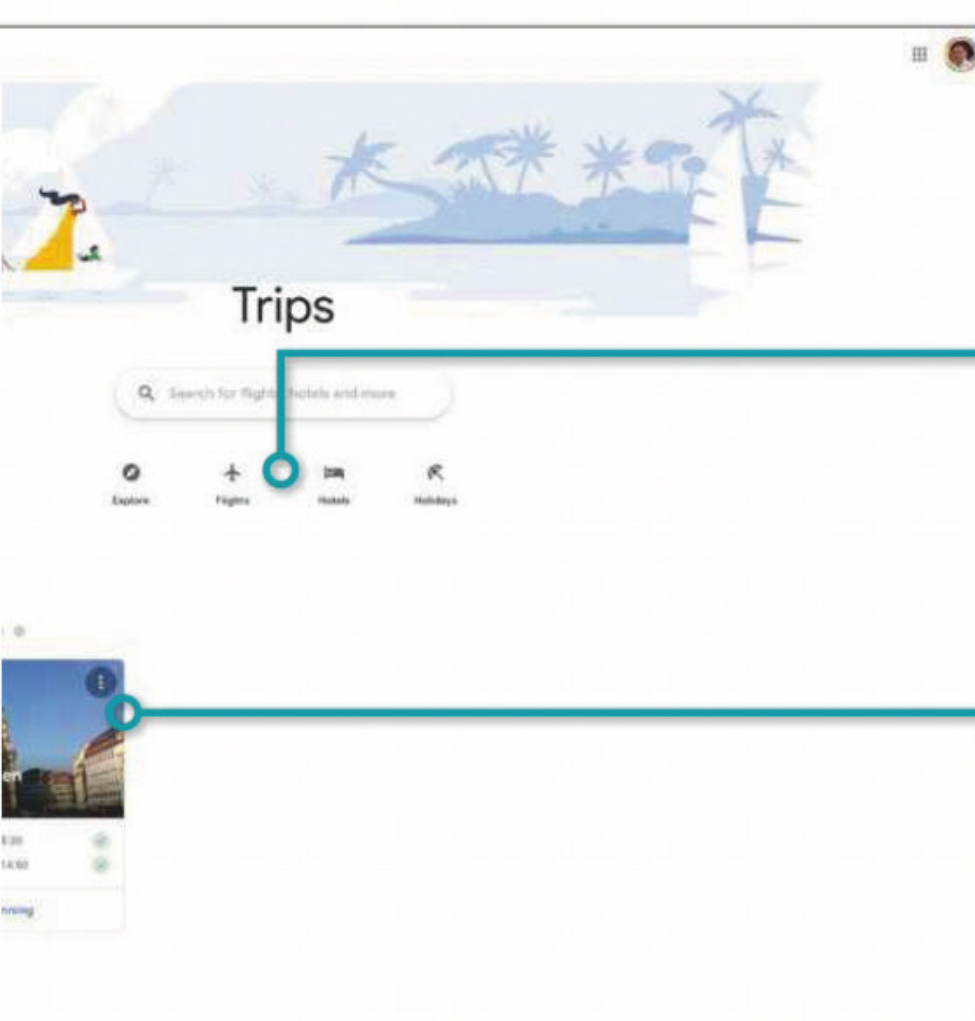
sleepyzee.com

Ideally, you should lie on a bed and mattress before you buy but, according to Sleepyzee, the jargon used by manufacturers is the biggest problem. To help, it has created a simplified website with an intuitive Make Your Bed section. Choose a size, comfort level and price to get recommendations, then select a divan, headboard and colour before saving your creation as a PNG file. By taking this choice to a retailer (you can't buy online), you should be able to check out the bed in person. The site also has an interesting blog, although the history section may induce yawns.

Our rating



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



Trips

Search for flights, hotels and more

Explore Flights Hotels Holidays

MAKE BOOKINGS
You can make your flight and hotel selections in Trips, then visit the relevant booking website

OPT OUT
To stop Google suggesting suitable trips, click the menu button on a suggestion to alter the settings

Popular destinations

Past trips



NEW

POLITICS

The Wives of Westminster

www.thewivesofwestminster.com

The Wives of Westminster is a rather odd new blog, launched by Nevena Bridgen, who is married to the Conservative MP Andrew Bridgen. It looks great and is packed with posts emboldened with eye-catching headlines and photos. But given that many women are MPs in their own right, the premise and content feel a tad regressive – the Oh My God! section, for instance, looks at accessories and home décor. Still, it's easy to navigate and you can sign up to an email newsletter for updates on the latest posts, and share articles on social media.

Our rating



NEW

TOURISM

Barnard Castle

www.barnardcastle.org.uk

Barnard Castle is a small market town in County Durham with big ambitions. By creating a website aimed at tourists, it hopes to better open itself to the world and it does so by concentrating on key attractions accompanied by impressive photographs both old and new. The site displays a potted history of the town with links to the various venues and a list of nearby attractions. The major problem is navigation: there is no menu so you have to keep scrolling up and down to find what you need. On the plus side, however, there's an excellent free app, offering photos and an audio walk.

Our rating



RELAUNCH

COMPUTING

Custom PC

custompc.raspberrypi.org

Our former sister magazine, *Custom PC*, is now owned by the company behind the Raspberry Pi mini PC. Not only has it relaunched the publication, but the website also has a new home. At the time of writing, there wasn't much in the way of content aside from a few articles from the magazine and an opportunity to subscribe or buy a copy. But, if other Raspberry Pi-affiliated websites are anything to go by, we can expect a lot of content to be posted regularly and, since each piece can be shared on social media and commented on, it should attract a committed community.

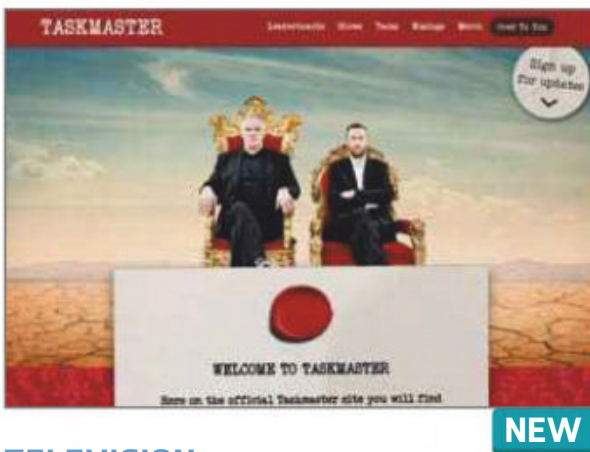
Our rating



NOW AVAILABLE!



For more information, visit **bit.ly/wudisc18**
or search for 'webuser disc' on Amazon



NEW

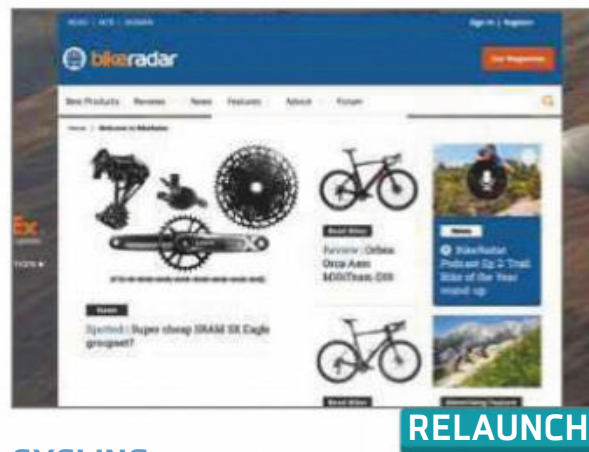
TELEVISION

Taskmaster

www.taskmaster.tv

Created to accompany Dave's quirky TV game show, this zany-looking site lets you watch past *Taskmaster* episodes via the catch-up service UKTV Play while keeping you up to date with the current series. This mainly consists of checking the most recent leaderboards – there are no episode breakdowns – but you can view past states-of-play, delve into co-presenter Alex Horne's favourite tasks and check out his musings. Sadly, there are no tasks for visitors to perform – for this, you're directed to the official book and a forthcoming board game. You are encouraged to set up your own Taskmaster events, however.

Our rating



RELAUNCH

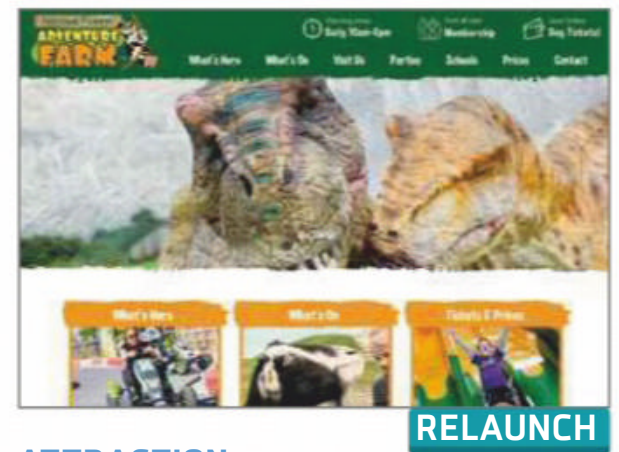
CYCLING

Bike Radar

www.bikeradar.com

Having improved its navigation, BikeRadar is now a much smoother ride, offering easy-to-find reviews and guides. By making better use of the homepage screen, it also displays more news and featured content which, far from causing clutter, makes for better browsing. There is still a bustling forum, a dedicated section for women and details of the best products you can buy. The How To guides are absorbed within a new section called Advice and include step-by-step visuals, videos and written walkthroughs. It certainly handles well, although advertising features mixed among the content can get in the way.

Our rating



RELAUNCH

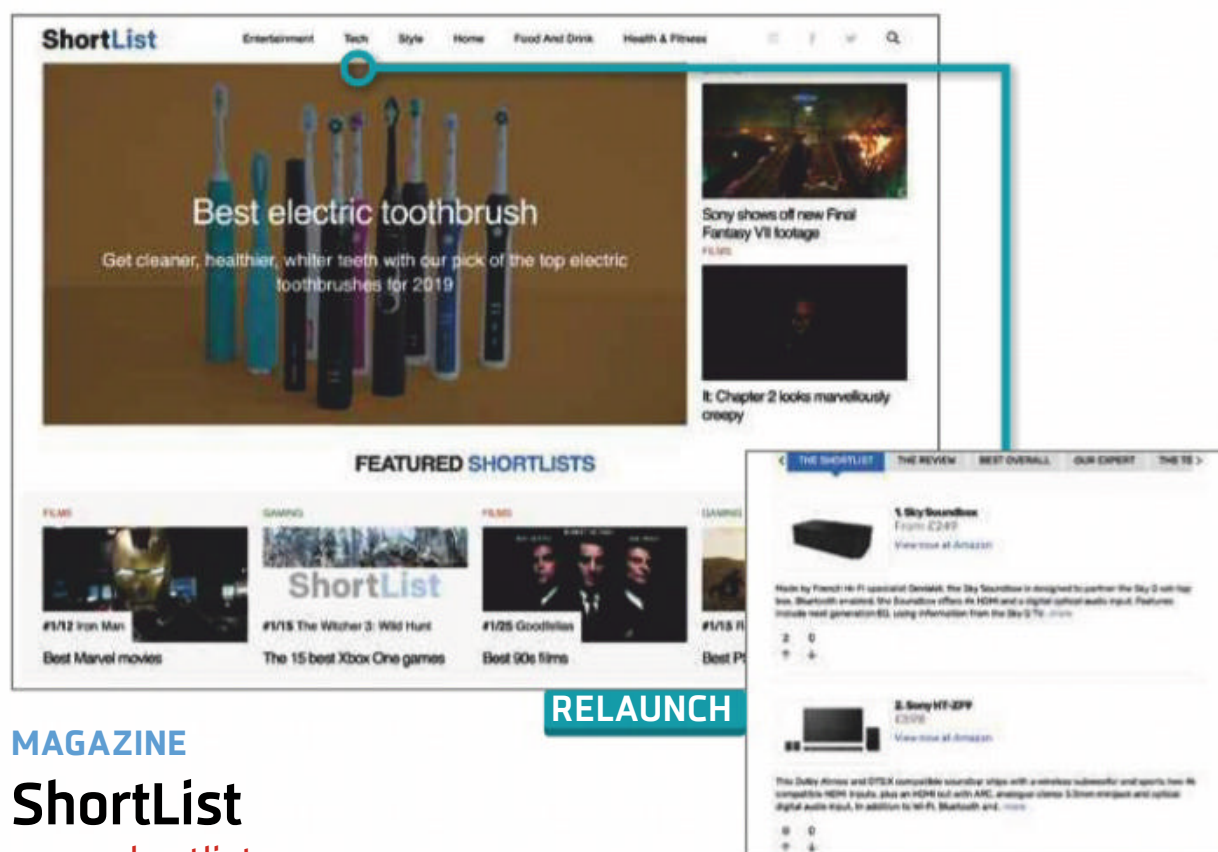
ATTRACTION

National Forest Adventure Farm

www.adventurefarm.co.uk

A mix of animals, outdoor adventure and indoor play, Staffordshire's National Forest Adventure Farm is very much aimed at children, so it's good to see its new website has adopted a more fun and colourful design. There are some niggles: words obscured by the header, video streams that are offline and two sections which appear to point to the same messy page. Still, the site does a good job presenting its delights via a mix of photos and words, and letting you book tickets cheaply online. The cartoon map gives a solid overall view and the FAQ is wonderfully comprehensive.

Our rating



RELAUNCH

MAGAZINE

ShortList

www.shortlist.com

The free print edition of the men's magazine *ShortList* closed last December but its publisher has decided to revitalise the brand online. Now also aimed at women, it covers health and fitness, food and drink, entertainment, tech, style and home. By funding itself using affiliate links to the products ShortList reviews, it manages to avoid cluttering the clean design with intrusive ads. It certainly makes for a seamless read, with plenty of news and opinion pieces to enjoy, and numerous list articles – from best films to best suitcases – that can be voted up and down. As long as the affiliates don't influence the recommendations, ShortList gets a thumbs-up from us.

Our rating



NEW

BUSINESS

Made in Cumbria

www.madeincumbria.co.uk

Rather than just promote Cumbria's craft, food and drink businesses to a local audience, this website from the region's Chamber of Commerce hopes to attract attention from across the globe. The classy website, laden with images of the Lake District, wildlife and craftspeople at work, sets out its stall well, but it relegates the businesses to a section at the bottom of each category page, forcing you to scroll past too much bumph. It's a shame, because the info about each business is spot on, with clear contact details and a flavour of what they do.

Our rating



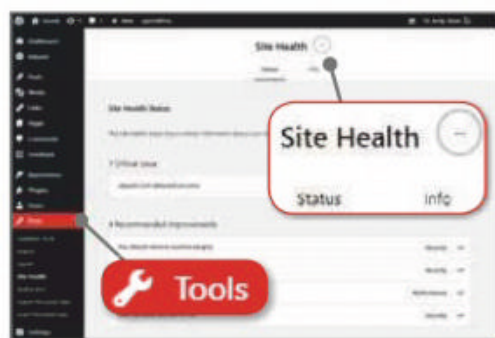
Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

Structure your site with Google's new tools

Google is continuing to push its structured data system, so if you haven't already incorporated it in your site, now is the time. Structured data is an open system of tags that help search engines work out what your site is about and where the key information is. Google has launched two new structures, designed for pages that contain FAQs and how-to guides (see bit.ly/faqht476 for more information). If you want to know how to apply structured data to your site, there's also a useful new interactive guide you can follow at bit.ly/cl476.



(go to Tools and choose Site Health to check whether your site is in top condition). There's also a selection of new accessibility tools, a collection of dashboard icons and a handy tool that can tell whether the version of PHP you're using is too out of date for your plugins.

WordPress gets safer

Automattic has launched a new version of WordPress (wordpress.org), which adds more useful information to the Site Health tool introduced in the previous version

Deal of the Fortnight

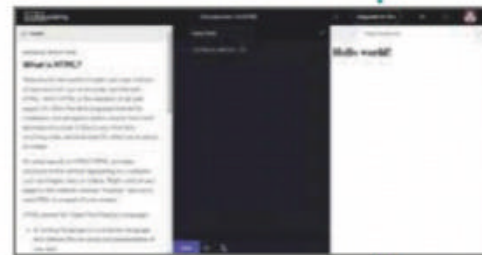
Fasthosts (www.fasthosts.co.uk) is offering 50% off its hosting packages for the first year. The Ignite package, for a single website, is £3 per month, down from £6.

Web-building Helpdesk

Q I want to code a website in HTML but don't understand things like Bootstrap. Is there any way to make starting out easier?
Rick Fuller, via email

A Don't worry about anything other than HTML and CSS when you start. HTML tells the browser what info to display on the page and CSS controls the presentation. Tools such as Bootstrap are used by developers to speed up website building but it's only worth learning how to use it if you're planning to create lots of sites. So start with HTML and CSS, then work out the direction you want to develop in once you've mastered these basics. There are free HTML and CSS courses worth signing up for at Codecademy (www.codecademy.com).

Andy Shaw,
Technical & Reviews Editor, Web User



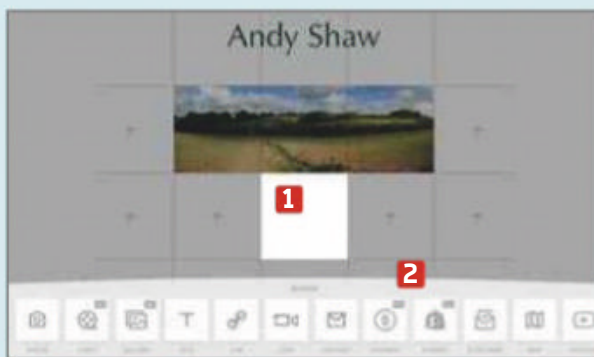
MINI WORKSHOP | Build a website on your iPad

Universe: bit.ly/univ476 | ⌚ 10 mins | iOS 11.2

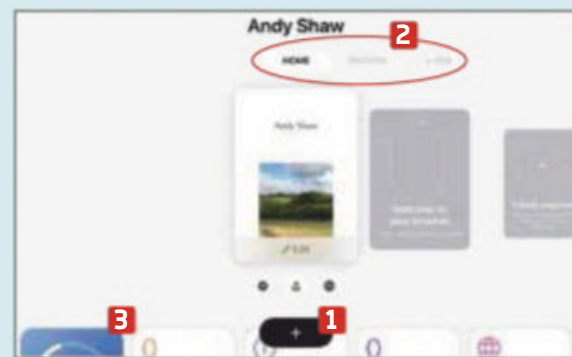
Universe is an iPad app that lets you build a simple website by dropping photos, text and anything else you like into a grid template to create a great-looking 'yourname.onuniverse.com' site in seconds



1 Choose what kind of site you want to make – we're choosing Template, then Personal. Swipe through the available options until you find one you like the look of – you can always adjust this later. When you've made your choice, **1** tap 'start building'. **2** Keep working through the tutorial, skipping any elements you don't want to add.



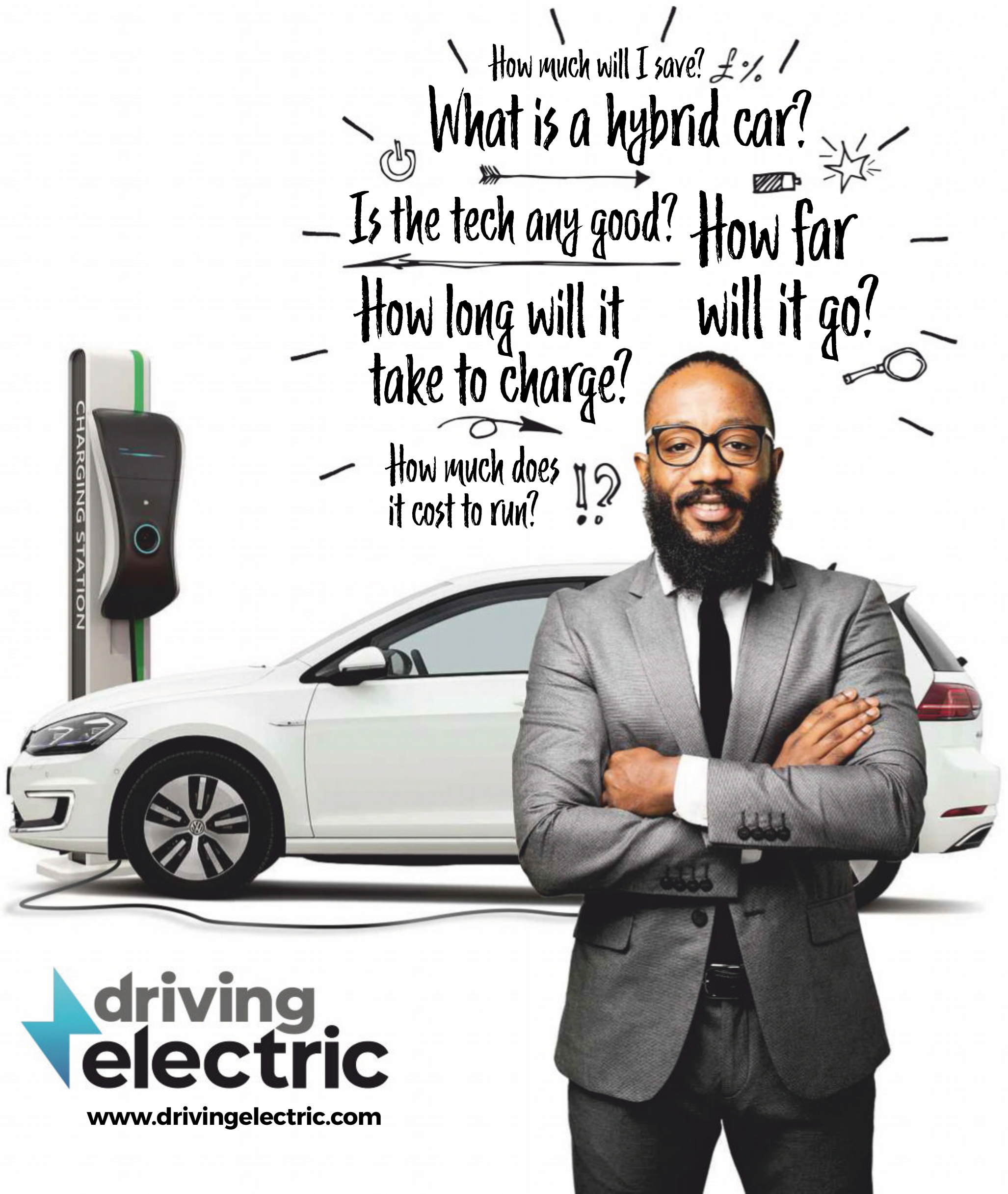
2 When it comes to making your own edits, tap a space in the grid **1** to choose something to add. There are lots of options, **2** from images and videos to links and blocks of text. You can resize and move elements by placing two fingers and stretching or shrinking across several spaces in the grid.



3 Add new pages from the organisation page. Tap the '+' button **1** or scroll through the suggestions. New pages are added to the tabs above **2** and are available from the menu button on your site. Below, you'll find blocks that contain information about your site. **3**



All you need to know about electric cars...



Handwritten questions and notes:

- How much will I save? £%!
- What is a hybrid car?
- Is the tech any good? How far will it go?
- How long will it take to charge?
- How much does it cost to run? !?

CHARGING STATION

driving electric
www.drivingelectric.com



What To Watch Online

Pick of the fortnight



Watch Tennant and Sheen in Neil Gaiman's *Good Omens*

From 31 May

Terry Pratchett and Neil Gaiman's 1990 comic fantasy novel, *Good Omens: The Nice and Accurate Prophecies of Agnes Nutter, Witch* (bit.ly/omensbook476), finally makes it to the small screen and judging by the trailer (bit.ly/goodomens476), the new six-part adaptation is a warm, witty feast for the eyes and heart.

David Tennant stars as Hell's earthly representative Crowley, and Michael Sheen is Heaven's rep Aziraphale. When the bickering pair join forces to avert Armageddon, they encounter umpteen big-name co-stars including Jon Hamm (*Mad Men*) as Archangel Gabriel, Benedict Cumberbatch as Satan and Frances McDormand (*Fargo*) as God.

Good Omens has been adapted before, by Monty Python's Terry Gilliam and Terry Jones (separately), but neither project got off the page. This time Gaiman himself wrote the script, teaming up with *Line of Duty* and *Sherlock* director Douglas Mackinnon for this Amazon-BBC co-production.

All six episodes come to Amazon Prime Video on 31 May at bit.ly/omens476, and then to BBC iPlayer later this year. Follow the already wildly popular Twitter account (twitter.com/GoodOmensPrime), and listen to Michael Sheen chatting to David Tennant for over an hour on Tennant's excellent podcast (bit.ly/tennantcast476).

N Discover the Central Park Five story in *When They See Us*

From 31 May

Netflix's four-part drama explores the wrongful conviction of five black teenagers for a brutal rape in New York in 1989. Oscar-nominated *Selma* director Ava DuVernay assembles a cast of familiar faces including Joshua

Jackson (*The Affair*), Michael K Williams (*The Wire*) and Felicity Huffman (*Desperate Housewives*) for the dramatisation. See the official trailer at bit.ly/seeus476.

The story has already been the subject of a famous documentary, Ken Burns' 2012 film *The Central Park Five*. The film

isn't available online in the UK, but if you use a VPN to spoof your location you can stream it via Amazon Prime Video US (bit.ly/cpfive476).



N Get *Happy!* again

From 5 June

Happy! is a pretty awful title, but this comic-book adaptation from US network Syfy is well worth catching. Christopher Meloni (*The Handmaid's Tale*) stars as Nick Sax, a boozy, sarcastic cop-turned-hitman who survives a near-death hit, only to find himself haunted by a relentlessly cheery blue flying

unicorn named 'Happy!' (that's its exclamation mark, not ours). Suspend your disbelief for this wry comedy-drama, back for a second season from 5 June. You can see the official trailer at bit.ly/happy476.

my5 Watch Sean Bean's latest thriller *The Oath*

From 31 May

If you thought *Line of Duty*'s coppers were dodgy, just wait until you see what Sean Bean's been up to in *The Oath*.



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

Bean plays Tom Hammond, a crooked cop building a criminal empire of LAPD druglords including his own son (Ryan Kwanten from *True Blood*). *The Oath*, executive produced by rapper 50 Cent, airs weekly on Channel 5, streaming live and on-demand for free at www.my5.tv. Catch the trailer at bit.ly/oath476.

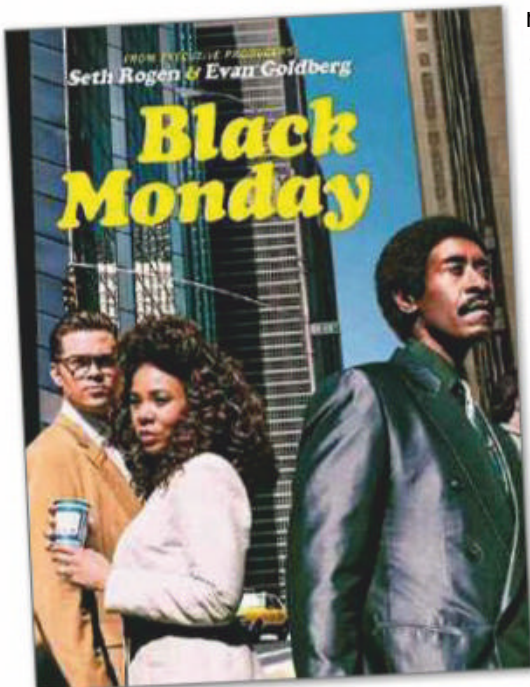
The ubiquitous Bean also stars in Sky's night-riders thriller *Curfew*, available on Now TV until 2025 (bit.ly/curfew476); Netflix's Renaissance drama *Medici* (bit.ly/medici476); and 2018's BAFTA-winning BBC drama *Broken*, now on Netflix at bit.ly/broken476.



See Wall Street crash in *Black Monday*

From 29 May

On Monday 19 October 1987, stock markets plunged in the biggest financial crash the world had ever seen. Why? No-one knows. So for their high-octane



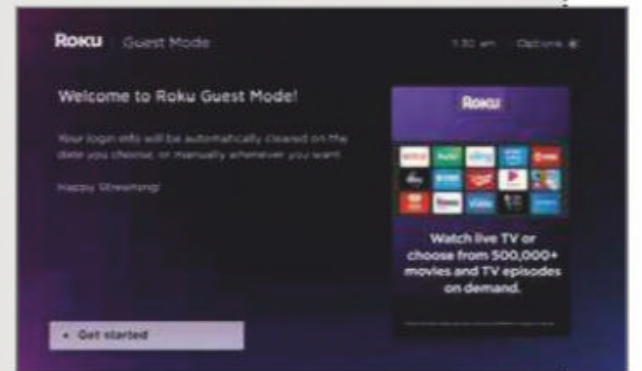
new comedy drama, Seth Rogen and his co-producers have invented their own cause of the crash: a ragtag group led by playboy Mo (Don

Roku adds secure Guest Mode for visitors

Roku has added a Guest Mode that lets visiting friends and family use their own online TV subscriptions when borrowing a user's streaming stick.

Guest Mode securely locks visitors out of the owner's accounts (such as Netflix, Amazon Prime Video and Now TV) while letting them access their own subscriptions. It can be enabled in the System section of Settings, where users can now set a 'sign out date', after which their guest will automatically be logged out. Guest Mode can also now be switched on and off remotely via 'My linked devices' in 'My account' at Roku.com. The update is part of Roku OS 9.1 and is rolling out to devices automatically (bit.ly/rokuupdate476).

Users in the US also get an improved voice-search feature that triggers Roku to play content on command, rewind a few seconds and toggle subtitles on and off.



Cheadle), gatecrashing Wall Street and creating cocaine-fuelled havoc.

Episodes air weekly on Sky Atlantic, so you can view online with a Now TV Entertainment Pass (£7.99 per month after two weeks free, bit.ly/nowent476). Watch the trailer, and your wallet, at bit.ly/monday476.

N Celebrate San Francisco in *Tales of the City*

From 7 June

Laura Linney and Ellen Page star in this new 10-part adaptation of the Eighties novels by Armistead Maupin, one of the first writers to celebrate gay culture. Linney plays Mary Ann, reunited with her daughter (Page) in San Francisco after 20 years. Cue a whirl of party scenes, gorgeous

homes and a Molly Ringwald cameo. *Tales of the City* bears all the hallmarks of producers Working Title (*Notting Hill*, *Four Weddings*), as you can see from the trailer at bit.ly/tales476.



In case you missed it...

BBC iPlayer is suddenly brimming with new shows. Cold War drama *Summer of Rockets* has just begun airing on BBC2, with five more episodes arriving on



the iPlayer in the coming weeks. Keeley Hawes (*Bodyguard*) and Toby Stephens (*Jane Eyre*) star. Watch the trailer at bit.ly/summer476.

Manchester family drama *Years And Years*, written by Russell T Davies and starring Emma Thompson, will have three episodes on the iPlayer by the time you read this, with three more to come. Catch up with the story so far, plus character profiles and a trailer, at bit.ly/years476.

Vampire mockumentary sitcom *What We Do In The*

Shadows is on BBC2 on Sundays. You can stream two of the eight episodes so far, plus exclusive clips, at bit.ly/shadows476.

Over on BBC1, Suranne Jones is now starring as Anne Lister in HBO's 19th-century drama *Gentleman Jack*. Again, the BBC website has exclusive clips, including a BBC News film about the real-life Lister, plus episodes so far at bit.ly/jack476.

Product Test

We test and compare the latest products

Google Pixel 3a

Until now, Google's Pixel phones have been stunning but expensive. Can this new mid-priced phone offer a similar best-in-class Android experience on a cheaper device?

If you've ever coveted one of Google's Pixel phones but felt the premium price was beyond your range, then this new model might change your mind. Pixels have long been the pinnacle of the Android experience and now, in an attempt to introduce its phones to a wider market, Google has launched the Pixel 3a (and the larger Pixel 3a XL).

Bringing the company's top-end camera tech and refined user interface to a phone that costs £399 (or £469 for the XL) is a bold move, especially when the similarly equipped Pixel 3 is currently doing the rounds for about £589.

Build and design

The 3a keeps the same two-tone back panel as previous Pixel models. This incorporates a smoother section at the top of the phone, which surrounds the rear-facing camera module, softening to a more grippy and silky matte finish towards the bottom. There's no glass and aluminium combo this time around – the new phone is instead constructed entirely from polycarbonate plastic. However, it doesn't feel cheap, and fits comfortably in the palm of your hand – a delight to hold. Meanwhile, Google's circular fingerprint reader sits in the same location on the



back and there's a USB Type-C charging port on the bottom, flanked by a pair of speaker grilles.

The 3a comes with Google's Active Edge included, so you can activate Google Assistant by squeezing the bottom portion of the phone. The phone uses machine-learning technology to differentiate between a proper squeeze and an accidental one, but it's a bit redundant if you're

prepared to say "Hey Google".

On the downside, there are some significant drawbacks to the phone. In order to cut costs, Google has stripped it of any officially rated dust- or waterproofing, and there's no protective layer of Gorilla Glass fixed to the front of the phone's screen. Instead, the Pixel 3a uses the less ubiquitous Dragontrail to protect the display from scratches.

Since there's no glass rear, Google has also abandoned wireless charging. Still, the Pixel 3a does include a 3.5mm headphone jack on the top edge of the phone, which is something that's sorely missed on the regular model.

Screen

Aside from measuring an extra 0.1in across the diagonal, the Pixel 3a's display remains unchanged. This is a lovely looking 2,220 x 1,080 pixels OLED panel, with a pin-sharp pixel density of 441ppi (pixels per inch). There are three display modes to choose from, with the phone's "natural" screen profile being the most colour-accurate.

“ It has a lovely 2,220 x 1,080 pixels OLED screen, with a pin-sharp pixel density of 441ppi, and three display modes ”



“Photos look terrific, whatever the lighting conditions, with superb dynamic range and a pleasingly neutral colour palette”

According to our colour calibrator, it manages to reproduce 95.9% of colours in the sRGB colour standard, which is excellent.

Brightness was similarly great. The Pixel 3a is capable of hitting a peak luminance of 416cd/m² (candles per square metre), so it's perfectly readable in all but the brightest conditions, even if it's some way behind Samsung's dazzlingly bright OLED panels.

Performance and battery life

The Pixel 3a comes equipped with Qualcomm's newest mid-range processor, the octa-core Snapdragon 670. This has a clock speed of 2GHz, so don't expect it to match the performance of the Pixel 3's Snapdragon 845, which hit a blazingly fast 2.8GHz. In other respects, it's much the same, with 4GB of memory and 64GB of internal

storage – which, annoyingly, can't be expanded.

But the corners cut on the internal hardware don't make this a slow phone. It wasn't as fast as the Xiaomi Mi 9 and the OnePlus 6T in our tests, but it still makes light work of day-to-day Android tasks and has no problems switching between multiple applications. Even graphically intensive games such as PUBG Mobile and Shadowgun Legends – which both defaulted to high graphics settings – ran without a hitch.

The Pixel 3a's 3,000mAh battery is only slightly bigger than the one in the regular Pixel 3, but the less power-hungry Snapdragon 670 means it lasts quite a lot longer on a single charge. Our in-house video-rundown test, which plays a looped video at a standard display brightness of 170cd/m², reached 15 hours and 7 minutes before battery levels dropped to zero.

Photo and video

The Pixel 3's camera has won superlative praise since its launch last year, so it's great to see Google's fancy tech included in its mid-range phone. But while the Pixel 3a's camera hardware is identical, with a single 12.2-megapixels lens and optical image stabilisation, there's no Pixel Visual Core add-on – the neat little chip that boosts image processing on Google's top-end Pixel phones, improving the quality of HDR (high dynamic range) and night images.

Regardless, even the most discerning eyes will struggle to tell apart images shot by the two phones. Photos look terrific, whatever the lighting conditions, with superb dynamic range and a pleasingly neutral colour palette. Google's Night Sight shooting mode impresses yet again when it comes to low-light photography, using artificial intelligence to illuminate shots in the same way that a flash does.

Also present is Google's HDR+ algorithm, which captures a series of images when the shutter is pressed, stitching them together to create the best possible image. Generally speaking, images taken with “HDR+ enhanced” during testing managed to balance out light levels more effectively than other HDR shooting modes on other phones.

Video recording is equally impressive. While you're limited to 30fps, both 4K and 1080p footage looks crisp and detailed and, whatever the recording resolution, image stabilisation is rock solid.

PRODUCT INFO

Google Pixel 3a

Price: £399

Buy from:

bit.ly/goopix476

SPECIFICATIONS

- Octa-core Qualcomm Snapdragon 670 processor
- 4GB of memory
- 64GB of storage
- 5.6in 2,220 x 1,080 pixels OLED screen
- 3,000mAh battery
- 12.2-megapixels rear camera
- 8-megapixels front camera
- 802.11ac Wi-Fi
- 3.5mm headphone jack
- USB Type-C port
- Android 9.0 operating system
- 151 x 70 x 8.2mm
- 147g

FOR

- ✓ Camera is just as good as the Pixel 3's
- ✓ Superb colour-accurate display
- ✓ Significantly cheaper than the Pixel 3

AGAINST

- ✗ Battery life is only slightly better than average

BETTER PERFORMANCE

Xiaomi Mi 9, £499
bit.ly/xia476



MORE STORAGE

OnePlus 6T, £499
bit.ly/onep476



OUR VERDICT

Google's return to the mid-range price bracket is a bold and impressive move. The Pixel 3a successfully provides the same top-tech experiences as its flagship counterparts, with a lesser impact on your wallet. If appearance, screen quality

and the ability to take cracking photos are important to you – look no further. It's not quite perfect, but while there are faster phones available for a bit more money, the Pixel 3a displays an intelligent and well-rounded approach to

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

the battle currently waged among phone manufacturers in the £399-499 price range.

Netgear Orbi Voice Smart Speaker

A mesh Wi-Fi system with Alexa built in is a great idea but is it worth the steep price?

Netgear's Orbi platform is one of the more upmarket mesh Wi-Fi systems, offering strong performance and a comprehensive set of features. The original two-device, tri-band system has been around for two years now, but the latest update includes a unique addition: the Alexa voice assistant. This transforms the secondary unit from a dull bit of networking infrastructure into an interactive hub for

music, information and home automation.

The Orbi Voice pack contains two units: a regular RBR50 router, as found in the standard kit; and an RBS40V satellite, which includes a 35W Harman Kardon speaker that serves as both a Wi-Fi extender and an Alexa-powered Amazon Echo. To extend the mesh or the Alexa network further, just add more of the appropriate devices.

Despite its unique selling point, this is a tough sell at its current price of £399.99, which already represents a small discount on Amazon. Standard Alexa-free Orbi RBK50 twin-packs cost around £250, and other manufacturers make similar mesh devices that are even cheaper. However, the Orbi Voice is a convenient and elegant combination, and its audio quality is a step up from a standard Amazon Echo or Google Home speaker.

Setup and performance

The two units come pre-paired, so getting started should be simple, but we ran into a couple of hiccups so the process took us about 30 minutes. Once the units eventually found one another, the connection remained solid.

The Orbi router and satellite both use tri-band Wi-Fi, with 2.4GHz and 5GHz networks for connecting your devices, plus a second dedicated 5GHz network reserved for traffic between the two stations.



To test its performance, we placed the router in our living room and the Alexa unit in the adjacent kitchen, where the app reported a good connection. We then took a Microsoft Surface laptop to various rooms around the house and compared the Netgear system to our existing single-router setup. The results were impressive, improving the speed of the network connection throughout the building.

We were also impressed with how well Alexa is integrated into the Netgear

device. A few taps in the Orbi app connect it to Amazon and it shows up in the Alexa app as a regular Echo. The device had no problems hearing commands from across the room and has an illuminated blue ring around the top, just like a real Echo.

Our only caveat is that you'll naturally want to situate the Alexa-enabled Orbi unit in your most-used room, such as the kitchen, which won't necessarily be the place where it's best able to distribute Wi-Fi to the further reaches of your home.

PRODUCT INFO

Netgear Orbi Voice Smart Speaker

Price: £399.99

Buy from Amazon:
bit.ly/novss476

SPECIFICATIONS

- 2.4GHz and 5GHz Wi-Fi for devices
- 5GHz Wi-Fi dedicated data connection
- Router: 4 x Gigabit Ethernet ports. Voice: 2 x Gigabit Ethernet ports
- Voice: 4 x microphones with far-field voice recognition
- Voice: 35W speaker system
- Router: 226 x 170 x 79mm. Voice: 218 x 165 x 124mm

FOR

- ✓ Great wireless performance
- ✓ Alexa works seamlessly
- ✓ Lovely sound quality

AGAINST

- ✗ Very expensive
- ✗ Security and parental control features cost extra

OUR VERDICT



It's a shame that the Orbi Voice is so expensive because it's does a great job of combining a smart speaker with a Wi-Fi booster. However, you might want to consider whether the ideal location for your Wi-Fi booster is the same as the most convenient spot in your home for a smart speaker.

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

You won't save any money by combining them - indeed, you could end up spending less by purchasing two devices independently.

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100% would recommend!

All members of staff are lovely and willing to help.



SHANNON

Pleased with service

The process of getting the car was very easy and secure.



DANIEL

Easy Peasy!

No trawling garage showrooms! Already recommending to friends & family.



KAREN

Purchased VW Golf

I was nervous about buying on the internet. Needn't have worried.



SIMON

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Web User's Best Buys

Web User and its sister titles test over 2,500 products every year

HARDWARE

GRAPHICS CARD

Asus ROG Strix RX 570 OC

£189.99 from bit.ly/asusbox475

Tested: Issue 475



Asus's twin-fan graphics card gets the balance perfectly right. It comfortably plays games that are designed to push a graphics-processing unit to the limit, and for the price it kicks cards with similar specifications right out of the game.

KEY SPECS

AMD Radeon RX 570 graphics processor ■ 2,048 GPU cores ■ 1,300MHz clock speed ■ 4GB memory ■ 1 x DisplayPort, 2 x DVI, 1 x HDMI outputs ■ 200W power ■ 240mm ■ Two-year repair-and-replace warranty

SMARTPHONE

Moto G7 Power

£179.99 from bit.ly/pow472

Tested: Issue 472



Battery life is at the heart of what we love and hate about our phones, and the Moto G7 Power lasted an incredible 26 hours and 22 minutes in our tests. Its specs and price are also great.

KEY SPECS

Octa-core 1.8GHz processor ■ 64GB storage ■ 4GB RAM ■ 6.2in, 720 x 1,570-pixel screen ■ 12-megapixel rear camera, 8-megapixel front camera ■ 5,000mAh battery ■ 159.4 x 76 x 9.3mm ■ 193g ■ One-year return-to-base warranty

WI-FI EXTENDER

Netgear Nighthawk X6S

£145.99 from bit.ly/ngx6s471

Tested: Issue 471



The Nighthawk X6S's unbeatable combination of high speed and top-end features makes it the best Wi-Fi extender available. It's big and boxy, but its performance gives mesh-router systems a run for their money.

KEY SPECS

Works with 2.4GHz and 5GHz networks ■ 4 x Gigabit Ethernet ports ■ Access control ■ Wi-Fi schedule ■ WPS button ■ 277 x 170 x 93mm ■ Two-year warranty

SECURITY CAMERA

Blink XT

£149.99 from bit.ly/blink470

Tested: Issue 470



The Blink XT can be positioned anywhere in your home, indoors or out, and includes a lifetime subscription to its cloud-storage service. You get a couple of years' use out of the camera before you need to replace the batteries.

KEY SPECS

HD Video ■ Motion and temperature sensors ■ Built-in microphone ■ Camera mount included ■ Weatherproof ■ Infrared night vision ■ Wi-Fi connectivity ■ Instant alerts to your phone ■ Two years of battery life

LAPTOP SSD

Samsung 970 Evo

£75.51 from bit.ly/sevo469

Tested: Issue 469



The Samsung 970 Evo is a smart, affordable choice for anyone looking to get better performance from their laptop. It's very fast, with excellent file-transfer speeds, and there are higher capacity versions with up to 2TB of storage.

KEY SPECS

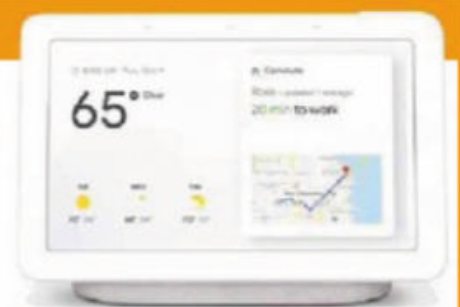
256GB capacity ■ 3,600MB/s maximum speed ■ M.2 PCIe Gen 3 x 4 interface ■ Samsung Phoenix 5-core processor ■ Samsung V-NAND 3-bit MLC flash memory ■ 22 x 80 x 2.38mm ■ Five-year warranty

SMART SPEAKER

Google Home Hub

£139 from bit.ly/homehub463

Tested: Issue 463



Its low price, seamless integration with Google services and ability to double as a digital photo frame make the Google Home Hub the best smart screen we've seen.

KEY SPECS

7in LCD touch screen ■ 1,024 x 600-pixels resolution ■ Dual-band 802.11b/g/n/ac ■ Bluetooth 5.0 ■ 178 x 118 x 67mm ■ 480g ■ Choice of Aqua, Chalk, Charcoal or Sand ■ One-year return-to-base warranty

SOFTWARE & SERVICES

BACKUP SOFTWARE

Acronis True Image 2019

£35 from

bit.ly/acro473

Tested: Issue 473

Acronis True Image is a versatile backup tool that can do everything from cloud storage to disaster recovery. It isn't cheap compared with rival software, but it's flexible and simple to control, reasonably fast and should cover all your backing-up needs.

KEY FEATURES

Windows, macOS, Android, iOS ■ Local backup ■ Disc-image backup ■ Restore from the web ■ Create disaster recovery ■ AES-256 encryption ■ Continuous, daily, weekly or monthly backups ■ Multiple backup sets

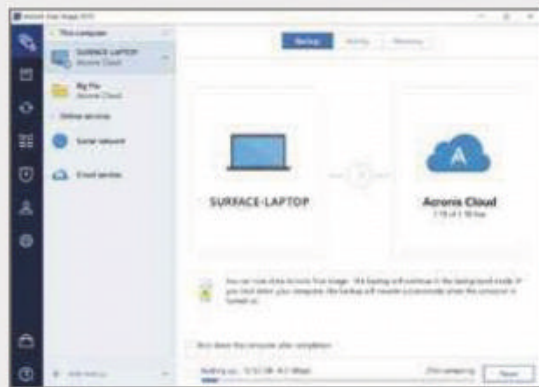


PHOTO-EDITING SOFTWARE

DxO PhotoLab

£99 from

bit.ly/dxo455

Tested: Issue 455

If you're put off by Adobe's subscription costs, DxO PhotoLab is the best alternative for managing and editing your photos. Its interface is streamlined and elegant, and the editing and image quality are exceptional. It's also very simple to use and comes with lots of sophisticated tools.

KEY FEATURES

RAW conversion ■ High quality noise reduction ■ Optical corrections ■ Red-eye correction ■ Advanced light and colour ■ Batch processing ■ Selective tone ■ Full-screen mode ■ Spot-weighted mode



Web User Gold Award winners

TO-DO LIST TOOL

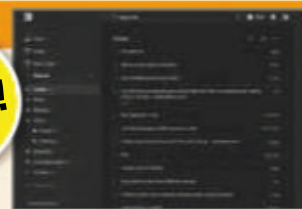
Todoist

Free from www.todoist.com

Tested: Issue 475

Todoist has all the tools you need for managing your daily tasks, wrapped up in an attractive interface. It works well across all phones, computers and other connected devices.

NEW!



URL SHORTENER

Kutt.it

Free from kutt.it

Tested: Issue 474

Kutt.it offers all the tools you need from a URL-shortening service without any of the clutter of its rivals. It's entirely free and open-source, which gets it a thumbs-up from us.



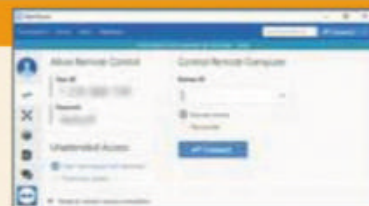
SCREEN-SHARING TOOL

TeamViewer

Free from www.teamviewer.com

Tested: Issue 473

TeamViewer surpasses its rivals with a range of powerful options. It's robust and reliable, and offers the same tools to personal users – for free – that businesses have to pay for.



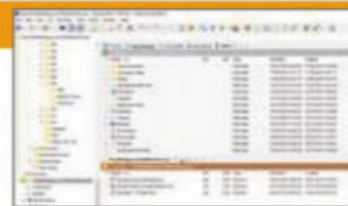
FILE-EXPLORER ALTERNATIVE

XYplorer Free

Free from bit.ly/xypl472

Tested: Issue 472

Fast and effective, XYplorer Free's excellent tabbed interface makes managing your files impressively easy.



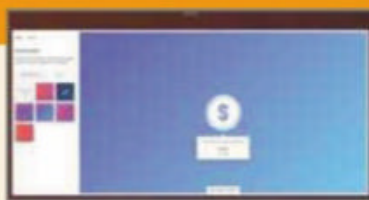
FILE-TRANSFER SERVICE

Smash

Free from fromsmash.com

Tested: Issue 471

Unlike other services for sharing large files, Smash places no size limit on the files you send. We love its speedy simplicity.



WEB USER

BACK ISSUES DISCS

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2014 TO 2018



Best Free Software

ANTI-MALWARE TOOL

Malware Fighter 7

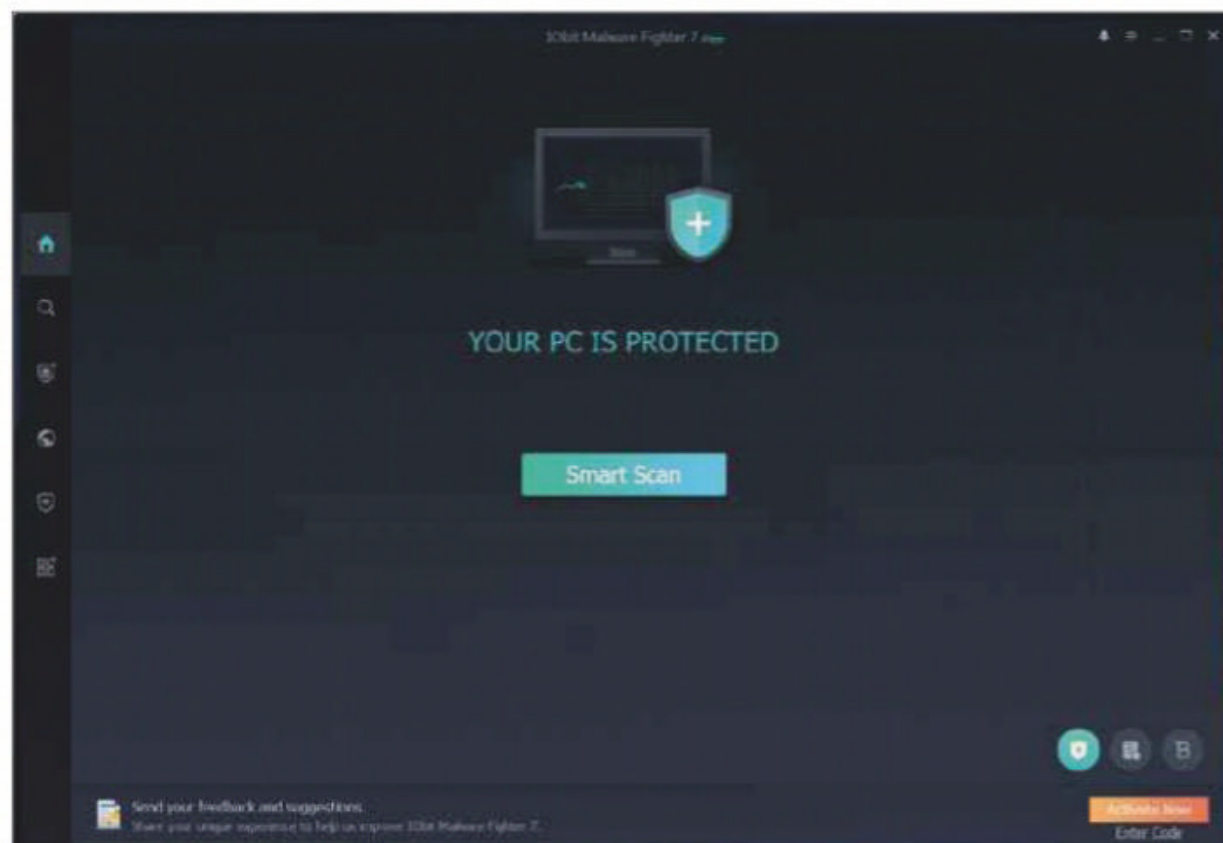
bit.ly/fighter476

Min requirements: Windows 7/8.1/10

File size: 60.4MB

There are so many different types of malware out there that it's possible for your PC to become infected even if you have an up-to-date antivirus program installed. Malware Fighter can run alongside your existing security solution, delivering a useful second line of defence without clashing or getting in the way. It can detect and remove various PC threats including malware, ransomware and cryptojackers.

You can run a full scan, smart scan (checks the critical sections of your system) or a custom scan (drag and drop a file or folder to the window and it will check it for you). The real-time protection includes Network, File, Startup and Process guards, any of



which can be toggled on or off depending on your needs.

The program also offers a Browser Protect section that prevents unwanted changes to your browser's homepage and search engine, and scan downloaded files and email attachments before you open them. It can also remove unwanted plugins and toolbars, and stop malware messing with your DNS settings.

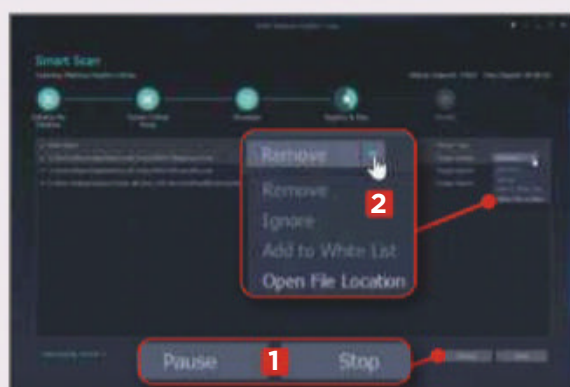
The biggest improvement in the latest free version of Malware Fighter is

performance. IObit says first-time full scans run at least 63% faster than in the previous release. The update can detect more threats, and is better at blocking pop-up ads and cryptocurrency miners.

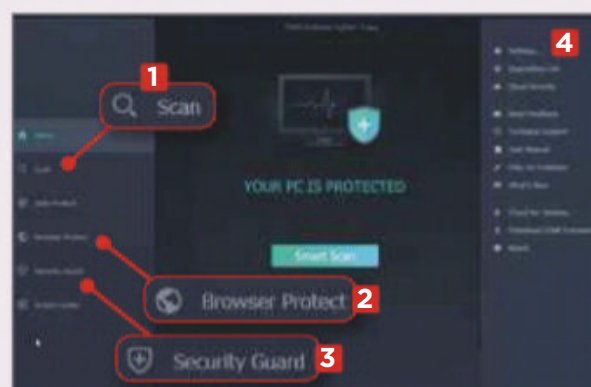
The paid-for Pro edition offers a second scanning engine from Bitdefender, an improved web-camera guard to prevent malware from spying on you and personal data protection, which stops snoopers accessing your sensitive data. Upgrading costs £15.31 a year.



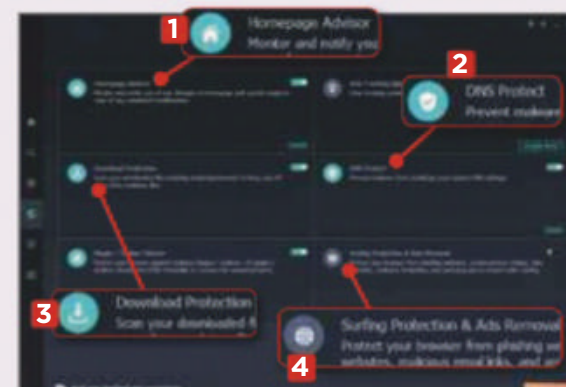
MINI WORKSHOP | Keep your PC safe with Malware Fighter 7



1 Check for threats with Malware Fighter by clicking the Scan button in the middle of the screen. A Smart Scan will initialise and you can pause or stop it at any time. **1** If a threat is found, you'll be able to use the drop-down box to take appropriate action – remove it, ignore it, add it to a whitelist or open the file's location. **2**

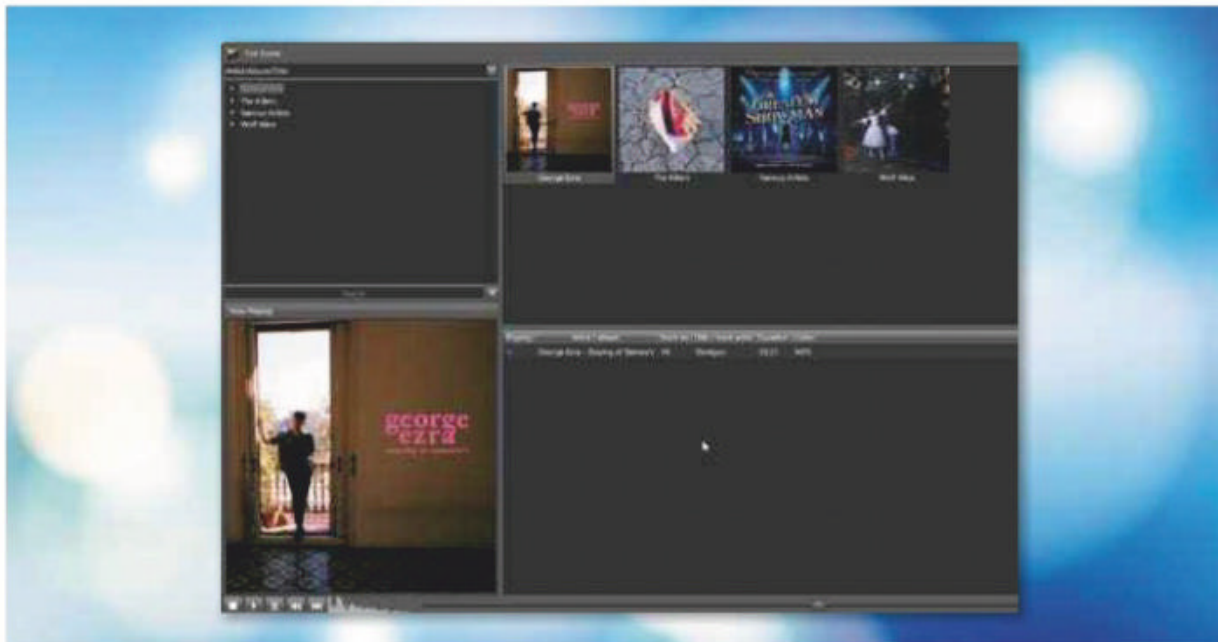


2 Hover your mouse over any icon on the left to reveal the sidebar. From here, you can run a choice of scans, **1** manage the Browser Protect settings **2** and access the Security Guard options. **3** Clicking the button in the top-right corner opens a sidebar showing the program settings **4** and lets you configure the software.



3 The Browser Protect module can stop malware changing your homepage or search engine, **1** and prevent it from modifying your DNS settings. **2** It will also automatically scan all downloads and email attachments to ensure they are safe to open. **3** Surfing Protection and Ads Removal **4** keep you safe from phishing and cryptomining.

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



MEDIA PLAYER

FoxTunes 2

bit.ly/foxtunes476

Min requirements: Windows 7/8.1/10 **File size:** 6.2MB

FoxTunes (not to be confused with the old Firefox add-on FoxyTunes) is a modular desktop player and manager. It's an attractive but basic program that offers all the features you are likely to need, including a mini player with artwork and a playlist, and support for plugins. Elements such as the library and playlist can be customised using JavaScript. It's very easy to get started – just drop some songs or albums onto the interface.

New Windows 10 App

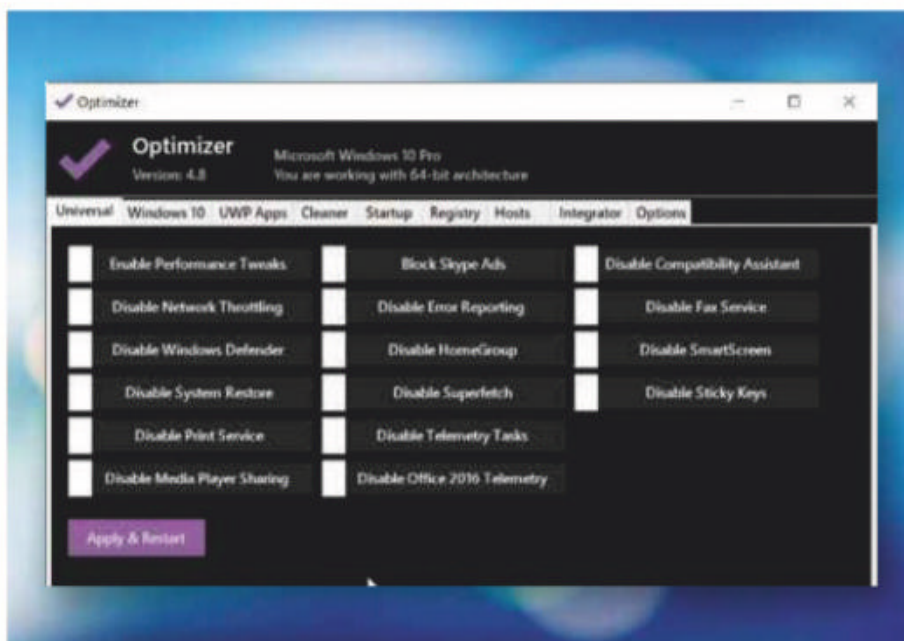
Forza Street

bit.ly/forza476

Min requirements: Windows 10

File size: 3.84GB

Fans of racing games will no doubt be familiar with the Forza series available for Xbox and Windows. This free release doesn't compare with those paid-for titles – you don't get full control over your car, just speeding up and braking using the spacebar – but it looks and sounds great. You will need to be logged into Xbox Live on Windows 10 to play the game. Just be warned that it's a hefty download.



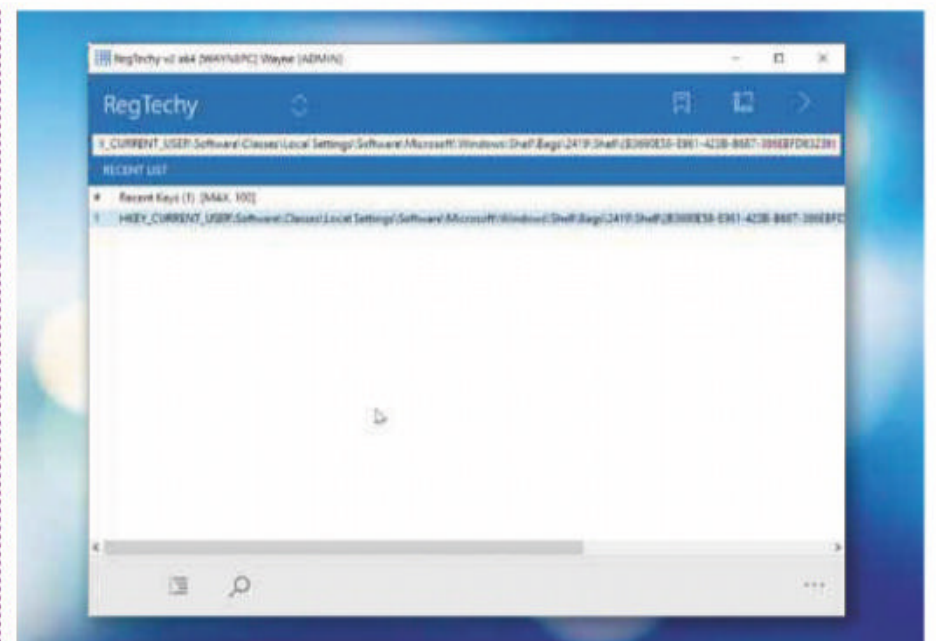
SYSTEM TOOL

Optimizer

bit.ly/opti476

Min requirements: Windows 7/8.1/10 **File size:** 1MB

This tiny portable tool aims to improve the privacy and security of your PC. It offers a number of tweaks you can apply to Windows, such as blocking telemetry and removing Skype ads, as well as a UWP (Windows 10 app) uninstaller, system cleaner, startup manager, Registry cleaner, HOSTS file editor and context-menu integrator. The newest version can disable Windows' Sticky Keys feature and enable long paths, removing Windows 10's 260-character path limit.



SYSTEM TOOL

RegTechy

bit.ly/regt476

Min requirements: Windows 7/8.1/10 **File size:** 1.2MB

RegTechy is designed to be a companion app for the Windows Registry Editor (Regedit). There are 32- and 64-bit versions of the program and you can use it to quickly navigate the Registry and jump straight to a specific location. The software can also find keys, names and values, and export keys to a file. RegTechy keeps track of recently accessed items and you can bookmark the most frequently used ones for easy access.

TEXT-REPLACEMENT TOOL

Beeftext 2

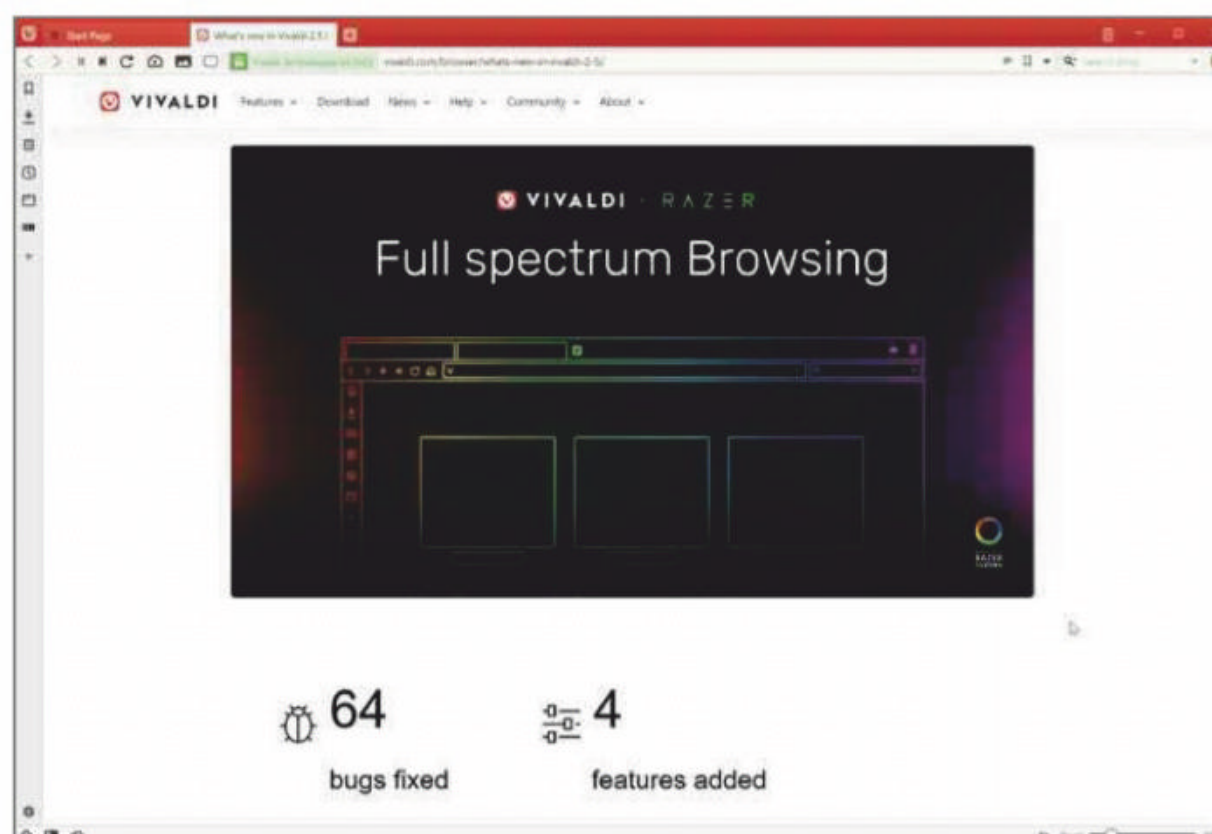
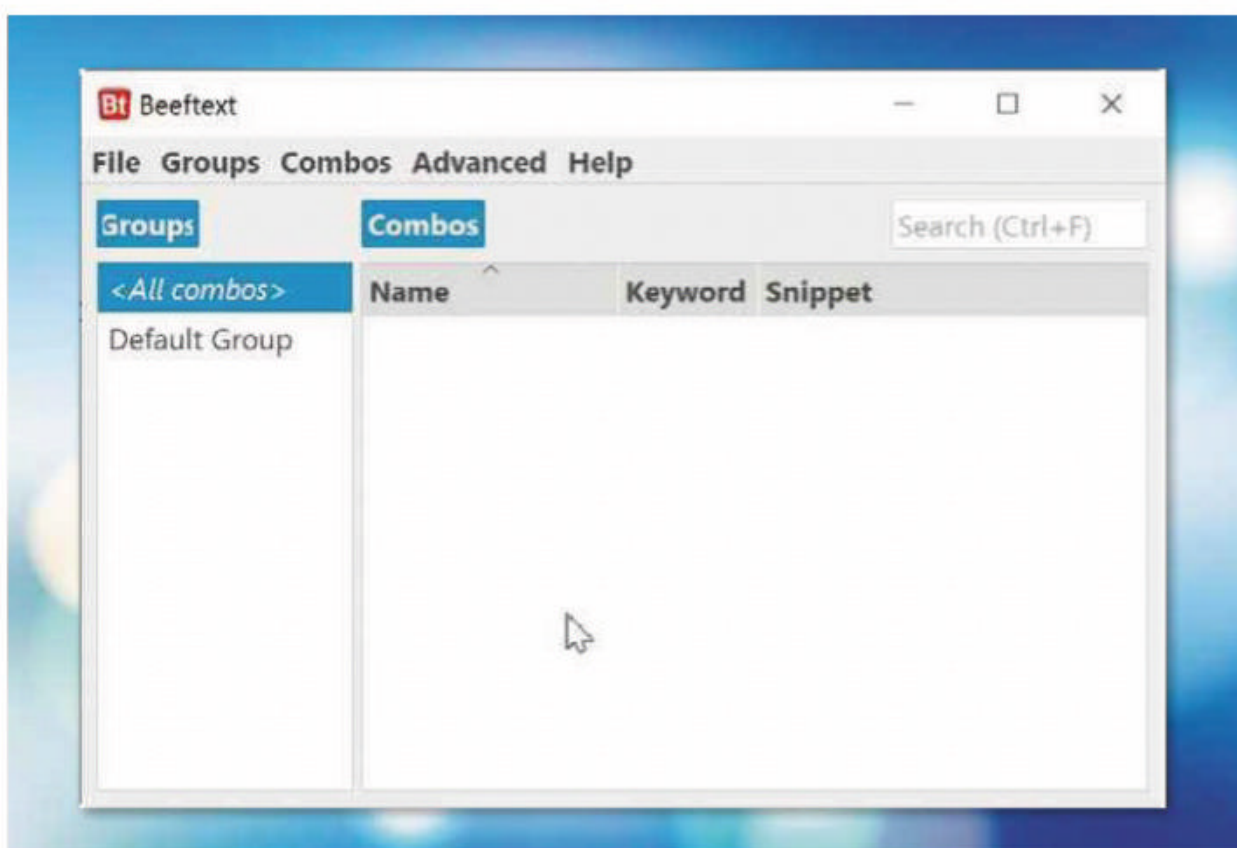
beeftext.org

Min requirements: Windows 7/8.1/10

File size: 18.9MB

If you regularly find yourself typing a long piece of text – such as a custom email signature, for example – you can use Beeftext to save you time and effort. All you need to do is enter your text into the program, then assign it a ‘combo’ (text shortcut). When you type in that combo – be it in a word processor, email or website – Beeftext will replace the shortcut with your substitution text.

This updated version of Beeftext lets you assign the same keywords for several combos – the software will pick one at random for you.



WEB BROWSER

Vivaldi 2.5

vivaldi.com

Min requirements: Windows 7/8.1/10, macOS and Linux **File size:** 53.2MB

Vivaldi – the web browser created by the former CEO of Opera – is really making a name for itself. New features are introduced regularly and version 2.5 sees Vivaldi team up with gaming brand Razer to bring support for Chroma-enabled devices. So, if you own a supported peripheral, such as a keyboard or mouse, its integrated lighting will change colour based on the websites you visit (Vivaldi itself also changes colour to match a site). Additionally, this release lets you adjust the size of Speed Dials (bigger, smaller or scaled to fit) and select tabs more easily.

ANTIVIRUS TOOL

Winja 6

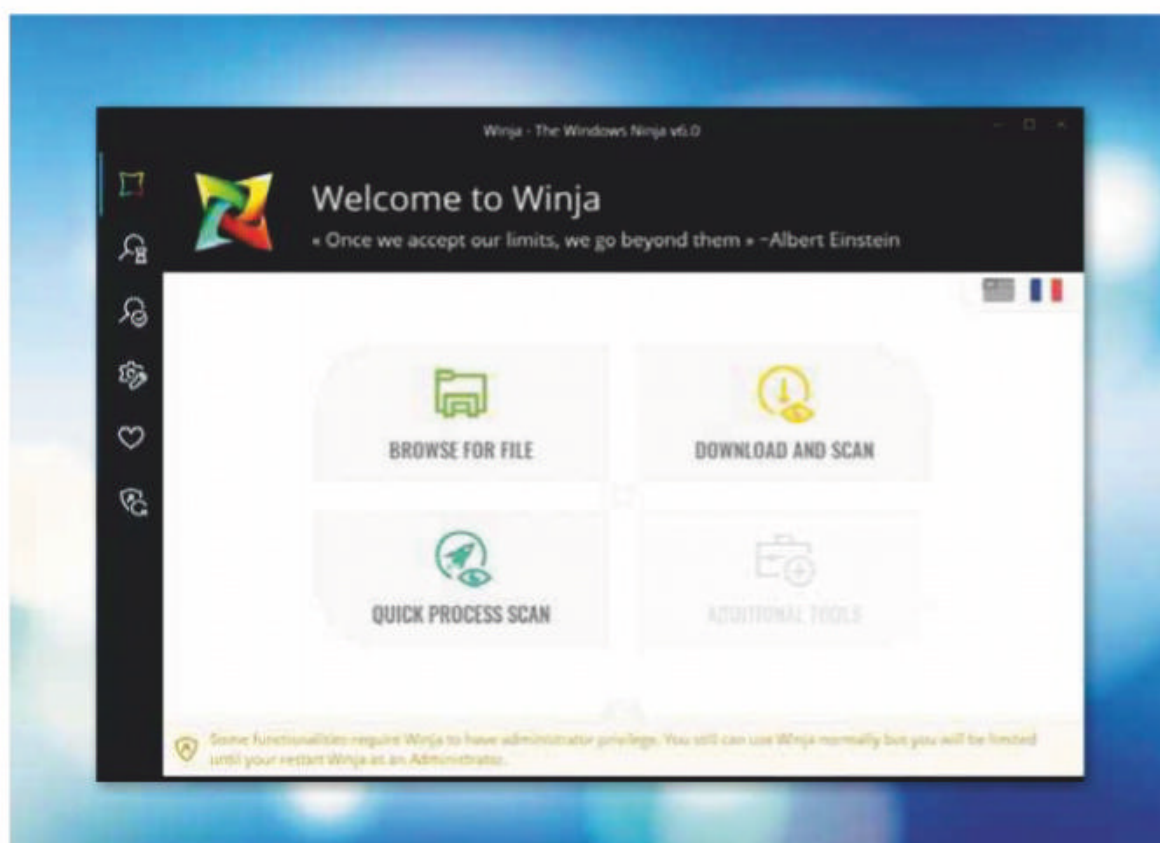
www.phrozen.io

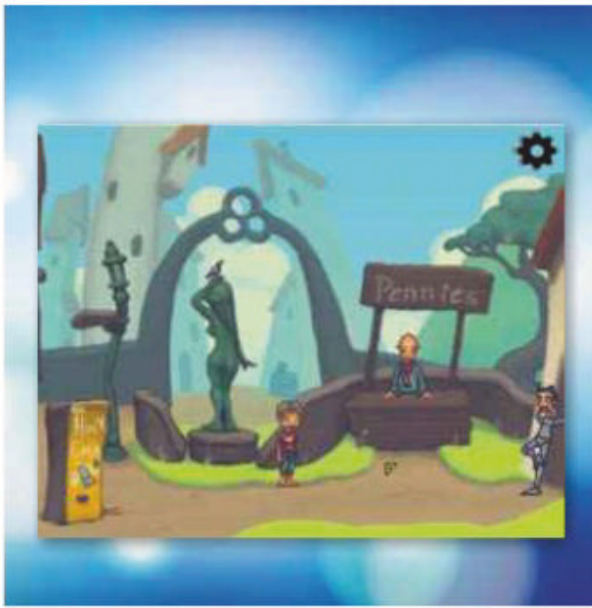
Min requirements: Windows 7/8.1/10

File size: 9.1MB

Winja – short for ‘Windows Ninja’ – provides a front end for the online VirusTotal scanner to simplify the process of checking files and downloads for possible malware. The interface lets you browse for a file to scan; run a download and scan (it will rename the download with a safe extension before checking it); or run a quick process scan.

The latest version includes an experimental feature for detecting unsolicited webcam usage. The items list has been updated to make it easier to see elements that require your attention, and an improved window-rendering engine means everything looks crisper.





GAME

Awakener

clarvalon.itch.io

Min requirements: Windows 7/8.1/10

File size: 15.2MB

Awakener is a “snack-sized” point-and-click adventure game with cute retro graphics. You play a young boy, Fadi, who has been given permission to spend the day with his Aunt Sylvia, but she has problems with an adventurer sleeping outside her tavern and needs your help. Chat to the various characters and try to solve the puzzles.

Don't install...

IP Blocker Firewall

bit.ly/blocker476

Min requirements:

Windows XP/
Vista/7/8.1/10

File size: 2.1MB

This lightweight firewall lets you block specific IP addresses or ranges of addresses in one click, and filter incoming and outgoing data. However, it's aimed at administrators of business networks rather than home users, and will set you back a whopping \$69.95 (£54), with the free trial limited to just five days.



...Install this instead

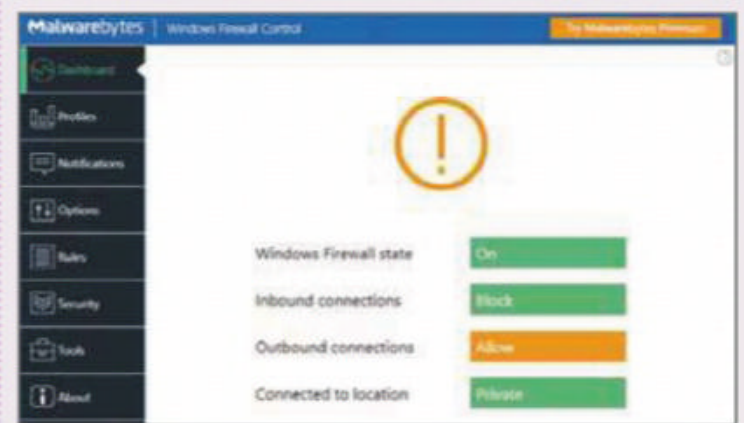
Windows Firewall Control

www.binisoft.org/wfc

Min requirements: Windows XP/Vista/7/8.1/10

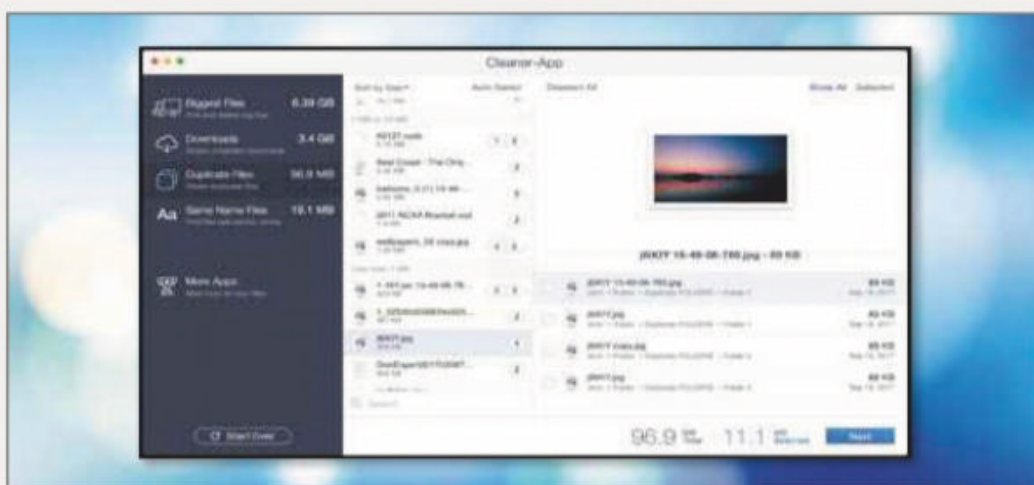
File size: 2.2MB

The Windows Firewall is surprisingly powerful, but for additional functionality, consider installing Windows Firewall Control. Now owned by Malwarebytes, this free tool offers a choice of filtering modes – High (blocks all outbound and inbound connections), Medium (blocks outbound connections based on rules you set), Low (allows outbound connections based on your rules) and No (firewall is off). This latest version provides a new interface and a Dashboard tab displaying key information. The program can be set to run on Windows startup and is very easy to use.



OTHER OPERATING SYSTEMS

What's new for Linux and Mac OS



SYSTEM CLEANER

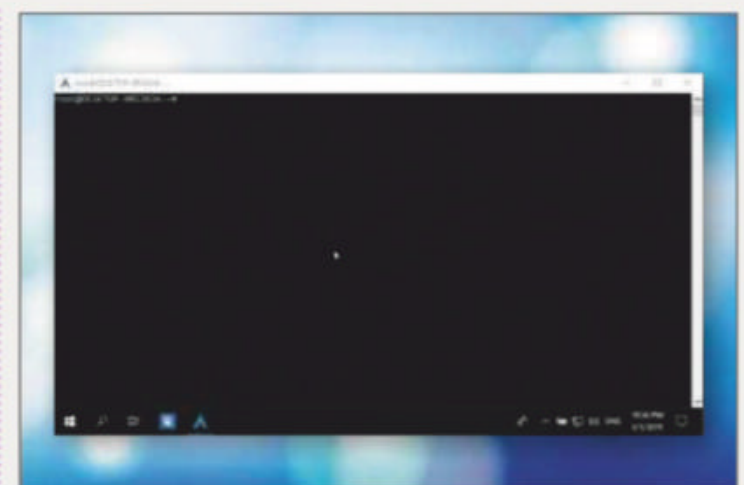
Cleaner-App

cleaner-app.com

Min requirements: macOS 10.10 or later

File size: 9.5MB

Applications and games are often quite large these days, as are photos and videos, which means that even a sizeable hard drive can fill up pretty quickly. If you don't keep on top of things, you'll soon be running out of room. Cleaner-App can free up disk space on your Mac, removing duplicates, downloads, same-name files and items that take up large amounts of space and could best be stored externally. The newest version now lets you search for large files, duplicates and clones, to make tracking them down much easier.



LINUX DISTRO

WSL Arch Linux

bit.ly/arch476

Min requirements: Windows 10

File size: 144.89MB

Windows Subsystem for Linux (WSL) is a compatibility layer that lets you run Linux command-line tools natively on Windows 10. There are several Linux distros available to install from the Windows Store, the newest being Arch Linux. This unofficial build lets you use Arch Linux Terminal and run Arch Linux command-line tools including Bash, SSH, Git and more.

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Best New Browser Tools

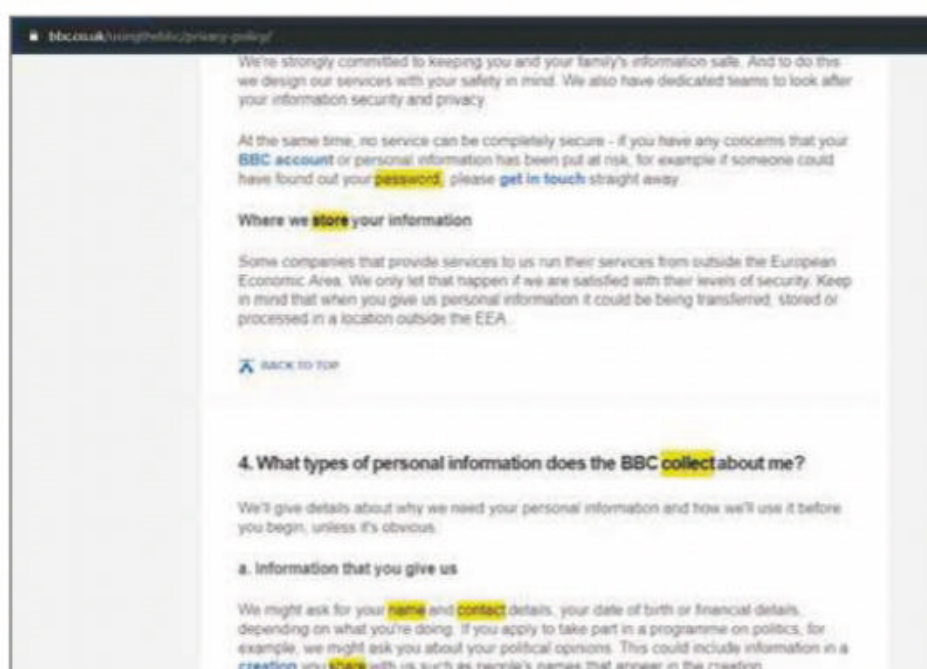


CHROME

Highlight important words in privacy policies

Have you ever read the small print on a website? Not just glanced at the words 'Terms of service' or 'Privacy policy', but actually read it? Or do you tend to scroll right down to the bottom and click Accept? We're not blaming you – it sometimes feels like you need a law degree just to get past the first section. The trouble with skipping these pages is that you don't always know what you're signing up for, or how a website may use your data.

Policy Highlights (bit.ly/policy476) is an amazing tool that adds an unmissable yellow highlight to important words including 'pay', 'consent' and 'required'. The sort of words that might make you want to sit up and take notice, particularly if you're not sure how a company intends to use (or abuse) your personal data or monitor how you use the web. The browser tool works with pages such as GDPR privacy and cookie policies, and Ts & Cs.

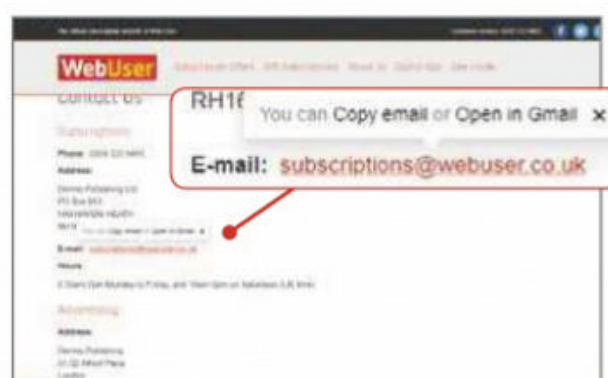
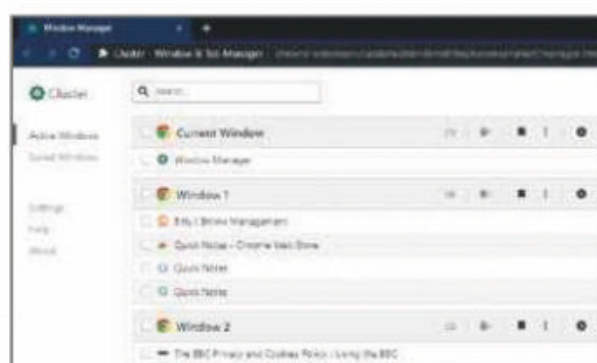


Curb your tab addiction

With so much content on the internet, your browser can quickly fill with a multitude of tabs that you promise yourself you'll check 'in a minute' – a minute that's often spent opening even more web pages.

Not only does this make for a cluttered and distracting browser, but it's not much good for your computer's processing power either. So if you feel you're suffering tab addiction, we've got a cure: tab manager Cluster (bit.ly/cluster476), which offers unparalleled control over every tab and Chrome window you have open at any time.

Clicking the extension opens the Window Manager, which lists all your tabs and open windows, each with a tick box alongside, so you can delete or save them, or group them into projects that can be restored at a later date. You can also suspend tabs at will, so they don't hog your computer's resources and slow it down.



Copy mailto links with one click

In Issue 475 (bit.ly/webuser475), we looked at ways to block the biggest online nuisances, but there's one irritant we forgot to include: when clicking an email address on a website opens your default email client, and you then have to copy the address, minus the 'mailto' bit, and paste it into the email account you actually wanted to use.

Unmailto (bit.ly/unmail476) finally does away with this carousel of time-wasting. With this extension installed, hover over any 'mailto:email' link on

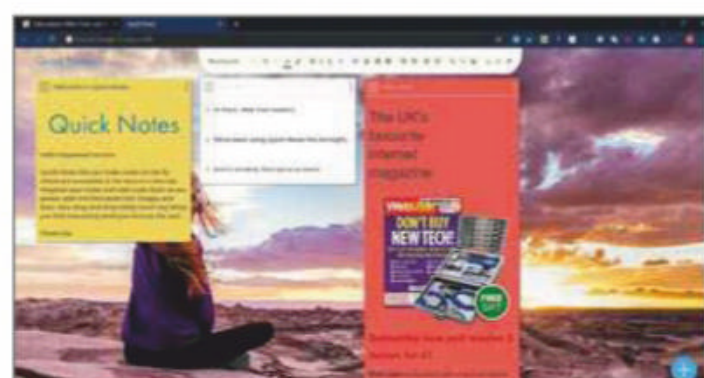
a website and you'll see a small box pop up above the link, letting you know you can 'Copy email' or 'Open in Gmail'. Click either of these to activate Unmailto. However, if you're happy using the standard email client, simply click the link in the usual way.

Take notes on every new tab

Quick Notes (bit.ly/notes476) essentially takes Windows Sticky Notes and transplants it to Chrome. It also acts as a new-tab manager, overriding your default homepage and allowing you to add or edit notes. These are automatically saved and carried across to any new tab you open, which is handy if you're forever forgetting why you started browsing in the first place.

Clicking the plus icon at the bottom of the page creates a blank 'note' that can be customised with a colourful (if limited) background palette. Basic formatting is also available – alongside changing the font type and size, you can realign text, bolden or italicise your writing, and add hyperlinks and images.

Every time you open a new tab, the lush locations in the background image change, too.



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



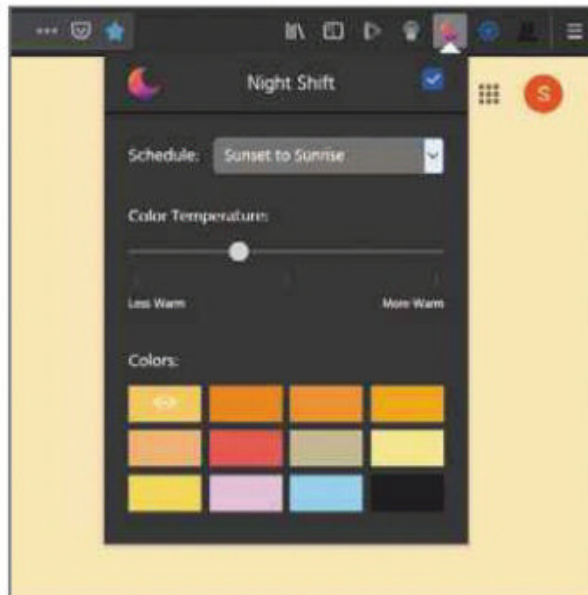
FIREFOX

Make your browser warmer after dark

Dark mode is becoming ubiquitous but not everyone wants gloomy black to dominate their computer screen. Night Shift (bit.ly/night476) is a browser tool that “automatically shifts the colours of your browser content to the warmer end of the colour spectrum after dark”.

Mojave for macOS introduced a feature that altered your background according to the time of day – almost as if the sun was rising and setting on your screen in real time – and smartphones have long had a ‘night light’ option, dimming the screen for a set period of time. Now, Firefox users can emulate the effect.

Click the toolbar button after installation and you’re greeted with options for creating a schedule and selecting colours. It’s a useful tool for reducing your computer’s insomnia-inducing blue light.



Get up close and personal online

What a difference In Zoom (bit.ly/zoom476) makes. Here’s a browser a tool that solves yet another of the internet’s dodgy design problems – not being able to zoom in on images and videos. Without this extension, the best way to enlarge an online image is to save it, then magnify it in a photo editor. In Zoom makes this a lot less hassle: just hover your cursor over a picture or video, hold down Shift, then use your mouse wheel to zoom in and out.

All this happens ‘in-line’, so rather than forcing the media into a separate pop-out box, the effect occurs naturally on the page. It also features impressive zoom rates, whether you’re trying to see the big picture or the minute detail.

In our tests, we found it worked on most websites – only Facebook refused to play ball.

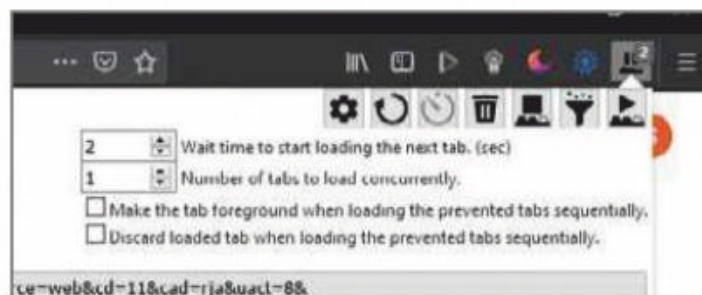


Control when new tabs load

Every time you right-click and select ‘Open Link in New Tab’, you’re wasting a little bit more of your CPU’s precious processing power. By the time you’ve got twenty new tabs to sift through, your computer’s going to be experiencing some lag.

LoadTabOnSelect 3 (bit.ly/load476) is another fine browser tool for the tab-addicted among us. It prevents any new tab link from actually loading until you click it, and you’ll be able to see that it’s working by looking at the pause icon that sits alongside the favicon.

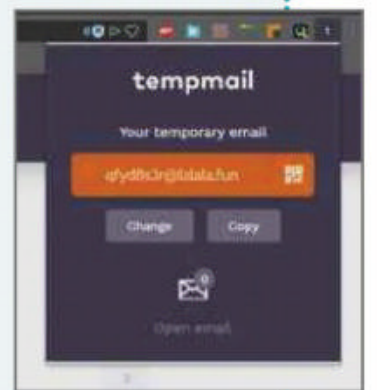
If you pop into the add-on’s settings, you’re also able to change the ‘no loading’ rule that limits automatic loading to a set number of tabs. On top of that, there are whitelist and blacklist options for specific websites.



OTHER BROWSERS

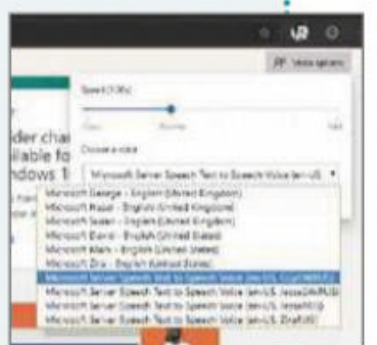
Create a temporary email address

If you’ve ever had a separate email address specifically for signing up to websites, newsletters and the like, then it’s time to get Temp Mail (bit.ly/tempmail476). This Opera add-on provides an excellent way to keep your inbox free of junk, by generating a random email address that you click to instantly copy it, then paste it into any sign-up field to direct mail to this address, rather than your actual account. Clicking the extension lets you visit this inbox in your Opera browser, so you’re still able to ‘confirm’ your email. You can switch to another temporary address by clicking Change.



Try the new tools in Microsoft Edge Chromium

Microsoft’s new Edge Chromium continues to add new features to its Insider Dev Channel. First, the built-in Spellcheck has now been fixed and rolled out to everyone. Both the Dev Channel and the more unstable Canary Channel now allow syncing with Microsoft Edge for Android, and two new voices have been added to the Read Aloud option (see our feature on page 50). These new voices are billed as “more natural than ever”, and you’ll find them in the ‘Voice options’ drop-down menu by right-clicking any web page and selecting Read Aloud.





Best Free Apps



App of the Fortnight

TOOLS

Spacedesk

bit.ly/spacedroid476

bit.ly/spaceios476

4.1 9.3

NEW

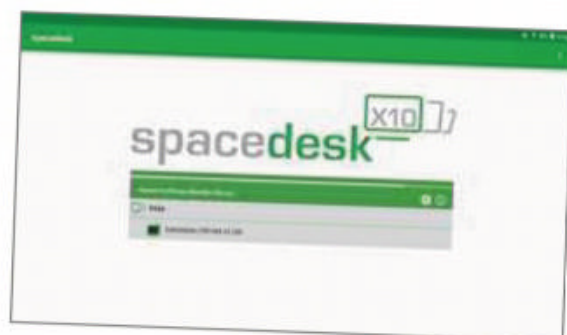
If you've ever wished you had a multi-monitor setup for your PC but you can't justify splashing out on a second display, Spacedesk could be

the answer. The developers describe it as "network display multi-monitor software", which basically means it's a tool for sharing your PC screen with other devices over Wi-Fi. You can use it either to mirror your computer's desktop on another device's screen or to extend your desktop to one or more devices, which then act as if they were secondary monitors.

Although in theory you can mirror or extend your PC's desktop to a smartphone's screen, we found that devices with larger screens, such as tablets, are more useful. You can also install Spacedesk on other PCs and extend or share your main PC's desktop to those, too. Setup is fairly straightforward – you need to install the tool on your PC, then download the app on your tablet and connect the two.

Spacedesk is completely free while it's still in beta, but according to the developer's release schedule, this will change towards the end of the year when the full version of the tool launches. When that happens, there will be two versions of the app: a free version that lets you use only one display at a time, and a Pro version (price to be confirmed) with all Spacedesk's features unlocked.

It's also worth mentioning that Spacedesk doesn't currently encrypt any of the data it passes between your PC and your other devices. This means the information it sends to your second screen is potentially available to anyone on your network. In other words, don't use it while connected to public Wi-Fi or a shared network.



Our rating



MINI WORKSHOP

Extend your monitor to your mobile device using Spacedesk

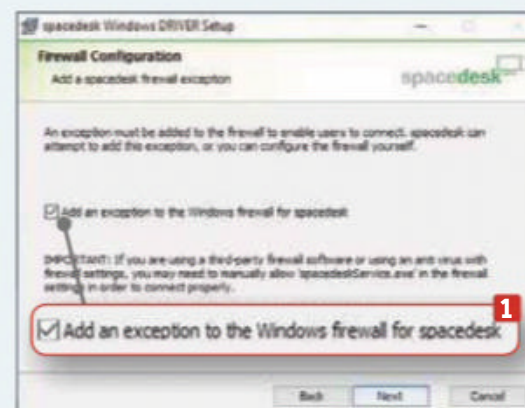
1 First, install Spacedesk's server tool on your 'primary' computer, which is the one whose desktop you want to share or extend to other devices.

To do this, head to

spacedesk.net/download

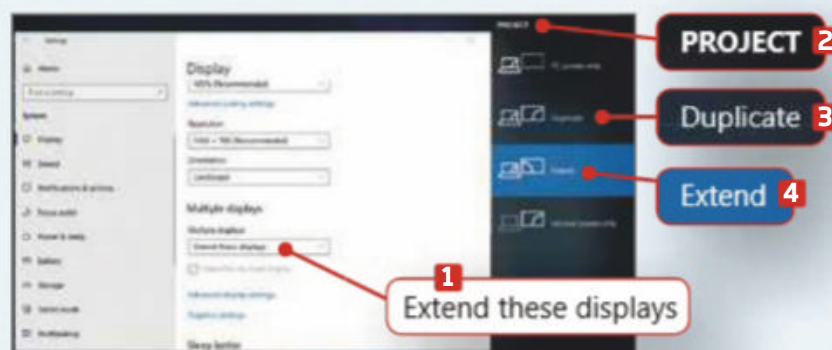
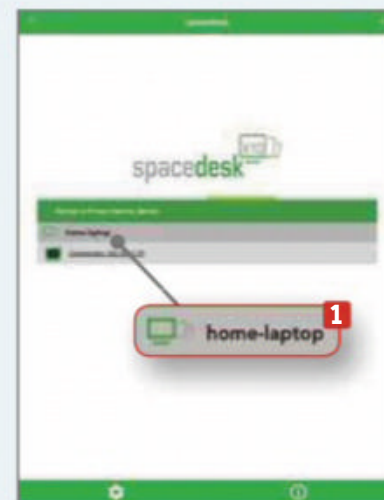
and download the appropriate version for your PC (Windows 10 or 8.1/7, 32-bit or 64-bit).

Install this, making sure the option to 'Add an exception to the Windows firewall for spacedesk' **1** is ticked when prompted.



2 Next, download the Spacedesk app on your mobile device. Check that your PC and tablet (or smartphone) are connected to the same Wi-Fi network, then launch the app on your mobile device. It will automatically search for primary machine servers on your network, displaying any it finds on the launch screen

1 Select your computer to connect the devices – you'll see a 'display off' message briefly, then your PC screen should appear.

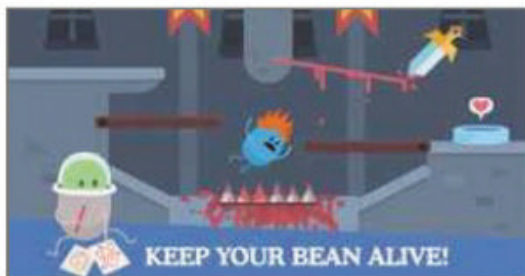


3 To configure the display and choose between mirroring and extending your desktop, switch to your PC and click Start, Settings, System, Display, then scroll down to 'Multiple displays'. Click the drop-down menu, then select either 'Extend these displays' **1** or 'Duplicate these displays'. Alternatively, you can press Windows+P to open the Project panel **2** and select Duplicate **3** or Extend **4** from there.

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

GAME

Dumb Ways To Draw

bit.ly/droiddumb476
bit.ly/dumbios476
 5  10


Remember Dumb Ways To Die – the cheerily fatalistic animation that turned out to be a public service message about railway safety? Well, the cute (but ultimately doomed) bean-shaped characters live on in this simple yet enjoyable puzzle game. Or at least they do if you manage to protect them from a series of deadly hazards by swiping on screen to create safe platforms and guide them to safety.

The base game is free, but you can pay to remove ads and unlock further features.



Our rating



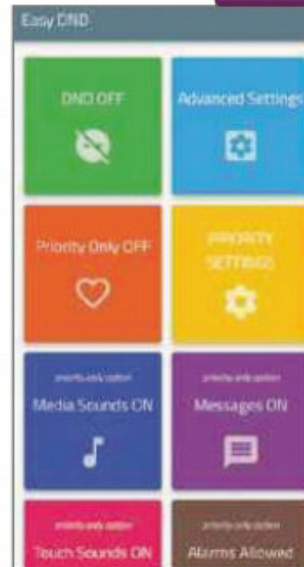
NEW

TOOLS

Easy DND

bit.ly/easydnd476
bit.ly/easydnd476
 9

While Android has its own 'Do not disturb' options built in, Easy DND is an attempt to bring some much-needed flexibility and accessibility to the party. It achieves this by adding a simple, colourful interface and tons of customisation options. You can toggle full 'Do not disturb' mode on or off, or opt for a wide variety of other modes, including 'priority calls' only, messages only, alarms and more. The downside is that the app is currently in beta and is available only for phones and tablets running the latest version of Android, Pie.



Our rating



NEW

AUGMENTED REALITY

Playground: Pokémon Detective Pikachu

bit.ly/pikachu476
 8

If the younger members of your household have had their enthusiasm for Pokémon reignited by the recent *Detective Pikachu* movie, they'll love this new app, which brings their favourite pocket monsters to life in all their uncannily photo-realistic glory. It's basically a new Pokémon-themed Playmoji pack for Google's Playground app, which lets you take AR photos and videos with animated characters including Pikachu, Charizard, Jigglypuff and Mr Mime. You'll need the latest versions of Playground (bit.ly/playground476) and ARCore (bit.ly/arcore476) installed for it to work.



Our rating

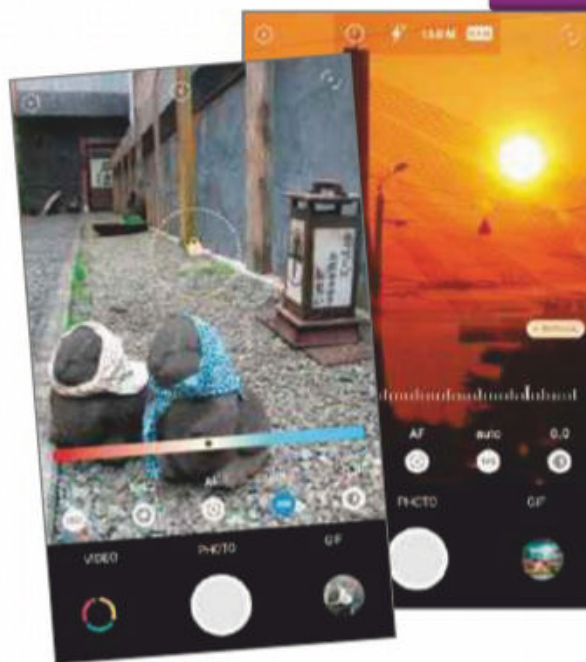


CAMERA

Pixtica

bit.ly/pixtica476
 5.1

Most of us have a variety of camera apps on our devices for different purposes: one for adding nice-looking filters, one for recording GIFs, one for scanning QR codes and so on. Pixtica aims to be the one app to rule them all by bringing together many of the abilities you find in other standalone apps. It also provides manual controls – including ISO, shutter speed, focus, exposure and white balance – as well as panorama, hyperlapse and slow-motion functions. It's a nice idea and well designed, but the free version loses points because it can't take full-resolution shots – for that you need to pay a subscription of £1.25 per month.



Our rating

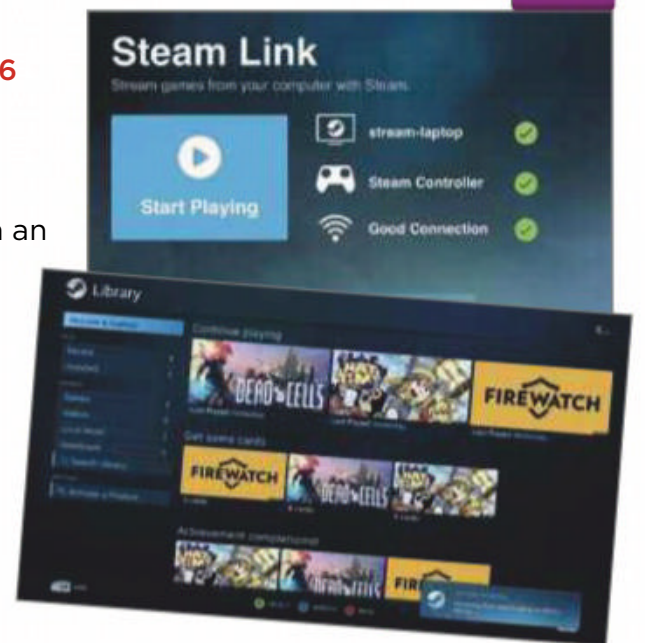


GAMING

Steam Link

bit.ly/steamandroid476
bit.ly/steamios476
 5  11

PC gamers who own an iPad or iPhone have reason to celebrate now that Steam Link is finally available for iOS. Last year, Steam released its highly popular app for Android, allowing you to stream your library of PC games to your mobile device. However, Apple controversially banned the app from its store on the grounds that it represented "business conflicts". Unlike the Android version, the iOS app won't let you buy games from the Steam store, but you can play Steam games on your phone or tablet while connected over a 5GHz Wi-Fi network or wired Ethernet to a host computer running Steam. Steam Link supports the Steam Controller, MFI controllers and more.



Our rating



5 NEW APPS WORTH PAYING FOR

TOOLS

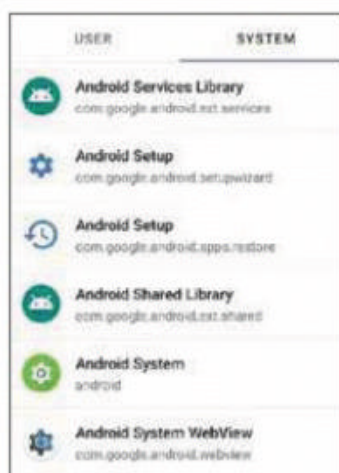
Skit

bit.ly/skit476

Price: £2.19



This app manager simplifies the process of extracting, sharing and deleting Android apps, and provides detailed information about each app's activities, permissions and more. A limited free version is available, too.



PRIVACY

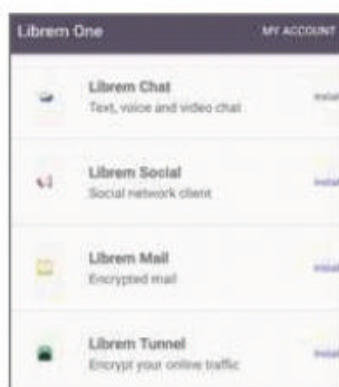
Librem One

bit.ly/librem476

Price: \$7.99 (£6.20) per month



Librem One is a suite of encrypted communication tools for privacy-conscious users that includes chat, mail, VPN and social apps. Some are free, but you need to subscribe if you want the full package.



GAME

Magnibox

bit.ly/magnidroid476

bit.ly/magniios476

Price: £3.99



This retro-style game involves solving a sequence of challenging puzzles - 160 of them - using the power of magnetism. The addictive gameplay is accompanied by colourful pixel-art graphics and jolly tunes.

WALLPAPERS

Sphaera

bit.ly/sphaera476

Price: 79p



If you're bored with the wallpapers on your phone, Sphaera could be just what you're looking for. It creates stunning wallpapers from maps, and lets you choose from a variety of locations and styles.



HUMOUR

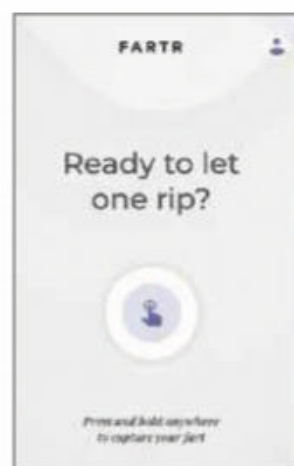
Fartr

bit.ly/fartr476

Price: £1.79



Ever wondered how your body's gaseous expulsions would rate out of 100? Or what they'd look like if you represented them in graphical form? Well wonder no more, thanks to this daft post-pub app.



Skit



Librem One



Magnibox



Sphaera



Fartr

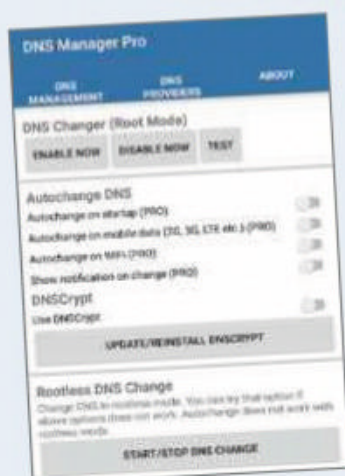


Don't install...

DNS Manager Pro

bit.ly/manager476

When you pay for a premium DNS manager (shelling out a fairly steep £5, in this case) you might expect a decent level of presentation or an abundance of useful features. Not only does DNS Manager Pro fail to deliver on either of these expectations, but the developers seem to have abandoned their creation, because it was last updated in 2017. Many users have reported that the app doesn't even work.



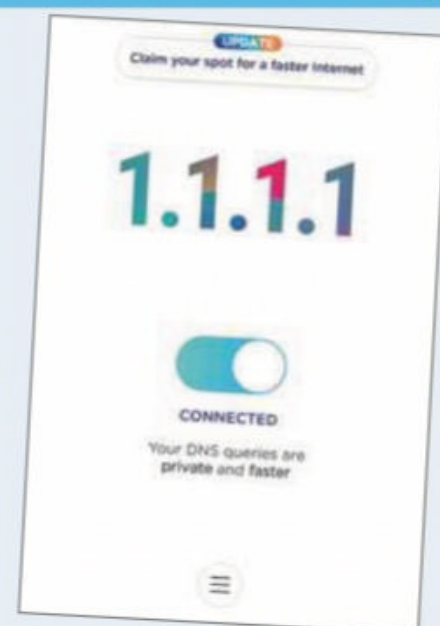
...Install this instead

1.1.1.1

bit.ly/oneone476



Switching to a different DNS server can improve your browsing speed and your privacy, but it can also be a rather complicated task that involves selecting from a list of strange-looking DNS providers and managing settings. 1.1.1.1 makes the process much simpler by providing just one main button - an on/off switch that either enables or disables the DNS connection. It doesn't offer a wide choice of providers but, once set up, it's easy to use, fast and provides a secure connection that can boost your privacy by preventing your ISP from collecting and selling your DNS data. ■





Take a Screen Break

Give your eyes a rest from your browser by taking our fiendish fortnightly challenges. Can you guess our place-name emoji and our Wikipedia article?

**WIN A
WEB USER
2018 BACK
ISSUES DISC!**

Email your answers to
editor@webuser.co.uk
- one correct entry
will win a disc



CAN YOU GUESS THE UK TOWNS & CITIES FROM THE EMOJI?

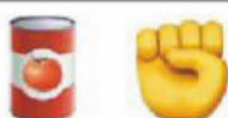
1



2



3



4



5



6



GUESS THE WIKIPEDIA ARTICLE

Can you work out which technology-related Wikipedia entry the following clues refer to?



WIKIPEDIA

1 "It started by focusing on business-to-consumer relationships between itself and its customers, and business-to-business relationships between itself and its suppliers, and then moved to facilitate customer-to-customer transactions."

2 "It allows users to submit reviews to the web page of each product. Reviewers must rate the product on a

rating scale from one to five stars. It is the largest single source of internet consumer reviews."



4 "In October 2011, it announced a partnership with DC Comics for the exclusive digital rights to many

popular comics, including *Superman*, *Batman*, *Green Lantern* and *Watchmen*."

5 "Since its founding, the company has attracted criticism and controversy for its actions, including supplying law enforcement with facial-recognition surveillance tools and forming cloud-computing partnerships with the CIA."

COMPETITIONS

WIN 1 OF 5 iPad Pro Scout case

Urban Armor Gear's Scout is the first iPad case to work seamlessly with Apple's Smart Keyboard Folio. It secures your iPad without interfering with the Folio's multiple viewing/typing positions.

To enter, email your address to webusercomp@dennis.co.uk with 'scout' in the subject line. For more information, visit www.urbanarmorgear.com and follow @UrbanArmorGear on Twitter.



WORTH
£49.95
EACH

WIN 1 OF 5 Rock Jaw Alfa Genus V2 earphones

British engineered, Rock Jaw's Alfa Genus V2 earphones combine good looks with great sound. The 8mm dynamic drivers are tuned to deliver great sound throughout the range, with crystal-clear highs as well as punchy lows.

To enter, email webusercomp@dennis.co.uk with 'Alfa Genus' in the subject line. For more information, visit rockjawaudio.com and follow @rockjawaudio on Twitter.



WORTH
£39.95
EACH

? FAQ

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

Huawei

Why is the manufacturer of highly praised smartphones proving so controversial – and can it be trusted? **David Crookes** explains all

What is Huawei?

Huawei (pronounced *wah-way*) is a multinational telecommunications and electronics company founded and based in China. It's the world's fastest-growing smartphone manufacturer, behind only Samsung and Apple in popularity, and is at the forefront of making and providing equipment for numerous phone networks. As such, it's at the cutting edge of technology, but the UK government's decision to allow Huawei to supply equipment for future 5G networks has proved controversial, with critics claiming the company cannot be trusted.

Why are people wary of Huawei?

The company was formed in 1987 by a former People's Liberation Army (PLA) officer called Ren Zhengfei, and is said to have ties to the



Huawei was founded in 1987 by the engineer and businessman Ren Zhengfei

Chinese government (the FBI reported that it receives support from senior Chinese Communist Party officials and PLA commanders). While many countries are keen to strike a business relationship with

China, there's a worry that Huawei's links to an authoritarian regime could compromise the security of its products, and a fear that they could become a vehicle for industrial espionage. The US is warning the world not to deal with the company and is sending out diplomatic warnings to countries that do.

In what way is the UK working with Huawei?

It emerged in April that the British government was planning to let Huawei build "non-core" components of the country's forthcoming 5G network. This means the company will provide equipment such as antennas, but won't be involved with decisions over how to route voice calls or data, or have any role in checking device IDs. Huawei has a long-standing relationship with the UK – it supplies equipment for existing mobile networks and employs 1,500 people here.

So what's the big deal?

Several UK cabinet members have warned about possible risks to national security, and these concerns and other confidential talks surrounding a decision to use the company were leaked to the *Daily Telegraph*. Defence Secretary Gavin Williamson was sacked for his involvement in the leak (which he denies) and the United States, having got wind

of the UK's intentions, said working with "unsecure and untrusted vendors" would lead to a reassessment of America's information-sharing arrangements. Australia and New Zealand also believe Huawei poses a security risk and all three have stopped Huawei providing technology for 5G networks in their own countries.



Defence Secretary Gavin Williamson denies leaking details of the Huawei deal

Is politics playing a big part?

Yes, politics is arguably underlying the whole furore over Huawei. China and the US are becoming fierce business rivals, with the former's rapid rise securing its place in a globalised world. The UK, for its part, is keen not to upset China given the uncertainty over Brexit and the need for greater global trade. Canada's relationship with China was strained when Sabrina Meng Wanzhou, Huawei's chief financial officer, was arrested at Vancouver airport at the request of the US last December. She stood accused of misleading banks about Huawei's business dealings in Iran in defiance of

sanctions. The US alleges Huawei has been stealing trade secrets, too.

How much of this is just paranoia?

China's National Intelligence Law, which came into effect in July 2017, obliges citizens and organisations in China to 'spy' when required. Article 14 of the law says "state intelligence work organs, when legally carrying forth intelligence work, may demand that concerned

organs, organizations or citizens provide needed support, assistance, and cooperation". Such language indicates a potential that Huawei could be ordered to collaborate with China's national

intelligence efforts. It was also rather intriguing that Beijing was furious and threatened "grave consequences" over Meng's arrest, suggesting close ties. "This hurt the feelings of Chinese people," said China's official news agency Xinhua.

Is there evidence of any wrongdoing?

Huawei maintains that it is an employee-owned independent company, but there have nevertheless been reports of security-bypassing 'backdoors' in networks that use Huawei-supplied equipment. There was a suggestion that Vodafone found vulnerabilities in an Italian network 10 years ago that could have granted Huawei access to its fixed-line network. A report by Bloomberg also said Vodafone asked Huawei to remove such backdoor access in home internet routers but found, when checking later, that this hadn't been done.

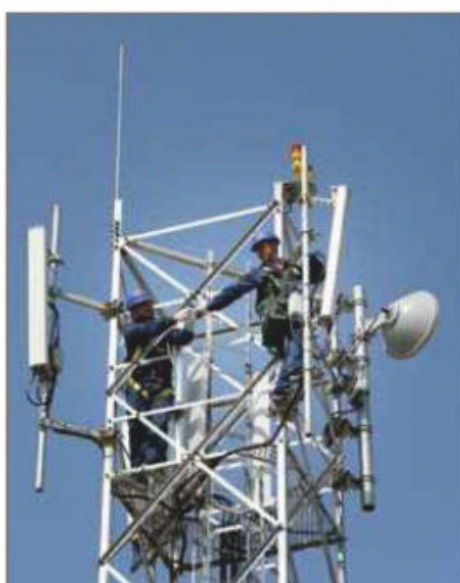
Sounds dodgy. Case closed?

Well, no. An updated report suggested that the vulnerability was down to an undocumented Telnet service and, while it was a security risk that Vodafone had to ask Huawei to remove, the problem wasn't as bad as it first appeared: computers and networks couldn't be accessed via the internet as was originally reported. Even so, telecom companies across Europe are currently reviewing Huawei's equipment and BT

WHY IS 5G SO IMPORTANT?

If you want a faster and more reliable mobile internet, then 5G is the solution you've been waiting for. The fifth-generation wireless system is capable of speeds up to 20 times faster than 4G, and it will revolutionise the way we use our mobile devices, reducing latency to mere milliseconds and opening up the potential for the

Internet of Things, which could massively improve security systems and vehicles. With wider coverage, stable connections and less congestion, 5G is set to be hugely popular. It will carry reams of data – hence the need to ensure that it is as secure as it can be.



There are fears that Huawei workers could be forced to aid Chinese state intelligence



Reports of backdoors in Huawei equipment were later revealed to be inaccurate

announced last December that it had been removing Huawei technology from key areas of its 3G and 4G networks since 2016. It said, however, that this was merely part of its efforts to standardise BT's network following its purchase of the mobile phone carrier EE in 2015.

Vodafone is going to put its use of Huawei on hold for the time being, while O2 and Three say they will continue to use the company.

Does "non-core" involvement with UK 5G limit the danger?

Alex Younger, chief of the Secret Intelligence Service (or MI6), says 5G networks are tricky to monitor and, in a speech last year, Australia's spy chief Mike Burgess, said that "a potential threat anywhere in the [5G] network will be a threat to the whole network". The UK's National Cyber Security Centre (www.ncsc.gov.uk) says there are ways to mitigate such security threats, but in July 2018, a UK government report written by the Huawei Cyber Security Evaluation Centre (bit.ly/hcsec476) believed shortcomings in Huawei's engineering processes provided only limited assurance.

What happens if the Huawei deal is stopped?

Vodafone and other operators suggest that preventing Huawei's involvement would increase the time and cost of

deploying 5G, potentially putting the UK behind other parts of the world by at least a couple of years. It would, however, ease tensions with other nations in the Five Eyes intelligence alliance – the US, Australia, New Zealand and Canada. This alliance allows the UK to access information that the EU is excluded from, and helps make for better security.

And what does Huawei say?

Huawei says countries have nothing to fear and that it takes security seriously. On its website (www.huawei.com), the company's UK CEO Jerry Wang writes a strong defence: "Huawei has been the subject of relentless innuendo," he says. "The company has been targeted by a sustained campaign of ill-informed accusations that its involvement in 5G infrastructure somehow poses a threat to the nation." Wang says transparency is the best response when faced with suspicion, hostility and doubt, and that "the only sure way to win trust is through openness, honesty and by proving that there is nothing to hide".

STOP PRESS: As we were going to press with this issue, news emerged that Google has blocked Huawei's access to Android updates, following orders from the US government to blacklist the company. Google said its Play store will continue to work on existing Huawei phones but future devices will lose access to popular apps including Play, Maps and Gmail.



Huawei denies any impropriety over 5G and just wants everyone to get on nicely

THE MISSING MANUAL

Spotify

COVER
FEATURE

There's so much more to Spotify than playing the same old songs. **Wayne Williams** reveals the best secret tips for making the most of the world's favourite music-streaming service

Spotify has been available in the UK for over a decade and it keeps getting bigger. The music-streaming service recently announced that it now has more than 100 million paying subscribers worldwide and 117 million users with free accounts, making it far more popular than rival services such as Apple Music, Deezer and YouTube Music.

Much of Spotify's appeal is down to the ease with which you can find, play and create playlists from virtually any song or album you can think of. But this

simplicity also means that many listeners aren't using the service to its full potential. There are all manner of useful and entertaining features that it's easy to miss, unless you know where to look – and how to listen.

In this Spotify special, we reveal how to unlock the service's best hidden options and content; add useful new features by integrating it with other services and third-party tools; and get more from your music and your subscription every time you listen.



UNLOCK SECRET FEATURES

Import and play your own music collection

Spotify currently has more than 40 million tracks you can listen to on demand but if that's not enough, you can also use the service as a media player for music files stored on your hard drive. This means all those years of building an MP3 collection needn't have gone to waste, although Spotify warns that "Files or downloads from illegal sources are not permitted".

To import your own music into the Spotify desktop app, open Settings, scroll down to Local Files and toggle Show Local Files to On. It will include songs stored in Downloads and your Music Library as well as iTunes, if installed. You can enable or disable any of those locations and add a different source. Spotify supports MP3, M4P and MP4 formats.

To access locally stored songs on your phone or tablet, you need to add local files via the desktop app (as described above), add those tracks to a playlist and then stream that playlist on your mobile device.

Switch to Car View when driving

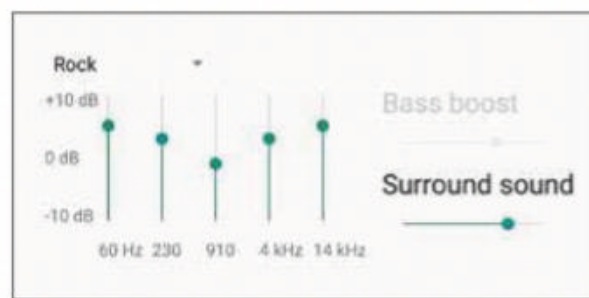
If you connect your smartphone to your car via Bluetooth so you can listen to your favourite tunes when driving, you'll be delighted with Spotify's Car View mode. This makes it easier to control music from behind the wheel (not that you should be fiddling with your phone when driving, of course) by removing album art and increasing the size of the text and controls. The app switches to the new layout as soon as Spotify connects to your car's Bluetooth, but you can disable this option if it's not to

your liking by going to Settings, Car, Car View.

Car View was introduced on Android at the beginning of this year and it's now available on iOS, too.

Improve sound using the equaliser

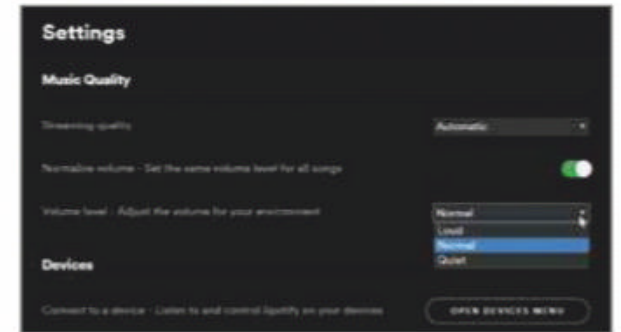
The Premium version of Spotify offers an equaliser, which lets you tweak and improve how songs sound. You can boost or reduce the bass or treble, for example, or choose one of the presets designed for specific types of music – Classical, Dance, Electronic, Pop, Hip-Hop, Jazz, R&B, Rock, Spoken Word and so on. If you want a more hands-on result, you can drag the points in the equaliser graph until it sounds just right. To access the equaliser on mobile, go to Settings, Playback (in iOS) or Music Quality (Android) and tap Equaliser.



Tweak the Spotify equaliser to get the best sound for your ears

Adjust the volume for your location

If you're in a noisy environment, you may find that turning up the volume on your device still doesn't provide enough power for you to hear your music. To address this, Spotify has a feature for Premium users that lets you set a higher baseline volume for your songs. In the desktop player, open Settings and,



Go one louder when the volume on your device isn't enough

under Music Quality, toggle Normalise volume on or off. Next to 'Volume level', you'll see three options – Loud (which reduces the dynamics of your music but cranks things up for a noisy environment), Normal (the default setting) and Quiet (good for a quieter environment – at home, for example – and with more dynamic levels). You can access these settings on mobile by going into Settings in Android, or Settings, Playback in iOS.

Remove the gaps between songs

Spotify provides a couple of ways for you to remove the silence between songs. Open Settings, then open the Playback section. Crossfade mixes tracks together – as one comes to an end, the next one starts – and you can adjust the fade length by up to 12 seconds. The other option is to enable gapless playback which, as you can guess from the name, removes the gap between songs.

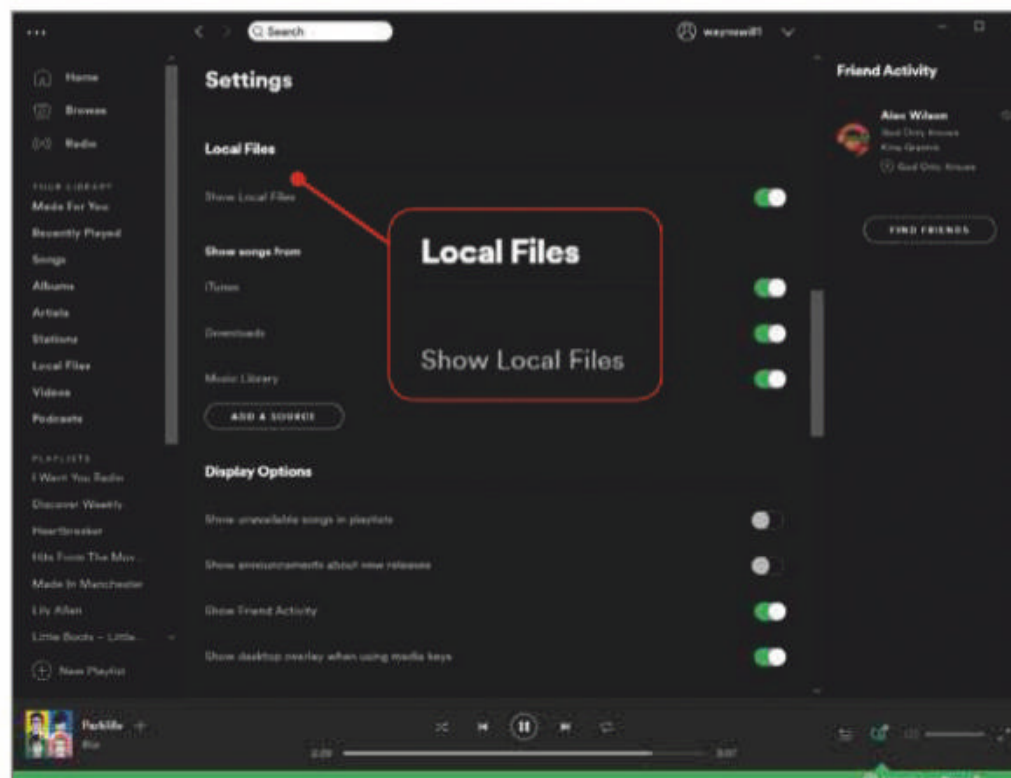
Discover the stories behind songs

Spotify lets you view the lyrics for songs and also has a 'Behind the Lyrics' feature, revealing extra info you may not have known about the current track. Just open the song's page in Spotify on mobile and drag upwards on the Lyrics option at the bottom. Spotify is also currently testing an additional Storyline-like feature called Storyline, which you'll find under Behind the Lyrics



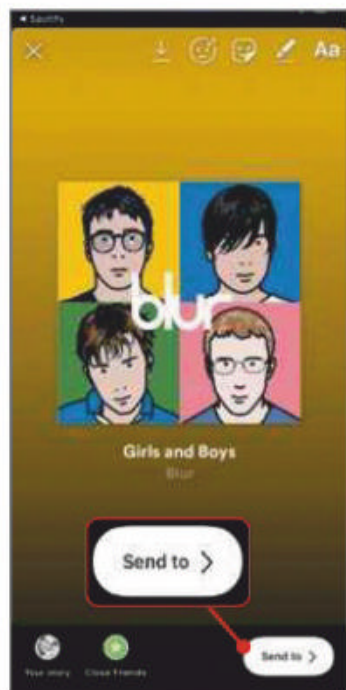
Go behind the music with Spotify's new Storyline feature

on some songs, such as Billie Eilish's 'Bad Guy'. This reveals thoughts and comments on the current track by the recording artist or band.



You can stream your own music collection through the Spotify app

Share music to Instagram Stories



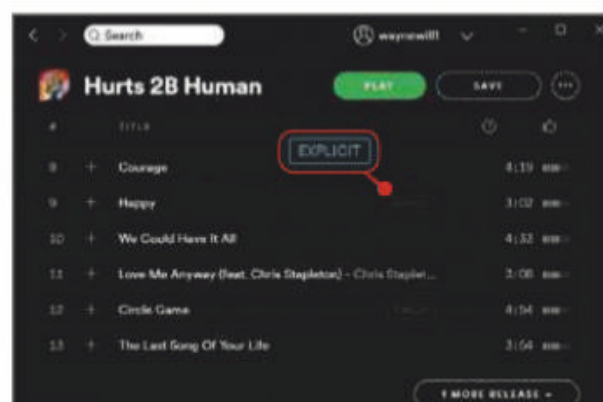
You can add music from Spotify to your Instagram Stories

If you're listening to a great track or playlist and you'd like your Instagram followers to know about it, you can share it from Spotify directly to Instagram Stories. Tap the Share button in the top-right corner (or the three-dot icon if the button isn't visible) and select Instagram Stories from the list of shareable options. Grant your Spotify app permission to open Instagram if you haven't already done so. You can apply filters, stickers and text, and share the post to your Stories and friends. Tapping the Send To button lets you send the song to individual friends, rather than sharing it with all your Instagram followers.

Block and avoid explicit content

A lot of songs aren't what you'd call radio-friendly these days. If you're listening to music in the company of minors, you'd no doubt rather avoid songs that are filled with expletives. Spotify tags songs that contain adult language with Explicit (E on the web player) to make them easier to avoid, and you can block or allow this kind of thing by going to Settings, Explicit Content and toggling the switch on or off. This setting is device-specific, so you will need to change the same settings on all the devices you use Spotify on.

Spotify often has "clean" versions of explicit songs that it can play for you. If you're using the desktop app, open the album and you may see a More Releases option at the bottom. If it's there, select this to switch to the cleaner



Avoid songs with offensive lyrics by playing the clean versions

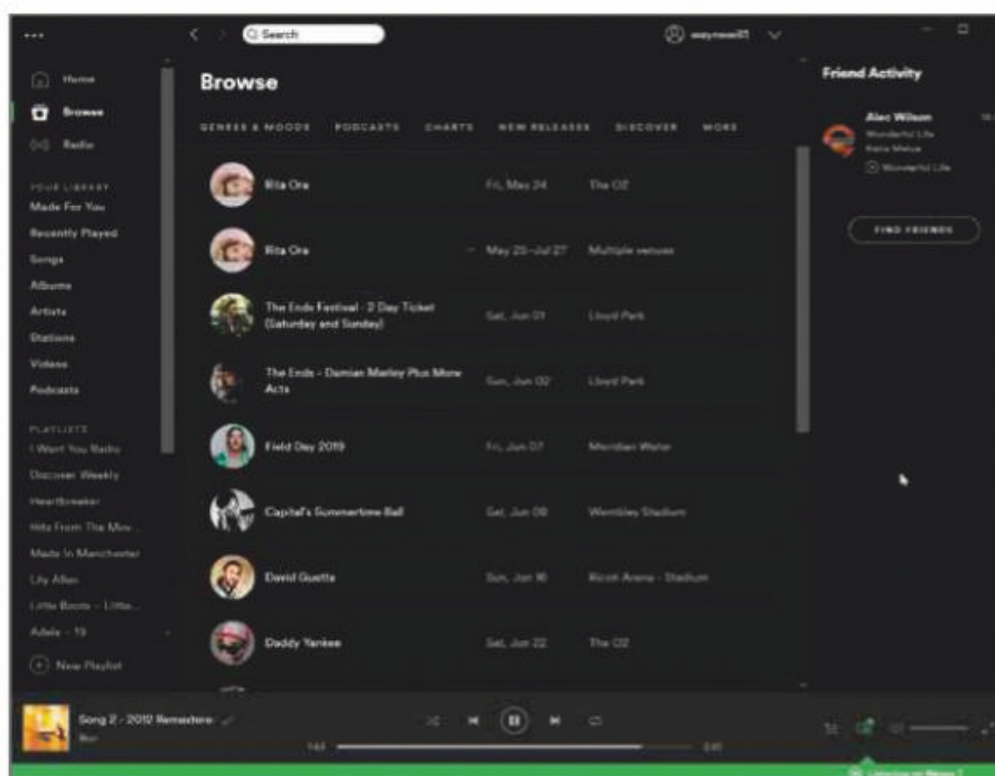
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Discover if any of your favourite bands are playing nearby

version. In the mobile app, just search for a song by name and you'll be able to choose if you want to play the explicit or clean version (if there is one).

Hide your guilty pleasures

Spotify makes it easy to let people know the sort of music you like and are listening to, but we all have guilty pleasures we would rather keep secret. For that reason, the streaming service has a Private Session feature which prevents friends from finding out that you're a closet Michael Bolton fan.

On Android, open Settings and select Private Session; iOS users can find this option in Settings, Social. You can toggle the feature on or off, but the

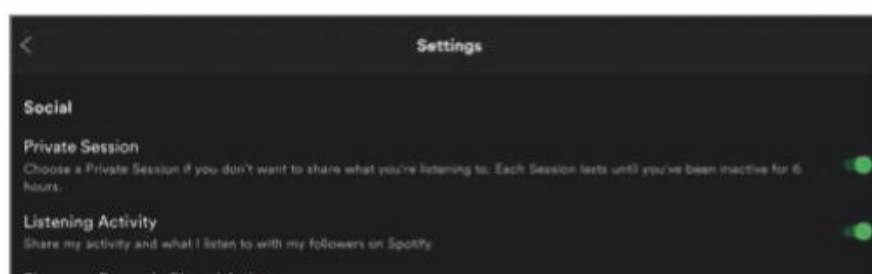
session will also automatically end when you've been inactive for six hours.

For additional privacy, you can remove entries from your Recently Played list by tapping the three-dot icon next to them and choosing Hide from the bottom of the menu. You can also make a specific playlist invisible to others by pressing it and choosing Make Secret.

Find a local gig to attend

Want to see a band or artist play live near you? Spotify can show you which performers are playing where and when. Click Browse in the desktop app and click Concerts at the top. This will display a list of acts who are performing

near (or relatively near) to your location. You can switch to a different place if you want, and clicking an item will tell you more about the gig, and let you find and buy tickets.



Switch to a private session to keep your guilty pleasures secret

USE SPOTIFY'S KEYBOARD SHORTCUTS

You can control playback on the desktop versions of Spotify for PC and Mac using the following keyboard shortcuts.

PLAY/PAUSE

NEXT TRACK

PREVIOUS TRACK

CONTROL VOLUME

MUTE

CREATE NEW PLAYLIST



This is just a sample – there are many more shortcuts available. You can check out the full list at bit.ly/shortcut476.

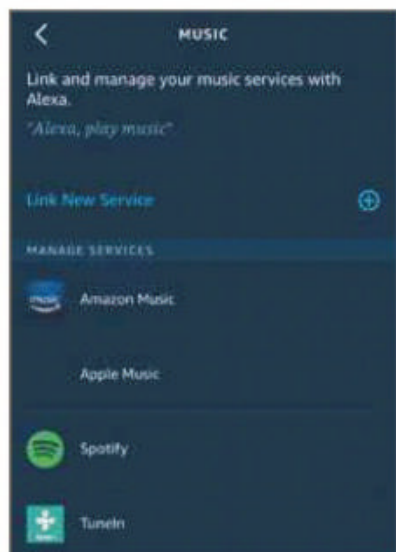
STREAM TO MORE DEVICES

Stream to Amazon Echo or Google Home

Provided you are a Spotify Premium user, you can connect your account to a smart speaker from Amazon or Google and request songs, albums, playlists and genres of music to play using your voice. Just set Spotify as the default music service in the Google Home app.

To connect your Spotify account to an

Amazon Echo (which is set to use Amazon Music by default), open the Alexa app, then Settings and tap Music. Tap the Link New Service option, select Spotify and then log into your account. Agree to the terms and you'll now be able to ask Alexa to stream songs from Spotify.



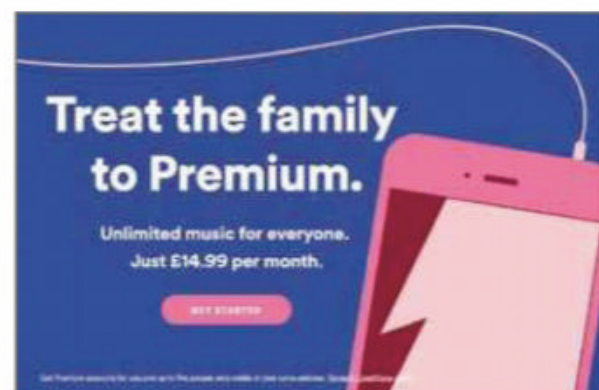
Set Spotify as the default music player for your smart speaker

Stream music through your TV

If you own a smart TV (any set that's relatively new), you should be able to stream Spotify music through it. First, download the Spotify app for your TV (look for an Apps section) if it's not already installed, or for your set-top box or games console, then open the app on your smartphone or desktop and start a song playing. Click the Devices Available button and select your TV from the list. Music playback is controlled by your phone, so it will need to be on the same Wi-Fi network as your TV.

Share your subscription via Premium for Family

It's likely that you and the various members of your household all have differing tastes in music. Premium for Family provides a way for everyone to keep their music separate by giving up to five family members a Premium account of their own at a significantly reduced rate. There are some restrictions: children must be 13 or older and have parental consent, and everyone must reside at the same



Save money on Spotify with a Premium for Family subscription

address. Premium for Family costs £14.99 a month, which is quite a bargain when you consider that a single account costs £9.99 a month. You can sign up for it at www.spotify.com/uk/family.

Listen on your smartwatch

Spotify works with a number of smartwatches, including Apple Watch and Samsung Galaxy Watch, so you can stream and control music from your wrist. This is great if you need motivation when exercising. To see which watches are supported and to find out more, check out the information at bit.ly/watch476.

DISCOVER MORE MUSIC

Discover what the world is listening to

One of the more cosmopolitan ways to discover new music is to see what other Spotify users around the globe are

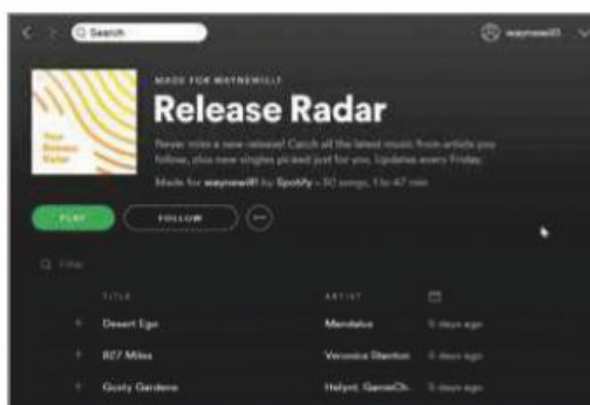
currently listening to. Click Browse in the top-left corner and select Charts. The 'Top 50 by Country' option reveals the most popular tracks in different locations.

American and

British songs dominate in a lot of countries but you're likely to find some interesting tracks by artists you've never heard of before.

Review the Release Radar

Spotify puts together a playlist of songs just for you, and updates it every Friday with fresh tracks that have been released over the past few weeks. The list includes songs from artists you listen to regularly, as well as artists that Spotify thinks you will like. You can find



Discover if Spotify knows your music tastes as well as you do

this Release Radar in the desktop or web player by clicking Made for You under Your Library. On mobile, tap the Home button and scroll down to the Made for You section.

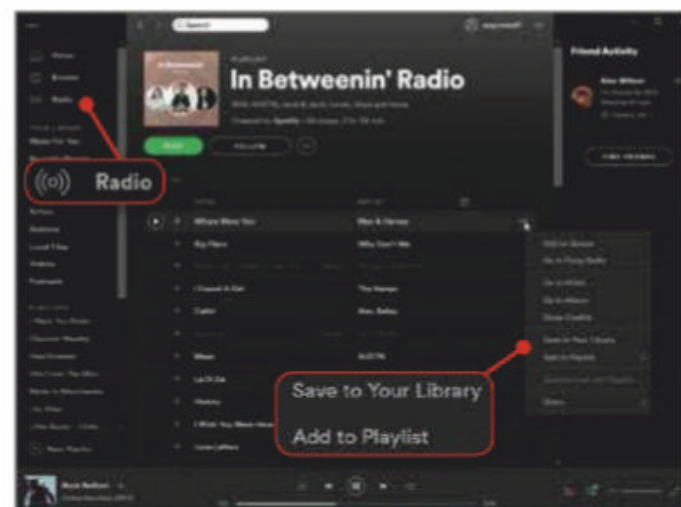
Filter your searches by year

Search for an artist or band that's been around for a while and you'll be greeted with a long list of songs and albums. It can take time to sift through to find a particular period in that act's history, so it's worth filtering the results by year, or years. For example, if you want to listen to Robbie Williams tracks from his 'imperial' late-90s era, then type `Robbie Williams year:1997-2000`. Spotify's search

bar also lets you use different search modifiers, such as 'and', 'not', 'or', '+' and '-'. This can be helpful if you're trying to track down a particular duet, for example.

Save songs from the radio

As well as letting you browse songs, albums and playlists, Spotify has a radio feature that plays similar sounding tracks. Just select the Radio option in the mobile app, then find a station that appeals to you. When you hear a song you like, tap the three-dot button next to it and you can save it to your library or add it to a playlist for listening to whenever you like.



You can save songs from Spotify's radio stations to listen to later



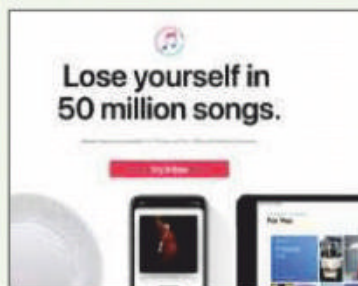
SPOTIFY ALTERNATIVES

Although Spotify is the best known of the music streaming services, there are several other options.

Apple Music

bit.ly/apple476

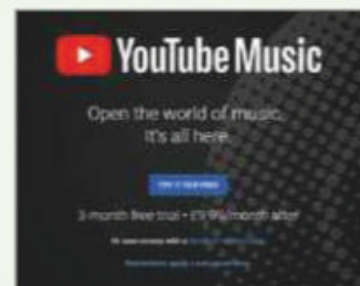
Apple's streaming music service is the closest rival to Spotify. It costs £9.99 (£14.99 for family) a month, but you may be able to get six months free from your mobile network provider. It's available on iOS, Android, PCs and Macs, and has a catalogue of more than 50 million songs. Apple offers greatest-hits collections (called Essentials) for all major artists, as well as charts from around the world. There are also lots of exclusives and the Beats 1 radio station.



YouTube Music Premium

www.youtube.com/musicpremium

Google recently created a new streaming service which lets you listen to music, or watch music videos. It's ad-free, and songs can be enjoyed offline and with your mobile screen locked. There are live versions and rare songs not found elsewhere, too. It costs £9.99 a month (£14.99 for a family account), but there's a three month free trial for individuals. The free tier gives you everything, but includes unskippable ads.

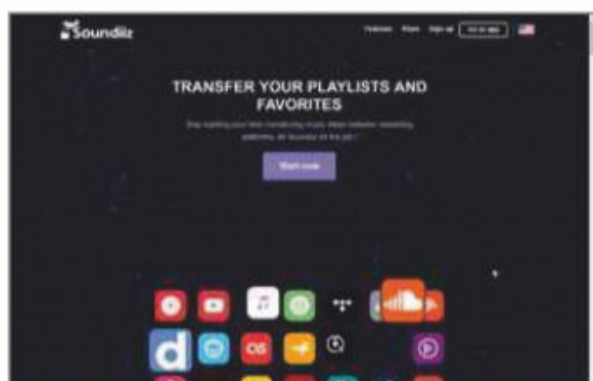


ADD USEFUL NEW TOOLS

Transfer playlists from another service

If you've switched to Spotify from another streaming service, you're probably dreading the prospect of having to rebuild all your playlists. Fortunately, you don't need to do this manually because the free web app Soundiiz (soundiiz.com) can do all the hard work for you. Click the Start Now button and either sign up for a new account or sign in using Facebook, Google or Twitter.

Log into the service and click the 'Platform to platform' link to transfer all your playlists and favourites between services including Apple Music, Deezer, Tidal and Google Play Music. This requires you to have a Soundiiz Premium account, which costs \$4.50 (£3.49) a month but if you don't want to pay, you can manually convert playlists from one platform to another, one at a time (up to a maximum of 200) for free.

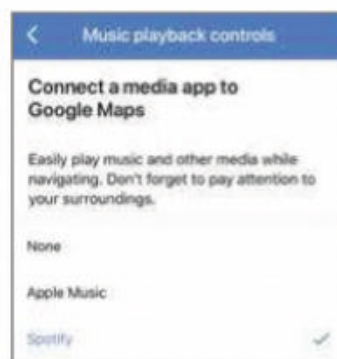


Soundiiz lets you transfer playlists from other streaming services

morning. Tap Alarm, Default Ringtone and select Spotify. You can choose an album or playlist, and Premium users can specify a particular track.

Play music through Google Maps and Waze

Both Google Maps and Waze (which is owned by Google) support Spotify integration, allowing you to play your music through the app when travelling. You can connect Google Maps to Spotify while in navigation mode or through Maps' settings. For the former, tap the bottom of the map screen and select Settings: on an Android device, select 'Show media playback controls'; for iPhone, choose 'Music playback controls'. Select Spotify on the next screen. If you're not in navigation mode, open the main menu in the top-left corner, then go to Settings, Navigation and configure things there.

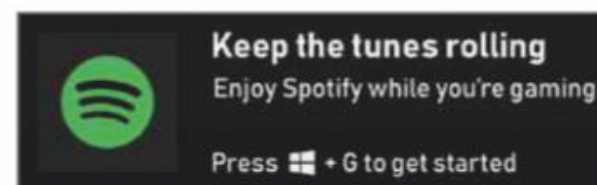


Stream music from Spotify while you're navigating the world

Waze users can link to Spotify by tapping Search in the bottom-left corner, then opening Settings. Scroll down to Audio Player and enable Spotify there.

Control Spotify from Windows 10's Game Bar

If you're a gamer, you're probably aware of the Game Bar that comes as part of Windows 10 and lets you easily screenshot, record and stream directly within a game or program. It can be activated by pressing Win+G, and configured through Settings, Gaming,



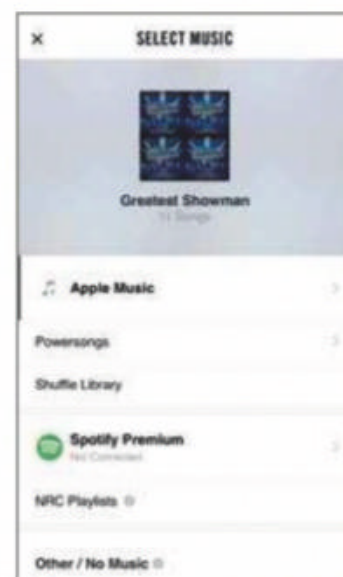
Control your Spotify music from the Windows 10 Game Bar

'Game bar'.

Microsoft recently added the ability to control music and podcasts on Spotify directly through the Game Bar. You need to install the Spotify Music app for Windows 10 (bit.ly/spotwin476) and have the Game Bar Beta. To get the beta, open the Xbox Insider Hub on your Windows 10 PC. If you don't have it, you can download it from the Windows 10 store (bit.ly/xbox476) - you don't need an Xbox for this. Select Insider Content in the top-left corner.

Connect to the Nike Run Club app

If you're a runner (or trying to be one), the Nike Run Club app for Android and iOS (bit.ly/nike476) can help motivate you and improve your performance. It offers leaderboards, challenges, events and guided runs. You can connect Spotify to Nike Run Club by tapping the music button in the running section and selecting Spotify Premium (it isn't an option for free users). You'll need to have Spotify installed on your phone.

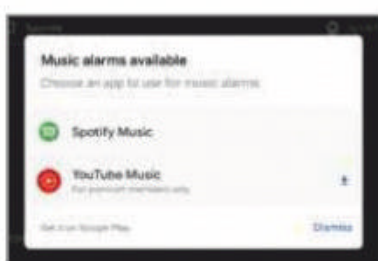


Listen to motivational music with Nike Run Club

You can also connect Spotify to the Runkeeper app (runkeeper.com) for similar benefits.

Wake up to Spotify

Google's free Clock app for Android (bit.ly/clock476) lets you add music from Spotify as your chosen alarm to wake up to every



Set an alarm and wake up to your favourite songs

tions to consider. Here are the best

Amazon Prime Music Unlimited

bit.ly/prime476

Amazon Prime members get access to Prime Music, but this only gives you two million songs. Paying £7.99 (Prime member) or £9.99 (non-Prime member) a month unlocks over 50 million tracks. Songs are ad-free and can be downloaded. You can listen to music through Amazon Echo and Fire TV products, for which there is a £3.99-a-month Single Device subscription.

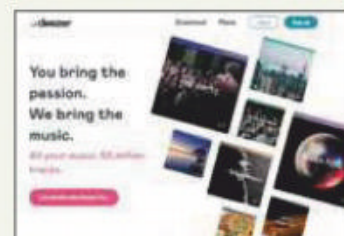
Amazon is reportedly working on a 'better than CD quality' music-streaming service for audiophiles and this is expected to be available by the end of the year.



Deezer

www.deezer.com

Although it's not as well-known in the UK as Spotify or Apple Music, Deezer is very popular elsewhere in the world, with around six million monthly users. It offers over 50 million tracks and is priced the same as its rivals – £9.99 a month for individuals and £14.99 for families. It offers Deezer Sessions from artists, and a shuffle mode called Flow. If you prefer high-quality audio, you can subscribe to the HiFi Plan for £19.99 a month, which offers CD-quality music in FLAC format (16 bit/44.1kHz).



OPTIMISE YOUR STREAMING

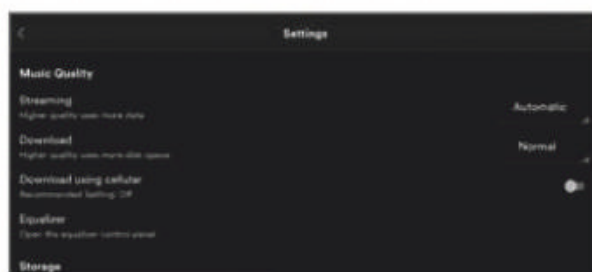
Control the amount of data Spotify uses

Most people don't have unlimited mobile data plans and, if you're not careful, even casually streaming music through Spotify on your phone can quickly eat through your allowance. For this reason, the mobile app offers a handy Data Saver Mode, which can reduce your data consumption by up to 75% by lowering the audio quality. To use it, tap the Settings cog to see the Data Saver entry. Tap this and switch the toggle to On.

Change the streaming quality

Spotify lets you adjust the quality of the audio to suit your current needs. You can switch to the highest quality when streaming over Wi-Fi, and lower it when you're out and about, to stop it eating into your mobile allowance. The options available depend on the device and your subscription level – Premium users have a very high option of 320kbps, whereas the free plan limits you to 160kbps.

To alter the audio quality on desktop, click the download arrow next to your



Adjust the audio quality depending on how you're streaming

name and open Settings. Click the drop-down menu next to 'Streaming quality' and pick an option. On mobile, open Settings from the Home screen, then scroll down to the bottom and open the Music Quality menu.

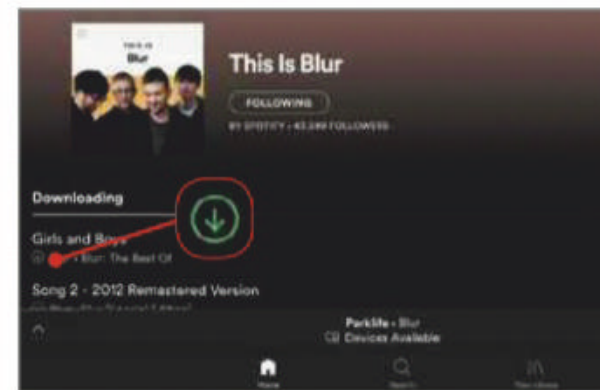
You can't adjust the quality of the audio in the web player.

Download favourites for offline listening

You won't want to download every song you listen to on Spotify to your phone – doing so will soon fill up the storage – but you should definitely download the tracks you listen to the most, so you can still enjoy them if you find yourself without a reliable internet connection,

such as on a train, or if you come close to maxing out your mobile data allowance.

The download feature is only available – you guessed it – on Spotify Premium, and you need to be connected to Wi-Fi. Downloading whole albums or playlists is simple – just use the Download toggle. Unfortunately, it's not so easy to download individual songs, which is annoying. What you can do, however, is add single songs you like to a playlist, then download that. It's not ideal, but it's better than downloading whole albums just to listen to one or two favourite tracks. ■



Download music so you can keep listening when you're offline

NEXT ISSUE

on sale Wednesday 12 June 2019

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Best Windows clipboard managers

The Windows clipboard has received a welcome overhaul – but how does the updated version of an old classic measure up against free third-party tools? **Steve Clark** copies and pastes his way through the best managers



CopyQ | bit.ly/copyq476 | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

WebUser
GOLD
AWARD

What we liked:

You may be happy with the standard clipboard built into Windows (see Best of the Rest, opposite), particularly since it was upgraded in the Windows 10 October Update.

After all, what could be simpler than just copying text and images, and pressing Windows+V to see (and re-copy) them all? But it's not until you try an alternative clipboard program such as CopyQ that you begin to realise just how limited Microsoft's offering still is.

This is the sort of software anyone with a computer can master, with a clean interface and a sidebar of one-click commands. However, it's the tabs that first drew us to CopyQ. This feature, which is easy to set up, helps you organise your clippings and immediately solves one of the biggest problems with most clipboard managers: the clutter. CopyQ makes it easy to create separate tabs for work projects, general use, images and whatever else you're copying and pasting.

Beyond that, the tool feels like a streamlined version of our Silver Award-winner, Clipdiary. Many functions

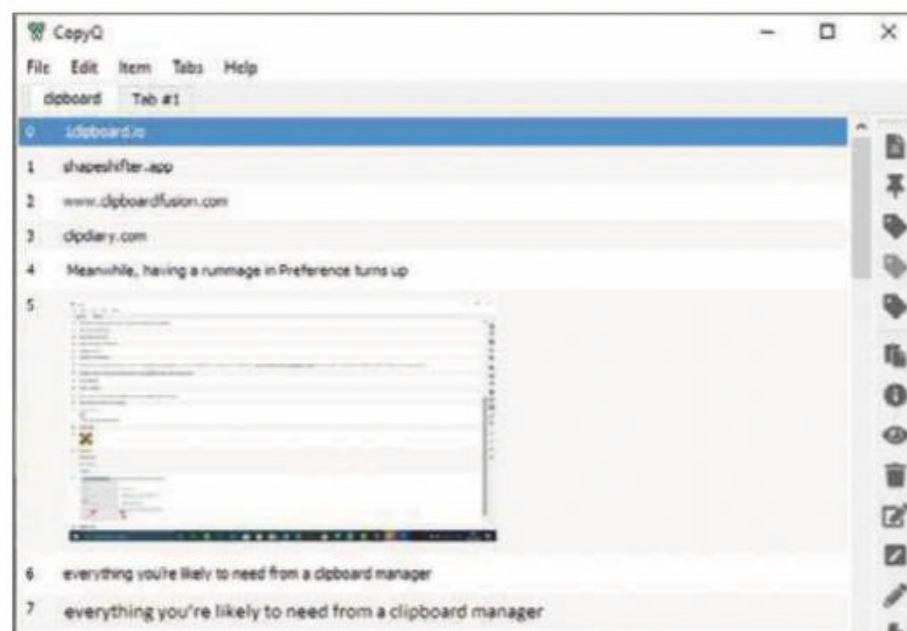
are identical, such as the ability to tag and flag clippings, but with fewer related options. For light users, this is a strong selling point.

Other highlights include the ability to add notes to any clip, which is great for referencing, and previewing longer clips in a separate pane. Meanwhile, having a rummage in Preference turns up a whole directory of handy keyboard shortcuts and customisation options.

The sleek and neat design lines up quick-access actions in a handy sidebar, making navigation swift and intuitive. It's this attention to detail that makes CopyQ our Gold Award-winner – a clipboard manager that's at once packed with features while effortless to use.

How it can be improved:

There's a danger that CopyQ is *too* simple. After all, if you're abandoning the disappointingly feature-free Windows Clipboard, you may want



more than just a few more options. In that respect, the tool is more Justice League than The Avengers: It's easy to use and has broad, commercial appeal, but power users may hanker for something more.

OUR VERDICT

CopyQ is a no-brainer. Intuitively designed and undemanding, it delivers everything you're likely to need from a clipboard manager and had no trouble with text, images, and everything else we threw at it.

Clipdiary | clipdiary.com | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

WebUser
SILVER
AWARD

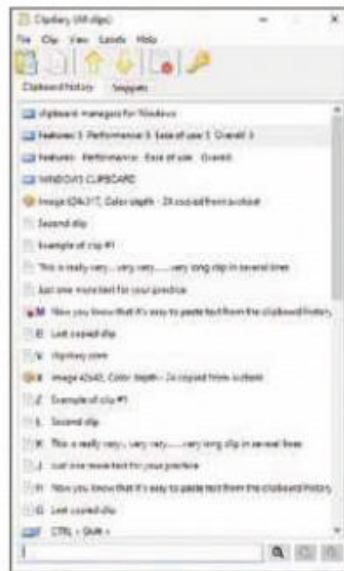
What we liked:

Clipdiary excels at clipboard management – particularly when you’ve made the move

from Windows’ own static version. Not only can you search your entire clipboard, but there are options along the top to reorder and delete your ‘clips’. Right-click a clip to add labels, stars and flags, not unlike organising your inbox, and dive into the Advanced section to save clips or search for copied text online.

There’s support for custom hotkeys – by default, Ctrl+D activates the clipboard – while shortcuts let you quickly paste recent items, making it a delight to copy content to multiple documents. Once you have the clipboard on-screen, use the arrow keys to select what you want and press Enter to paste.

Purists, meanwhile, can breathe a sigh of relief: the traditional keyboard



shortcuts of Ctrl+X/C/V are still available, as are the Copy and Paste buttons located at the top of the screen.

How it can be improved:

Getting copied content to the clipboard is easy enough but clearing it is less so – you need to individually delete every clip. More needs to be done with the Snippets section, too, which lets

you create frequently used phrases and other content (‘Thanks for your interest’, ‘My email is’ and so on) – it’s useful but under-served.

OUR VERDICT

As effective as it is easy to use, Clipdiary gives you all the control you never knew you needed from a clipboard manager. We’re impressed by the helpful start-up tutorial and that it’s available as a portable tool.

ClipboardFusion | www.clipboardfusion.com | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

WebUser
BRONZE
AWARD

What we liked:

Don’t be fooled by the stripped-back, fuss-free design.

ClipboardFusion may look as basic as its built-in rival, but

there’s a whole lot going on with this tool – it’s just not going on in the actual clipboard manager.

There are five tabs in the main pane, although two – Online Syncing and Online Pins – are reserved for paying users. But we appreciate offline Pins getting its own space, so pinned clips don’t get lost in the list.

Unlike its rivals, ClipboardFusion’s interface is almost entirely free of distractions, save for a search bar at the bottom. Even previewing text is refreshingly clean – just run your cursor over the text or image to pop-up a larger preview.

But it’s the Settings menus that deliver the wow factor, housing an astounding collection of options, such



as creating macros and an extensive set of custom hotkeys. Top of this list is automated Triggers, which can be set to scrub and replace specific words.

How it can be improved:

On installation, you’re automatically granted access to the Pro trial which, after a limited time, reverts to the free version. At this point, you lose several features – notably, syncing across devices, including your Android or iOS phone – which Windows Clipboard now tosses in for free.

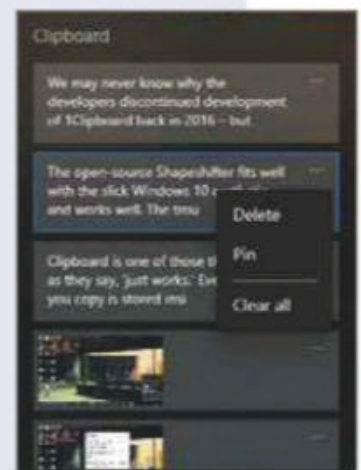
OUR VERDICT

ClipboardFusion feels professional and while anyone can use it, it’s Pro users who will most enjoy its advanced features. If only certain essentials, such as syncing, weren’t locked behind the paywall.

BEST OF THE REST

Windows Clipboard

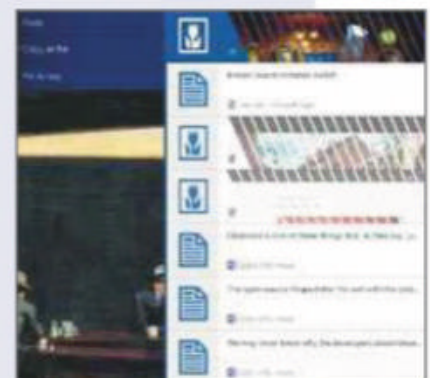
Clipboard is one of those tools that ‘just works’ – it’s as basic as a digestive biscuit. However, its simplicity is its main drawback – everything you copy is stored inside the tool for later use, which is bad news if you’re hoping to do anything more than copy, paste and pin content to your clipboard. Still, if you feel it adequately serves your needs, you should still take full advantage of its best feature – search Start for `clipboard settings` and switch on account syncing.



Shapeshifter

shapeshifter.app

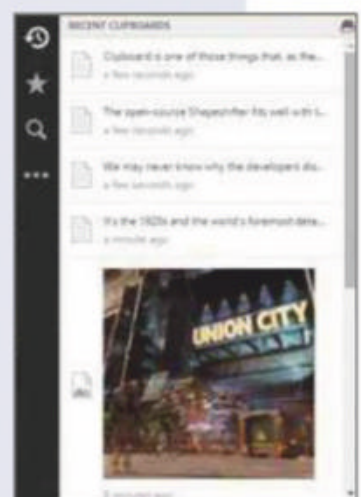
The open-source Shapeshifter works well and fits right in with the slick Windows 10 aesthetic. However, the user interface is permanently hidden until you press and hold Ctrl+V and use the arrows to jump between clippings. Try doing that in Microsoft Word and see how far it gets you. It’s just a bit too fiddly for our liking, but one to watch with future updates.



1Clipboard

1clipboard.io

We may never know why the developers discontinued development of 1Clipboard back in 2016, but we’re glad the tool is still available for download. It’s very lightweight, with only a handful more features than Windows’ own version, including search functions and choosing to view only copied media files. You can also sync across multiple computers by signing in with your Google account – that alone earns it a place in our ‘Best of the rest’ picks.



Destroy your **private** data **forever**

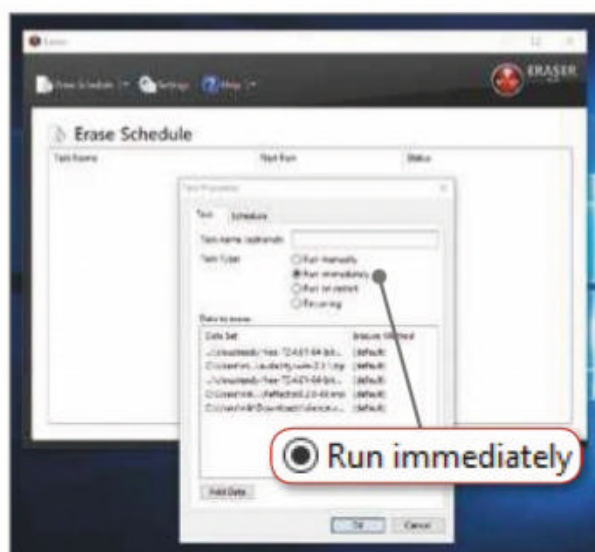
From financial records and sensitive documents to personal emails and embarrassing photos, there are good reasons to ensure erased files are permanently unrecoverable. **Nik Rawlinson** explains how

Securely delete individual files

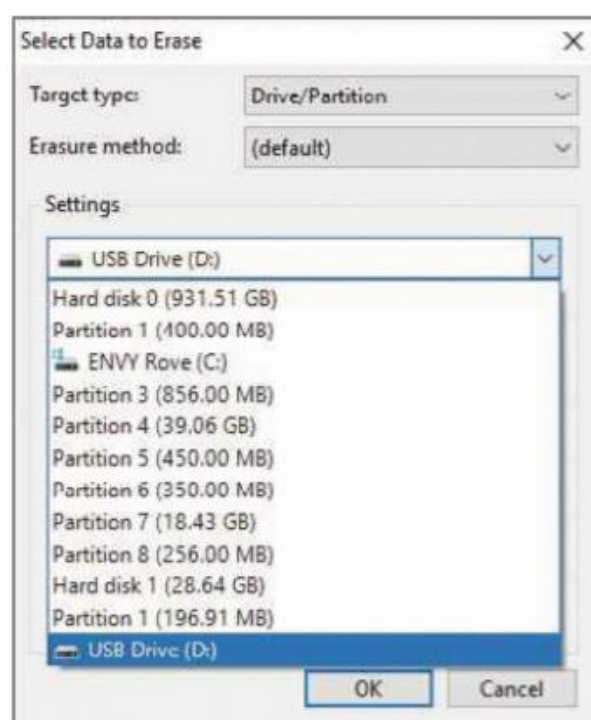
The only way to securely delete a file is to remove all reference to it from your hard drive's index, then overwrite the sectors it's contained in with useless, dummy data. That may sound tricky, but this is precisely the two-step process that the excellent free tool Eraser simplifies. Download the most recent edition of the program from the top of the list at bit.ly/eraser476.

Launch Eraser, then press Ctrl+N to start a new job. Decide whether you want to delete your files manually, immediately or when Windows restarts, then click Add Data, followed by Browse. Navigate to the file you want to delete, then select it and click Open.

Expand the 'Erasure method' menu and choose one of the secure deletion options – many of them meet exacting military standards, but for anything other than the most sensitive files, the Pseudorandom Data option should suffice. Although this doesn't guarantee to put your data beyond the reach of a hardened hacker, it should easily outwit a casual identity thief by overwriting it with a series of zeroes.



Eraser lets you stack multiple files and delete them on command or on a schedule



Overwriting data multiple times is more secure but takes longer

Click OK to add your selected file to the job list, then optionally click Add Data again and add another file. Carry on like this until you've selected all the files you want to remove, then click OK. There's no warning or confirmation, so be very careful if you're having second thoughts about the deletion, because Eraser will immediately start work on destroying your files, with a progress bar showing you how close it is to completion.

You can also use Eraser to securely remove folders from your hard drive,

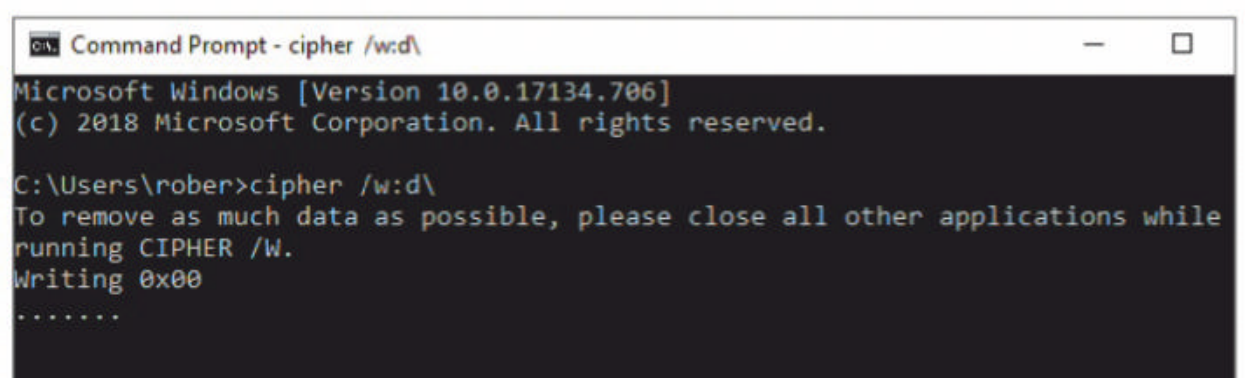
by clicking Add Data and choosing 'Files in Folder' from the 'Target type' menu. Make sure the option to 'Delete folder if empty' is also ticked.

What about files you've already deleted?

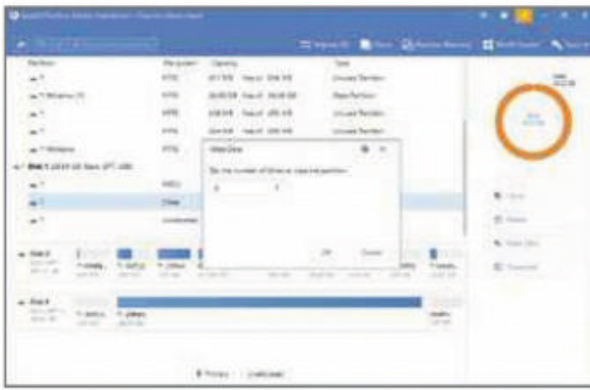
If you've previously deleted individual files from your hard drive, but without using the thorough methods offered by Eraser, you might be wondering how you can remove the remnants now that Windows can no longer locate them. The answer lies in a little-known text-based command, which will securely delete anything currently residing in 'unused' drive space. Effectively, it will make sure that anything that doesn't appear in the drive's official index of files is destroyed.

Click the Start menu and type `comm`, then pick Command Prompt from the list of results. Now type `cipher /w:d:\`. In this instance, we're wiping the free space on drive D: but if you want to use a different drive, just swap its letter. You can also target specific folders – for example, `cipher /w:d:\Documents\letters\`.

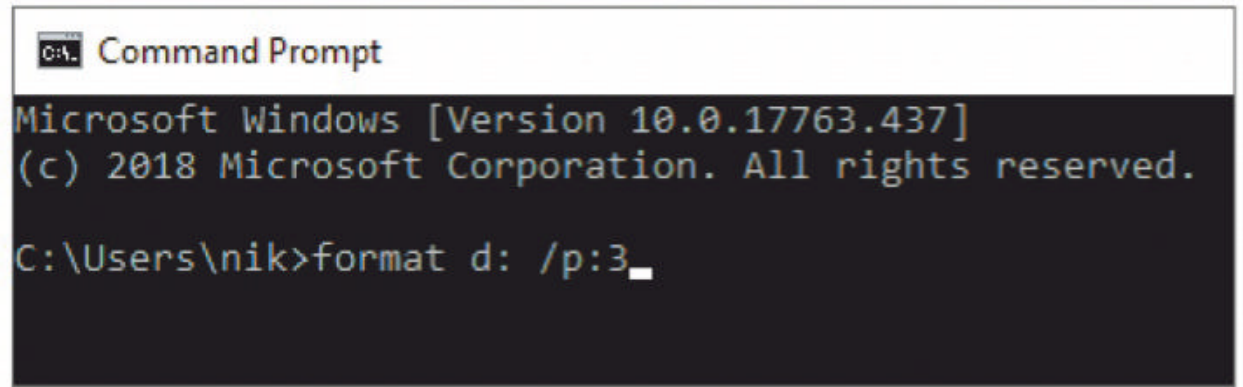
The process is fairly slow, particularly on large drives, and you should avoid using your PC for anything else while it's doing its job. Simple text-based feedback shows how far the deletion has got, but not how long it still has to run.



Use Command Prompt to wipe free space from a drive and make files unrecoverable



EaseUS Partition Master deletes partitions on both internal and external drives



You can force Windows to overwrite a disk with several passes of useless data by performing an in-depth format

Completely wipe external drives

If you've stored sensitive files on external media, such as USB memory sticks and portable hard drives, you can use EaseUS Partition Master Free (bit.ly/easeus476) to wipe whole partitions quickly and easily. Right-click the partition containing the data you want to erase, pick Wipe Data from the menu and specify how many times it should be overwritten. To be doubly sure your data has disappeared, you can follow this up by picking Delete from the same menu, to remove the empty partition before recreating it.

Alternatively, go back to Eraser and after clicking Add Data, choose Drive/Partition from the Target Type menu. This redraws the data-selection panel to reveal a drop-down menu that exposes all your internal partitions. Either choose a partition or a complete drive and, once again, a method of erasure. The more times a drive is overwritten, the more secure it will be, but it's worth bearing in mind that you're now dealing with a much larger block of drive space than you were when deleting a single file, so selecting a higher overwrite count will increase the overall job time exponentially.

Erase data stored on an SSD

Securely deleting data from solid state drives (SSDs), whether internal or external, is more problematic. That's



A clever Command Prompt trick lets you delete data from an SSD

because these drives contain memory chips that aren't accessible to users, or even to the operating system, since they're reserved for the drive's firmware. The SSD uses these chips to improve performance by temporarily storing data as it makes its way from your PC. Even if you wipe the drive, some transient data may still be recoverable from the chip by anyone using the appropriate tools.

The solution is to overload the hidden chips before wiping the drive, by creating a single file of random data that's the same size as the capacity of your SSD, then wiping the drive using a tool such as the aforementioned Partition Master Free. To generate such a file in Windows, and assuming your SSD is drive D:, switch to the Command Prompt and type `fsutil file createNew d:\random.txt 1099511627776`. The long number at the end is the size of the drive in bytes – in this instance, 1TB – which you'll need to adjust to match the capacity of your SSD.

Use Windows' built-in wiping tool

The built-in Quick Format tool in Windows doesn't actually delete your

data. All it does is wipe the drive's index of files, which allows Windows to overwrite them. Meanwhile, that precious data is just sitting there waiting for an identity thief to recover it.

Instead of using Quick Format, open a Command Prompt and type `format x: /p:3`. Replace 'x:' with the letter of the drive you want to wipe, and '3' with the number of times you want to overwrite its entire surface with zeros. The higher the number, the longer it will take, and the more secure the result.

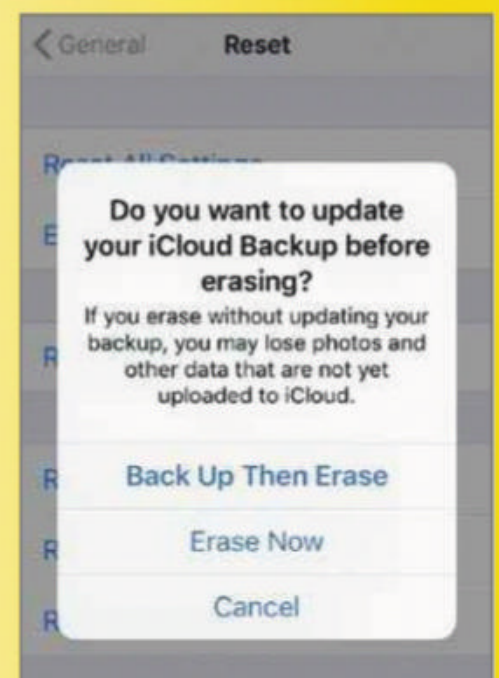
You can't format your boot drive this way because it's busy being used by Windows, so you need to reboot from a Windows recovery disk or USB flash drive. If you don't have one to hand, run the Windows 10 Setup tool, which you can download from bit.ly/windows476. You'll need an 8GB USB memory stick, which will be wiped in the process, so back up any important contents first.

Reboot your computer with the USB stick plugged in and press whichever key starts your PC from an external drive (check your manual). Click Next on the first screen, followed by Troubleshoot, then Command Prompt. You can now type `format c: /p:3` to wipe your boot drive before reinstalling your operating system of choice. ■

COMPLETELY WIPE YOUR PHONE OR TABLET

To permanently wipe data from your iPhone or iPad, open Settings and tap General, followed by Reset. Tap 'Erase All Content and Settings', then enter your passcode or Apple ID password when prompted. Your iPhone or iPad will delete its contents, including all downloaded files, installed apps and configured settings, before reinstalling the latest version of iOS.

On Android devices, the instructions for deleting all your data vary depending on the version and who built your hardware. In general, however, the method is to open Settings and tap System, followed by Advanced, then Reset. Tap 'Erase all data (factory reset)', followed by either 'Reset phone' or 'Reset tablet'.



Hear the web read aloud

Staring at a screen for hours can strain your eyes, so why not listen to online content rather than read it?

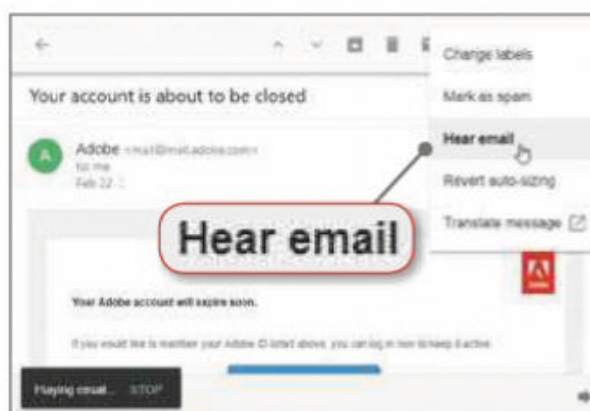
Robert Irvine rounds up the best free text-to-speech tools



Hear your emails read aloud to you

There are lots of good reasons to listen to an email rather than read it, from weary eyes to multitasking to the message being too long to maintain your interest. Microsoft thoughtfully provides a tool in both the desktop and webmail versions of Outlook that lets you hear the text of any email read out loud. It's called Immersive Reader and you can activate it by clicking the three-dot 'More actions' menu in the top-right corner of an email and choosing 'Show in immersive reader'. This opens the message in plain-text format with a Play button below it. Click this and Outlook will read the whole email to you, or click a word in the message to hear it read from that point onwards. You can even adjust the gender and speed of the voice by clicking 'Voice options' next to the Play button and setting your preferences.

Although Gmail doesn't offer a built-in tool for reading messages aloud, a Chrome extension called Checker Plus for Gmail (bit.ly/checker476) adds the feature to the webmail service. It works by displaying notifications when you



Install Checker Plus for Gmail to play your messages without opening your inbox

receive new emails, and lets you hear them without needing to open your inbox. Click the three-dot menu in the top-right corner of a message and choose 'Hear email' to play the content out loud, albeit in a robotic voice.



Make your browser read pages to you

Just as audiobooks let you enjoy a good story without having to focus your eyes on a page, allowing you to get on with other things at the same time, making your browser read web content aloud can prove similarly liberating. Firefox and Edge both offer this useful option through their 'reader modes'. Open an online article and click

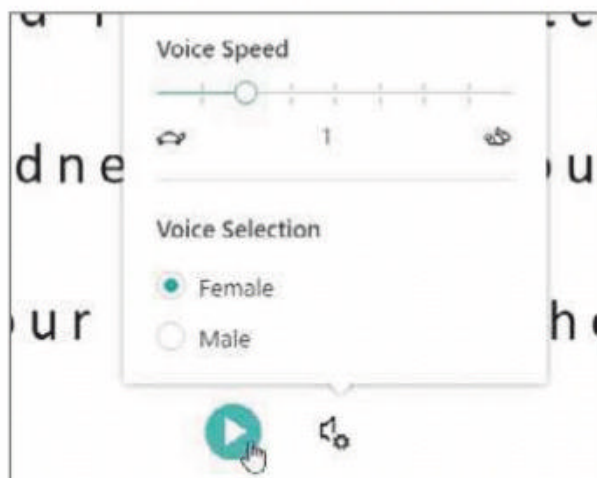
the book icon at the far end of the address bar to switch to reader view (called 'reading view' in Edge).

In Firefox, click the Narrate soundwave icon in the left-hand toolbar and set your preferred reading speed using the slider - from tortoise (slow) to hare (fast). You can also choose from three voice options. Click the Play button, then sit back and listen, using the rewind and fast-forward buttons to skip back and forth as required.

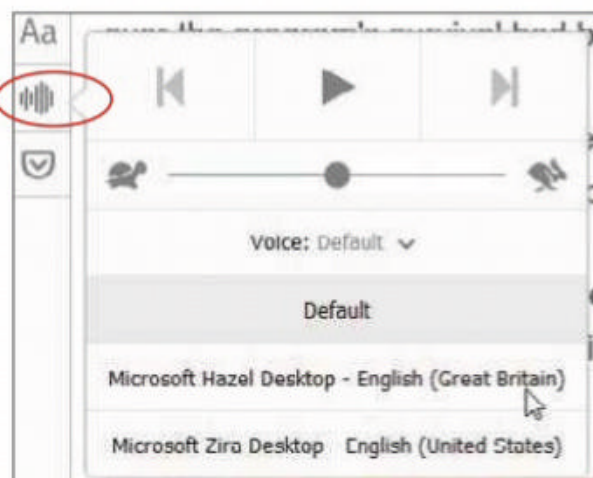
In Edge, click the three-dot menu button and select 'Read aloud', then use the voice controls in the top-right corner to set your reading preferences.

Google plans to add a reader mode to Chrome later this year - in fact, it's already available in the browser's Canary developers' build. In the meantime, however, you can use the text-to-speech extension Read Aloud (bit.ly/read476). Just click its toolbar button and Read Aloud will 'play' the current page, or you can highlight a section of text to limit the narration to that specific section.

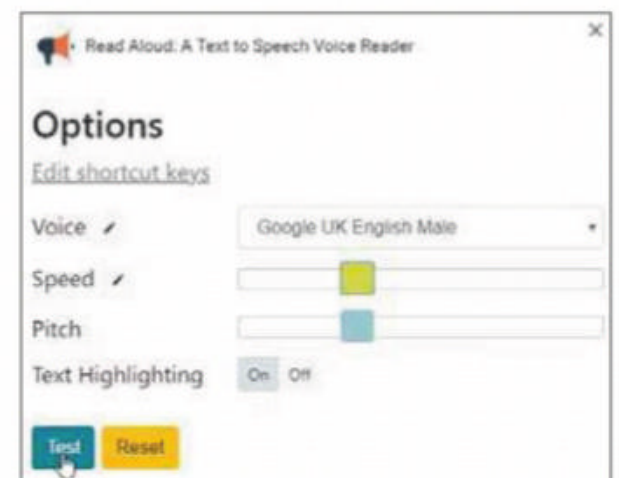
The add-on's Options let you change the reading pitch, speed and default voice, and set up keyboard shortcuts to activate and control Read Aloud.



Outlook's Immersive Reader option lets you listen to emails rather than read them



Firefox has a Narrate option in its reader view that converts online text into speech

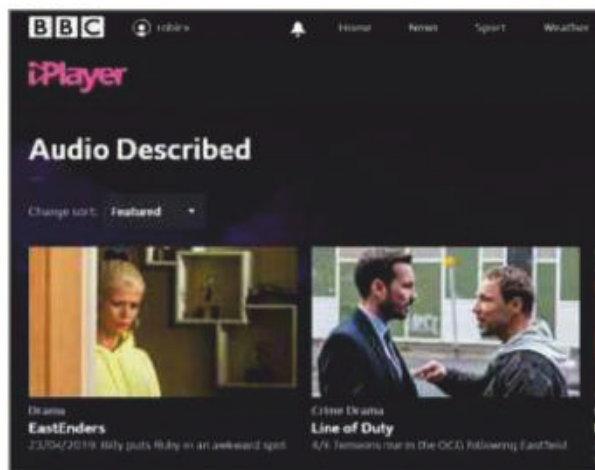


Until Chrome adds its own reader mode, you can use the Read Aloud extension



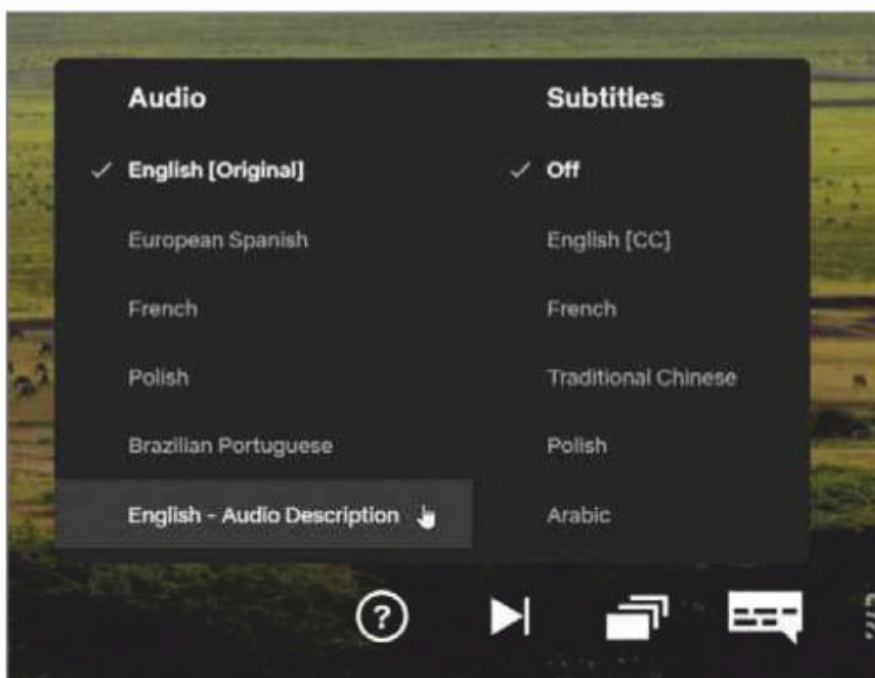
Turn on audio description for TV streaming

Whether you're partially sighted or you just want to get on with something else while streaming a TV show, audio description – which narrates the action occurring on-screen and reads aloud any text – is an invaluable feature. Under the Digital Economy Act 2017 (bit.ly/digital476), all UK streaming services must provide this option for at least some of their programmes – BBC iPlayer currently offers it for around 20% of catch-up content across all the main BBC channels. You can turn the feature on and off by clicking or tapping the Audio Described link below the video player, and view all BBC shows for which Audio Description is available at bit.ly/iplayer476, including *EastEnders*, *Holby City* and *Line of Duty*.



BBC iPlayer provides audio description for around 20% of its catch-up content

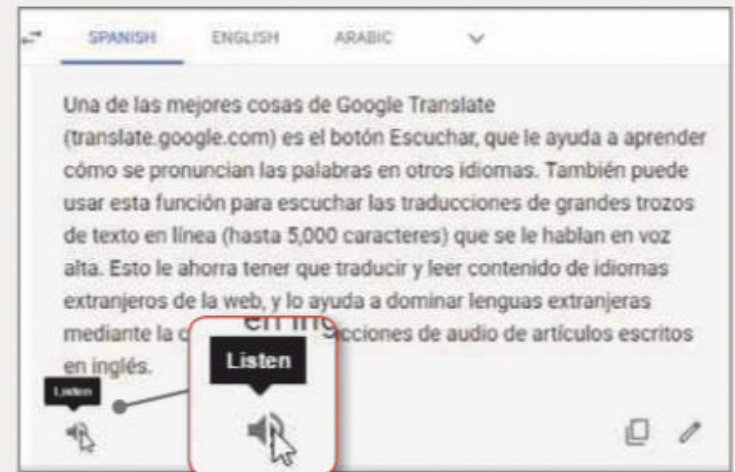
Likewise, Netflix lets you hear action and on-screen text spoken aloud by clicking or tapping the speech-bubble icon at the bottom of the screen and choosing 'English - Audio Description' from the Audio menu. Currently, just under 50 Netflix titles offer this option in English, including *Our Planet*, *Stranger Things* and *The Crown*. See the full list at bit.ly/netflix475.



You can turn on audio description for dozens of popular Netflix shows and films

LET THE WEB SPEAK ANOTHER LANGUAGE

One of the best things about Google Translate (translate.google.com) is the Listen button, which helps you learn how words in other languages are pronounced. You can also use this feature to hear translations of large chunks of online text (up to 5,000 characters) spoken aloud to you. This saves you having to translate and read foreign-language content from the web, and helps you master foreign tongues by creating audio translations of articles written in English. Simply copy and paste the text into the box on the



left, select the relevant languages and click the Listen speaker icon in the bottom-left corner of the right-hand box to hear your instant translation in a natural, perfectly enunciated voice.



Make your phone read everything aloud

Although Google Assistant lets you interact verbally with your Android phone or tablet, getting it to read online content – rather than just speak snippets of information – is more difficult. True, you can ask Assistant to tell you the content of new (unread) text messages – just say “OK Google, read out my text messages” – but it won't read out emails or web pages. For this, you need to turn to a less 'smart' but more reliable tool called 'Text-to-speech output', which is built into every Android device and reads out exactly what's on your screen.

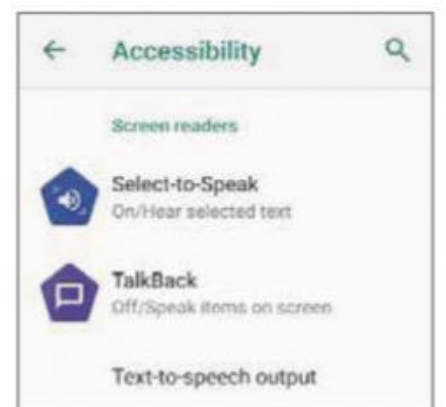
To activate it, go to Settings, Accessibility and tap 'Text-to-speech output'. Select your preferred language, speech rate and pitch, then tap back to Accessibility, choose Select-to-speak and turn it on. A little-man icon will now be added to the navigation bar along the bottom of your phone. Press this

when viewing an email or web page, then tap the Play button and your phone will read the content aloud to you, or you can tap

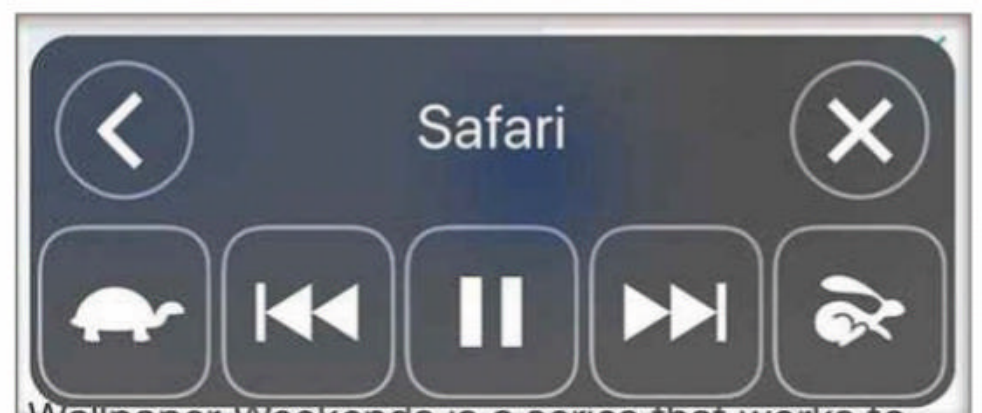
specific items to hear just those elements.

On an iPhone or iPad, the voice assistant is better integrated with the accessibility options, which means that

Siri can read web pages and other online content to you. To enable this feature, go to Settings, General, Accessibility, Speech and turn on the Speak Screen option. When you're on a page you want Siri to read, swipe down from the top of the screen using two fingers. A Speak Screen box will appear, and Siri will start reading you the content. You can slow down or speed up the reading pace by tapping the tortoise and hare buttons, and skip back and forth. To avoid Siri reading you ads and other irrelevant text, switch to reader view before bringing up the Speak Screen box. ■



Android's text-to-speech option is an easy way to listen to mobile web pages



Siri integrates with the iOS accessibility options to speak the content that's displayed on-screen



Practical WebUser

16 pages of workshops, tips, projects and problem solving

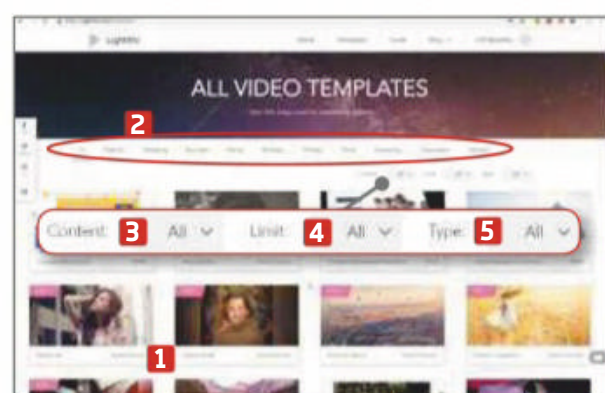
Make videos from photos and audio

LightMV is a new, cloud-based tool that produces professional-looking videos from your photos. Here's what you need to know

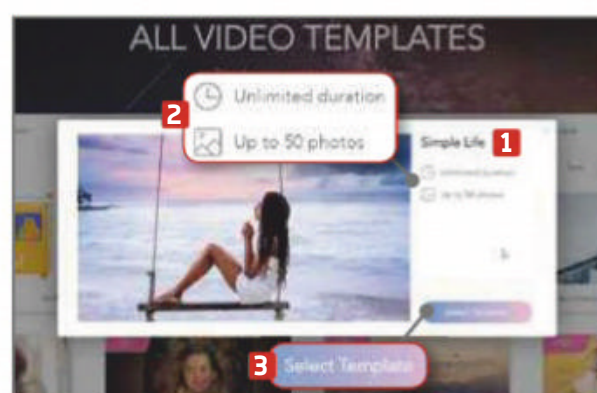
LightMV: lightmv.com | 20 mins | Any browser

LightMV is a new online service that can turn a selection of photos into a high-quality home movie with minimum hassle. Simply select one of the templates created by professional designers (there are free and paid-for options), add and arrange your photos, customise the music and compose a message. Finished videos can be shared

on social media with a click of a button or downloaded to your PC. Unlike most similar services, the free version has hardly any limitations (just fewer free templates), and your videos won't have watermarks or branding added to them, despite what the VIP Benefits section says. You can create high-quality videos on your PC, Mac, phone or tablet.



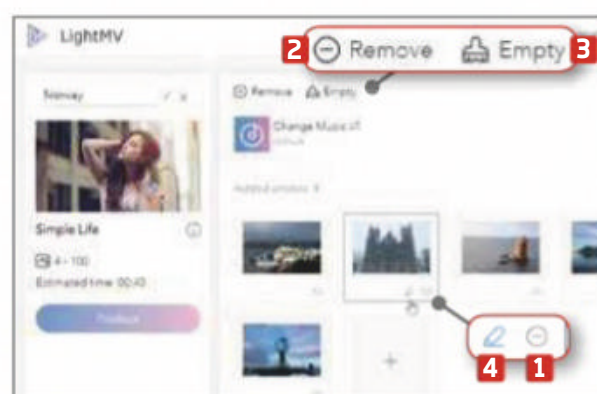
1 Open your browser, go to lightmv.com and click Get Started. You're presented with a selection of templates. You can browse the full collection **1** or view them by category. **2** Your choices can be filtered further by Content (photos, videos, both), **3** Limit (free or VIP) **4** and Type (flexible or fixed). **5**



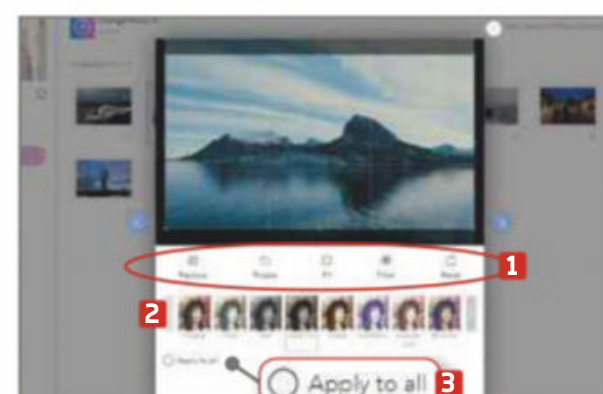
2 Click one of the free choices to see a sample video that uses the template. **1** This one has an unlimited duration and can contain up to 50 photos, which is the maximum for free users. **2** If you're happy with what you see, click the Select Template button. **3**



3 This is the video creation screen. Give your project a name, **1** then either drag and drop the photos to include on to the window **2** or click the plus sign **3** and select some images to upload from your device. The estimated duration of the movie updates as you add more content. **4**



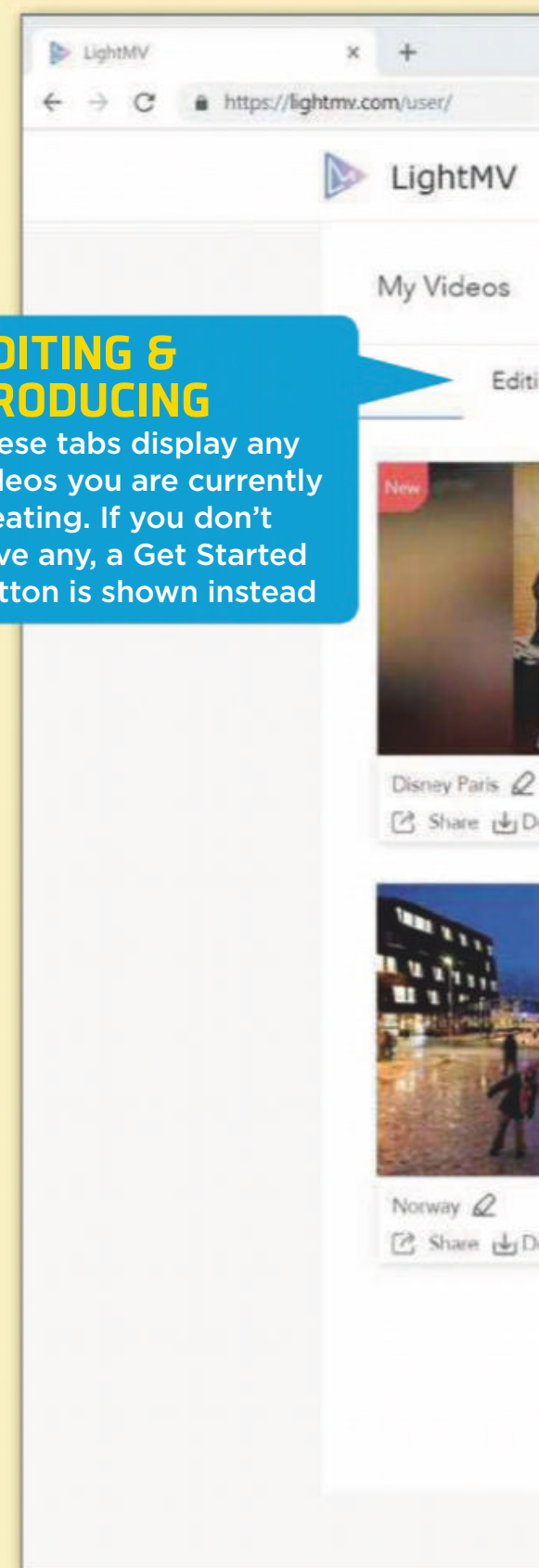
4 You can remove a photo by clicking the minus sign under it. **1** Alternatively, select one or more images, then click the Remove button at the top. **2** To clear all the photos in one go and start again, click the Empty button. **3** Hover your mouse over any thumbnail and you'll see an Edit option. **4**



5 The Edit button lets you crop a photo, replace it, rotate it, switch between 'fit' and 'crop' views, add a filter or reset the changes. **1** Filters on offer include Vivid, Noir, Faded and Romantic. **2** You can apply a selected filter to all your photos if you want them to look consistent. **3**

EDITING & PRODUCING

These tabs display any videos you are currently creating. If you don't have any, a Get Started button is shown instead





YOUR ACCOUNT
Sign up and access your account. You can also view any videos you've created or are in the process of creating

MY VIDEOS
View all your videos, and rename, share or download them

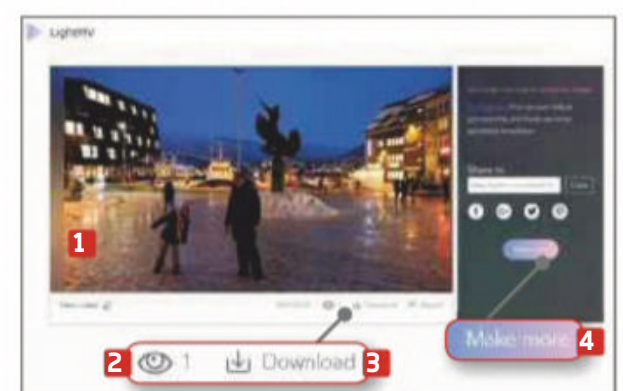
MORE
Click the More button under a video to edit, copy or delete it



6 LightMV adds its own soundtrack to the video but you can use your own. Click Change Music **1** and either select the default offering **2** or click the Upload button **3** and import songs from your own collection. Select the 'My music' tab **4** and click the plus button next to an uploaded song to add it. **5**



7 You can customise the video or audio length under Settings. When you're ready, click the Produce button to create your video. **1** You can change the project name **2** and share it to different sites **3** (Note: Google+ is shown, but is no longer available). Videos are only saved for three days, unless you sign up. **4**



8 When the site has finished making your video, you can start watching it. **1** The number of views it's had so far is shown below. **2** If you want a copy for your own use, or to upload to YouTube or any other streaming service, click the Download button. **3** To create another video, click 'Make more'. **4**



Stop people messing with your PC's settings



Windows 10 Settings Blocker: bit.ly/setbl476 | ⌚ 20 mins | 🇬🇧 7 (Control Panel only), 8, 10

There's something uniquely infuriating about booting up your PC and finding someone's switched your wallpaper, changed your mouse sensitivity or generally mucked about with your settings. At best, you'll have to spend valuable time putting everything back how you like it: at worst, you may never find the Settings app option or Control Panel setting they've tweaked.

Windows 10 Settings Blocker is a handy portable program that lets you lock down all the Settings app and Control Panel tools you want. You can even block access completely. The software's homepage has some confusing ads, so if you can't find the authentic download button, bit.ly/sbldl476 will take you straight to the download.

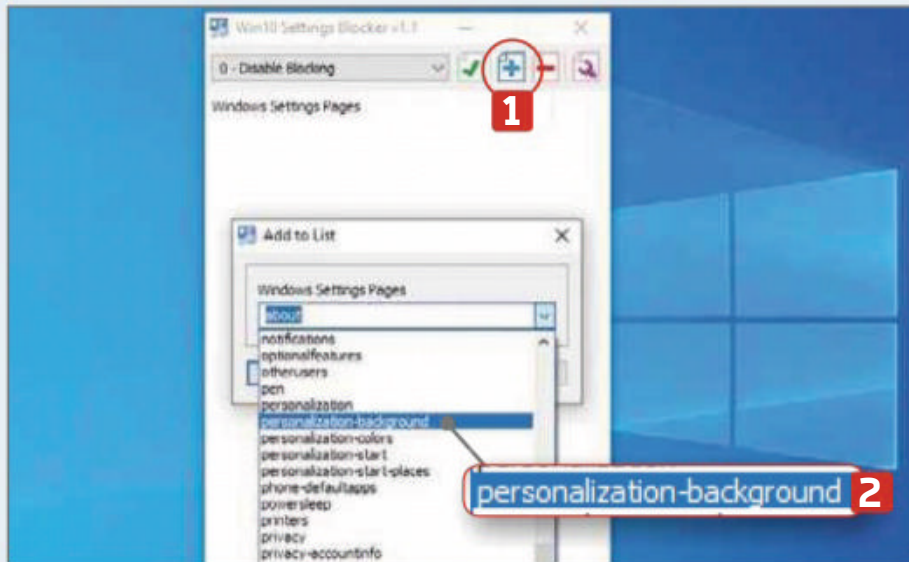


EXPERT TIP

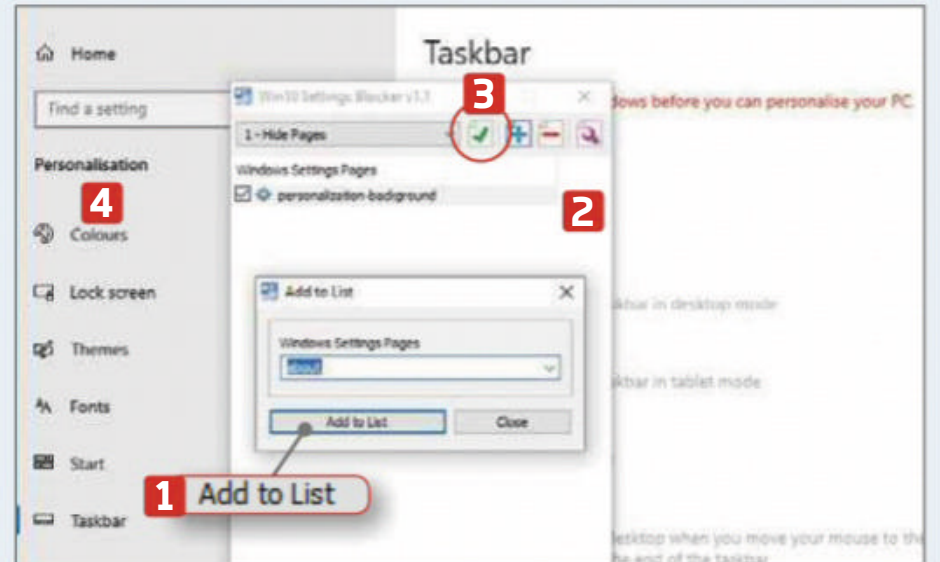
Andy Shaw says

If you'd rather not download software, you can block changes to settings via the Registry. Press Windows+R, type `regedit` and press Enter. Go to: `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\Explorer`

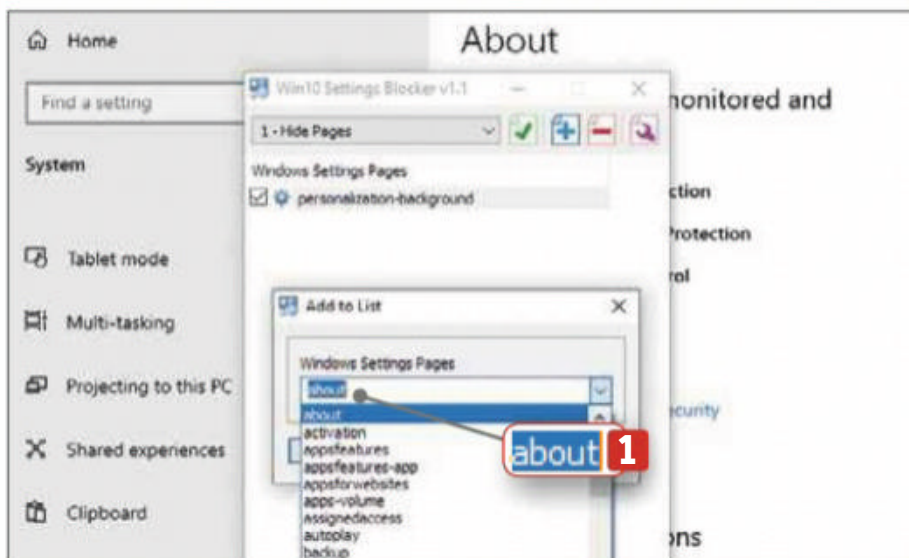
Right-click in the window on the right and choose New, then DWORD (32-bit) Value. Call it `NoControlPanel` and press Enter. Double-click it and change the value from 0 to 1. To rescind the block, change the 1 back to a 0.



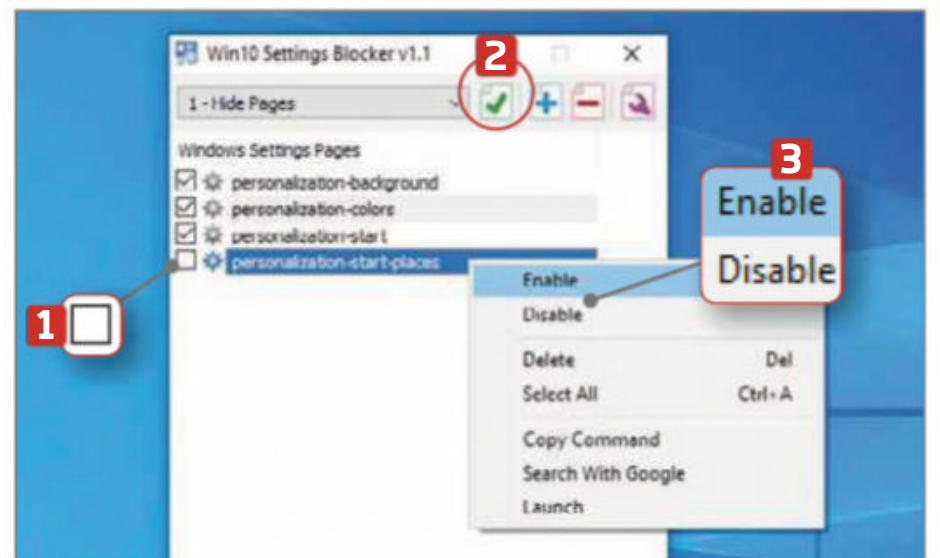
1 To remove a setting from the Windows Settings app using Windows 10 Settings Blocker, click the 'Add to list' button. 1 From the drop-down menu, find the setting you want to block. Most are organised by option, then submenu – so, to remove Background from the Personalisation options, for example, you need to choose 'personalization-background'. 2



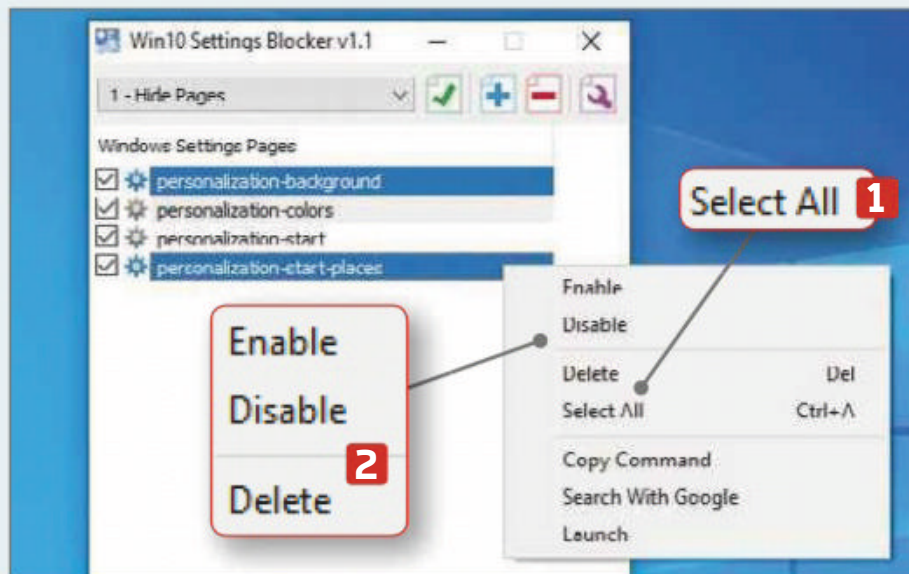
2 Click 'Add to List' 1 and the option appears above. 2 You can add more pages to block at this stage, if you wish. When you've finished, click the 'Save settings' button. 3 If the Windows Settings app is open, it will now close. Reopen it and the page you've chosen to hide will no longer appear in the list of options. 4



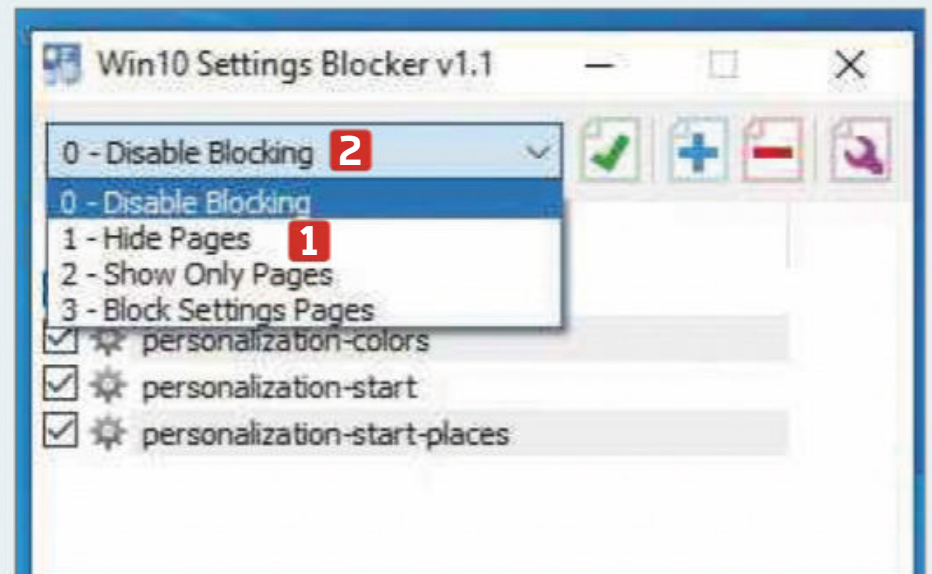
3 Not all the options are organised quite so logically. The System options, for example, don't appear under a 'system' heading. You'll find these tools listed under their own names (such as 'about'). 1



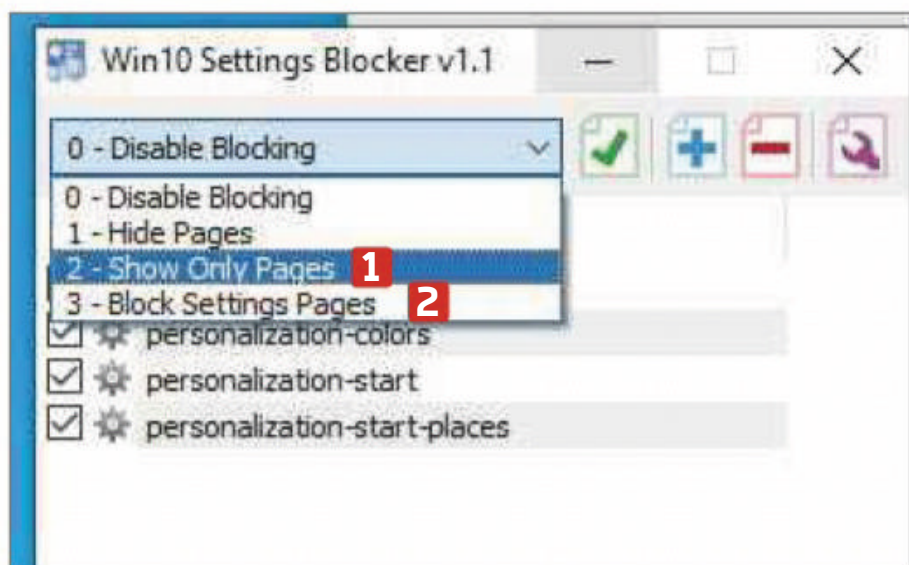
4 To temporarily switch an option back on, remove the tick in the box next to it 1 and click the 'Save settings' button again. 2 To hide it again, reinsert the tick. You can also right-click an option and choose Enable or Disable 3 to perform the same task.



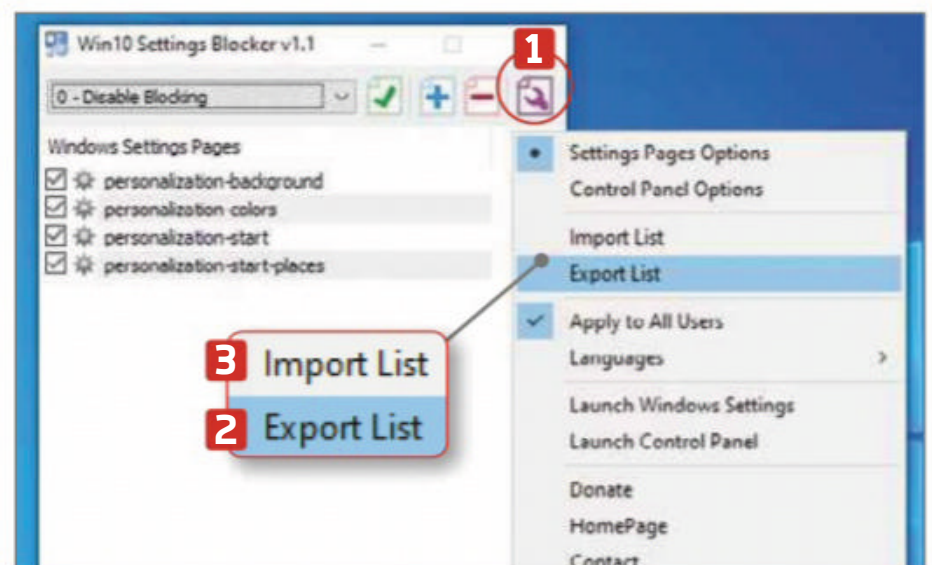
5 Use the usual Shift and Ctrl commands to select more than one option at a time, or right-click and choose Select All. **1** You can also Enable, Disable and Delete **2** multiple items on your list from the right-click menu.



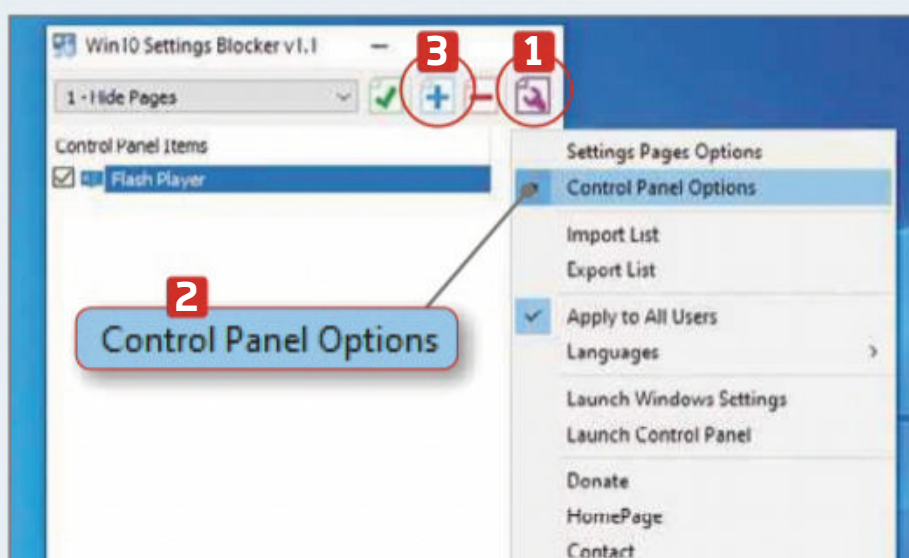
6 There are four different settings you can choose from the main drop-down menu. The standard option is to Hide Pages, **1** which is what we've been doing in the previous steps. The Disable Blocking option **2** is a quick way to switch off all the blocks and get access to the Settings, should you want to make your own changes.



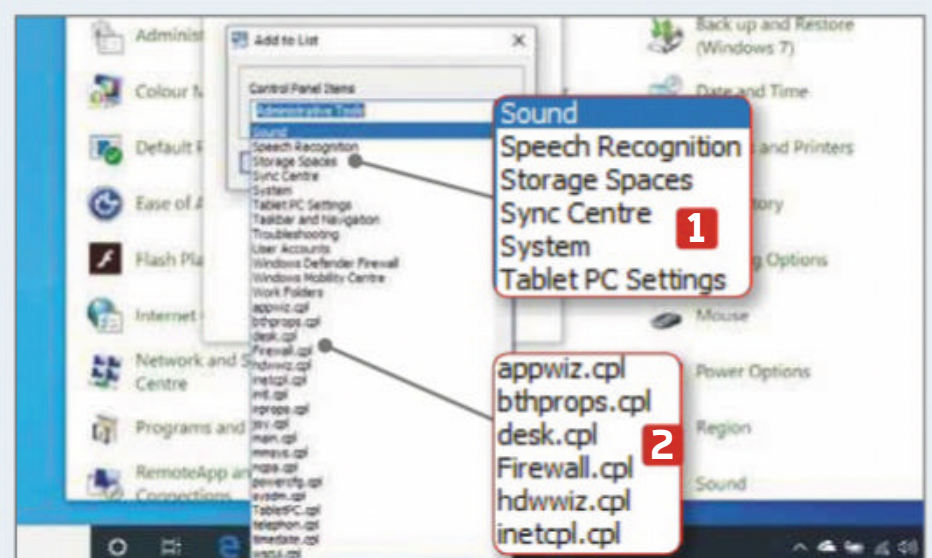
7 If you only want a few options visible in your Settings app, choose Show Only Pages. **1** This effectively turns your list from a blacklist of things that aren't shown to a whitelist of the only options available. All other choices disappear. If you want to block access to the entire Settings app, choose Block Settings Pages. **2**



8 Should you want to replicate the list on another PC, you can easily transfer them, as long as the software is installed. Click Options **1** and choose Export List. **2** The file is saved as a small WSB file. To use it elsewhere, transfer the file, open the Options and choose Import List. **3**



9 You can block access to Control Panel items in exactly the same way. Click the Options button **1** and choose Control Panel Options. **2** Click the 'Add to list' button **3** again to start selecting options that appear on the Control Panel.



10 When choosing Control Panel options, the top of the list **1** displays the usual alphabetical list you find if you choose 'Large icons' or 'Small icons' in the 'View by' menu. Below is a list of CPL files, **2** which are the mini programs that run when you choose certain options. There's a breakdown and description of each one at bit.ly/cpl476.



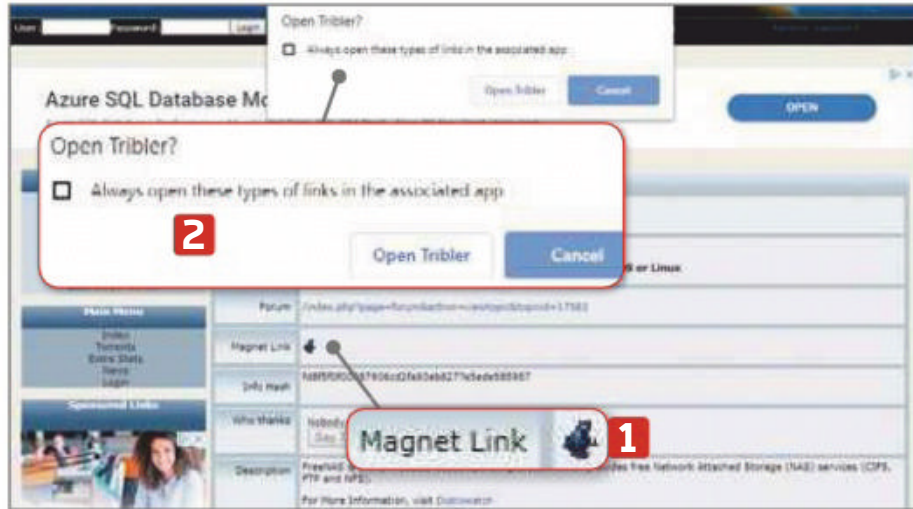
Download torrent files anonymously

Torrent software may still have a nefarious reputation as a means for stealing movies and music, but it's also a great way to get legal downloads – from audiobooks to Linux operating systems. Using it legally, however, doesn't mean you

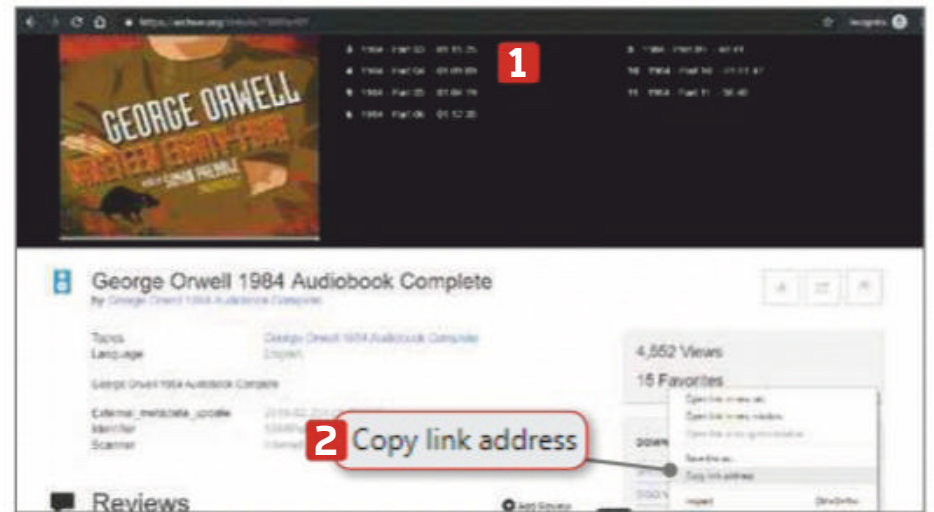
have to give away what you're downloading. Tribler is a torrent download tool that hides your downloads behind a Tor-like worldwide network of private, encrypted servers.



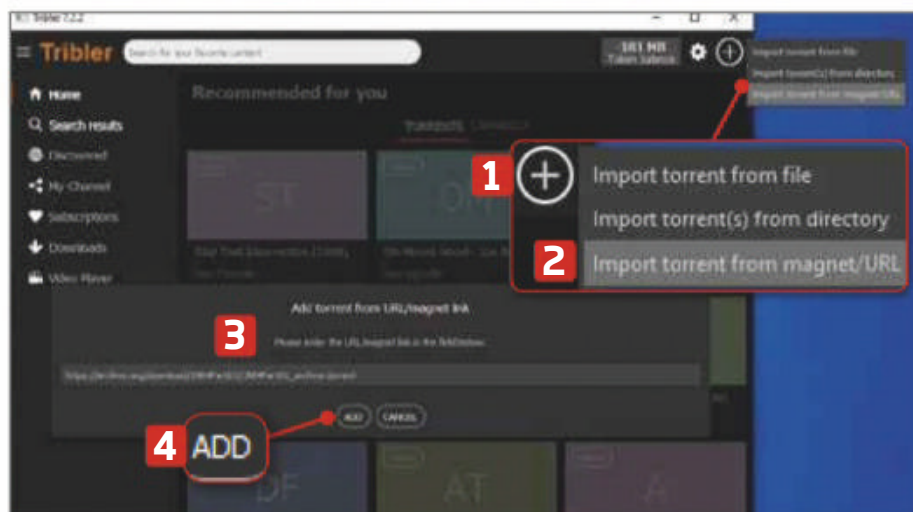
Tribler: www.tribler.org | 10 mins | Windows 7, 8, 10



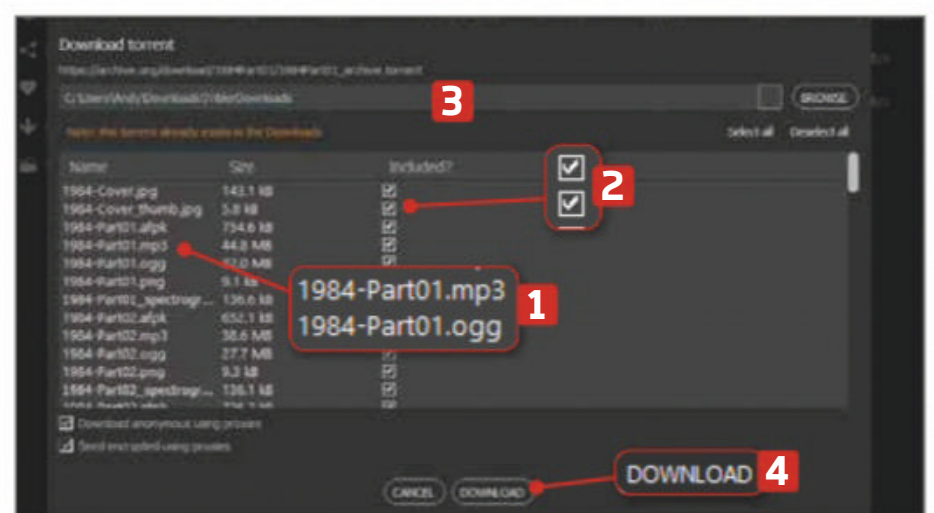
1 When you install the software, we'd advise choosing the options to associate the software with common file types. This means that on some sites you can simply click a magnet link **1** to send the files you want to download straight to Tribler. **2**



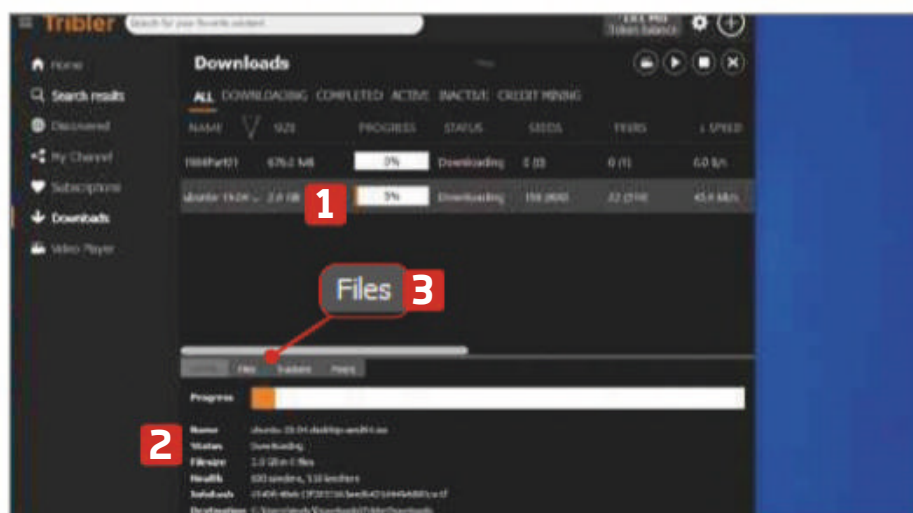
2 Standard torrent files don't work like this, however. Once you've found the file you want (here, we're downloading an audio version of George Orwell's 1984 from the Internet Archive's copyright-free digital library), **1** right-click it and choose 'Copy link address'. **2**



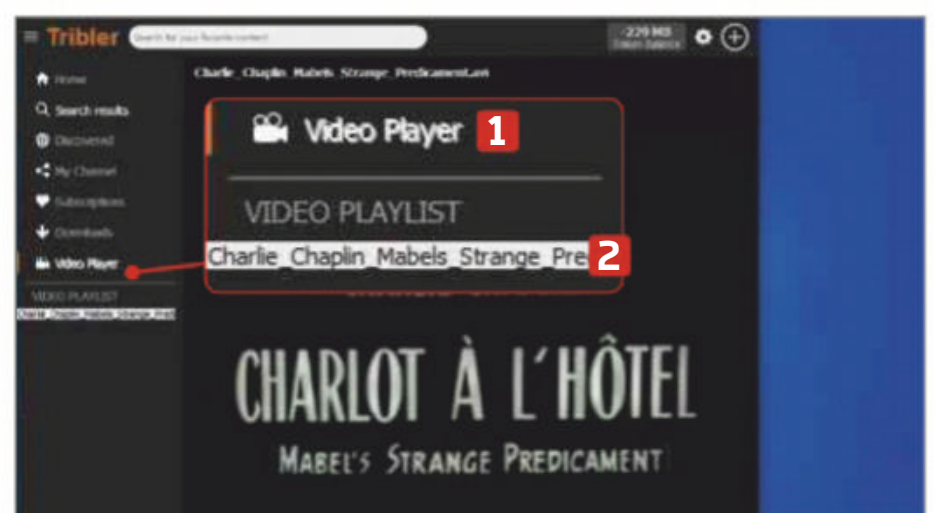
3 In Tribler, click the '+' button **1** and choose 'Import torrent from magnet/URL'. **2** A box appears where you can paste in the address you copied. **3** Click Add **4** to send it to Tribler to analyse the file.



4 Most torrents are made up of several files. For example, our 1984 download comes in multiple parts, including cover images and the audio saved in both MP3 and OGG formats. **1** Untick any parts you don't want to include in your download **2** and decide where to save it. **3** Click Download. **4**



5 As long as there are other people sharing the file, your download commences. **1** Click a download to get more information on its progress. **2** From the Files tab **3** you can see which files have downloaded, if your torrent contains several of them.



6 If you can't wait for a video or audio file to download, some file formats can be streamed as they arrive, straight from Tribler. Click the movie-camera icon or Play buttons to go to the Player **1** and choose your file in the left-hand panel. **2**

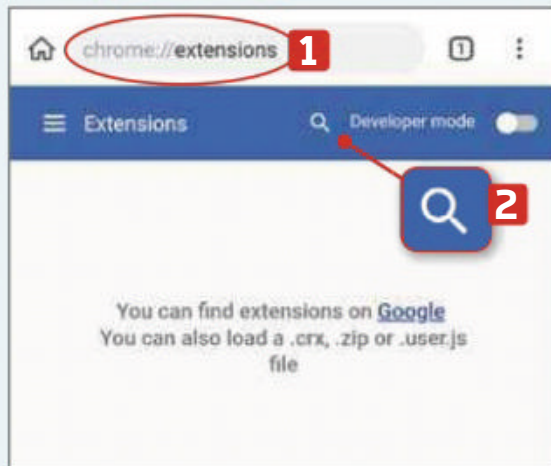


Use Chrome extensions in your Android browser

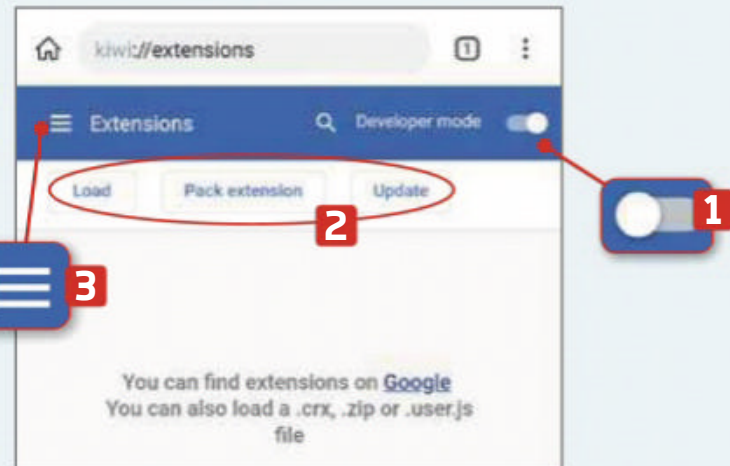
Kiwi is a fast, Chromium-based mobile browser with some amazing features – it blocks adverts and notifications, to stop them ruining your browsing, and protects against cryptocurrency hackers hijacking your

Kiwi Browser: bit.ly/kiwi476 | ⌚ 10 mins | 🤖 Android 4.1

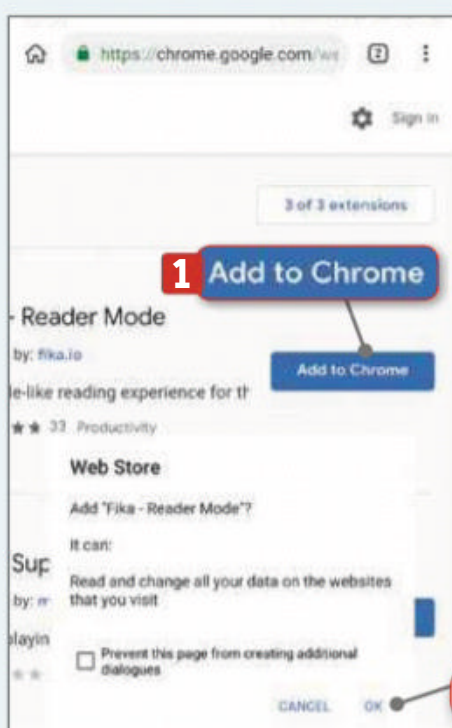
device. But the real draw comes with the browser's latest update: the ability to add and use full Chrome extensions on your phone, which even Chrome doesn't allow.



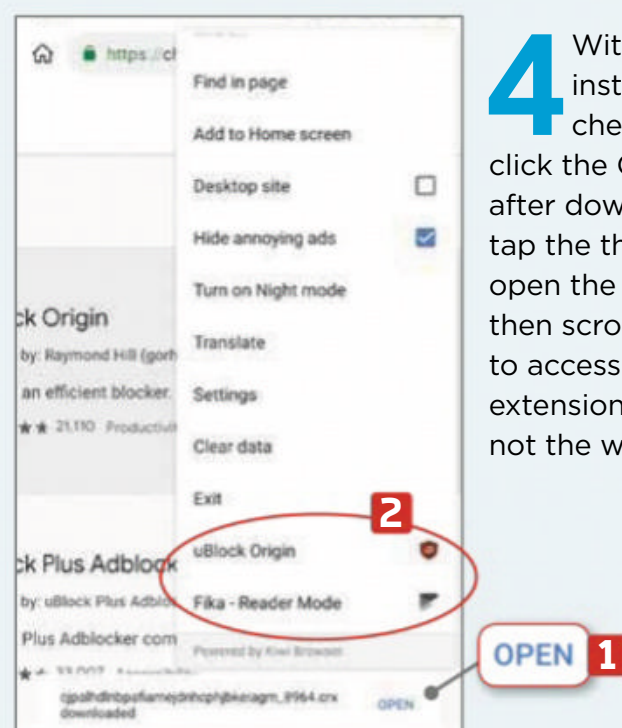
1 Before you can start adding extensions to Kiwi, you must set the browser to support them. In the address bar, type `chrome://extensions`. **1** This is where you'll be able to manage any extensions you later install, search your collection by clicking the magnifying glass **2** and visit the Chrome Web Store.



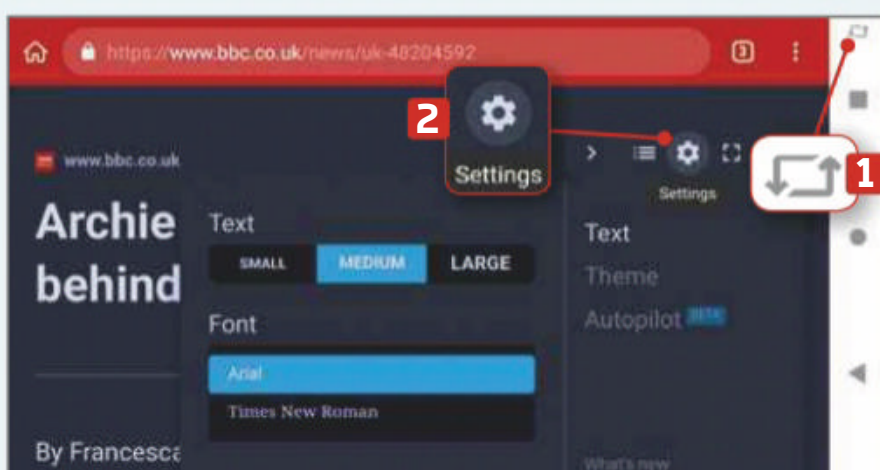
2 At the top of the page is a switch marked 'Developer mode'. **1** Switch this to On to reveal three developer-specific actions for extensions: Load, 'Pack extension' and Update. **2** Tap the three-line menu button. **3** At the bottom of the sidebar, press Open Kiwi Web Store.



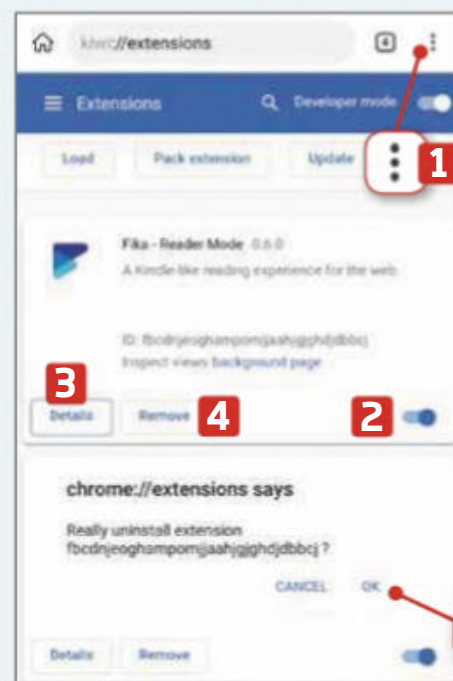
3 Once you're in the familiar-looking Chrome Web Store, search for your browser tools. Kiwi supports any extension that doesn't use x86 architecture – don't worry, despite the restriction, you're still spoiled for choice. On your chosen extension, click 'Add to Chrome' **1** and, when prompted, accept any permissions by tapping OK. **2**



4 With the extension installed, it's time to check it works. Don't click the Open button **1** after downloading – instead, tap the three-dot icon to open the Settings menu, then scroll to the bottom to access each installed extension. **2** Tap the icon, not the words, to start it up.



5 Extensions are built for desktop PC-sized browsers, so some of them can be difficult to navigate on a mobile device, with certain settings cut from view. To remedy this, rotate your phone to landscape orientation, **1** set up the extension on the wider screen, **2** then rotate back.



6 To manage or remove your extensions, tap the three-dot icon **1** and select Extensions, or visit `chrome://extensions`. As with Chrome, you can choose to turn off the extension using the toggle button, **2** see details about the tool **3** or remove it from Kiwi. **4** Once you click Remove, you're asked to confirm your choice. Tap OK **5** if you're sure.

Weekend Project

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



How to...

Maintain the PC peripherals you usually ignore

It's easy to overlook the devices on your desktop. **Wayne Williams** shows how to clean and adjust your monitor, keyboard and mouse



Keeping your PC running in tip-top condition is easy enough – you just need to remember to uninstall unwanted applications, remove junk files and perform the occasional defrag on your hard drives. However, there's more to a PC than just storage and the operating system. In this Weekend Project, we investigate what you can do with the other parts of your PC that often get overlooked – the keyboard, mouse and monitor. Keeping them clean is one aspect – they are the parts that come into contact with your hands on a regular basis – but there are also other ways in which you should be maintaining them.

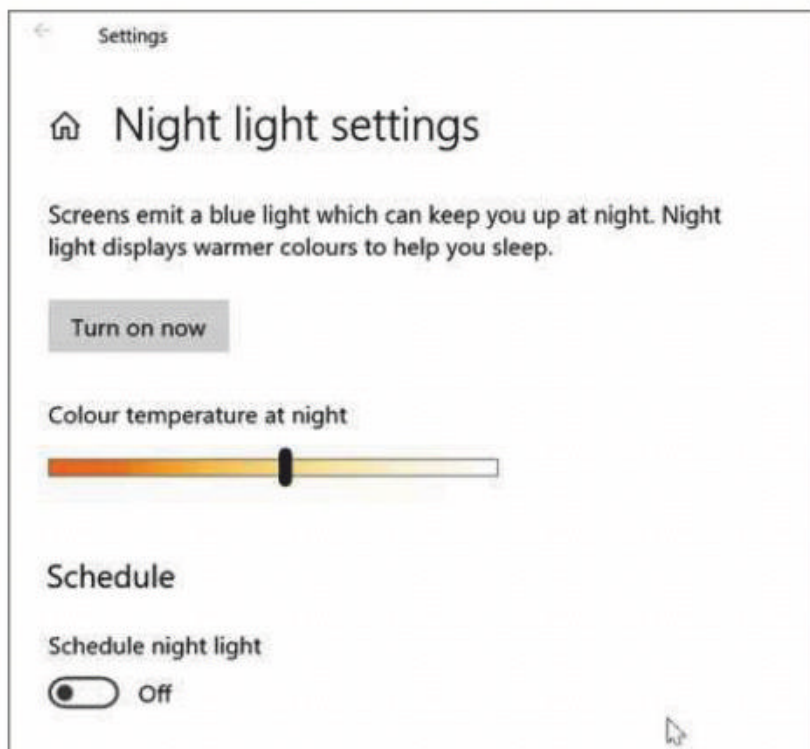
Adjust your monitor

Most people never touch their monitor controls, which is understandable because the default configuration is usually adequate for most lighting conditions, and your eyes quickly get used to how the screen is set up. That doesn't mean you shouldn't experiment with the settings, though, because it can benefit your eyesight and help to prevent headaches.

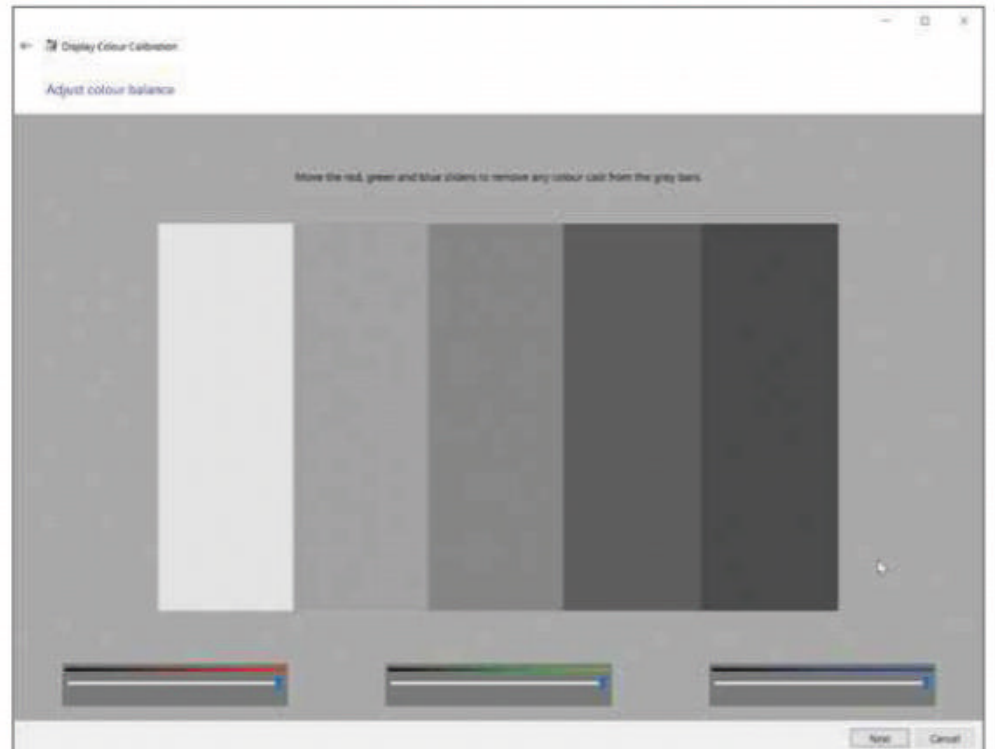
How you access the on-screen controls will vary depending on the make and model of your monitor, but it usually involves summoning the menu with a button on the side or rear of the screen, then using the Up, Down and Enter buttons to make changes. Try to find the brightness and contrast levels that best suit your eyesight, and be prepared to change this when the situation arises. You might want to increase your

monitor's brightness during the summer months if it catches direct sunlight through your window, for example.

Windows comes with a built-in Display Colour Calibration tool that you can use to ensure that everything looks right. To use it, type **calibrate** into the Windows search box and press Enter when the option is highlighted. If you have more than one monitor attached to your PC, drag the calibration window to the one



Windows 10's Night Light feature is more basic than f.lux but it can help protect your eyes from blue light



The Windows Display Colour Calibration tool helps you configure the brightness, contrast and colour of your screens

you want to adjust. Click Next and step through the screens, adjusting the settings for each one. The tool lets you use your monitor's controls to tweak the Gamma (the relationship between red, green and blue colour values), the colour balance and the brightness and contrast (using the controls on your monitor).

Ideally, you should adjust the brightness based on the time of day (brighter during daylight hours, darker in the evenings), but it's a pain to have to do this manually, which is where programs like f.lux (justgetflux.com) and SunsetScreen (bit.ly/sunset476) can help. These free tools automatically adjust your display settings (brightness and hue) depending on the time of day, which should make your screen more comfortable on the eyes. They also combat blue light, which

has been shown to disrupt sleep at bedtime, and you can adjust the settings to suit the lighting of the room. We show you how to use f.lux in our Mini Workshop, below. If you use your computer to carry out colour-sensitive work, such as photo editing, you'll need to temporarily disable the program.

Windows 10 offers a similar but simpler built-in feature called Night Light, which you can access by typing `night light` into the search box and pressing Enter when it's highlighted. Click 'Turn on now' in the Settings window, optionally adjust the night-time colour temperature and set a schedule for it.

While you're playing around with the screen, it's worth making sure it's positioned correctly. It should be set at a reasonable distance – ideally, at least

20 inches from your face – and the top of the screen should be at or below your eye level.

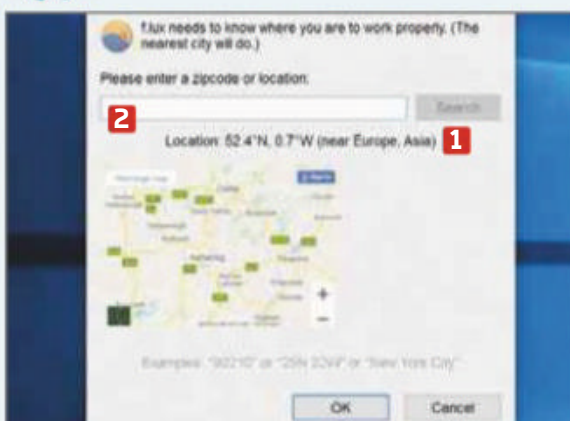
Fix mouse lag on Windows 10

If your mouse pointer isn't moving smoothly and speedily around the screen, there are a couple of things you can do to fix it. If your mouse uses batteries, try replacing them – this can make a huge difference. Avoid using cheap batteries because you'll have to change them more regularly and they could be the cause of the problem.

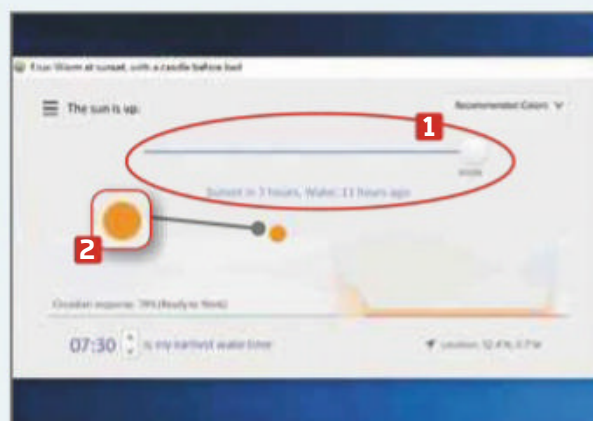
If that doesn't work, make sure the underside of the mouse is clean and consider using a mouse mat, or replacing or cleaning your existing one if it's old and dirty.

If your mouse connects to your

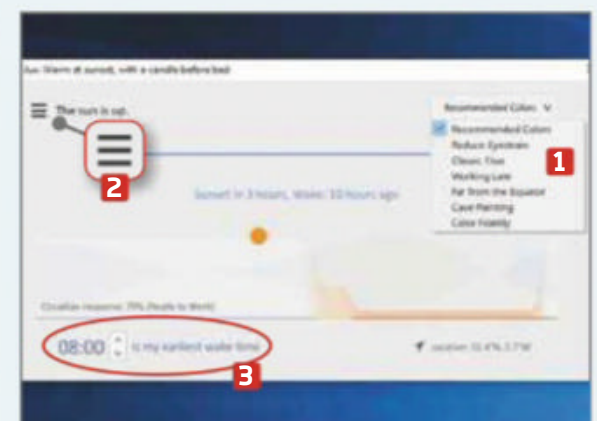
MINI WORKSHOP | Combat eye strain using f.lux



1 Launch f.lux and it will ask you where you are so it can adjust to your local time zone and light levels. The program will attempt to pull your location from Windows **1** but you can enter a new town or city into the box if you prefer. **2** Click OK and it will go to work, adapting the display colour to suit the time of day.







2 Click the icon in the notification area to call up the Settings box. Use the slider **1** to adjust the current colour, or click the sun symbol **2** (which turns into a moon at night-time) to set the colours by time of day (daytime, sunset, bedtime). Click the sun again to see how things will change over a 24-hour period.



3 The drop-down menu lets you switch from Recommended Colours to other options. **1** Click the menu button **2** to adjust day and night shades together, change the current hue, access effects and extra colours, or disable f.lux. Finally, you can tell the program what time you wake up **3** so it knows when to start working.

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computer via a USB dongle, try moving it to a different port. If it connects via Bluetooth, check to see if there's an update for the Bluetooth driver.

Finally, you could adjust the mouse settings. Type `mouse settings` into the search box and press Enter when it's highlighted. Click 'Additional mouse options' and, in the window that opens, tweak the double-click speed and change the pointer speed under the Pointer Options tab.

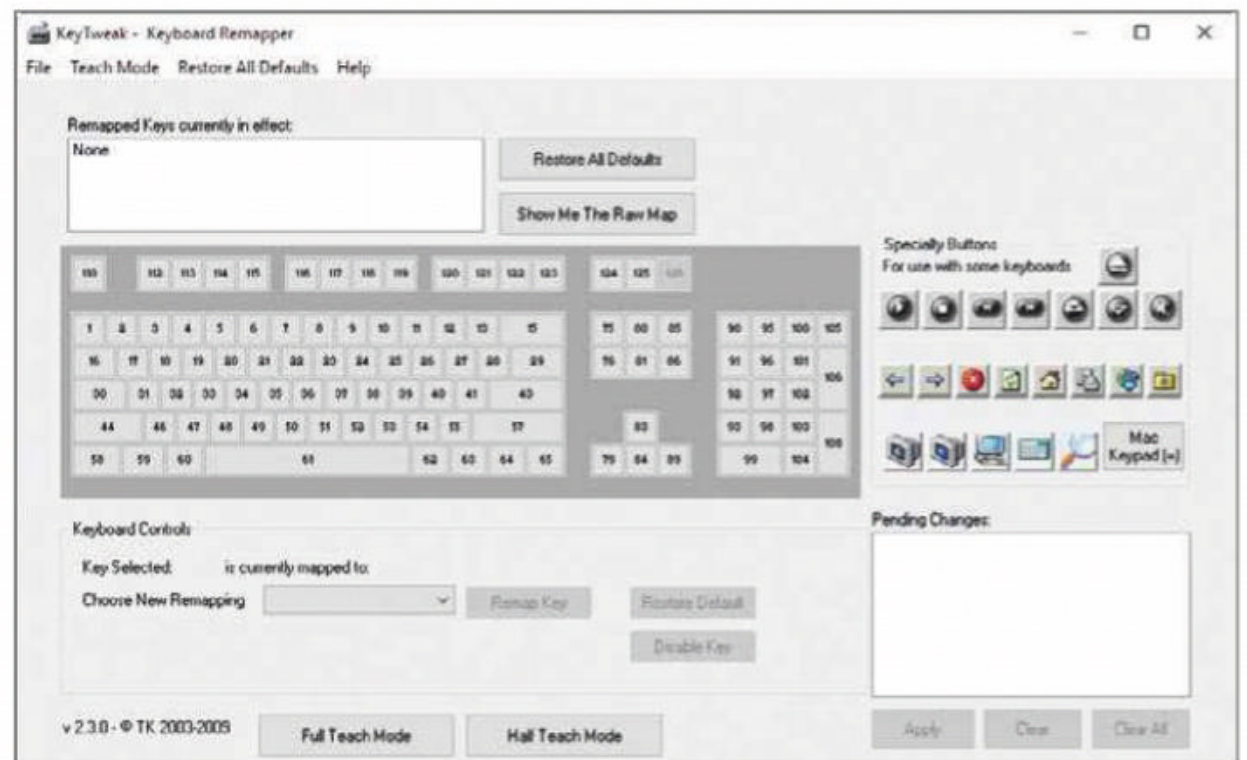
Customise your keyboard layout

Type `keyboard` into the Windows search box and press Enter, and you'll be able to adjust the speed of character repeat and the cursor blink rate in the Keyboard Properties box. You can remap keys – or disable any you don't use – using KeyTweak (bit.ly/keyt476). It's a bit long in the tooth but still works well, and the software includes a Teach Mode that lets you map one key to another by pressing them when prompted.

Alternatively, you could try SharpKeys (bit.ly/shpk476). This is a simpler tool but is updated regularly. Go straight to the download page at bit.ly/shpkdl476.

Clean the dirty three – monitor, keyboard, mouse

You can buy cleaning supplies that are specially designed for computers, but there's really no need. To clean your monitor and the outside of your computer case, just use a damp and slightly soapy cotton cloth. Unplug your PC before you start and make sure the cloth isn't too wet. If you do use a spray cleaner, be sure to spray the cloth and



KeyTweak lets you remap some keys and disable any you don't use

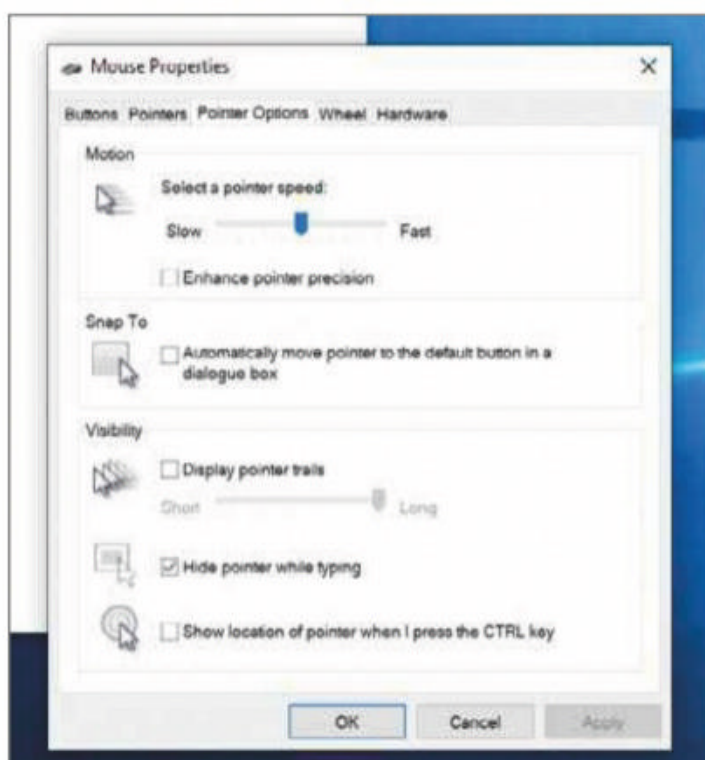
not your equipment.

To clean your keyboard, turn it upside down and tap the back to dislodge any detritus. If you have a can of compressed air or a desktop vacuum cleaner, you can use this to free and remove more debris from between the gaps, but putting an old sock over the nozzle of a vacuum cleaner to act as a filter will help ensure you don't lose anything large, such as a loose key. Next, go over the keys with your damp cloth. You can use some cotton buds on hard-to-clean areas, and dipping them in rubbing alcohol (isopropyl alcohol) will remove the muck even more thoroughly. Use a toothpick to scrape away any thick grime.

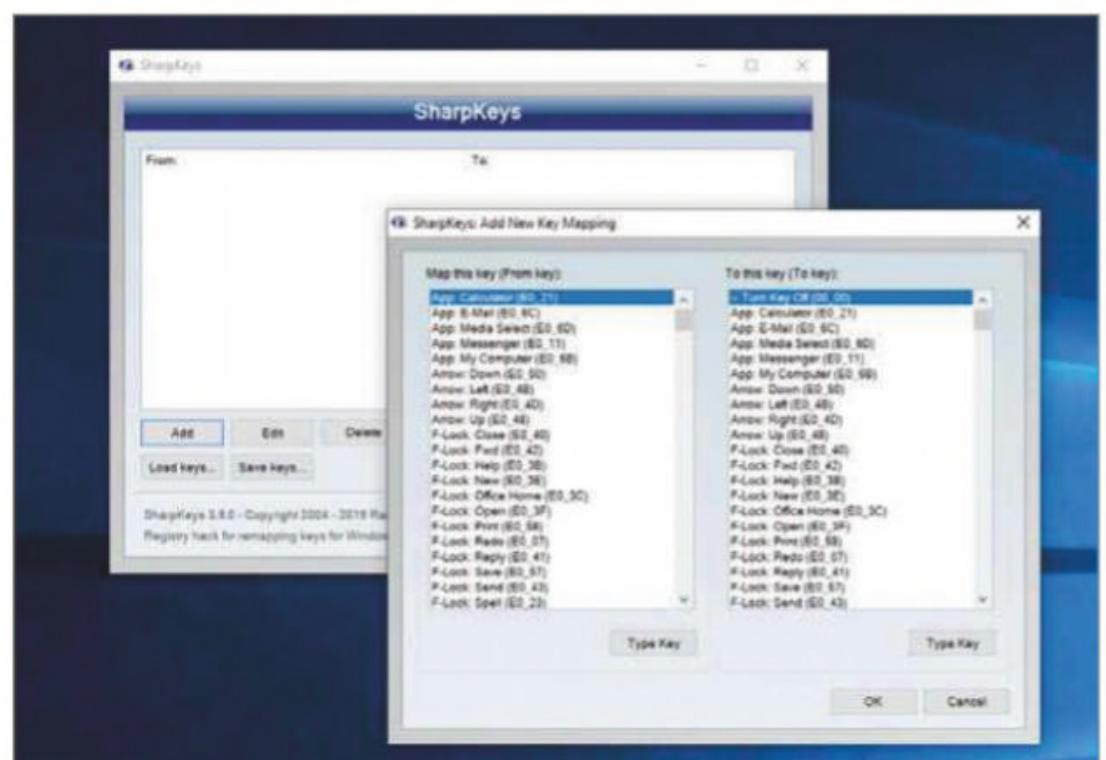
You can remove the keys from some keyboards by prising them free and then cleaning them individually but this may

be a tad over the top. Another option is to use a product such as Cyber Clean (cyberclean.net), which is an antibacterial compound (a cross between putty and slime) that you press down onto your keyboard. Dust, hairs and dirt between the keys stick to the goop and come away when you peel it off. It doesn't do as good a job as actually wiping the keyboard properly but it's fine for a quick clean between keys.

Cleaning a mouse is straightforward. Use the damp cloth and a toothpick or fingernail to scrape away any solid muck on the sides or the buttons. If you still have an old ball mouse, turn it upside down, remove the ball and carefully scrape away any filth on the rollers inside (or better yet, chuck it in the bin and buy yourself a modern optical mouse). ■



The Mouse Properties window can adjust the speed at which the pointer moves around the screen



SharpKeys maps one key to another so you can better position your most frequently used functions

NEXT ISSUE

How To... Tidy your PC's messy cables

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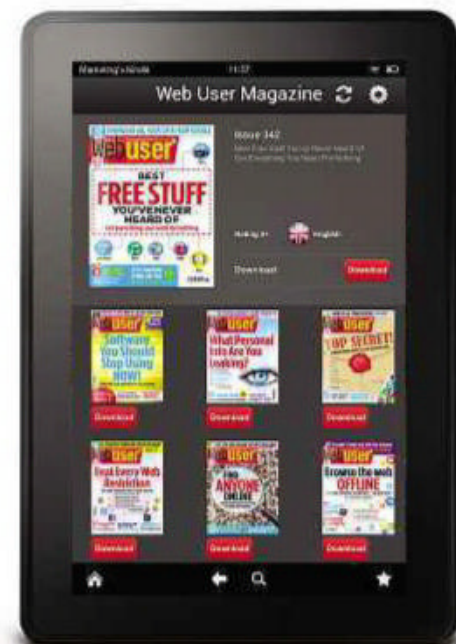
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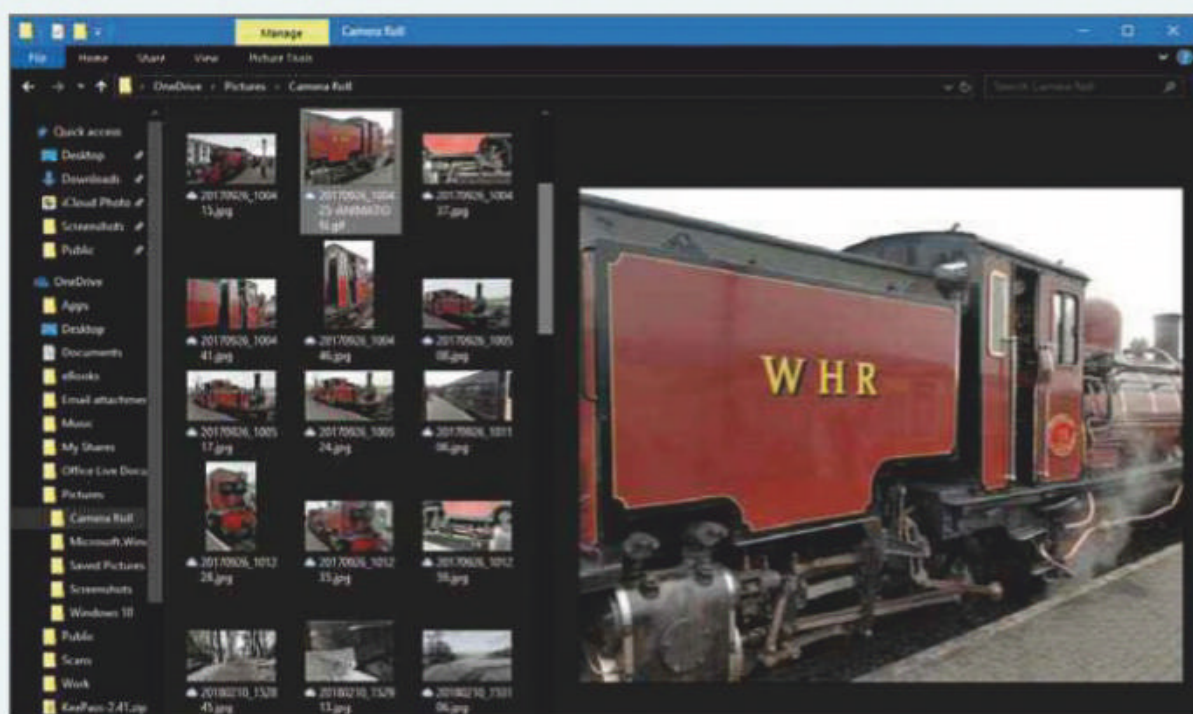
Web User Masterclass

Customise File Explorer to use tabs, see hidden files and more

Preview the contents of your files

Windows 10 File Explorer lets you see the contents of files without having to open or load them. Click the View tab, then click 'Preview pane'. In the new panel that appears, click and drag the separator (thin vertical line) to adjust the width and make it as large as possible. Now browse for and select the files you'd like to see. Photos show a large image in the preview pane, text files show the text, music shows album artwork, videos show a large preview and so on.

The preview feature works with most (but not all) common file types and is particularly useful when combined with search.



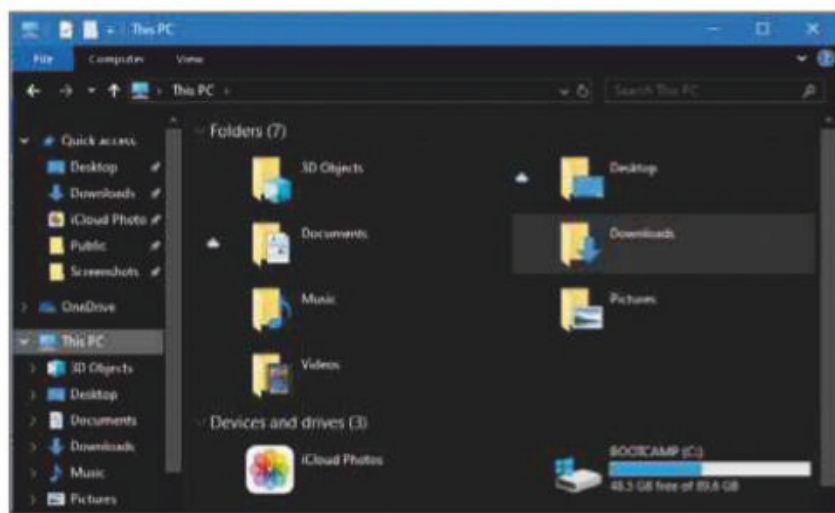
Open 'Preview pane' to see the contents of common file types such as photos

Switch Explorer to dark mode

Windows 10's dark mode now finally works with File Explorer, and it looks great. Open Settings (Windows+i), Personalisation, click Colours on the left and, under 'Choose your colour', select Custom. Controls appear that let you enable Windows dark or light modes, and app dark or light modes. Select Dark for the app mode to turn File Explorer black.

Customise Explorer's startup

You can customise the view you first see when Explorer starts, so the most useful items are displayed. Click View, then Options and on the General tab, click 'Open File Explorer to' and choose 'This PC' or 'Quick access'. If you choose 'Quick access', options appear in the



Dark mode is all the rage in 2019 and it's now available in Explorer

Privacy section below showing recently used files and folders. You can choose whether you want to show or hide them.

Add tickboxes to your files

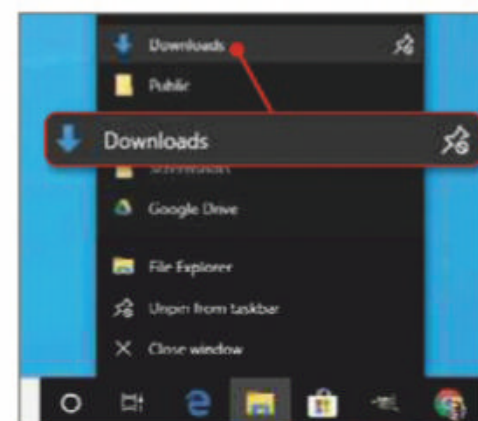
Click a file, then Shift+click another and every file in between will also be selected. You can highlight multiple individual files by using Ctrl+click. But if you get your Shifts and Ctrl's in a pickle, you may find it easier to use tickboxes. Click View and tick 'Item check boxes' to add them to your files and folders. Tick the boxes to select items for deleting, moving, copying and renaming.

Show file extensions

Microsoft thinks file extensions should be hidden, but we prefer being able to identify a file at a glance. Click View, Options and, on the View tab in the next window, clear the tickbox 'Hide extensions for known file types'.

Pin items you use regularly

Right-click any folder in Explorer and select 'Pin to quick access' to add it to the sidebar's 'Quick access' area at the top. Click and drag items up or down the list



Pin folders in Explorer, then right-click the taskbar icon to open them

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.



to change the order and put your favourites or most used items first. Instead of left-clicking the taskbar icon, right-click it and select a pinned item to open Explorer with that view.

Undo your last action

Did you just do something to a file or folder in Explorer and then wish you hadn't? Perhaps you deleted the wrong thing, renamed something or moved it to the wrong place. Don't panic, just undo the last action by pressing Ctrl+Z. This steps back through recent actions, so if you rename one file, delete another and move a third, you can undo each action in turn by repeatedly pressing Ctrl+Z to step back.

Use the search box

If the search box in the top-right corner is too small or large, position the mouse between the search box and path box. When it turns into a double-headed arrow, click and drag to resize it.

There are many powerful search options. At its most basic, just type in a full or partial filename. The search starts at the current Explorer location and includes all subfolders. Select the view, such as List or Details, when the search is complete.

Show folder paths

The top of Explorer displays the current path, which will say something like This PC > Windows (C:) > Users > Public. Click any > to display a menu listing all the folders at that point and select one to go to it. Click in the empty space to the right of the path to see the true folder path, such as C:\Users\Public\.

Another way to see the path is to click View, then Options in the toolbar. Select the View tab, then tick 'Display the full path in the title bar'. It displays the path at the top of the Explorer window.

Show selection sizes

Suppose you want to copy files to another drive, such as a small USB memory drive. How do you know if all the files will fit? On the View toolbar, click 'Details pane' to open a panel on the right. Select multiple files to see the total size displayed.

Another method is to show the status bar. Click View, Options and on the View tab in the Properties window, enable 'Show status bar' near the bottom of the settings. At the foot of the Explorer window, you'll see the total size of selected files.

One last way to see the size of selected items is to right-click one and select Properties. The total includes folders and subfolders.

TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

Add tabs to Explorer

Tabs have proved so useful in web browsers, you wonder why they aren't everywhere. Microsoft tried and gave up on adding tabs to Explorer, but some programmers have added their own.

QTTabBar (bit.ly/qtt476) is one

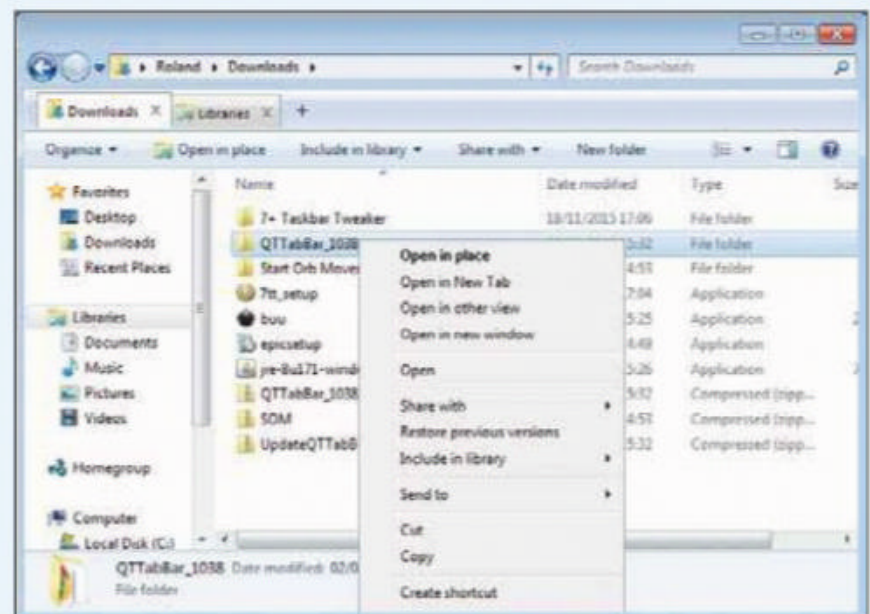
example. It works with Windows 7, but Windows 10 updates have been known to break it in the past. If this happens, install QTTabBar 1038 and restart, then install QTTabBar 1040 to fix it.

Open Explorer – if you don't see it, run it from the Start menu. In Windows 7, tap Alt to show the menu and enable all the toolbars on the View, Toolbars menu. In Windows 10, select the View tab, click Options to show the menu and turn on all the toolbars.

As with browser tabs, you click the plus button to open a new tab or right-click a folder to open it in a new tab. Files and folders can be dragged and dropped on tabs to move them.

Right-click a tab to see a menu with many tab functions, such as closing the neighbouring tab on the right, closing all tabs except this one, cloning the tab, and so on. A Tab History option at the bottom of the menu lists recently used tabs – select one to reopen it. You can drag and drop tabs to change the order.

TidyTabs (bit.ly/tt476) is another tool that adds tabs to Explorer and it's compatible with Windows 7, 8 and 10 in both 32- and 64-bit versions. There's a free version for personal use that has all the core features.



Add tabs to Explorer windows using QTTabBar or TidyTabs

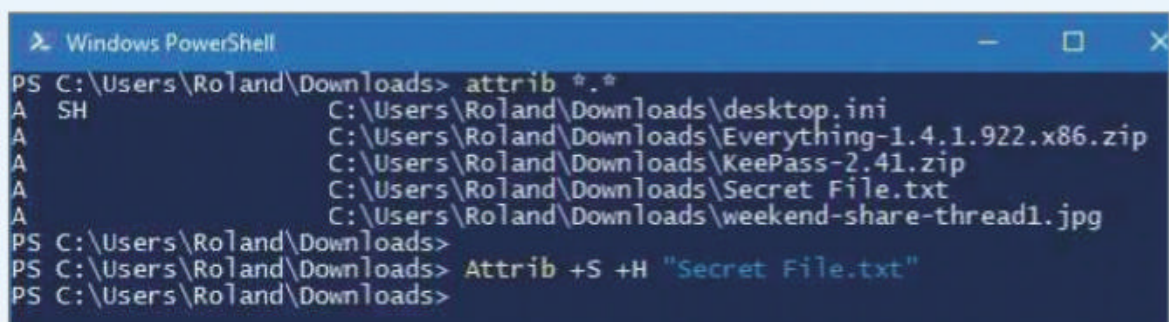
Hide and super-hide files

Files and folders can be hidden from Explorer, which is useful for keeping items secret or private. Select a file or folder and click View, 'Hide selected items'. To view or access hidden files and folders, click View and tick the 'Hidden items' box. It's not a particularly secure way to hide files, but novices may be fooled.

Even with Explorer set to show hidden items, some remain out of sight. For example, Windows sets important operating-system items to both Hidden and System, to stop you seeing or changing them, and potentially causing problems.

Click File and open a command prompt or PowerShell window. Type `attrib *.*` and press Enter to see a list of files and their attributes. You will often see the hidden system file, 'desktop.ini'. Hide any file by typing `attrib +S +H "filename"` and press Enter. It can't be seen in Explorer, even when set to show hidden files. Use `-S -H` to make the file visible again.

System files are extra hidden, but not completely invisible. To see system files in Explorer, click View, then Options. Select the View tab and clear the tickbox labelled 'Hide protected operating system files'.



Hide files by adding the S and H attributes at the command prompt

Ask the Expert

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



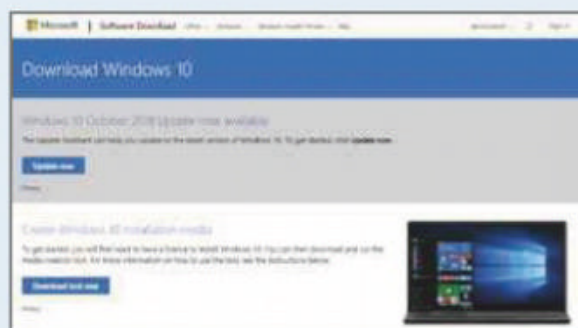
GENERAL PC

Upgrade a PC from Windows 7

Q My Windows 7 Home desktop PC has a 3.3GHz processor with 8GB of memory and about 130GB of free hard-drive space. I also have an Asus netbook (Eee PC X101H) I upgraded to Windows 10 Home, but there's no installation disc. I'm concerned by the approaching demise of Windows 7 and wonder if I can transfer Windows 10 from my netbook to my PC?

Andy Jennings, via email

A Backup tools such as EaseUS Todo Backup Free (www.easeus.com) and Backupper (www.backup-utility.com) create a complete image of your hard drive and can be used to transfer the contents of one drive to another. They are ideal if you are replacing a faulty hard drive in a PC with a new one, but



You need a licence to install Windows with the free media creation tool

you'll run into licence problems if you try to transfer Windows to a new computer. If your PC came with Windows preinstalled, it is only licensed to be used on that computer and you can't move it to another one.

You have two options. If you carry on using Windows 7 on your desktop PC, you won't receive updates from Microsoft when support ends, but good security software will keep it safe from malware. The other option is to pay for a Windows 10 licence, then download and install it using the media creation tool (bit.ly/mct476).

don't run E:\setup.exe.

Your computer may automatically detect the USB device on startup and show an option to boot from it, or you may need to press a function key to select the boot device – the choice varies with the PC manufacturer, so look out when you reboot the PC as the first screen may tell you which key it is. Otherwise, try F1 through F12 or search online for the key to use.

NETWORKING

Get Wi-Fi on an old laptop

Q In Issue 473 (bit.ly/webuser473), you showed how to install CloudReady (bit.ly/clre476) on an old laptop. I've done this but it won't let me connect to my BT router. To join the Wi-Fi network, it asks for the connection details, so I enter the router's name, WEP and password. However, when I then click Connect, it comes back with "Bad password". Can you help?

Neil Porter, via email

A Use another computer, phone or tablet to access the router by typing its IP address (it's usually 192.168.1.254). Log in and find the Wi-Fi security settings. Try turning off password protection to see if your CloudReady computer can connect (it probably will). Then try each of the Wi-Fi security options: WPA2 is the most commonly used these days, but avoid WEP which is an old standard that people stopped using over 10 years ago and some modern devices no longer support.

Many laptops have a key to turn Wi-Fi on and off. Make sure Wi-Fi is on, then turn it off, wait a few seconds and turn it back on. This sometimes gets the network working again. Resetting the laptop sometimes works: power it off, take out the battery and mains power lead, hold down the power button for 30 seconds and put the battery and power cable back in. Start it and see if the Wi-Fi is working.

If nothing works, try plugging in a USB Wi-Fi adapter. You can pick up a budget model for around £10 to £15.

GENERAL PC

Solve connection and installation problems

Q My Toshiba laptop displays a message saying there is no internet connection, yet in the taskbar it says I'm connected at 400Mbps. I downloaded Windows 10 32-bit to a USB memory stick for my 32-bit PC and got the message: "E:\setup.exe is not a valid W32 application". Help!

Emily Munro, via email

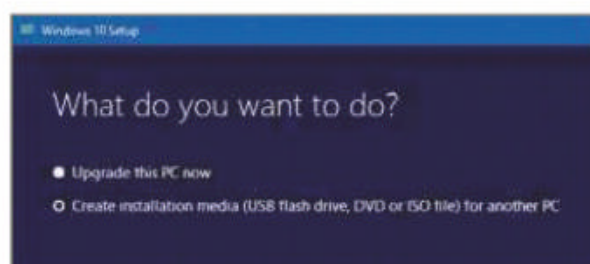
A A PC connects to the internet via a router, which means you can have a working Wi-Fi or wired connection of

400Mbps because the PC can access the router and local network, but no internet access because the router isn't connected to your ISP.

Try turning everything off, including the router, then ensure all plugs are in their sockets and turn it all back on again. The router should automatically connect to the internet, while the computer connects to the router.

Computers have been 64-bit for years, but they can run 32-bit operating systems and software. You can choose either, but 64-bit Windows is preferable to 32-bit. We're not sure how you've put Windows 10 32-bit on a USB device, but the correct method is to download and run the media creation tool from the Microsoft website (bit.ly/mct476).

This lets you choose the version of Windows 10 to install and the device to install it from. For example, you can copy the Windows installation files to a USB memory drive, then boot from the device instead of the hard drive. You



Use the media creation tool to create installation discs or drives for Windows 10



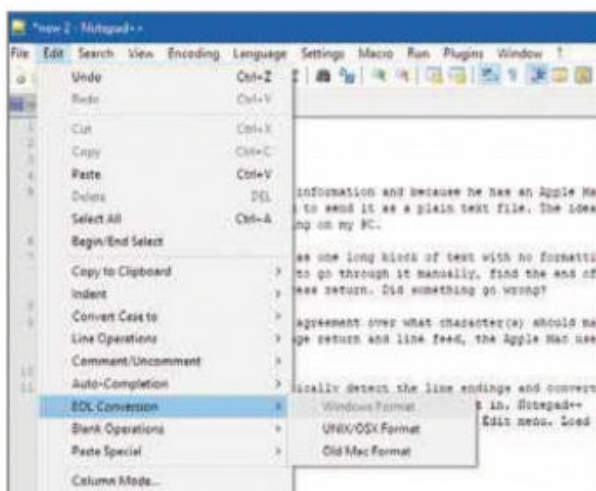
SOFTWARE

Automate line formatting in text files

Q I asked someone using an Apple Mac to send me information as a plain text file, so I can load it into pretty much anything on my PC. However, in Notepad it just loads as one long block of text with no formatting, no lines and no paragraphs. What went wrong?

Elliott James, via email

A The problem is that different systems use different characters to mark the end of a line of text: a PC uses carriage return and line feed; Apple Macs running macOS use line feed; and Linux uses carriage return. Some text and code editors automatically detect the line endings and convert them to Windows or use them as they are. Others have conversion tools built in. Notepad++ (notepad-plus-plus.org) has an EOL Conversion option on the Edit menu. Load the file, convert the line endings to Windows and save it.



Convert text file formats between macOS, Windows and Linux with Notepad++

SECURITY

Sort out your sandboxes

Q I'm a Sandboxie (www.sandboxie.com) user but I like the idea of multiple sandboxes (Firefox Containers) described in Issue 472 (bit.ly/webuser472). What you don't say is whether a malicious website will still infect the original containers where the malicious content was first introduced if you reboot your PC.

David Lee, via email

A We can't guarantee that sandbox software provides 100% protection against all security threats, and you should still use an antivirus security program and avoid malware.

Firefox Containers are designed to allow a separate user profile to be used on each tab: on one tab you're Bob Smith, on another you're Sue Jones.

Each tab has a separate identity, user profile, cookies, browsing history and so on. However, they are not designed to protect you from malware.

MOBILE

Block a missing phone

Q I recently lost my phone – or it may have been stolen. I'm worried that the Outlook app could be used to access my email account. What should I do?

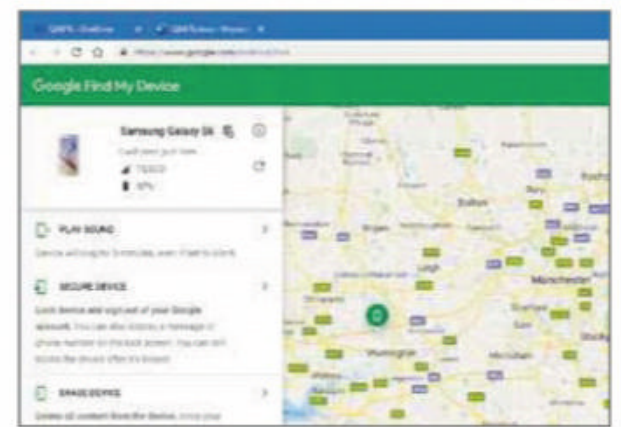
Sean O'Brien, via email

A Was the phone protected with a PIN or fingerprint? If it's difficult to break into, your email is probably safe. However, email notifications may appear on the screen and a person may see something you'd prefer to keep private.

Go to the outlook.live.com website on a computer, click the cog icon at the top and choose 'View all Outlook settings'. Select General in the first column and 'Mobile devices' in the second. The third column shows a list of devices with access to your Outlook email account.

The device names are not always useful and it may simply say Outlook. Move the mouse over each item and use the icons on the right to edit or delete them. Clicking the pencil icon shows info about the device, which should help you identify it. Return to the list and delete it, if it's the phone you lost.

A more general fix is to completely erase the device. If it is an Android phone, go to bit.ly/andfin476. You'll find options to lock the device and sign out of Google, or erase it and delete all the content. This is only possible if the phone is turned on, logged into your



Lost your phone? Both Android phones and iPhones can be erased remotely

Google account, has location and Find My Device switched on, and is connected to Wi-Fi or data.

Apple has a similar tool for erasing lost iPhones. Log into www.icloud.com with your Apple ID on a computer and go to Find My iPhone. This setting must be enabled and turned on on the iPhone, and it must be connected to data or Wi-Fi.

HARDWARE

Reset an unresponsive touchpad

Q My laptop's touchpad no longer works and I have to plug a mouse into the USB port, which means I lose a socket. What can I do?

Colin Beasley, via email

A Replacing a laptop's touchpad is a skilled job, but you may get away with simply reinstalling the driver. Open the Control Panel, click Device Manager, expand Human Interface Devices, right-click the 'HID-compliant touchpad' entry and select Uninstall. Restart Windows and a new driver will install.

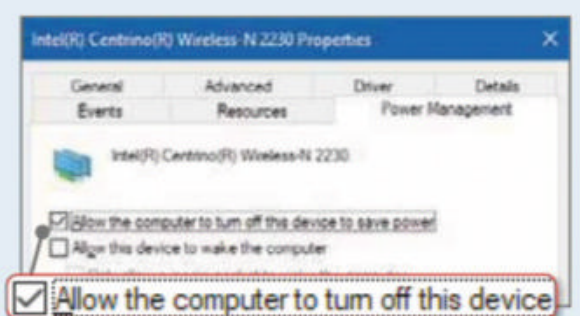
GENERAL PC

Fix an intermittent Wi-Fi connection

Q I'm having problems connecting to the internet since the last Windows update. My Wi-Fi works for a while, then stops; and if I disconnect and then connect again, it starts for a short time before stopping again.

Will McGrath, via email

A This may be due to your PC's Wi-Fi adapter settings. Open the Control Panel, click Device Manager, open the View menu and select 'Show hidden devices'. Expand 'Network adapters' and look for Microsoft Wi-Fi Direct Virtual Adapter. There are two



Problems with Wi-Fi? Don't let Windows turn off the Wi-Fi adapter

of them. Right-click both and select 'Disable device'.

Another cause could be over-enthusiastic power-saving settings. Hide the hidden devices again, then double-click the network adapter. Select the Power Management tab in the Properties window and untick 'Allow the computer to turn off this device to save power'.



This fortnight, Roland has been roaming the streets hunting dinosaurs in Jurassic World Alive

Your Top Tips

Our pick of the best advice from our readers. Please send questions and answers to webuser@webuser.co.uk



TOP TIP

FILE SHARE

Share files direct from PC and mobile

I read with interest Roland Waddilove's reply about sending attachments rather than trying to download them from email. Wouldn't it be great if there was a program that allowed both sender and receiver to be anywhere in the world, and only the sender was required to have the specific program?

Well, there is: Tonido (www.tonido.com) lets you share files and folders directly from your phone or computer, so it's not on the web at all. Right-click the item you want to share, select 'Tonido 1-click share' and a link is automatically copied to your clipboard. You then email the link and that's it. The recipient doesn't need Tonido – they just click the link to open it in a



Share files with people, even if they don't have the same software

browser. If it's a folder, it shows a list of the files it contains. Click one to either open or download it. No one else can access it without the link.

The downside is that the originating computer must be switched on to enable access, but that's hardly onerous if a group or family want to share photos of an event, for example. And it's free for non-commercial use. I've shared hundreds of photos and files this way without paying a penny.

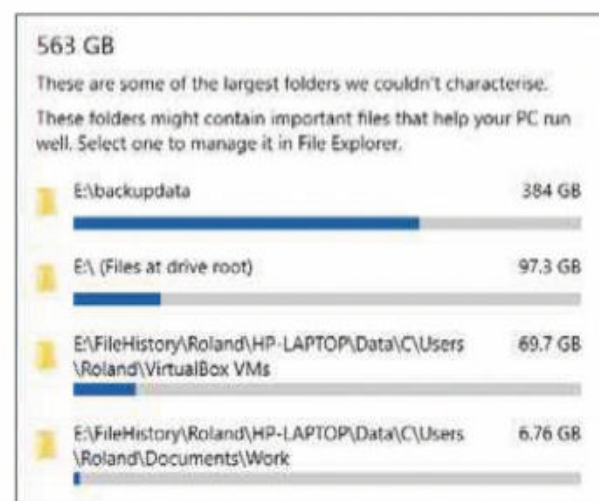
For larger files, including videos, the link becomes a download link, using the recipient's bandwidth. Oh, and no login or registration is required.

James Gourley, via email

GENERAL PC

Check your storage space

You can see how much free hard-drive space you have by selecting This PC in Explorer, right-clicking the drive and selecting Properties. If you want to know what's stored on the drive, open Settings



Use Settings to see how space is being used on any drive attached to your PC

(press Windows+i) and select System, then Storage. Click the bar labelled This PC to see a breakdown of how the space is used on your main hard drive, and the split between documents, photos, videos, music and so on.

To check external drives, scroll down and click 'View storage usage on other drives'. Drives are listed with free and used space shown, and clicking a drive breaks down usage by category. Each category – Documents, Photos, Videos and so on – can be clicked to show more detail, so you can see which folders are using the most space.

Gary Kirby, via email

GENERAL PC

Block the Windows 7 'end of life' pop-up

As if it's not bad enough that Microsoft is ditching a perfectly serviceable operating

system, I'm now being constantly reminded of the change by ceaseless pop-ups telling me that Windows 7 will no longer be supported. It's worse than when Windows 10 first came out!

To avoid all this, set Windows Updates to 'Check for updates but let me choose whether to download and install them'. Next, at all costs, avoid installing update KB4493132 – just right-click it and choose 'Hide update'. If you've already downloaded it, open Control Panel and click Programs. Along the top of the screen, locate the option to 'View installed updates', right-click it and choose Uninstall.

Ashley Bates, via email



Tired of being nagged about the end of Windows 7 support? Then stop it

GENERAL PC

Optimise USB memory sticks for better performance

Readers may already know about Microsoft's change to USB memory sticks, which means you no longer have to right-click and select 'safely eject' or 'remove device'. While that's great if you want to just unplug a USB stick in a hurry, this comes at a cost to performance. With the new setting, Windows puts all its effort into writing data to the USB so you can remove it as soon as possible. This can slow down other programs.

If you want to switch back, plug in your USB device, right-click Start and go to Disk Management. Find the USB device and right-click it, selecting 'Change Drive Letter and Paths'. Click the Policies tabs in the pop-up. Under 'Removal policy', click 'Better performance', then ensure



'Enable write-caching on the device' is ticked. Click OK to save. And remember, when you're removing the drive, you need to go back to clicking the USB and choosing to safely remove it.

Phil Quint, via email

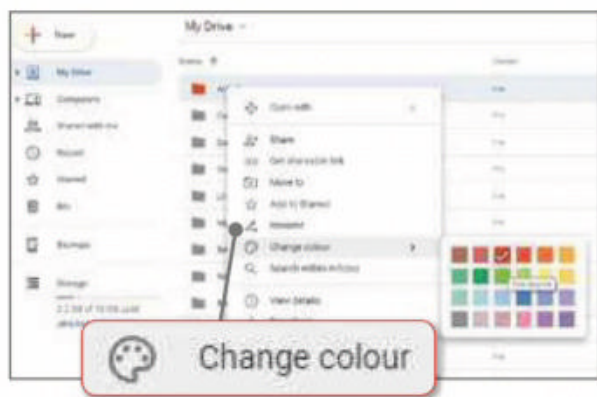
ONLINE STORAGE

Change Google folder colours

I just discovered that you can colour folders on Google Drive to make them easier to distinguish. Making your most-used folder bright red, for example, makes it stand out so it is easier to see and select.

In a browser, right-click a Google folder, choose 'Change colour' and pick one from the selection. On a phone, open the Google Drive app, tap the three-dot icon to the right of a folder, then tap 'Change colour' and pick one from the selection.

Mike Beckett, via email



Change the colour of folders on Google Drive to make them stand out

BROWSERS

Remove wallpapers in Opera

If you can't find an Opera wallpaper that you like, you can turn them off by going to 'Easy setup' in the top-right corner of a new tab and unticking Wallpapers. The result is a rather overly bright white background, so I'd recommend scrolling down to 'Recent wallpapers' and selecting the white one, which gives a softer background. The whole process can be carried out offline.

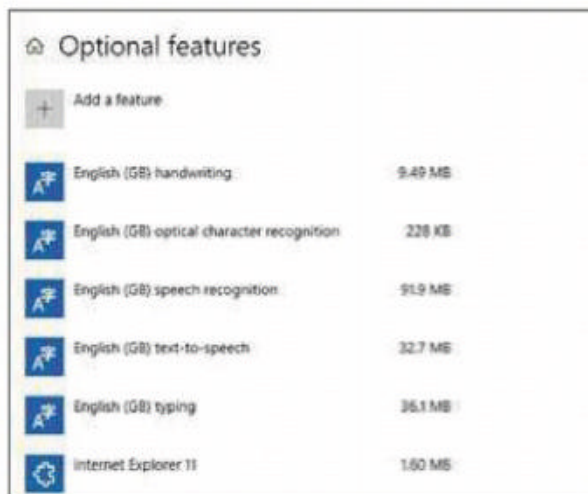
FratPark, via email

GENERAL PC

Remove optional Windows features

Not all Windows 10's built-in tools are compulsory. To clear any you never use, Open Settings (Windows+i), click Apps and select 'Manage optional features'. Some items in the list that appears have a Manage button; some have an Uninstall button.

In all versions of Windows, open the Control Panel and click 'Programs and Features'. Click 'Turn Windows features on or off' on the left. A list of items appears in a small window. Most of the options are obscure features for expert users, but one or two items are easily recognisable, such as 'Microsoft Print



Some features in Windows are optional and can be removed

to PDF', Microsoft XPS Document Writer and Windows Media Player. Toggle these on or off to add or remove them.

Simon Kelly, via email

GENERAL PC

Change automated screenshot numbering

Pressing Windows+Print Scrn saves a screenshot to the Pictures\Screenshots folder. Each screenshot is numbered, but if you take 20 screenshots numbered 1 to 20 and then delete them, does it start again at 1 or will the next be 21?

The next screenshot number is stored in the Registry. Press Windows+R, type regedit and press Enter. Go to:

HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer

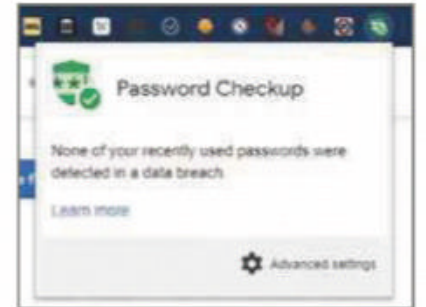
Double-click Screenshotindex and select Decimal for the value to see the number of the next screenshot. If the screenshots folder is cleared, reset the value to 1 to start over.

A Mitchell, via email

SECURITY

Check whether your online accounts have been breached

Google's Password Checkup extension for Chrome (bit.ly/password476) is like a browser-tool version of Have I Been Pwned (haveibeenpwned.com). You can download it to check whether your accounts have been caught in any data breaches. If they have, it recommends changing your password. The extension was made with the help of



Get alerted when your account suffers a privacy breach

cryptography boffins and, unlike a lot of Google products, it won't scrape your data.

Joshua Chung, via email

FILE SHARING

Use Firefox Send from a command line

Firefox Send (send.firefox.com) is a fantastic way to send large files. It's already been covered in *Web User*, but I wonder if your readers are also aware of Ffsend (bit.ly/ffsend476)? This is a portable, open-source program that lets you share files on Firefox Send using a command line.

Essentially, you just type a command, such as `ffsend upload file name` or `ffsend download file name`. You can even add commands to password protect your files.

Michael Clarke, via email

BLUNDER OF THE FORTNIGHT

SOFTWARE

Share hardware across multiple computers

Back in the day, if you wanted to use the same keyboard, mouse or monitor on several computers at once, you needed a 'KVM switch' – a piece of hardware that let you manually flick between them. I spent a lot of time and money testing these, but it turns out there's a much easier way to share one mouse or keyboard across several computers. The software substitute ShareMouse (www.keyboard-and-mouse-sharing.com) works just as well as the hardware version. Now all I have



Control several computers with one mouse, keyboard and monitor

to do is put those physical KVM switches on eBay!

Glenn Pollock, via email

Have you managed to fix a PC-related disaster?
If so, please send your story to webuser@webuser.co.uk



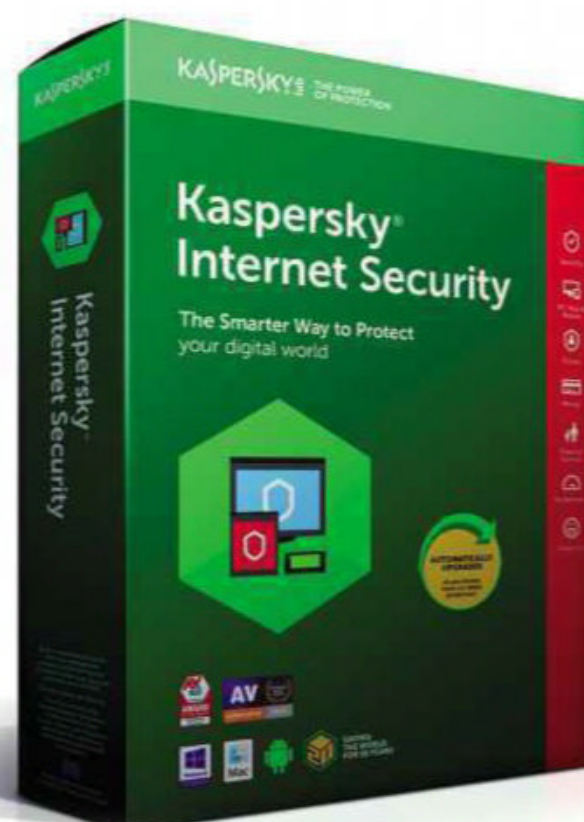
OFFER OF THE FORTNIGHT

Kaspersky Internet Security 2019 - on sale now

Our sister title *Computeractive* is now selling the new and improved 2019 edition of the multi-award-winning antivirus Kaspersky Internet Security at a special discount for readers

WHAT'S NEW IN KASPERSKY 2019:

- ✓ Finds and removes dodgy browser extensions
- ✓ Identifies software that needs to be updated
- ✓ Gives you more control over which adverts are blocked
- ✓ More advanced options to keep malware off your PC



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Readers' Helpdesk

Can you help your fellow readers with their computer problems? Send your questions and answers to webuser@webuser.co.uk

GOOGLE

Stop Google remembering your credit cards

Q I pride myself on being aware of my online privacy and security, so it's a tad embarrassing to realise that, despite my best efforts, Google Chrome now has my credit card details saved. I don't even like Amazon and Argos storing my card details, much less Chrome!

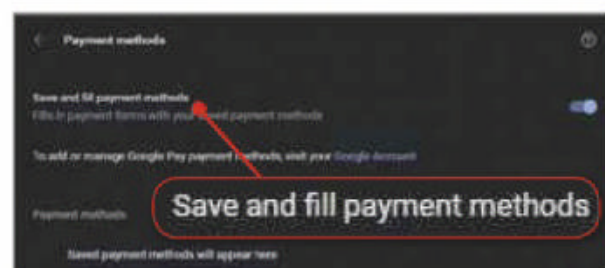
Either Chrome saves them as standard or I must have clicked something to save the details. Either way, I'd feel a lot more comfortable if they weren't saved in the browser. How can this so-called 'feature' be switched off?

Joseph Barnett, via email

A It's an irony of modern web browsing that 'convenience' and 'security risks' go hand in hand. Thankfully, there is a way to delete your credit cards from Chrome and prevent the browser from syncing such details. First, click Chrome's three-dot menu and select Settings. In 'Payment methods', toggle 'Save and fill payment methods' to Off. All your saved payment methods are listed below. Open the three-dot menu beside each card and select Remove.

It may also be worth checking that your card details aren't syncing across all your devices using Chrome. Head back into Settings and click Sync. The default is to sync absolutely everything but at the bottom of the list, you'll find 'Payment methods and addresses using Google Play'. Switch this off (along with anything else you don't want to sync) and Google won't try to share this information to your other devices.

Steve Clark, Features Writer, Web User

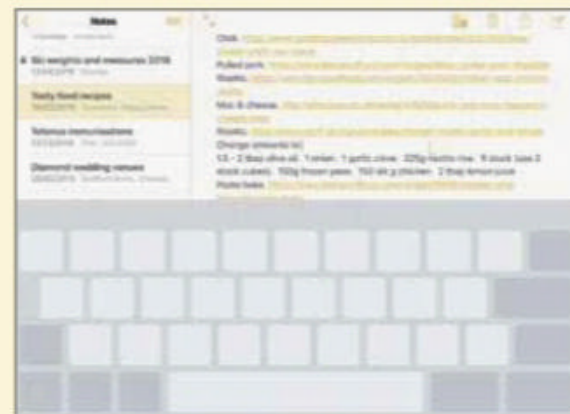


Google remembers your credit card details for your 'convenience'

READERS RESPOND

Highlight text on your iPad

A In issue 474 (bit.ly/webuser474), Adam Moretz says he is struggling with highlighting text on his iPad. He's certainly not the only one. There are some handy hidden tools that help. For example, if you hold down the spacebar on the virtual keyboard, it turns into a trackpad you can use to position the cursor. Highlighting can be tricky, so try double-tapping a word to select it, then slide across to include more words. Sometimes you can tap more times to highlight a whole sentence, though it seems to depend on the app.



Hold down the spacebar to turn the virtual keyboard into an iPad trackpad

Also, try two-finger tapping, which I've heard can highlight whole paragraphs. It's never worked for me but perhaps my iPad is too old.

Nathaniel Jackson, via email

CAN YOU HELP?

webuser@webuser.co.uk

You can seek help or suggest solutions to other readers' problems by emailing webuser@webuser.co.uk or via www.facebook.com/webusermagazine or twitter.com/webusermagazine.

HARDWARE

Q Can anyone recommend a 17in laptop? I've seen some, but I don't like the ones that have metal around the keyboard. My old Toshiba doesn't have this, so I'd like something similar.

Steven Moore, via Facebook

APPS

Q Love Web User! But has anyone tried changing the WhatsApp group chat settings? The pathway in Issue 473 (bit.ly/webuser473) is for Android and doesn't work with iPhone.

Shell Ainley, via Facebook

SOFTWARE

Remove DRM from WMA files

Q I've finally started ripping my old CDs to my laptop, especially after my grandson informed me that my music collection looked 'antique'. During the process, I noticed it appeared to add DRM (digital rights management) to the WMA files. Looking online, it seems this is an anti-piracy measure – but it's music that I already own. Is there any way to remove this?

Danny Whyte, via email

A I'm not sure why Microsoft thought it was a good idea to automatically add copy protection to music you already own. Luckily,

they saw the error of their ways and released the Digital Rights Update Tool (bit.ly/drut476), which removes DRM from WMA files you ripped with Windows Media Player. It won't work with other files, but point the tool in the direction of your music and, in a few clicks, you can strip away all that unnecessary copyright protection.

Steve Clark, Features Writer, Web User



Use the Digital Rights Update Tool to remove copy protection from the music you own

Star Email

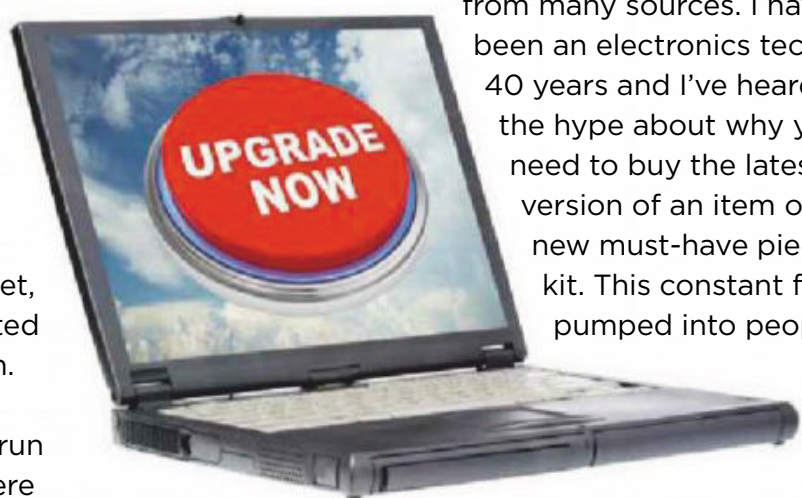
Stop scaring people into upgrading Windows

Back
Issues
disc
winner



It happens on a regular basis, every few years: Microsoft ends the life of an operating system – Windows 7, in this case – then ‘project fear’ takes off. Windows 7 will not be secure, you are okay as long as you don’t connect to the net, you will become infected with viruses, and so on.

Windows 10 has not exactly had a smooth run since its inception. There



are still constant reports of bugs, and security risks are published regularly from many sources. I have been an electronics tech for 40 years and I’ve heard all the hype about why you need to buy the latest version of an item or a new must-have piece of kit. This constant fear pumped into people,

to make them so panicked that they go and upgrade based on a company’s marketing, is simply designed to scare everyone.

When Windows 10 is secure and works well, then people should decide if they want to upgrade or not, but a constant push from Microsoft and the media is not something many people can afford or need. It needs to stop.

It costs a fortune to keep upgrading, and it is not necessary in my humble and professional opinion – it really isn’t.

Jeremy Newman, via email

Motherboard rendered my Dino PC extinct

Dave Ingram is not alone in his problems with updating a Dino PC (Ask the Expert, Issue 475). I also have this problem and after three different attempts by Microsoft ‘experts’ to solve it, they came to the conclusion that the Gigabyte motherboard needed a BIOS update. Gigabyte however claims that its motherboard was never intended to be compatible with Windows 10 and will no longer update the BIOS.

What really annoys me is had I stuck with Windows 7, I’d still be secure until January 2020 and not just September

2019. My really old Dell Dimension 5100 from around 2005 has already been successfully upgraded. So much for Gigabyte’s

customer service. Could a Windows 10 update failure be the new way for motherboard manufacturers and Microsoft to ensure PC obsolescence?

I intend fitting another SSD and installing Linux on my PC for internet use. Windows 10 can then be isolated for office-type work.

A McRobbie, via email



access to Wi-Fi. No Wi-Fi in the house, the car, when out and about or when they have a problem with their ISP.



The solution is simple: a Three mobile plan with unlimited data and unlimited tethering.

With Three, you don’t need to look around for Wi-Fi, you just use your phone as a router.

I really don’t understand why people let their mobile operator get away with giving them such a low data and tethering allowance. Just make the switch.

Stan Elliott, Bangor, Co Down

Checkvist is the best to-do list

In response to your round-up of to-do list software in Issue 475: when Google “broke” its todo list tool, I looked around and tried all the alternatives I could find. So I’m slightly surprised that you missed – or didn’t mention – Checkvist (checkvist.com).

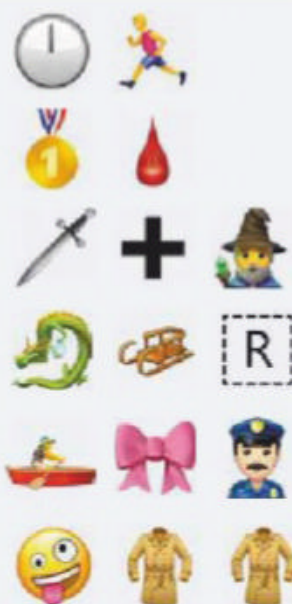
I’ve been using to-do list apps for quite a while now and this is without a doubt the best I have ever come across. The mobile version isn’t quite as powerful but is certainly good enough. I suggest you take a look because it’s a great app.

Chris Johnson, via email



Quiz Answers: Issue 475

- 1 **Midnight Run**
- 2 **First Blood**
- 3 **The Sword and the Sorcerer**
- 4 **Dragonslayer**
- 5 **Robocop**
- 6 **Mad Max 2**



2

WINNER!

Well done to **Martin Rix** who wins a Web User Back Issues Disc



WIKIPEDIA ARTICLE

Computer virus



Don't judge Internet Explorer users

What a snotty Star Email from Shaun Mitchell in Issue 475 ('Who still uses Internet Explorer?'). People should be able to use whatever browser they want, and if they feel comfortable with Internet Explorer, then who are we to judge them?

Just because IE isn't as cool as Chrome or as edgy as Edge doesn't mean it doesn't have its benefits. My father still uses Windows 7, so he can't use Edge even if he wanted to, but he knows what he's doing with IE and as long as he keeps his antivirus software up to date, I don't see a problem. He doesn't bother with browser extensions and doesn't need to sync data across devices, so Internet Explorer works just fine.

Perhaps Mr Mitchell should consider being less judgmental. If everyone used the same software as him, it would be a very boring world.

Jonathan Fry, via email

Flushed with gratitude

Thank you for the recommendation of the public-toilet finding app Flush (bit.ly/flush475) in Issue 475. I've tried several of these apps before, but this was one of



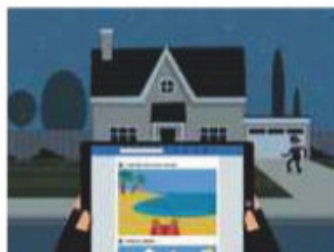
the better ones, although it did fail to flag that toilet facilities are available in my local Morrisons supermarket. Some of the listings lack information but at least

Flush is easy to use.

Colin Donnelly, via email

Oversharing online isn't worth the risk

Barry Collins is quite right in his column in Issue 475, 'The biggest threat to your privacy is you'. I've lost track of the times I've had to warn my friends about them oversharing personal details on



Facebook – photos showing off the contents of their houses, the names of their kids and the schools they go to, the exact dates they'll be away on holiday. Is it

really worth putting the safety of your home and family at risk, just to impress people on social media? Anything you post online is public and accessible to any passing cybercriminal who can see your account. It really isn't worth the risk.

Sandra Kelsall, via email

What you say...

ARE YOU TEMPTED BY GOOGLE'S NEW LOW-PRICE PIXEL PHONE (SEE REVIEW ON PAGE 22)?

I'm quite happy with my Samsung Galaxy Note 3. It's about six years old but it still works perfectly.

Gerrit Max

I'm still using my Nexus 6, which is going strong after five years (cross fingers). The only thing I miss are the automatic updates – I'm stuck on 7.1.1. I could load a custom ROM but it's not that important. Keep your phones folks. Save money and save the planet!

Iain Kenworthy-Neale

No, because we have to stop this continuing cycle of yearly upgrades. It's unnecessary and environmentally unfriendly. Companies who pump out barely different models each year should bear part of the responsibility for this problem.

Glenn Faulkner

No. I don't buy a new phone any more frequently than I do a new pair of trousers, which is every five years.

Steve Gaines

WILL YOU TRY MICROSOFT'S REBUILT EDGE BROWSER, WHEN IT'S OFFICIALLY RELEASED?

Yes. I'm using the developer version right now and it seems faster than Chrome by a long shot. I didn't like the old Edge at all. Load times were slow, but this new Edge is really solid.

Jarrod Ushkowski

There's no point if it's just a rebranded Chrome browser. I'll stick to the real thing.

Martin Phillp

Nope, gave up on Edge years ago. Firefox offers the best security.

Shaun Thomas

I've been a long time Firefox/Waterfox user and will remain so. Most people stick with the browser they're used to.

John Hewett

AFTER THE WHATSAPP HACK, IS ANY ONLINE SERVICE TRULY SECURE?

Nothing is 100% secure – we've learnt the lessons over and over again. We should be talking about a risk-based approach, not if it is secure or not.

cyberphilosopher @_4_d_4_m_

By its nature, no complex piece of software (even small bits of code) is ultimately safe. That is why we not only have updates, but also security software, such as antivirus programs and firewalls!

Anthony Higham

I have to hope that LastPass is secure. After all, it has all my logins.

Simon Mellor @4KBacon

I don't use WhatsApp and I don't think any app is 100% safe.

Kevin Gadget Man Benton

DO YOU USE SPOTIFY OR PREFER ANOTHER MUSIC-STREAMING SERVICE?

I've been a Premium member for years. It's definitely my favourite music-streaming service.

Mark Chatham

They've got me cornered now because I've made lots of playlists. It's difficult to switch and start afresh. And you can't use the free version with Alexa, which is cheeky.

Adrian Millington

It took me a long time to get a decent playlist together, so I don't think I'd switch. If it came to it, I'd drop back down to a free subscription.

Phil Ówen

! Page 404



At long last, Apple's arrogant behaviour looks set to be punished, says **Barry Collins**

Apple needs a dose of nan's medicine

My nan was particularly keen on comeuppance. If you parked outside her house when she'd "put the bins out" to save a spot for her own car, or if you "played her up", you'd be admonished with the same phrase: "you'll get your comeuppance, you will".

Well, now it seems Apple is about to get a dose of nan's favourite punishment. After years of escaping the competition authorities' glare, Apple is reportedly set for a date with EU regulators to justify the massive cut it takes on certain purchases made through iOS apps.

For example, if someone downloads the free Spotify app from the App Store and then signs up for a £10-a-month Spotify subscription via that app, Apple keeps £3 of it. Not a £3 one-off commission, but £3 for every single month that subscription remains active. That's a nice little earner for doing next to nothing.

This has been going on for donkey's years, but it has come to a head now because Apple has since launched a highly successful music service of its own. In fact, Apple Music is primed to overtake Spotify as the world's biggest paid-for music subscription service in the next year or so. Apple, of course, doesn't pay a 30% cut to itself, meaning it has a huge competitive advantage over Spotify and the others.

While Apple effortlessly banks its profits, Spotify expects to make a loss of around £300m this year – and still get a barrel-load of grief from entitled pop stars who don't think Spotify is paying them enough (don't get me started on that topic). Spotify has "no other choice than to accept the 30% fee put in place," according to the

“Apple has so far gotten away with this because – laughably – it's not big enough”

company's CEO, Daniel Ek, "which essentially would mean we would have to raise our prices for consumers all over the world," he told the *FT* earlier this year. That got the EU's attention.

Why am I glad that Apple is finally getting its collar felt? Because it's been getting away with behaviour that others have been heavily punished for. Take Microsoft, for instance. It has paid billions of Euros in fines and been forced to jump through all kinds of hoops for bundling its Internet Explorer browser with Windows.

What does Apple do with iOS? Throws in the Safari browser and, even worse than Microsoft, forces customers to use it. You can't choose a new default browser in iOS, it has to be Safari. Even the Chrome, Firefox and other browser apps available for iOS aren't really alternative browsers – they're all forced to use the same browser engine as Safari, they just look a bit different.

Apple has so far gotten away with this because – laughably – it's not big enough. Despite fleetingly being the world's richest company, it doesn't have a monopoly-sized market share of the smartphone, tablet or computer markets, and so isn't flouting antitrust legislation. The very thing that makes Apple so much money – the high price of its products – has prevented it from gaining enough market share to get into hot water over competition law. Talk about the perfect cr... no, the lawyers won't let me use that word.

Apple's behaviour is vastly anti-competitive, not to mention arrogant. Its comeuppance has been a very long time coming.



Illustration: Andrew Torrens

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