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and much more! p40



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Money to your ears p51

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VPN ON EVERY DEVICE**

Run one on your router instead p58





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Keep calm and part-ition

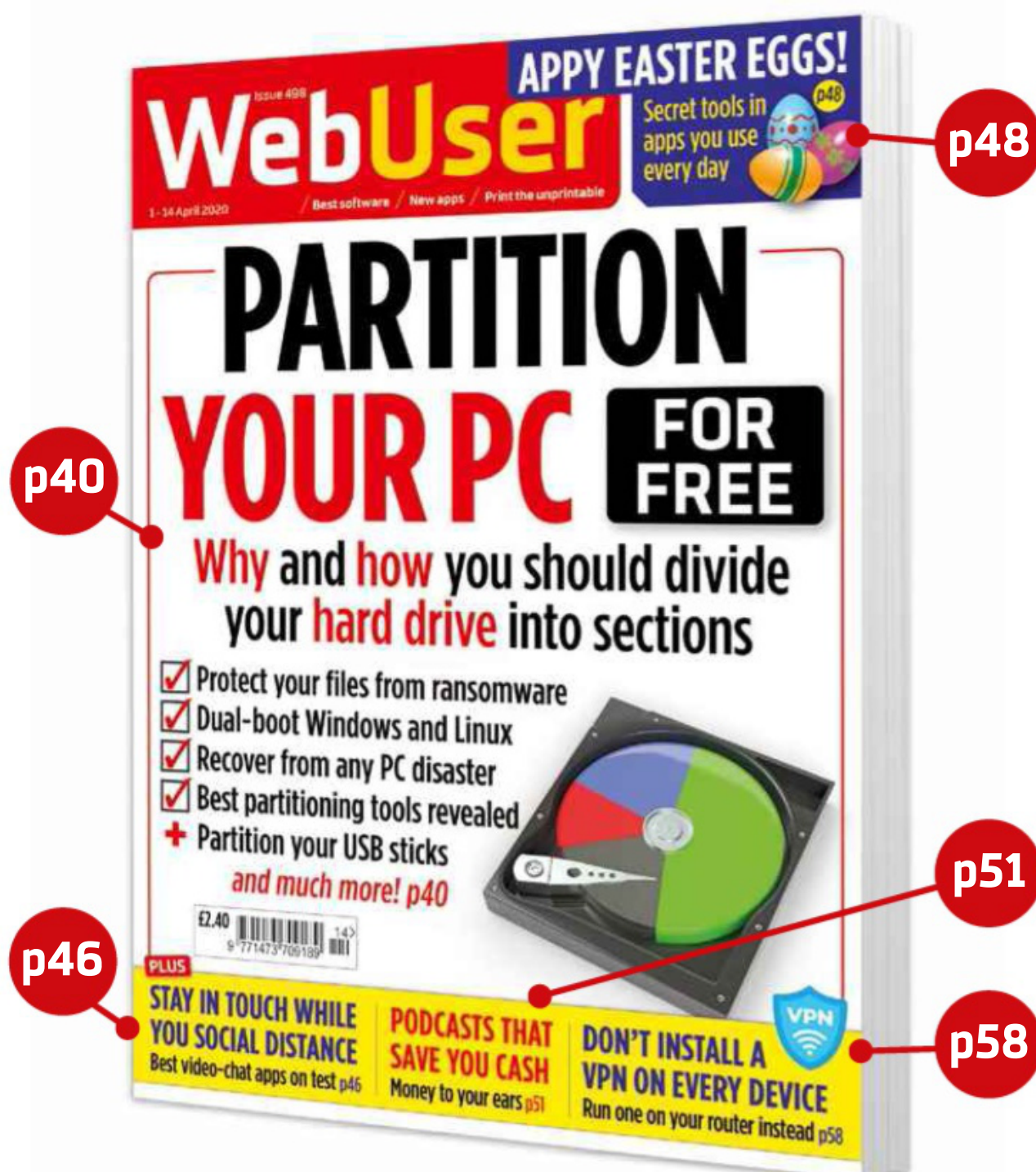
I have seen a vision of Hell and it involves trying to buy groceries during the coronavirus crisis. I'm sure you've experienced it, too, as frenzied mobs scramble for eggs, drain shelves of pasta and wipe stores clean of toilet roll. Do people really need 24-packs of toilet paper? Probably not, but there's clearly something reassuring about the bulk, much like buying a new PC with a 4TB hard drive. Wouldn't it be better to separate the multipack, to share the wealth – to partition it, if you will (please excuse my clumsy segue)?

In this issue's cover feature, we reveal the

many benefits of partitioning your hard drive and explain how to do so, using the best free tools for the job. It may not sound like the most exciting activity, but dividing your system into different sections makes much better use of available space, and gives you more control over your computer.

I hope all our readers remain safe, healthy and comfortable during this difficult time.

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



5 Things you'll learn this issue

1 How to transfer all your Facebook photos to Google Photos in one easy step **page 6**

2 How to experience the troubled Apollo 13 space mission in real time **page 14**

3 How to update Windows and Microsoft Office without an internet connection **page 29**

4 How to detect and delete dead and duplicate links in your browser bookmarks **page 65**

5 How to 'green screen' your videos to add different backgrounds **page 70**



How to use Bitly links

We use Bitly links to shorten web addresses that would otherwise be too long to print in the magazine. Type these into the address bar of your browser – not the search box – and you'll be redirected to the relevant web page.



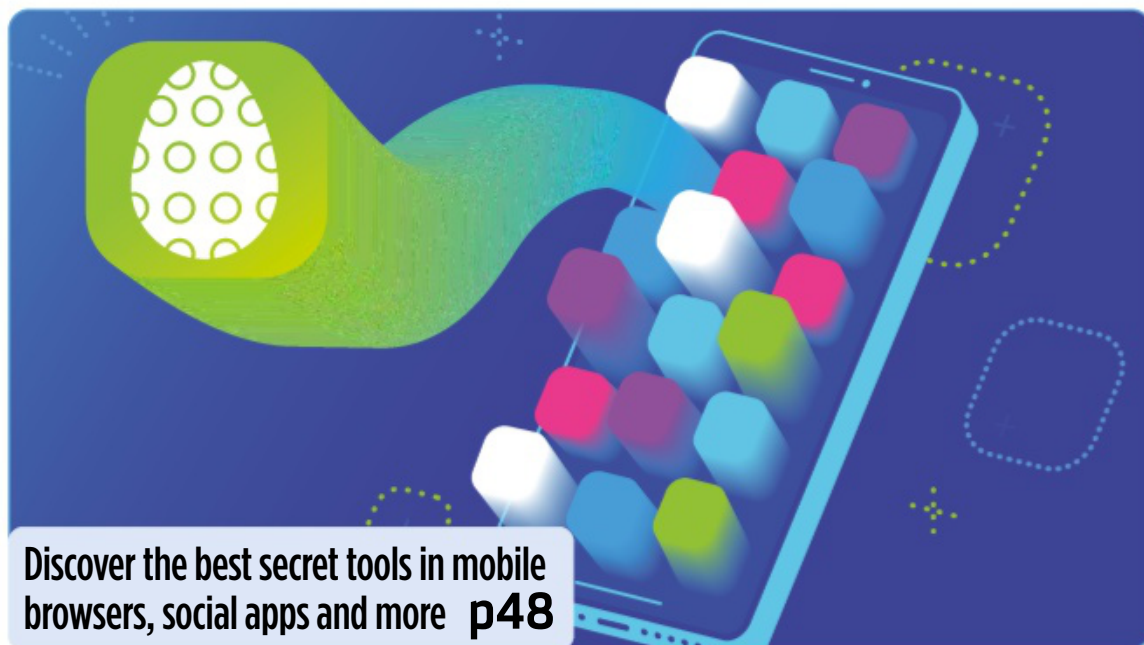
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PARTITION YOUR PC **FOR FREE**

COVER
FEATURE

Why and **how** you should divide
your **hard drive** into sections

p40



Discover the best secret tools in mobile
browsers, social apps and more **p48**



Free podcasts that help
save you money **p51**

IN DEPTH Articles on the latest tech topics

- 38 FAQ**
Internet pollution
- 40 COVER FEATURE**
PARTITION YOUR PC FOR FREE
Tips, tools and techniques for hard-drive division
- 46 Video-calling software for group chats**
Top tools for a virtual get-together
- 48 Appy Easter eggs**
Brilliant secret tools in apps you use every day
- 51 Money-saving podcasts**
Listen to expert advice on money matters

REVIEWS Apps, sites and products on test

- 14 Best New Websites**
Enjoy cult entertainment with Den of Geek
- 22 Product Test**
 - Nvidia GeForce Now
 - Chipolo One
- 28 Best Free Software**
Create a secure journal with Mini Diary 3
- 32 Best New Browser Tools**
Hide your mobile number from websites
- 34 Best Free Apps**
Manage your notifications with FilterBox

FAVOURITES Must-read regulars

- 6 What's New Online**
Use the web to fight the coronavirus
- 8 Need to Know**
This fortnight's top tech news stories
- 12 Stay Safe Online**
Security advice for PC and mobile
- 18 Build a Better Site**
Expert tips, tools and practical help
- 20 What to Watch Online**
Films and TV shows you can't miss
- 26 Best Buys**
Our pick of the best new products
- 37 Take a Screen Break**
Guess the US cities from the emoji

Is your broadband coronavirus-ready? p74



- 60 Broadband Deals**
Find the best-value package for you
- 72 Inbox**
Tell us your views and opinions
- 74 Page 404**
Barry's concerned about bandwidth



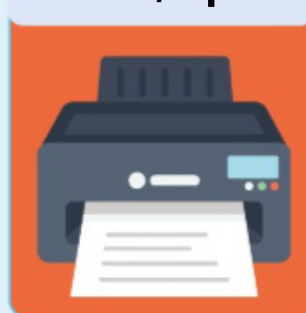
Practical WebUser

Workshops, tips, projects and problem solving

16 pages

- 52 Workshop 1**
Set up a media server with Jellyfin
- 54 Workshop 2**
Use Karen's Directory Printer for the print jobs Windows can't manage
- 56 Workshop 3**
Diagnose Android phone problems
- 57 Workshop 4**
Auto PC shutdown with Shutter Lite
- 58 Weekend Project**
Add a VPN to your router
- 64 Web User Masterclass**
Sort out your bookmarks
- 66 Ask the Expert**
All your technical questions answered
- 69 Readers' Helpdesk**
Solve other readers' problems
- 70 Readers' Tips**
The best tips from our readers

Tricky print jobs made easy p54



Fix Android device problems p56

Add an extra level of security to all your devices in one go p58



EDITORIAL

Editor Robert Irvine
 Technical & Reviews Editor Andy Shaw
 Features Writer Steve Clark
 Art Editor Laurence Hallam
 Production Editor Miki Berenyi
 Contributors Wayne Williams, Jane Hoskyn, Jonathan Parkyn, David Crookes, Roland Waddilove, Nicole Kobie, Barry Collins, Heather Reeves
 Editorial email: editor@webuser.co.uk

ADVERTISING

Tel: 0203 890 3824
 Group Advertising Director Andrea Mason
 Deputy Advertising Manager Rebecca New
 Senior Sales Executive Ashley Wood

ADVERTISING PRODUCTION

Group Production Manager
 Stephen Catherall, 0203 890 4050
 Production Manager
 Mike Hills, michael_hills@dennis.co.uk

MARKETING

Marketing Manager Rachel Hare
 Marketing Production Manager Gemma Hills

MANAGEMENT

Group Editor Daniel Booth
 Managing Director Dharmesh Mistry
 MD of Advertising Julian Lloyd-Evans
 Commercial and Retail Director David Barker
 Chief Executive James Tye
 Company Founder Felix Dennis

SYNDICATION AND LICENSING

Tel: 0203 890 4027
 Endorsement Licensing Manager Ryan Chambers
 Licensing Content Manager Nicole Creasey

SUBSCRIPTIONS

Tel: 0330 333 9493
 Email: subscriptions@dennis.co.uk
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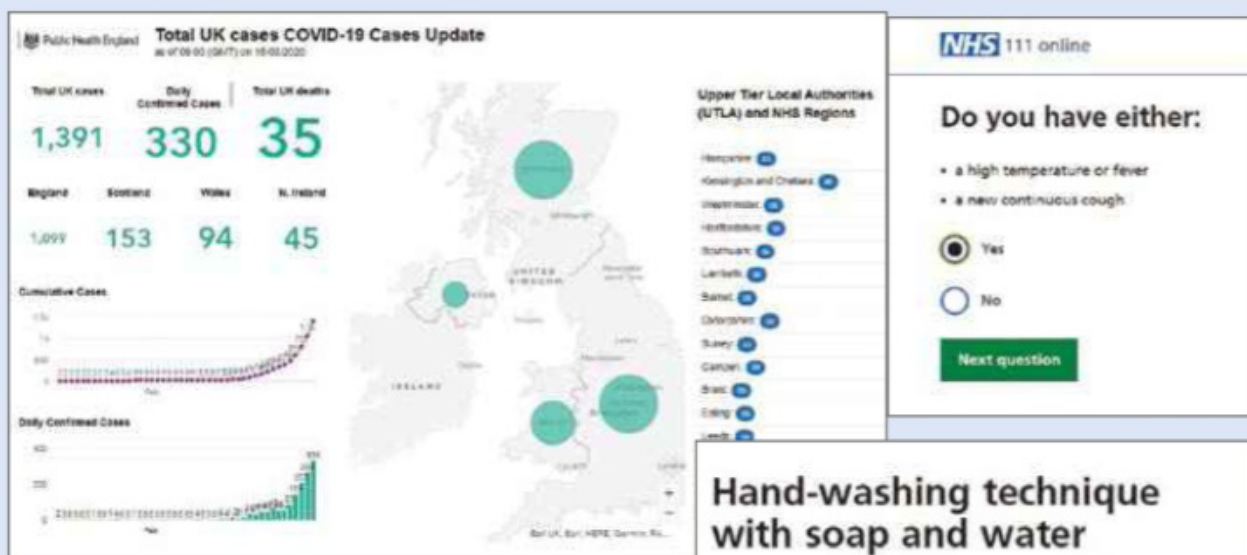
What's New Online

Fight the coronavirus using the web

Now that the spread of the coronavirus, COVID-19, has been declared a pandemic, it's important to keep up to date with the latest advice. Google is leading the way by placing key stories about the disease at the top of its search results. This is followed by important government and NHS websites, and a map of the affected areas. It has also launched its own COVID-19 information site (www.google.com/covid19).

The best advice is to wash your hands for 20 seconds, or for as long as it takes to sing Happy Birthday, but if you're fed up with that ditty, you can use other tunes to accompany your ablutions. Enter the name of a song and artist into Wash Your Lyrics (washyourlyrics.com) for a downloadable infographic showing a hand-washing technique to fit.

To get help with the other top virus-



proofing tip, which is to stop touching your face, go to donottouchyourface.com, allow access to your webcam and the machine-learning algorithm will kick in and view you via an open tab or minimised window. You'll be alerted every time you touch your face.

To help you stay informed about the number of reported cases and deaths, Public Health England has created a UK-wide dashboard, broken down by

region (bit.ly/dashboard498).

What's more, the NHS has updated its 111 site with an online coronavirus assessment.

bit.ly/nhsonline498

Transfer your Facebook photos to Google

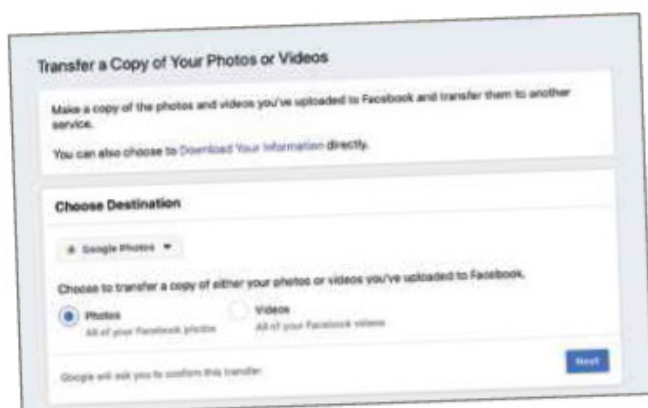
www.facebook.com

Whether you've decided to leave Facebook or merely want to create a backup of the photos that you have stored in your account, the social network has now made it easier to transfer images to Google Photos. It has devised a new tool as part of the Data Transfer Project, an open-source initiative designed to allow your digital assets to be moved between platforms.

Simply click the down arrow in Facebook's top-right corner, select Settings and choose Your Facebook Information in the left-hand column. From there, click

'Transfer a Copy of Your Photos and Videos' and select Google Photos from the drop-down Choose Destination menu. You'll need to transfer copies of images and videos separately, and

the process requires you to enter your Google password. The data will be encrypted while it's sent across.



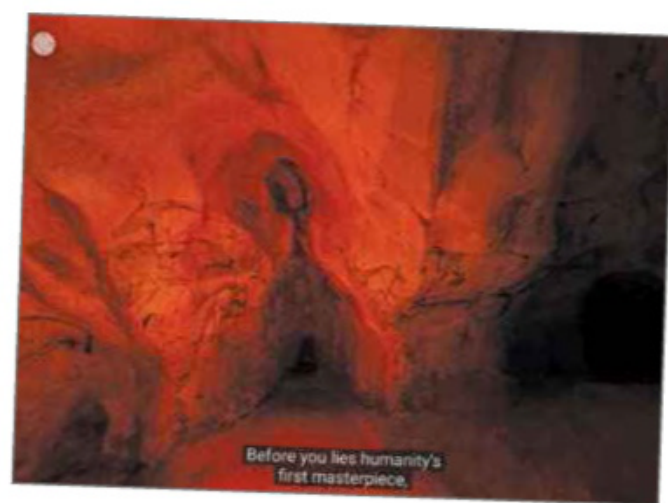
Explore a prehistoric cave

bit.ly/cave498

Containing some of the world's best-preserved figurative cave paintings, the prehistoric Chauvet-Pont-d'Arc in Southern France is a fascinating art gallery dating back 36,000

years. By launching this tour on your phone and popping it into a Google Cardboard device, you can spend 10 atmospheric minutes exploring the cave in virtual reality, accompanied by a hushed narration from Daisy Ridley.

If you don't have Google Cardboard, you can still search Google for Chauvet Cave on your phone before tapping 'View in 3D' to get up close to the stunning frescoes via augmented reality. Once done, check out the richly detailed website with its brief history of the cave, behind-the-scenes videos, mini quizzes and studies of specific objects. There's also information about how experts found the cave in 1994 using a mosquito coil and a study of how this prehistoric art has inspired and influenced modern works.



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

Enjoy an interactive BBC story

bit.ly/bbcstory498

This new interactive tale from the BBC's Writersroom unfolds over a series of text messages between you – a pop-star manager – and one of your key acts. You have to work out what is troubling the act and persuade him to take to the stage, with the character responding to your messages, throwing in some images and steering the – somewhat silly – story into different directions.



View aerial WWII imagery

bit.ly/aerial498

Using more than 24,000 aerial photographs taken by the Royal Air Force, this historic collection provides a snapshot of London in the immediate aftermath of World War II.



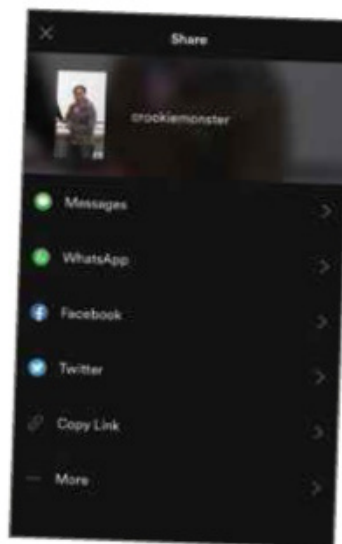
It lets you move across the capital using a mouse or trackpad, or search for a location to

see how it looked 75 years ago. As you explore the city, you'll spot incidences of bomb damage from the Blitz and can zoom in for a closer look. There are also markers providing historic facts about specific locations and a link to a video showing how the aerial photos were taken.

Customise your Spotify profile

www.spotify.com/uk

Spotify is finally letting you update your profile photo using your Android or iOS phone or tablet, provided the image that you use doesn't violate anyone's copyright. Just go into the app's settings, tap View Profile and select the Edit Photo link, which permits uploads of up to 10MB in JPEG or PNG format. You can also select Edit Profile to change your display name or tap the three dots in the top-right corner to share your profile with others. The same options are available in the Spotify desktop app.



NEW VOICE COMMANDS

Have the web read aloud

Say "Hey Google, read it/read this page" when browsing the web on an Android device and Assistant will read aloud the article you're viewing. The page auto-scrolls and you can alter the reading speed.

Find YouTube videos

To configure Siri to find a YouTube video you want to watch, open the YouTube app, tap your profile icon and go to Settings, Search YouTube With Voice.

Get Six Nations info

With Six Nations rugby matches postponed due to the coronavirus, you can find the latest info by saying: "Alexa, ask Guinness Six Nations what just happened?".

+ Add games to a wishlist

www.epicgames.com

The Epic Games Store now lets you add titles to a wishlist by clicking the heart button by the purchase price. There are plans to send email notifications when titles are discounted or when pre-ordered games become available.

Share your subscription login

donotpay.com

DoNotPay, the 'robot lawyer', has created a Chrome extension that lets you share your login for subscription services such as Netflix without revealing your details. You need to download it from outside the Chrome Web Store.

Turn the Play Store dark

play.google.com/store

The Google Play store app now has a dark mode, which you can apply by going to Settings, Theme and selecting Dark. It activates by default if you have set a system-wide Dark Mode. See our feature on page 48 for more dark-mode tips.

View websites that have vanished

brave.com

If you come across an unavailable web page while browsing with Brave, it will now show an archived version from the Wayback Machine. When the browser detects 404 errors and other error codes, it displays a notification which, when clicked, lets you view past snapshots of a page. It's certainly much easier than manually pasting URLs into archive.org.





Need to Know

Coronavirus pandemic spreads fake news, scams and malware

What happened?

Scammers, spammers and spreaders of fake news have leapt on the coronavirus crisis, proliferating dodgy text messages and emails, hoax posts and videos, and other misinformation to flood inboxes and social media.

As well as messages from scammers and well-meaning but ill-informed individuals, certain nations have been accused of generating sophisticated misinformation. A report from the *Financial Times* suggested a series of text messages spread throughout the US purporting to be from “a friend of a friend in the FBI” or a “brother in law in the military” were probably sent by operatives in Russia and China looking to cause chaos and confusion.

Such messages, some suggesting the UK government will completely lock down the country, may be driving panic buying and stockpiling. Other versions of the messages suggest cures or preventative measures, such as drinking water constantly or gargling with salt water. Whether this advice comes from Russian spies or from a well-meaning friend, the information is false and won't prevent infection. The only measures to avoid the coronavirus are social distancing and regular handwashing.

Other posts are a more obvious con, selling cures and treatments for COVID-19 or suggesting products that insure against infection, such as vitamins and teas – none of which will have any positive effect against the virus. Such ads are already being targeted by the authorities and social networks.

Meanwhile, hackers – who often



capitalise on times of chaos and disruption – have been sending messages that link to malware-infected sites or have dangerous files attached. If you're working from home, be sure the email from HR is what it says it is before clicking the link and entering your logins.

How will it affect you?

If you don't know the original source of a message, don't forward it. It may seem helpful to share a screenshot of text purporting to be from someone's friend whose mum works in the NHS but you should only do so if you're certain the information can be trusted. In these times, false information can be a danger to health and add unnecessarily anxiety.

So how do you spot a dodgy message? Verify any claimed source – if the message quotes, for example, “Cambridge doctors”, check the University of Cambridge website. Alternatively, perform a quick online search of the information and see if it matches official guidance from the World Health Organisation or NHS. You can also look up the details on fact-checking websites such as Snopes (www.snopes.com) or Full Fact (fullfact.org), which verify viral content and news stories.

Some scams are easy to spot: if a post or message offers a cure, it's fake; if it's selling a protective product, that's a lie. In Iran, dozens of people have died of alcohol poisoning after drinking bootleg

alcohol that claimed to cure COVID-19; and in the UK, there have been arrests of scammers selling snake-oil solutions.

None of this means that you shouldn't share memes with family and friends to lighten the current grim mood, or avoid sending useful updates and advice to people in your networks. But ensure the original source is trustworthy before you hit Send, or you risk spreading disinformation.

What do we think?

The COVID-19 pandemic has highlighted plenty of flaws in our society, and that includes the spread of fake news and the abuse of communication tools for spamming and scamming – that's true even in non-pandemic times. We're too eager to share without first checking the source, which is why fake news and scams spread all too easily.

Tech giants could also do more to suppress the worst of such behaviour. Twitter has started banning false health information on the site – it's a shame it took a pandemic for the social network to see this an issue worth addressing.

But it's also down to us: we all know to ask doctors for health advice, not random people on the internet. Do your best to discourage friends and family from spreading such messages, and don't do it yourself. Instead, share links and information from verifiable, trustworthy sources – not a friend-of-a-friend's brother-in-law who knows a guy.



Fullfact is exposing the truth behind fake news about the coronavirus

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

Microsoft reveals changes to Windows 10

What happened?

Microsoft has announced that Windows 10 is now installed on a billion devices worldwide – two years later than it initially hoped to hit that milestone – and has revealed some new design changes to the operating system.

The redesign isn't major, but will pull together the missing bits and pieces of Windows 10 that don't yet match its overarching design scheme, which is known as Fluent UI.

In practice, that means bolder icons, a new File Explorer and a revamped Start menu that features Live Tiles that match the background image of your Desktop and your light or dark theme.



Alongside the design tweaks, Microsoft is also expected to unveil a new subscription service for Office 365 that bundles in a password manager and its collaboration software, Teams.

How will it affect you?

Microsoft was set to hold its Build 2020 event at the end of March to discuss the next

update to Windows but, due to the ongoing disruption from the coronavirus, the launch will be held online.

The expected changes are small but will make Windows feel fresher without introducing any challenges to using the operating system – you shouldn't have to learn anything new because these design updates are just a fresh lick of paint on the

software. The biggest change is perhaps the new File Explorer, which has some new icons and a more minimalist design, but that, too, should remain simple to use.

What do we think?

These latest changes to Windows 10 look simple but helpful. The bolder icons look well designed for upcoming Windows 10X touchscreen devices, while continuing to suit desktop users; and the new Office 365 software subscription looks better streamlined for home users, integrating Microsoft's office suite, Teams and password manager in one place. We'll be keeping a close eye on the price, though.

Android to get AirDrop-style file sharing

What happened?

Android 11 looks set to introduce a new file-sharing tool similar to Apple's AirDrop, which lets you drag and drop a file such as a photo or a document directly to a nearby friend's device. The feature was spotted in the release notes for a developer preview of the upcoming release of Android 11.

The full details of the tool are unclear, but it's likely to be called Fast Share or Nearby Sharing, and will let you share files with other people over Wi-Fi, then get a confirmation via Bluetooth. The notes mentioned the tool because of a bug spotted

in it, but Google hasn't yet confirmed the feature, so it remains to be seen if it will indeed be included in the next Android release expected this September.

How will it affect you?

File sharing via Wi-Fi isn't new. A version of this idea was originally offered via Android Beam, a tool that has since fallen by the wayside. Apple has long offered file sharing via AirDrop, while Huawei has its own version, too.

As the feature hasn't officially been announced, it's unclear when it will appear, but we expect it to be included in the next version of Android 11, and it will hopefully be backwards-

compatible with other Android devices. If it does arrive, it'll make it easier to send a file to someone without having to use email or a messaging app, which is especially helpful for larger file sizes.

What do we think?

There's not much that Android is missing, so it's good to see Google filling the gaps in its mobile operating system. The file-sharing tool isn't likely to be a game changer for most Android



users, because there are already plenty of ways to share files these days. However, extra tools that make life easier are always welcome. It's also more useful than certain trendy features that developers like to include, such as animated emoji. It's always good to see a practical feature getting attention.

5G ruled safe by top scientific watchdog

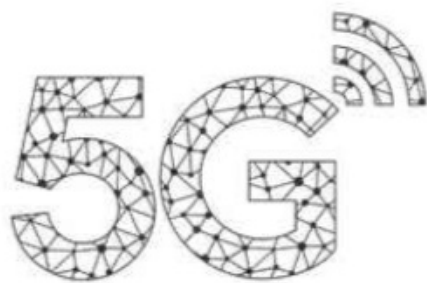
What happened?

Remove your tinfoil hats, folks – 5G is safe. That’s according to the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

For the first time in over 20 years, the German scientific body tasked with assessing radio-broadcast health risks has updated its guidelines limiting radiation exposure (bit.ly/guidelines498).

Dr Eric van Rongen, chairman at the international watchdog, explained: “We know parts of the community are concerned about the safety of 5G and we hope the updated guidelines will help put people at ease. The guidelines have been developed after a thorough review of all relevant scientific literature, scientific workshops and an extensive public consultation process. They provide protection against all scientifically substantiated adverse health effects due to EMF exposure in the 100kHz to 300GHz range.”

‘5G is safe’ has been the message for a long time but, despite this, concerns (and wild conspiracy theories) have grown as 5G rolls out globally. Many believed the new frequencies were causing health problems. Notably, in January, the charity Electrosensitivity UK was admonished by the Advertising Standards Agency (ASA) for running scare-mongering posters asking ‘How safe is 5G?’ (bit.ly/asasafe498). The



agency ruled that “we did not consider that the evidence demonstrated that 5G signals caused negative human health effects and therefore considered that the ad was misleading”.

Existing ‘conservative’ limits, set in 1998, remain in place. Indeed, the ICNIRP says that 5G remains safe even under the original guidelines, but it’s updated them for added peace of mind.

How will it affect you?

If the ICNIRP knows its onions, then 5G should have no ill effects at all and you’ll be able to enjoy its faster speeds without fear of health risks. Ofcom, which is currently testing 5G sites, believes that radiation emissions are “a small fraction”, with the highest

reading just 1.5% of the maximum level.

If you’re a crusader against fake news, you might like to bone up on the body’s guidelines, to counter misinformation from conspiracy theorists.

What do we think?

5G fears are understandable but we’ve seen the same technophobic lines trotted out before: Wi-Fi, 3G, 4G and even microwave ovens have, in the past, come under fire for being harmful to our health. However, whipping up worries is no good for anyone. If there are genuine concerns, we’d like to hear them from professionals like the ICNIRP. It makes little sense, after all, for mobile phone companies to knowingly irradiate their customer base.



FIRST LOOK

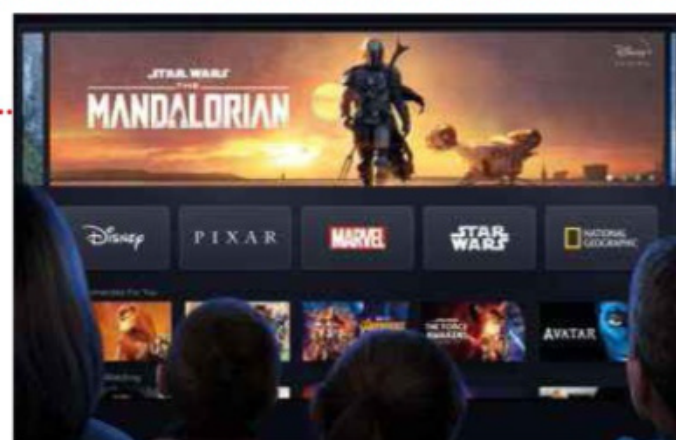
Disney Plus disneyplus.com

Disney Plus, the much-touted new streaming service, has finally arrived in the UK, letting you stream (or download and watch offline) a vast line-up of new and classic films and TV series, including movies from the Pixar, Star Wars and Marvel stables. National Geographic gets its own set of shows, for fact-based fun, and you can binge-watch *The Simpsons* and the exclusive weekly TV show *The Mandalorian*. Expect more Disney Plus Originals, in the vein of Netflix, later down the line, because that’s exactly what Disney Plus is: Netflix with Mickey Mouse ears.

Using Disney Plus is simple, especially since Disney seems to have copied Netflix’s interface almost

entirely. The banner at the top promotes the latest shows, while specific categories for Pixar movies, Disney films and so on are positioned below. If you scroll down further, you’ll find your recommended listings which, as with Netflix, are based on your previously watched shows.

Where Disney Plus excels is in its huge and unrivalled library. There’s some filler in the line-up, but it’s more than compensated for by the gems – over a thousand movies, series and shorts. Name your favourite Disney film and it’s probably there. Where supported, and if you have a decent TV, 4K HDR automatically displays. The service can be watched on your computer, mobile phone, tablet and games console, and via Fire Stick and Chromecast, and selected smart TVs.



The biggest draw to Disney Plus is price – at £5.99 per month (or £59.99 for the year), it’s one of the cheapest streaming options, outside of Netflix’s stingy Basic package and the still-underwhelming BritBox. Moreover, you can add seven different profiles, which should cover everyone in your home and a few outside.

Evidently, the big cheeses at the House of Mouse have checked the competition and stepped it up a level. You’d expect no less from the Magic Kingdom.



WHAT'S THE RUMOUR

Will the coronavirus break the internet?

With the country on voluntary (at the time of writing) lockdown, we're using the web more than ever before. Streaming sites and gaming servers have seen massive spikes as the nation parks itself in front of PCs and TVs to sit out the pandemic, while Amazon has begun prioritising 'essential stock' over the usual items in our shopping baskets, and online deliveries have been slowed, which means your best plan is to book your shopping three weeks in advance.

Some fear that the increased level of usage will cause a strain that the internet can't handle, which is why officials in the European Union have already met with Netflix bosses. The result: Netflix – and later YouTube, Amazon and Apple – said they were downgrading video quality.

EU Commissioner Thierry Breton said: "streaming platforms, telecom operators and users, we all have a joint responsibility to take steps to ensure the smooth functioning of the internet during the battle against the virus propagation".

So, will the coronavirus break the internet? Broadband providers say no. Contingency plans have already been drawn up should demand for the web massively increase. The biggest providers all believe that even during peak times, when demand is 10 times higher, they're well-equipped to manage



activity. Playing it cool, Virgin Media claimed not to have seen "any significant network traffic spikes" at all.

LIKELIHOOD RATING



Unfunny memes and fake news (see page 8) will kill off the web long before increased usage will, and the internet's infrastructure is designed to grow as we globally connect. However, you might still be affected. Mark Jackson, editor at ISP Review, reckons that "some slowdown in speed during periods of truly heavy usage is possible. I'd expect this to be fairly limited, and that's true even in normal times". We're not heading back to the dial-up dark ages just yet.

↑ WEBOMETER ↓

WE LIKE...

↑ Track the coronavirus with Bing

Microsoft has launched an interactive Bing map to provide information about the spread of COVID-19 (bing.com/covid). The map shows the number of confirmed cases worldwide, and data broken down by country, as well as the latest news.



↑ Calculate your toilet-roll needs

A new online tool lets shoppers calculate how much toilet paper they actually need, to help prevent overbuying during the coronavirus pandemic. Simply specify the number of rolls and frequency of toilet visits at howmuchtoiletpaper.com.



WE DON'T LIKE...

↓ No free broadband during COVID-19 crisis

UK internet providers are resisting calls to provide free broadband during the coronavirus crisis, which could help people aged over 70 video-chat with relatives while self-isolating and allow students to continue their classes online, at no cost.



↓ Carphone Warehouse shuts up shop

Carphone Warehouse is to close all 531 of its high-street stores, resulting in 2,900 redundancies. The company said the decision is not related to the coronavirus outbreak, but to a changing mobile market. PC World and Curry's are not affected.



What's new on Kickstarter

Our favourite new project on the crowdfunding site

Sia

bit.ly/sialamp498 | From £129

Sia is a traditional lamp with a modern twist that's designed to complement your mood. It's loaded with 24 'effects' configured via your smartphone. Bit of blue? Can do. Flickering flames? You got it. The novel collection includes fireflies and forest greens, lava, paintball and – for the daring and deranged – the Insanity theme. Or you can use the app to mix your own rainbow combo to suit your tastes. There's also a customisable alarm that mimics the gradual, soft glow of dawn. Pledges start at £129 for the lamp or £285 for the twin-pack.



Stay Safe Online

News about the latest threats and advice from security experts

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

Data of 8 million shoppers leaked online

A database containing the details of more than eight million European shoppers was left unsecured for at least five days, compromising the personal and financial details of mostly British customers.

The database, hosted on Amazon Web Services, belonged to a third-party vendor who had collected sales data from several big companies including Amazon, eBay and PayPal. It was discovered on 3 February by a research team at Comparitech, who said the database had no password or other authentication set, and contained such information as customer names, email addresses, contact numbers, purchase details, delivery addresses and the last four



digits of payment-card numbers.

Once notified, Amazon identified the database's owner and it was taken offline on 8 February. "As soon as we were made aware, we ensured the third-party developer took immediate action to remove the database and secure the data," said a spokesperson. "The security of Amazon's systems was not compromised in any way."

bit.ly/comparitech498

Security flaws found in password managers

A research team at the University of York discovered several severe flaws in nearly half of the password managers it tested. The researchers created a malicious app that was a mock-up of a legitimate Google app and presented it to various password managers to see if they would fall for the lookalike. The spoofed app tricked two of five password managers into presenting the Google app's password.

Although the research team did not identify the password managers that failed the test, the 40% failure rate is nonetheless alarming. If a hacker were to trick a user into downloading the app through a phishing email or other medium, it's highly likely that they would be able to steal passwords quite easily. The researchers also found that some of the password managers did not limit the number of times one can attempt the master PIN or password, which would allow a brute-force attack to crack it in as little as 2.5 hours.

We'll be reviewing password managers in our next issue.

bit.ly/password498ö



Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT:
Anton Ivanov, malware analyst at Kaspersky
(www.kaspersky.co.uk)



Q Is the coronavirus being exploited by cybercriminals to spread malware?

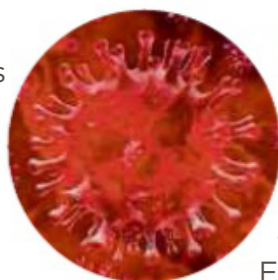
Jason Peters, Facebook

A As news about the coronavirus spread continues to dominate the headlines, attackers are looking for opportunities to use it for malicious purposes. This is

a very dangerous practice, as it exploits people's concerns for their health and the safety of their loved ones to pressure them into falling for a trick.

Kaspersky researchers have detected malicious files that were masked under the guise of PDF, MP4 and DOCX files about the coronavirus. The files' names implied that they contained instructions on how to protect yourself from the virus, updates on the threat and even virus-detection procedures, but they actually contained threats to users' devices.

Some of the malicious files



“ Attackers are exploiting people's concerns for their health and the safety of their loved ones ”

are spread via email. For example, an Excel file distributed via email under the guise of a list of coronavirus victims allegedly sent from the World Health Organisation (WHO) was in fact a Trojan-Downloader, which secretly downloaded and installed another malicious file.

There are some simple steps that can be taken to reduce the cyber-risks associated with coronavirus.

- Carefully study the content of the emails you receive and

only trust reliable sources. If you are promised a vaccine for the virus or some magic protective measures, the message has most likely come from cybercriminals.

- When downloading files, pay attention to the file extension. Do not download the file if it has an '.exe' suffix.
- Use a reliable security solution for comprehensive protection from a wide range of threats, such as Kaspersky Total Security.

CTRL your web business and **SHIFT** projects from good to great. **DEL** time-intensive administration and access management. **ESC** from long working nights with cold pizza. Your **ALT**ernative: The **IONOS Partner Program** for agencies, developers and designers.

[**www.ionos.co.uk/partner-program**](http://www.ionos.co.uk/partner-program)



★ Best New Websites

Site of the Fortnight

ENTERTAINMENT

RELAUNCH

Den Of Geek

www.denofgeek.com

For the past 13 years, Den of Geek has entertained visitors with its friendly and insightful coverage of popular culture. It delves deep into film, cult television, games, books and comics, not only via well-written articles but video, too. Thanks to a clean redesign and better content promotion, all this great content gets the treatment it deserves. Clearer tags and sections make it easier to navigate the latest stories and videos, and there are fewer intrusive ads, too. It's worth noting that the UK-US split has been axed in favour of a single site, which won't suit everyone, but the improved mobile formatting should win new fans.

Our rating



Newsletter

Get the best of Den of Geek delivered right to your inbox every day!

Our newsletter delivers the hottest pop culture news to you every weekday. Stay ahead of the curve on Movies, TV, Games, Comics and way more! Plus, you'll always be prepared for weekend binge-watching with our weekly streaming guides every Friday.

We're entertainment experts, and with our newsletter you'll be one too!

Join our mailing list

Get the best of Den of Geek delivered right to your inbox!

Your email address

NEWSLETTER

Sign up to receive daily entertainment news along with a streaming guide

LATEST CULTURE VIDEO



VIDEOS

As well as articles, there are lots of videos that are now better integrated with the site

SUBSCRIBE

GAMES

Is This the E

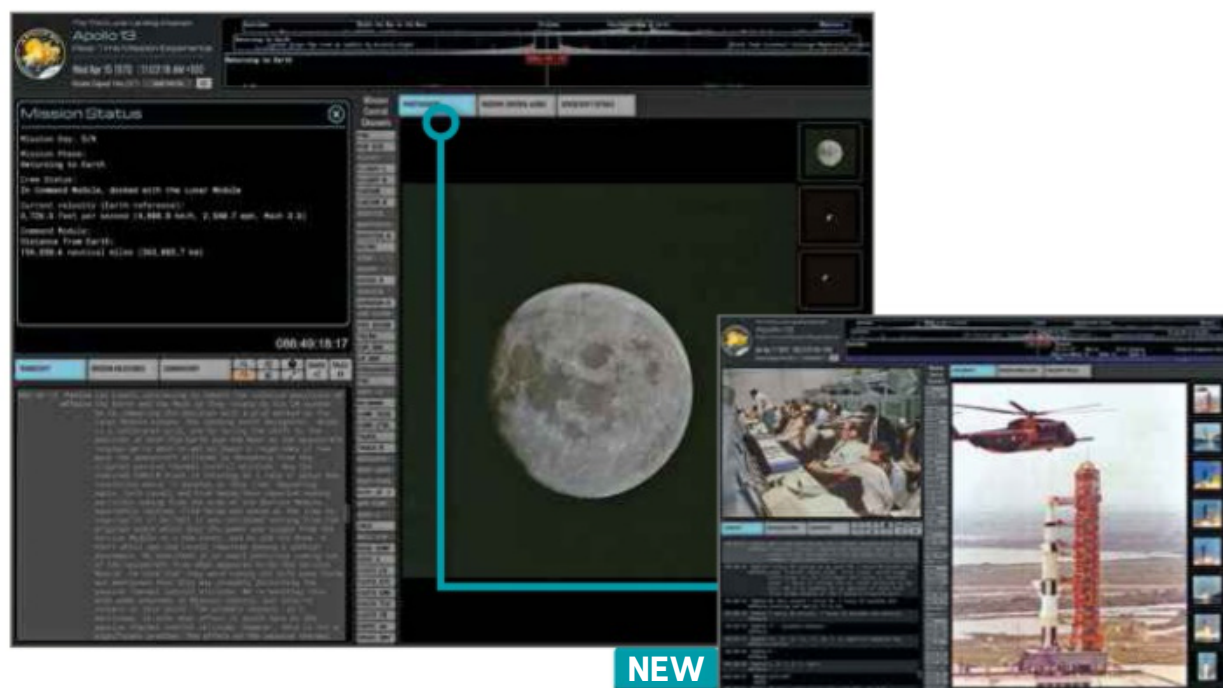
By Matthew Byrd



MOVIES

Lost Girls Review: Netflix Takes on the Long Island Serial Killer

By Rosie Fletcher



NEW

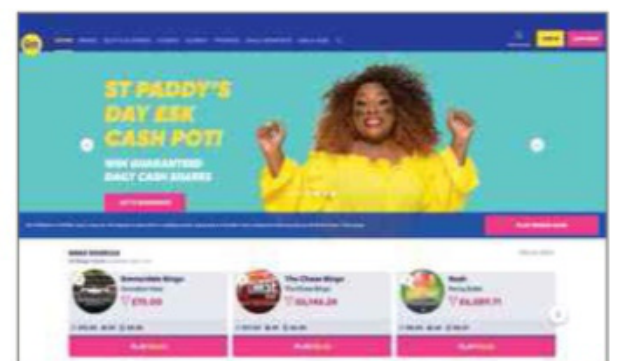
SPACE

Apollo 13 in Real-Time

apolloinrealtime.org/13

Last year, a website launched that let you replay the Apollo 11 mission via audio, photos and film footage. Now its creator, Ben Feist, has worked his magic on a similar project for the troubled Apollo 13 mission. As before, you can view mission control and on-board film footage along with space-to-ground audio, images and press conferences in real-time. There's a full transcript with tabs for mission milestones and commentary, and you can jump to a minute before launch or to the moment things went wrong, to get right into the action from the start. All options are spread across a busy interface, immersing you into feeling part of the mission control team.

Our rating



RELAUNCH

GAMBLING

Gala Bingo

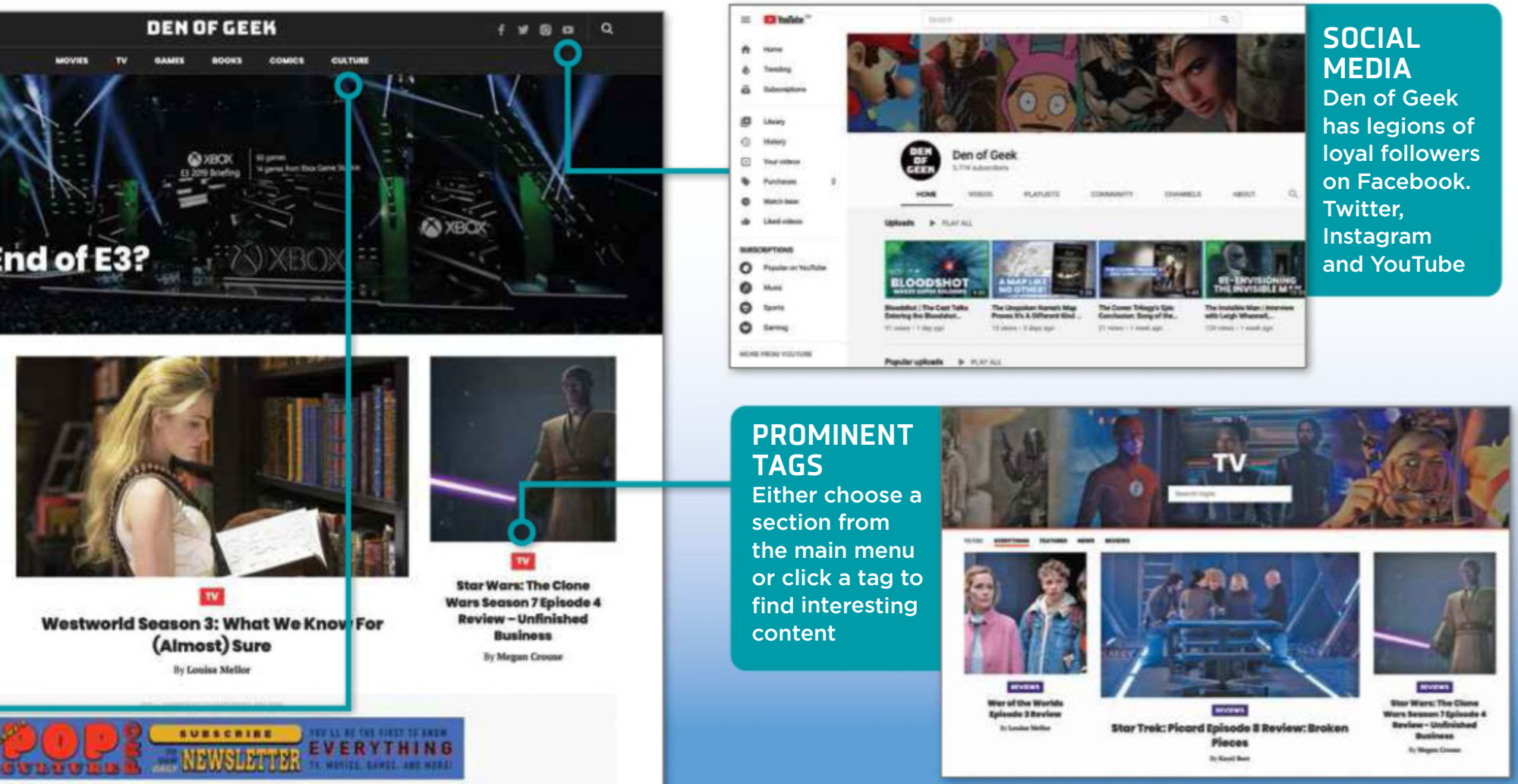
www.galabingo.com

Gala Bingo has gone for a major redesign and the gamble looks to have paid off. While it's lost some of the unique flavour of the previous site, it now has a cleaner look (complete with a new logo) and simpler navigation. If you were a regular visitor before, you may initially have trouble finding your favourite games, which are now neatly sectioned under categories such as New and Most Popular. Available bingo rooms are also prominent and there's a link to promos. If you don't fancy playing, you can scroll down and click the news link to read some fun articles to pass the time.

Our rating



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



SOCIAL MEDIA
Den of Geek has legions of loyal followers on Facebook, Twitter, Instagram and YouTube

PROMINENT TAGS
Either choose a section from the main menu or click a tag to find interesting content


RELAUNCH

EVENTS

The Comedy Store

thecomedystore.co.uk

We could all do with a laugh right now so why not pay a virtual visit to The Comedy Store? The websites for both the London and Manchester venues have been redesigned, listing forthcoming events and allowing you to secure tickets in a few clicks, though at the time of writing all shows were suspended due to the coronavirus. The booking process includes options for pre-ordering food and drink, with all menus are available to view. We suggest clicking More on the London site to learn about the company's history – it's short on jokes but an informative read showing archive images.

Our rating


NEW

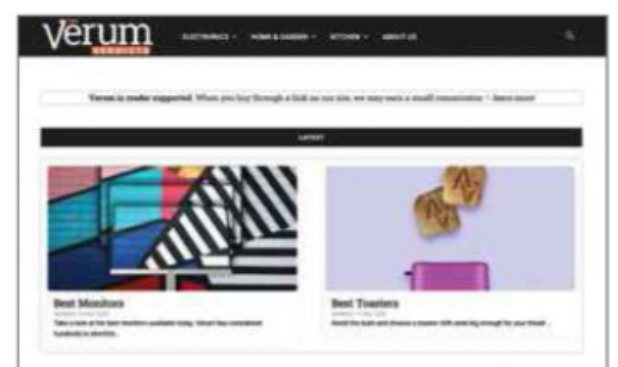
HISTORY

Witches of Scotland

www.witchesofscotland.com

Thousands of Scottish women were executed between the 16th and 18th Centuries under the Witchcraft Act and a drive is now underway to give them a posthumous legal pardon. This site not only explains the campaign but goes into detail about the laws, the witch trials and the terrible plight faced by the accused women. Although it's short on imagery, the texts bring the period alive and there's a podcast that interviews people about the historical context. Sign up to support the campaign and receive regular updates, and explore the list of sources for further information.

Our rating


NEW

REVIEWS

Verum Verdicts

verumverdicts.com

Rather than solely rely on questionable reviews on retailer websites, it pays to seek out a more measured opinion. Turn to Verum Verdicts, then, for trustworthy comparisons of consumer electronics, kitchen appliances, and home and garden products, which give a better idea of what to look out for. Rather than direct, hands-on experience, assessments are made based on other reviews, expert opinion and tech specs, a novel approach that works well as a reference point. You're directed to Amazon to make purchases, which is how this delightfully ad-free site generates its money.

Our rating





NEW

COMMUNICATION

Quarantine Chat quarantinechat.com

There's no joy in being socially isolated due to the coronavirus and it's important to maintain a level of contact with other people. Aware that quarantine quashes the pleasure of a spontaneous chat with strangers, two artists have created a tool that works via iOS and Android. As the website explains, it lets you place random calls with other users, hiding phone numbers for safety reasons and working across the internet to keep calls toll-free. It's as easy as entering your phone number and accepting the invitation before downloading the Dialup Audio app to your mobile device. Just be careful not to reveal any personal details.

Our rating



RELAUNCH

HISTORY

The Holocaust Explained www.theholocaustexplained.org

Created with the UK school curriculum in mind, this site goes deep into explaining the causes and consequences of the Holocaust, answering key questions and exploring life before, during and after this dark period of history. The site has added eight video testimonies from survivors (each up to an hour long), and included more images, diagrams and documents. A timeline maps the terrible events, showing a brief snapshot of the current month at the time of the Holocaust. It's a comprehensive and vivid exploration that brings alive those past atrocities so that they are never forgotten.

Our rating



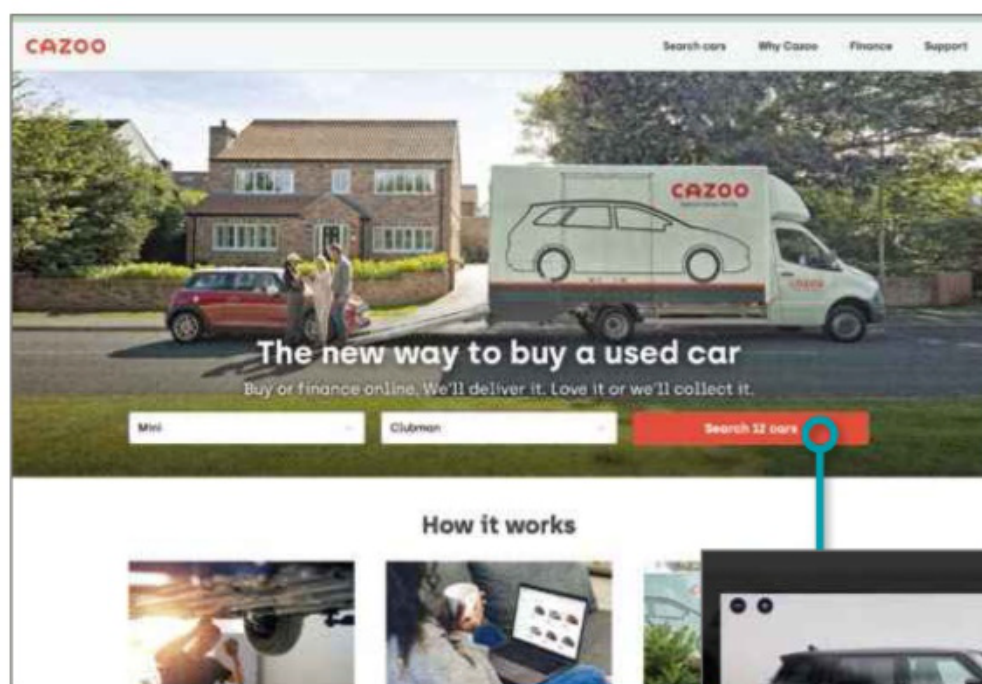
NEW

FOOD

Catering from Pret catering.pret.co.uk

Pret has cooked up a new catering website that lets you easily order breakfast, lunch, snacks and platters from your local branch – for yourself or for a group. With options for collection or delivery (within 0.6 kilometres for orders of £30 or more), you can peruse the online menu, quickly add food to your bag, select a time and day, and check out – thus avoiding the hassle of ordering in-store. All the food listings are accompanied by a nutritional summary as well as ingredients and allergens. As we were going to press, Pret announced that the service is being temporarily suspended due to the coronavirus.

Our rating



NEW

MOTORING

Cazoo www.cazoo.co.uk

Although there's no room for haggling, Cazoo makes buying a used car as easy as searching for its make and model. Select a motor that catches your eye and you can look at the vehicle from all angles, thanks to 360-degree photography. Imperfections are clearly flagged using warning icons which, when selected, show a close-up shot of any problems; and vital stats – including mileage, transmission and reg year – are well-presented. You can even get an instant online offer for a part-exchange, with cars and swaps sorted during a doorstep delivery. It's very comprehensive and we certainly appreciate the seven-day money back guarantee and 150-point inspection for all cars.

Our rating



NEW

RECRUITMENT

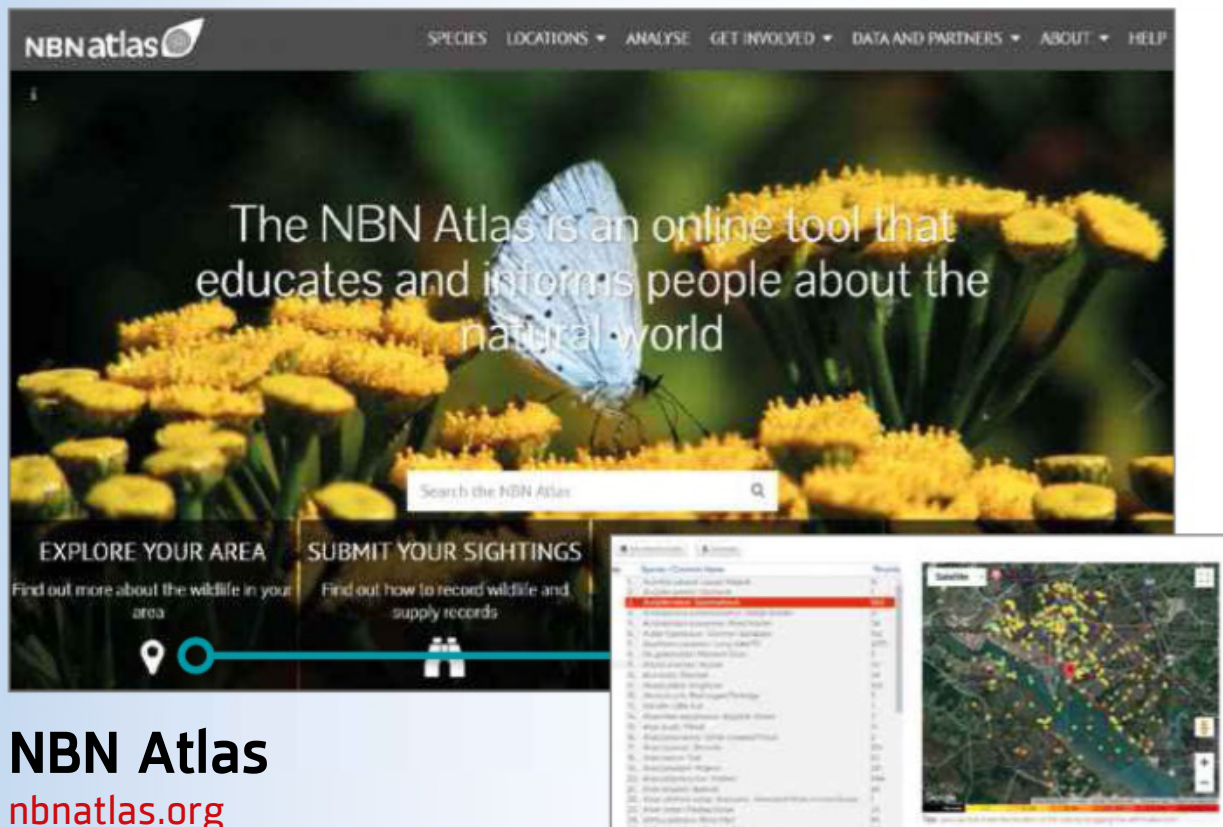
UK Europe Arts Work www.ukeartswork.info

Don't expect any flair from this website aimed at people working in the creative-arts industries – it's a functional offering that sticks to giving solid pre- and post-Brexit advice about work permits, visas, freedom of movement, documents and more. The four main sections offer information from official bodies, displaying links to source reference material and regular updates with explanatory videos. It all adds up to an important if underwhelmingly designed industry resource.

Our rating



ESSENTIAL BOOKMARKS THIS ISSUE: Wonderful wildlife sites



NBN Atlas

nbnatlas.org

Discover the animals, birds and plants living on your doorstep, and contribute your own sightings to this magnificent collaborative project, now the UK's largest free collection of wildlife data. The best (well, most addictive) way to dive into the National Biodiversity Network's 225 million-plus species records is via its interactive maps. Draw or specify an area – or zoom straight into your location – to overlay all current species info. You can then explore and download details in plain (but authoritative) English, along with distribution maps and the annual State of Nature report – all for free. There are more than 100 partner organisations involved, and it's easy to get started: just click Submit Your Sightings and use the free nature-recording tools iSpot (www.ispotnature.org) and iRecord (www.brc.ac.uk/irecord).



UK Butterflies

www.ukbutterflies.co.uk

Butterfly season is almost upon us, so it's time to brush up on your identification skills with this long-established site for 'responsible butterfly enthusiasts' (in other words, those who prefer their butterflies alive). Sections to bookmark for quick IDs are 'Flying this Week' and Nectar Sources, which reveals the species you're likely to see near certain plants. Or you can work backwards from species names (whose origins are explained here) by browsing the superb photo albums, which you're invited to contribute to, along with diaries and forum posts. And no butterfly-lovers' site is complete without a photo competition, so get that camera ready.



Scottish Wildlife Trust

scottishwildlifetrust.org.uk

Watch badgers at play, ospreys nesting and feeding, and deer delicately picking their way through the Clyde Valley – all from the comfort of your computer. Not all the SWT's webcams are live around the clock, but there's plenty of archive video to watch at other times. While there are plenty of other Wildlife Trust websites out there, SWT makes an effort to make its site a destination by itself, rather than just a list of nature reserve opening times (although it has that, too). So as well as watching webcams, you can get involved in conservation, read about rare breeds and even take a 'Which Scottish species are you?' quiz (we're a red squirrel!).



Xeno Canto

www.xeno-canto.org

Stream and download bird calls, booms, caws, whoops and songs, all uploaded by volunteers for this amazing global citizen-science project. Since it began in 2005, Xeno Canto ('canto' from choral music) has grown to host more than 400,000 audio recordings of over 10,000 species worldwide, all free to download and use under a Creative Commons licence. The Explore tab includes an interactive map that reveals which species are prevalent where, then lets you click to hear clips – like a world tour in birdsong! Another must-see section is Mysteries – a huge, active forum where people upload their bird recordings and seek help with identifying them.



Project Splatter

projectsplatter.co.uk

This roadkill database may seem grim, but Project Splatter is an ingenious citizen-science project for tracking and conserve wildlife populations. Founded in 2013 at Cardiff University and run with partners such as Wildcoms (www.wildcoms.org.uk), the site offers ways to submit sightings of creatures who have come a cropper. The data is vital in tracking nocturnal animals such as hedgehogs, whose numbers are dwindling, and allows scientists to work with the DVLA to tackle roadkill hotspots. There are daily updates and downloadable weekly reports via the project's official Twitter feed [@ProjectSplatter](https://twitter.com/ProjectSplatter).

Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

Last call for mobile-first indexing

Google has spent years preparing us for the moment when it starts sidelining websites that don't work on mobile devices, but it seems a deadline has finally been set. A recent blog post on the Google Webmaster Central Blog (bit.ly/mobfirst498) named September 2020 as the time when it will move completely to a mobile-first web crawler. If your site doesn't work properly on a smartphone, make changes now before your updates stop appearing in Google's results.

Get free WordPress hosting

WordPress.com hosts WordPress websites for free but it imposes some limits. If you'd rather have a self-hosted WordPress.org style website for free, there are a few hosts offering the service. 000webhost (www.000webhost.com)



.com) offers 300MB of disk space and 3GB of bandwidth; Byet Internet Services (byet.host) provides 5GB of storage and unlimited bandwidth; WPNode (wpnode.net/free-domain-hosting) lets you have 1GB of fast SSD storage and unlimited bandwidth; and AwardSpace (www.awardspace.com) offers 1GB of storage space and 5GB of bandwidth.

Deal of the Fortnight

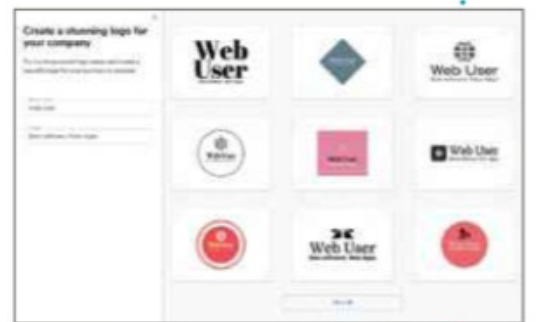
Hover (www.hover.com) is offering deals on some domain suffixes, including 'tech', 'online' and 'design', down from as much as \$49.99 to \$4.99 (around £4.17).

Web-building Helpdesk

Q My website really needs a logo but I'm not a designer. How should I go about creating one?
Gabbie McFarlane, via email

A Lots of logos require nothing more than a well chosen font and a couple of complementary colours – you don't need to get too complicated. However, if you're after something more sophisticated, there are tools available to help.


One of our favourites is Constant Contact's Logo Creation tool (bit.ly/logo498). Click the Create Your Free Logo button, then go through the wizard to come up with a design that you're happy with. You can download the logo at the end.



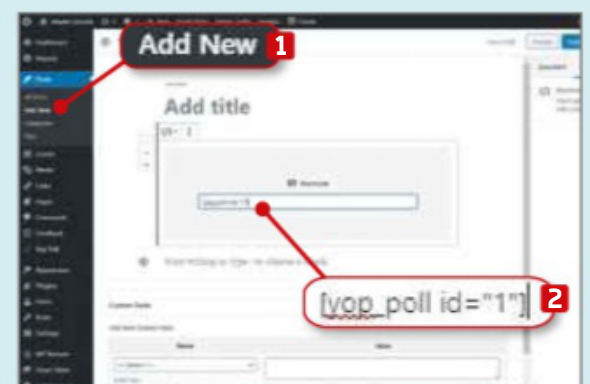
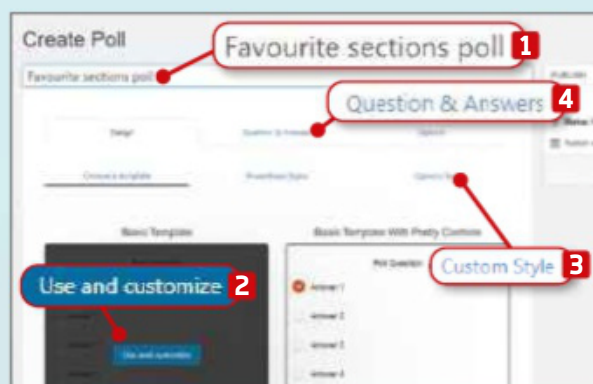
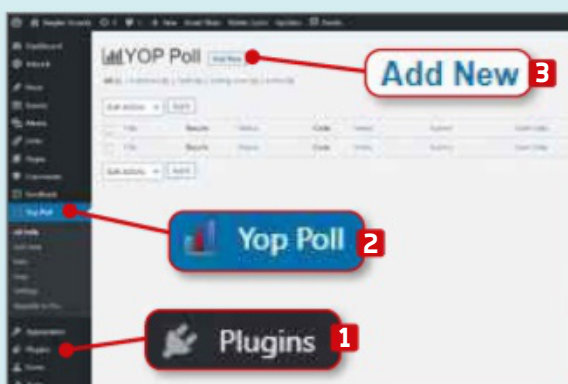
Andy Shaw, Technical & Reviews Editor, Web User



MINI WORKSHOP | Add a poll to your WordPress website

YOP Poll: bit.ly/yoppoll498 |  20 mins | Self-hosted WordPress website

There's nothing more valuable than finding out what your readers think. YOP Poll is a handy WordPress plugin that provides an easy way to get your site's visitors to express their opinion



1 Search for and install the YOP Poll plugin from the Plugins section **1** of your WordPress dashboard, then activate it. A new YOP Poll section is added to your menu. **2** Click it and choose the Add New button. **3**

2 Name your poll **1** and choose a basic template by clicking the 'Use and customize' button. **2** You're taken through the Predefined Styles and Custom Style tabs **3** to further refine the design. Enter your question and add a choice of answers under the 'Question & Answers' tab. **4**

3 Click Publish. You may be told to make some decisions about final details, such as whether results are displayed. Now copy the Shortcode you're given, create a post **1** and add a Shortcode block. Paste the YOP shortcode into the box **2** and publish your post.



Wi-Fi Dead-Zone
Killer



Seamless
Roaming



Connects up to
100 Devices



Easy
Setup



Parental
Controls



Works with all
Deco Models

deco

Whole Home Mesh Wi-Fi System

TP-Link's range of Deco mesh Wi-Fi routers fill your home with high speed and reliable Wi-Fi that's powerful enough to connect up to 100 devices simultaneously. Easy to set up using the free Deco app, seamless wireless coverage has never been easier and includes Parental Controls for additional peace of mind.



Model Name

P9 (3 pack)

Unique Features

Integrates powerline for seamless mesh coverage through the thickest walls

Wireless Speed

AC1200 + AV1000
(Powerline)

Wi-Fi Coverage

Up to 6,000 ft²

Built-in Antivirus



Parental Controls



Shop Now at

amazon



M9 Plus (3 Pack)

Incorporating a Zigbee smart home hub M9 Plus brings many IoT brands under the control of a single app.

AC2200

Up to 6,500 ft²



amazon



M5 (3 Packs)

Deco M5 protects your personal data and every connected device from online threats like viruses and malware

AC1300

Up to 5,500 ft²



Currys PC World



M4 (3 Packs)

Includes Gigabit ports for high speed data transfer.

AC1200

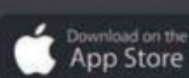
Up to 4,000 ft²



Currys PC World



Download
Deco App on



www.tp-link.com/uk



What To Watch Online

Pick of the fortnight

prime video



Watch digital art come to life in *Tales from the Loop*

From 3 April

For its latest sci-fi drama, Amazon has adapted the extraordinary digital paintings by Swedish artist Simon Stålenhag, whose 2014 art book *Tales from the Loop* imagined a utopia where anything is possible. The live-action show stars Jonathan Pryce and Rebecca Hall as members of a community living above the Loop, a giant machine that unlocks the physical limits of the universe.

Stålenhag created his paintings on a tablet and first published them online in 2013, at www.simonstalenhag.se. So the stories predate *Stranger Things* by a few years but take place in a similar suburban 1980s setting with a group of heroic kids who set out to explore the mysterious forces beneath their feet.

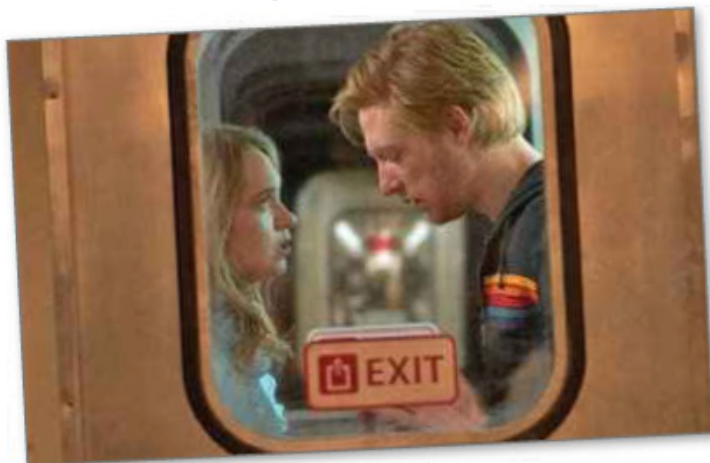
At the ripe old age of 36, Stålenhag has seen his work adapted into a crowd-funded role-playing game (on Kickstarter at bit.ly/taleskick498), printed as bestselling books (bit.ly/stalen498) and, now, turned into the perfect viewing for a world in lockdown.

All eight episodes come to Amazon Prime Video on 3 April, and you can watch the latest trailer at bit.ly/tales498.



Drop everything for comedy thriller *Run*

From 15 April



If your life was in a rut and your old school sweetheart suddenly texted you after two decades with your agreed code to run away together, would you do it?

That's the trigger for HBO's clever new comedy thriller from Vicky Jones, writing partner of *Fleabag* creator Phoebe Waller-Bridge. Waller-Bridge produces *Run* and plays a supporting role, but the script is by Jones. Starring as the text-crossed lovers are Merritt Weaver (Netflix's *Unbelievable*) and Domhnall Gleason (*Harry Potter*'s Bill Weasley).

Run airs weekly on Sky Comedy, so you can stream it on-demand with a Now TV Entertainment Pass (£8.99 per month, bit.ly/nowent498). We're already hooked by the trailer: bit.ly/runtrail498.



Survive the apocalypse in *The Walking Dead: World Beyond*

From 13 April

The Walking Dead: World Beyond is the latest spin-off from the show that refuses to die, this time focusing on the first generation to grow up during the zombie apocalypse. Julia Ormond stars as political leader Elizabeth, alongside a cast of young newcomers.

Watch the teaser trailer at bit.ly/



[beyond498](https://bit.ly/beyond498), then catch new episodes weekly via Amazon Prime Video, a day after they air on US network AMC. Seasons 1-8 of the original *TWD* are still included with Prime, too (bit.ly/twdprime498), along with Seasons 1-4 of *Fear the Walking Dead* (bit.ly/fear498). The latest seasons of both shows are available to rent via Amazon.



Watch second series of *Arrow* and *Legends of Tomorrow*

From 1/2 April

A brace of DC superheroes has returned to Now TV to save the day. New seasons of *The Flash* and *Supergirl* have just arrived (watch their latest trailers at bit.ly/flash498 and bit.ly/supergirl498), and hard on their super-heels are *Arrow* and *Legends of Tomorrow*.

The final season of *Arrow* arrives on 1 April, starring Stephen Amell as Green Arrow, aka billionaire playboy Oliver Queen. Watch the latest trailer at bit.ly/arrowtrail498, then stream new episodes via Now TV at bit.ly/arrow498.

Then, on 2 April, comes *Legends of Tomorrow* Season 5, starring

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



Arthur Darvill as time-travelling rogue Rip Hunter. Watch the latest trailer at bit.ly/legends498, and stream new episodes at bit.ly/tomorrow498. All seasons of Now TV's DC shows are still available to stream in full.

Watch Apple's crime mystery *Home Before Dark*

From 3 April

Apple's latest original show dramatises the true story of Hilde Lysiak, a young reporter who uncovered the truth about a long-buried murder case before



she'd even reached her teens. You can watch the trailer for free on Apple TV+ at bit.ly/home498, which hints at an engrossing drama with nine-year-old Brooklyn Prince proving smart and likeable as Hilde.

The first three episodes of *Home Before Dark* arrive on Apple TV+ on 3 April, with seven more arriving weekly. A second season has already been confirmed.

Watch the new *Red Dwarf* film

From April

Dave (the channel) won't confirm when in April its new *Red Dwarf* film will arrive, but we couldn't resist mentioning it anyway – especially now that

its official 'Coming soon' clip has arrived to tease us at bit.ly/dwarf498.

The poster for 90-minute special *The Promised Land* heralds the return of Norman Lovett as senile supercomputer Holly, largely absent since Series 8 (1999). Lister (Craig Charles), Cat (Danny John-Jules), Kryten (Robert Llewellyn) and Rimmer (Chris Barrie) are all back, too. The film will air on Dave, so you can stream it on-demand via the UKTV Play website (uktvplay.co.uk). It's free to watch, but you will need to register and put up with adverts.



In case you missed it...

Former *Bake Off* hosts Sue Perkins and Mel Giedroyc make their sitcom debut in Sky One's *Hitmen*, playing best friends who happen to kill people for a living. Six

half-hour episodes arrive weekly via Now TV and Sky Q (www.sky.com/watch/hitmen).

Channel 4 has snapped up Fox's hit animated comedy *Duncanville*, created by Amy Poehler (*Parks and Recreation*) and Mike Scully (*The Simpsons*). YouTube has a great 'first look' featurette about the show, which takes us into the fantasy-



filled brain of 15-year-old Duncan, at bit.ly/duncan498. Stream new episodes weekly via All 4.

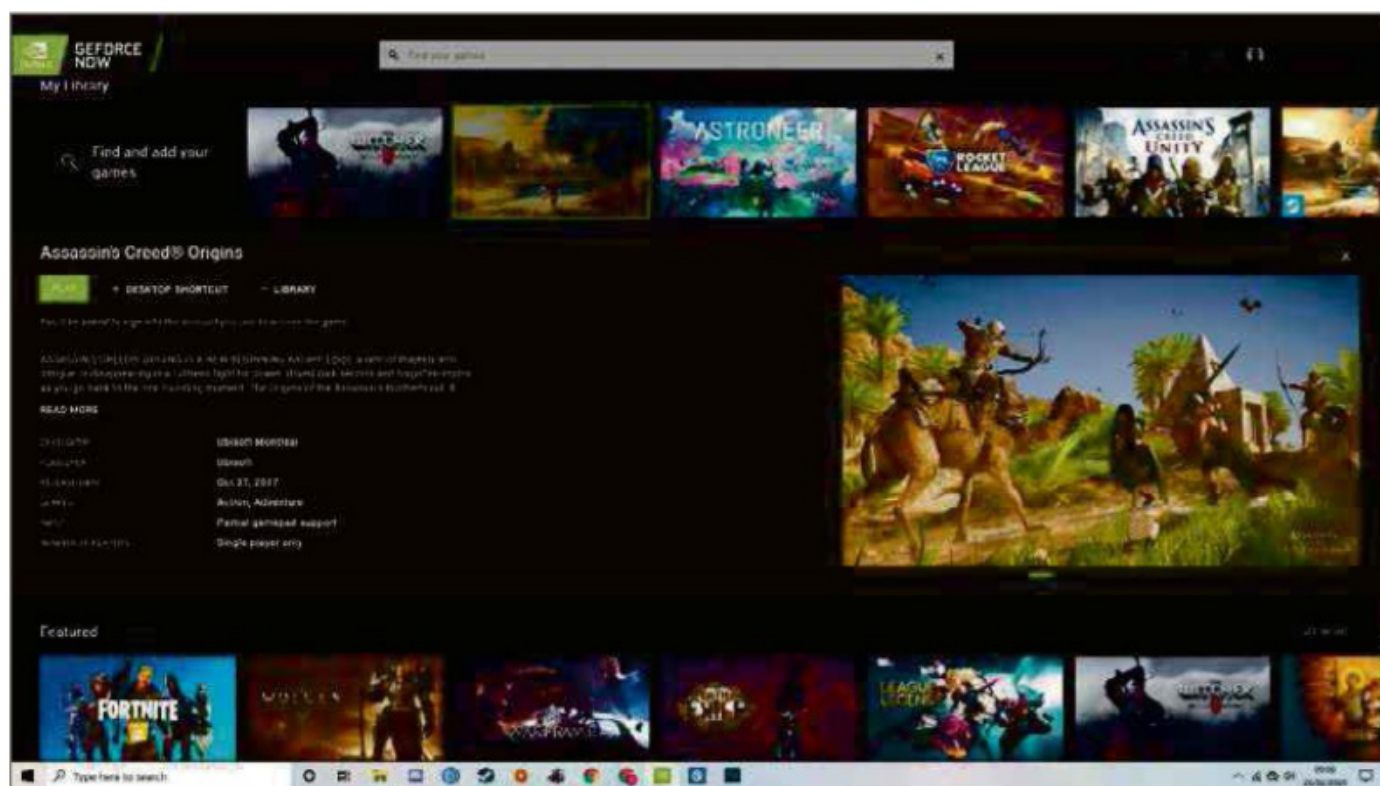
Also new on All 4 is *Feel Good* (bit.ly/feelgood498), a soul-searching sitcom from Canadian stand-up Mae Martin, co-starring Lisa Kudrow from *Friends*. Watch the trailer at bit.ly/fgtrail498.

Product Test

We test and compare the latest products

Nvidia GeForce Now

Nvidia's new game-streaming service lets you play the latest PC games without having to spend a fortune on a gaming computer



If you want to make even a brand new PC look inadequate, try running a modern game on it. Many of the latest titles create 3D worlds on the fly, providing such high-level detail, down to how the light falls on every surface, that they require billions of calculations for every frame.

With game graphics this demanding, you have to spend a king's ransom on hardware to run the latest titles, and you can more or less assume that even upgraded components may feel out of date in a matter of months rather than years.

All this makes the concept

of streaming games over the internet a very attractive prospect. Instead of spending hundreds of pounds on a gaming PC with the technical power to perform these intense and complex calculations, you can rent the latest graphics hardware from a service provider for a few quid a month. The game is run on this 'rented' PC, then sent to your screen via the internet.

It's a similar concept to services such as Netflix, which stream movies and TV programmes to your television set. Your device only needs to control the gameplay, sending your gaming movements to the server, then display the results on your screen. In terms of computing power, it's barely more demanding than streaming a video, so with a reasonable broadband

connection, you should be all set to play the latest games on your standard 'non-gaming' PC.

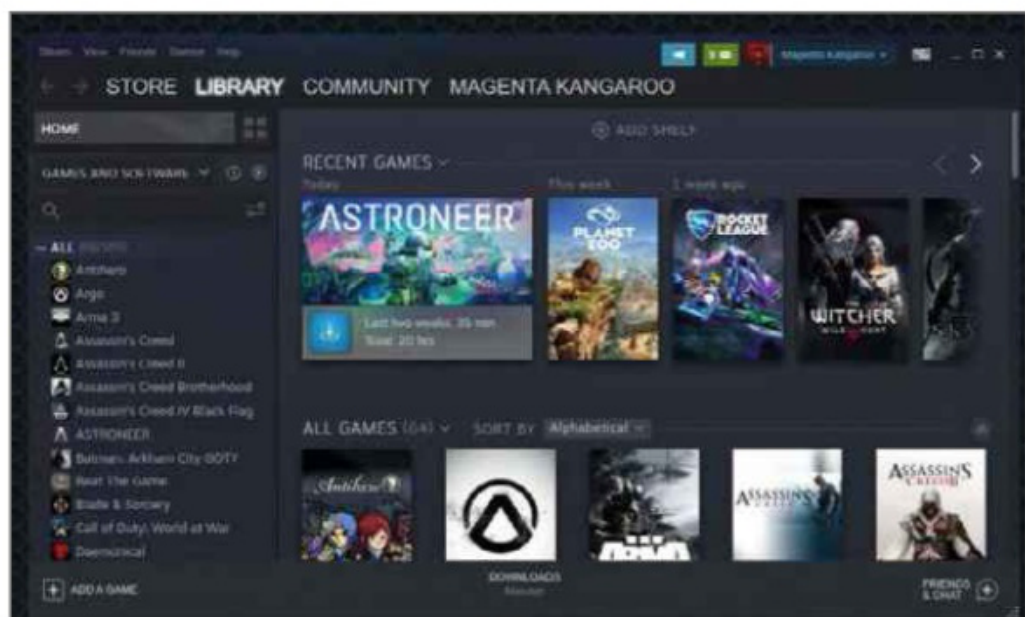
Setup and specs

GeForce Now is the latest game-streaming service to hit the marketplace and it shows all the signs of a strong contender. Following a two-year closed-beta testing period, it's now available to the general public.

GeForce Now straddles the line between Google Stadia (bit.ly/stad498) and Shadow (shadow.tech). It provides a small number of free games but can be used with a wide collection of commercial games, as long as you already own them on Steam (store.steampowered.com), Epic Games (www.epicgames.com) or Uplay (uplay.ubisoft.com). This is one way in which it differs from Stadia, which has its own content store.

You can download the GeForce Now app on your Windows PC, macOS or Android device. If you have an Nvidia Shield TV (see our review in Issue 494, bit.ly/webuser494), you can launch GeForce Now simply by logging in. Most games support a gamepad or mouse-and-keyboard combo, as you'd expect if you were playing the game on a PC.

“ GeForce Now's major achievement is it lets you play PC games on a mobile device or lower-end laptop ”



At the moment, GeForce Now supports streaming games at up to 1080p at 60fps. This will change in the future, with support for higher resolutions planned. You can adjust the stream's quality settings on your PC but, on mobile apps, this is dealt with automatically.

Price and performance

A major draw for GeForce Now is the price. The regular version is completely free – the catch being that you have to queue to access a gaming PC, and can only use it for one hour at a time. Once that one-hour period is up, you go to the back of the queue and wait for another PC to become available. You also need to buy any games you want to play.

The paid-for Founders subscription currently costs £4.99 per month with a 90-day free introductory period. You get priority access to queues (meaning you can skip to the front) and six-hour gaming sessions. It's significantly cheaper than both Google Stadia (£8.99) and Shadow (£12.99).

We tested GeForce Now on a range of devices, playing a variety of games on a custom gaming PC, a 2015 MacBook Pro, a Microsoft Surface Laptop 2, an Nvidia Shield TV 4K and two Android smartphones. Fundamentally, the hardware shouldn't matter, as long as it meets the minimum specs. What's more relevant is how strong your internet connection needs to be to avoid experiencing problems.



On a 50Mbps home broadband connection, playing on a PC, the service was great: no perceptible input lag, no loss in quality and no stuttering. Gaming at its 1080p maximum resolution might not be mind-blowing but what's impressive is that it's happening over an internet connection.

The service was less consistent on an office Wi-Fi network but it's still a major achievement to be able to play PC games on a mobile device or a low-end laptop.

Games and customisation

There's currently no way to see a complete list of compatible titles, and a number of big brands aren't available, including 2K Games, Activision, Bethesda, Blizzard, Capcom, EA, Konami, Square Enix and Rockstar. However, despite the underwhelming selection of free games

available, the quality and number of the titles supported far exceeds what you get on Google Stadia.

GeForce Now has another ace up its sleeve: graphics customisation. Compatible games can be fiddled with as much as their non-streaming counterparts, which is a huge boon for gamers who enjoy tweaking settings. The only downside is that if a game requires a restart to apply graphical changes, it's luck of the draw as to whether your requested settings are implemented once you restart and reconnect to a new streaming PC.

Given that GeForce Now has a habit of adjusting your settings to keep the stream quality high, fussy gamers may find themselves spending a lot of time in Settings menus. But Stadia offers no such customisation at all, so we count this as a win for GeForce Now.

PRODUCT INFO

Nvidia GeForce Now

Price: From free
Buy from:
www.nvidia.com

WHAT YOU NEED

For Windows:

- 64-bit Windows 7, 8 or 10
- 15Mbps internet connection
- Ethernet or 5GHz Wi-Fi
- 2GHz dual-core x86-64 processor
- 4GB of memory

FOR

- ✓ Sizeable library of games
- ✓ Good control of graphics
- ✓ Keenly priced

AGAINST

- ✗ User experience feels dated
- ✗ Limited to 1080p
- ✗ Some publishers not included

4K RESOLUTION

Google Stadia,
£8.99 per month
bit.ly/stad498



NO QUEUES

Shadow,
£12.99 per month
shadow.tech



OUR VERDICT

★★★★☆

GeForce Now's interface is clunky and old-fashioned when compared to Google Stadia, and elements such as queues and login boxes can get in the way of the fun. However, the real strength of GeForce Now is making the games you love

– and new games you don't yet know about – accessible on any device, even older laptops and smartphones.

GeForce Now gives everyone the opportunity to enjoy top-level gaming at an affordable price, so we feel able to ignore a little

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

roughness around the edges and celebrate its more remarkable achievements.



Chipolo One

Never lose your keys again by investing in a new device that uses digital technology to help you find them



The Chipolo One is a Bluetooth tracker aimed at protecting the one thing we lose more than anything else: our keys. The small, circular, plastic disk has a hole for attaching to your keyring. When you lose your keys, just open the Chipolo app on your mobile device and – if your keys are within 60m – the tracker will play a tune. Simply follow the sound to find them.

If your keys aren't within range, you can use the app to mark your Chipolo as lost. At that point, anybody with the app installed is enlisted in the search, but without their knowledge. If any member of this unwitting search party passes within range of your keys, you'll get an anonymous notification with the location so you can hunt for them in person.



Comparisons with Tile

If you've heard of Tile (www.thetileapp.com), you'll already be familiar with the concept behind this type of tracker. Chipolo offers the same basic features as Tile, but with differences in pricing, form factors and popularity. So, while the Chipolo One costs £21, the Tile Mate costs £20 and also operates at a range of 60m, while the Tile Pro – which has a louder speaker than the Mate – costs £30 and has a range of 120m.

Both Tile and Chipolo apps warn you when you're about to go somewhere without your keys, but Chipolo offers this service for free, whereas Tile customers have to pay an annual £30 subscription – though this comes with other benefits, too.

One clear deficit for Chipolo is the size of its community, which is currently around 5 million users. Meanwhile, Tile claims to have sold 30 million units. Similarly, the Google Play Store reports over a million downloads of the Tile app, compared to Chipolo's 100,000+. If you're prone to losing your keys away from home, a larger userbase could

“ The free out-of-range alerts stop you leaving a location without your keys ”

be helpful.

The Chipolo One's design is basic, cheap and light, but that makes it more discreet for carrying. It's powered by a CR2032 coin battery, which the company says should last up to two years, after which you can replace it yourself.

In our test, we hid a Chipolo One and a Tile Mate under separate sofa cushions. Wandering around the house with the app activated, we could hear both from a couple

of rooms away, which is good going. Both trackers have a range of 60m, but the Tile gets a bonus point for giving you a “warmer/colder” visual aid within the app to accompany the ringing sound.

Both Tile and Chipolo work in reverse to find your phone – just give the trackers a double-squeeze. However, Chipolo adds a unique feature by activating your phone's camera, so you can take selfies more easily.

PRODUCT INFO

Chipolo One

Price: £21

Buy from Amazon:
bit.ly/chip498

SPECIFICATIONS

- 60m (200ft) range
- IPX5 splash-resistant
- Uses replaceable CR2032 battery with 2-year life
- 38 x 6.4mm
- Requires iOS 11+ or Android 5+

FOR

- ✓ Light and loud
- ✓ Affordable and subscription-free
- ✓ Selfie remote adds unique feature

AGAINST

- ✗ Install base isn't as big as Tile's

OUR VERDICT

★ ★ ★ ★ ☆

Chipolo has produced a decent tracker with some helpful features, but Tile's much larger userbase makes it a more attractive proposition, giving you a better chance of finding a lost item because it's more likely to be within range of a Tile user than a Chipolo one. However, if you're a

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

scatterbrain who tends to leave home without key items, then the free out-of-range alerts may make Chipolo more useful.

BACK ISSUES DISC 2019

**ON
SALE
NOW**



Our **2019 Back Issues disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit bit.ly/webuser2019 or search for 'webuser disc' on Amazon

**You can still buy our
2014-2018 Back Issues Discs**
Search for 'webuser disc'
on Amazon





Web User's Best Buys

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

HARDWARE, SOFTWARE & SERVICES

INTERNET SECURITY SUITE

Bitdefender Internet Security 2020

£14.99 (1 year, 3 devices) from bit.ly/bitdef497

Tested: Issue 497

This superb security suite's one-stop all-round package can't be beaten. It's lightweight, easy to use, loaded with features and scored 100% for malware protection in our tests.

KEY SPECS

Malicious-website detection ■ Secure browser ■ Browser extension ■ Anti-ransomware ■ Parental controls ■ Firewall ■ Password manager ■ Home-network scanner ■ Secure file deletion ■ File encryption ■ VPN - 200MB of data per day



MONITOR

BenQ BL2780T

£209.97 from bit.ly/benq495

Tested: Issue 495

This BenQ monitor offers impressive screen quality, with excellent contrast and colours, for a reasonable price. It has a good selection of ports and is height adjustable. You can even rotate it by 90 degrees to use in portrait mode.

KEY SPECS

27in screen ■ 1,920 x 1,080 pixels resolution ■ 5 milliseconds response time ■ 1 x DisplayPort, 1 x HDMI, 1 x VGA ports ■ 2 x audio outputs ■ 2 x 2W speakers ■ 547 x 512 x 231mm ■ 7.2kg ■ One-year return-to-base warranty



MINI PC

Raspberry Pi 4 Model B

£34 from bit.ly/pi493

Tested: Issue 493

This latest Raspberry Pi effectively provides a full desktop computer with the footprint of a book of stamps. Its fast processor and quick networking make it snappier than older models, and it can be set up to use with dual monitors.

KEY SPECS

Quad-core 1.5GHz Broadcom BCM2711 processor ■ 1GB memory ■ Broadcom VC6 graphics ■ 2 x Micro HDMI ports ■ 2 x USB 2, 2 x USB 3 ports ■ Gigabit Ethernet, 802.11ac Wi-Fi ■ 86 x 57 x 19mm ■ One-year return-to-base warranty



SMARTPHONE

Google Pixel 3a

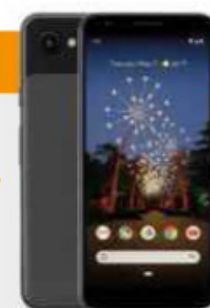
£399 from store.google.com

Tested: Issue 491

For a pure Android experience, the Google Pixel 3a can't be bettered for the price. It has a brilliant camera and an exceptional screen, plus the promise of access to future updates and security patches as soon as they're available.

KEY SPECS

8-core Qualcomm Snapdragon 670 processor ■ 4GB RAM ■ 64GB storage ■ 5.6in, 2,220 x 1,080 pixels resolution screen ■ 12.2-megapixel rear camera, 8-megapixel front camera ■ Android 9 ■ 151 x 70 x 8.2mm ■ 167g ■ 1-year return-to-base



VPN

NordVPN

From £2.68 per month from

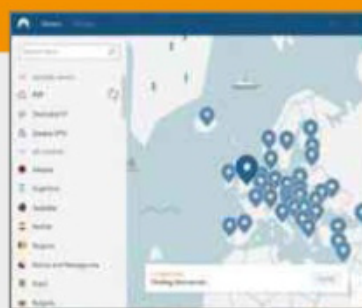
nordvpn.com

Tested: Issue 489

NordVPN strikes the perfect balance between usability, features and price. It's easy to set up a private connection and it has servers in dozens of countries across the globe.

KEY SPECS

Six simultaneous connections ■ Choice of 60 countries ■ 5,500+ servers ■ IKEv2, OpenVPN protocols ■ Double VPN security ■ Router support ■ 1,000+ BitTorrent servers ■ Static IP option ■ Windows, macOS, Linux, Android, iOS, Fire TV



LAPTOP

HP Pavilion x360

£679 from bit.ly/hp487

Tested: Issue 487

Slim, attractive and powerful, and with a great keyboard, the HP Pavilion x360 gets more or less everything right, at a price that undercuts most of its rivals. The ability to flip the laptop's screen into tablet mode is a bonus.

KEY SPECS

Intel Core i5-8250U processor ■ 256GB SSD ■ 8GB memory ■ 14in screen ■ 1,920 x 1,080 pixels resolution ■ 2 x USB 3, 1 x USB-C ports ■ 802.11ac Wi-Fi ■ Windows 10 Home ■ 326 x 224 x 20mm ■ 1.61kg ■ One-year return-to-base warranty



Web User Gold Award winners

The best software, online services and apps from our fortnightly tests

CODE EDITOR

Visual Studio Code

NEW!



Free from code.visualstudio.com

Tested: Issue 497

Visual Studio Code offers amateur developers everything they need to get a project off the ground, regardless of coding experience. A clutter-free design makes it very easy to use.

DRIVER UPDATER

IObit Driver Booster Free



Free from bit.ly/driboo496

Tested: Issue 496

IObit's slick-looking driver updater makes it simple to root out ageing drivers, and install new ones individually or in one go. If anything goes wrong, it's easy to roll them back again.

IMAGE VIEWER

FastStone



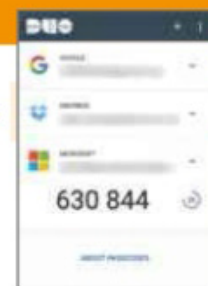
Free from bit.ly/faststone495

Tested: Issue 495

FastStone Image Viewer is a streamlined, incredibly capable tool that's easy to use but surprisingly sophisticated. You'll want to use this portable image viewer wherever you go.

TWO-FACTOR AUTHENTICATION APP

Duo Mobile



Free from bit.ly/duomob494

Tested: Issue 494

This slick app irons out most of the hassles surrounding 2FA security. It makes managing and organising your online accounts as simple as it gets.

DOWNLOAD MANAGER

JDownloader



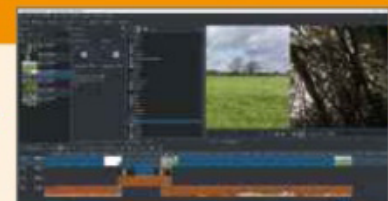
Free from beta.jdownloader.org

Tested: Issue 493

JDownloader is the most powerful free download manager available, with every feature you need to control multiple downloads. It may look dated but its performance is sublime.

VIDEO-EDITING SOFTWARE

Kdenlive



Free from kdenlive.org

Tested: Issue 492

Kdenlive is a phenomenal piece of free software, crammed with useful tools for editing your video clips into seamless, sophisticated movies, complete with transitions and effects.

OPEN-SOURCE CLOUD STORAGE

Cozy



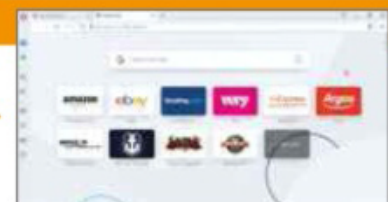
Free from cozy.io

Tested: Issue 491

Cozy is a cloud service that anyone can use – you don't need any extra tech know-how to get started. It's a great option if you want to switch from more famous storage providers.

PORTABLE BROWSER

Opera



Free from www.opera.com

Tested: Issue 490

Opera is the perfect portable browser. Its interface is clean and focused, but also rich in features, and includes elegant built-in privacy tools to help you browse more carefully.

EMAIL SOFTWARE

Mailspring



Free from getmailspring.com

Tested: Issue 489

Mailspring is a modern, well-designed take on classic email software. All the standard features are present, alongside some quirky extras.

OFFICE SUITE

Google Docs



Free from docs.google.com

Tested: Issue 488

Google's suite of cloud-based tools is the king of free office suites – online and off. It offers comprehensive collaboration, access from any device and unlimited file storage.

LINUX DISTRO

Lubuntu



Free from lubuntu.net

Tested: Issue 487

Lubuntu is as close to perfect as a lightweight operating system can get. Its interface is instantly appealing and is packed with all the tools you need.

CALCULATOR

Old Calculator for Windows 10



Free from bit.ly/oldcalc486

Tested: Issue 486

Old Calculator appears instantly when you call it, sits unassuming in a corner of your screen when you're not using it and can perform all everyday calculations.

Best Free Software

Mini Diary 3

minidiary.app

Min requirements:

Windows 7/8.1/10,
macOS or Linux

File size: 47.9MB

Keeping a diary gives you a place to jot down your thoughts and ideas, and record the events of the day, so you can enjoy a stroll down memory lane in the company of your younger self at some point in the future. You can also use it to set goals and boost your memory.

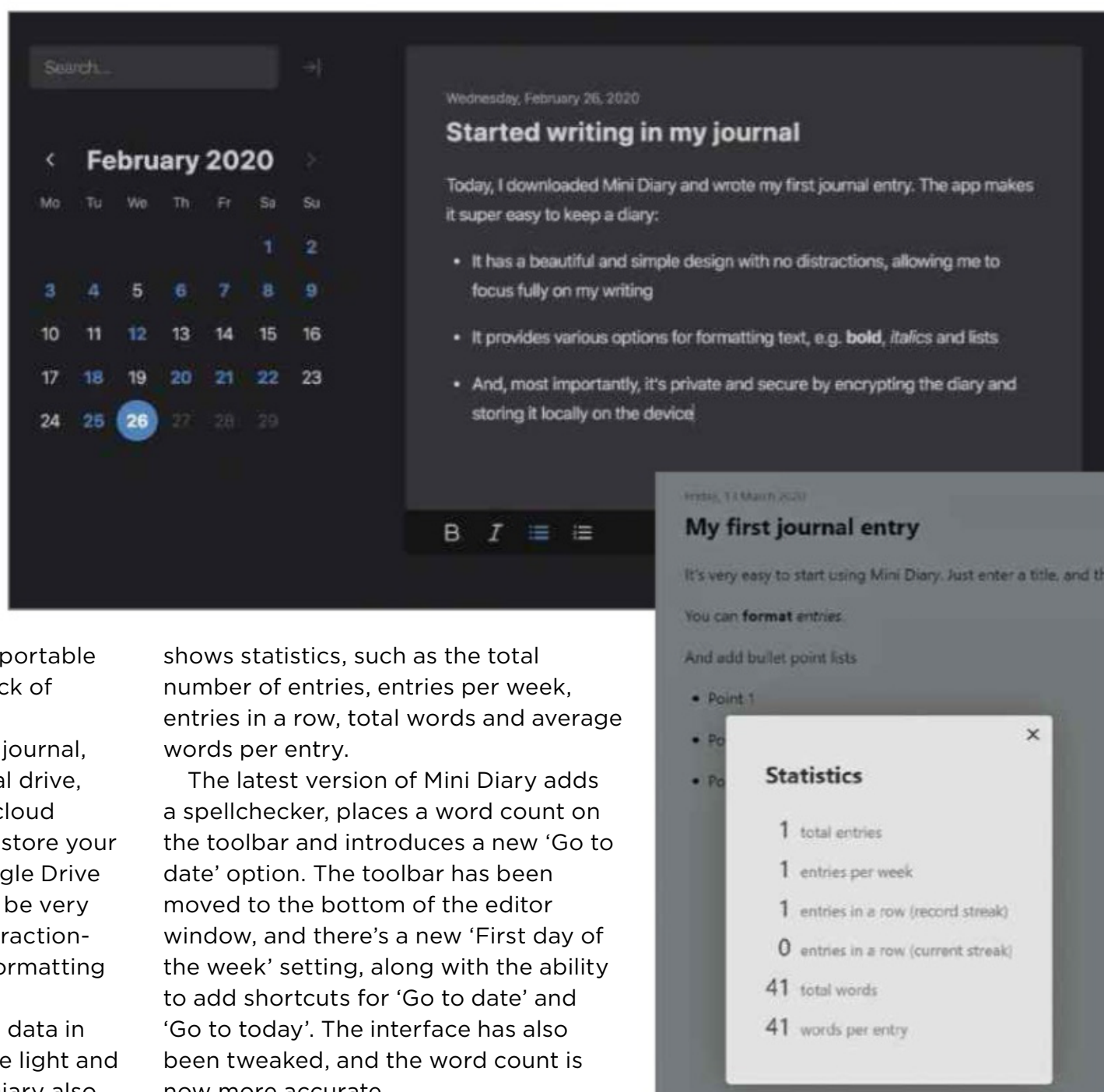
Mini Diary is an open-source, password-protected portable journal that lets you keep track of events, dates and more.

As well as encrypting your journal, everything is stored on a local drive, rather than uploaded to the cloud (although you can choose to store your diary in services such as Google Drive or Dropbox). It's designed to be very easy to use, with a clean, distraction-free design and a choice of formatting options.

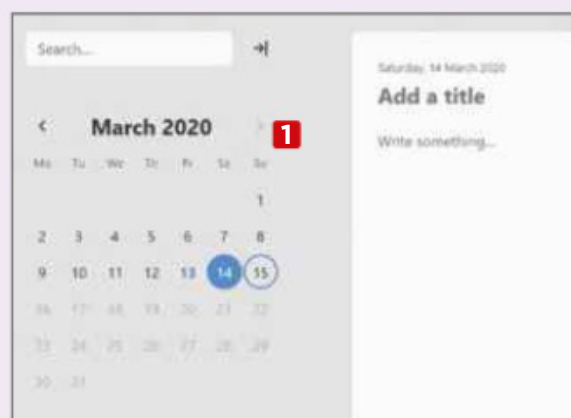
You can import and export data in various formats, and there are light and dark themes available. Mini Diary also

shows statistics, such as the total number of entries, entries per week, entries in a row, total words and average words per entry.

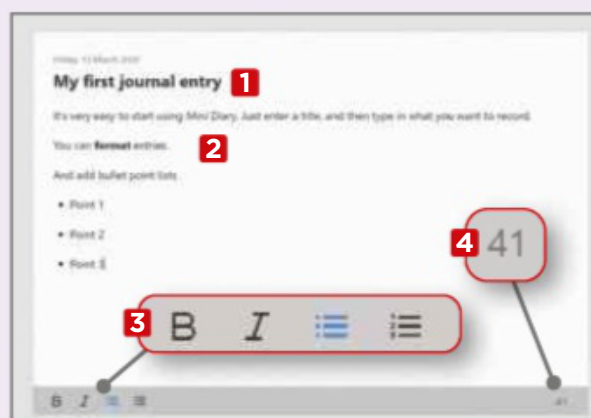
The latest version of Mini Diary adds a spellchecker, places a word count on the toolbar and introduces a new 'Go to date' option. The toolbar has been moved to the bottom of the editor window, and there's a new 'First day of the week' setting, along with the ability to add shortcuts for 'Go to date' and 'Go to today'. The interface has also been tweaked, and the word count is now more accurate.



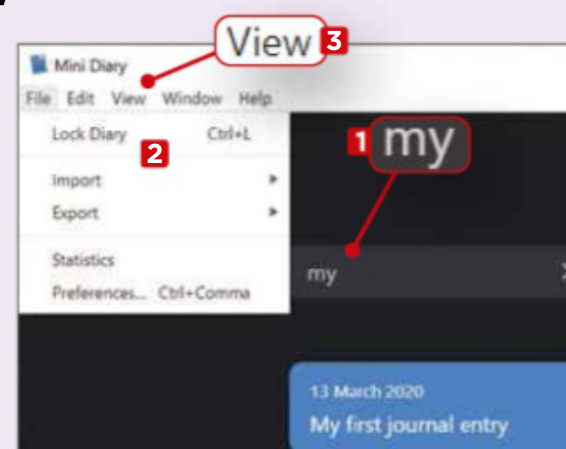
MINI WORKSHOP | Create a secure journal with Mini Diary 3



1 Start by entering a password twice, then clicking 'Set password'. Make sure you don't lose this because there's no way of recovering it if you do. Log in and you'll be taken to the diary screen. Select the date you want from the calendar on the left. **1** The default setting won't let you enter any future dates.

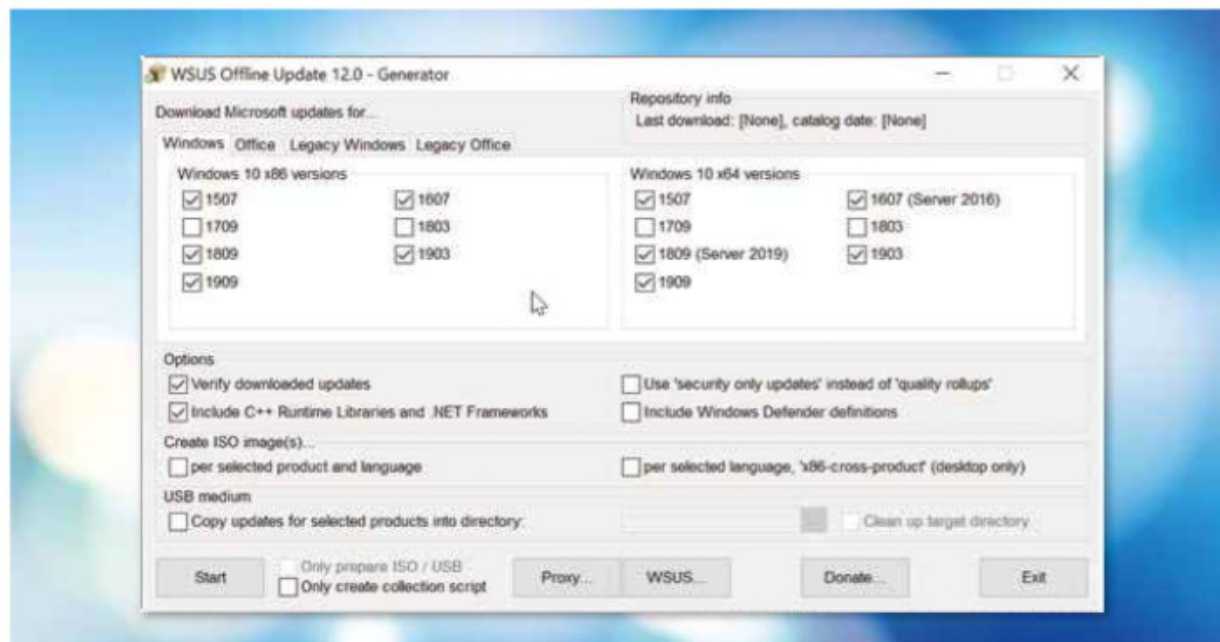


2 Give your entry a title **1** and start writing below. **2** The formatting bar **3** lets you bold or italicise words, and add bullet point or numbered lists. The number of words in your new entry is shown at the right-hand end of the formatting bar. **4** Mini Diary saves changes automatically, so you don't need to remember to do this yourself.



3 You can find a particular entry by searching for any words it contains. **1** The File menu **2** lets you lock your diary, import or export data, view statistics and open the preferences, where you can change the theme, allow future entries, and move the diary file location. View **3** lets you jump to a specific date.

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



SYSTEM TOOL

WSUS Offline Update 12

www.wsusoffline.net

Min requirements: Windows 10 **File size:** 6.2MB

This program lets you update Microsoft Windows and Office without an internet connection. Simply choose what you want to download updates for (you'll need to be online for this stage) and click Start. You can copy the updates to a USB memory stick or have them written as an ISO file, ready for burning to disc. Version 12 drops support for Windows 7 and Server 2008, as well as features such as Security Essentials and Windows 7 Defender that Microsoft no longer supports.

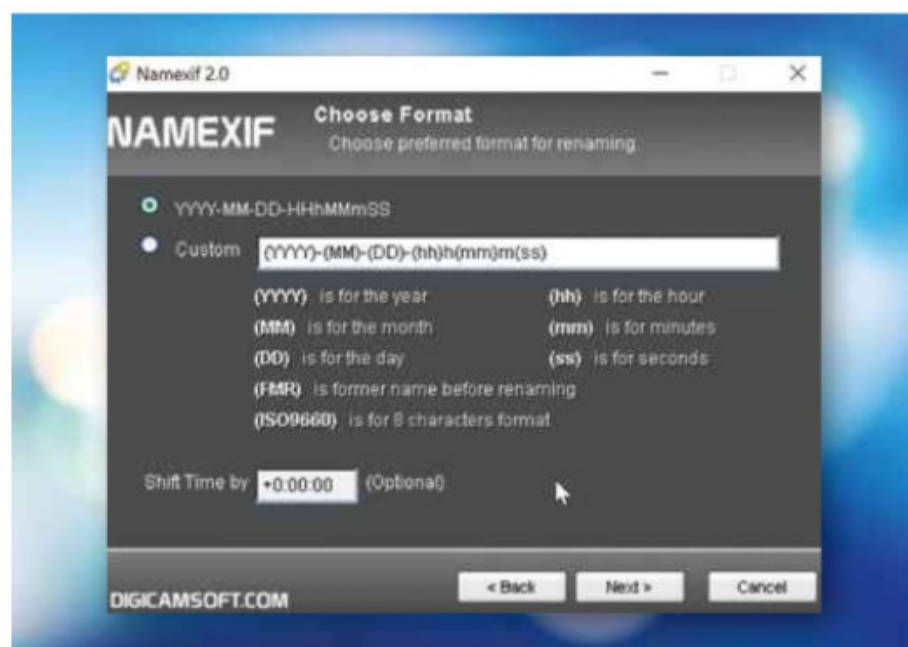
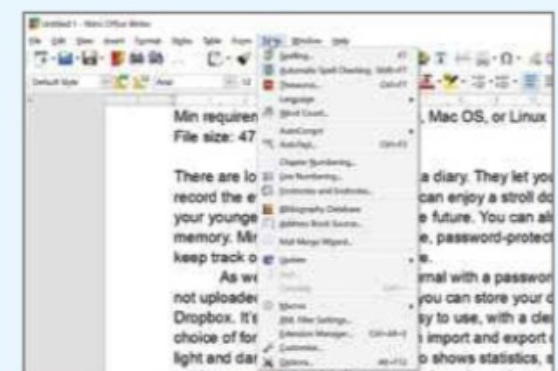
New Windows 10 App

Nitro Office

bit.ly/nitro498

File size: 599MB

Nitro Office is a free productivity suite comprising a word processor, spreadsheet, presentation creator, and drawing program. It's based on LibreOffice and offers all the features you need for everyday working, including a basic PDF editor, and supports all the usual office formats. You can create a new file or open an existing one from the splash screen that appears when you launch the app.



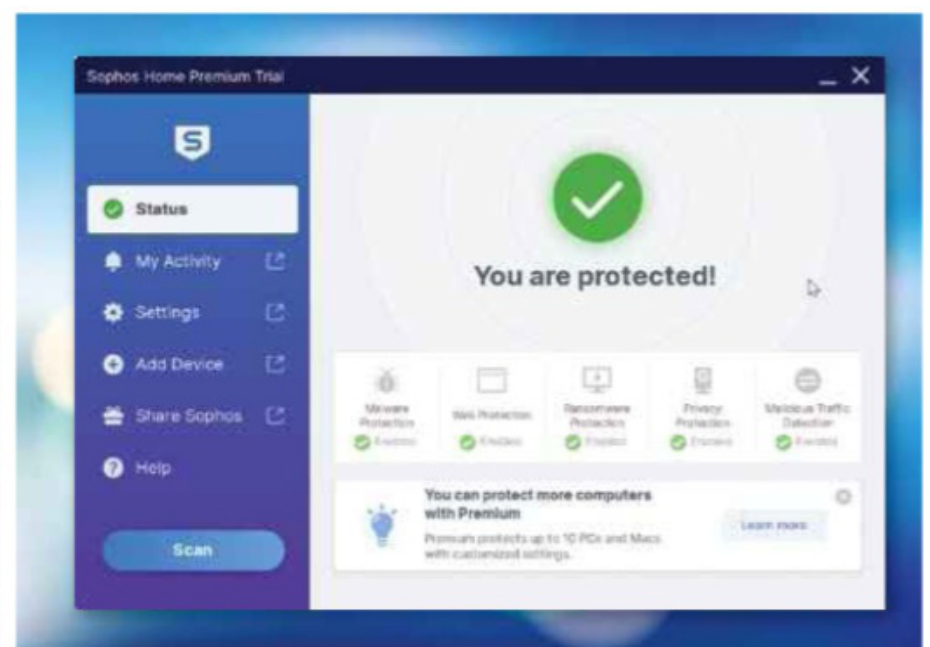
FILE RENAMER

Namexif 2

bit.ly/nexif498

Min requirements: Windows 7/8.1/10 **File size:** 677KB

Photos taken with a digital camera or using your phone are given a name along the lines of 'IMG_9112.JPG', which isn't a particularly helpful description. Namexif can rename your files using the date and time they were taken, pulling this information from the stored EXIF data. '2020-03-15 12.06.41 .JPG', for example (year, month, day and time). You can customise the naming structure, and this new version also lets you rename videos.



ANTIVIRUS SOFTWARE

Sophos Home Free 3

bit.ly/sophos498

Min requirements: Windows 7/8.1/10 **File size:** 291MB

Sophos' free antivirus program offers real-time and on-demand scanning, predictive AI threat detection, web protection and remote management. It comes with a 30-day free trial of Sophos Home Premium, which includes advanced tools such as ransomware defence and banking, privacy and identity security. Sophos has also refreshed the interface and added support for Chromium Edge. You need to register with Sophos to download the program.

SYSTEM TOOL

InstalledAppView

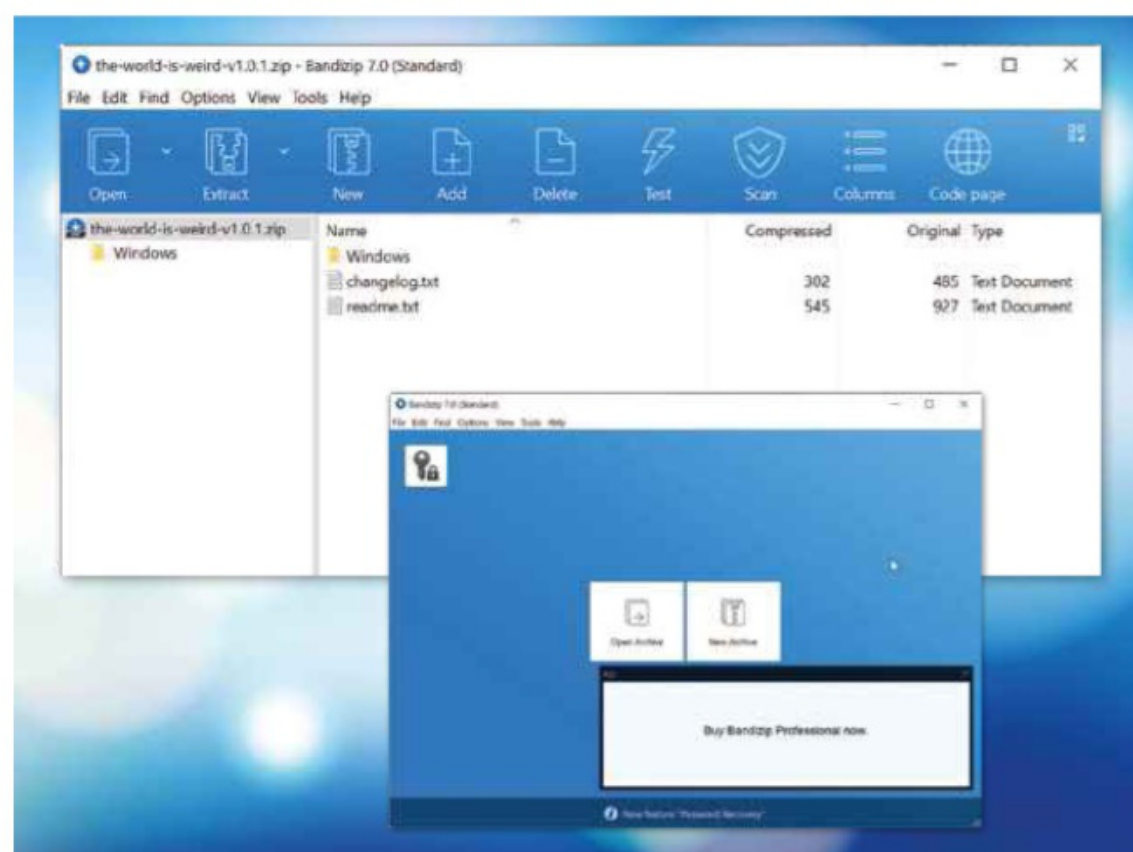
www.nirsoft.net

Min requirements: Windows 10

File size: 90KB

The latest portable tool from prolific software developer NirSoft displays details of all the Windows 10 apps on your system, including any that came bundled with the operating system and those you've installed yourself. Just run it to see a full list that you can sort by app name, app version, install folders, install date/time, and more.

Select an app to see additional details about it displayed in XML format in the program's lower pane. Right-clicking an installed app gives you the option to uninstall it, quietly uninstall it, open it in Regedit or go to the install folder.



ZIP ARCHIVER

Bandizip 7 Standard

www.bandisoft.com

Min requirements: Windows 7/8.1/10

File size: 250KB (installer only)

Bandizip is a superfast compression tool that supports all the main file formats, including ZIP, 7Z and RAR. It offers a wide selection of features, including the ability to create self-extracting archives, split zips across volumes and encrypt files. Version 7 introduces two new paid-for editions – Professional and Enterprise – with additional features including a password manager, password recovery and archive-repair tool. The Standard edition is ad-supported, but is free for both home and commercial use.

This update also gains some advanced compression settings and adds the option to view images as thumbnails.

VIDEO CONVERTOR

MetaFox 2

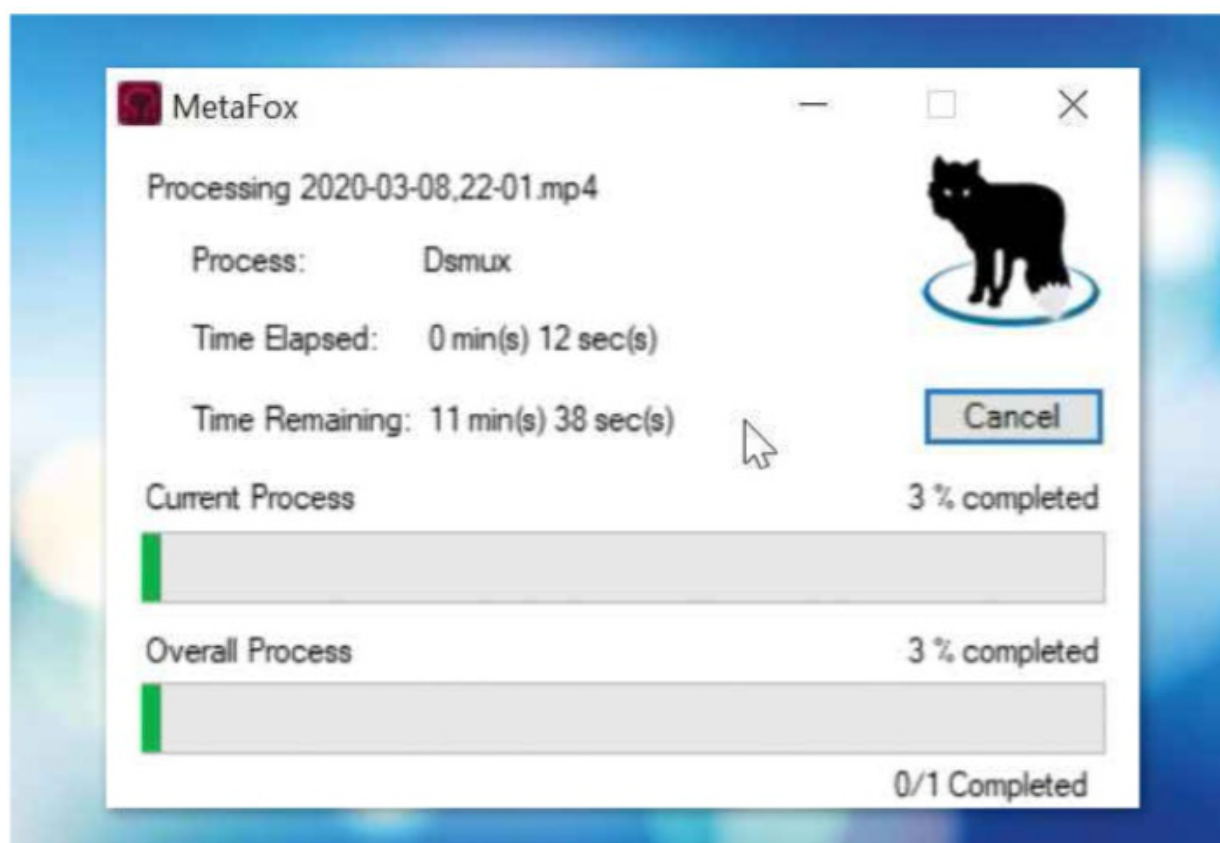
bit.ly/mfox498

Min requirements: Windows 7/8.1/10

File size: 5.4MB

Matroska Multimedia Container – or MKV, as it's more commonly known – is a powerful media-file format that can store numerous video, audio and subtitle tracks, as well as any metadata. MetaFox can convert your videos into this format, taking just a matter of seconds to do so.

The program's installer adds a shortcut to your desktop and all you need to do is drag and drop your file (or a folder of files) to it. MetaFox works with all the major video formats, including HEVC (new to this release), MP4, MPG, AVI, MOV and FLV.





GAME

The World Is Weird

bit.ly/worldweird498

Min requirements: Windows 7/8.1/10

File size: 138MB

The World Is Weird is a short point-and-click adventure game with fully hand-drawn graphics. The story starts with a clock stopping at just before midnight, and takes you on a quest through increasingly strange locations. The cursor changes colour when hovered over items that can be moved. It's tricky, but very engrossing.

✓ Install this program...

PureSync

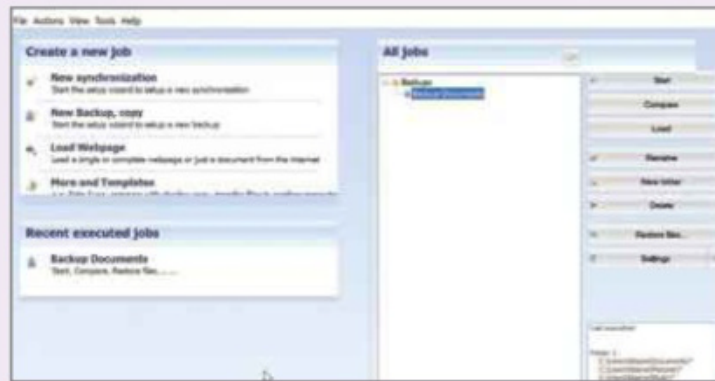
www.puresync.net

Min requirements: Windows 7/8.1/10

File size: 10.5MB

PureSync is a wizard-based tool that simplifies the process of backing up and synchronising your files and folders. It can also transfer files between computers, copy photos directly from a digital camera to your PC and compare the contents of folders. Just select the job you want to create in the list on the left and follow the instructions.

The latest version of PureSync comes with new 'auto-backup triggers', which let you choose when it should begin the backup process, a selection of new templates for sync and backup, and a portable version of the program.



...Not this one ✗

Leanware Backer

bit.ly/backer498

Min requirements:

Windows 7/8.1/10

File size: 3.7MB

Despite offering some useful features such as an FTP client, automation options and 256-bit AES encryption, this backup-and-sync tool is likely to be too expensive for home users, costing £39 (£34). Its dated website and 150-page PDF manual don't inspire much confidence, either.



OTHER OPERATING SYSTEMS

What's new for Linux and macOS



LINUX DISTRO

Zorin OS 15.2

zorinos.com

Min requirements: 2GB RAM, 10GB storage **File size:** 2.2GB

Based on Ubuntu (as many Linux distributions are), Zorin OS looks not unlike Windows, which makes it a good choice for anyone thinking of switching from Microsoft's operating system. This update is powered by Linux Kernel version 5.3, which comes with new security patches. It supports more hardware than before and bundles the latest versions of popular apps including LibreOffice and GIMP.

There are several versions of Zorin OS to choose from, but the free Core edition is the one you'll want.



PRIVACY APP

Lockdown

lockdownhq.com

Min requirements: macOS **File size:** 8.7MB

You're never alone on the web – and not in a good way! Wherever you go, trackers are following you and compromising your privacy. Lockdown, created by two former Apple engineers, is a free app that blocks these trackers, as well as adverts, badware and other internet nasties. It's open source and the firewall is on-device, meaning it doesn't connect to any servers. Lockdown was originally released for iOS, but has now been made available for macOS, too.

GET FREE SOFTWARE FIRST subscribe to Web User at subscribe.webuser.co.uk

Best New Browser Tools



CHROME

Hide your mobile number from websites

So-called 'burner' email addresses are very handy for hiding your real address from websites that require registration. But verification via text message has always been trickier, and leaves you open to mobile spam from unscrupulous sites.

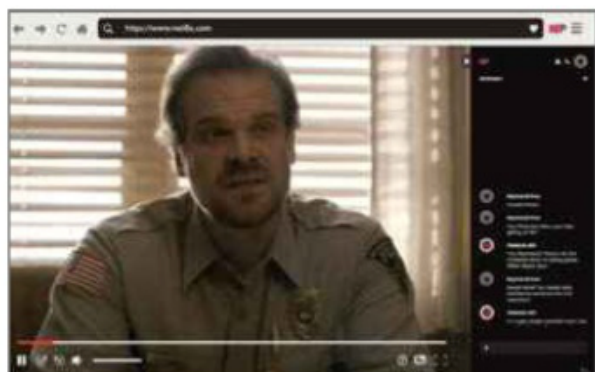
Disposable Numbers (bit.ly/disposable498) solves this problem by hosting 200 anonymous numbers across a list of 37 countries. Click into any of the phone numbers to view the inbox – you'll see plenty of confirmation code messages received by other anonymous users of the service. Click the Copy icon beside the phone number and paste that into whichever site wants to spam your phone with texts. Inboxes refresh every couple of minutes, so hang tight, then copy your code once it comes through.

Just don't give 'your' number out to someone who may actually need to text you.



Watch Netflix remotely with friends

With the government advising us to self-isolate during the coronavirus crisis, we're likely to be binge-watching TV shows and films on Netflix more than ever, which can feel rather lonely with no-one there to banter with. Netflix Party (it.ly/netflix498) makes solo streaming more sociable by letting you watch the service remotely with friends, synchronising playback so you all start at the same point, and offering group chat so you can discuss what you're seeing in real time.

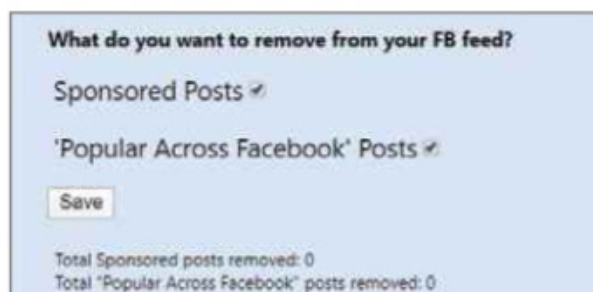


To use Netflix Party, simply head to Netflix in your browser, select a show, click the NP toolbar button and 'Start the party'. This generates a link that you can share with other people to invite them to your viewing party. You can turn off the chat function if you'd prefer everyone to watch in silence, and disconnect the party in one click.

Block sponsored ads on Facebook

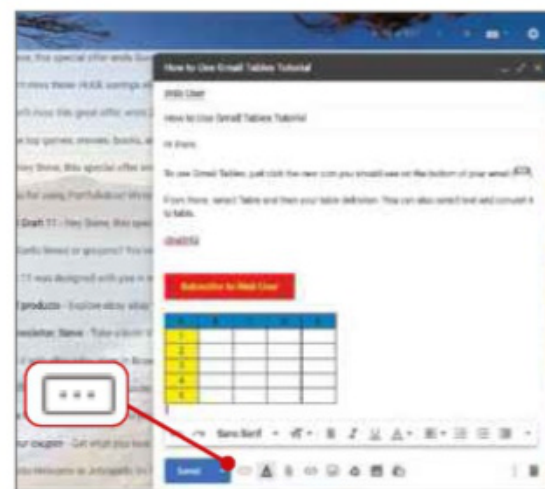
FB Remove Sponsored is a GitHub-developed browser tool that gets rid of those annoying sponsored and 'Popular across Facebook' posts.

There's a small amount of setup required because the add-on isn't available in the Chrome Web Store, but it's worth it. First, grab the extension from bit.ly/sponsored498 – on the GitHub page, click 'Clone or download', choose Download ZIP and extract that file. Here, the developer also mentions renaming the file 'chrome_manifest.json' (or 'firefox_manifest.json') or just 'manifest.json', but ours was already called this. Open Chrome, then click Settings, Extensions and click the 'Load unpacked' button on the left. Navigate to the unzipped FB Remove Sponsored folder, open it so you see all the files within and click Select Folder. You should now see the extension in your list, so you can activate it and make your Facebook feed a slightly more pleasant environment.



Add tables to your Gmail messages

Gmail Tables (bit.ly/tables498) lets you add tables to otherwise bland text-based emails. With the tool installed, open Gmail and click Compose. Beside the Send button, you'll find a three-dot icon which, when clicked, offers two options: Button and Table.



Button lets you customise a clickable button. Simply add a message, pop in a web link and choose its appearance. The Table option is equally easy to use, letting you create colourful spreadsheet-style tables that you can add to your emails. Choose how it looks and fill in the blanks. Right-clicking a table brings up additional commands for adding new rows and columns.

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



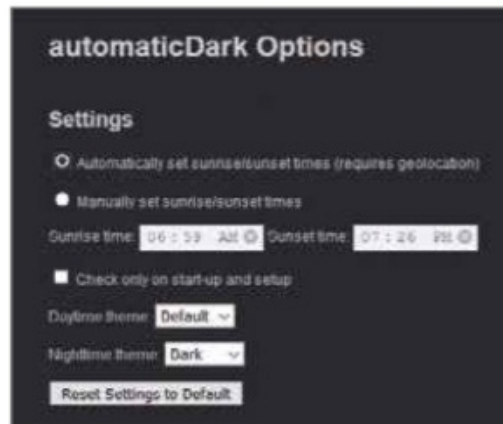
FIREFOX

Automate dark mode in Firefox

Switching between light mode and dark mode at the appropriate time of day is a hassle we don't need. Many of us, after all, aren't interested in dark mode looking 'cool' – we just want it on late at night, when we need to reduce the strain on our eyes.

Automatic Dark (bit.ly/autodark498) solves this niggle by letting you automate dark mode based on time. Open the add-on's Options page (click Firefox's menu button, select Add-ons and, once you've found Automatic Dark, click the three-dot icon and choose Options).

Here, you can set start and end times for each mode, or switch on automatic mode, which uses your location to gauge sunrise and sunset times. There's also the choice to change your daytime and night-time themes. So, if you'd prefer dark mode for bleary-eyed mornings and light mode to wake you up at night, you absolutely can.



Remove clutter from web pages

Outline (bit.ly/outline498) works a lot like Edge's Immersive Reader mode. Just click the add-on's toolbar button after heading to a specific web page, such as a BBC news article or an Amazon product (unfortunately, it won't work on homepages).



The tool instantly strips away just about every inessential site element leaving the core article and little else: no distracting sidebars, flashy banners or low-resolution images. The way it handles links is a particularly nice touch, placing them at the bottom of the page as footnotes so you're not distracted from the content you're reading.

Condense long articles into summaries

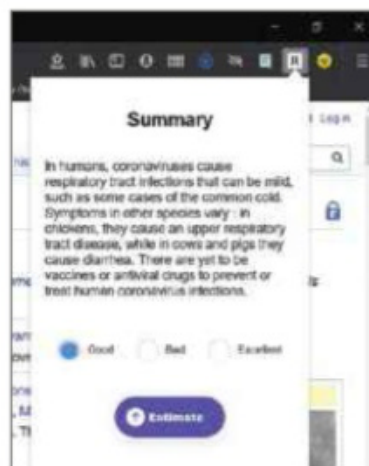
AI-powered summary extensions are all the rage right now and Firefox has come up with one of its own. Remark (bit.ly/remark498) uses "NLP and a couple of

algorithms" to distil long pockets of text into pithy paragraphs.

Copy and paste all those well-crafted words into the extension's text field, click Summarize and let robots spit it all back at you. You'll find it does a pretty decent job, though you may need to give it a quick read-through and spellcheck.

Remark is pitched as a tool for crafting tweets – cramming as much meaning as possible into the smallest amount of space – but, depending on your chosen text, its summaries can extend over the 280-character limit.

This issue's honorable mention: cheekier readers may appreciate the "darkly humorous" Brains-19 (bit.ly/zombie498), which replaces variations on 'coronavirus' and 'COVID-19' with the words 'zombie infection' and 'zombie apocalypse'. Although, the way things are going, this may prove worryingly close to the truth.

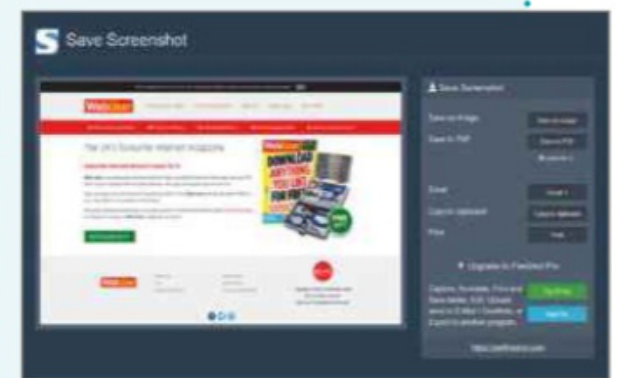


OTHER BROWSERS



Screenshot whole web pages

With two clicks of Fireshot (bit.ly/fireshot498), you can take screenshots of an entire web page, a selected area or whatever's visible on-screen. Once you've made your choice, the extension displays an image preview, plus the option to save it as both a picture and a PDF (you can safely ignore the nag to upgrade to Fireshot Pro). There are a handful of options, too, most notably for saving images as JPEG or PNG files. For quick full-screen grabs, use the Ctrl+ Shift+Y keyboard shortcut.



Add equaliser and amplifier to YouTube

Opera's YouTube Audio Equalizer and Amplifier (bit.ly/equal498) is music to our ears. The add-on features a huge soundboard you can play with to make YouTube pitch-perfect. You can use the tick boxes to tweak the equaliser, but this is much less fun than sliding the sliders. There are 17 in-built presets – techno, reggae, ska, and more – or, alternatively, you can create and save your own amp and equaliser 'profiles'. There's a wide frequency-range support, which the developers say is "equal to what VLC media player offers".





Best Free Apps



App of the Fortnight

TOOLS

FilterBox

bit.ly/filterbox498

5.1

Phone notifications are a mixed blessing at the best of times. Yes, it's good to be kept up to date with incoming messages, weather warnings and other important information. But do you really need to know every time an app has been updated?

Android's Do Not Disturb feature and similar tools are great for setting periods of the day when you don't want to be bothered by notifications. But sometimes you need

something a bit more sophisticated to keep low-priority notifications at bay, while allowing important ones to get through. And that's precisely what FilterBox does.

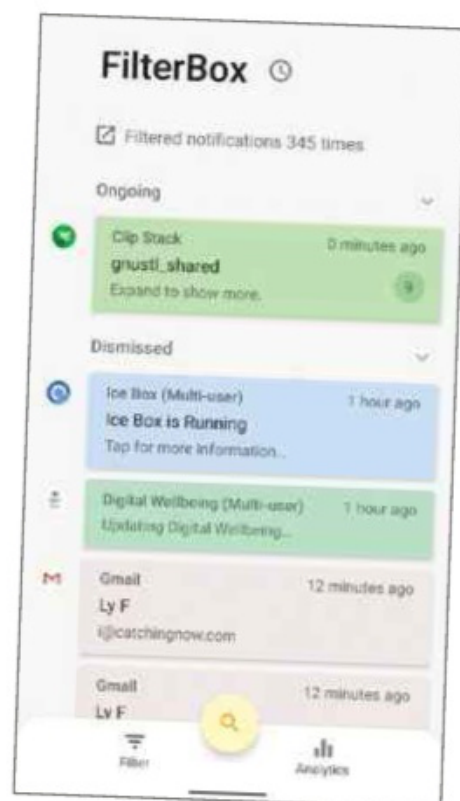
FilterBox is a notification manager that serves three main purposes. First, it acts as a home for your notification history. By default, Android's notifications evaporate after a time, but FilterBox lets you browse and search your full history of past notifications, which can be very useful if you ever need to look back for a specific alert.

Second, FilterBox provides you with some handy analytics tools and statistics to help you understand how many notifications you're getting and who the main perpetrators are. Third, and most important of all, FilterBox

lets you filter your notifications using fully customisable rules, so you're only ever alerted by ones you need to see.

FilterBox is completely free to use for 90 days, which is a pretty generous amount of time to work out whether or not you find the app suitable for your needs. Unfortunately, all the app's functions will stop after the free period is over. Fortunately, if you decide you want to keep using it, you'll only need to pay a one-off fee of £3.79 for the Lifetime Edition – there are no ongoing subscription costs to worry about.

NEW



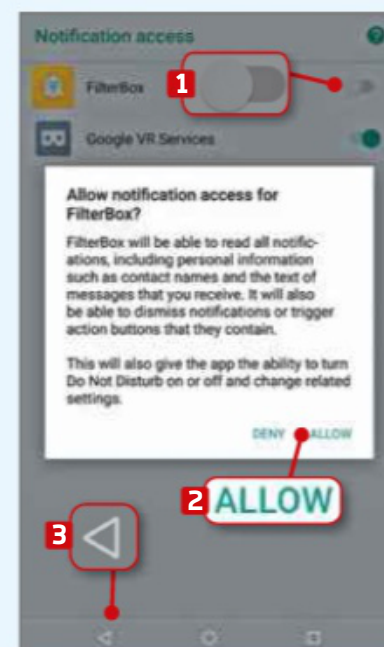
Our rating



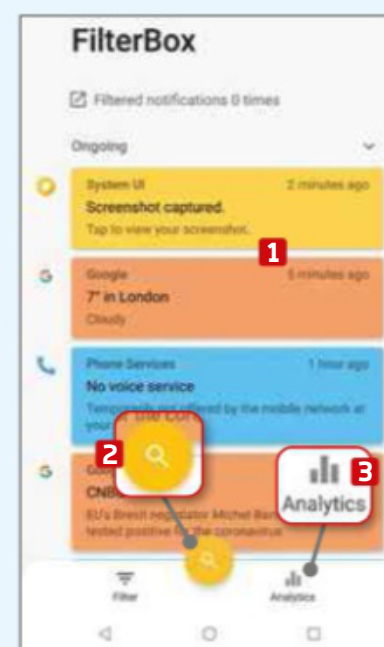
MINI WORKSHOP

Manage your notifications using FilterBox

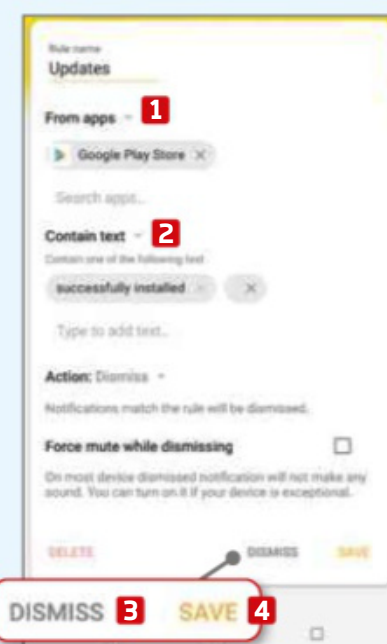
1 Launch FilterBox and read through the introduction screen. For the app to work, you need to give it permission to access your device's notifications, so tap the green arrow button when you're ready to proceed. Then, in the 'Notification access' screen that opens, press the switch next to FilterBox **1** to enable it and tap Allow. **2** Tap the Back button **3** to return to FilterBox.



2 The main FilterBox screen displays your notification timeline in a scrollable list, **1** showing a history of all your notifications. Press a notification card for more info, along with some handy options. You can search for specific notifications by keyword – tap the Search button. **2** To get an overall picture of the notifications you're receiving (and filtering, once this is set up) select the Analytics tab. **3**



3 To dismiss a specific notification, select the Filter tab, then tap the yellow plus sign (+). Give your rule a name, then choose 'Search apps' under 'From apps' **1** and start typing the name of the app you want to block. Press it, then tap 'Any text' and select 'Contain text'. **2** Enter some of the text from the notification you want to block, then select Dismiss from the Action menu **3** and tap Save **4**.



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

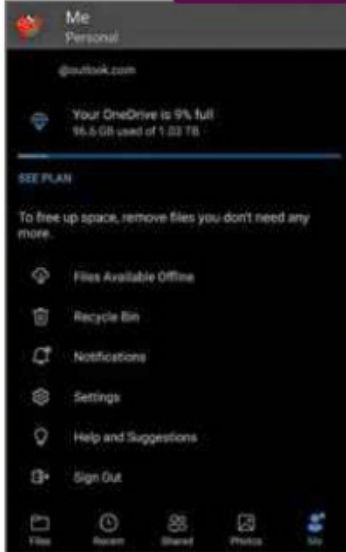
STORAGE

OneDrive

bit.ly/onedroid498
bit.ly/oneios498
 varies
 11.3

Microsoft has released an update to the Android version of its OneDrive online-storage app, introducing a visual overhaul that includes new icons and support for dark mode. In addition to this, Android users get improved tools for annotating PDFs and new search options.

The iOS version of OneDrive introduced dark mode in a previous update, so this new version only includes some minor bug fixes and improvements to the app's stability.



Our rating

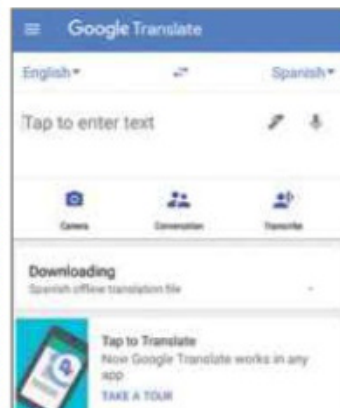


LANGUAGE

Google Translate

bit.ly/translatedroid498
bit.ly/translateios498
 varies
 11

Back in January, Google demonstrated its new transcription feature for Google Translate, and it's now rolling this out to users in an update to the app. This essentially means that Google Translate can now transcribe from one language to another in real time. Just tap the new Transcribe button in the app's main screen to get started. Currently, the feature supports eight languages: English, French, German, Russian, Thai, Portuguese, Spanish and Hindi. For now, the update is only available for Android.



Our rating



GAME

Om Nom: Run

bit.ly/omnomdroid498
bit.ly/omnomios498
 4.4
 9

Remember Om Nom – the candy-chomping hero from the Cut the Rope games? Well, he seems to have graduated from the popular physics puzzle series to star in his own endless runner game. The idea is to race through various danger-filled levels – in this case, set around the town of Nomville – avoiding obstacles, using power-ups and collecting coins to unlock characters from previous Cut the Rope titles. It's a colourful, fun-to-play addition to the franchise.



Our rating

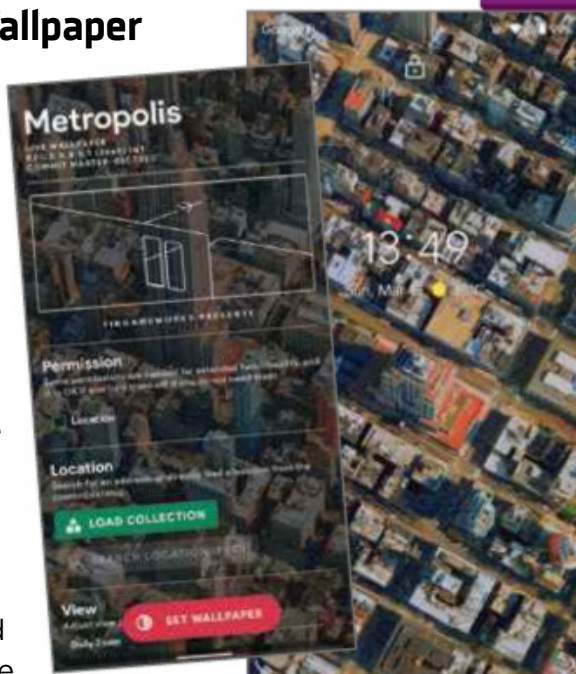


PERSONALISATION

Metropolis Live Wallpaper

bit.ly/metpaper498
 varies

Phone wallpaper that uses online map data isn't a new concept, but Metropolis Live Wallpaper puts an interesting spin on the idea. It lets you choose from a selection of animated 3D images of cities from around the world that you can customise yourself, adjusting parameters such as camera angle, brightness and vibrance. There are a couple of caveats, though – the app is still in Early Access and only works on devices with more than 3GB of RAM (preferably 6GB). And, currently, custom locations are restricted to major US cities, due to limitations with the app's map provider (Bing) – even if you pay (£2.79) for the Pro version.



Our rating



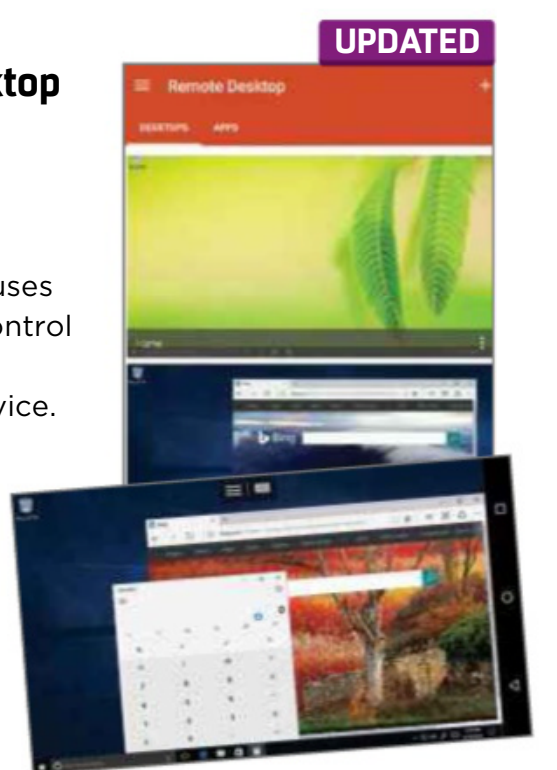
TOOLS

Microsoft Remote Desktop

bit.ly/rddroid498
bit.ly/rdios498
 4
 11

Microsoft Remote Desktop uses Windows' built-in remote-control function to access your PC's screen from your mobile device. The previous version of the Android Remote Desktop app has been depreciated in favour of this completely new version, which is currently in Early Access. Existing users will be prompted to switch to the new app. The iOS version has also been updated with several new features, including support for the iPad's on-screen floating keyboard.

There's a catch, though – Remote Desktop still only works with Windows 10 Pro devices. If you need to access a Windows 10 Home device, you'll need to use an alternative remote-desktop tool, such as Chrome Remote Desktop.



Our rating



5 NEW APPS WORTH PAYING FOR

TOOLS

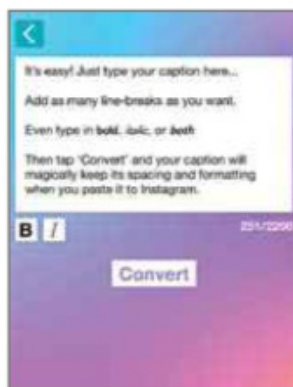
Spacie

bit.ly/spacie498

Price: £2.79

 5  8

Annoyed when your posts aren't formatted properly because sites and apps don't support line breaks or bold and italic text? Then use Spacie to style up your text prior to posting.



ART

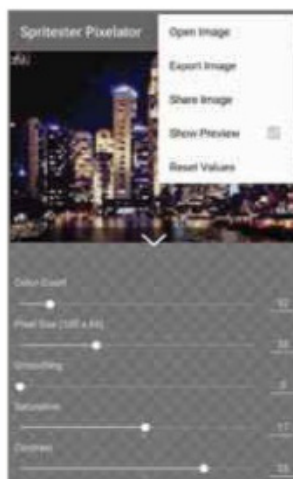
Spritester Pixelator

bit.ly/pixel498

Price: 89p

 6

Create your very own pixel art with this app, which lets you generate retro, 8-bit-style pixelated versions of photos and more using a simple yet exhaustive selection of tools and options.



GAME

Interrogation: Deceived

bit.ly/interrogation498

Price: £3.99

 8

This multi-award-



winning game sees you taking on the role of a police detective who must interrogate suspects and manage your team via a series of clever conversational puzzles.

HOBBIES

Plane Database

bit.ly/plane498

Price: £2.59

 5.1

There are fewer planes in the sky right now but, if you're an aviation enthusiast, you can keep your hobby alive with this app, which provides direct access to the Spottingmode plane database.

Registration	C/n	Type	Country
0001	21167	B737	Air Force
0001	25573	B737BBJ	Air Force
0001	1468	A319-133X	Air Force
0001	501	Fokker 27	Air Force pre
0001	11982	Fokker 28	Air Force
0001	10-0001	MIG-17	Air Force
0001	040001	L-39	Air Force
0001	190001	L-29	Air Force
0001	27308304	An-24	Air Force pre
0001	36000189	MIG-21	Air Force
0001	040001	L-39	Air Force
0001	5543	G-550	Air Force
0001	130001	L-39	Air Force Ma
0001	730001	M-8	Air Force
0001	720001	M-8	Air Force
0001	161	T-23	Air Force

GAME

Path to Mnemosyne

bit.ly/pathdroid498

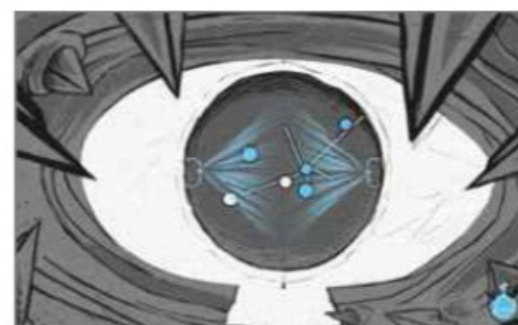
bit.ly/pathios498

Price: £4.69 (Android)

£4.99 (iOS)

 4.4  10

Part mystery story, part puzzle, this beautifully designed game offers gorgeous graphics, satisfying challenges, imaginative gameplay and bags of atmosphere to create a unique experience.



Spacie



Spritester Pixelator



Interrogation: Deceived



Plane Database



Path to Mnemosyne



✓ Install this app...

Truecaller

bit.ly/truedroid498

bit.ly/trueios498

 varies  11

Does your heart sink when your phone rings and you see an unrecognised number on the screen? It could be something important or it could just be yet another marketing call from someone claiming you've been in an accident or - worse - a scam caller trying to con you out of cash or personal information. Truecaller protects you from this invasion by letting you screen and block calls from known spam and telemarketing numbers. The latest version also supports blocking spam via SMS messaging, but you need to use Truecaller's built-in messaging tool for this to work. Advanced features, such as call recording, are available in the Premium version for £20 per year.

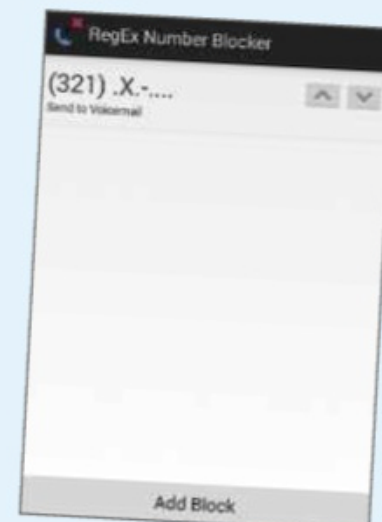


...Not this one

Regex Call Blocker

bit.ly/regex498

Still stuck on version 1.0, six years after it was last updated, Regex is a contender for our Abandonware of the Year award. At best, this is a very rudimentary tool for diverting calls from specific numbers to voicemail, silent or vibrate. But developer neglect means that the app simply doesn't work for many users, as the many customer reviews on Google Play unhappily attest - the non-fake ones, at least.





Take a Screen Break

Take a rest from your browser with our fiendish fortnightly challenges. Can you solve our US-city emoji and guess our Wikipedia article?

**WIN A
WEB USER
2019 BACK
ISSUES DISC!**

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



CAN YOU GUESS THE AMERICAN 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 "The game was originally designed and programmed by Soviet Russian software engineer Alexey Pajitnov. The first playable version was completed on 6 June, 1984, in Moscow."

2 "It is primarily composed of a field of play in which pieces of different geometric forms

descend from the top of the screen. During this descent, the player can move the pieces laterally and rotate them."

4 "Its music has become a well-known song in its own right. It is an instrumental arrangement of a Russian folk tune called

3



Korobeiniki, which has been covered by UK dance band Doctor Spin."

5 "The game never ends with the player's victory; the player can only complete as many lines as possible before an inevitable loss. However, in some versions you can 'max out' at the highest score possible (999,999)."

COMPETITIONS

WIN A... Synology DS218play NAS drive

Synology's DS218play NAS drive lets you access and stream your 4K media content any time, anywhere. It lets you instantly convert and play 4K videos on your TV, phone and other media players. To enter, email your address to webusercomp@dennis.co.uk with 'DS218play' in the subject line. For more information, visit www.synology.com and follow [@synologyuk](https://twitter.com/synologyuk) on Twitter.



WORTH
£217
EACH

WIN 1 OF 2 Lioncast mouse and mousepad packs

Lioncast's LM60 gaming mouse has a high-precision PMW 3389 sensor and first-class reliability, while the Lioncast Glow mousepad shines in seven colours. Together, they'll make your gaming more accurate, exciting and fun. To enter, email your address to webusercomp@dennis.co.uk with 'Lioncast' in the subject line. For more information, visit www.lioncast.com.



WORTH
£71
EACH

FAQ

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

Internet pollution

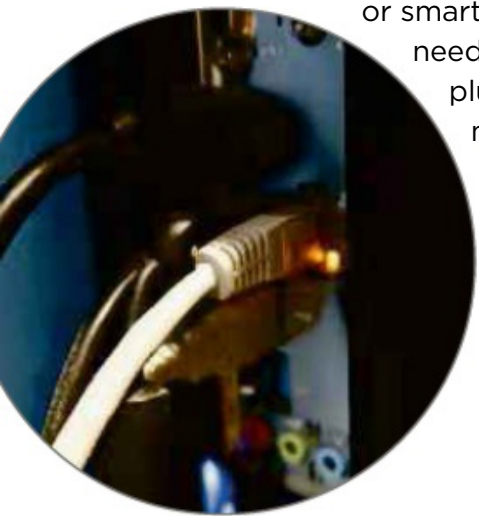
Are we damaging the environment every time we use the web? Yes, says **David Crookes**, and suggests how to be more eco-friendly online

What's the problem?

Every time we connect to the internet – whether to search the web, send an email, watch videos, listen to music or chat on social media – we carry out tasks that require power. Individually, the amount of energy we use for our enjoyment and productivity is relatively small; but cumulatively, it amounts to a huge production of carbon dioxide that experts say is contributing to climate change and having an adverse effect on the environment.

Is this due to power we use at home?

In part, yes. Our electronic devices, be they computers, tablets, mobile phones or smart speakers, either need to be constantly plugged into the



Our computers and routers consume more power per hour than many of us realise

mains or charged up for on-the-go use. We also need to plug in our routers to power our wireless networks – all of which uses a lot of electricity (computers are generally built to use 400 kilowatts of energy per hour). A huge chunk of power,

however, is also being used away from our homes and places of work. That's because our online activities require access to information stored in data centres on large power-hungry servers.

So the internet has a large carbon footprint?

Indeed it does. Over the past couple of decades, our internet use has rocketed and we now connect for many hours at a time. To cope, more and more hyperscale data centres have been built, each one capable of being quickly upgraded to respond to increasing demand. The data



centres often hold in excess of 5,000 servers (with some running into hundreds of thousands to millions) and, given they're stored in buildings that can be measured in the number of equivalent football pitches, you can imagine just how much power they can consume.

How many of these data centres are there?

According to Synergy Research, there are more than 500 hyperscale data centres and 38% of them are in the US. China accounts for 10%, Japan 7%, with the UK, Germany, Australia, Canada, India and Singapore among those making up the

numbers. Most of these are owned and run by Amazon, Microsoft, Google, Apple and Alibaba, but these are just the big ones. There are hundreds of thousands of smaller data centres around the world, many using electricity generated by burning fossil fuels.

Should I cut back on my online activities, then?

Figures suggest that, globally, our internet habits make each of us responsible for 400g of carbon dioxide a year. But how much we're actually liable for obviously depends on our individual use and where in the world we live



This Google data centre requires a large amount of electricity to power its servers

Credit: Visitor7, CC BY-SA 3.0

(people in developed nations have larger carbon footprints).

An email has an estimated carbon footprint of 4g of CO₂, which rises to around 50g if you attach a file. If you're on email all day, that can soon add up. Meanwhile, just searching on Google can involve carbon dioxide emissions of between 0.2 and 0.7g.

But surely these are still tiny amounts?

Yes, but the impact rises as you perform more complex tasks. The recent BBC Three documentary *Dirty Streaming: The Internet's Big Secret* (bit.ly/dirty498) explored the need for us to become more responsible digital citizens. It claimed, for instance, that watching every episode of the drama *Peaky Blinders* generates as much pollution as a drive between Manchester and Birmingham (a two-hour Netflix film in high definition has the carbon equivalent of boiling up to 10 kettles).

It's startling to note that the internet accounts for 3.7% of the entire world's global greenhouse gas emissions. That may not seem like much until you realise that this is the same as the amount produced by the airline industry. Emissions are expected to double over the next five years and online usage could eat up as much as 8% of the world's total power by the end of the decade. By 2040, that figure is estimated to rise to 14%.



Binge-watching Peaky Blinders may have a significant effect on the environment

Can't data centres switch to renewable energy?

Of course, and in many cases this is exactly what is happening – not least because a megawatt can cost a million dollars a year and companies are keen to cut costs. Apple uses wind energy to power data centres in Oregon and California, for instance, and solar energy in North Carolina (all of Apple's global facilities are powered with 100% clean energy, see bit.ly/apple498).

Microsoft said in January that it will be carbon negative by 2030 (bit.ly/microsoft498) and, last year, Google – which has 14 data centres across four continents – announced that it had made the biggest corporate purchase of renewable energy in history, with wind farms and solar energy plants providing half of its required megawatts. One Google data centre in Finland reduces energy use by using recycled seawater and others are based in the Arctic for more efficient cooling.



Apple uses solar energy to power some of its data centres

So, problem solved?

Not quite. On the one hand, great steps have been taken toward efficiency in data centres, with the amount of energy used over the past 10 years rising by just 6%. Yet the big problems remain among those data centres that are powered by burning fossil fuels. Amazon Web Services, which powers sites including Netflix, the BBC and Guardian, has been slow to switch, although it is committed to achieving 100% renewable energy usage (bit.ly/



Visit ClickClean to discover how dirty your favourite apps are in terms of energy usage

amazon498) and has announced new wind and solar farms.

How can I check my online carbon footprint?

Visit the Greenpeace website ClickClean (www.clickclean.org), select a country and look for the video, messaging and music apps you use. Next to each is a grading, with 'A' being the best. This has been awarded to Facebook (sustainability.fb.com), Google Play, iTunes, YouTube, iMessage, WhatsApp, Instagram, Skype,

Apple Music and a few others, because they use large percentages of clean energy (Facebook runs its Iowa data centre on 100% wind power and its messages generate just 0.014 grams of carbon dioxide).

F grades are reserved for Twitter and SoundCloud, which use just 10% and 17% of clean energy and derive most of their power from natural gas and coal. Tweets have a footprint of 0.2% of carbon dioxide.

What can I do to help?

No one is suggesting that you should cut the lines of online communication. In fact, emailing, making calls and video conferencing have much less of an impact on the environment than travelling to an office for a face-to-face meeting. But it's worth considering the devices you use: tablets and smartphones eat up less energy than laptop and desktop computers, for instance, and you should power down rather than enter Sleep mode if you're going to be away from your PC for a long period of time.

Send one less email each day, too – OVO Energy suggested Britons sending a polite "thank you" email are racking up 16,433 tonnes of carbon a year, which is the same as flying to Madrid 81,152 times!

PLANT TREES BY SEARCHING THE WEB

If you're worried about the impact your web searches are having on the environment, then consider using the search engine Ecosia (www.ecosia.org) which promises to remove carbon dioxide from the atmosphere by using a good chunk of its profits to plant trees. Providing search results powered by Bing and earning money from adverts, Ecosia says it takes approximately 45 searches to finance the planting of a tree. At the time of



writing, close to 87,000,000 had been planted across about 9,000 locations worldwide.

PARTITION YOUR PC

FOR FREE

COVER
FEATURE

Want two or more computers for the price of one? **Wayne Williams** explains why and how you should partition your hard drive, and reveals the best free tools for the job

Partitioning your hard drive sounds like a complicated and technical task that most PC users will never need to bother with. However, it's actually relatively straightforward, provided you know how to go about it, and it has several benefits, allowing you to gain more control of your system, better protect your data and take your computing to the next level.

Although Windows provides its own basic tool for managing partitions, there are lots of better, more advanced options out there that make partitioning both simple and appealing, especially if you want to try another operating system or keep your important files separate. Not only that, but partitioning doesn't have to cost you any money, even if you do opt for one of the more sophisticated programs.

In this feature, we review the best free partitioning tools, explain why you should (and shouldn't) divide your hard drives and provide expert tips for working with partitions.



WHY YOU SHOULD PARTITION YOUR PC

There are lots of benefits to dividing your hard drive into different sections, as well as a few drawbacks. Here, we explain the main ones to be aware of

Reinstall Windows after a disaster

Having all your installed software and personal files on the same drive as your operating system is akin to putting all your eggs in one basket. If you keep the operating system in its own separate partition, it'll be much easier to get up and running again if a disaster strikes because you can just format the system partition and reinstall Windows, while all your programs and files remain untouched in the other partition.



Back up your data more easily

Creating a partition for all your personal data – documents, photos, videos and so on – makes backing them up much easier. All you have to do is back up that one partition – or create a clone of it if you want an exact copy for restoring later (following a ransomware attack, for example) – and it will always be there as a safety net.

Dual-boot another operating system

If you've always fancied switching from Windows to Linux, but aren't quite ready to abandon Microsoft's operating system for good, then setting up a dual- (or multi-) boot system is the perfect solution. This provides you with a choice of OS at boot up – so you can easily fire up either Windows or Linux, depending on your needs. You can also run different versions of Windows on

the same hard drive – Windows 7 and Windows 10, for example – but in separate partitions.

Boost your PC's speed

Installing an operating system in the first partition of a mechanical hard drive can have speed benefits, because the outermost tracks have the highest transfer rate. In truth, you probably won't notice a great difference (upgrading to an SSD is a much better option), but every little helps.



You can also encrypt a partition to turn it into a secure space for all your precious personal files.

Keep your files better organised

If you're the organised type, partitions can be very useful because you can create multiple divisions for your various needs. As well as a partition for your operating system, you can have one for programs and/or games, and another for personal files. If you have a lot of photos on your PC, you can create a partition exclusively for that purpose, then sort the images across as many folders and subfolders as required. As mentioned previously, this will make backing them up much easier, too.

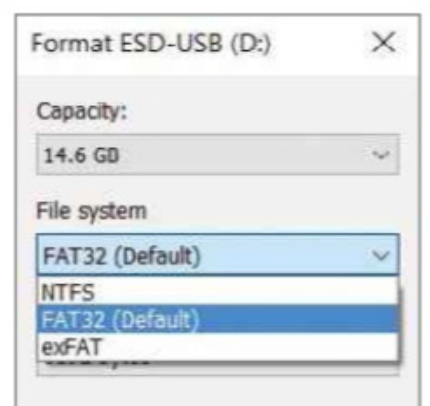
Use different file systems

If you have more than one computer – a Windows PC and an Apple Mac, for example – you can share an external drive between them by

partitioning it and formatting each space using the relevant file system.

Format the partition you're dedicating to

your PC's storage using NTFS, FAT32 or exFAT; and, for the Mac storage, use APFS or macOS Extended. The size of the partitions can be adjusted depending on your needs – for example, a larger partition for the PC if you have more files there.



Improve your security

Partitioning your hard drive can potentially improve security because attacks that infect your system drive, such as ransomware, may ignore personal files stored elsewhere. This isn't guaranteed – it depends on the type of attack – but it's still worth doing as a precaution. If your antivirus software offers the ability to protect specific folders, to prevent them from being tampered with by malware, then you can point it in the direction of the partition where you store your personal content.



AND WHY YOU SHOULDN'T

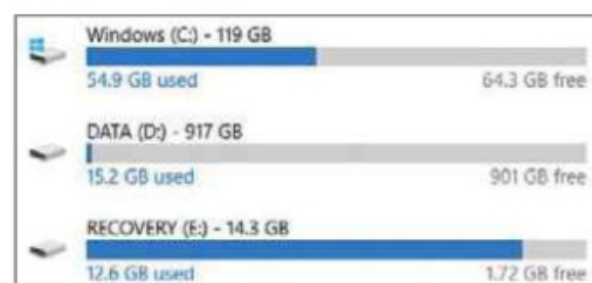
Potential for mistakes

If you stick to having just one drive with one partition, you know exactly where everything is: your operating system, apps and personal files are all in the same place. Once you introduce two or more partitions, you need to remember where you've put everything. If you have to make changes to a partition, make sure you know which is which – it's easy to accidentally wipe the wrong one.

Wasting drive space

Having partitions means monitoring the

amount of free space there is in each one. Windows 10 updates can eat into your spare space, and other areas may require more room than you've allowed for. This includes reserved storage, virtual memory, the hibernation file and



system restore. You can shrink and expand partitions as required, but having to do this frequently is a hassle.

You may not need to

If you have a very large hard drive – say, 4TB – then partitioning it into smaller sections has clear benefits, provided you make proper use of all the partitions. If your hard drive is relatively small, then there's no real need to mess with its structure. Ultimately, you may prefer to buy a cheap external drive and use that instead.



BEST FREE PARTITIONING TOOLS

There are lots of partitioning programs available, including Windows' own built-in tool. Here, we review the best options for dividing your hard drive

MiniTool Partition Wizard Free 11 | bit.ly/mtpartwiz498 | ★★★★★

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

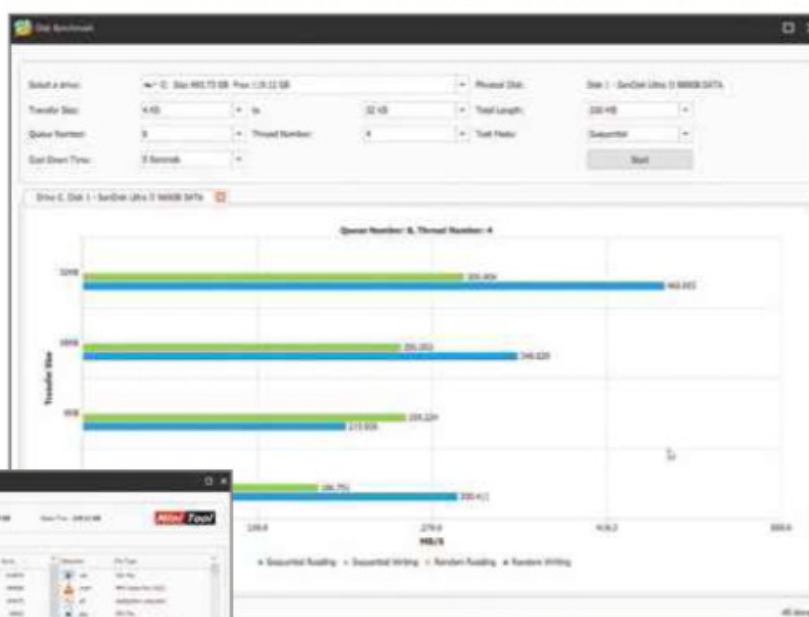
WebUser
GOLD
AWARD

What we liked:

MiniTool's Partition Wizard Free offers most of the tools you're likely to need to do anything with partitions, such as creating, deleting, wiping, copying, resizing and moving them. It can also clone drives, and convert disk types and file systems. Usefully, the program also checks for problems, including aligning all partitions, rebuilding the MBR (Master Boot Record) and running a surface test. It also scans for lost or deleted partitions, though it can't recover them – that's a paid-for feature. However, it is able to find and recover deleted data, but only up to a maximum of 1GB for free.

The software has some welcome additional features, including a disk-space analyser, so you can see where all that once-free space has vanished to, and a benchmarking tool that lets you check the performance of your drives.

Partition Wizard benefits from a



smart design that's easy to understand: partitions are displayed above, disks are shown below and the available operations

are listed on the left (these change depending on the partition or drive you select). Further options are accessible at the top of the interface, and the menu bar at the very top is where you can access the full list of tasks and customise the software.

Once you've instigated some drive or partitioning operations, you can apply, undo or discard them using the large buttons in the top-left area.

How it can be improved:

The software tries to get you to install junk and other MiniTool programs during installation, which is annoying. The tiled (Windows 8-style) start screen is a confusing mess, too, although this can at least be skipped after the first run.

The free version of the program includes most of the features you're likely to need, but lost partition recovery, dynamic disk

management and bootable media creation all require an upgrade to the paid-for version, which costs \$59 (£47.48) for a lifetime licence.

OUR VERDICT

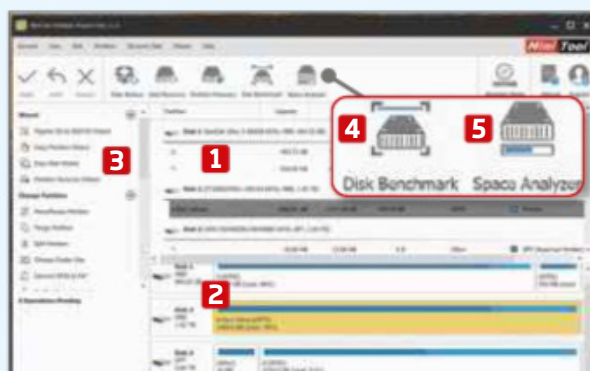
Partition Wizard Free doesn't offer every feature you might want (if it did, there would be no need for a paid-for version), but it does come with all the essential options, plus some useful additional extras. It's very easy to use, with wizards to guide you through tasks such as copying partitions and drives.



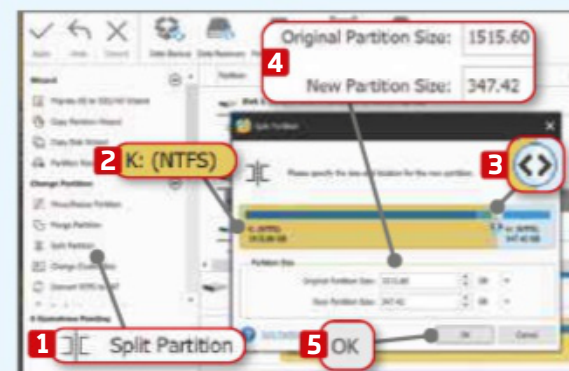
MINI WORKSHOP | Manage partitions with MiniTool Partition Wizard Free



1 Partition Wizard Free has an optional, tiled front end that's similar in style to Windows 8's Metro design. Click one of the options **1** and the main interface opens, along with the component you requested. If you want to skip this screen in future, untick 'Show this window when starting application'. **2**



2 Partitions are shown in the top pane, **1** while your disks are displayed below. **2** When you click any of them, the list of options on the left updates. **3** You can measure the speed of a disk with the benchmarking tool **4** and use the space analyser **5** to see how your storage is being used.



3 If you want to create a new partition, select the drive and click Split Partition on the left. **1** This will create a new area, with a new drive letter. **2** You can resize it using the slider, **3** or enter the information in the boxes below if you want a specific size. **4** Once that's done, simply apply the change. **5**

Macrorit Partition Expert Free Edition | bit.ly/macro498 | ★★★★★☆

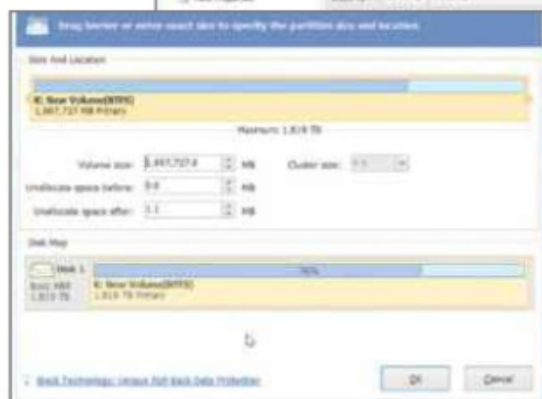
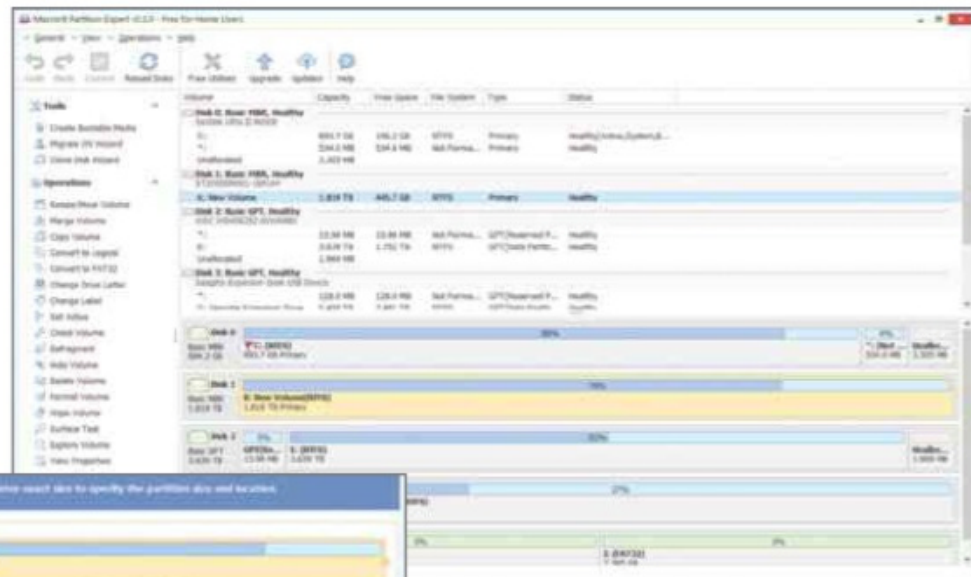
FEATURES ★★★★★☆ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★☆

WebUser
SILVER
AWARD

What we liked:

Once you've used a partitioning program to create and configure your partitions, you probably won't need to use the software very often, except for an occasional spot of resizing or to use its extra tools. So it's handy that Partition Expert Free provides a portable version – as well as the standard installable program – that you can use as and when you need it, to save time and hassle.

Macrorit's software has a similar interface design to MiniTool's, with partitions at the top, disks below and tools and available options on the left (these change depending on the drive or partition you select). It can resize, copy, merge, move, format and delete partitions, as well as change their drive letters and labels, and check for errors.



The software can also convert an MBR disk to GPT, defrag drives, wipe free or unallocated space, and convert primary partitions

to logical, and vice versa. The latest release makes it easy to migrate your operating system from one partition or drive to another.

How it can be improved:

Like other free versions, Partition Expert Free doesn't support dynamic

disks or Apple Bootcamp partitions. If you require these or other additional features, such as the ability to create a 32- or 64-bit WinPE bootable disc, you can upgrade to one of the paid-for editions, which cost from £40.

It would be handy if you could see at a glance which features aren't available for free.

If you click the Create Bootable Media link, for example, it just takes you to an upgrade page.

OUR VERDICT

This is another good choice for partitioning, with most of the features you are likely to need laid out in a well-considered manner. Operations are performed speedily, and we like the option of having both an installer and a portable version.

EaseUS Partition Master Free 13 | bit.ly/easeus498 | ★★★★★☆

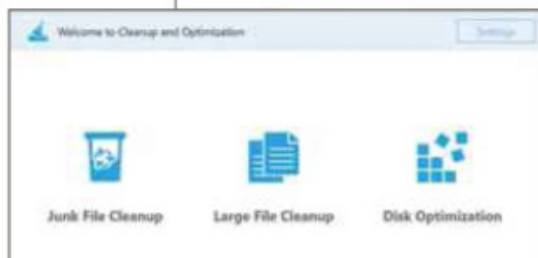
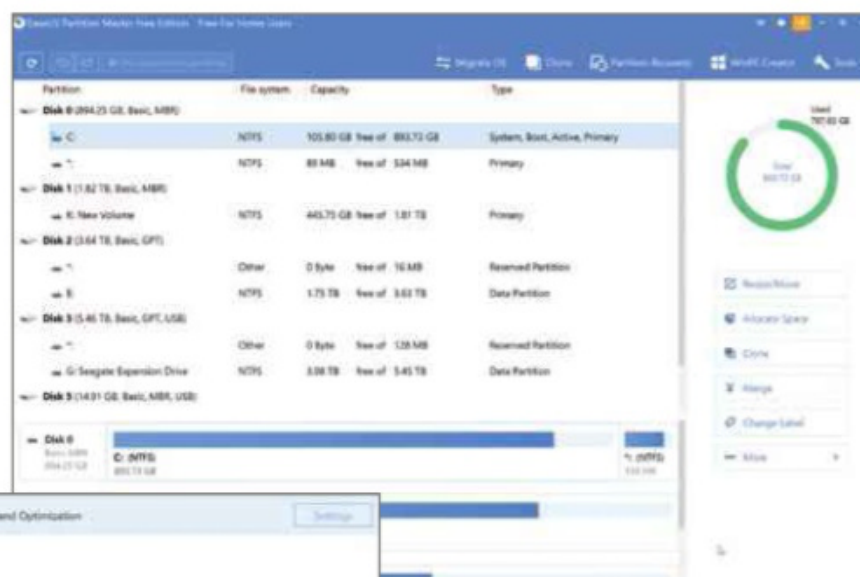
FEATURES ★★★★★☆ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★☆

WebUser
BRONZE
AWARD

What we liked:

Like our Gold and Silver Award-winners, EaseUS Partition Master Free can create, resize, format and delete disk partitions. It can also convert, explore and hide partitions, copy disks and volumes, wipe contents, recover data, rebuild a damaged or missing master boot record and change drive letters. It additionally comes with handy junk- and large-file cleanup tools, and a disk-optimisation module. These can be found under Tools, System Optimisation.

The interface isn't especially attractive, but it's reasonably intuitive. The Partitions are shown at the top, with the disks below and available operations – including resize and move, allocate space, clone, merge and



change label – displayed on the right. This list updates depending

on the partition or drive selected, and you can see the total size and space used by the chosen volume in graphical form above. Other menu options are shown at the right-hand end of the bar across the top, and you can use the top-left controls to reload the disk information, undo or redo actions, and view pending operations.

How it can be improved:

The free edition offers a lot of features, but you may need to dig around a little to find some of them. It's not difficult to use but it could be better organised.

Certain features – such as the ability to manage dynamic volumes, convert system disks from one format to another, migrate the OS to another drive without reinstalling and use WinPE bootable disk creation – are only available in

the paid-for Partition Master Pro, which currently costs £35.99.

OUR VERDICT

There's a lot to like about this software. It's fast and comes with plenty of useful features, but the interface could do with a redesign and we'd prefer it if options that aren't available in the free edition were clearly marked as such.

BEST OF THE REST

Windows Disk Management

You don't need to install a third-party program to create or manage partitions because Windows comes with its own tool. To launch it, just type `partition` into the Windows search box, then launch the option to 'Create and format hard disk partitions'. This opens the Disk Management tool and shows you all the drives and partitions in your PC, including their layout, type, file system, status, capacity and more.

Right-clicking a drive presents you with options for shrinking or extending the volume, changing the drive letter or paths, and formatting. The tool is very basic compared to other partitioning programs but it

does the job – and, of course, it's free.

OVERALL ★★★☆☆

Paragon Partition Manager Community Edition

bit.ly/paragon498

The Community Edition of Paragon's disk tool is free for non-commercial use and can resize, format, delete and check partitions, but it doesn't offer the ability to merge or split them. It does, however, let you create a WinPE bootable disc, which most partitioning programs only offer in their paid-for versions (see box on page 45), and manage dynamic disks. It also offers a useful command-line feature.

Overall, it's a reasonably efficient tool with a very attractive interface, but it

lacks some of the options found in rival software.

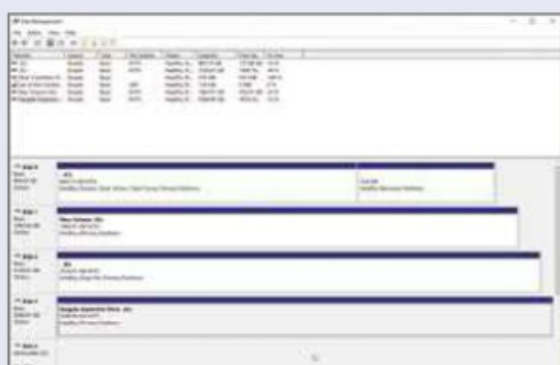
OVERALL ★★★☆☆

AOMEI Partition Assistant Standard Edition

bit.ly/aomei498

Unlike other similar programs, which are only free for personal use, AOMEI Partition Assistant Standard can also be used in a commercial environment. It can create, resize, move, merge and split partitions, clone a hard drive or partition, and migrate your operating system from a mechanical drive to an SSD. However, it's not quite as good as other free tools because it lacks certain advanced features.

OVERALL ★★★☆☆



MASTER YOUR PARTITIONS

Now you've decided on the best tool for the job, it's time to get partitioning. Here are our expert tips for taking control of your drives and partitions

Decide how much space to use

This is a tricky one because there are a lot of variables to consider, and everyone's needs are different. If you're creating a partition for your operating system, it's important to allow it space to breathe. Microsoft recommends you

allocate at least 32GB for a *clean* install of Windows 10 but we'd suggest at least double that to allow for future demands and upgrades. You don't want to be continually fiddling with freeing up extra space so it's best to be generous with the allocation.

When it comes to storage for personal files – photos and the like – always commit to the maximum you can, because you'll fill it much quicker than you might expect.

Assigning and changing drive letters

When you create a partition, it is automatically assigned a new drive letter. If you're not happy with the allocation, you can manually change it. Partitioning programs offer the option to do this but you can also use Windows' own Disk Management tool.

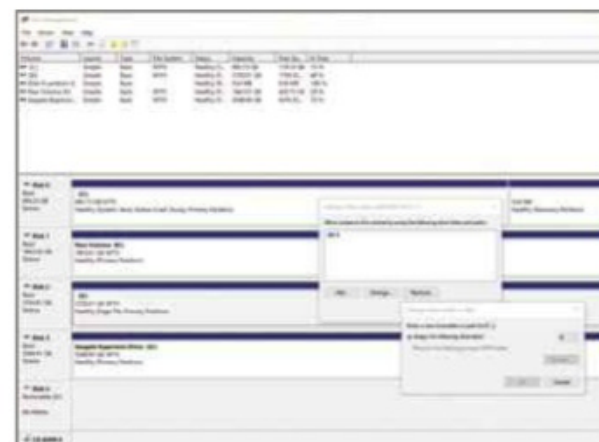
SHOULD I PARTITION MY SSD?

SSDs are typically a lot smaller than mechanical hard drives, so you may not want or need to divide them up. It's better to use your SSD for the OS and then add a hard drive for storage.

If you can't add a mechanical hard drive and your SSD is a reasonable size, you can still partition it, but you won't get the same



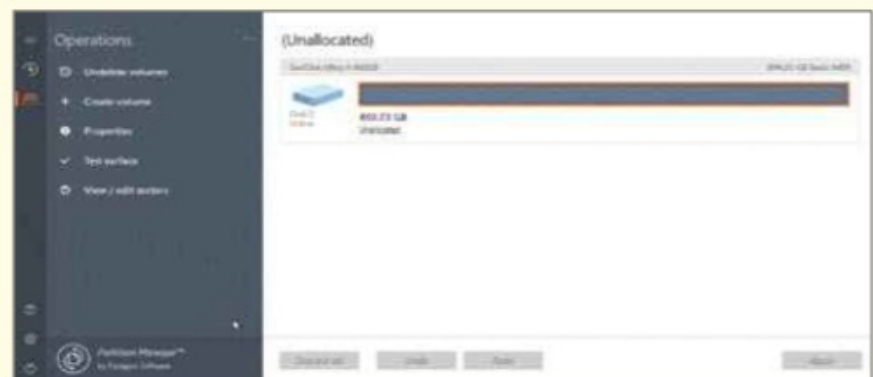
speed benefits you would from partitioning an HDD and installing Windows in the first partition. And keeping the OS and files entirely separate on an SSD won't improve its life because 'wear levelling' means the data gets moved around the entire drive as needed. However, partitioning can still be useful for keeping everything organised.



FIX PARTITION PROBLEMS

If you encounter a problem with a partition, don't panic. Most third-party partitioning programs offer tools that can fix common errors. MiniTool Partition Wizard, for example, can check the file system and fix any problems it diagnoses.

If you can't get into Windows because of a missing or corrupt partition, then you'll need to make use of a bootable WinPE rescue disk. Paragon Partition Manager Community Edition is one of the few free partitioning solutions that can create one for you. Open Settings, click Recovery Media Builder and install everything that's needed. You can create a recovery USB flash drive or generate an ISO file for burning to CD or DVD. Boot into



this, and Paragon Partition Manager will load. You'll then be able to undelete and create volumes, test the surface, and view and edit sectors.

Right-click the partition and select 'Change letter and paths'. In the box that opens, you can add, change or remove the letter. Click Change and select a new letter in the drop-down box.

Copy partitions to another drive

It can be useful to copy a partition from one drive to another for backup purposes, and free partitioning tools let you do this with ease. MiniTool's partitioning software, for example, has a Copy Partition Wizard that steps you through the process. Launch it, then select the partition to copy. Click Next, then select a disk and mark the position where you would like to create the duplicate.

Partition a drive in macOS

Partitioning a disk in Apple's operating system is similar to the process in Windows. To get started, open Finder, select Applications, open the Utilities folder and launch the Disk Utility tool. Select a drive, click the Partition tab and click the Add (+) button. You can adjust



the partition size as required, and add extra partitions if you wish.

Create a dual-boot system

It's relatively easy to set up a dual-boot system – you just need to create a new partition on your system drive, then install the second operating system on it. When installing two versions of Windows alongside each other, always install the newer OS after the older one (Windows 7 first, Windows 10 second) to avoid confusing the bootloader.

If you're installing Linux – be it Mint, Ubuntu or something else – alongside Windows but on separate partitions,

install it second to avoid running into problems. Otherwise, you'll have to select the operating system you require from the Linux boot menu rather than the Windows one, and Linux will be your default OS.

Partition a USB stick

You can partition a USB memory stick's drive, provided it's big enough, but you'll need to use a third-party app because Windows' built-in disk-management tool can't do this. Fortunately, our Gold Award-winner, MiniTool Partition Wizard Free, does offer this functionality and even provides step-by-step instructions for partitioning USB sticks on its website at bit.ly/miniusb498.

Once you've created a new partition on your USB stick, you'll be able to perform all the usual tasks, such as move, resize, format, wipe and merge. ■



NEXT ISSUE

on sale Wednesday 15 April 2020

SWITCH TO THE ANONYMOUS WEB

Beat online surveillance and access blocked content using the invisible internet

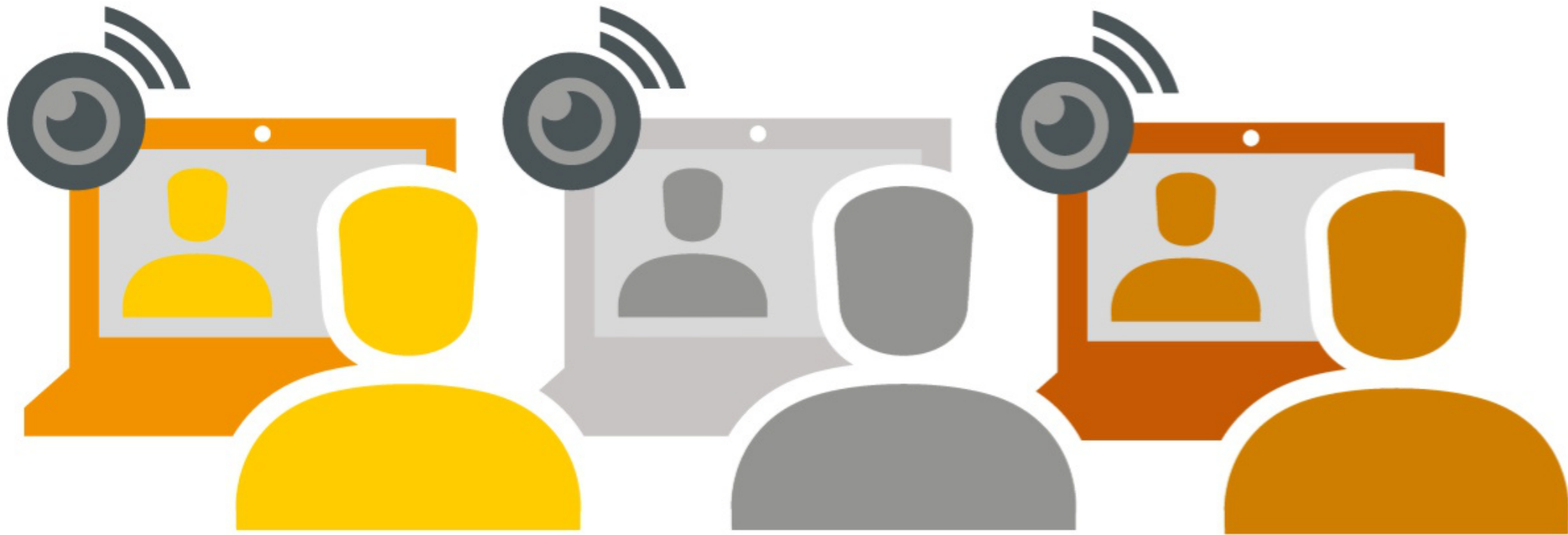


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Best video-chat apps



You don't need to forget what your socially distanced friends and family look like – get everyone together virtually for a video chat. **Andy Shaw** reviews the best free tools for communicating remotely

Skype | www.skype.com | ★★★★★
FEATURES ★★★★★ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★

**WebUser
GOLD
AWARD**

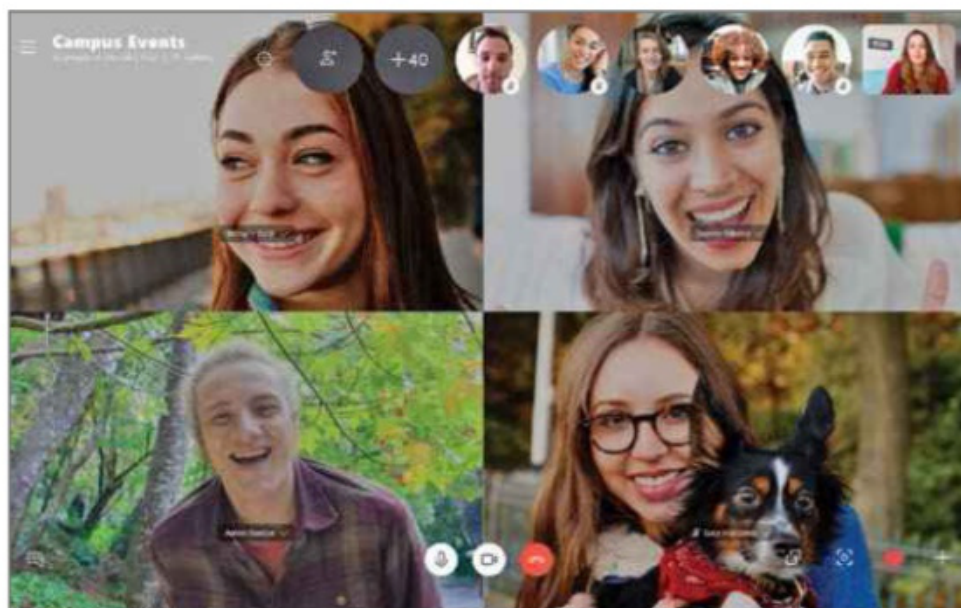
What we liked

For small group chats and Apple-only get-togethers, you're almost certainly better off using

WhatsApp or FaceTime. However, Microsoft's Skype still has a number of things going for it that edge it ahead of these relative newcomers to make it our best all-round service.

The two most useful things about Skype are its familiarity and its massive user base. Skype first appeared in 2003 (five years before the iPhone), when it was introduced to help make cheap international phone calls over the internet. It has included webcam-based video chatting since the early days, and it's likely that anyone with a friend or relative abroad has used it at some time to communicate from one PC to another. 16 years later, we suspect most people will at least be aware of it, even if they haven't tried it or long ago abandoned it.

New contacts are easy to find (through email, username or phone number), as is adding them to your own



list of contacts. You can send written messages, make voice calls or have a video chat at the tap or click of an icon.

You can also group selected contacts together, to communicate with them all at the same time. For a video chat, this is a simple matter of selecting the group and tapping the camera icon. Everyone gets the call and can then choose whether to join the conversation.

Microsoft has added business tools to the service, so you can use these same professional features to enhance your chats, from sharing screens to recording the session. However, these can easily be repurposed to share a photo slideshow, for example, or record

a conversation to play back to someone who isn't present. The software can even listen to your conversation and create subtitles on the fly.

How it can be improved

Compared to the other services we've reviewed, Skype can feel a bit fusty and old-fashioned. It's no barrier to enjoying the many advantages of the service, but it may put off new users so, if you're looking to chat with the younger generation, you might need to look elsewhere.

OUR VERDICT

There are video-chatting services out there that do individual elements better than Skype but, if you need a solid all-rounder, it's still the best tool to use. Most people will have used it before so you can usually find a specific contact on there, though you may have to get them to blow the dust off their app in the wake of other services becoming more popular.

WhatsApp | www.whatsapp.com | ★★★★★☆
 FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★☆

**WebUser
SILVER
AWARD**

What we liked

If there's one benefit to using WhatsApp for small-group video chats, it's that practically everyone with a smartphone already has it. Initiating a chat session is simple – just open a contact and tap the camera or phone handset icons in the top-right corner.

The options are relatively limited but, because WhatsApp is so ubiquitous with smartphone users, even your most technophobic friends and family members will have no problems using it. Anyone who's never tried it will need only minimal tutoring and most people will already have it installed on their phones for group chats and messaging.

How it can be improved

The one thing that WhatsApp is arguably missing is group video chats



with more than four people. If your friendship circle or family numbers more than that, you'll have to leave some folk out of the get-together or huddle larger groups around a single device. The other problem is that, while it's great on phones, WhatsApp isn't widely available on tablets. There's a web-based version you can run on your PC but you can only use it if you've installed it on a phone first.

OUR VERDICT

If WhatsApp was more user-friendly on non-smartphone devices and allowed more than four people to take part in group chats, it would knock Skype off its perch. Its generation-spanning user base is solid but its group-calling tools have yet to catch up with its widely-used group text chats.

FaceTime | bit.ly/facetime498 | ★★★★★☆
 FEATURES ★★★★★ PERFORMANCE ★★★★★☆ EASE OF USE ★★★★★☆

**WebUser
BRONZE
AWARD**

What we liked

In the admittedly unlikely event that you and everyone you want to talk to primarily uses an Apple device, then FaceTime is brilliant. It's well integrated into all Apple's mobile and macOS technology, and works smoothly and seamlessly.

Choose the person you want to speak to from your contacts. Once you've made or received a FaceTime call, the menu on the side is populated with your previous calls, which makes speaking to the same person even easier because you can just tap the previous call to contact them again.

During a call, icons are displayed that instantly turn the video camera and the microphone on or off. Further icons pop up on your screen to deal with incidents such as extra incoming calls.

Relatively recent updates have introduced the option of calls with multiple people (up to 32), which was sorely needed to keep up with the competition.



How it can be improved

Clearly, the best way Apple could improve FaceTime would be by making it available to non-Apple devices, but we can't see that happening anytime soon.

OUR VERDICT

FaceTime makes it incredibly easy to engage in video and voice chats with friends and loved ones – as long as every person involved has access to an Apple device. That's quite a caveat, however, and while it remains in place, FaceTime is never going to beat the competition.

BEST OF THE REST

Zoom

zoom.us

If you need to get more serious about your voice chats, Zoom is an interesting option. It's clearly taking aim at the likes of Skype as a full-on multi-platform business-conferencing tool that makes use of the kinds of cameras and speakers you find in modern office meeting rooms. If you can keep your 'meetings' to less than 40 minutes, you can talk to 50 people at a time – for free.



Marco Polo

www.marcopolo.me

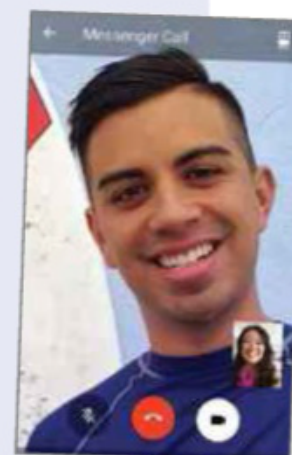
If you don't fancy a live online face-to-face session, Marco Polo lets you send a video message, which the recipient can enjoy at their leisure and reply to if they want. This app accesses your existing phone contacts, lets you choose one (or create a group of multiple contacts), then lets you record a short message to send to them. If your family is prone to all talking at once or everyone is spread across multiple time zones, Marco Polo is extremely useful.



Facebook Messenger

www.facebook.com

If all your friends and family are on Facebook, then it makes some sense to keep your video chatting to the social network's tools, too. Facebook Messenger is accessed through the Facebook website or on a separate mobile app, and can be used for both individual chats and group video chats, with up to six people on screen at once.



Appy Easter Eggs

Delving into the settings of Android and iOS apps can unlock surprisingly useful features. **Robert Irvine** reveals 17 of the best secret tools in apps you use every day

Play **Chrome's** dinosaur game

Entertain yourself when you lose your mobile connection by playing Chrome's dinosaur game, which you can start by tapping the tyrannosaurus rex on the app's offline page. Alternatively, play it



while online at <chrome://dino>. The aim of this side-scrolling game is to make the dinosaur jump

over the cacti by tapping your screen. The longer the T-Rex runs for, the faster the game gets and the more points you score. Watch out for the pterodactyls!

Save pages as PDFs in **Firefox**

The Firefox app for Android offers the useful option to save web pages as PDFs, without having to go through the Share, Print, 'Print as PDF' process, as you do with Chromium-based mobile browsers. Tap the three-dot menu when viewing a page, then choose Page, 'Save as PDF' to download the file. You may need to grant Firefox permission to access files on your device.



Block adverts in **Microsoft Edge**

Microsoft's splendid new Edge browser features a built-in ad blocker, but only in its Android and iOS app. On the desktop, you need to install a third-party extension. To activate ad blocking on your mobile device, tap the three-dot button at the bottom of Edge's home screen and choose Settings. Select 'Content blockers' and toggle on the 'Block ads' option.

Note that the ad blocker is provided by Adblock Plus, which allows 'acceptable ads' from companies that pay it - this presumably includes Microsoft. To block all ads, regardless of acceptability, tap 'Advanced settings' and switch off 'Allow acceptable ads'. You can whitelist specific sites to exclude them from ad-blocking.



Format your **WhatsApp** messages

Most of us are familiar with the formatting options available in email that can be used to emphasise text, but it's less well known that WhatsApp also offers these options. For example, to make text **bold**, place an asterisk on either side *like this*; to *italicise* words,

use underscores _like this_; and to ~~strikethrough~~ what you've written, enclose it in tildes ~like this~. Alternatively, on an Android phone, just press down on the text and choose Bold, Italic or More (for strikethroughs) from the shortcuts menu. On iOS, tap Select or Select All, then B_I_U.

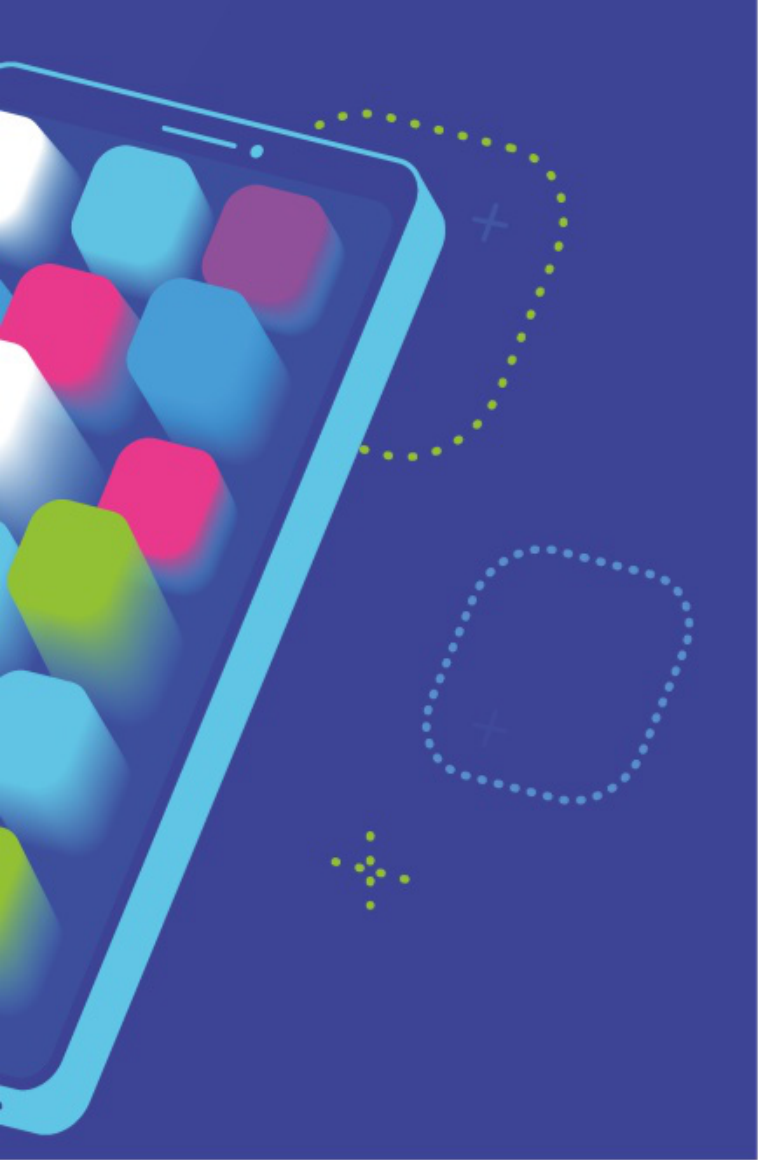
To increase WhatsApp's default font size, go to Settings, Chats and choose Large or Small under 'Font size'.

Find Wi-Fi hotspots with **Facebook**

As we mentioned in last issue's 'Unlock Wi-Fi secrets' feature, Facebook has a handy hidden tool that helps you find Wi-Fi hotspots when you're out and about. This uses a directory of businesses that offer public Wi-Fi, which Facebook has vetted to ensure you don't connect to dodgy networks.

To access the tool, tap the menu in the top-right corner of the Facebook app and open the See More section. Select Find Wi-Fi, then tap the Enable Find Wi-Fi button to view a list of nearby businesses that let you use their Wi-Fi for free (or for the price of a coffee, at least). You can also receive daily

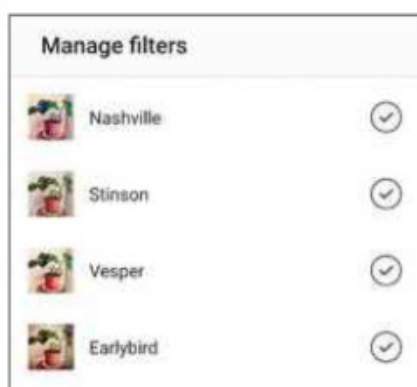




notifications about local hotspots, which is useful when you're travelling.

Unlock more filters in Instagram

Filters are the lifeblood of Instagram, and there are more of them to apply to your photos and videos than you may realise, with the extra options hidden in plain sight.



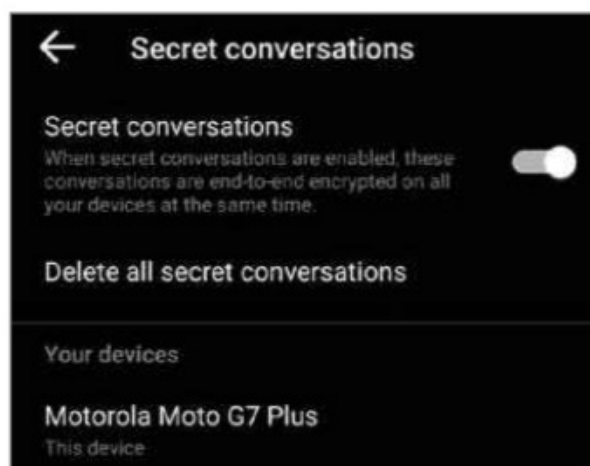
Upload an image or clip as usual, then swipe through the standard set of filters and tap the Manage button at the very end. This displays the full list of 40 filters,

with names such as Vesper, Skyline and Dogpatch. Tap the circle next to one to add it to the main filter screen, or untick a circle to remove that filter.

Encrypt your Messenger conversations

Unlike WhatsApp, Facebook Messenger doesn't encrypt your messages by default, which means your chats can be spied on by hackers, the authorities and Facebook itself. The app does have a secure option, but it's well hidden.

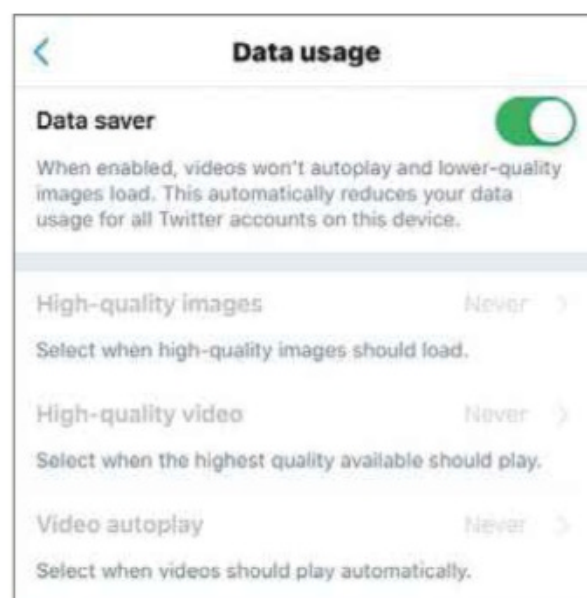
Tap a contact, then the 'i' info icon and choose 'Go to secret conversation'. The new chat's contents are protected by end-to-end encryption, but other details, such as when and to whom you chatted, are not. To delete your secret conversations, so stop anyone snooping through your phone from seeing them, go into your profile, tap 'Secret



conversations' and select 'Delete all secret conversations'.

Stop Twitter wasting your mobile data

If you follow lots of people – or even just a few prolific tweeters – on Twitter, photos and videos can significantly eat into your mobile data allowance. Just five minutes of browsing tweets uses an average of 30MB. Fortunately, the app has a hidden option that can reduce your data usage by up to 70%, by loading lower quality images and preventing videos from autoplaying. To activate this, tap your profile picture, choose 'Settings and privacy', select



Appy Easter Eggs

'Data usage' and turn on 'Data saver'.

Alternatively, on the same screen, you can opt to only load high-quality images and videos, and autoplay clips, when you're connected to Wi-Fi.

Make Reddit look more colourful

The Reddit app's default Mint theme is a tad dull, so why not change it to something more interesting? Tap your profile picture and select Settings, then scroll down to Dark Mode. In the 'Light theme' menu, you can choose between Mint (grey and turquoise), Pony (pink and peach) and Trees (shades of green). Alternatively, select one of the two dark themes – Night or Midnight – which you can either apply permanently, or opt to activate automatically at night-time or in battery-saver mode.

See our box below to find out how to apply dark themes in other apps.



Track your YouTube viewing time

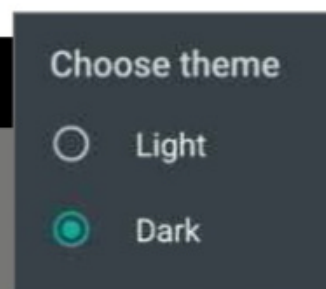
Ever wonder how much of your life you waste watching videos on YouTube? To find out, tap your profile picture in the top-right corner of the mobile app and select 'Time watched'. This shows you the average number of minutes you spend streaming videos every day, as well as your total viewing time today and for the last seven days. If you're

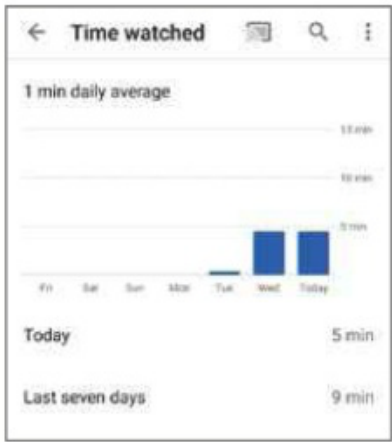
TURN APPS TO THE DARK SIDE

Lots of apps now offer a dark mode to make them easier on your eyes, especially at night. Here's how to apply the option in 10 of your favourite tools.

- **WhatsApp** – open the three-dot menu and go to Settings, Chats, Theme, Dark
- **Messenger** Tap your profile photo and switch on 'Dark mode'
- **Twitter** – 'Settings and privacy', 'Display and sound', 'Dark mode'
- **YouTube** – Account, Settings, General, 'Dark theme'
- **Chrome** – Settings, Themes, Dark
- **Edge** – Settings, Appearance, Theme, Dark
- **Gmail** – Settings, Theme, Dark (Android 10 only)
- **Outlook** – Settings, 'Dark mode'
- **Google Calendar** – Settings, General, Theme, Dark
- **Wikipedia** – Settings, 'App theme', Dark or Black

NOTE: If you're using iOS 13 or Android 10, you can go to Settings, Display & Brightness (or Display) to activate Dark Mode or Dark Theme in all compatible apps.



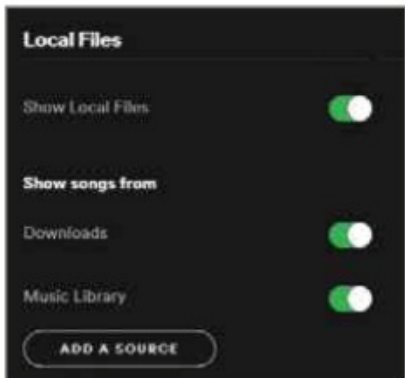


worried you might be overdoing it, turn on the option to ‘Remind me to take a break’ and turn off Autoplay. Note that the ‘Time watched’ statistics depend on your YouTube

Watch History being enabled, and we advised you to disable that option in last issue’s cover feature!

Listen to your own music in Spotify

If you have songs in your MP3 collection that aren’t yet available on Spotify, there is a workaround that lets you play these missing tracks on your phone or tablet. First, in the Spotify desktop app, click the three-dot menu in the top-left corner and choose Edit, Preferences,

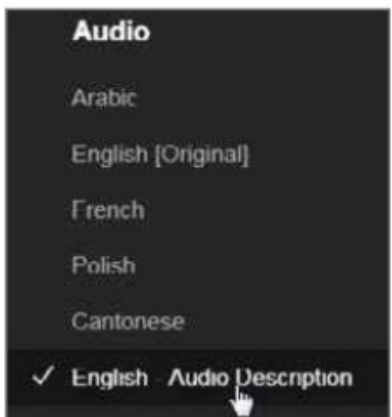


then scroll down to Local Files and toggle Show Local Files to On. This will import audio files stored in your Downloads folder and Music library, as well

as iTunes and other sources you have installed. Create a new playlist, adding the songs that you can’t find on the music-streaming service, and you’ll now be able to listen to these tracks in the Spotify app on your mobile device.

Turn on audio description in Netflix

Whether you’re partially sighted or know someone who is, or you’re busy doing something else while streaming, Netflix’s Audio Description feature helpfully narrates the action occurring on-screen, so you don’t need to clearly see the picture to follow the story. To activate it in the Netflix app, tap the

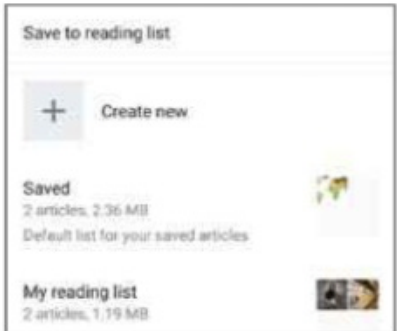


Audio & Subtitles speech-bubble icon at the bottom of the screen and choose ‘English - Audio Description’. Unfortunately, fewer than 50 Netflix titles currently offer

this option in English – those that do include *The Crown*, *Stranger Things* and *The Witcher*. Visit bit.ly/audio498 to see the full selection.

Read Wikipedia articles offline

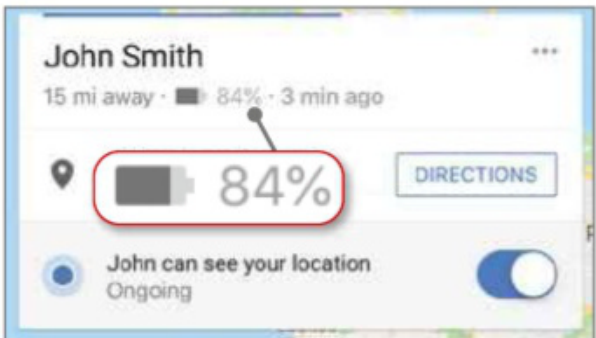
There are several third-party tools that let you download content from Wikipedia to read without an internet connection, but the online encyclopedia’s mobile app actually has this feature built-in. The trick is to create reading lists of articles you want to read later, by tapping the bookmark icon in the bottom-left corner of the screen and saving pages to a new or existing reading list. To access



your lists offline, go into the app’s Settings from the home screen, scroll down to Syncing and select ‘Download reading list articles’. If you sync your reading lists across devices, you can compile them from your desktop to peruse on your phone. Reading lists can be opened by tapping the three-dot button in the top-right corner of a page and choosing ‘My lists’.

Share your battery level in Google Maps

If you’ve arranged to meet someone but your phone is rapidly running out of battery, Google Maps lets you warn them that you may imminently be uncontactable, while providing them with your current location. Tap your profile picture in the top-right corner and select ‘Location sharing’, then Get Started. Select the person you want to share your location with, and for how long. When you send this information, it will include details of your phone’s battery status. This also means you can check other people’s battery levels when they share their location with you.

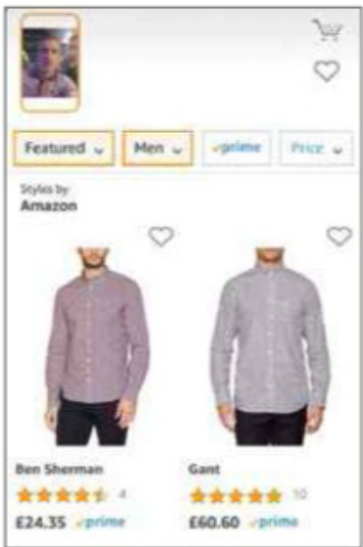


Conversely, if you don’t want anyone to know where you’re going or have been, you can turn on Google Maps’ new Incognito mode, via the same account menu, to travel in secret.

Simplify clothes shopping with Amazon

You probably know that you can use the camera function in Amazon’s mobile app to compare the prices of products

you find on the high street – much to the detriment and annoyance of other retailers. But last year, Amazon added a new AI-powered feature called StyleSnap that helps you find affordable clothes by taking a photo or screenshot of a look you like –whether it’s something you spotted in a magazine, on a website or sported by a person in the real world. Simply tap the camera icon, choose StyleSnap and upload the picture, and Amazon will detect the item of apparel and recommend similar items.



Clear your eBay search history

In last issue’s cover feature, we explained how to wipe your web history from several online services, but we didn’t mention eBay. Its mobile app “helpfully” stores details of all your searches, which means that anyone who picks up your phone can see what you’ve been looking for. To delete this data, tap the menu button in the top-left corner of the app and choose Settings, then ‘Clear search history’. To wipe your saved searches, tap Saved in the main menu, then Edit, select the entries to remove and tap the Delete button.



Discover the latest Just Eat offers

If you often use Just Eat to order takeaways, you’ll know that the service sometimes emails you details of special offers such as 15% discounts, free delivery from certain restaurants and free extras with your meal. Rather than wait for an email to help you decide whether to order in or cook tonight, you can check for deals early via the Just Eat app. Simply tap the three-line menu in the top-right corner and choose ‘For you’ to see what offers are available and claim them now.



PODCASTS THAT SAVE YOU MONEY

Hate discussing money? Then let a friendly expert do the talking instead. **Jane Hoskyn** finds the best free podcasts that help you save your hard-earned cash

Cash Chats with Andy Webb

becleverwithyourcash.com

Best for: Practical tips to avoid everyday rip-offs.

TV packages, store cards and peak-time cinema tickets are among the everyday rip-offs targeted by British financial journalist and self-confessed “money nerd” Andy Webb in his 40-minute weekly podcast. Webb also shares insider tips on offers and financial products to explore and avoid, and elsewhere on his website you’ll find daily money-saving deals and YouTube videos.

Also try: The Which Money Podcast (bit.ly/which498) is a lively discussion of the latest products and scams.



BBC Money Box

bit.ly/mbox498

Best for: Hot financial topics in plain English.

The podcast version of the popular Radio 4 show is almost up to its 800th episode, and long may it reign. Paul Lewis and his fellow regulars are brilliant at translating newsy topics such as open banking and energy price caps into plain English, and many episodes include listeners calling



in with their own tips.

Also try: MoneySavingExpert founder Martin Lewis (no relation) has more topical jargon-busting in his new Radio 5 Live podcast at bit.ly/askmartin497.

Meaningful Money

bit.ly/meaningful498

Best for: Pension planning for normal people.

In his weekly podcast, UK financial planner Pete Matthew offers free, authoritative advice on pensions, inheritance tax and all those topics you’d be charged a fortune to discuss with an independent financial advisor. He’ll even answer your questions by email.

Also try: Informed Choice Radio (bit.ly/choice497) demystifies wealth in



episodes such as ‘Brexit-proof your finances’ and ‘100 things millionaires do’.

FT Money Show

bit.ly/ftmoney498

Best for: Inheritance and investment advice.

The *Financial Times* ditches the fusty stereotype for this engaging podcast which packs oodles of money-saving topics into a quick weekly listen. It tends to assume you have cash to spare (episodes cover setting up private investment clubs and joining tennis clubs; there’s even one called ‘Rich People’s Problems’), but all kinds of topics are covered, from digital assets to pet insurance.

Also try: FT podcasts on the paper’s more traditional turf of markets, politics and business at www.ft.com/podcasts.

This Is Money

bit.ly/thisis498

Best for: Answering your big money questions.

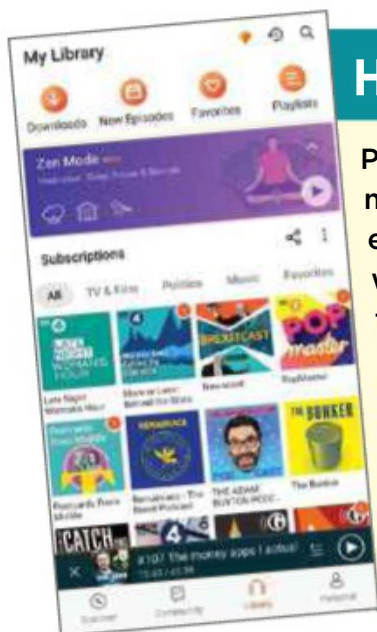
Should you downsize, travel the world, extend into the loft, draw down your pension or let your spare room? And how can you protect your finances from the news of the day, whether it’s coronavirus, Brexit or the Budget? This Is Money’s weekly podcast has a knack of answering the questions you didn’t even realise you wanted to ask.

Also try: More or Less: Behind the Stats (bit.ly/moreless497) busts statistical myths on everything from property booms to football betting.



HOW DO I LISTEN TO PODCASTS?

Podcasts are basically free audiobooks, so they save you money before you even press Play. You can simply click an episode on a podcast’s website to listen, but the most efficient way is to set the podcast to download episodes automatically to your computer or device. You can do this via a free podcast subscription app such as Google Podcasts (Android, bit.ly/gcasts498), Apple Podcasts (iOS, bit.ly/apcasts498) or Castbox (Android, iOS and web, castbox.fm). Audio apps such as Spotify and BBC Sounds now include podcast libraries, too. Most podcast apps make all the same podcasts available, so it doesn’t really matter which one you choose.





Practical WebUser

16 pages of workshops, tips, projects and problem solving

Set up a media server with Jellyfin

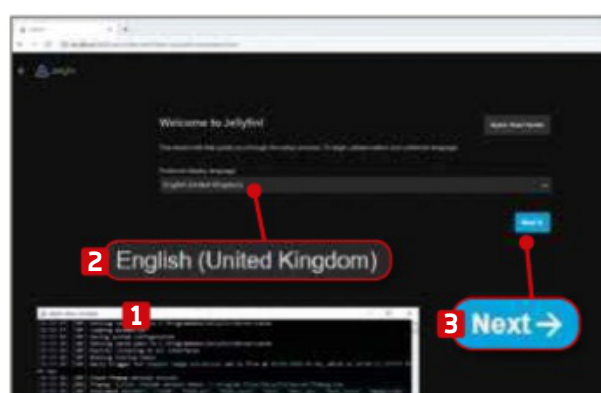
Jellyfin is a free tool for streaming your movies, TV shows and music to devices around your home. Here's what you need to know

Jellyfin: jellyfin.org | ⌚ 10 mins | 🖥️ Windows 🍏 macOS 🐧 Linux

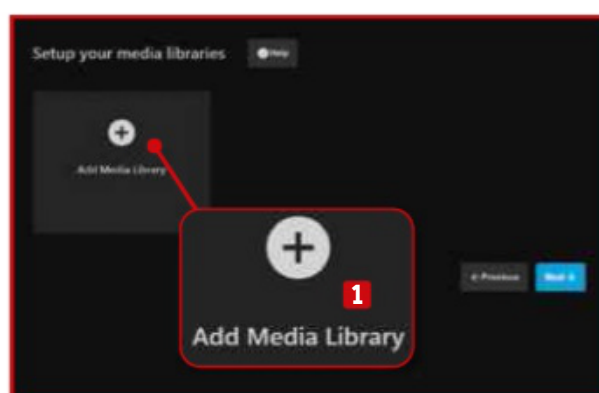
There are several programs you can use to turn your PC into a media server, to stream videos and music over your home network and the internet. Plex (www.plex.tv) and Emby (emby.media) are well-known tools, but Jellyfin is a great alternative. It's completely free – with no paid-for features or subscriptions to worry about

– and the server is available for Windows, macOS and Linux, with apps for Android, Android TV, iOS and Kodi.

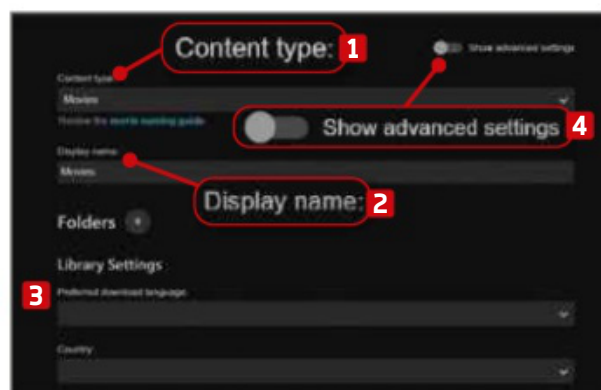
In this workshop, we're setting up the server on Windows, but you'll find guides for other operating systems at jellyfin.org/docs. There are Stable and Nightly builds, along with portable and installer versions to choose from.



1 Install and run Jellyfin (View Console) from the Start menu. A command prompt window opens 1 but just leave this alone. Switch to your browser and you'll see Jellyfin's Quick Start Guide has opened in a new tab. Select your preferred language in the drop-down menu, 2 then click Next. 3



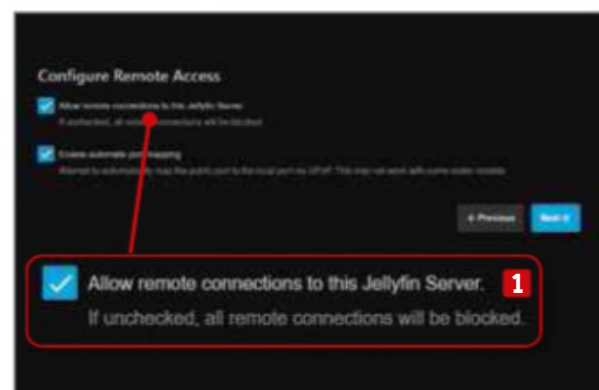
2 Jellyfin supports user profiles, so your family members can have their own accounts. Enter a username and an optional password, then click Next. You can now set up your media libraries. Click the Add Media Library button. 1 You can add and remove libraries later from the Settings.



3 Click the drop-down menu to choose a content type (Movies, Music, TV Shows, Books, Photos, Music Videos or Mixed Content). 1 You can change the display name if you want. 2 The Library Settings 3 change depending on the content type, and you can choose to show additional advanced settings. 4



4 For Movies, you can choose the services you want to provide film metadata 1 and movie images. 2 Fetcher Settings 3 lets you choose the number of backdrops per item and minimum image size. Artwork can be saved in media folders and edited there, 4 and items can be downloaded in advance. 5

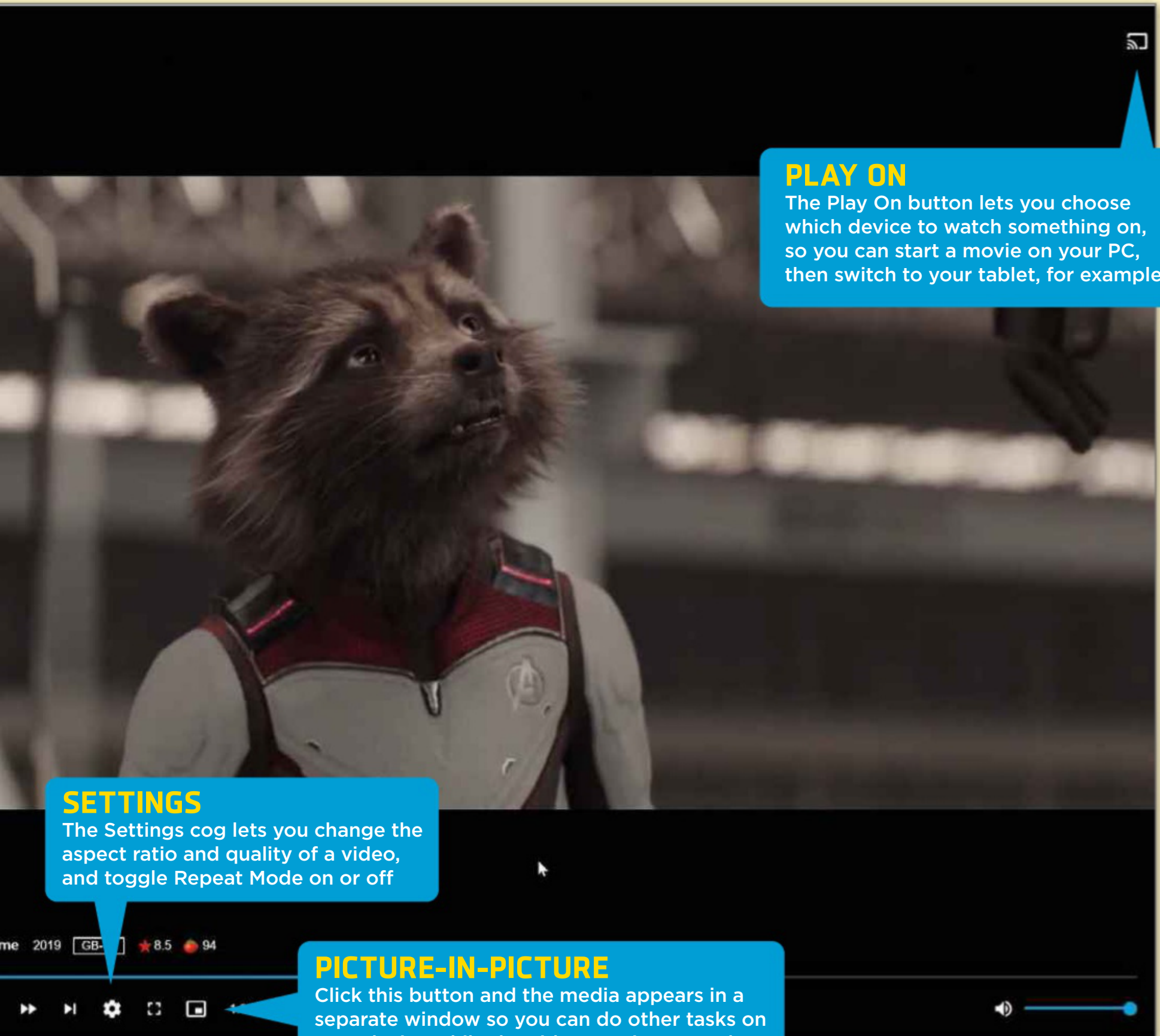


5 Click the Folders button and navigate to the directory where you store your media. Click the OK banner at the bottom to return to 'Setup your media libraries', where you can add another library. When done, click Next and choose your language and country. Finally click Next and allow remote access. 1

CONTROLS

Move your mouse while a video is playing and the controls fade into view, along with a movie's BBFC rating and its score on IMDB and Rotten Tomatoes





PLAY ON

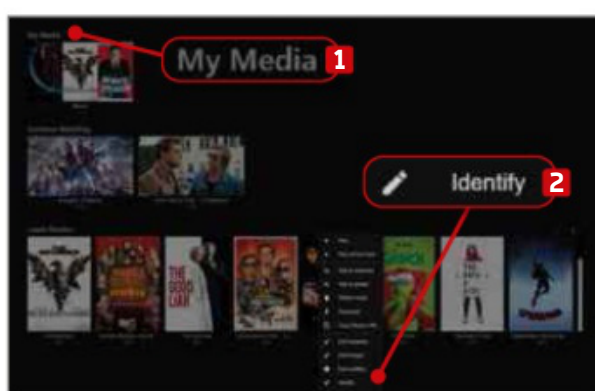
The Play On button lets you choose which device to watch something on, so you can start a movie on your PC, then switch to your tablet, for example

SETTINGS

The Settings cog lets you change the aspect ratio and quality of a video, and toggle Repeat Mode on or off

PICTURE-IN-PICTURE

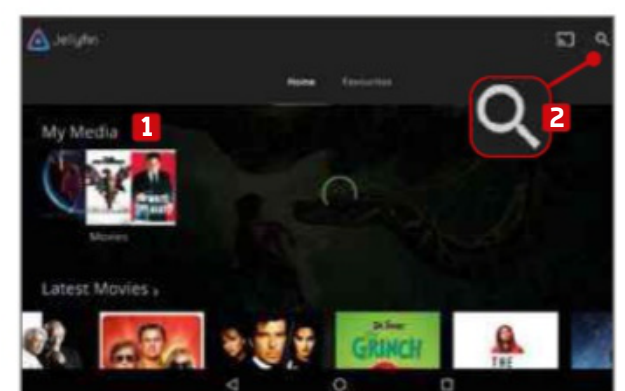
Click this button and the media appears in a separate window so you can do other tasks on your device while the video continues to play



6 Finish setup and sign in. The Home screen displays all your media. **1** Click an item to start playing it. If you're not happy with the artwork, hover over a thumbnail and click the three-dot button to open the menu. Click Identify **2** and enter the item's name, then run the search to find new art.



7 There are lots of other settings to play around with. Click the menu button and select Dashboard. **1** This displays panels showing your past activity and paths, **2** and lets you explore your active devices. **3** Under Advanced, **4** you can manage networking and notifications, add plugins and more.



8 Install a client app on any compatible device – we're using an Android tablet – and run it. Provided you're on the same network, the app should find your server automatically, but you can also add it manually. You can browse your media **1** and start it playing, and search for something if you know its name. **2**



Print folder contents and other specialised print jobs



Karen's Directory Printer: bit.ly/karens498 | ⌚ 20 mins | 🖥️ 7, 8, 10

Our Helpdesk and Readers' Tips pages have recently been flush with people using a free program called Karen's Directory Printer (KDP) for tricky jobs, such as printing a list of all files in a particular folder. Windows has never offered a solution as refined and sensible as KDP's, which lets you create lists featuring the names, sizes, creation dates and more of some or all the files in any directory.

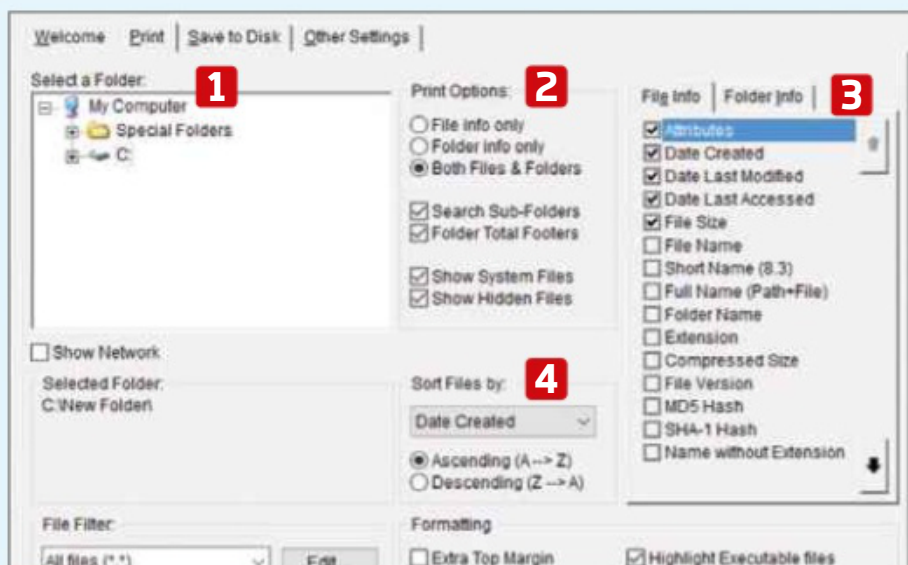
KDP's strength is that it focuses on this single task and offers plenty of customisation, so you have complete control over exactly what you want to print. We show you how to harness KDP's power and look at a few other tricks, such as printing your Task Manager and BIOS settings.



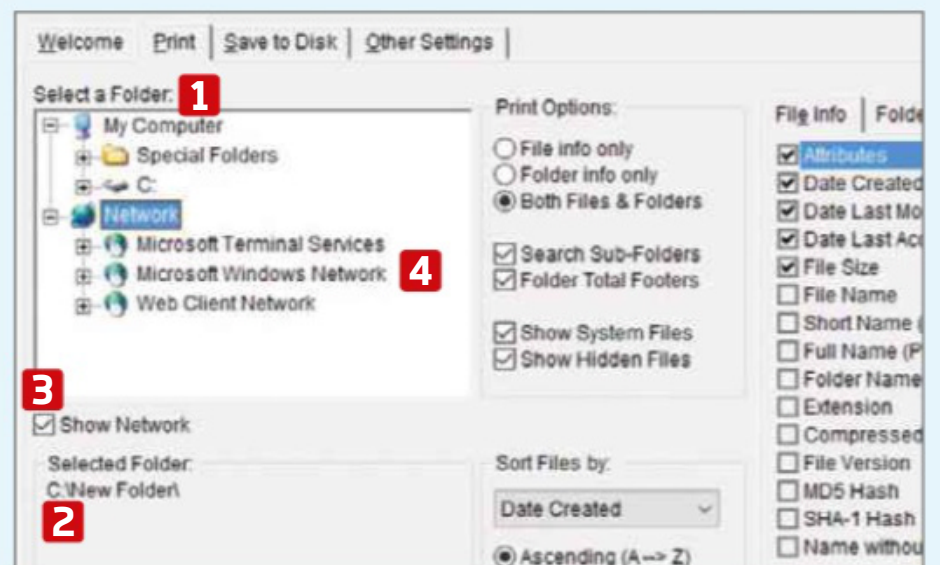
EXPERT TIP

Steve Clark says

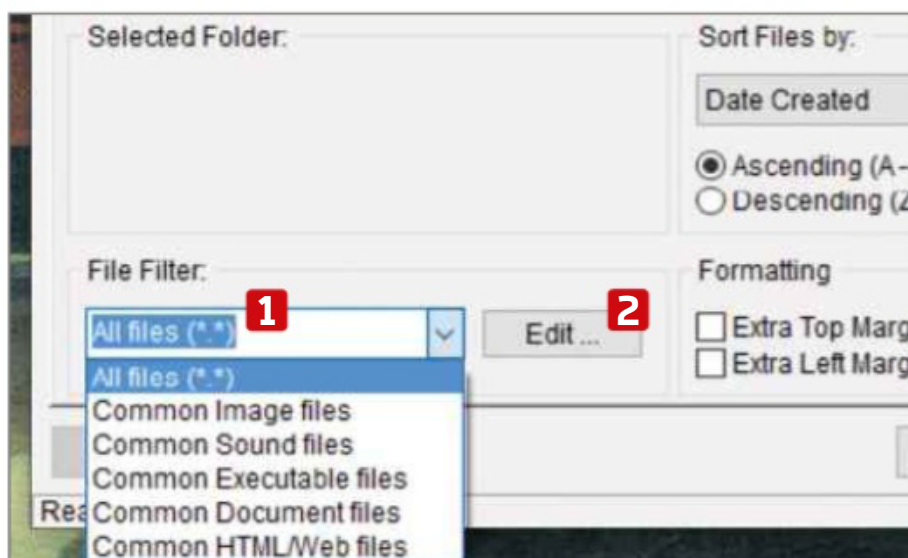
Each time you print a folder list, you need to select the specific elements you want included, such as the filename or extension. If you know these elements are going to be the same for every print job, open the software's Other Settings and, in the File/Folder Info master list, add or remove ticks by the elements you want to display. Now, when you re-visit the Print or 'Save to Disk' sections, your list of options will be customised to best suit your needs.



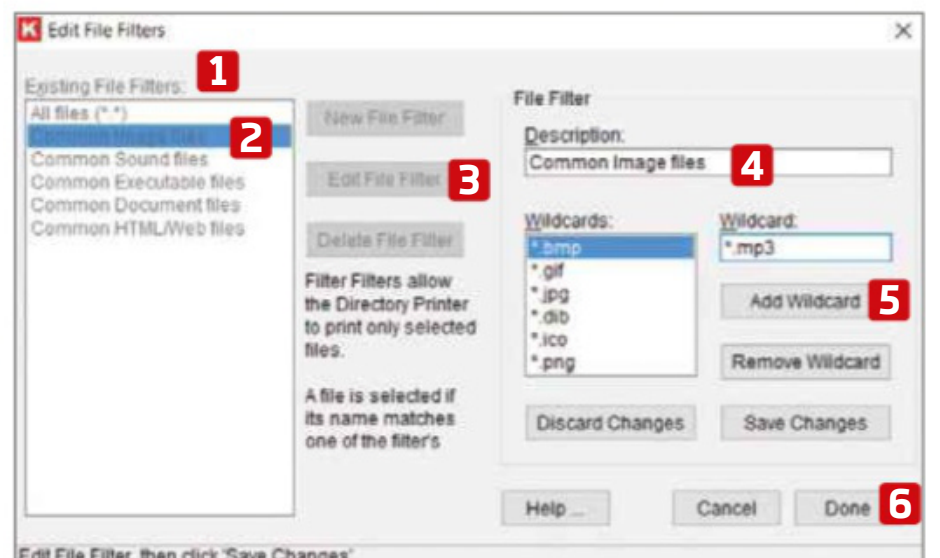
1 Jump past KDP's welcome screen and go straight to Print. The tool looks cluttered but it's easy to navigate, with seven clearly labelled sections. The main areas to look at are 'Select a Folder', **1** Print Options, **2** File Info and Folder Info, **3** and 'Sort Files by'. **4** For basic prints, work through each of these, moving from left to right until you're ready to print.



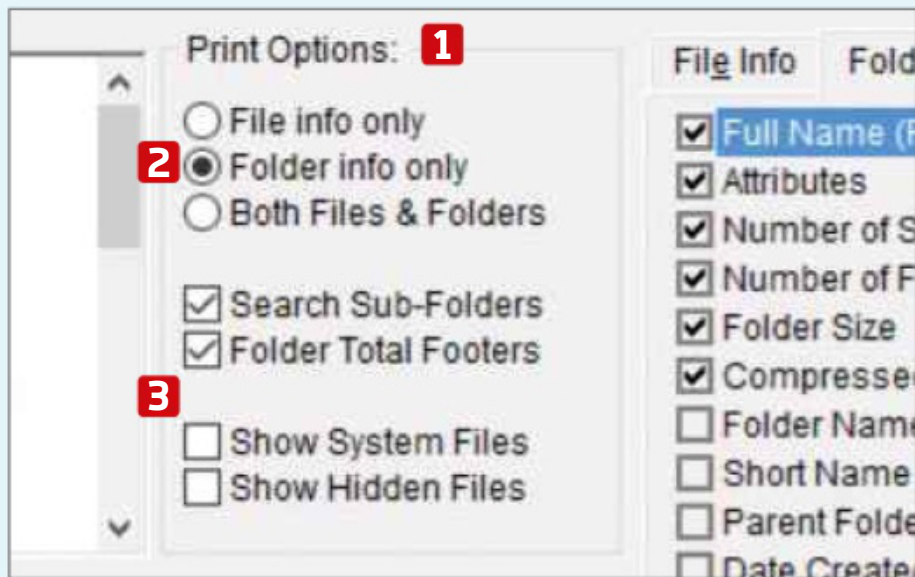
2 In the 'Select a Folder' section, **1** choose the folder or file you want to print. The full file path is shown under Selected Folder. **2** Ticking Show Network **3** adds the Network folder to the File Explorer tree view, with subfolders for Microsoft Terminal Services, Microsoft Windows Network and Web Client Network. **4**



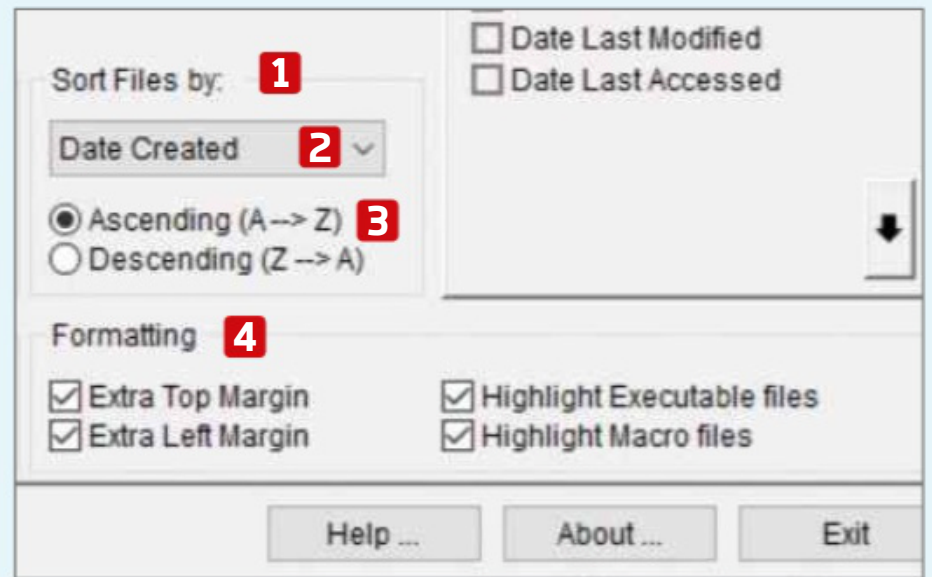
3 If you get lost in the 'Select a Folder' window, use the File Filter option. **1** By clicking its drop-down menu, you can zero in on specific file types. You can also make your own filter rules by clicking the Edit button. **2**



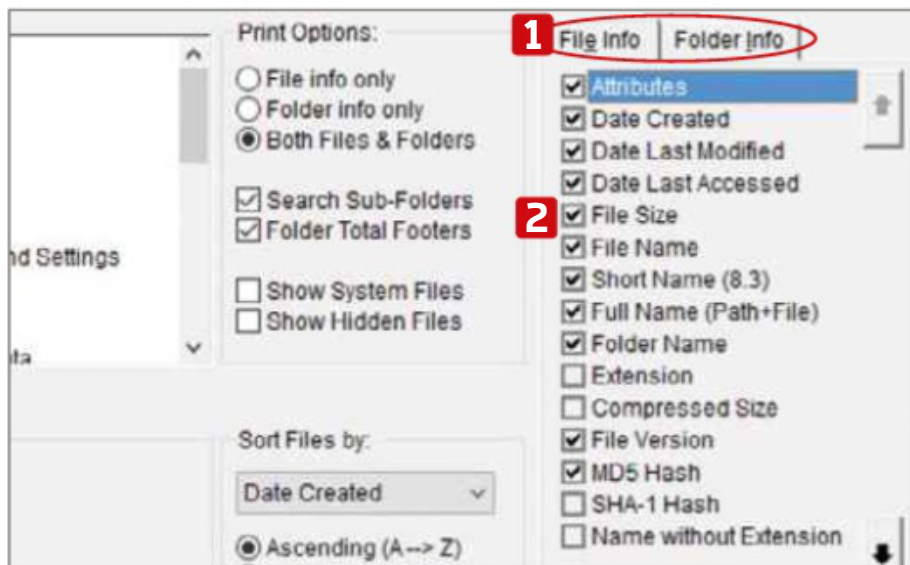
4 In the Edit section, you can create a new filter, or edit or delete existing ones. **1** Highlight your chosen filter **2** and click Edit File Filter **3** to open the File Filter window. You can change the Description **4** and add file-type wildcards, each starting with an asterisk (such as *.mp3) clicking Add Wildcard **5** after each selection. When you're set, click Done. **6**



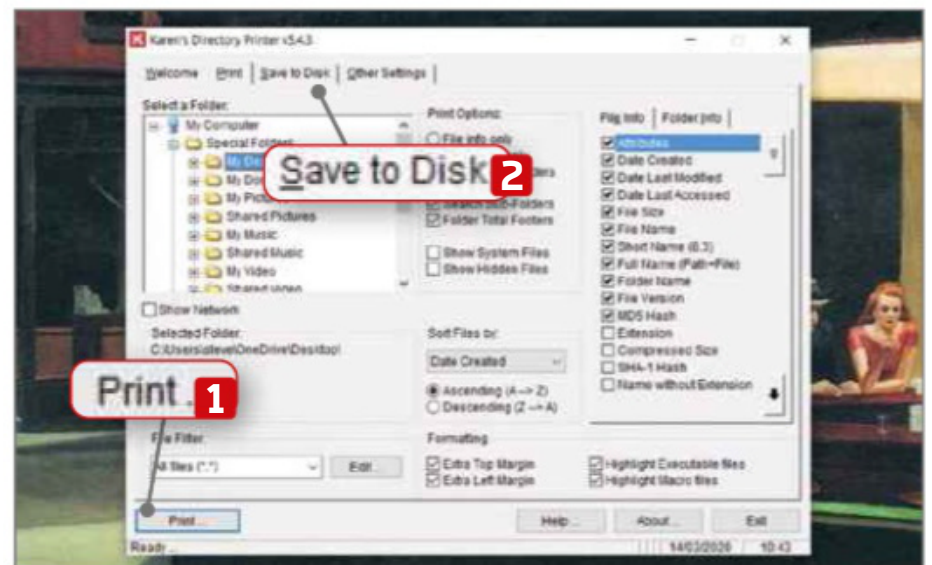
5 To determine what's displayed on your print-out, go to the Print Options. **1** The top section uses a series of radio buttons to determine whether to print information about your files, folders or both. **2** The tick boxes below **3** let you add or remove additional elements, such as hidden files and subfolders.



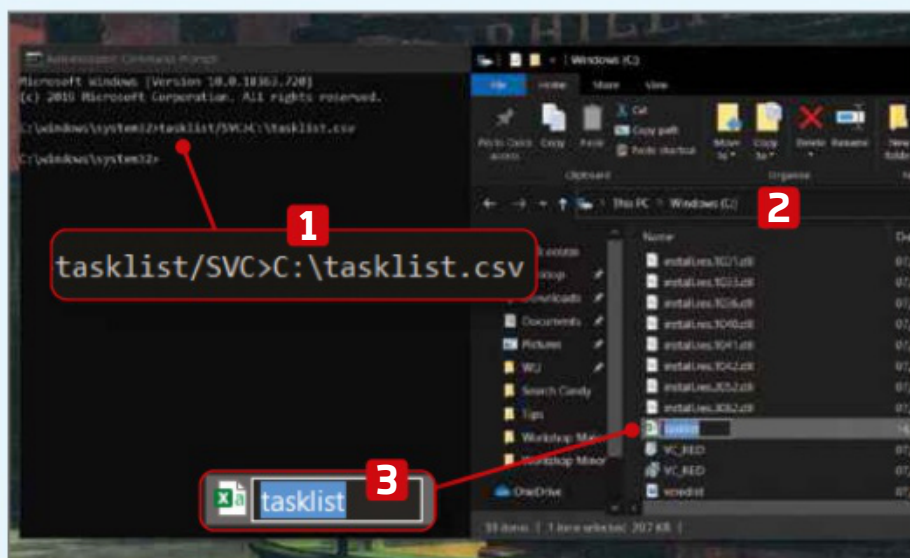
6 Beneath the Print Options, in the 'Sort Files by' section, **1** use the drop-down menu **2** to choose whether to order your directory by File Name, Date Created and so on. You can choose to switch between A to Z ordering, or Z to A. **3** Should you have a preference, Formatting **4** lets you alter the print-out's appearance.



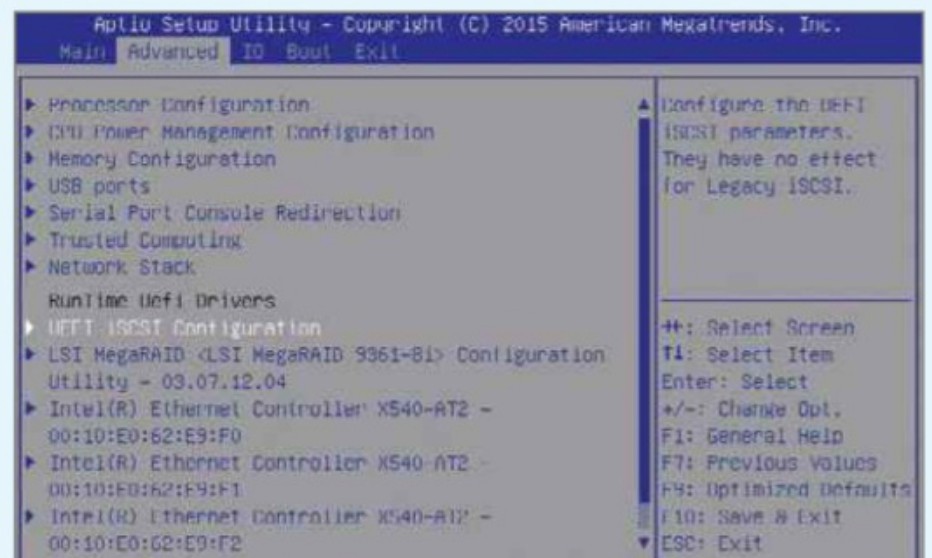
7 The File Info and Folder Info tabs **1** show you what information is included in your print-out. Some of these elements are pre-selected **2** and include the kind of default details you'd expect, such as File Name and File Size. Toggle between the tabs, using the tickboxes to add or remove details of what to include in the print-out.



8 Before you finally click Print, **1** give everything a last check – you don't want to inadvertently print your entire C: drive! If you'd prefer a digital copy of a directory, move to the 'Save to Disk' tab **2** and follow the same steps as before but select 'Save to Disk' to complete the process. You can then print your digital directory later, if you want.



9 To print a list of processes running in the Windows Task Manager, open Command Prompt as an administrator. Type `tasklist/SVC>C:\tasklist.csv` **1** and press Enter. Navigate to your C: drive, **2** where an Excel file called 'tasklist' **3** is saved. You can generate a text file by using the command `tasklist/SVC>C:\tasklist.txt`. Select Print.



10 Without dedicated software, printing your BIOS relies on Print Screen, but simply pressing the keyboard won't work. With a FAT32-formatted USB inserted, boot up your PC and enter the BIOS. Press F12 to create a screenshot that's saved to the pen drive. This can then be pasted and printed via an image viewer.



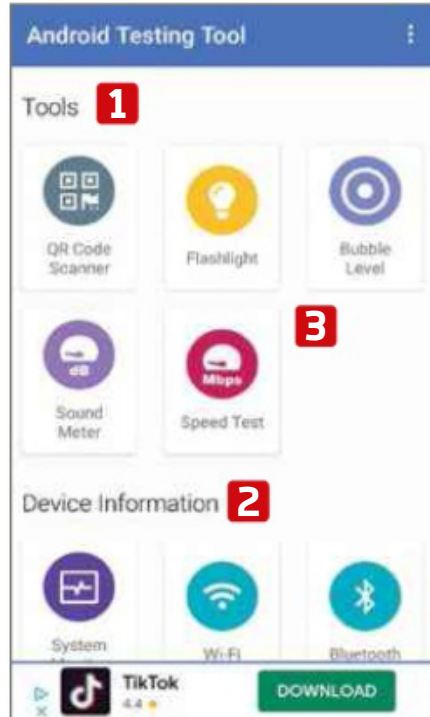
Diagnose and fix phone and tablet problems

If your phone or tablet starts playing up, it can be difficult to find out what the problem is – let alone fix it – but Test Your Android's diagnostic tools can help identify what's wrong. This free, ad-supported app offers a full suite of tests and

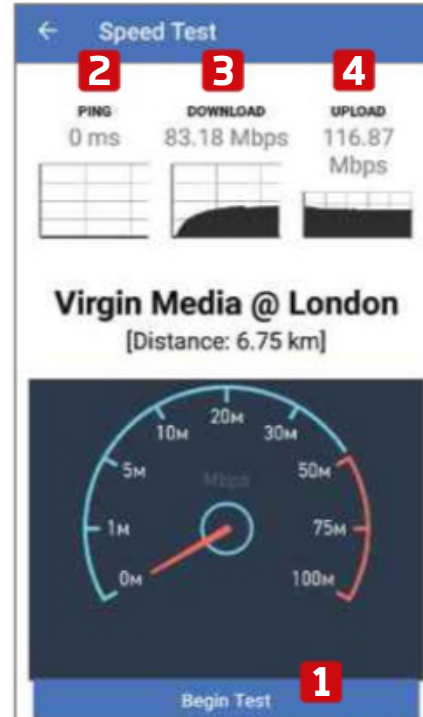
monitoring tools, producing detailed reports without being overwhelming. With its large, colourful icons and intuitive layout, it's also incredibly user-friendly.



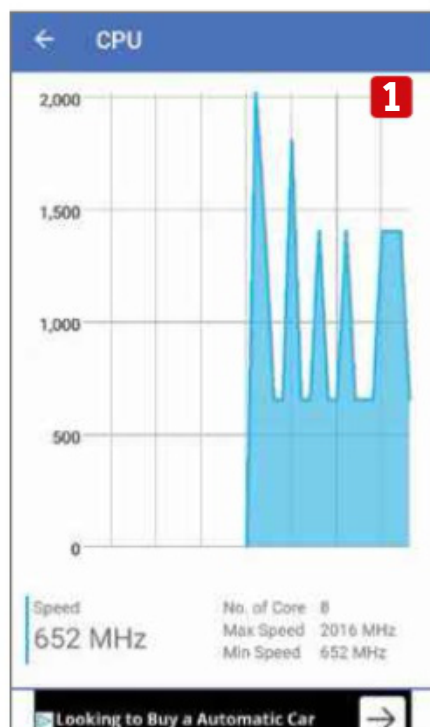
Test Your Android: bit.ly/testdroid498 | ⌚ 10 mins | 🤖 Android 4.4 +



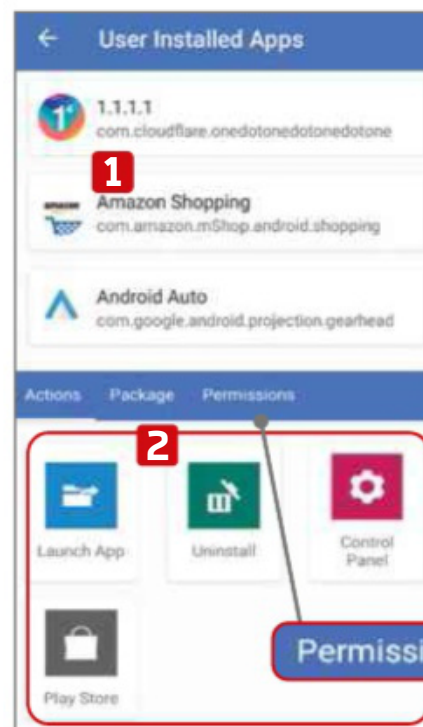
1 The app's home screen is divided into five sections: Tools, **1** Device Information, **2** Hardware Testing, Sensor Testing and Other. You can safely ignore the latter. Each section contains a series of tests and utilities **3** to provide more information about your device. Tap one to start and grant permissions where necessary.



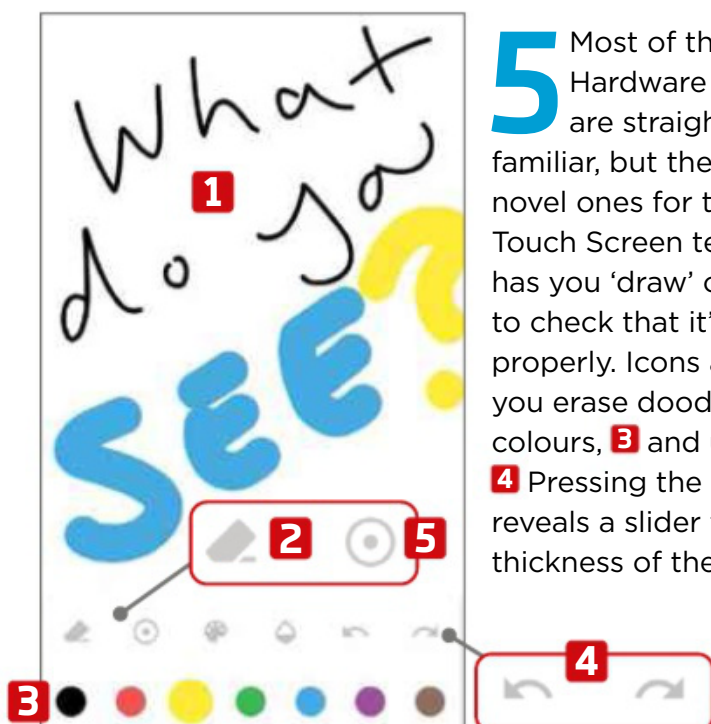
2 The Tools section houses miscellaneous functions such as the Sound Test and Bubble Level, which monitors your phone's tilt. Speed Test is the most useful and it works exactly as you'd imagine: open the tool, tap Begin Test **1** and, after connecting to a local server, the app displays your Ping, **2** Download **3** and Upload speeds. **4**



3 Device Information lets you monitor your phone's processes and software tools. Much of this is informational, such as listing network settings, and your device's camera sizes and resolutions. Tap Bluetooth to view all paired devices, for instance. Then check whether your phone is working overtime by going into System Monitor to observe your CPU usage. **1**



4 Another core tool within Device Information is Installed Apps. Tap this, then choose either User Installed Apps, System Apps or All Apps. Press any listed app **1** for further management tools that let you Launch App, Uninstall it, visit the Control Panel or view it in the Play Store. **2** Swipe right twice to see what permissions it's been granted. **3**



5 Most of the tests in the Hardware Testing section are straightforward and familiar, but there are a few novel ones for the screen. The Touch Screen test, for example, has you 'draw' on the screen **1** to check that it's working properly. Icons at the foot let you erase doodles, **2** change colours, **3** and undo and redo. **4** Pressing the dotted circle **5** reveals a slider to alter the thickness of the lines.



6 The Sensor Testing category has options for checking functions such as the compass, light and pressure. Most of these are for monitoring and observation, and don't require any user input – you just tap to view the current information. Pedometer, however, needs to remain open while you move, to check your phone is accurately counting steps. **1**

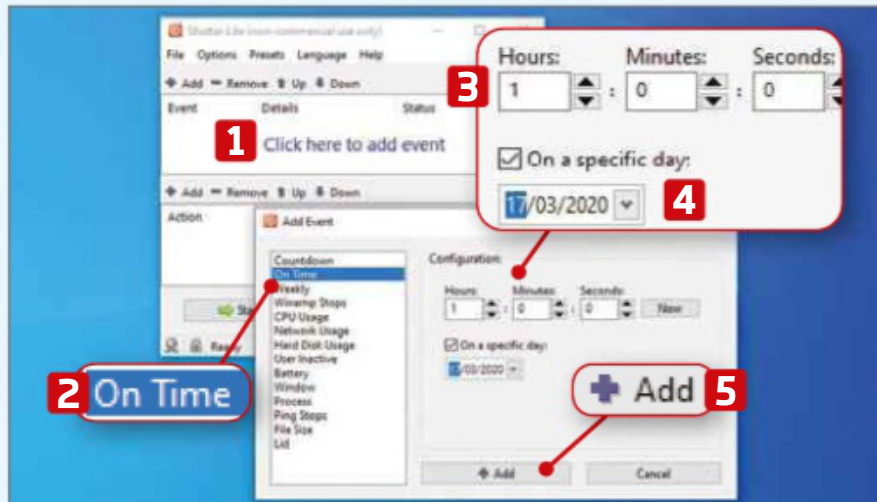


Shut down or reboot Windows automatically

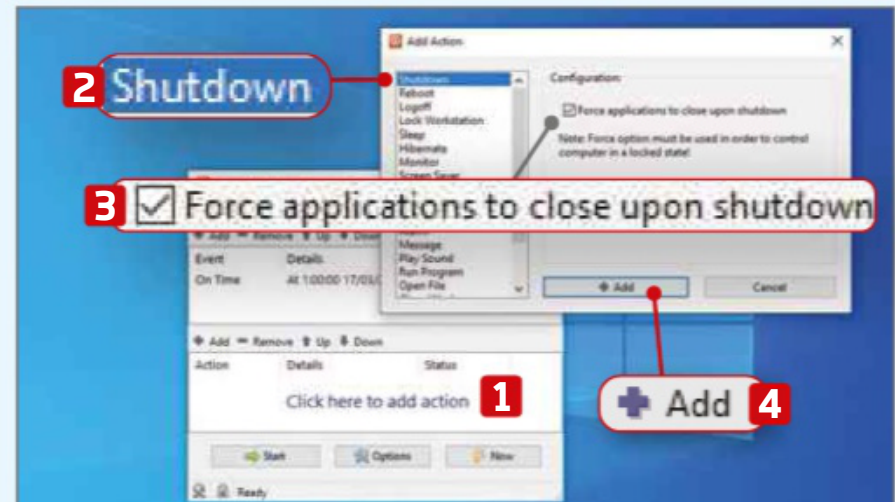
The next time you're preparing to run an overnight security scan or defrag, why not set your PC to shut itself down when it's finished? Shutter Lite is the perfect free tool for the job, with lots of configurable options

Shutter Lite: bit.ly/shutter498 | ⌚ 10 mins | 🇬🇧 7, 8, 10

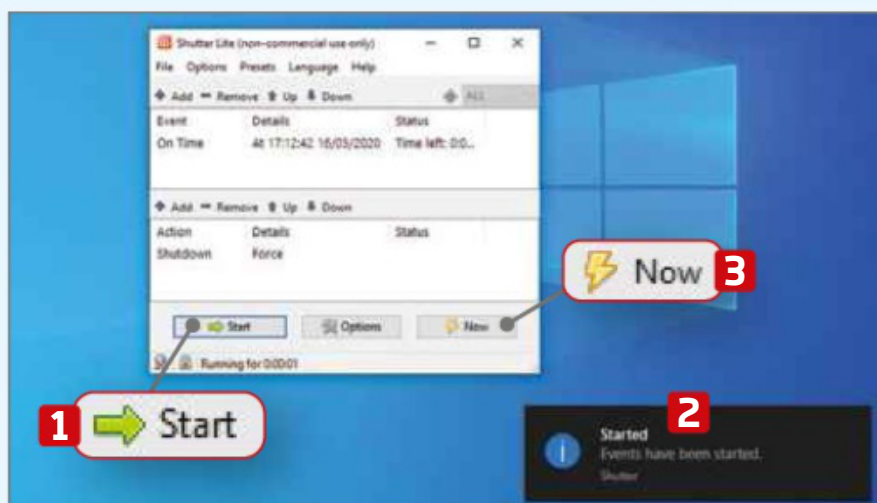
that let you set up a range of events that trigger actions for your computer to perform. You can install it or run the no-impact portable version instead.



1 Run the program and click the link 'Click here to add event'. **1** This opens a window where you can set up a trigger. We're going to create a one-off On Time event **2** to turn our PC off at a specific time. Choose the time **3** and date **4** from the Add Event window, then click Add. **5**



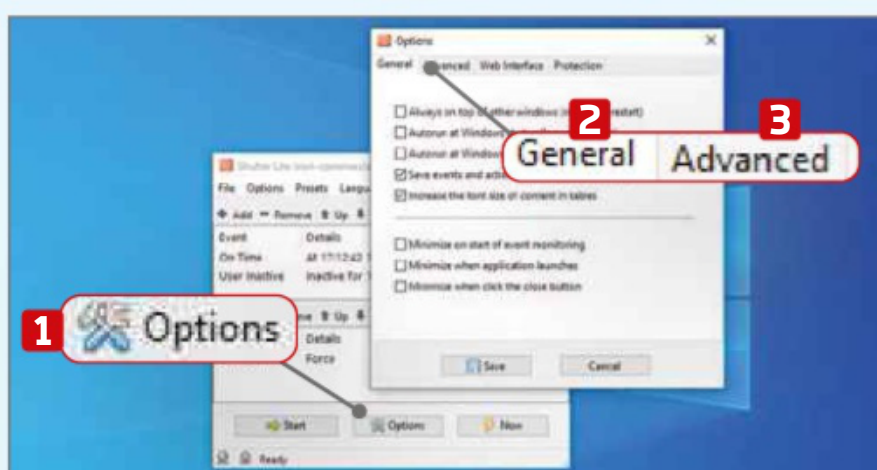
2 Now choose what you want to happen by clicking 'Click here to add action'. **1** Choose the action from the list and configure any options that are available. We're going to force a Shutdown, **2** which will also close down any programs that are still open. **3** Click Add. **4**



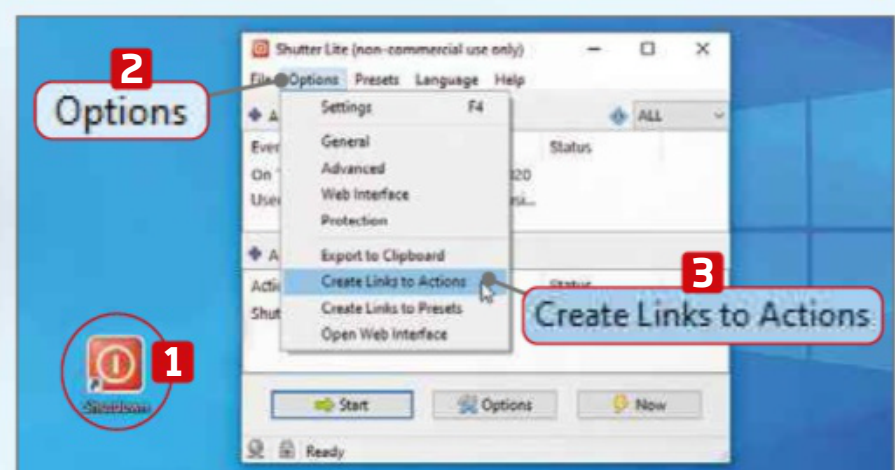
3 Once you've set up an event and an action, click Start. **1** The software alerts you, **2** then runs in the background, waiting for the specified event to take place – in our case, when the clock matches the time we set in Step 1. If you want to force the action, click the Now button. **3**



4 The free version of Shutter Lite lets you have up to five events and actions running simultaneously. To add more, click the appropriate Add button. **1** The drop-down menu above the Event section **2** lets you choose whether one or all of the events needs to occur before the Action happens.



5 To configure the software, click the Options button. **1** The General tab **2** has options to control how the program operates with Windows. On the Advanced tab, **3** you can set how the software works in specific situations, such as when your PC is asleep or hibernating.



6 You can make handy shortcut buttons for actions: for example, add a double-click Shutdown icon to your desktop. **1** Click Options, **2** choose 'Create Links to Actions', **3** set where you'd like to add it and click OK. Links are created for all 12 actions, so delete any you don't want.

Weekend Project

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



How to...

Protect all your devices by running a VPN on your router

Why install a VPN on each of your devices when you could protect them all via your router? **Wayne Williams** shows you how

Virtual Private Networks (VPNs) are incredibly useful for maintaining an extra level of privacy and circumnavigating unfair and unreasonable geographic restrictions. A VPN routes all your internet traffic through its own servers, keeping your browsing activity private and hiding your true location from websites you visit.

You can install a VPN on your PC and each of your devices, but adding one to your router instead means you can secure all your internet-connected hardware in one fell swoop.

You may be able to install VPN directly on your router, but, if that's not the case you can try replacing the device's firmware with the open-source DD-WRT software and add it that way.



Prepare your router

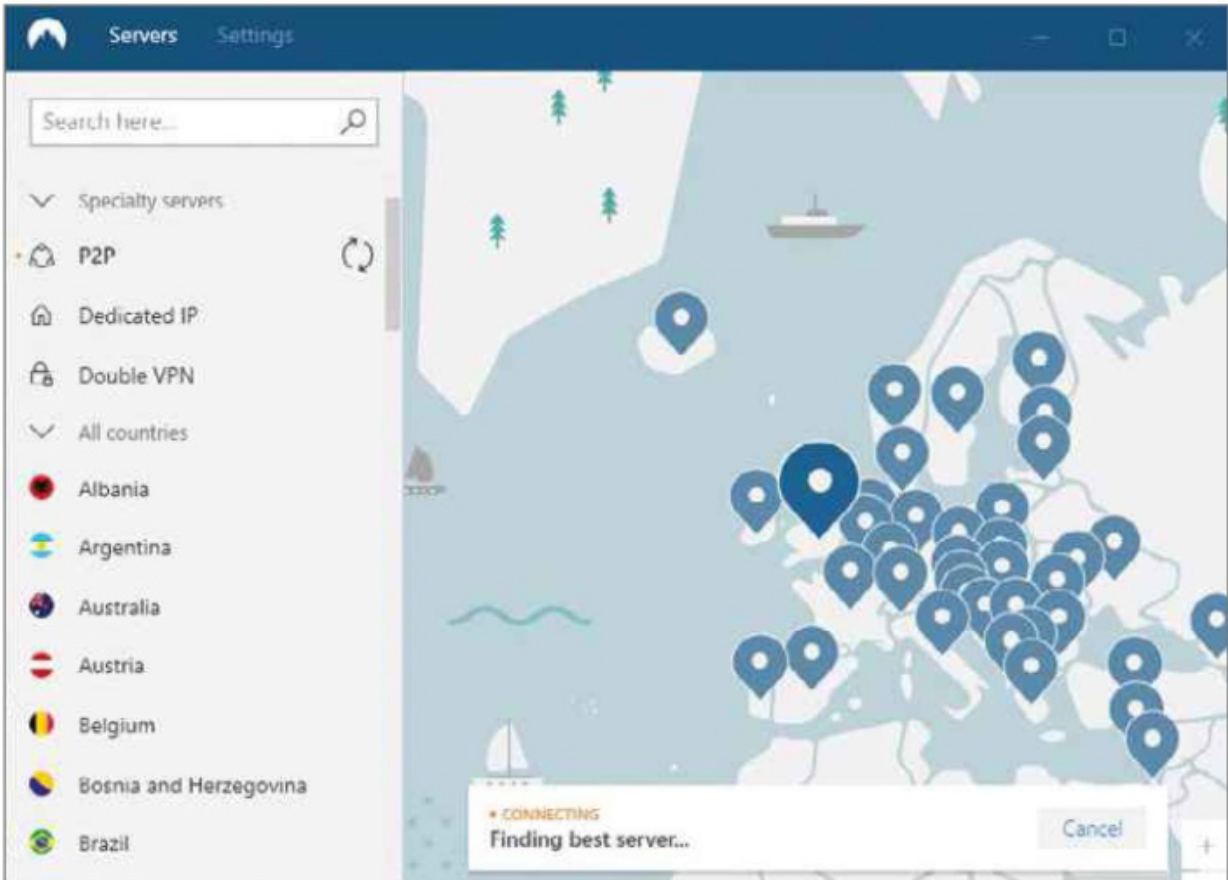
If you need a new router, you could consider buying one with a VPN option: look for a router that offers a VPN client mode, not just a VPN server. A cheaper alternative is to replace your existing router's firmware (this is software written to the ROM – where it stays 'firmly' in place) with DD-WRT (dd-wrt.com). This will give the router VPN support, as well as a number of other advanced features.

However, not all routers can be configured with replacement firmware – the one supplied by your ISP may not be compatible. In that instance, you can pick up a cheap router from Amazon and either make that your default device, or link it to your existing router, connecting via Wi-Fi or using an Ethernet cable.

The process of replacing the firmware involves 'flashing' the ROM (so called because the ROM is usually stored in

flash memory). This is a straightforward procedure – not much different from downloading a program and installing it on your PC – but it's not without risks, so make sure you carefully follow the instructions in our Mini Workshop, opposite.

If the upgrade fails for some reason, and you know you did everything right, check to see if there's a different firmware version available and try again.



NordVPN has 5,500 servers across 60 countries

Choose a VPN

Most reputable VPNs can be installed on a router, including NordVPN (nordvpn.com), which was our Gold Award-winner in our VPN Group Test back in issue 489 (bit.ly/webuser489). There's no free trial but at £2.68 per month (if you sign up for three years), it's very affordable. SurfShark (surfshark.com), which earned the Silver Award, and CyberGhost (cyberghostvpn.com) which took the Bronze, also run well on a router. They cost £1.59 a month (for two years) and £2.10 a month (for three years), respectively.

The general rule with VPNs is that you tend to get what you pay for and, if you're installing the service on a router

that's connecting all your devices to the internet, you'll need to choose one that's fast and offers unlimited traffic.

That said, there's nothing to stop you using a free VPN. In our Mini Workshop on page 61, we show you how to set up Windscribe (windscribe.com), which provides 10GB a month of data for free, with access to over 10 countries. This may be enough if you're a light user but, if you need more, you can upgrade to the paid-for version or build a personal plan that lets you decide which countries to use. The paid-for plan costs from £3.36 a month (for a year), while the build plan is from 82p per location, per month.

Installing Windscribe on a router requires you to have a Pro account but



You can get a free one-day trial of Windscribe Pro by asking “Garry” for it

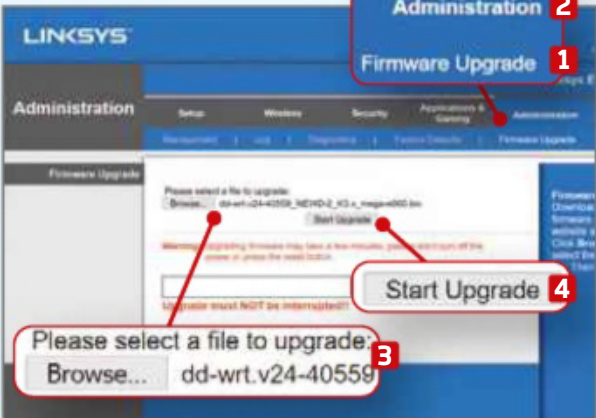
there's a simple way around this. Sign up for a free account, then click the Team Garry button (a floating green circle) on the website and ask for a Pro trial. You'll need to confirm which account it's for and that you only have the one account. You will then be granted a one-day Pro trial, which is all you need to get everything up and running. You won't need a Pro account to use the VPN on your router afterwards – the free edition works just fine.

Windscribe, NordVPN, SurfShark and CyberGhost all use the OpenVPN protocol, so the process for setting up a different VPN on your router is broadly the same.

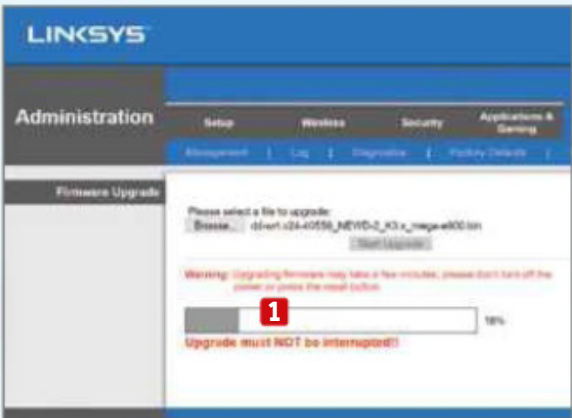
MINI WORKSHOP | Install DD-WRT on your router



1 Go to the DD-WRT database at bit.ly/routerdb498 and search for your router's make and model. If you see it listed, click its name. Your router's details are displayed, including its chipset and RAM. **1** Click the filename **2** to save the firmware to your PC.







2 The exact process will vary. For hardware-specific information, follow the guides at bit.ly/ddwrtguide498. Perform a hard reset (check your manual for details), then log into your router's settings. Look for a Firmware Upgrade option, **1** possibly under Administration. **2** Browse for the DD-WRT firmware you saved **3** and click Start Upgrade. **4**



3 The firmware replacement begins **1** and it's vital you avoid doing anything with your PC until it has completed. You should eventually see a message confirming that everything has gone according to plan. Wait a few minutes, then do another hard reset. You're prompted to create a login.

Broadband Deals

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2		TalkTalk: Fast Broadband	£19.95 (£30 after 18 months)	18 months	11Mbps avg. speed	∞ unlimited	£239.40
3		Sky: Broadband Superfast + Line Rental	£27.00 (£29 after 18 months)	18 months	59Mbps avg. speed	∞ unlimited*	£324.00
4		Virgin Media: Big Bundle + Fibre Broadband + Weekend Calls	£33.00 (£54 after 12 months)	12 months	54Mbps avg. speed	∞ unlimited	£396.00

Terms & Conditions apply - see ISP sites for details

* Fair-usage or restriction policy applies.

Data supplied by www.broadbandgenie.co.uk. Correct as of 16 March 2020.

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

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You need to fill in a lot of settings to get the VPN up and running on your router

Set up OpenVPN

Use Notepad to open the ‘.ovpn’ config file you downloaded and find where it says ‘remote’. With Windscribe, the server name ends ‘windscribe.com’ – enter the full name into the router settings page. Next, enter the port from the config file and set the Encryption Cipher to AES-256-CBC and Hash Algorithm to SHA512 (leave any other settings as they are).

Moving down the sections, enable the User Pass Authentication and enter the username and password from the OpenVPN credentials page. Then Enable Advanced Options, set LZO Compression to Yes, enable NAT and enable Firewall Protection. Leave the IP Address and Subnet Mask fields blank, and tick the nsCertType verification box.

Unzip the ‘openvpn_cert.zip’ file, and extract the ‘ta.key’ and ‘ca.crt’ files. Open ‘ta.key’ in Notepad and copy all the contents, then paste the text into the TLS Auth Key box. In the Additional Config box type:

```
reneg-sec 432000
resolv-retry infinite
```

Open the ‘ca.crt’ file in Notepad and copy the contents from that and paste it into the CA Cert field. When you’ve done all that, click the Save button at the bottom and click Apply Settings once the page refreshes.

Disable the VPN

We’ve explained the benefits of running a VPN but there are downsides to be aware



You can easily disable and enable your VPN. Your router remembers previous settings

of, too. Routing your traffic through the VPN’s servers will result in a noticeable performance hit – sites will load slower and streaming video will likely suffer as a result, though the severity of the slowdown will depend on your VPN.

However, it’s easy enough to toggle off the VPN when you don’t need it. Log into your router settings page, go to Services, VPN and click the Disable button next to Start OpenVPN Client, then Apply Settings. Switching to a different VPN server location (following the same setup instructions as detailed earlier) can also make a big difference to speed. ■

MINI WORKSHOP | Install Windscribe on a router running DD-WRT



1 The process of installing a VPN on DD-WRT is quite straightforward. Log into the settings page and click the Services tab. **1** Next, click the VPN tab. **2** Click the Enable button next to Start OpenVPN Client **3** (don’t confuse this with the VPN Server). You’ll need an OpenVPN config file and credentials.

2 To get this in Windscribe, make sure you have a Pro account (see Page 59 tip to get a one-day trial), then go to bit.ly/wsopen498. Set the location, protocol, port and cipher, **1** then download the config file **2** and get the credentials. **3** You also need the CA Cert and TLS Auth Key from bit.ly/keydl498 (note that this link is a direct download).

3 Follow the steps in the ‘Set up OpenVPN’ section, above. Any field or item we haven’t specifically mentioned, you can leave alone. When you’ve applied the changes, click the Status tab, **1** then click the OpenVPN tab **2** below. Under State, next to Client, you should see Connected Success. **3** The VPN is now live.

NEXT ISSUE How To... Turn an old PC into a gaming machine

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Web User Masterclass

Streamline your browsing by organising your bookmarks

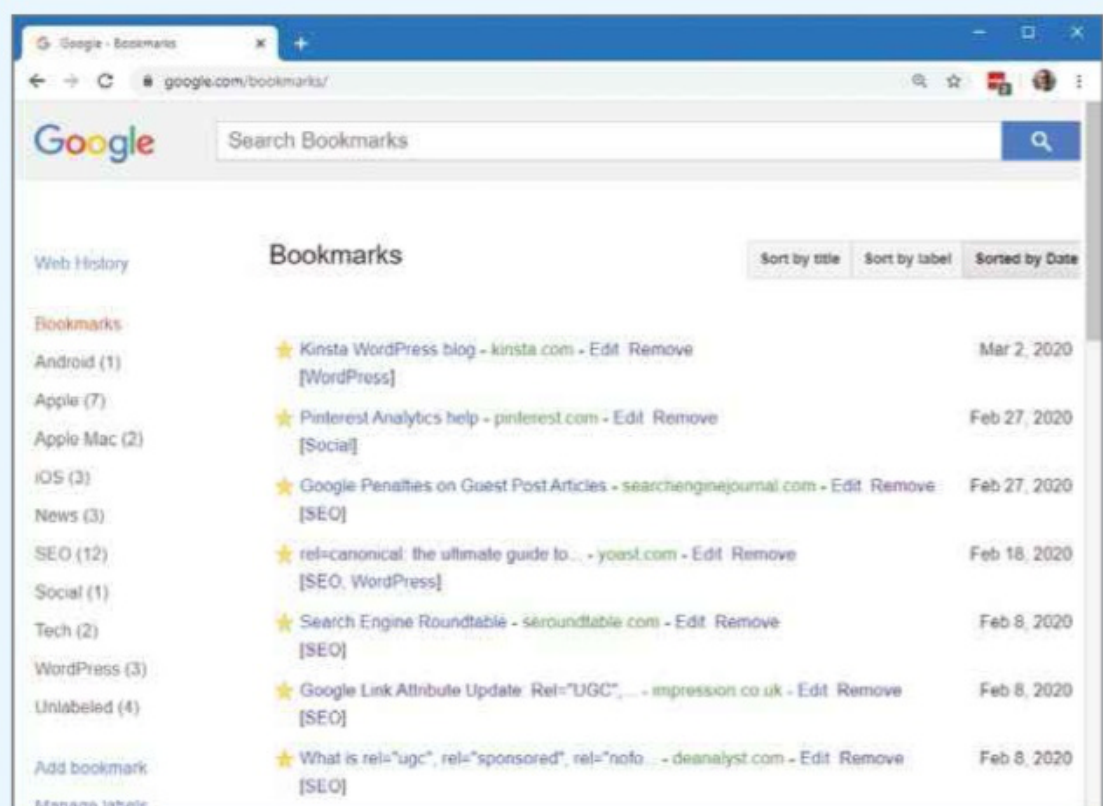
Store your bookmarks in Google Bookmarks

Instead of storing bookmarks in a single web browser, consider storing them online in Google Bookmarks, where they'll be accessible from any browser, computer, phone, tablet and operating system.

Go to www.google.com/bookmarks and sign in if necessary. Click 'Add bookmark' on the left to open a form that lets you create entries for name, URL, labels and notes.

Labels, like those in Gmail, let you organise your bookmarks into categories: News for news sites, Sport for sports sites, Food for food and recipe sites, and so on. Click a label in the sidebar to view only the sites with that label. Notes are optional but can come in useful when using the search box at the top.

Store bookmarks online rather than in your browser so you can access them anywhere



Create shortcuts to Google Bookmarks

All browsers have a bookmarks or favourites bar, which appears under the address bar at the top. In Chrome, open the main menu, go to Bookmarks, then 'Show bookmarks bar'. Edge and Firefox have similar bars.

Go to www.google.com/bookmarks, click in the address bar and drag the icon to the bookmarks bar. Drop it to add it. Now you can access your bookmarks with one click.

At the bottom of the Google Bookmarks page is a Google Bookmark button – called a bookmarklet. Click and drag this to the bookmarks bar and drop it. Now it's in the bookmarks bar, you can click it any time to pop up a

small window with the 'Add bookmark' form from Google Bookmarks. Fill it in to add a site. It's quick and easy.

Back up your bookmarks

Back up your browser's bookmarks before you do anything with them. In the following tips, we show you how to strip out any duplicates, find dead links, sort them and more, but you must have a backup before we start. Nothing should go wrong but it's best to be safe before carrying out a thorough clean-up.

In Chrome, open the menu and select Bookmarks, then 'Bookmark manager'. Click the three-dot button to the right of the blue bar and select 'Export bookmarks' from the menu. To restore them again, select all bookmarks, then

right-click and delete them and use the 'Import bookmarks' option on the menu.

In the new version of Edge, open the menu and select Favourites, then 'Manage favourites'. The options to Import and Export are at the bottom of the sidebar.

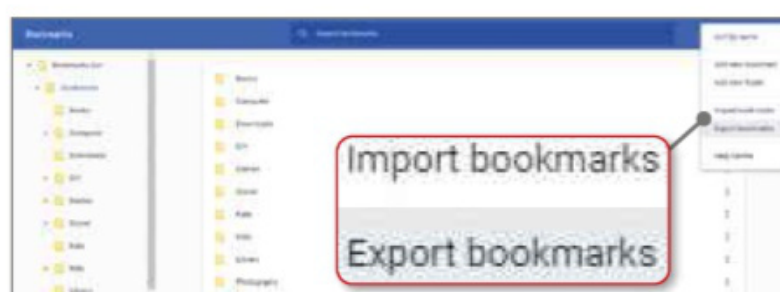
Sort bookmarks into order

Your bookmarks can soon become a messy collection of random web pages but it's easier to find the one you're after if you sort them into alphabetical order. Open Chrome's bookmarks manager from the menu and select any folder, then click the three-dot button on the right end of the blue bar to open the menu and

click 'Sort by name'. This only affects the currently selected folder so you'll have to apply the same process to other folders individually to sort them.

There's a Firefox add-on that can sort your bookmarks for you. Install Auto-Sort Bookmarks

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 backup Chrome's bookmarks, click the bookmarks manager menu and choose 'Export bookmarks'



(bit.ly/auto498) and select Auto-sort in the Settings. You can choose the criteria by which your bookmarks are organised in the Sort By field.

In Edge – which calls bookmarks ‘favourites’ – open the Favourites manager from the menu and right-click any folder to alphabetise them.

Manually organise bookmarks

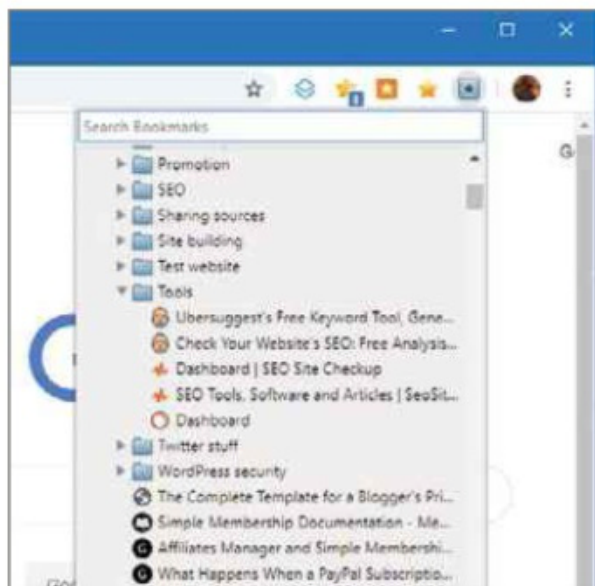
Chrome’s bookmarks manager lets you drag and drop bookmarks and folders to move them around. Select a folder in the sidebar, then click the bookmarks-manager menu in the blue bar. Select ‘Add new folder’ to create a folder, then drag any bookmarks you want to it.

Edge’s favourites manager works in a similar way – right-click a folder to create a subfolder, then drag your favourites to it.

Bookmarks can also be clicked and dragged around the bar to move them. Right-click an empty part of the bar to create a new folder. You can also click and drag bookmarks to, from or within a folder. Drag a frequently used bookmark to the left end of the bar, for example, or to the top of a folder to make it the first item you see.

Try a different bookmarks view

Neater Bookmarks (bit.ly/neat498) is a simple but useful extension that creates a drop-down menu from Chrome bookmarks. It lets you drag and drop items to move them around and right-click to edit or delete bookmarks.



Neater Bookmarks for Chrome turns your bookmarks into a simple menu

Access recent bookmarks

The latest bookmarks you created are likely to be the ones you plan to return to the soonest. Recent Bookmarks (bit.ly/recent498) is a simple Chrome extension that lists the most recent bookmarks you saved, so they’re instantly at hand. Right-click the icon and select Options to set the number of recent bookmarks in the list.

TAKE IT TO THE NEXT LEVEL

More advanced tips for when you’re feeling brave

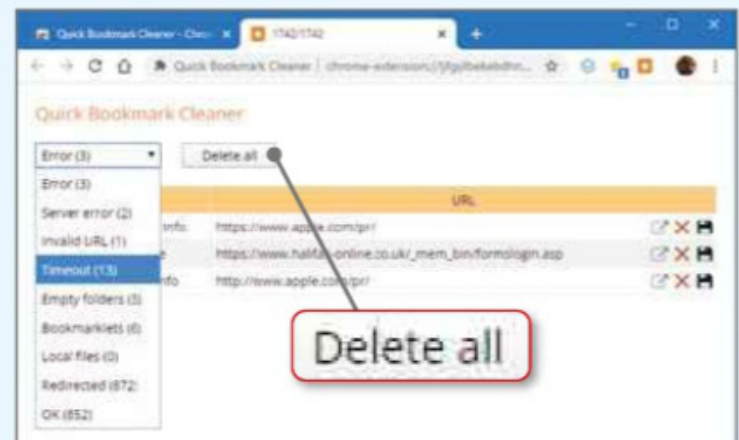
Delete dead bookmarks

Websites come and go, and even if a website is still around, the page you bookmarked years ago might not be. It’s inevitable that a collection of bookmarks will contain some dead links that no longer work.

Chrome’s Bookmarks Clean Up (bit.ly/clean498) makes these dead links easy to identify. Install the extension and click its icon in the toolbar. Click ‘Find broken urls’ and it visits every site in your bookmarks, checking the response. Its results are presented according to errors, such as 400 (bad request), 403 (forbidden) and 404 (not found). Click the ‘i’ next to an error to see an explanation.

Tick the boxes next to bookmarks to select them or use the drop-down menu next to each error heading to select all the bookmarks in that category. Click the bin on the right to delete them.

Quick Bookmark Cleaner (bit.ly/quick498) is a similar tool – click its toolbar icon to check your bookmarks and it will group its findings by error type. To purge any problematic links, select a type from the menu to list the bad bookmarks and delete them.



Quick Bookmark Cleaner is a simple, but useful dead-link remover for Chrome

folder location. Use the tick boxes next to any duplicates to mark the ones you’d like to delete.

The new version of Edge has its own duplicate cleaner in the favourites manager sidebar.

Replace the bookmark manager

Starmarks Bookmark Manager (bit.ly/star498) works alongside Chrome’s built-in bookmark manager. It adds a star icon to the toolbar which, when clicked, opens a panel.

Click Manage Bookmarks to see a list of all your bookmarks in a table. This is presented without any folders or organisation, but the advantage is that you can sort them by clicking any of the table’s column headers: Title, Rating, Added (date), Visited (date) and Visits. So, for example, if you click Visited, your bookmarks will be sorted to show your most recently visited sites at the top. Click Visits and you’ll be shown the sites you visit most often. You can rate sites by clicking the stars and then click Rating to see the sites you’ve rated most highly.

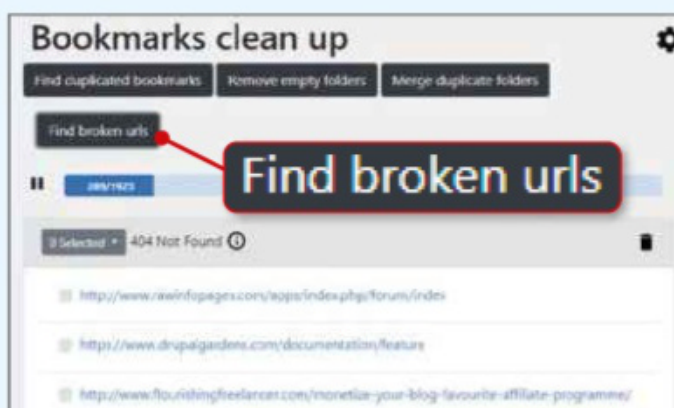
When you bookmark a new site or hover your mouse over a site in Starmarks Bookmark Manager, you can click the edit icon for the option to add tags and notes. Tags are like the hashtags used on social media, whereas notes can be on anything, but both are searchable. Click in the search box at the top, then click Tags. Type a tag into the search box and only the bookmarks with that tag are shown.

Starmarks Bookmark Manager’s search feature is very good and the extension has many more features that are worth exploring.

Find and remove duplicates

Losing track of what you have and haven’t bookmarked in the past, and importing and exporting bookmarks in more than one browser, are a sure-fire way to end up with duplicates. To weed them out, install Bookmarks Clean Up (bit.ly/clean498), then click the toolbar icon and select ‘Find duplicated bookmarks’.

All duplicates are listed, showing the name, URL and



Use Chrome’s Bookmarks Clean Up for duplicate bookmarks and broken URLs

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



HARDWARE

Boot from a DVD drive without UEFI

Q I bought two Fujitsu AH530 PCs on eBay, both of which were manufactured around 2011 and have Phoenix BIOS. One has a BIOS from about 2011 (the most recent official BIOS for the machine) and the other has one from 2019, which includes the option to boot from USB. Although both PCs are running Windows 10, neither has UEFI.

Looking to the future, I also bought Windows 10 installation media on DVD and USB from eBay. However, neither one works, even though I set the BIOS on both PCs to boot from a DVD drive first, after disabling Windows 10 fast boot. I can't get my PCs to boot from these devices and I have been told it's because I don't have UEFI boot.

In your magazine, when you discuss booting from other devices, you always seem to talk about UEFI. What do I do if I don't have UEFI?

Michael, via email

A There are several possible solutions, so let's start with the simplest. Open the Windows 10 settings app, click 'Update & Security', then Recovery in the sidebar. Find the Advanced Startup section and click



Boot from the Windows 10 Settings app to choose how Windows reboots

'Restart now'. Windows restarts but then pauses during the boot process to give you the option of booting from an alternative device, such as a USB stick or DVD drive.

If that doesn't work, try repeatedly tapping a function key several times, just after powering on the computer. The function key used for displaying the boot menu varies from one PC to the next, so look for any on-screen clues as you boot, and try F2, F8, F9, F10 and F12, one at a time.

The most likely fix is to go into the BIOS setup and tweak a few settings. It sounds like you know how to do this but, for any readers that don't, press F2 just after powering on (it may be a different key on your PC), then use the arrow keys and press Enter to select the Security tab. Set a supervisor password (this unlocks hidden features) and go to

Secure Boot Configuration on the same screen. Disable Secure Boot.

Now select the Advanced tab and enable CSM (Compatibility Support Module). Return to the Security tab and set the supervisor password to nothing, leaving it blank. When you now select the Boot tab, you'll see new options to boot from USB drives, DVD drives and more. Set the USB or DVD as the first device and the hard drive as the second, then exit and save. You should now be able to boot from USB or DVD.

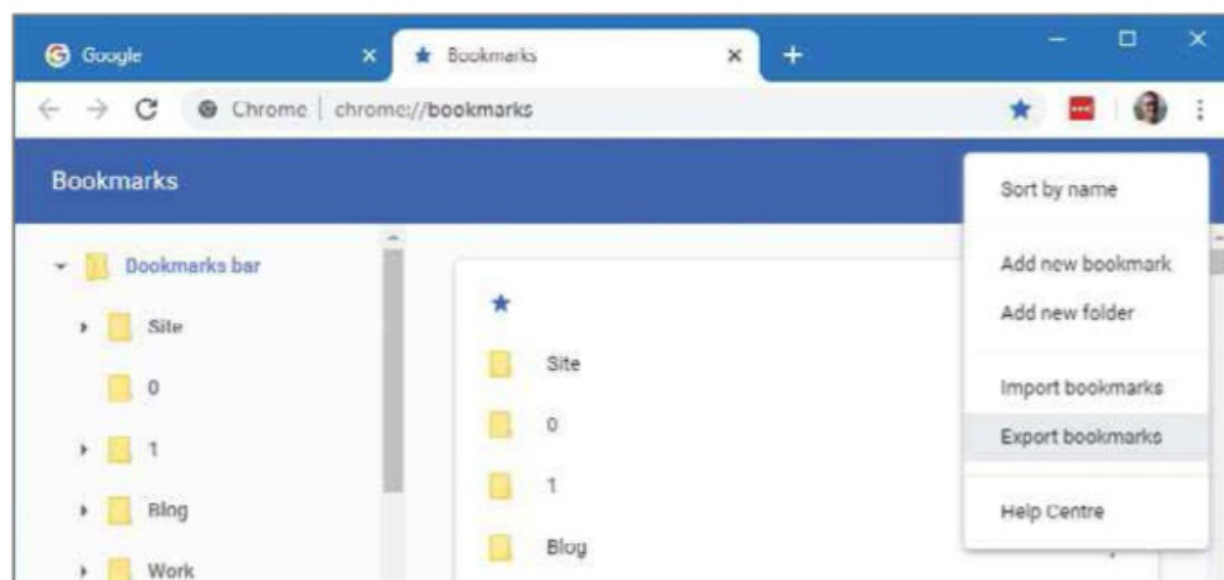
It's best to create your own Windows boot media rather than buying it from eBay, and it's relatively easy to do. Go to bit.ly/windows498 and download the Windows 10 installation media tool. It helps you create bootable USB memory sticks and DVDs.

BROWSERS

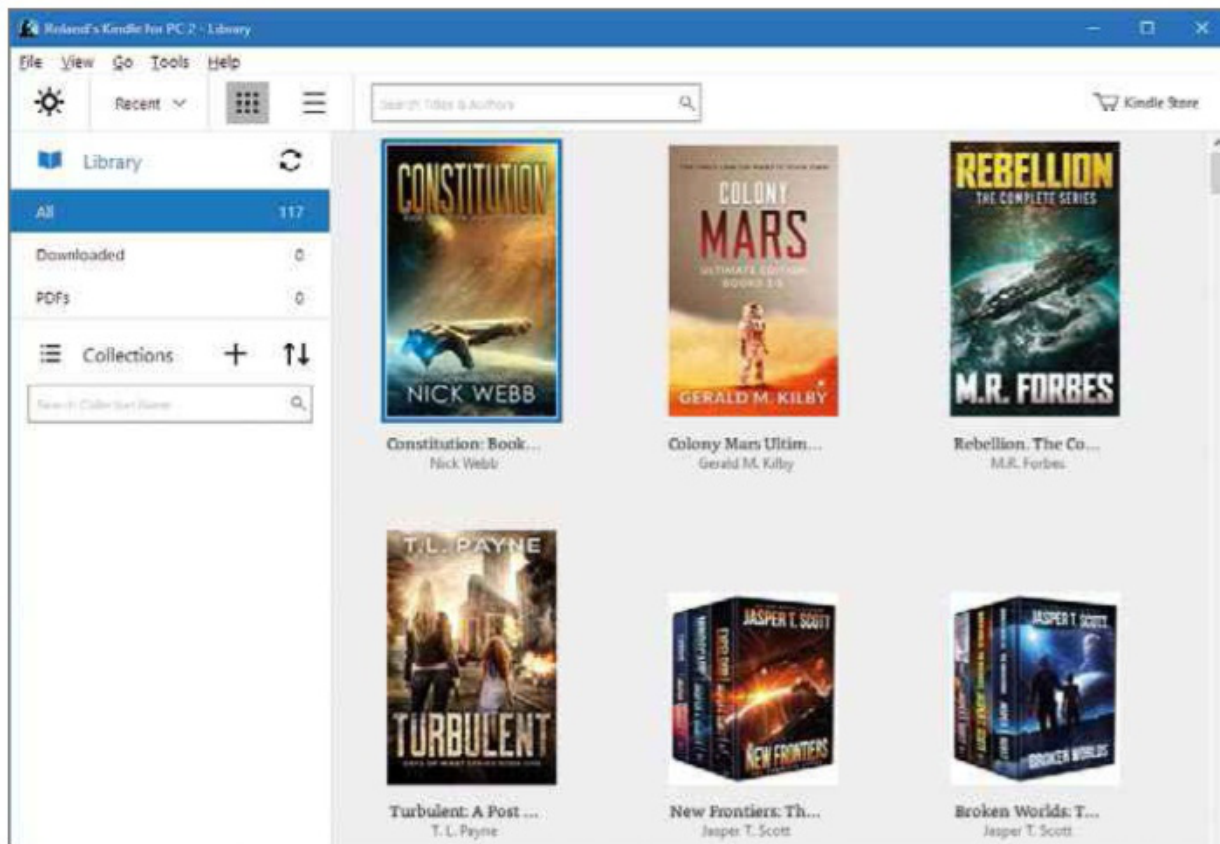
Recover lost browser bookmarks

Q I recently started using Avast browser (bit.ly/avast498) and imported my Internet Explorer and Firefox bookmarks. I also saved some interesting websites recommended by *Web User* on the bookmarks bar and in 'Other bookmarks'.

Everything was fine until one day I logged into Avast browser to find that all my bookmarks had vanished. Yes, I know I should have made a backup – it was on my to-do list.



Export your bookmarks to back them up – it takes seconds and keeps them safe



Install the Kindle app before connecting a Kindle Fire to a PC

All that was left on my bookmarks bar was a message encouraging me to import my bookmarks, all of which were still working through their respective original browsers.

I learned that Bookmarks or Bookmarks.bak should be in:

C:\windows\users\username\appdata\local\avastsoftware\browser\userdata\default

Although this path takes me to the relevant Avast software, there's no file or folder named Bookmarks or Bookmarks.bak, even though my system is set up to show all files and folders. Recuva (www.ccleaner.com/recuva) can't find anything, either, which it should if the file had been deleted.

If I now open Avast browser, I can save a website address to both the bookmarks bar and 'Other bookmarks', as though nothing had happened, and I can again import my favourites and bookmarks from Internet Explorer and Firefox.

David John Rhodes, via email

A Unfortunately, your bookmarks are probably gone forever. It's too late now but, for the rest of our readers, we'd recommend that you export your browser bookmarks occasionally and save them as a file in the Documents folder. It requires hardly any space and takes seconds to do. Backups of the whole hard drive should also be made.

If you had a backup, you would be able to copy the Bookmarks or Bookmarks.bak from it to:

C:\Users\YourName\AppData\Local\AVAST Software\Browser\User Data\Default

When the browser is restarted, all your bookmarks should be in place.

Windows pushes out a major update

twice a year and, for a time (maybe up to four weeks), a folder called C:\Windows.old contains a backup of Windows and user files. If this is still on

your hard drive, open the folder in C:\Windows.old and copy the Avast bookmarks backup to its normal place.

It's a long shot and it may not work, but you could also try tweaking Recuva's settings. Run it and click Options, then select the Actions tab and tick 'Show files found in hidden system directories' and 'Deep scan'. This performs a more thorough search for deleted files.

HARDWARE

Connect a Kindle to a PC

Q I'm trying to connect a new Amazon Kindle Fire HD 10 to my HP Pavilion laptop, so I can transfer downloaded music from the laptop to the Kindle. I have tried using a variety of USB cables in different USB ports, and made sure the Kindle driver on the laptop is up to date and working. I've also performed a hard reset on the Kindle while the device was attached to the laptop.

When I attach the Kindle to an old Sony laptop, there is no problem and it is recognised immediately.

Mark Bonson, via email

VIDEO

Display YouTube subtitles

Q I spent some time in Germany, and have an interest in German classical music and travelogue videos, which I download from YouTube. If subtitles are available, I like to include them to aid clarification of the dialogue and lyrics.

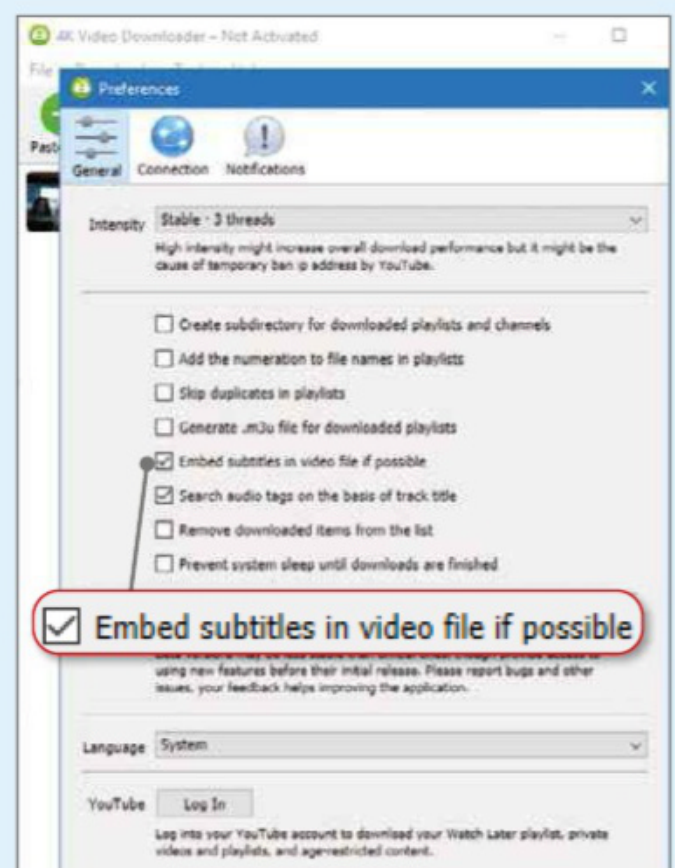
I normally use 4K Video Downloader (bit.ly/4kvd498, as recommended in Issue 474 bit.ly/webuser474), to copy and paste the video's URL into a file. When the subtitles are available, and actioned by clicking the small icon next to the Settings icon (in the bottom-right corner), they play correctly on the YouTube video.

However, when they're copied and pasted, they no longer appear on the downloaded video.

A small square icon appears in the bottom-left corner, which confirms the audio channels and asks to identify the subtitle file, which I can't find.

I assume I am doing something incorrectly. Are you able to offer advice on the correct procedure for adding the subtitles to a downloaded video?

Keith Warwick, via email



Embed subtitles in the video you want to download, if possible, and save as an MKV file

A In 4K Video Downloader's preferences, there's an option to embed subtitles in the video file, if they're available. However, we got no subtitles when we tested this, whether the option was enabled or disabled.

What worked for us was choosing to download in MKV file format and not the default MP4. Play the video afterwards from 4K Video Downloader and the subtitles can be enabled in the usual way by clicking the icon in the bottom-left corner.





A Try uninstalling the Kindle app – if it is installed – then download and install the latest version from bit.ly/kindle498.

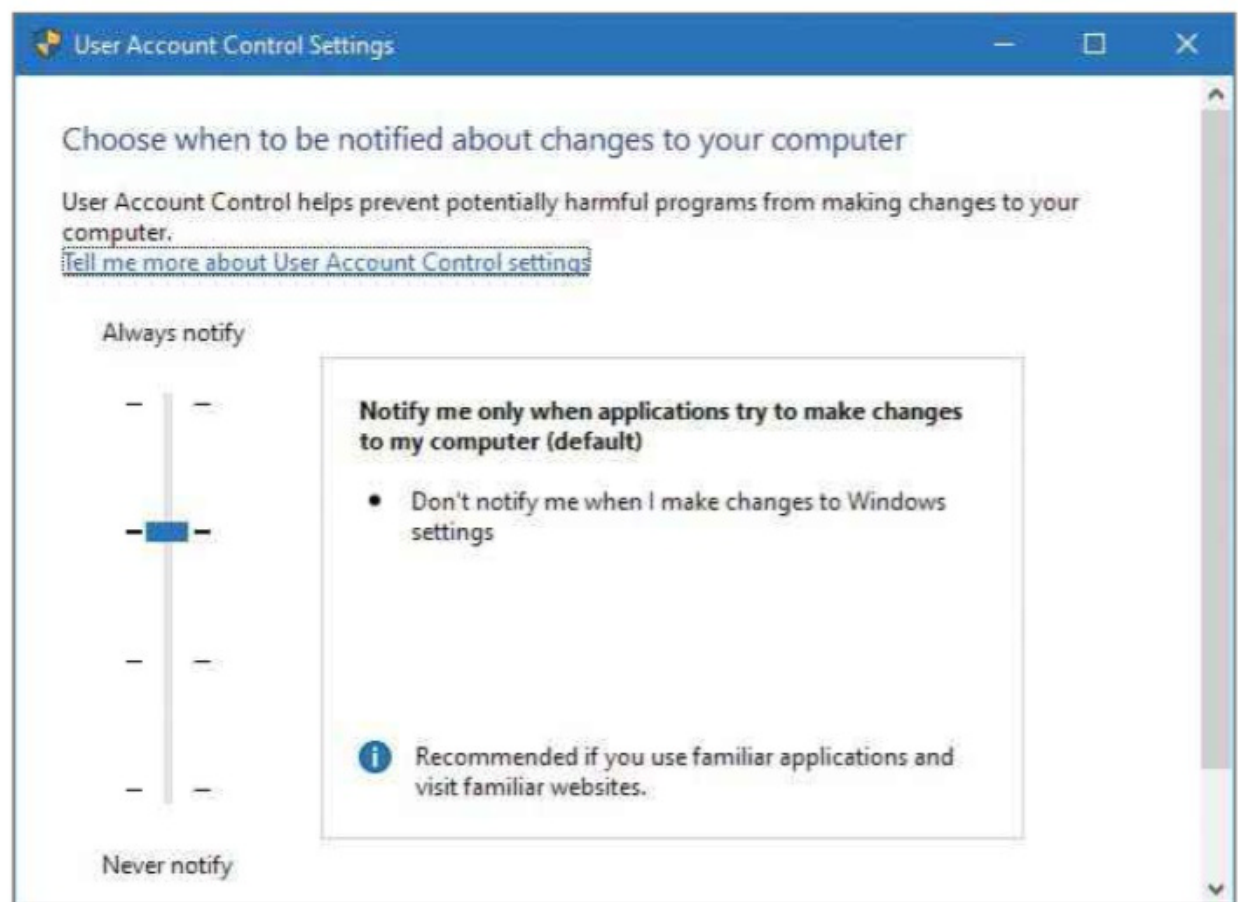
If that doesn't help, connect the Kindle to the PC with a USB cable. Right-click Start and choose Device Manager and, on the View menu, click 'Show hidden devices'. Expand Portable Devices, right-click the Kindle Fire and select 'Update driver'. Choose 'Browse my computer for driver software' and then 'Let me pick from a list of available drivers on my computer'.

Select Portable Devices and untick the box 'Show compatible hardware'. Select 'MTP USB device' and click Next to install the driver. Restart Windows and try the Kindle again.

GENERAL PC

Run reluctant software

Q I have a program on my computer that I downloaded from the internet. It worked the first time I used it but now, when I try to run it, an error is displayed saying something like: "App blocked, contact the administrator". But I am the administrator!



User Account Control doesn't normally cause problems but, if it does, try turning it off

I would really like to get this program working. Can you suggest a solution to the problem?

Sam Davies, via email

A Security features can sometimes get in the way of actions you want to perform. Your antivirus software may be blocking this app so, as long as you are sure the program is safe, try temporarily turning off your security software and run the program again.

Windows' own security tools, such as the Windows Firewall, can also prevent programs from running. Open the Control Panel and click Windows Defender Firewall, then go to 'Turn Windows Defender Firewall on or off'. Normally, you would want this enabled but you can turn it off temporarily to check whether the app now works. If it does, click 'Allow an app or feature through Windows Defender Firewall'. If the program is listed, tick the box next to it; if it isn't, click 'Allow another app', then click Browse and find it on the hard drive.

Controlled folder access stops programs accessing the disk for security reasons, which can sometimes cause problems. Press Windows+i to open Settings, enter **controlled** in the search box and click 'Controlled folder access' in the search suggestions. Turn off the switch in Windows Security.

User Account Control (UAC) also prevents programs from running or changing system settings. Type **user account control** in the Settings search box and click it in the suggestions. UAC is best set quite high, but you can drag the slider down to 'Never notify' to turn off the feature and try running the program again.

GENERAL PC

Find my photos

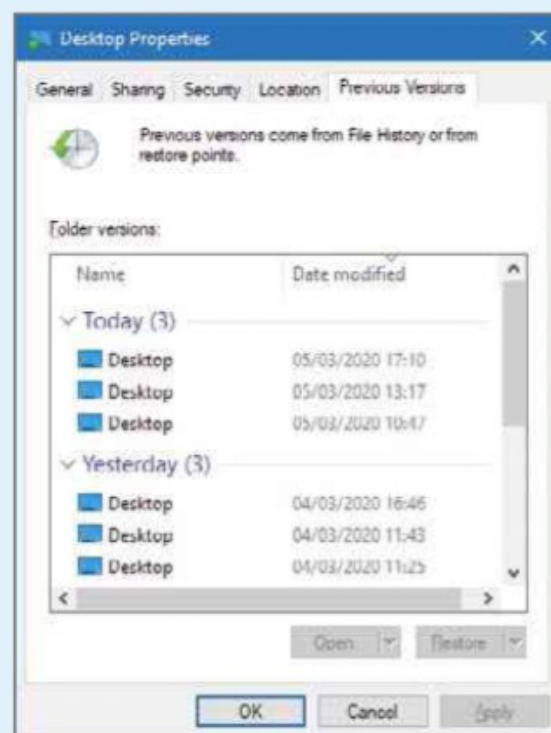
Q The hard drive in my computer isn't completely full, but it's not far off, and there are only a few gigabytes left. So, I decided to give it a tidy to free up some space.

I have a large number of photos on the drive, so I decided to move them to an external USB. However, a week later, I now can't open them. There are icons for all the photos and it looks like they are all there, but they won't load. One thing I've noticed is that each icon is displaying two blue curved arrows. I haven't seen this on other files.

Thomas Pipe, via email

A Right-click a program or file and you'll see the options in the context menu include 'Send to', then 'Desktop (create shortcut)'. This creates an icon on the desktop that shows two blue curved arrows. It's not the file or program itself, but a pointer to its true location. It seems that in your case, shortcuts were created of your photos but the photos themselves were not moved.

Look on your PC's hard drive for the



Sometimes, with some folders, you can right-click to restore previous versions

photos. Were they in the Pictures folder? Are they still there? If not, look in the Recycle Bin and recover them if they're present.

If you still can't find them, open Explorer, right-click Pictures in the sidebar and select 'Restore previous versions'. If a previous version of the folder is available from before your photos disappeared, select it and click Restore to recover it.



This fortnight Roland has become more organised by using online tools for managing work, projects and to-do lists.



Readers' Helpdesk

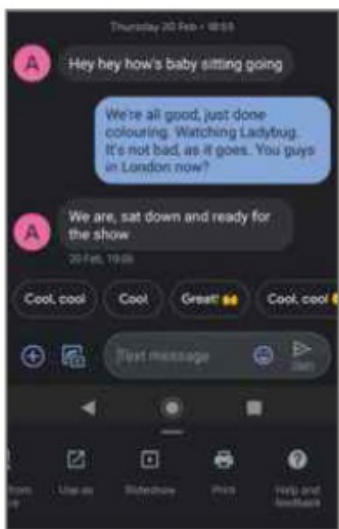
Can you help your fellow readers with their computer problems? Send your questions and answers to webuser@webuser.co.uk

MOBILE

Print text messages

Q I'm struggling to work out how to print text messages from my phone. I was hoping to just push a button to send messages my printer, but this doesn't appear to be a thing. Am I missing something really obvious?

Verity-Loren Mortis, via email



Printing a screen shot is the easiest way to print an Android message

A You can print almost anything wirelessly but text messages remain stubbornly stuck to your phone. A few companies offer software for downloading texts – for a fee, of course. Beyond that, the best way to create a hard copy is to take screenshots of each message, then select the Print option in your

Photos app menu. Alternatively, you can send these screenshots to your email account and print them from there.

Steve Clark, Features Writer

VIDEO

Download YouTube videos

Q It seems I can no longer download YouTube videos using Real Downloader. Is there something similar that does a better job?

David Barker, via email

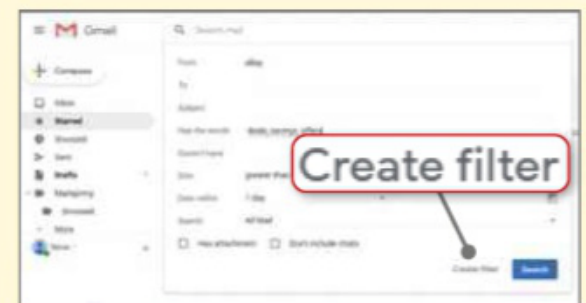
A Try checking your firewall settings, in case they're stopping you downloading videos. More likely, though, YouTube has put the kibosh on Real Downloader. The good news is that Real rolled the download functions into Real Player (bit.ly/realplayer498) and, in our tests, this worked fine. Just click the Real Player logo, select 'Download a Video' and paste the video URL into the text

READERS RESPOND

EMAIL

Create filters for unwanted emails

A Referring to your answer to Oliver's query in Issue 495 (bit.ly/webuser495), my Gmail account doesn't have a three-dot menu. However, you can set up a filter that identifies any emails containing words or addresses you've set, and deals with them according to rules you've defined. At the far right of Gmail's search box, in very small print, is 'Create a filter'. Click this to see a list of your current filters (any of which can be edited or deleted) with an 'Add a filter' button at the bottom. Whether you're adding or editing, there's a choice of criteria: 'From', 'To', 'Subject', 'Has the words' and 'Doesn't have' – though I'm not sure how one might use the last one! Finally, clicking Next Step displays a



Use Gmail's filter options to keep your inbox under control

selection of actions that are triggered when an email contains any of the filter criteria, such as 'Skip the inbox (Archive it)', 'Delete it' and 'Star it'.

Under 'From:', I have set 'eBay', and under 'Has the words', I have set 'deals', 'offer', 'coupon', 'amazing' and 'savings'. In every case, I've selected 'Skip the inbox' as the action to be taken. One can, of course, check the Bin at any time to make sure that nothing is being filtered inadvertently.

Alan Beasley, 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.

SOFTWARE

Q What's the best software for cataloguing things? I'd like to keep a record of books, films and plays I've seen but I hate using spreadsheets.

Barry Kenilworth, via email

box. If you're using the free software, you can download up to 720p, but FullHD and 4K require the upgraded package.

VLC (www.videolan.org) lets you download videos in a similar way – select Media, Open Network Stream, then pop the web address into the blank field and click Tools, then Codec Information. At the bottom of the pop-up, copy the Location, paste it into your browser and the video downloads.

The quickest way to download a video is to use a browser tool, but these tend to

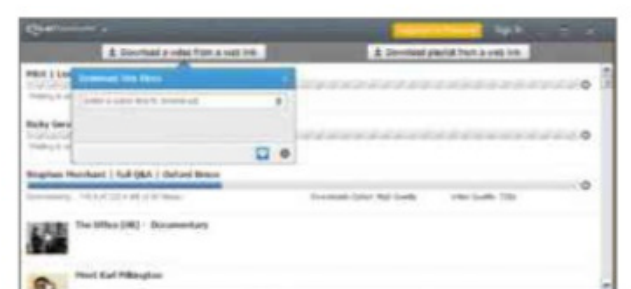
SOCIAL MEDIA

Q Is there a way to turn on dark mode for Facebook on Android? Every other social-media site appears to have it.

Les Hague, via email

mysteriously disappear right around the time that YouTube discovers them.

Steve Clark, Features Writer



Real Player lets you download YouTube videos but only at 720p resolution

Your Top Tips

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



TOP TIP

MOBILE

Stop Android apps accessing your mic and camera

I try to keep my data and devices secure online but one thing that worries me is having apps on my phone that can surreptitiously access the camera and microphone, seeing and hearing my every move (although, admittedly, I'd be a boring subject to spy on!).

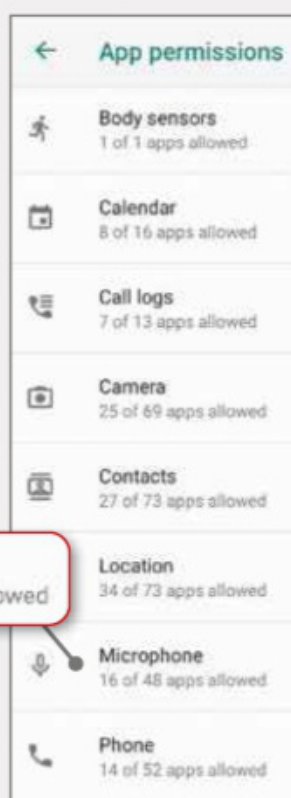
Thankfully, Google has made it easy to stop this happening. First, go to your phone's settings, select 'Apps & notifications' and, under Advanced options, open 'App permissions'. You should see a list that includes Camera and Microphone (as well as other things such as body sensors and location). Tap any of these to see which apps have access to this data. You can now use the toggle switches to

stop individual apps being given permission to access your microphone and camera.

Scott Fitzwilliam, via email

Microphone
16 of 48 apps allowed

Have you checked your app permissions?



Back Issues disc winner



VIDEO

Change backgrounds in video clips

I'm amazed by the easy access we now have to media-production tools that were once way too expensive and cutting-edge for anyone outside a Hollywood studio. Unscreen (www.unscreen.com) is another tool to add to that list – it lets you 'green screen' your shots to add new backgrounds.

Upload a video or GIF, or copy and paste a URL. Once it's processed, you

can select from different backgrounds. Video clips are currently limited to 5 seconds (though you can create full-length clips when Unscreen Pro is released). It's simple and stunning.

Ned Phelps, via email

GENERAL PC

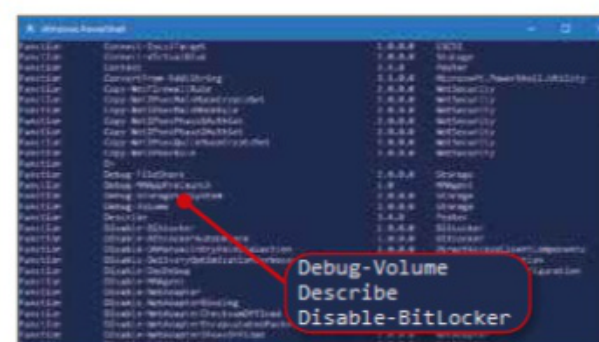
Switch to PowerShell

I've often seen tips in *Web User* that involve opening the Command Prompt but these days Microsoft wants you to use PowerShell instead. Open the Settings app in Windows 10 and go to Personalisation, then Taskbar. Find the switch to replace Command Prompt with PowerShell and turn it on. Now you can right-click the Start button and open PowerShell from there.

PowerShell has all the usual command-prompt commands and a lot more. To see them all, enter `get-command` and, to get help, enter `get-help`. To be honest, most of them mean nothing to me, but I've spotted some simple commands including 'get-disk' (shows information

about your drives) and 'get-startapps' (lists all the apps on the Start menu). You can find out what others commands do by searching for them with Google.

Robert Johns, via email



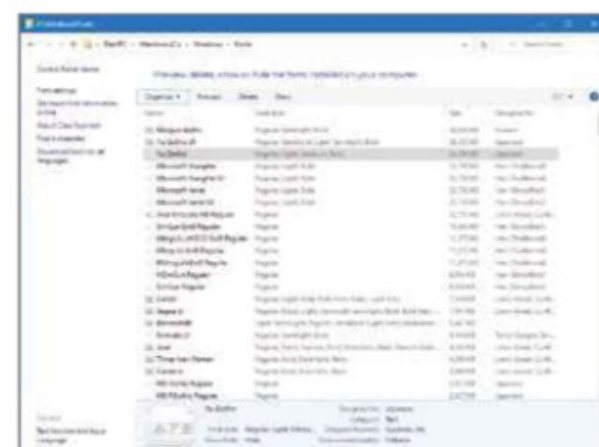
There are lots of commands available in PowerShell

WINDOWS

Reduce the size of your fonts folder

When I first started using Windows, it only had a handful of fonts available and there was a limit to how many new ones you could install. If you had too many installed, it would slow your PC. Nowadays, there doesn't appear to be a limit but having a lot of fonts still slows down your computer.

C:\Windows\Fonts contains all your fonts and you can view them in Explorer. Click the Size column header to put them in order with the biggest at the top. Some fonts are as big as 30MB! If you don't see a Size column, right-click any column header and add it.



Do you really need all these fonts? Make a back up before deleting anything, though!



Bring Hollywood magic to your home movies



Double-click a font to open it, then double-click a font tile to view samples. You can delete a font by right-clicking it – just be careful not to delete one that's used in Windows or a program, and make a backup of the fonts folder before deleting anything. Getting rid of some big, unused fonts may make Windows a little quicker on a low-spec or old PC with limited memory. It's worth trying.

L Mason, via email

VIDEO

Skip YouTube ads without a blocker

A quick tip for everyone who doesn't have an ad blocker: to avoid sitting through countless adverts in the middle of YouTube videos, drag the cursor to the end of the video and, when the video ends, press Replay. The video should now play through without interruptions.

JL Lime, via email



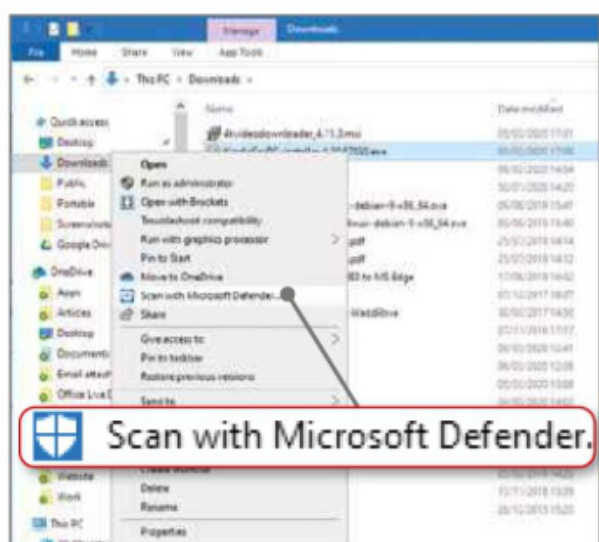
A cheeky way to stop mid-video adverts is to go to the end and scroll back

SECURITY

Scan your downloads with Defender

Microsoft Defender does such a good job of keeping viruses and other malware at bay, I no longer use third-party security tools to keep my computer secure. Downloaded files and programs from the internet should be checked automatically, but – call me paranoid – I like to make sure by running a scan manually.

Right-click the Downloads folder to check everything or right-click a file to



Right-click a file to scan it with Microsoft Defender

check just that file. In either case, select 'Scan with Microsoft Defender'. If you download zip files, unzip them first, then check the files by right-clicking.

Evan Thomas, via email

RASPBERRY PI

Check your SD card speeds

SD cards are essential for running a Raspberry Pi, so I was over the moon to see the developers release a new tool for checking the speed of any SD card in the micro computer. It's great for checking if you can run Pi programs or save big media files. To install the tool, you need to enter the following lines:

```
sudo apt update
sudo apt install agnostics
```

This adds Raspberry Pi Diagnostics to the Accessories menu. Open this and click Run Test to test your speeds. There are more diagnostic tests on the way.

James Kirkcaldy, via email



Raspberry Pi's latest tool is a must-have

WINDOWS

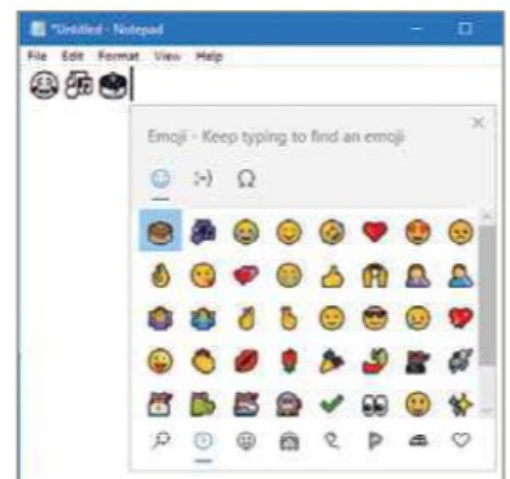
Use Windows' emoji

Emoji are most commonly used on phones and social media, but you can

use them in Windows, too. Almost anywhere you can type text, hold down the Windows key and press the full stop button. An emoji panel pops up and you can click an emoji to enter it.

Try it in Notepad by typing a few words, then pressing Windows and the full-stop key and clicking an emoji. Notepad doesn't support colour, so they come out black and white, but coloured emoji appear where that's supported.

Neil Channon, via email



Use emoji in Notepad and other text programs

BROWSERS

Get the best version of uBlock on Firefox

It's official: uBlock Origin for Firefox (bit.ly/ublock498) is the best version of the ad blocker out there. The latest update includes an exclusive security tool for Firefox called 'CNAME-unlock network requests', which blocks websites that give their adverts official-sounding URLs to get around ad blockers. Sadly, Chrome and other browsers lack the necessary DNS API to run this feature, which is a good reason to switch to Firefox.

H Manling, via email

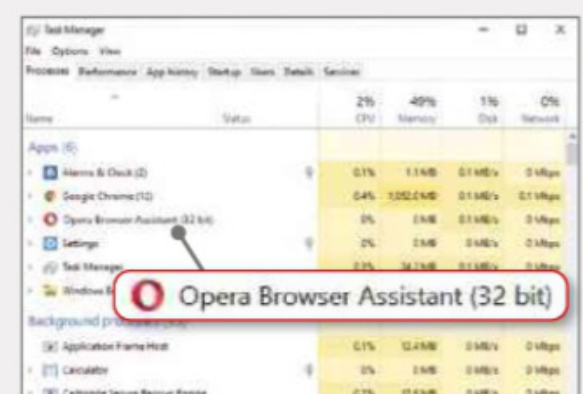
BLUNDER OF THE FORTNIGHT

BROWSERS

Disable unwanted Opera Assistant

I'm not sure if this is my blunder or Opera's, but I noticed the other day that something called Opera Assistant was running in Task Manager, even though the browser wasn't open at the time. "Hmm, that's odd," I thought, as I ended the process. The next day it appeared again, so I checked and found that it's official – supposedly making the browser open more quickly. Who knows what else it's doing in the background?

Needless to say, I wasn't keen on it starting up every time I boot up my laptop, so I right-clicked it in Task Manager and selected Disable. I didn't even know there was an Opera



Opera Assistant isn't essential and can be shut down

Assistant, let alone that it had slipped into my system startup! A poor show from Opera, I feel.

Paul Bertram, via email

Have you managed to fix a PC-related disaster?

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



Star Email

Surviving the coronavirus online

The rapid spread of the coronavirus is both terrible and terrifying, but I think we should be thankful that at least we have the internet to fulfil some of the everyday tasks that it's currently unwise for us to do in person. Compare this to the experience of previous generations, who were forced to leave their houses when sick if they wanted to buy food, see a doctor and so on, which only led to more people becoming infected.

Ordering food online rather than braving the scrums at the supermarket is the most obvious advantage, although as I write there are long delays for securing delivery slots. But it's also possible to speak to your GP via a mobile app, arrange repeat prescriptions through pharmacy sites



and, of course, interact with people via social media rather than having to meet them face to face.

The availability of such options goes some way towards mitigating the helplessness and loneliness that one can suffer when unwell, especially if you live on your own, and means you're not putting other people at risk of catching

your malady. There is also endless entertainment from YouTube and other streaming services, to prevent you from getting bored, and constant updates from news websites to keep you informed about how the virus is being tackled.

On the downside, the web also gives rise to inevitable misinformation and ridiculous conspiracy theories – so-called 'fake news'. But provided you stick to reliable sources and don't believe everything you read, I think that's a small price to pay.

Although I am currently healthy, I am grateful to live in a time and place with all the benefits of the internet, which means I don't have to leave the house unless it's absolutely essential.

Brian Sherman, via email

Back Issues disc winner



Thanks for helping update my drivers

I'd been unable to upgrade my Windows 7 PC to Windows 10 as there appeared to be some driver issues. I always used IObit Driver Booster in the past but, thanks to your review of two other driver updaters in Issue 496, I've been able to update the outdated drivers hinted at by the Window 10 Media Creation tool. IObit didn't list them at all, but both DriverMax and Driver Easy Lite did, so I used DriverMax to install the larger files (only two a day can be downloaded) and DriverEasy Lite for the rest.

I'm so glad I subscribed to your magazine only a month ago, which has saved me at least £70 for a new graphics card and installation costs.

Nick, via email

Wrong price for Tapo 100

Having read your review of the TP-Link Tapo 100 smart plug in Issue 496, I decided to buy four of them, plus a further six for my family. But, horror of horrors, you got the price wrong! On the Amazon page you linked to, the plug costs £12.99 plus postage, which is 33% higher than the £9.99 you quoted!

Perhaps you should check that prices will be valid for the publication date of

your magazine.

David Graham, via email

Web User says:

Unfortunately, Amazon unexpectedly increased the price of the Tapo 100 after we went to press with the issue. You can track the price history of the product using the website CamelCamelCamel (bit.ly/camel498) to see that it has fluctuated between



though this may have changed again by the time you read this. If so, it's worth setting up an Amazon Price Watch alert with CamelCamelCamel to be notified when the price drops.

£9.99 and £12.99 over the last two months.

The good news is that, at the time of writing, the price of the Tapo 100 has been reduced to £9.96,

Quiz Answers: Issue 497

- 1 **The Breakfast Club**
- 2 **Die Hard**
- 3 **Beetlejuice**
- 4 **The Karate Kid**
- 5 **Police Academy**
- 6 **A Fish Called Wanda**



WINNER!

Well done to **Steve Hackett** who wins a Web User Back Issues Disc



WIKIPEDIA ARTICLE

Netflix



Cryptomining could heat our homes

There is increasing pressure to curtail or even eventually ban the use of gas and oil for domestic heating. The replacement for these fuels would be electricity.



The mining of cryptocurrency, apart from generating coins for the miner, also effectively

converts electricity to low-grade heat. This of course is normally the big disadvantage of cryptocurrency mining, since the cost of electricity eats into the profit (if any) generated by producing coins. If, however, the waste heat from mining could be used for space heating, the equation would change somewhat, as the electricity used in mining would be consumed anyway in storage heaters, and so on.

In a house currently equipped with gas central heating, it should be possible to substitute a heat exchanger (coils of copper tubing close to the mining equipment) for the boiler, so that the waste heat is distributed throughout the building via the radiators.

Clive Mather, via email

Avoid the Epic Games Store

Regarding your cover feature in Issue 496 about getting stuff for free online, I would strongly advise against using the Epic Games Store, even though it offers free games.



The company has suffered a lot of controversies that many members of the gaming community feel annoyed about. For example, Linux users can't download games from the store, so Epic has been discontinuing games such as Rocket League that worked fine on Linux. Also, game developers on Epic can turn off reviews for their games, so users have no idea of the quality before buying. A games company can make a brilliant trailer but a bad game, and gamers won't know otherwise. There's even a subreddit that exposes these malicious practices (its name starts with a swear word!).

There's a reason Epic games are free – as you pointed out in your feature, you end up paying in frustration and time.

Gold Master, via email

What you say...

WHICH WEBSITES ARE YOU USING TO GET UPDATES ON THE CORONAVIRUS?

I follow the frequently updated numbers from John Hopkins University (bit.ly/corona494). Other than that, I have tried to avoid the more hysterical media outlets and just stick to the scientists' views.

Rich Grove

Absolutely none at all. I can't be doing with any more hysteria and I'm relying on Rich Grove to keep me updated if anything relevant pops up.

Nat Grove

None. I could actually do with 14 days rest from coronavirus news.

Gerrit Max

I've stopped following the news about the virus. It's just relentless and seems determined to whip up everyone into a frenzy rather than get them to think logically and behave sensibly.

Paul Giddings

I've found Twitter and Facebook to be the best sources of information, as well as providing some light relief through funny photos and GIFs.

Sarah Beasley

DO YOU STILL USE CCLEANER TO CLEAN AND SPEED UP YOUR PC?

CCleaner was the first cleanup tool I ever used, back in the day. I have installed and uninstalled it umpteen times over the years. I reinstalled it only yesterday yet again and noticed the new Health Check feature. One other plus point is you can choose which cookies to keep. I might stick with it for the foreseeable future as I've tried all the other cleaners.

Geoffrey Boow

Yes, but I think it's lost its ranking as the best cleanup tool over the years. It's not as powerful as it used to be.

Brian Brown

I use the portable version. Some of the tools – notably the startup manager – are really useful.

Mike Hamilton

Yes, but I stopped using the Pro version. It offered little for 15 quid a year compared to the free version.

Gavin Green

Nope! Can't trust CCleaner any more, since it introduced spying into its software. There are better tools out there anyway, such as BleachBit (www.bleachbit.org), which *Web User* has recommended over CCleaner.

Gary Olsen

I stopped using it when it was acquired by Avast.

Phil Ówen

BACK ISSUES DISC 2019



Our **2019 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit bit.ly/webuser2019 or search for 'webuser disc' on Amazon

! Page 404



It's not a stockpile of toilet rolls that you should be investing in, says **Barry Collins**

Is your broadband coronavirus-ready?

Amid all the coronavirus-prompted panic-buying of toilet rolls and pasta, there is one essential that I worry people may not have enough of: broadband bandwidth.

Following official government advice, we're set to see a lot more of the inside of our homes over the next few months. People are being forced to work from back bedrooms, kids have been sent home from school, mass public events and holidays cancelled.

While parents are firing up laptops, trying to grab files off their workplace network, the kids will be bored out of their skulls, streaming Netflix around the clock or downloading 80GB patches for Fortnite. The demand on your home broadband is going to explode and your router will be begging for a day off.

Now's the time to question whether your broadband is up to scratch. While most home-working tasks – email, surfing the web, the odd Skype call – don't require much bandwidth, it's the streaming services the kids are hooked to that will put the strain on your connection. An HD stream from Netflix needs 5Mbps, while game-streaming services require at least double that. If you have even two of those on the go at the same time – a pretty typical peak-time scenario in my house – your basic “fibre” broadband connection is going to start feeling the strain. With four or five people all trying to work and play at the same time, it's likely to get patchy.

“The demand on your home broadband is going to explode and your router will be begging for a day off”



The good news is that upgrading your broadband can be a relatively pain-free – if not cost-free – process. If you're on a basic 40Mbps fibre-to-the-cabinet connection (what BT Broadband calls 'Infinity'), then it's very easy to upgrade to double that speed (or 'Infinity 2').

That kind of boost doesn't require any new equipment or a visit from a BT engineer because your broadband provider can simply flick a switch to unleash the new speed almost instantly. The same is true of many Virgin Media speed bumps – it's just a case of taking the artificial brakes off your line and delivering the faster speeds.

There are a few caveats to be aware of, though. First, if you live some distance from your local fibre cabinet, your line simply might not be capable

of the faster speeds. If you're currently on a 40Mbps connection and don't get anywhere near that, even during quieter periods, then an upgrade to the 80Mbps service is unlikely to improve matters.

The other major factor is network congestion. If everyone is working from home and all their kids are streaming round the clock, then overall network traffic is set to rocket. The normal evening rush-hour will become the new norm. There is every possibility that – even if you do upgrade your line – the overall weight of traffic will drag your speed back down.

I don't want to encourage panic broadband buying any more than I want you to drive down to Tesco and empty the shelves of Andrex. But a relatively modest price increase to potentially double your broadband speed and see you through the next couple of months of quarantine: it might be the most worthwhile tenner you've ever spent.

Illustration: Andrew Torrens

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