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1. Based on a SpencerLab 2018 study commissioned by HP for the on-average performance of 12 brands of remanufactured cartridges, refilled cartridges from leading refill service providers, and refill kits compared to Original HP ink cartridges (61XL, 62XL, 63XL, 564XL, 950XL, 951XL, 970XL & 971XL) sold in North America. See spencerlab.com/reports/HPInkReliability-NA-2018.pdf.

2. HP Planet Partners Program availability varies. For details, see www.hp.com/recycle. On recycled materials in cartridges, see hp.com/go/recycledcontent.

STOP FACEBOOK KNOWING *EVERYTHING* YOU DO ONLINE

Fix its privacy settings NOW!

p57

DON'T MESS UP YOUR BACKUP

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PLUS

CREATE YOUR OWN HOME INTERCOM

No more shouting up the stairs p58

WHY YOU DON'T NEED A POSTCODE

When you have this app p47

REINSTALL CLASSIC WINDOWS SOFTWARE

Bring back Movie Maker and other old favourites p48

Backing up isn't hard to do

Losing important files to an unforeseen disaster is a fear that many of us brush aside. Like being struck by lightning, hit by a falling coconut or crushed by a vending machine, it's easy to assume it'll never happen to us, and to regard backing up as a boring task that only businesses and big lorries need to worry about. Speaking as someone who has lost several phones and laptops to carelessness, criminals and conking out, I can confirm that backup is essential, and not as tedious as you'd think.

In this issue's cover feature, we round up and review the best free backup software for protecting your precious files against loss, theft, malware, corruption and other catastrophes. These feature-packed programs make backing up quick, simple and painless, to ensure that you never lose anything again.

Coincidentally, we've backed up every edition of *Web User* from 2019 to our new Back Issues Disc, which you can buy now from bit.ly/webuser2019.

Robert Irvine, Editor
editor@webuser.co.uk
#webuser

p57

p40

p58

p47

p48
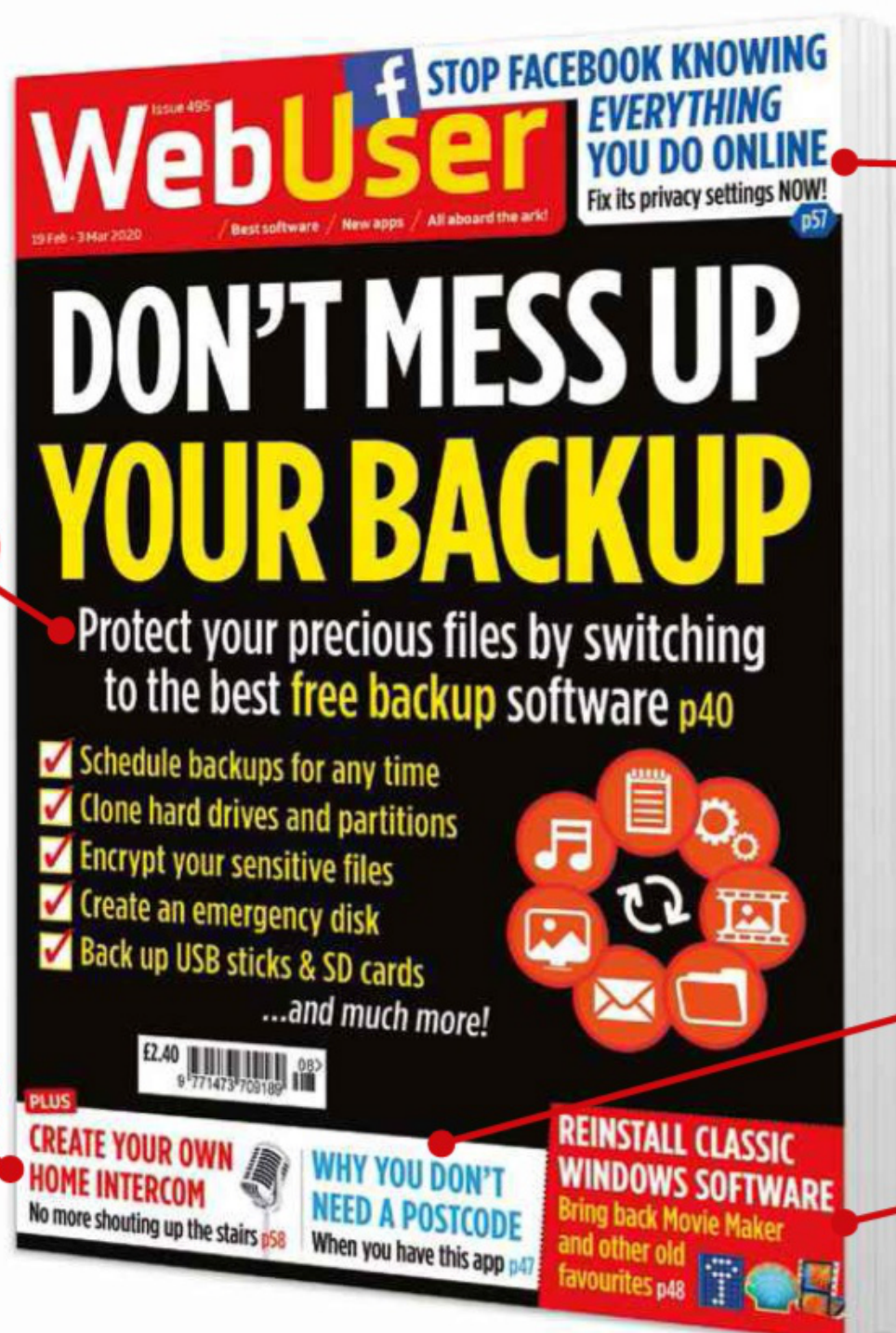
5 Things you'll learn this issue

1 How to protect your privacy by stripping the EXIF data from digital photos
page 29

2 How to block potentially unwanted programs using the new Edge browser
page 33

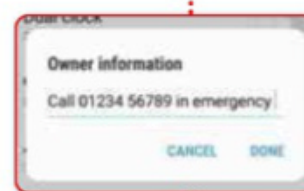**3** How to add emergency contact information to your phone's lock screen   **page 64**

4 How to compress your hard drive to free up space on your laptop
page 66

5 How to clear the formatting when copying and pasting text from the web   **page 71**

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.
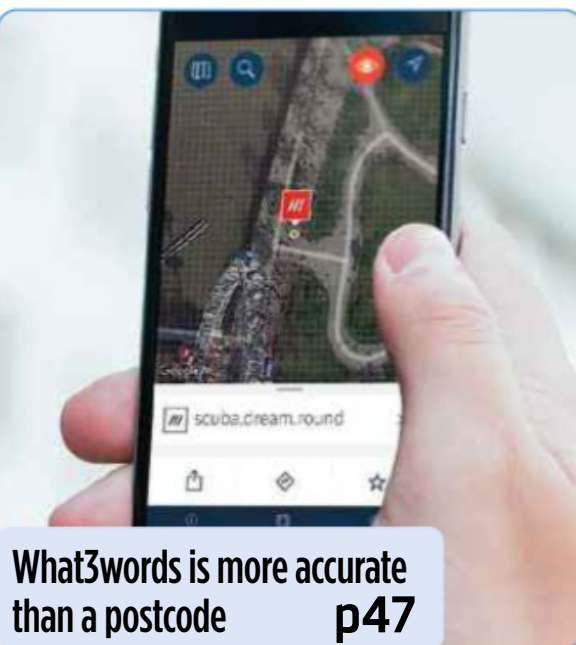
Contents

COVER FEATURE

DON'T MESS UP YOUR BACKUP

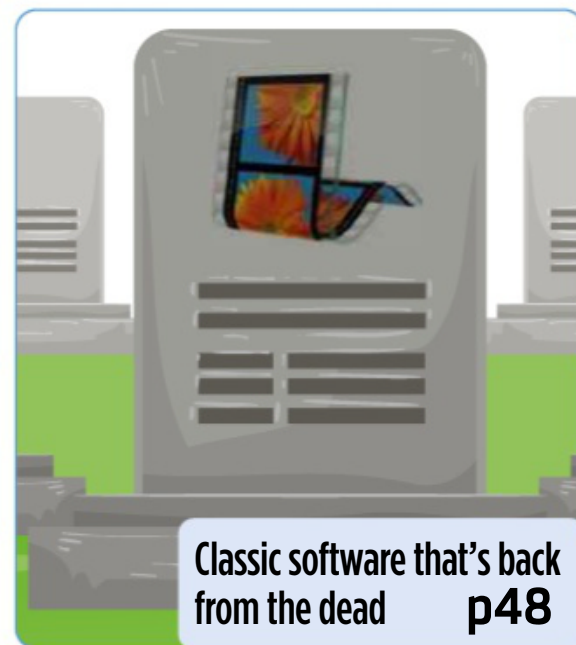## Make sure all your precious files are regularly and properly preserved

p40

Are in-game loot boxes encouraging gambling addiction? **p38**

What3words is more accurate than a postcode **p47**

Classic software that's back from the dead **p48**

IN DEPTH   Articles on the latest tech topics

REVIEWS   Apps, sites and products on test

Contents

FAVOURITES Must-read regulars

How to survive not-so-smart motorways **p74**

Practical WebUser
16 pages

Workshops, tips, projects and problem solving

Purge Windows 10 of bloatware **p54**

Make Facebook more private **p57**

Repurpose old tech to create a home intercom system **p58**

Explore Google Maps' new features

Google Maps has been helping us find our bearings for 15 years, and as part of its celebrations for reaching this milestone it has added new features to its mobile app. Aside from a new logo, the most obvious change is an expanded set of tabs at the bottom of the screen. The Explore and Commute options are still there to help you find local information and plot travel routes, but they're joined by Saved and Contribute, while For You has moved to a new category called Updates.

The Saved tab puts your favourite places, restaurants, lists and maps within easy reach and shows where you've been, based on the location history detected by your device. Contribute encourages users to help make the app more useful by filling in gaps in maps, leaving reviews, sharing local knowledge and adding photos. Finally, Updates highlights
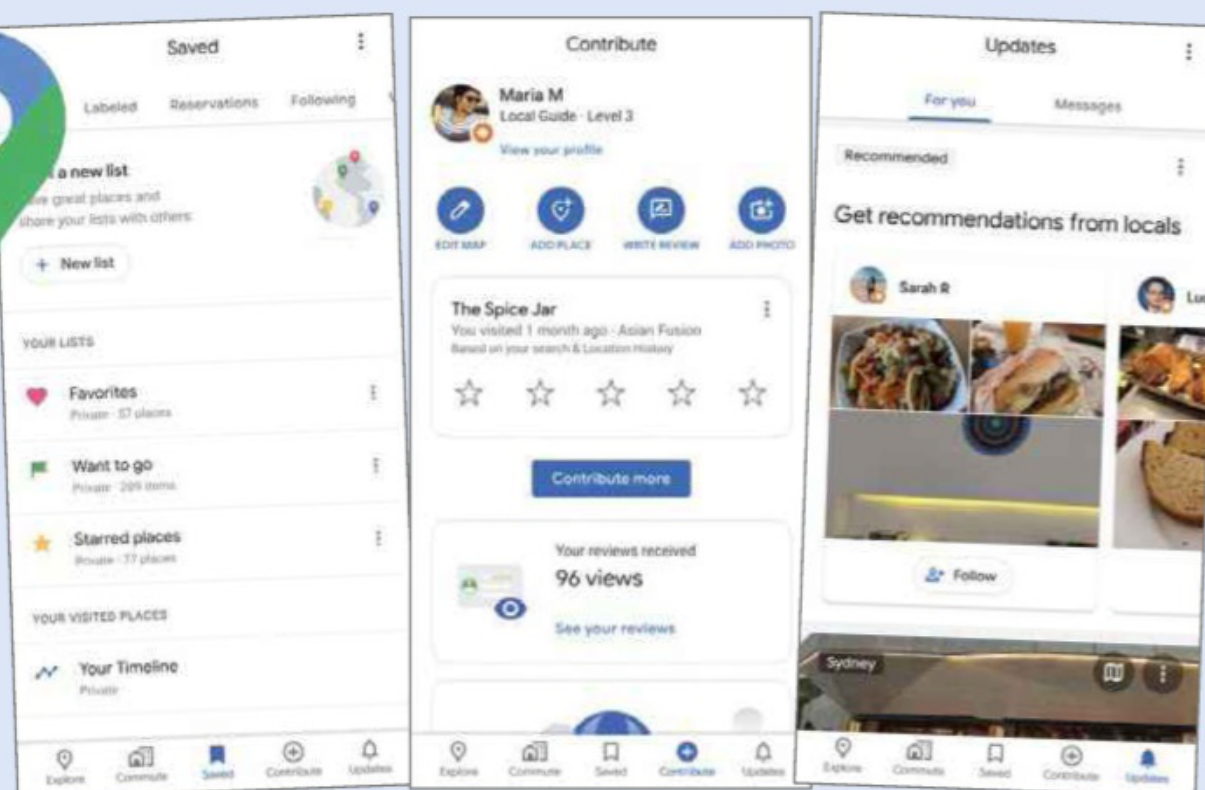
anything that is trending nearby, so you can keep track of local businesses and events, while the Messages option comes to the forefront, allowing you to chat directly with those companies.

If you need some travel inspiration, visit **bit.ly/street495** to see Google's 15 favourite Street View panoramas from the past 15 years.
www.google.co.uk/maps

Stream your games over the web with Nvidia

bit.ly/nvidia495
Nvidia's new gaming service, GeForce Now, lets you stream games you've bought from stores such as Steam, Uplay and Epic Games Store to almost any device. This includes Windows PCs and laptops, Macs, Android devices and Nvidia Shield TVs, but not iPhone, iPad or Apple TV –

presumably because Apple has a rival service, Apple Arcade.

GeForce Now supports more than 400 titles so far, and provides access to 30 of the biggest free-to-play games, including Fortnite and Dota 2. The service saves your best in-game moments automatically as you play, and manages driver and game updates, too.

Before you get started, ensure your broadband connection is at least 15Mbps, then choose a membership plan. A free option allows gaming sessions of up to an hour. The other plan costs £4.99 per month and runs games on RTX graphics cards for better visuals, while allowing sessions of up to six hours and priority access.

Access iCloud via a mobile browser

www.icloud.com
Apple has introduced mobile browser support for iCloud.com, so you no longer have to access the full desktop site on your phone. This means you can use your iCloud account from any iOS or Android device and enjoy an improved user interface that's a lot easier to navigate.

After logging in with your Apple ID and password, you can launch one of four in-browser apps: Photos, Notes, Reminders and Find iPhone. The latter option offers all the features available in the desktop version, so you can use anyone else's mobile device to locate a lost iPhone. The other three apps let you view and edit content saved in iCloud, albeit with limitations. For instance, you can add and edit notes and reminders but you can't upload photos. Inevitably, some functions work better on iPhones than on Android devices.
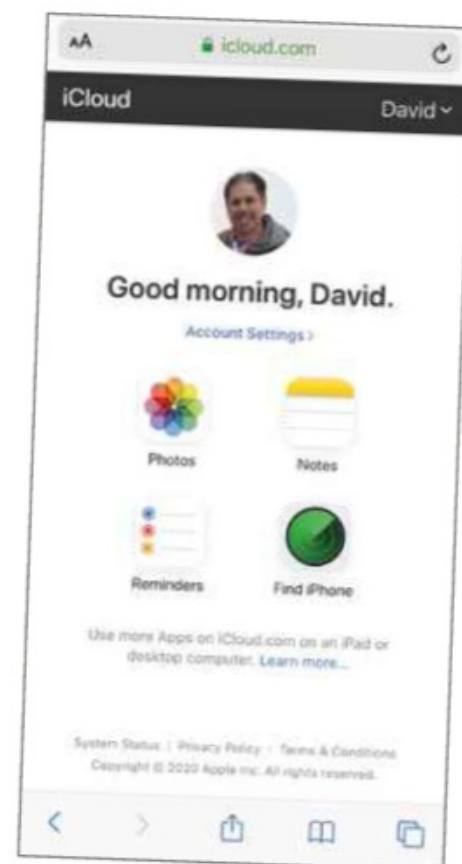
We pick the 10 best things you must do on the web this fortnight

See the stars in Google Earth

earth.google.com/web

The latest version of Google Earth for phones and tablets lets you zoom out for a wide view of the Milky Way. Using data from the European Southern Observatory, you can rotate the globe and see the position of the stars as if you were located 30,000 miles above Earth. It's a definite improvement on the pure black skies of previous versions.

Discover life under ice

lifeundertheice.org

During a five-week expedition to Antarctica, explorer Ariel Waldman used microscopes to investigate the tiny 'extremophiles' that live under the ice. Not only did she film her endeavours (which you can watch at bit.ly/ ariel495), she also created this online tour packed with videos of the microbes as seen under magnification. Simply drag around the screen until you find a microbe, then click 'What's this?' to find out more about it. If you like the look of a particular extremophile, click the 'Share this' button to show it to friends and family. The project promises more creatures over the coming months.

View George III's military maps

militarymaps.rct.uk

During his lifetime, King George III collected more than 3,000 military maps, prints and drawings covering the 16th to the early 19th centuries. Dr Yolande Hodson from the Royal Collection has spent the past 10 years cataloguing and digitising them to create a vast searchable archive organised by key conflicts such as the Seven Years, Napoleonic and Ottoman-Habsburg Wars. You can zoom into the maps for greater detail, learn more about the conflicts and find out how the maps were acquired.

NEW VOICE COMMANDS

Find your keys
By linking your Tile Bluetooth trackers to Google Assistant in the Google Home app, you can find lost items more easily. Either say, "Hey Google, ring my [object]", "where is my [object] or "find my [object]".

Browse using your voice
Mozilla has launched a beta experiment called Firefox Voice that lets you use your microphone to browse the web. Visit bit.ly/ voice495 for the browser add-on.

Access your car policy
If you have car insurance with LV, you can say, "Alexa, open LV" and ask more than 500 questions about your policy, compiled from the most common queries received by call centre staff.

Get Coronavirus SOS alerts
www.google.co.uk
To halt the spread of misinformation about the coronavirus outbreak, Google has launched an SOS Alert. Search for "coronavirus", and you'll see the latest stories and tweets, as well as help, information and safety tips you can share with others.

Review your car's cleanliness
bit.ly/carclean495
Clean Air Zones are being enforced in the UK this year, starting with Birmingham and Leeds. Find out if your car meets the required standards and if you'll have to pay a daily charge by entering your registration in this government tool.

See how a dress looks
bit.ly/asos495
Ladies can now see how dozens of dresses sold by Asos look on different-size bodies. Click Models on an item's page to see the dress digitally mapped on women from size four to 18 and various heights.

Shop for a new date

amazondating.co

Amazon hasn't really entered the dating game (yet), but if it did, then it might look a lot like this site. Closely mimicking Amazon's familiar design, this elaborate parody website treats potential partners as items for sale, with prices, ratings, height options, key features and reviews. There are also plenty of hidden laughs: try clicking the links at the top of the screen.

Tell us your favourite new things at twitter.com/webusermagazine

More malicious apps found in the Google Play store

What happened?

Google has again been forced to clean up its Play store after another tranche of dodgy Android apps was spotted by third-party researchers, raising the question of how so many are getting through the company's security checks.

Researchers at VPNpro spotted 24 suspicious apps, all with connections to the Chinese developer Shenzhen Hawk, which has previously been accused of releasing apps containing malicious code (bit.ly/vpnpro495). These rogue apps – which include Hi VPN, Virus Cleaner 2019 and Candy Selfie Camera, and have been installed hundreds of millions of times – were found to be harvesting user data by seeking dangerous permissions to access cameras, locations and more. Google has since removed them all from the app store.

But those weren't the only apps Google has had to purge from the Play store. Security company Bitdefender spotted 17 dodgy apps running adware that popped up ads at random intervals (bit.ly/bitdefender495). The apps had been downloaded half a million times and included file managers, racing games, and barcode and QR scanners.

And there's more. Trend Micro found nine apps – including Speed Clean-Phone Booster and its variants, LinkWorldVPN and Rocket Cleaner – masquerading as basic tools which, after installation, connected to a remote server to download malware (bit.ly/trend495). Google has since

VPNpro found 24 dodgy apps in the Play store from the same Chinese developer
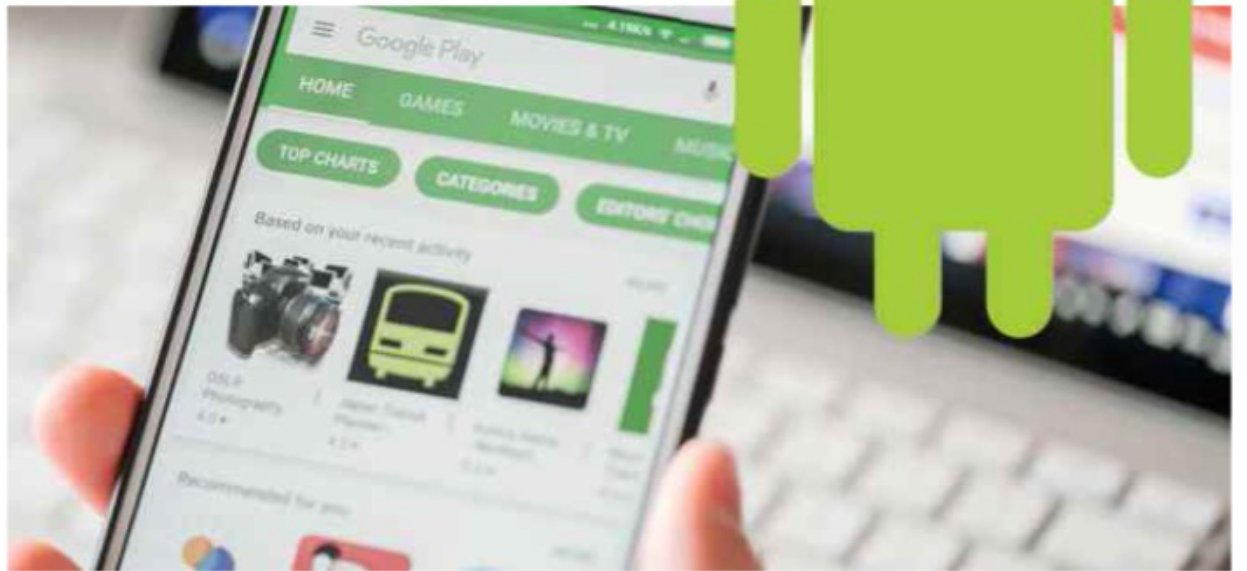
removed these apps, too.

In response to VPNpro's findings, Google said: "If we find behavior that violates our policies, we take action". It's true that the company does act quickly to clean up such apps when notified, but it's clear that plenty are slipping through its approval nets to gain entrance to the Play store.

How will it affect you?

Given the constant reports from security researchers, it's nearly impossible to keep up to date with all the latest warnings. But if you use any of the apps mentioned, uninstall them immediately. Google does entirely remove the worst offenders, so you should be safe as soon as the company is aware of any danger.

If you spot problems with your phone, such as the sudden appearance of adware, consider whether you've recently installed a new app. If so, delete it immediately and consider resetting your handset. It's a pain, but should help clean up any dodgy code left behind. This is one reason why it's worth always keeping your device backed up (see our cover feature on page 40).

Most of the offending apps are free tools but there are some games, too. Before you download an app, check that the developer is trustworthy. If you've never heard of the company – which is likely to be the case with most Android developers – see how many downloads it's had and what the reviews say. That

said, the dodgy apps spotted by VPNpro had hundreds of millions of installations across them, with some topping 50 million.

Some of the offending apps weren't guilty of hacking but they pushed the boundaries of permissions. Don't just swipe past these settings during installation – consider why an app may need certain abilities, such as reading your files or accessing your camera. If it doesn't make sense, don't allow it.

What do we think?

The Play store is supposed to offer a Google-approved selection of Android apps. It's impossible to avoid all problems given the sheer number of them – nearly three million at the last count – but more curation may be needed, and closer attention paid to security and privacy. The app store doesn't need to be locked down, but Google can afford to take the time to ensure apps aren't stealing our data. After all, there's no reason to rush through most of the trifling games and tools that were flagged by security researchers as dodgy – there are plenty of other QR code scanners and selfie apps already available.

Google needs to do a better job of ensuring that dodgy apps don't slip through, because it's simply too difficult for Android users to do it themselves. We trust Google to keep us safe, and it should work harder to deserve that trust.

Credit: ymgerman / Shutterstock.com

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

Google to ban intrusive ads in videos

What happened?

Google has said it will begin blocking certain types of intrusive adverts that appear on video content in Chrome, in response to a "common complaint" from users of the browser (bit.ly/chromeads495). In particular, it plans to target pre-roll ads that you can't skip, those that pop up in the middle of a clip and any that obscure the video itself. The move follows the guidance outlined by the Coalition for Better Ads (www.betterads.org), of which Google is a board member.

How will it affect you?

In August, as part of the Coalition for Better Ads, Google will start banning three types of video advertising in Chrome, which means that ads that don't fall under these descriptions will still be allowed. The ban only applies to videos that are less than eight minutes in length, rather than full-length shows.

Google will ban ads that are shown at the beginning of videos, which are longer than half a minute and can't be skipped within five seconds. It will also block ads that start in the middle of a video, interrupting it from playing. Additionally, Google will ban other ads, be they text or images, that take up more than a fifth of the screen or are situated in the middle of the video player.

What do we think?

Video ads are certainly irritating, and no one is likely to miss them. However, Google conveniently doesn't use such in-your-face advertising in YouTube, which means that its own services won't take a hit from the ban.

While it's good that the worst types of video ads will disappear, there will still be pre-roll ads and other irritations clogging up online content – and the other problems with ads, such as behavioural tracking, will remain.

Google hopes that this partial tightening up of standards will reduce the use of ad blockers, but there are still plenty of reasons to filter advertising when you're browsing the web.

Credit: Coalition for Better Ads

Ring doorbell raises privacy concerns

What happened?

Security and privacy concerns continue to surround the Amazon Ring doorbell. The device's web-connected camera lets you see who's at the door, but it also collects data such as names, addresses and phone numbers, sharing the information with internet giants such as Facebook and Google, according to research by the Electronic Frontier Foundation (EFF, bit.ly/effring495).

This news follows reports that Ring's camera was not only hackable, but that images captured by its camera could be requested by police. After a backlash, Amazon pushed out an update to Ring devices that introduced new security settings, allowing users to opt out of such video sharing.

How will it affect you?

If you have a Ring doorbell, make sure you've installed the update and gone through the security settings. If you're fine with the view from your door being shared with police, by all means leave that feature enabled. But while you're fiddling with the settings, ensure you've enabled two-factor authentication, restricted other third-parties from accessing the data and are using a strong password.

Also, be a good neighbour, says the EFF, and ensure your Ring camera isn't pointed at anyone else's home – they have a right to their privacy, after all.

What do we think?

Being able to see who's at the door is handy, but it's clear that the data systems behind Ring haven't been well thought out. Amazon bought the company in 2018, and it's been a headache for the retailer ever since, with high-profile hacks and privacy warnings. It's a reminder to think twice before letting any camera-equipped product into your home – if Amazon, with its tech abilities and billions in revenue, can't get this right, don't assume any other company can.

If you're eager to equip your home with smart devices, take the time to research their privacy and security policies, find out exactly what data is gathered and make sure you secure the system with a strong password.

# Google shared private videos with strangers

What happened?

Google has admitted that some of its users had their videos accidentally shared with other "unrelated" accounts. The error occurred between 21 and 25 November, although the company has only just acknowledged the now-resolved problem with its Google Takeout service (takeout.google.com), which lets you export and download data from Google services, including Photos.

In an email apology, Google explained to affected users that "some videos in Google Photos were incorrectly exported to unrelated users' archives." It added that "the underlying issue has been identified and resolved".

Later, a spokesperson told concerned users that "we are notifying people about a bug that may have affected users who used Google Takeout to export their Google Photos content between November 21 and November 25. These users may have received either an incomplete archive, or videos – not photos – that were not theirs. We fixed the underlying issue and have conducted an in-depth analysis to help prevent this from ever happening again. We are very sorry this happened."

Reports suggest that the issue involved 0.01% of Google Takeout users. While that may seem like small beer, Google Photos has over a billion users,
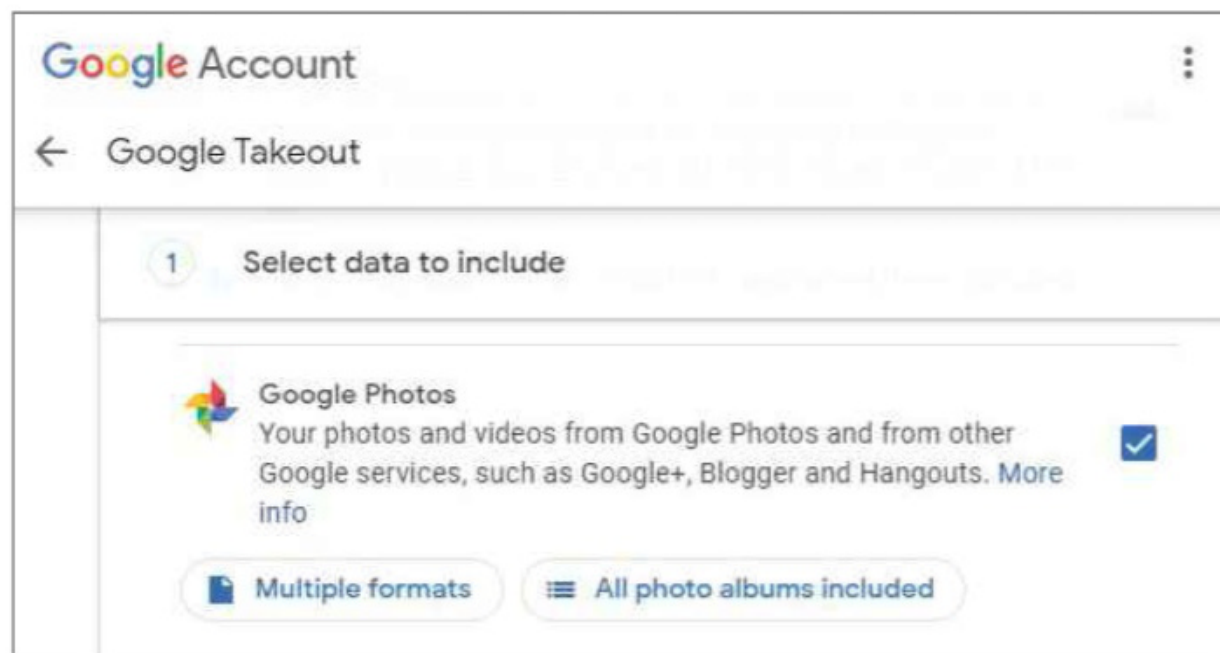
meaning potentially thousands could be affected by this technical hiccup.

How will it affect you?

If you use both Google Photos and Google Takeout, check your inbox. If your media was sent to others, Google will have let you know. The search giant is also advising people to check any downloaded data between 21 and 25 November, as "it may be incomplete, and it may contain videos that are not yours". However, it doesn't seem to be possible to remove your videos from others' accounts. It's also recommended you "perform another export of your content and delete your prior export at this time" – although, it'd be understandable if you think twice about using the Takeout service for the time being.

What do we think?

Google should know better. This is a serious breach of privacy that shouldn't be happening in today's connected world, let alone to 'kings of the internet'. A five-day glitch is bad enough – imagine, five free days for accessing someone else's personal videos – but waiting more than two months to inform users is inexcusable. We're just thankful that it was limited to those using Takeout; if the affected issue impacted all Google Photos users, we'd be worried about recommending the otherwise excellent service in future.

👁 FIRST LOOK

Fujifilm X100V
bit.ly/fuji495

After years of playing second fiddle to smartphones, standalone cameras are making a comeback. Fujifilm's new X100V is a beautiful-looking beast. Taking its cues from the 1950s, and building on the X100's nine-year heritage, this compact digital camera is built for simplicity – those out-and-about street shots that demand to be captured by more than a pixel-imperfect smartphone camera.

Build quality is solid, in part due to the milled aluminium plating at the top and bottom, which give the device heft without sacrificing its lightweight feel. The X100V now comes with a USB-C connection, too, should you need to hook up a battery pack while taking pictures on the go.

The camera has received numerous upgrades compared to its predecessor. It now runs an X-Processor 4 with a 26.1-megapixel sensor. For those seeking high- or low-angle photos, the camera features a clever tilting touchscreen. However, this new design comes at the expense of a physical directional pad for quick actions – instead, users must use touchscreen gestures to enter the menu.

Allowing you to see what you're capturing in real-time, the electronic viewfinder now features an impressive 3.69 million-dot resolution and 0.52X magnification, while the company suggests that the new 23mmF2.0 lens is "enhanced for better resolution, lower distortion and improved close focus performance". Speaking of enhancements, face and eye detection

has also been improved for this model, and videos have seen an upgrade, too. Expect to capture 4K at 30fps, or 120fps in 1080p.

Although the camera can capture higher quality photos in almost all environments, this doesn't apply to poor weather because, bizarrely, the Fujifilm X100V doesn't have weather-sealing. You'll need to spend extra on a protector filter for this purpose.

The Fujifilm X100V is available in black or retro-looking silver. However, the price tag may put you off: expect to pay around £1,300 for the camera.

❓ WHAT'S THE RUMOUR

Is Hulu finally coming to the UK?

Streaming service Hulu has been delighting American audiences since 2007 but it's probably most familiar to UK viewers for a message stating that "this content is not available in your country" when you try to watch one of its videos.

However, it's now rumoured that the service could finally be making its way to UK shores. Hulu is owned by Disney (because what *doesn't* Disney own these days?), which is thought to be looking at an international launch sometime in 2021. Before you get too excited, though, it's worth noting that the Disney Plus global rollout is firmly taking precedence. Disney CEO Bob Iger stated that: "We feel that we need to concentrate on those launches – and the marketing and the creation of product for those – and then come in with Hulu, right after or soon after that".

While Disney Plus promises to be fun for all the family, Hulu's content is typically more adult-focused. Think *The Handmaid's Tale* and *Family Guy*, rather than superheroes and singing lions. In the States, the company is bundling Hulu alongside Disney Plus and premium sports channel ESPN Plus. Expect a similar package once the service finally makes its way across the pond to Britain.
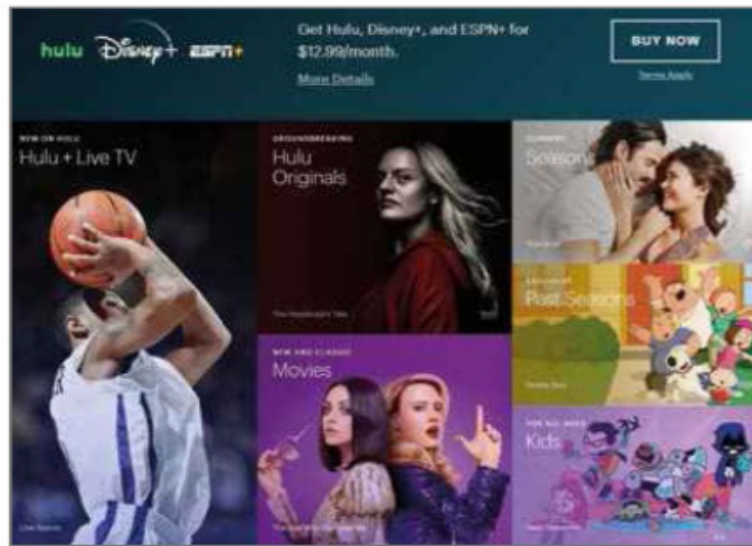
LIKELIHOOD RATING
✓✓✓✓✓

Hulu has been considering an international launch for years now, which has never materialised. However, with Disney taking control last year, it may finally have the strength (not to mention the money) to go global. As such, we're cautiously optimistic this time around.

But while the service has racked up over 30 million subscribers in the US, Hulu faces a bigger threat here. With Netflix, Now TV, Prime Video, Disney Plus and even BritBox vying for our attention and subscription fees, the service may have left it too late.

🅺 What's new on Kickstarter
Our favourite new project on the crowdfunding site

Morpheus
bit.ly/morpheus495 | **From £130**

We spend our days worrying about outdoor pollution but it's easy to forget that indoor air pollution can be just as harmful to our health, whether it's burning candles or using cleaning products. The Morpheus indoor air-pollution sensor montors CO_2, particle matters and volatile organic compound levels – in other words, all the nasty invisible stuff in your home or office that you're breathing in daily. The built-in screen also displays the indoor temperature and humidity. Pledges start at £130 for a single device, and backers will receive a discount on future, Wi-Fi-enabled Morpheus models.

⬆ WEBOMETER ⬇

✅ WE LIKE...

⬆ **Netflix lets you stop autoplay previews**
Netflix is now letting viewers disable auto-playing video previews when browsing its home screen. To turn off this annoying feature, choose Manage Profiles in your Netflix account settings and deselect 'Autoplay previews whilst browsing on all devices'.

⬆ **Facebook adds parental controls**
Facebook has updated its Messenger Kids app to give parents more control over how their children use it. You can now review your kids' chat histories, and the most recent videos and photos they have sent or received, and remove content if necessary.

WE DON'T LIKE...

⬇ **WhatsApp flaw put users at risk**
A serious security flaw was discovered in the desktop version of WhatsApp that could have allowed potential attackers to inject malicious code and access files on users' computers. The vulnerability has now been patched by WhatsApp's owner, Facebook.

⬇ **Windows 7 bug prevents shutdown**
Windows 7 has suffered another bug, which stops users rebooting or shutting down their PCs, following the end of official support for the operating system. Microsoft said it was "actively investigating" the flaw as we went to press with this issue.
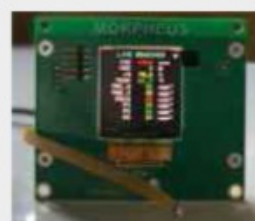
Stay Safe Online

News about the latest threats and advice from security experts

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

Hackers use coronavirus to spread malware

Security experts have warned that cybercriminals are using new phishing campaigns to exploit fears about the coronavirus. Emails containing links and attachments purporting to provide updates and information about the virus, but which actually install malware, have been seen in dozens of countries, including the UK and US.

One campaign, detected by cybersecurity firm Mimecast, uses emails claiming to be from health specialists to trick recipients into opening attachments "about safety measures regarding the spreading of coronavirus". Opening the attachment launches malware called Emotet, which can steal personal data such as login details, and use an infected device to launch further attacks.

"Threat actors exploit times of confusion to conduct cyberattacks and email phishing campaigns," said Francis Gaffney, director of threat intelligence at Mimecast. "The coronavirus has a global audience. So if you say 'Coronavirus is now more prevalent!', people are more likely to click on links, because they are concerned." Gaffney advised web users to remain vigilant about emails relating to the virus.
bit.ly/corona495

Avast accused of selling users' browsing data

Antivirus company Avast has closed its data-analytics unit, Jumpshot, following accusations that it was collecting data about users' browsing activities and selling the information to third parties. Avast has denied the allegations made by PCMag and Motherboard that the data being sold "can be linked back to people's real identities, exposing every click and search they've made". Avast CEO Ondrej Vlcek claimed that both Avast and Jumpshot had "acted fully within legal bounds".

However, when announcing the decision to close Jumpshot, Vlcek said that the "data collection business is not in line with our privacy priorities as a company. Protecting people is Avast's top priority and must be embedded in everything we do. Anything to the contrary is unacceptable".

This is the second privacy scandal to hit Avast in recent months. At the end of last year, Avast browser extensions were found to be collecting browsing data to sell to advertising firms, prompting Chrome, Opera and Firefox to pull the add-ons from their stores.
bit.ly/avast495

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT: Tom Chivers, Digital Privacy Advocate at ProPrivacy (proprivacy.com)

Q **How worried should we be about Google Photos leaking some users' videos (see news story on page 10)?**
James Briars, via email

A Google has been contacting users of its Photos app to inform them that it may have given other users access to videos, in what looks to be a worrying new privacy breach.

Google's notification email warns Photos users that if they used the 'Download your data' feature between 21 and 25 November 2019, it's possible that they accidentally downloaded videos belonging to other users. This is very concerning for those affected, because their private videos may have been accessed by complete strangers.

The notification email describes the incident as a technical issue and doesn't tell users whether their videos have been removed from other users' accounts. Instead, it states that those affected should delete their previous download and try again, which suggests Google hasn't been able to claw these videos back.

The incident will be particularly worrying for any users who have stored videos of a personal or sensitive nature on Google Photos. These people will want to know if others have accessed their videos – particularly if their content potentially

> **This is a serious situation and Google must provide more information and support to affected users**

opens them up to privacy or security concerns.

This is a serious situation, and Google must provide more information and support to affected users – as well as promises that it will do everything it can to rectify the situation. As a minimum, users will want to know which of their videos have been downloaded by strangers, and what, if anything, they can do about it.

✚ Email us your security questions at **webuser@webuser.co.uk**

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www.ionos.co.uk/partner-program

Best New Websites

TELEVISION
RELAUNCH

TVARK
www.tvark.org

This online television museum is full of repeats but it's sure to induce nostalgia. Relaunched after four years of dormancy, the archive has gained new programmes, adverts and channels. These sit alongside existing quirky throwbacks such as idents, test cards and pages from Teletext, most of which have been collected from old Betamax and VHS recordings. You can watch snippets of vintage children's TV shows, comedy and drama or view other content from across the major UK channels, including satellite and cable TV. There are also podcasts, spoofs and bloopers to enjoy. Will you ever find time for new TV again?

Our rating ★★★★★

TV PRESENTATION
Programme promotions, title sequences and TV channel idents are all part of TVARK's varied archive

RELIVE TV SHOWS
TV clips are categorised by genre, and you can filter them by picture format, date and quality
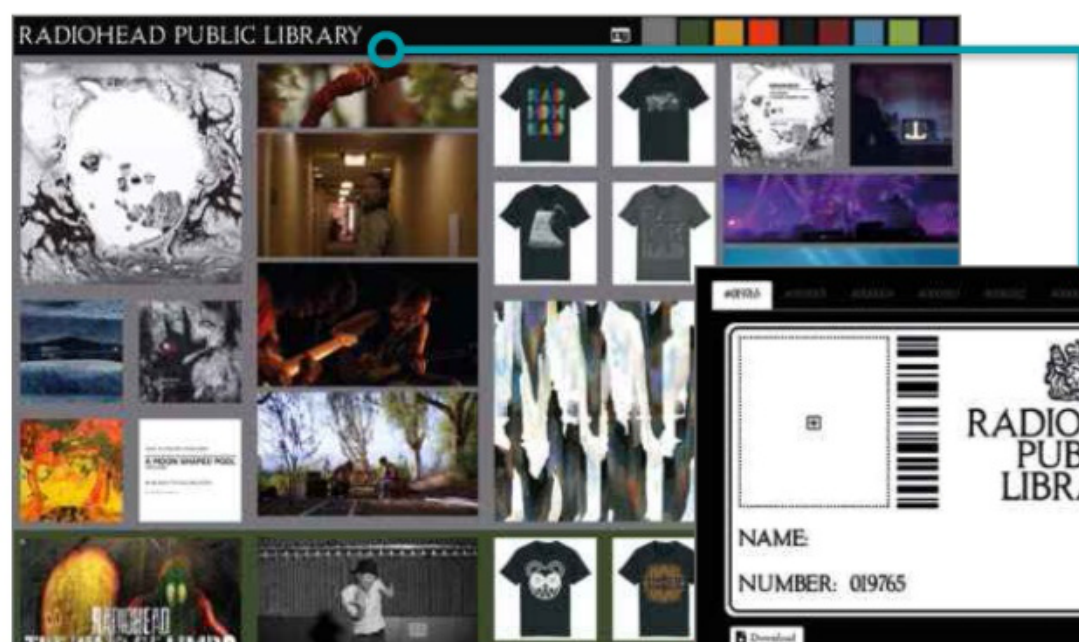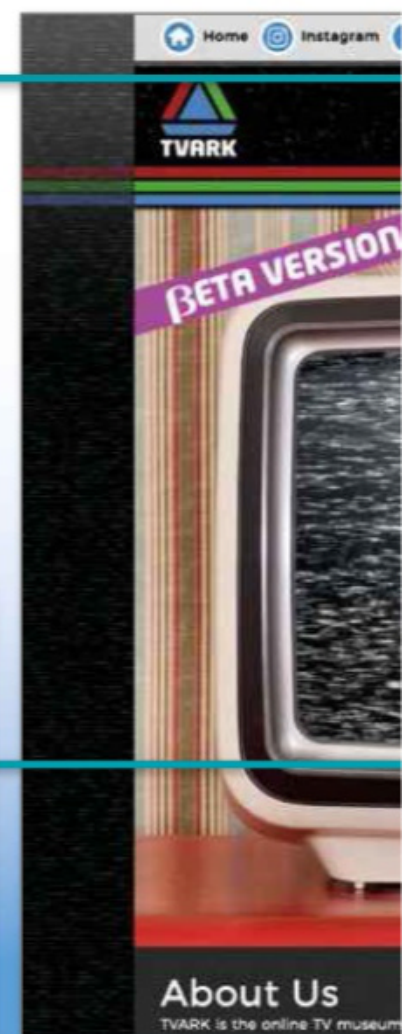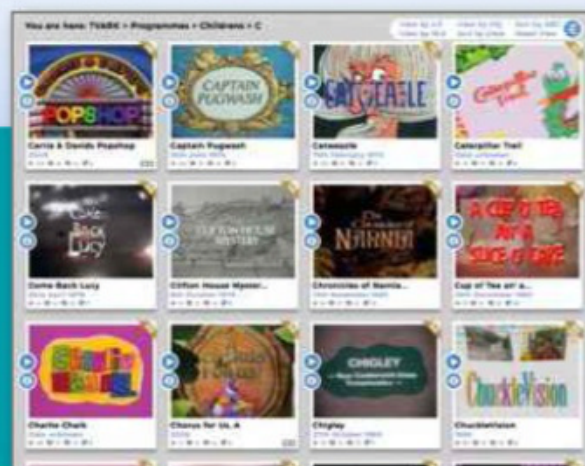
MUSIC
RELAUNCH

Radiohead Public Library
www.radiohead.com/library

It's no surprise that one of Britain's most experimental bands would create an eclectic online archive, but here it is. This vast resource stretching back to 1992 looks chaotic, but it's actually well structured, with colour-coded sections grouping the band's work around their nine studio albums. Each section is full of videos, photos and even glimpses of past websites. You can read news, buy T-shirts, sign up for updates and download a Radiohead Library card, but it's the music that truly thrills. All the albums are available to buy and, 'Pablo Honey' aside, stream. Watch out for lovely inclusions such as the cassette version of OK Computer, 'OKNOTOK', complete with B-sides.

Our rating ★★★★★

MOTORING
RELAUNCH

Motoring Picture Library
motoringpicturelibrary.com

With over a million images from the 1880s to the present, this comprehensive picture library by Beaulieu's National Motor Museum is a must for anyone who loves motor vehicles. Organised into seven categories, with a search engine to accelerate you to your destination, the photos include iconic Formula 1 shots by Maxwell Boyd, as well as brochures and posters. Images are watermarked, but that shouldn't detract from the joy of browsing, and if you like what you see, you can buy a licence. There's also a section for canvas prints and gifts.

Our rating ★★★★☆

Reviews by David Crookes

We review this fortnight's best new and relaunched websites and rate them for content, design and features
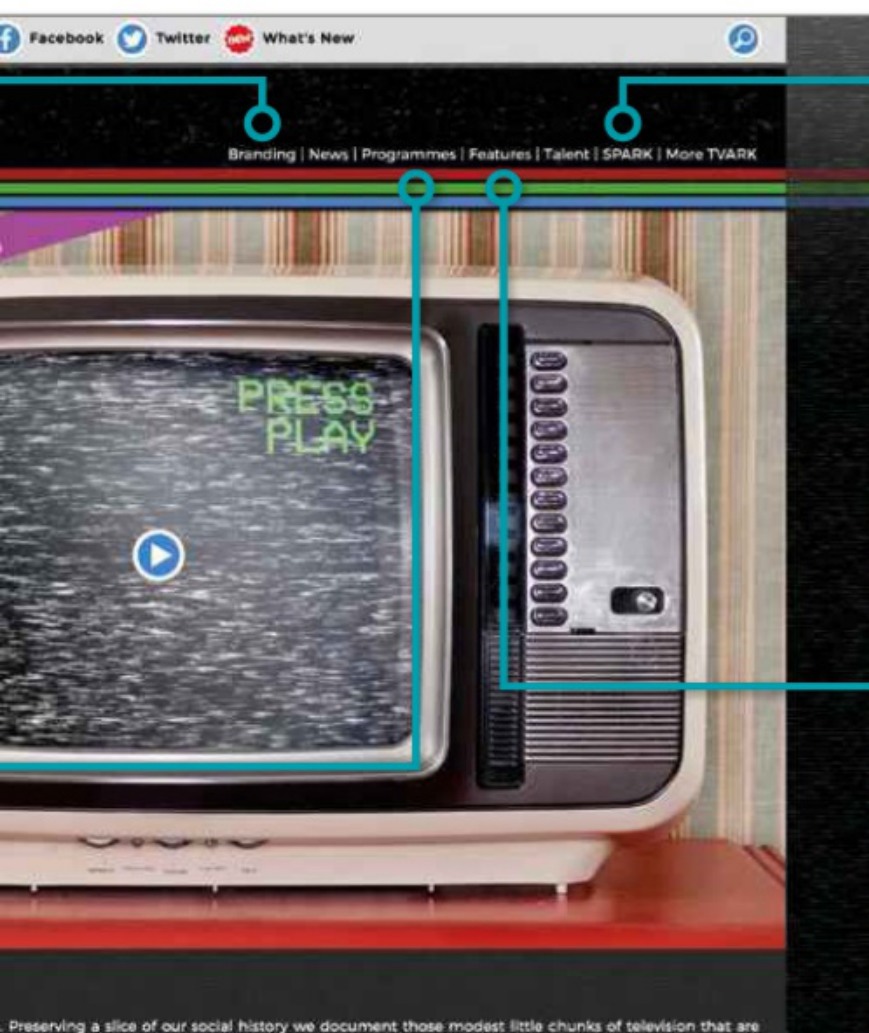
TELETEXT
Press the Text button on the remote and find out more about TVARK through its own Teletext service

FEATURES
Watch Public Information films, learn about TV cameras and studios, and discover the talent behind the shows

Preserving a slice of our social history we document those modest little chunks of television that are
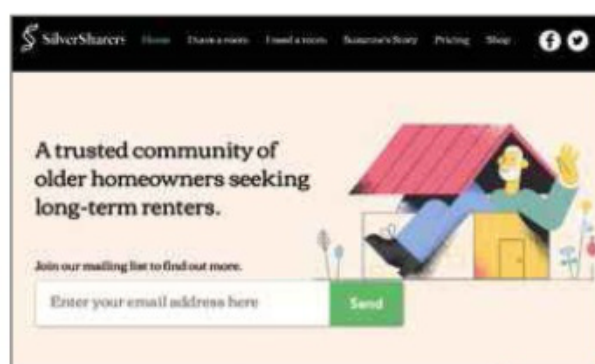
NEW

PROPERTY

Silver Sharers

www.silversharers.com

Rather than downsize, older homeowners might consider taking in a long-term tenant so they can earn money while remaining in their homes. Silver Sharers has been set up to facilitate that. Listing a room costs £10, and those looking for accommodation can search for free. The site's owners say they verify homeowners and prospective tenants before putting them in touch with each other. None of the properties can be viewed on the website itself – instead, tenants need to sign up for a weekly newsletter or follow a Facebook page to see listings. The service is currently limited to London.

RELAUNCH

TECHNOLOGY

Ubuntu Studio

ubuntustudio.org

Not only does this fresh-looking website better reflect Ubuntu Studio's creative leanings, it's been built using open-source software that comes with the free operating system. The result is a website that better reflects Ubuntu Studio's purposes, all wrapped up in a tidy design. The homepage is packed with information without being overwhelming. As such, it's easy to see the latest news, download the current release and find out how to get support. There's also plenty of information on using the OS for audio, graphics and video, as well as recommendations of the best tools.

NEW

NEWS

Newzit

www.newzit.com

Claiming to be free of bias and fake news, this news aggregation tool from the *Daily Mail* has indexed more than 200 UK websites and over 900 from the US. You can flick between content from the two countries by clicking a flag on the homepage. The site presents the day's top 60 news stories, as picked by algorithms, with tabs for showbiz and sports news. Each story has a main source and includes options to see similar articles from other outlets. We like the live homepages, which offer at-a-glance views of dozens of news sites, albeit with no way of reordering them.

Our rating ★★★☆☆

Our rating ★★★★☆

Our rating ★★★★☆ ➡

➕ Tell us about your website via webuser@webuser.co.uk

RELAUNCH

Mysportswear

mysportswear.co.uk

If you run a football, rugby or cricket club, this online retailer, which supplies a number of clubs in the North East, can offer you a decent range of personalised team clothing and accessories. Finding items for your team is simple, thanks to an accessible menu that divides products into easily identifiable categories. There are a few annoying pop-ups, including one that tells you what items other visitors have just bought, but the product pages feature large images, clear options and the opportunity to leave reviews. A rather empty blog section lets the side down, but newsletters and downloads make up for it.

Our rating ★★★★☆

RELAUNCH

GAMING

POC in Play

www.pocplay.org

Recent statistics suggest that just 4% of people working in the UK games industry are from ethnic minority groups. As such, POC in Play is campaigning to increase the visibility and inclusion of people of colour by airing their concerns and experiences. This well-designed website lets you discover the latest news and see a list of upcoming events. You can also find out about the games industry professionals involved and sign up to a newsletter for future updates. Signing up is perhaps advisable because the events calendar is a little sparse at the moment, but we're confident this will change as POC in Play continues to grow.

Our rating ★★★☆☆

NEW

HISTORY

European Moments

europeanmoments.com

Now that Brexit is all but done (give or take the transition period and a heap of trade negotiations), it's perhaps a good time to reflect on Europe as a whole. This website from a team based at Oxford University is doing just that by gathering the perspectives of European citizens and looking at key moments in history. These include the second world war, the fall of the Berlin Wall, Eastern enlargement, the financial crisis and various political movements. Video interviews with academics, journalists and organisations reveal interesting stories, while a wealth of surveys uncover European opinions on a wealth of topics.

Our rating ★★★★☆

NEW

NEWS

Knewz

knewz.com

We've criticised IMDb for having too few words on its homepage (see right), but this free news-aggregation service takes the opposite approach. The site scans hundreds of world news sources using artificial intelligence, then displays the new stories as a dizzying mass of headlines grouped under headings, with barely any images. There's plenty to recommend it, from the prominence it gives story originators to the fact that it offers an alternative to Google News. It takes some getting used to and would benefit from a more streamlined design, but the ad-free approach, wide number of sources and promise of no clickbait has to be good news in anyone's book.

Our rating ★★★★☆

COULD DO BETTER

RELAUNCH

FILM

IMDb

www.imdb.com

If IMDb's redesign were a movie, it would be a highly visual blockbuster. It's much less "talkie" than the old site, doing away with vast swathes of words in favour of a homepage that's dominated by images and video. This works reasonably well on mobile devices, where words can get in the way, but it feels clumsy in a desktop browser, where the design is better suited to streaming sites such as Netflix. The format makes news and features less prominent and removes links to useful information. However, it's still an invaluable site for discovering more about movies.

Our rating ★★★☆☆

ESSENTIAL BOOKMARKS THIS ISSUE: Tremendous transport sites

The Man in Seat Sixty-One
www.seat61.com

Started as a hobby in 2001 by former British Rail employee Mark Smith, this site is an invaluable resource for people who prefer trains to planes. It explains how to travel by rail or boat from the UK to almost any country in Europe, as well as the best ways to get around anywhere from Armenia to Zimbabwe. The Man in Seat Sixty-One (his favourite spot in First Class) provides recommended train times, approximate fares, photos showing what to expect, and information on buying tickets, as well as topics including luggage, accessibility and car hire. We especially like the section on epic routes such as the Trans-Siberian Railway. With a charmingly dated design, the site even has a guestbook so you can express your thanks for its excellent tips.

Transport for London
tfl.gov.uk

Even if you don't live in London, make the TfL website your first stop when visiting the capital so you don't get lost, delayed or overcharged. The journey planner on the homepage helps you find the fastest route from A to B by bus, Tube, train, boat and bike. You can see at a glance which lines and roads are experiencing problems, and view live arrival times for specific stops, stations and piers. There are downloadable maps of the Congestion and Low Emission zones, cycle routes and much more, as well as details of how to pay for your journey and what it costs. The site even advises you about the busiest times to travel so you can avoid the crush.
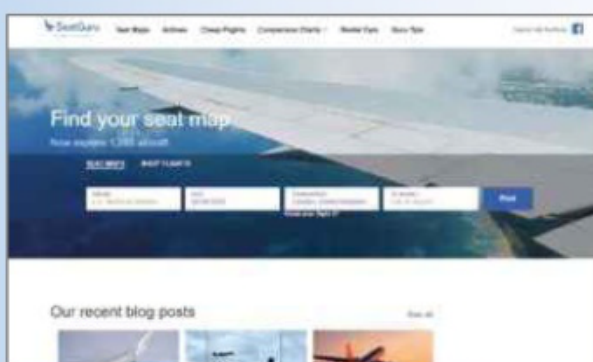
SeatGuru
www.seatguru.com

Don't risk spending five hours in the air with no legroom, armrests or window – instead, check this site to find the best place to sit on the plane without overpaying for the privilege. Owned by TripAdvisor, SeatGuru provides colour-coded seat maps for 1,283 aircraft from all major airlines, marking the best places in green, and less desirable spots in yellow and red. It also shows the location of powerpoints, toilets and emergency exits. Passengers are invited to share their experiences and photos, too, with predictably grouchy results. You can search the site for a specific flight or browse by airline, and compare the amenities in different classes, from short-haul economy to long-haul first class.

Cruise Critic
www.cruisecritic.co.uk

For many people, a cruise is the holiday of a lifetime, so you won't want to waste your money on a ship with cramped cabins, terrible food and people wearing tank tops. Boasting more than six million users, this cruise community can help you make the right choice, offering reviews from its staff and cruise passengers that rate boats for accommodation, dining, entertainment, value for money and much more. As well as comparing the latest cruise prices, you can look up any port to find and book the best shore excursions on offer, from sightseeing trips to snorkelling. Read the site's helpful advice for first-time cruisers and visit the lively forums to request advice from seasoned travellers.

British Transport Police
www.btp.police.uk

DON'T MISS!

Trains are the safest way to travel in Britain, but some journeys are marred by troublemakers and thieves, which makes the BTP site worth bookmarking. Not only can you report a crime on the railways by filling in an online form (or texting 61016), but you can read advice on travelling safely, find details of your local team and view the latest news about incidents. There are also links to lost property site Missingx.com and BTP's social-media feeds. Interestingly, the transport police also deal with wildlife crime, such as theft of birds' eggs, so you can alert them to that, too.

➕ Tell us about your favourite transport sites via webuser@webuser.co.uk

Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight
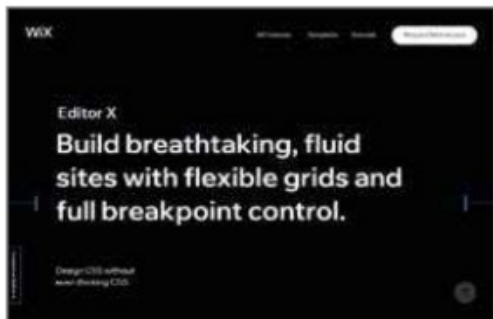
Join Wix's Editor X beta

Wix's web-building platform (www.wix.com) is known for pushing the boundaries of what you can do with online tools rather than coding skill. Its latest Editor X tool – which is in beta but accepting testers – takes this further, allowing anyone to create the kind of site usually reserved for talented CSS designers. To see what it can do, go to www.wix.com/editorx, then sign up for the beta at bit.ly/wixbeta495.

Make your code look good

You may have noticed that websites devoted to coding sometimes format chunks of code with colours, making it easier to understand and – let's be honest – less boring to look at. Carbon (carbon.now.sh) does the same for your code. Drag and drop your HTML, CSS or JavaScript file into the box on the Carbon website and it automatically formats the text. You can choose from a range of colour schemes, help the site work out what type of file it is and download the result as a perfectly formatted PNG image.

Deal of the Fortnight

123 Reg (123-reg.co.uk) has reduced the price of '.uk' and '.co.uk' domains, which are now on offer at 1.19p for the first year.

Web-building Helpdesk

Q I keep an eye on search engine developments and have heard Google aficionados discussing something called BERT. What is it?

Jamie Haynes, via email

A BERT stands for Bidirectional Encoder Representations from Transformers. We have no idea what that actually means but it's the latest addition to Google's search algorithm, which filters websites based on the search terms people type in to deliver what it determines are the best possible results. BERT in particular looks out for high-quality answers to questions, so Google can send searchers to the sites that will help them resolve their query rather than those that just talk about the problem.

Andy Shaw, Technical & Reviews Editor

MINI WORKSHOP | Compare your search engine optimisation with that of your rivals
SEOquake: www.seoquake.com | 🕐 10 mins | Chrome, Firefox, Edge, Opera

Optimising your website to perform well in search engines won't give you an advantage over your rivals if they're better at it than you are. SEOquake is a handy browser extension that can help you get the edge.
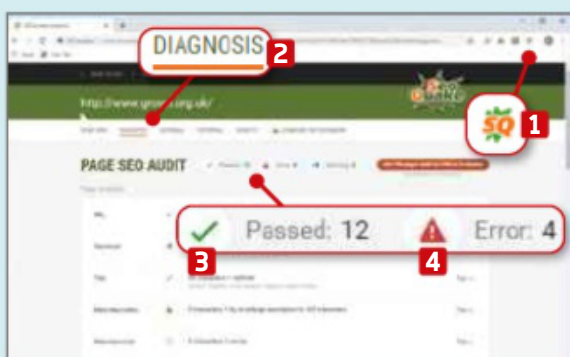
1 Install the add-on, then visit your website – or a rival's, if you want to find out whether they're doing better than you. Click the extension icon, **1** then open the Diagnosis tab. **2** This gives you a quick rundown of how well the site is performing. Ticks **3** are good, but warning triangles **4** indicate areas that need investigating.
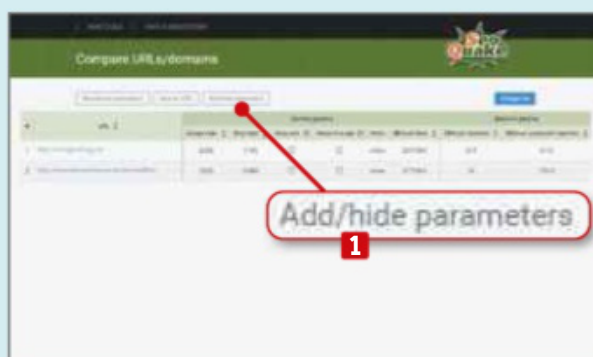
2 Click the Compare URLs/Domains tab and enter the URLs of any websites you want to compare into the box, placing one on each line. Click the 'Process urls' button. There are more column headings available than those that appear by default – click the 'Add/hide parameters' button **1** for more options.

3 SEOquake shows some of your SEO information in Google's search results, which can help you work out why your site is ranking where it is. **1** When you've finished working on your site's optimisation and just want to browse the web, turn off SEOquake by clicking the switch. **2**

➕ Email us your website building questions at webuser@webuser.co.uk

BACK ISSUES
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All 26 issues of 2019

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

Issues 440 - 465
All 26 issues of 2018

2018 Back Issues Disc

Watch Al Pacino chase Nazis in *Hunters*

From 21 February

Al Pacino is no stranger to streaming (Netflix's *The Irishman* was just one of his 2019 hits) or telly (2003's AIDS drama *Angels in America* won him an Emmy). Now, with Amazon Original *Hunters*, the film legend features in his first made-for-online TV show.

Pacino stars in this 10-part thriller as a hard-nosed Nazi hunter in 1977 New York, where his motley crew aims to thwart the Fourth Reich. The trailer (bit.ly/hunters495) reveals co-stars including Jerrika Hinton (*Grey's Anatomy*) and Logan Lerman (*The Perks of Being a Wallflower*) and bears all the gritty, witty hallmarks of executive producer Jordan Peele (*Us*, *Get Out*). *Hunters* comes to Prime Video at bit.ly/amhunt495, where you can also watch a teaser and the show's Superbowl ad.

There's plenty more Pacino on Amazon, but only *Heat* is included with Prime Video (bit.ly/heat495). *Serpico*, *The Insider* and *The Godfather* trilogy are on Now TV with a Sky Cinema Pass (£11.99 per month after seven days free, bit.ly/skycin495), and *Angels in America* is also on Now TV, at bit.ly/angels495.

Wage *Silent War* in *Strike Back*

From 25 February
The show spawned by SAS man Chris Ryan's *Strike Back* novels (bit.ly/ryan495) enters its eighth and final season, aka *Strike Back: Silent War*. Warren Brown (*Luther*'s DS Ripley) returns as Sergeant 'Mac' McAllister, heading MI6's Section 20 as they aim to recover a deadly cyber-weapon. Catch the explosive new trailer at bit.ly/strike495. Episodes air weekly on Sky One each Tuesday, so you can watch on-demand via Now TV with an Entertainment Pass (£8.99 per month, bit.ly/nowent495).
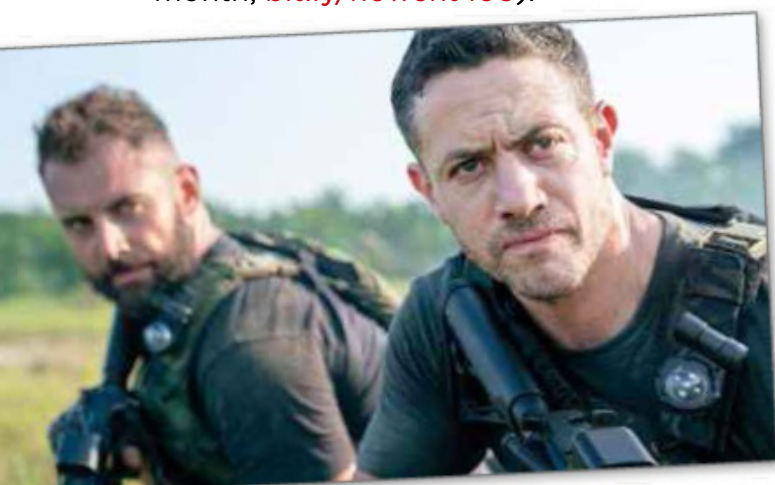
Watch Season 5 of *Better Call Saul*

From 24 February
Bob Odenkirk's small-time lawyer Jimmy McGill slides into Season 5 as slick conman Saul Goodman, but this doesn't mean the end – Netflix has already confirmed a sixth season. Meanwhile, the Season 5 trailer (bit.ly/better495) promises more *Breaking Bad* crossover than ever, with cop Hank Schrader (Dean Norris) joining the cast. Watch a teaser at bit.ly/call495, and new episodes each Monday at bit.ly/saul495.

Watch Season 2 of *Altered Carbon*

From 27 February
In the dystopian future of Netflix's sci-fi drama, based on the novel by Richard K Morgan (bit.ly/morgan495), human consciousness can be uploaded to servers, then downloaded into new bodies. Which is handy for explaining cast changes. Out goes Season 1's Joel Kinnaman, who played prisoner-turned-murder-detective Takeshi Kovacs, and in comes Season 2's Anthony Mackie (Falcon in the Marvel films) to pick up the story in the same role.

Altered Carbon's eight new episodes join Season 1 on 27 February at bit.ly/altered495. The show's official Twitter feed posted new opening credits as a teaser, at bit.ly/carbon495.
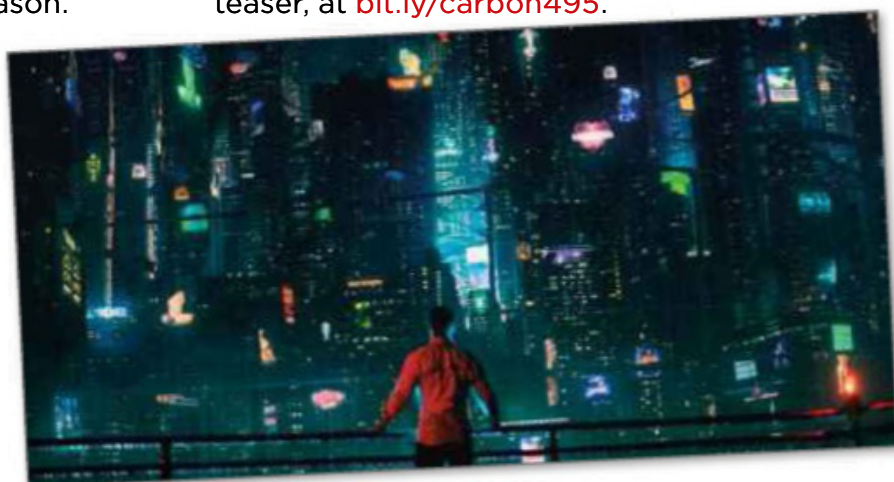
We reveal what's new on Netflix, BBC iPlayer, Now TV Amazon Prime Video and other streaming services

Watch Man City go for lucky 7 in the Carabao Cup final

1 March

The football trophy formerly known as the League Cup, the Football League Cup, the English Football League Cup and the EFL Cup is currently the Carabao Cup (it's a sponsorship thing), but it might as well be called the Man City Cup. Manchester's blue team aims to make it seven wins on the trot, unless Aston Villa can stop them.

You can live-stream the whole game, which kicks off at Wembley at 4.30pm, via Now TV with a Sky Sports Pass (£9.99 per day, £14.99 per week or £33.99 per month; bit.ly/nowsports495). Sky subscribers can also watch the action online via Sky Go.

Watch new episodes of *The Walking Dead*

From 24 February

The show that's harder to kill than a horde of zombies is back. Again. Following a mid-season break, Season 10 resumes with eight episodes that ponder "whether civilisation can survive in a world filled with the dead". See the latest trailer at bit.ly/dead495. Episodes air each Monday on Fox UK, so you can watch on-demand via Now TV at bit.ly/

Sky springs factual channels on Now TV

Sky is to launch two new channels, Sky Documentaries and Sky Nature, offering "hundreds of hours" of original and acquired content.

Like its other recent launches, Sky Comedy and Sky Crime, the new channels will be available on-demand via Sky Q and with a Now TV Entertainment Pass (bit.ly/nowent495).

Sky Documentaries is set to launch this spring with original films such as *Tiger Woods: The Comeback*, programmes including HBO's *McMillions* (www.hbo.com/mcmillions) and award-winning films such as *Robin Williams: Come Inside My Mind*.

Sky Nature will incorporate Sky's existing David Attenborough collection and content from Canadian network Love Nature (lovenature.com), plus originals such as 4K series *One Wild Day* (bit.ly/wild495).

We'll bring you all the launch dates as soon as they're confirmed.

walking495. All previous seasons are there, too – but only until 6 March.

Spin-off *Fear the Walking Dead* is now filming Season 6, while Seasons 1-4 are on Amazon Prime Video at bit.ly/fear495. Meanwhile, a second spin-off, *World Beyond*, is set to arrive in 2021. The dead are indeed relentless.

Watch comic book adaptation *I Am Not Okay With This*

From 26 February

The producers of *Stranger Things* and

director of *The End of the F***ing World* have joined forces to create a new coming-of-age series for Netflix. The story, based on Charles Forsman's 2018 graphic novel (bit.ly/okbook495), follows teenage girl Sydney (Sophia Lillis from *IT*) as she navigates the horrors of school, family, sexuality – and an unsettling set of superpowers. Watch all eight episodes from 26 February at bit.ly/notok495.

In case you missed it...

Two-part Agatha Christie mystery *The Pale Horse* is available now on the BBC iPlayer. Watch the trailer, which stars Rufus Sewell, at bit.ly/horse495. The iPlayer also has a second series of divorce drama *The Split*, with episodes arriving weekly at bit.ly/split495.

Channel 4's big new drama *Baghdad Central* has arrived on All 4 as a box set. Watch all six episodes on-demand at bit.ly/baghdad495.

BritBox has added all nine series of ITV's extraordinary *Up* documentary project, which began as *7 Up* in 1964. Watch the trailer at www.63upfilm.com.

Now TV has added more Sky Comedy programmes, including Season 7 of *Last Week Tonight with John Oliver* (bit.ly/oliver495), and Showtime's life-affirming comedy *Work in Progress* (trailer: bit.ly/progress495). Meanwhile, Sky Atlantic's new drama *The End*, about three generations of women dealing with mortality, is unfolding weekly via Now TV (bit.ly/theend495).

Monitors under £250

Replacing a tired old monitor with a new, high-quality model needn't cost a fortune, as the four monitors we've tested show

When we buy a new PC, we spend time poring over its specifications to ensure we get the best combination of processor, memory and storage for our money. However, many of us then simply accept the manufacturer's bundled monitor without question, even though it's the part of the PC we'll spend most of our time staring at. If your monitor isn't up to scratch, don't despair. We've tested four high-quality screens that offer a good range of features and cost less than £250.

BenQ BL2780T | £209.97 | Buy from Amazon: bit.ly/benq495

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

To a casual observer, the BenQ BL2780T is unlikely to stand out. Its design is unremarkable, it has no special gimmicks to grab the attention and its price places it in the middle of our range of affordable monitors. Its 60Hz frequency and 5ms response time aren't the fastest in this group test, either – both are bettered by Iiyama's Silver Award-winning model, although you're unlikely to spot the difference unless you're a keen gamer.

BenQ's decision to use a 27in screen with a 1080p resolution means the individual pixels are more obvious than they are on the smaller 24in Iiyama monitor, but this probably won't be a problem in everyday use because you'll be sitting too far away from the screen to notice such minute detail.

In our quality tests, however, this screen revealed itself to be superb for the price. It reproduced 92.5% of the colours in the sRGB standard, which was the best performance of all the monitors on test. Even more impressive was its contrast ratio of 1,190:1, which is significantly better than its nearest competitor the Acer, and five times higher than the Dell monitor. This combination of accuracy and high contrast means images have punchy colours and deep shadows.

The BenQ monitor provides a good selection of ports, with HDMI and DisplayPort, a D-SUB port and two audio jacks, although no USB ports. It also has a pair of 2W speakers built in, which are extremely bassy but still an improvement over the speakers in Iiyama's monitor, which were unpleasantly tinny.

This monitor offers more height adjustment than the others, as well as a good range of tilt and swivel, and you can even rotate the screen 90 degrees and use it in portrait mode.

Web User GOLD AWARD

VERDICT
★★★★★

BenQ's monitor is the best in this group test, offering excellent quality, particularly in its contrast and colour reproduction, at a reasonable price. It isn't the best performer in every area, such as display frequency and response time, but for general PC use its flaws are likely to go unnoticed. Design-wise it might not look like much, but its strengths make it a more useful and satisfying monitor than any of its rivals.

Iiyama ProLite XUB2492HSU-W1 | £155.44
Buy from Amazon: bit.ly/iiyama495

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

WebUser SILVER AWARD

If you're looking for a bargain, the Iiyama ProLite may catch your eye – it's the cheapest monitor in this group test. It's also the smallest, measuring 24in across the diagonal, but with the same 1,920 x 1,080 pixels resolution as the 27in monitors we've reviewed, it has a higher pixel density of 92ppi. You can rotate the screen into portrait mode if you wish, and adjust the height by 130mm.

In theory, the screen's 75Hz refresh rate is good for gamers, but there are no syncing technologies to further tie it in with particular brands of graphic cards. The Iiyama has more ports than Dell's monitor, with HDMI, DisplayPort and D-SUB ports, as well as two USB 2.0 ports. For performance, it lags behind BenQ's Gold Award winner, though, producing 82.2% of the sRGB colour standard and a lacklustre contrast ratio of 306:1.

VERDICT ★★★★☆
This is the cheapest monitor in this group test, so is a sensible choice if you're on a very tight budget. However, the screen's quality falls some way behind that of the BenQ monitor, so it's well worth spending the extra if you can afford it.

Dell SE2719H | £199.94 |
Buy from Amazon: bit.ly/dell495

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

WebUser BRONZE AWARD

Dell's 27in monitor is slightly cheaper than BenQ's, but it looks pricier, with a slim build and a tiny bezel around the screen. However, its beauty is only skin deep. It doesn't have a DisplayPort connection, relying instead on HDMI and D-SUB, and there are no USB ports or built-in speakers, either. It can tilt backwards and forwards, but you can't adjust the height or rotate it into portrait mode. Dell doesn't even include an HDMI cable to connect the screen to your PC.

The screen is reasonably bright at 191cd/m², but its contrast ratio of 222:1 is poor – its black level of 0.87cd/m² is too high. In practice, this makes images look pallid and washed out, while black areas appear grey and colours are inaccurate. There's no punch or vibrancy to this screen.

VERDICT ★★★☆☆
This Dell monitor looks good and isn't expensive, but with a lacklustre screen it's not great value, particularly when compared with the BenQ model. The Iiyama monitor also has a better screen and more generous features for less money.

Acer RT280K | £249.97 |
Buy from Laptops Direct: bit.ly/acer495

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

This monitor costs more than the others we've tested, but it justifies the increase with a 4K resolution. That's a tempting proposition at this price, and means the 28in screen has a pixel density of 157ppi.

The compromise is that the monitor uses TN technology. While that makes it the fastest screen in our tests, with a 1ms response time, its refresh rate is just 60Hz and it doesn't support syncing with graphics cards.

In our tests, it displayed 89.1% of sRGB colours, which is fine for gaming and watching videos, but although its maximum brightness was a decent 323cd/m², its base black point of 0.37cd/m² is too high. As a result, its contrast ratio is an underwhelming 872:1.

There are plenty of inputs, including HDMI, DisplayPort and DVI, but no USB ports. We found the built-in speakers sounded too tinny for listening to music or watching movies.

VERDICT ★★★☆☆
This 4K-resolution screen seems attractive for the price, but disappointing image quality makes it a false economy. You'd be better off spending more on a better 4K screen, or opting for the cheaper but superior Full-HD BenQ monitor.

TEST-RESULTS CHARTS

Percentage of sRGB colour standard

G BenQ BL2780T
Acer RT280K
S Iiyama ProLite XUB2492HSU-W1
B Dell SE2719H

Percentage (%)

Contrast ratio

G BenQ BL2780T
Acer RT280K
S Iiyama ProLite XUB2492HSU-W1
B Dell SE2719H
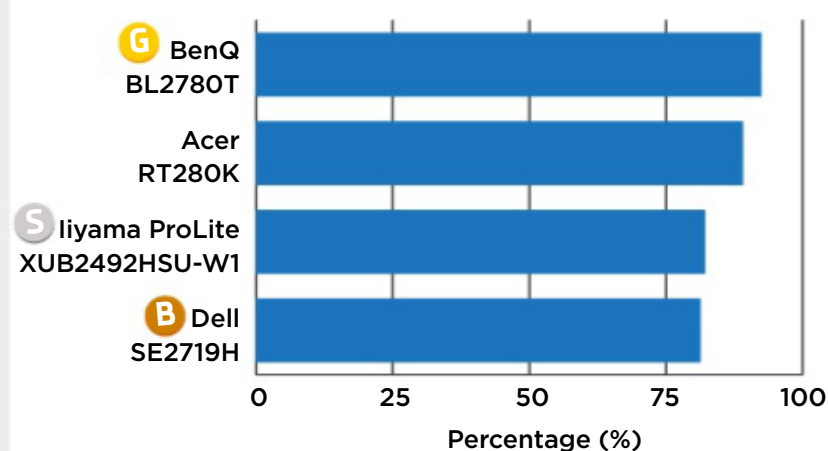
Ratio :1
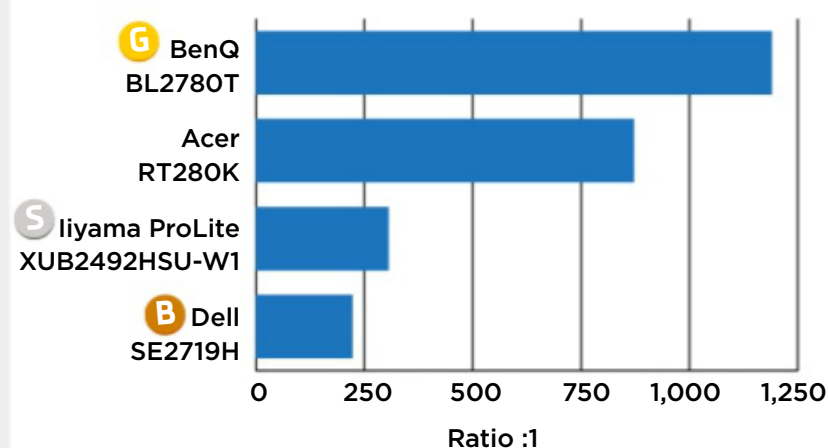
	BenQ BL2780T	Iiyama ProLite XUB2492HSU-W1	Dell SE2719H	Acer RT280K
WEBSITE	www.benq.eu	iiyama.com	www.dell.com	www.acer.com
PRICE	£209.97	£155.44	£199.94	£249.97
BUY FROM	Amazon: bit.ly/benq495	Amazon: bit.ly/iiyama495	Amazon: bit.ly/dell495	Laptops Direct: bit.ly/acer495
SCREEN SIZE	27in	24in	27in	28in
RESOLUTION	1,920 x 1,080 pixels	1,920 x 1,080 pixels	1,920 x 1,080 pixels	3,840 x 2,160 pixels
PANEL TYPE	IPS	IPS	IPS	TN
RESPONSE TIME	5ms	4ms	5ms	1ms
PORTS	1 x DisplayPort, 1 x HDMI, 1 x VGA, 2 x audio	1 x DisplayPort, 1 x HDMI, 1 x VGA, 2 x audio	1 x DisplayPort, 1 x HDMI, 1 x VGA	1 x DisplayPort, 1 x HDMI, 1 x DVI, 2 x audio
ADJUSTABLE STAND (HEIGHT)	Yes (140mm)	Yes (130mm)	✗	✗
USB	✗	2 x USB 2.0	✗	✗
SPEAKERS	2 x 2W	2 x 2W	✗	2 x 2W
SIZE	547 x 512 x 231mm	540 x 506 x 230mm	611 x 452 x 186mm	659 x 482 x 210mm
WEIGHT	7.2kg	5.4kg	5.4kg	5.6kg
WARRANTY	One-year return-to-base	Three-years return-to-base	One-year NBD exchange	Two-years return-to-base

OUR VERDICT

One screen stood head-and-shoulders above its rivals in this group test of affordable monitors, and it truly deserves our Gold Award. The main focus of the BenQ BL2780T is the quality of the display, which is exceptional for the price. It's bright, handles colour well and has a decent contrast ratio. Its design is rather boring but we think screen quality is vastly more important.

We gave our Silver Award to the Iiyama ProLite XUB2492HSU-W1. This has the lowest price but it balances the necessary reduction in screen size and quality with a raft of extras, such as USB ports and a fast refresh rate.

In third place, the Dell SE2719H snatched the Bronze Award. However, it's a relatively poor third place, with a lower-quality screen and fewer extra features than the cheaper Iiyama monitor. ■

Have **fun** at work
and increase your **productivity**

Get lost in your creativity but not on your desktop thanks to the 34'' ultra-wide
ProLite XUB3493WQSU offering a 133% larger viewable area compared to Full HD monitors.

Be more productive while displaying various applications side-by-side at the same time and enjoy true-to-life colours.

- **UWQHD (Ultra Wide QHD)** resolution offers an ultra wide (21:9) viewable area

- **PiP and PbP** modes allow simultanous display of images from two different signal sources

- **Flicker Free** and **Blue Light Reducer** for your eyes health and comfort

3440 × 1440 | PIP | | Free Sync | FLICKER FREE LED | BLUE LIGHT REDUCER

Web User's Best Buys

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

HARDWARE, SOFTWARE & SERVICES

MONITOR

BenQ BL2780T

NEW!

£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 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
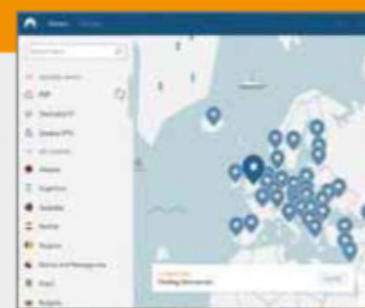
VPN

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

CHROMEBOOK

Lenovo Chromebook 500e

£349.98 from **bit.ly/leno483**
Tested: Issue 483

This versatile and rugged convertible Chromebook has been designed for the classroom but would be just as useful at home and on the move. It's tough enough to survive a few knocks and you can use a stylus on its touchscreen.

KEY SPECS
Intel Celeron N3450 processor ■ 32GB storage ■ 4GB memory ■ 11.6in touchscreen ■ 1,366 x 768 pixels resolution ■ Intel UHD Graphics 500 card ■ 2 x USB-C, 2 x USB 3 ports ■ 290 x 204 x 20.4mm ■ 1.31kg ■ One-year collect-and-return

All prices correct at time of review

Web User Gold Award winners

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

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TWO-FACTOR AUTHENTICATION APP

Duo Mobile

NEW!

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.

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.

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.

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.

CALCULATOR

Old Calculator for Windows 10

Free from **bit.ly/oldcalc486**
Tested: Issue 486
Old Calculator appears instantly when you call it, sits unassumingly in a corner of your screen when you're not using it and can perform all everyday calculations.

FILE ORGANISER

DropIt

Free from **www.dropitproject.com**
Tested: Issue 484
DropIt's great innovation is to place a floating arrow icon on your desktop. When you have a file that needs sorting, just drag it over to the icon and drop it.
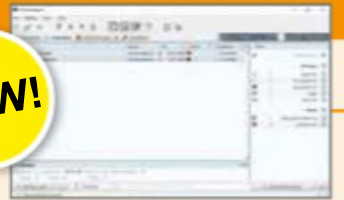

DOWNLOAD MANAGER

JDownloader

NEW!

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.

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.
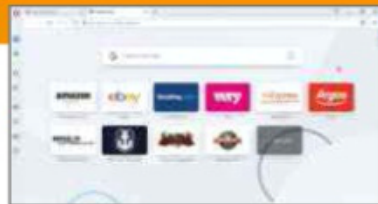

EMAIL SOFTWARE

Mailspring

Free from **getmailspring.com**
Tested: Issue 489
Mailspring is a modern, well-designed take on classic email software. Standard features sit alongside some quirky extras, but the focus remains firmly on sending and receiving emails.

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.

RECOVERY TOOL

Hiren's Boot CD

Free from **www.hirensbootcd.org**
Tested: Issue 485
Hiren's Boot CD isn't just the best bootable recovery disk, it's arguably the only one you'll ever need – packed with tools to fix just about every problem you're likely to run into.
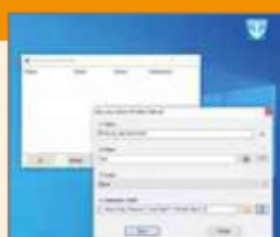

ANDROID DATA SHREDDER

Shredder

Free from **bit.ly/shredder483**
Tested: Issue 483
Shredder is an excellent, easy-to-use tool that deletes sensitive and unwanted files permanently, so they can never be recovered.

Best Free Software
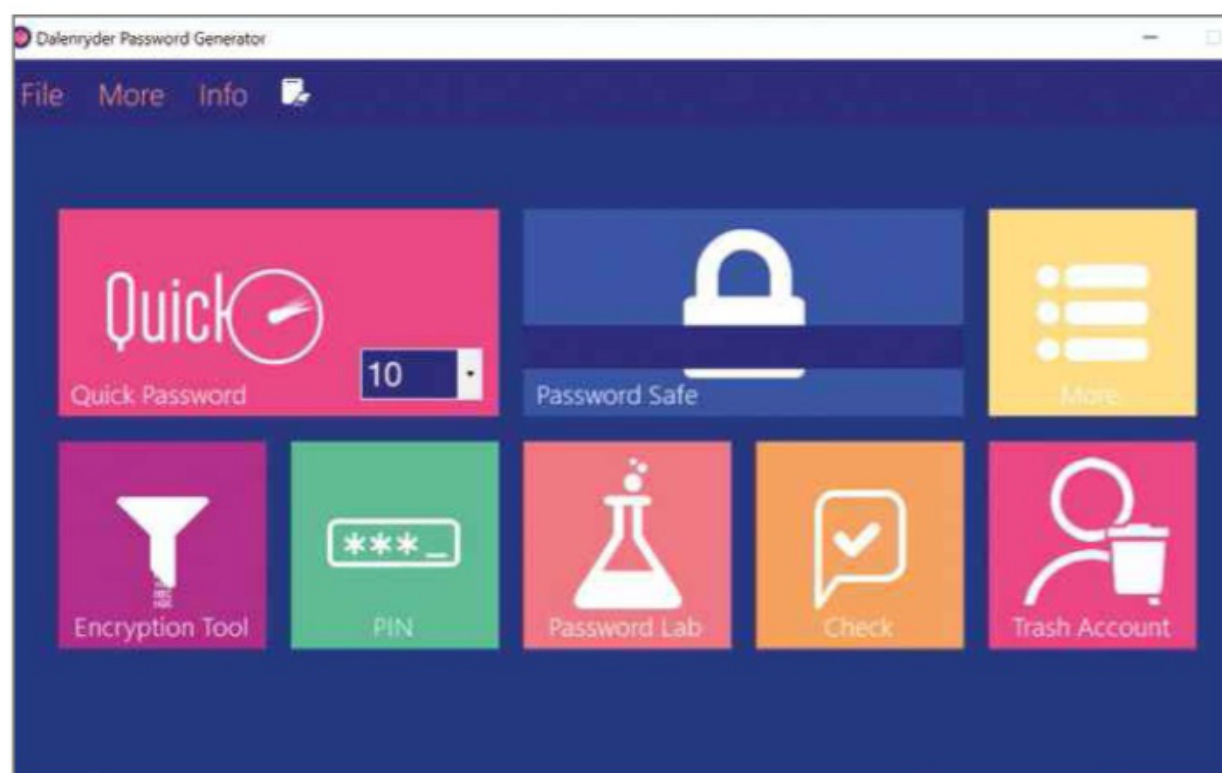
Dalenryder Password Generator 5

bit.ly/dale495

Min requirements: Windows 7/8.1/10
File size: 2.3MB

If you struggle to think up unique passwords that are impossible to guess, Dalenryder Password Generator is the perfect solution. This free program offers a collection of handy security tools, including a quick password creator, password safe, encryption tool, PIN and username generators, password inspector and more.

The Quick Password feature can generate passwords of between four and 30 characters, while the Password Safe stores all your new logins in an encrypted vault. The Encryption Tool offers a simple way to encrypt plain text so you can share it safely, and the Password Lab produces passwords based on whatever criteria you choose. The Trash Account module generates fake user credentials for you, including first name, last name, username, temporary email address, birthday and, of course, password, so you can avoid giving away your personal details online.

If you want even more ways to generate logins, the software can help. The My Password tool takes your answers to a number of questions and turns them into a unique phrase, which you can customise by adding numbers and symbols, and swapping digits for letters (such as 3 for e, 0 for o and so on). Finally, the PlusPassword module makes a simple password harder to guess by adding extra numbers, letters in upper and lower case, and symbols.

The latest version of the software gains a number of small but useful additions. The Password Lab now remembers your settings, the Password Safe comes with some interface improvements, and there's a new search bar with extra search options to help you find logins more easily.

MINI WORKSHOP | Create unique logins using Dalenryder Password Generator 5

1 Open Dalenryder Password Generator, use the drop-down menu **1** to select how many characters you want, then click the Quick Password tile. **2** The software will create a secure password for you. Click Generate **3** to change it. You can add symbols to make it even more secure. **4** Click the button to copy the results.

2 The Password Lab tool **1** can produce even more complex results. Select the number and type of characters you want to use, **2** then click Generate. **3** Options in the tabs give you greater control over the makeup of the password – you can add custom symbols under More Options, **4** for example.

3 If you want to send some private text to someone, click the Encryption Tool tile, **1** then paste or type your text into the box. **2** Enter a password to protect it, **3** click Encrypt, **4** then share the encrypted text (the other person will also need the password). Use the Decrypt tab **5** to unscramble it.

This fortnight's top new software downloads to help you make the most of your PC, and they're all FREE
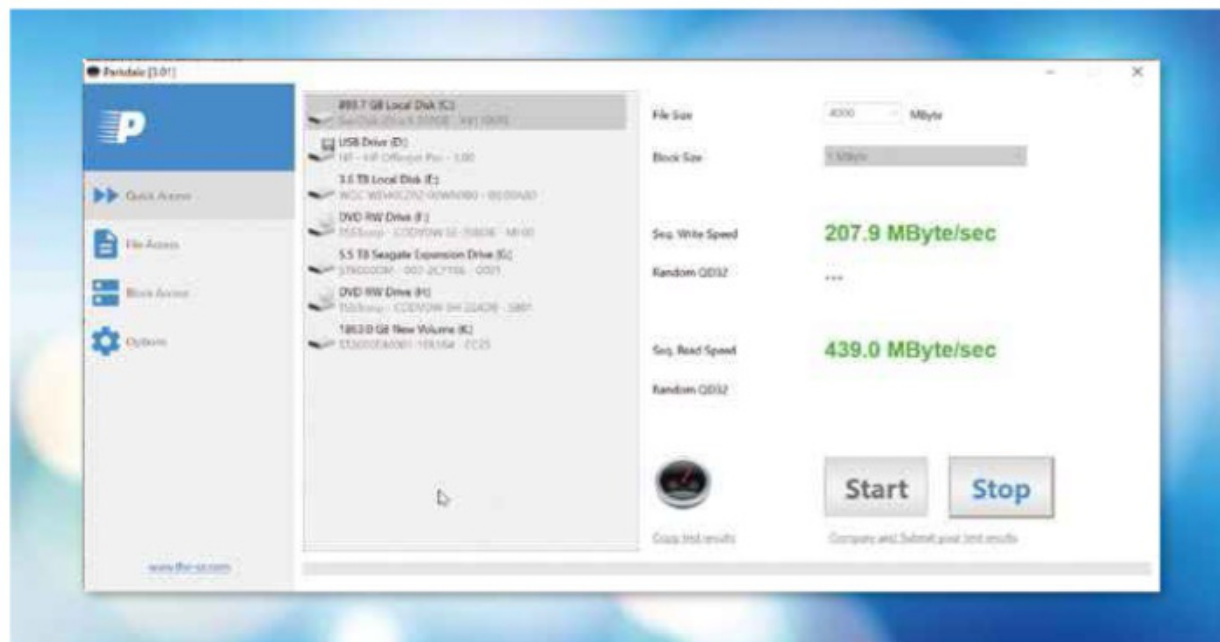
BENCHMARKING TOOL
Parkdale 3
bit.ly/parkd495
Min requirements: Windows 7/8.1/10 **File size:** 743KB

Benchmarking tools such as Parkdale 3 can help you make sure your hard drives are running as fast as they should be. This program lets you test the read and write speed of any drive in or connected to your PC. It offers three modes: QuickAccess tests sequential read/write and random access, while FileAccess measures speeds using a file of your choice, and BlockAccess reads disk sectors. Once you've benchmarked a drive, you can compare your test results with other users.

New Windows 10 App

ActionLogger
bit.ly/alog495
File size: 100KB
ActionLogger helps you manage your life and work goals. Create a new goal, add start and end dates and a frequency, then view monthly, annual and custom reports. You can see your goals by category – adding your own if necessary – and choose the display order. The app is available for Android Chrome and iOS Safari, too, so you can access your logs from anywhere.
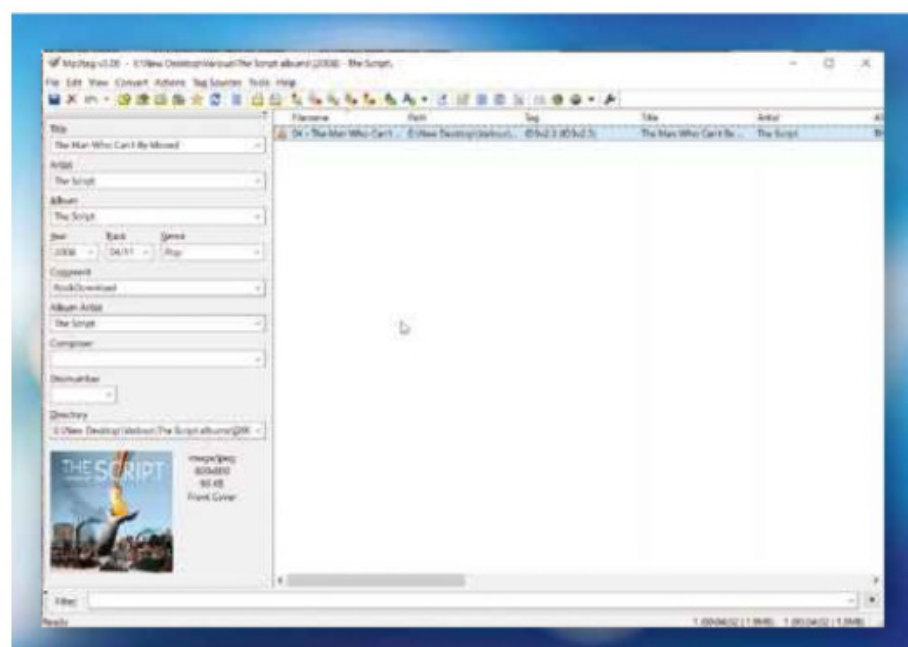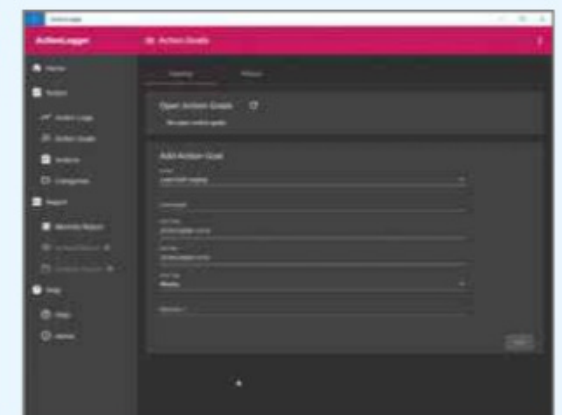
AUDIO TAG EDITOR
Mp3tag 3
www.mp3tag.de/en
Min requirements: Windows 7/8.1/10 **File size:** 3.4MB

Mp3tag lets you edit the metadata attached to your audio files. You can use it to batch-edit ID3v1, ID3v2.3, ID3v2.4, MP4, WMA, Vorbis Comments and APE tags. This versatile tool works with all popular audio formats, and can even rename files based on information in the tags. The latest version adds a new 'Adjust cover' action that lets you resize the embedded cover art. It also updates MusicBrainz tags, improves accessibility options and fixes various bugs.
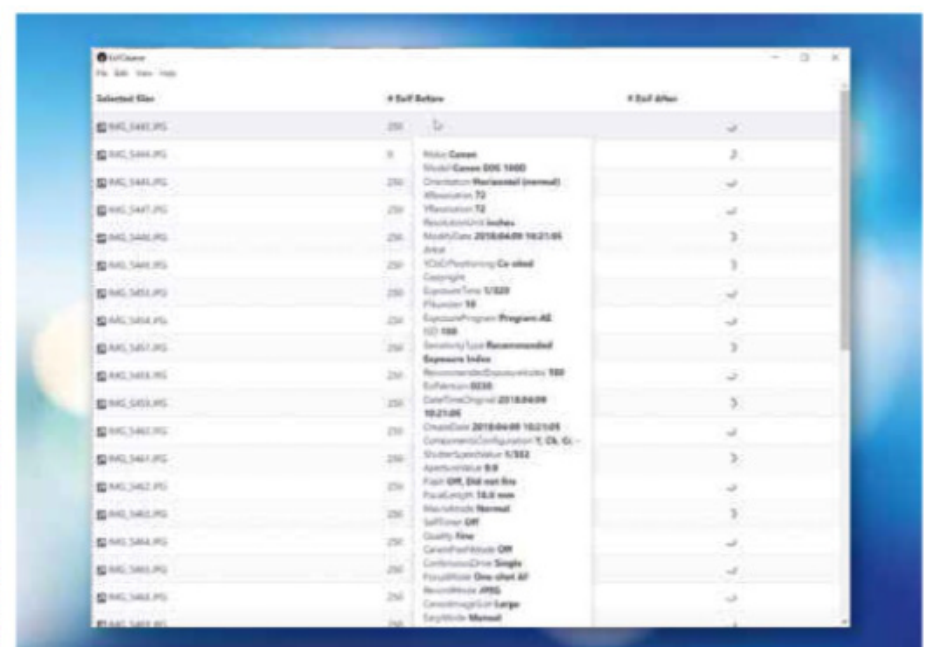

PHOTO TOOL
ExifCleaner 3
exifcleaner.com
Min requirements: Windows 7/8.1/10, macOS or Linux
File size: 54MB

When you take a photo, your camera embeds certain data into it, such as the make and model of your camera or phone, the resolution, date and time, GPS coordinates and more. ExifCleaner shows you which details a photo contains, and lets you strip them out to protect your privacy and reduce the file size. This new version automatically switches to dark mode if your PC uses it, and improves the cleaning process. ➡
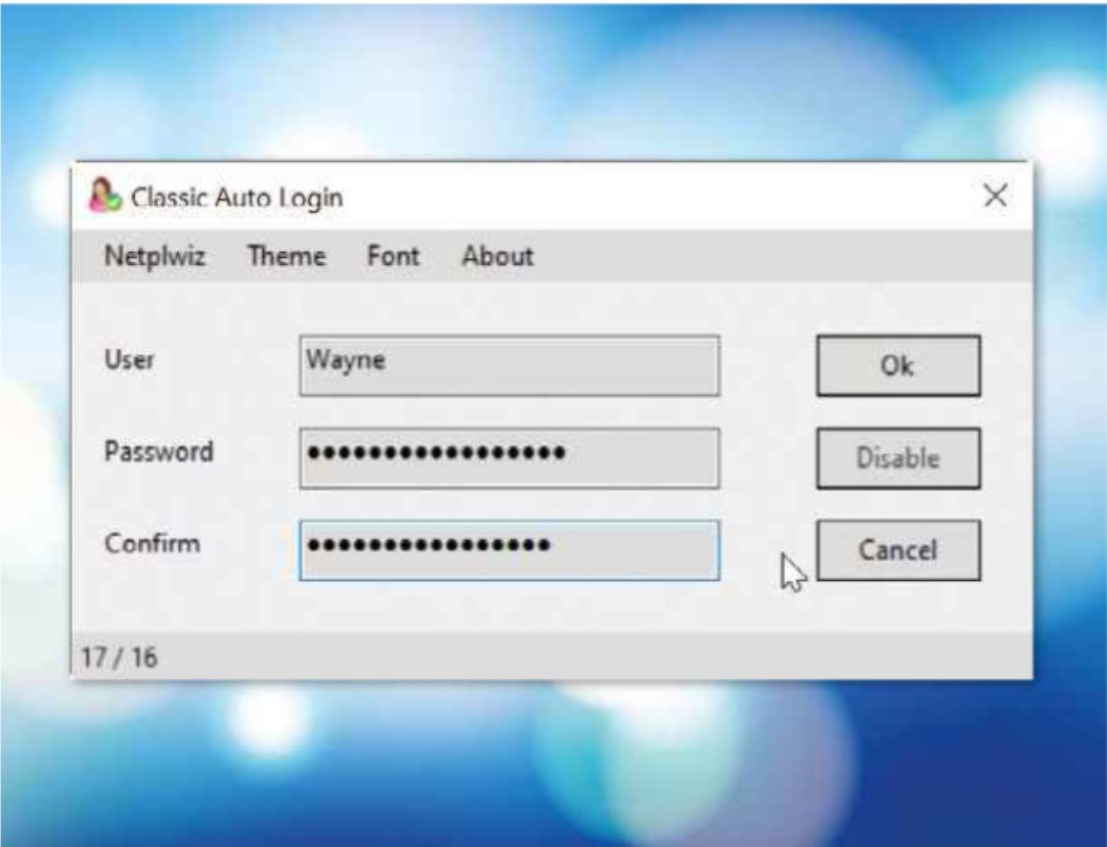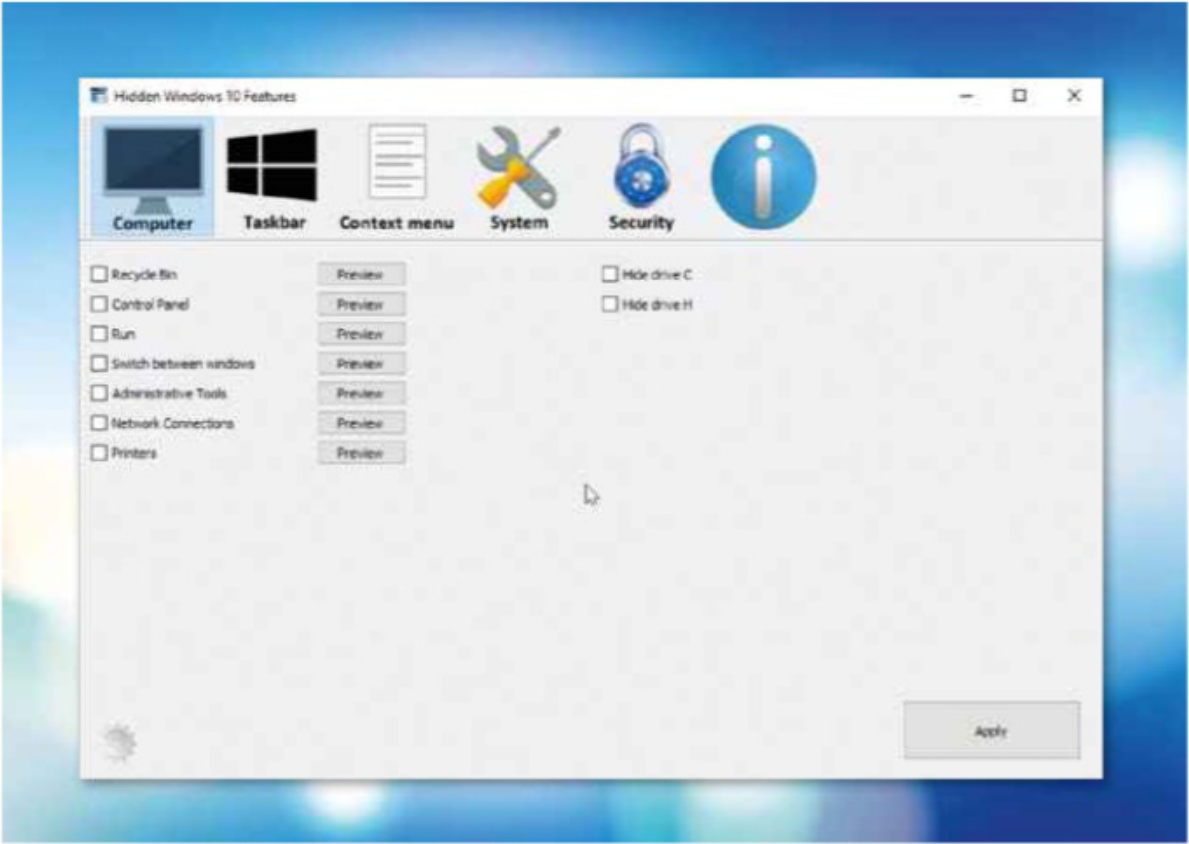
SYSTEM TOOL
Hidden Windows 10 Features
bit.ly/hidwin495
Min requirements: Windows 10
File size: 9.4MB

This useful program lets you add features to Windows 10 that would otherwise be difficult to access. The interface is divided into five sections: Computer, Taskbar, Context Menu, System and Security. By selecting the relevant options, you can add new entries to Explorer and the right-click menu, deactivate features such as Cortana, the Lock Screen and OneDrive, and add a GodMode folder to the desktop. It also lets you turn off live thumbnail previews in the taskbar and disable the system tray.

The website implies that you need to pay £5 for the software, but that's just for a commercial licence. It's free for home use.

SYSTEM TOOL
Classic Auto Login
bit.ly/autolog495
Min requirements: Windows 7/8.1/10
File size: 284KB

For security reasons, Microsoft would rather force you to log into Windows 10 before using it, although you can set the operating system to log you in automatically. In the next Windows 10 feature update – version 2004 – Microsoft has made this more difficult by changing the way autologin works, but you can get around the restriction by using this tiny program. Simply enter your username and password (twice) into Classic Auto Login and click OK. If you change your mind, you can remove the setting by clicking the Disable button.

Light and dark themes are available in the program, and you can switch between large and small typefaces.
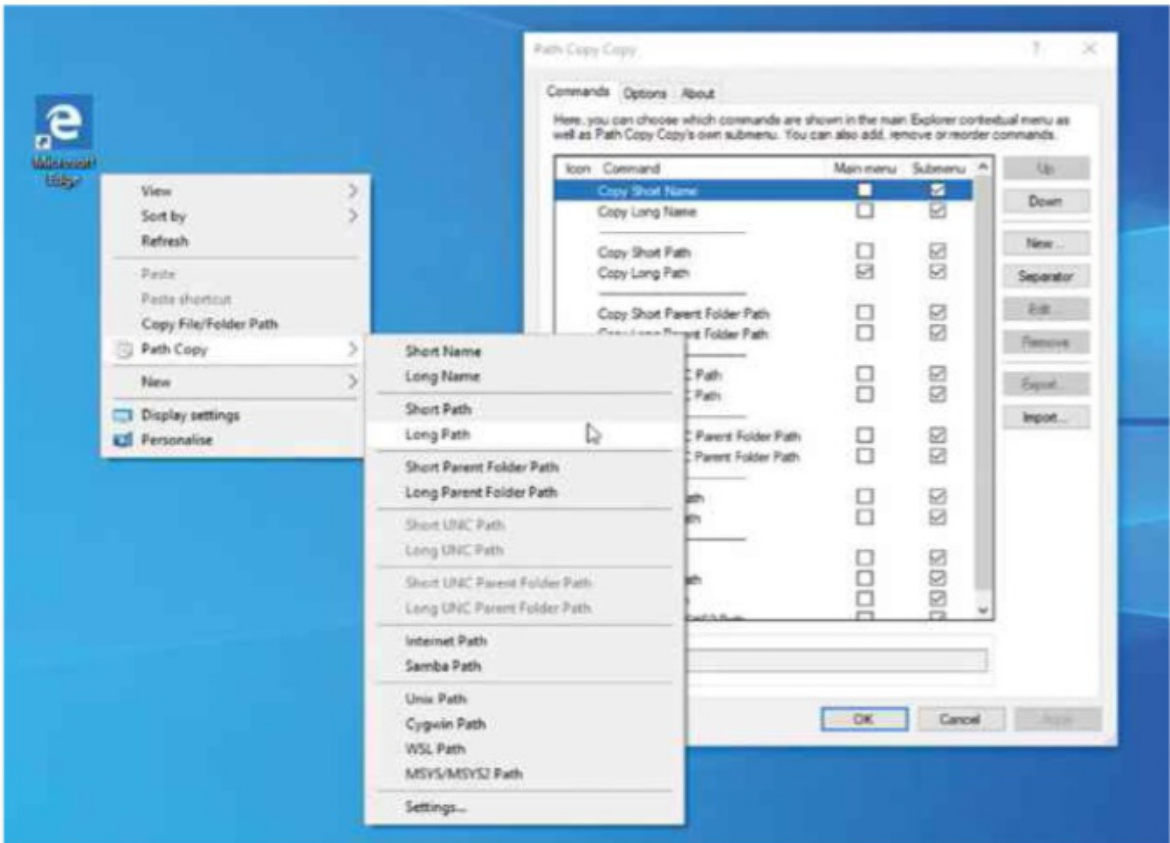
SYSTEM TOOL
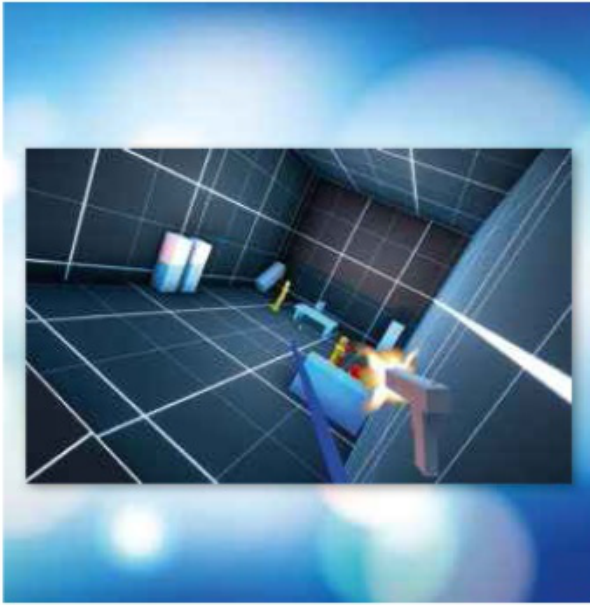# Path Copy Copy 18
pathcopycopy.github.io
Min requirements: Windows 7/8.1/10
File size: 2.1MB

Path Copy Copy is an add-on for Windows Explorer that lets you copy the full path to any file or folder on your PC. The tool adds some commands to the context menu, so to use it you simply right-click an item and select Copy File/Folder Path.

This new version of the program introduces support for per-machine and per-user installations from the same installer (replacing the discontinued portable version), and makes some improvements to the custom command feature. You can also now copy the path of a shortcut rather than the path of its target.
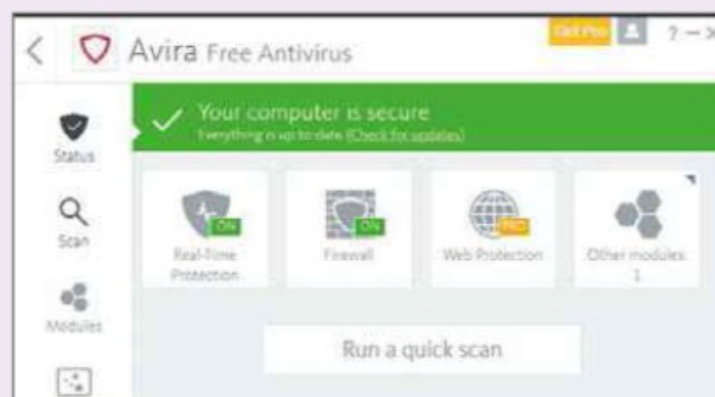
✓ Install this program...

Avira Free Antivirus
www.avira.com
Min requirements: Windows 7/8.1/10
File size: 3.8MB

Windows Defender does such a good job these days that you don't really need any other antivirus software. If you'd rather not rely on Microsoft, though, and you don't want to pay for security, Avira is your best option now that Avast has been disgraced. This simple yet powerful program blocks all manner of threats, including spyware, adware, Trojans, PUPs and ransomware. It also offers real-time protection and updates, and can repair infected files. Avira is speedy and efficient, so it won't hog your PC's resources, slowing it down. It even lets you install additional free tools to boost your protection further.
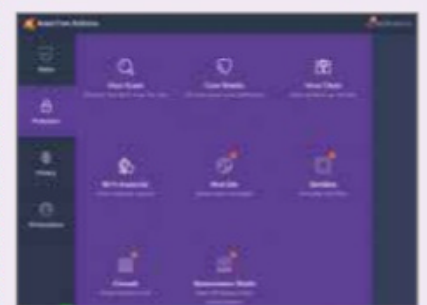
...Not this one ✗

Avast Free Antivirus
www.avast.com
Min requirements: Windows 7/8.1/10 or macOS
File size: 228KB (installer)

We used to love Avast, but the news that its free antivirus software has been harvesting and selling user data (see page 12) now makes it difficult to recommend. While Avast insists that its data-gathering didn't put anyone's privacy at risk, a security program must be completely trustworthy or there's no point in having it.

GAME
Karlson
bit.ly/karl495
Min requirements: Windows 7/8.1/10, macOS or Linux
File size: 42MB

The aim of this challenging first-person action game with parkour and strategy elements is to move the titular "milk-infused fellow" around the levels, killing bad guys, blowing things up and collecting the milk carton at the end. The free download offers 11 action-packed levels, including a tutorial to get you started.

OTHER OPERATING SYSTEMS What's new for Linux and macOS

LINUX TOOL
WINE 5
www.winehq.org
Min requirements: 1GB of RAM, 120MB of disk space
File size: 20.6MB

You can run Windows software on a Linux PC, but first you'll need to install the WINE compatibility layer. WINE runs most Windows programs flawlessly, and you can use it as the default installer for your Windows software. This release has been in development for a year and features over 7,400 changes. Highlights in the new update include multi-monitor support, fixes for problem games and apps, XAudio2 reimplementation and Vulkan 1.1 support.
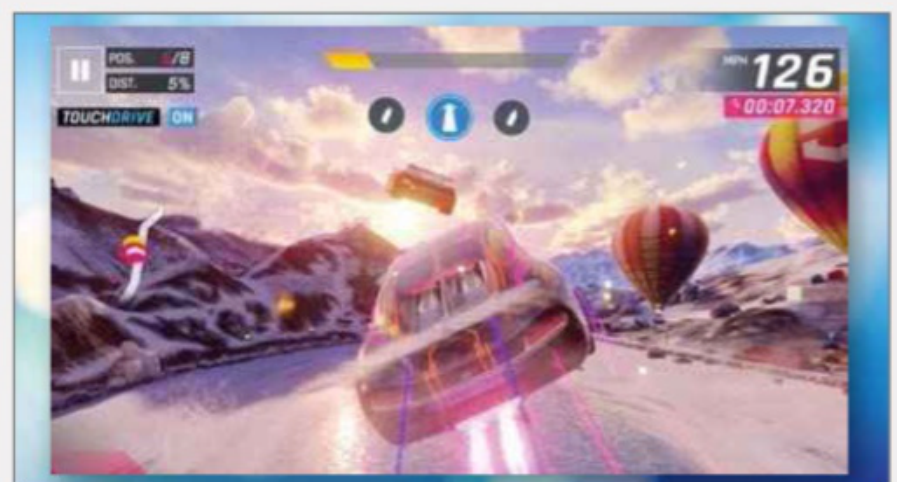
MAC RACING GAME
Asphalt 9: Legends
bit.ly/asp9-495
Min requirements: macOS 10.15 or later, 64-bit processor
File size: 2.5GB

This free game has made the leap from the iPad to the Mac using Apple's Catalyst framework. The developers announced it last June, but it has only just become available after some much needed polishing. You can race real-world, fully customisable hypercars from the likes of Ferrari, Porsche and Lamborghini across a number of global locations in single and multiplayer modes. As with most free games, it offers in-app purchases.

Best New Browser Tools

Navigate Gmail using keyboard shortcuts

HelpNinja's Gmail Flash (bit.ly/flash495) will change the way you navigate your emails, thanks to a single keyboard shortcut: Ctrl+K. Rather than memorising every keyboard shortcut, use Ctrl+K to display common actions such as read, delete, archive and snooze. These are accompanied by a single letter, allowing you to perform one of 13 actions. For ninja-like typists, there's also a search bar for locating specific shortcuts.

Gmail Flash doesn't support every Gmail shortcut – you'll need to remember that it's 'R' to reply, and so on. But as a way to familiarise yourself with the basics (and keep your hand off your mouse), it's ideal. After a while, you find yourself artfully cruising through your inbox, swiftly selecting messages and responding (or not) at maximum speed. The initial tutorial is also worth watching for a 30-second overview.
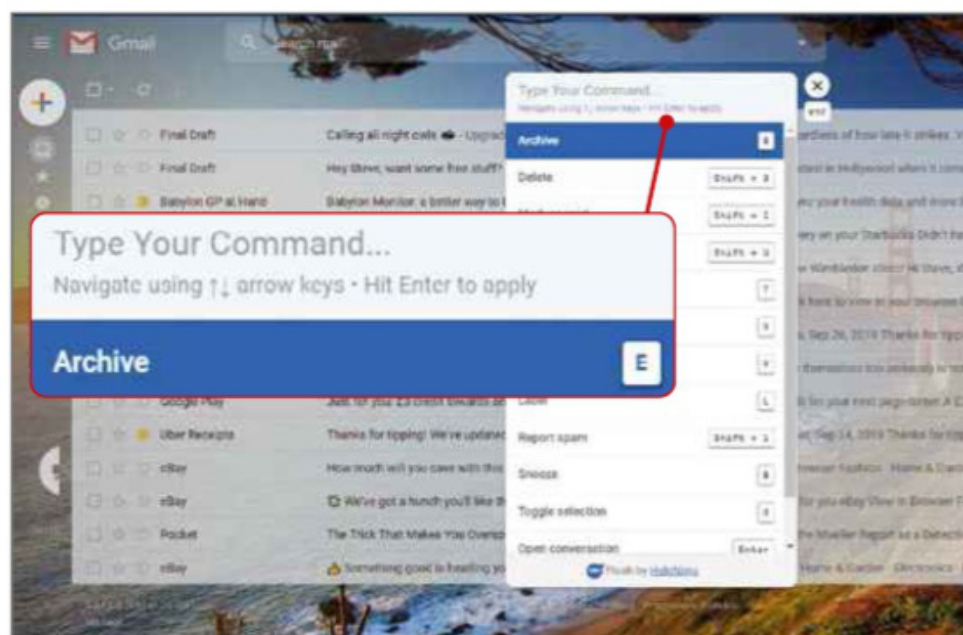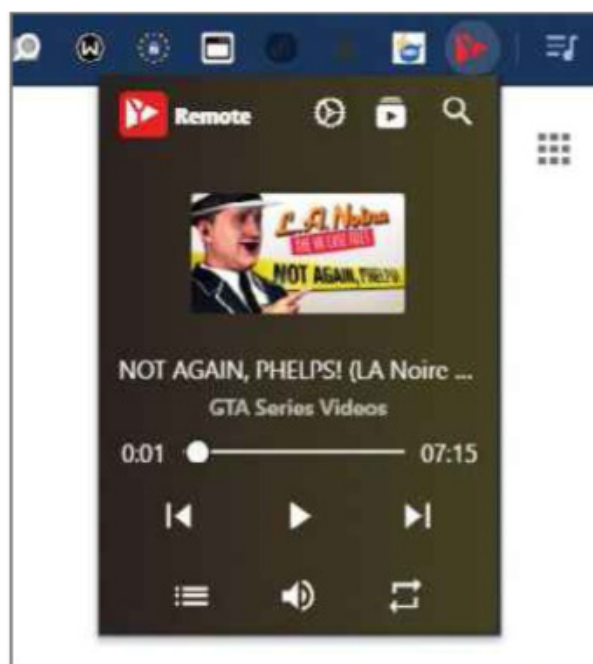
Get a minimalist New Tab page

When trying out New Tab extensions, we usually click 'Add to Chrome' wondering if it will be packed with useful features, or so poorly designed that we remove it after opening two tabs. Minimalism has rarely entered into it – until now. Minim (bit.ly/minim495) lets you take a soothing breath before diving into the din of the internet. A simple clock stands against a calming backdrop. There are no search bars or shortcuts to recent sites – just a settings cog that you can use to tweak the view, switch to a custom message or select background colours with names like Mango Pulp and Green Sea. If you like, you can add arty rotating images of New York or snow-capped mountains. Whatever you choose, Minim offers a little calm before the online storm.

Control YouTube from any tab

Regular readers may experience a feeling of déjà vu on seeing YouTube Remote (bit.ly/remote495), which lets you control YouTube from any tab. Only last issue, we covered Google's latest innovation – the ability to control YouTube playback from anywhere in Chrome. However, Google's option is limited in comparison, offering only play/pause, forward and back.

YouTube Remote, on the other hand, throws in a playback slider, audio controls, shuffle and a list of recommendations nestling within the List control. Multi-video support makes it easy to switch between videos by clicking the extension's YouTube logo and there's an invaluable Skip Ads setting. Even though the search bar frequently failed, this extension is still superior to Google's own YouTube playback control.

Highlight adverts in Google search

Google Search Ads Highlighter (bit.ly/searchads495) is a browser tool for anyone – or, more likely, everyone – who's accidentally clicked on a Google ad while using the search engine. This handy extension identifies annoying Google adverts and sponsored links, and surrounds them with an unmissable coloured box. You can change the highlighter colour by selecting from the presets or using the colour wheel, and tweak the text's opacity, so you can literally block ads by making them unreadable. It's a highly effective way to avoid ads, although extensions like this have a tendency to mysteriously disappear – we can't imagine why. Get it quick, before Google pulls it from the Chrome Web Store.

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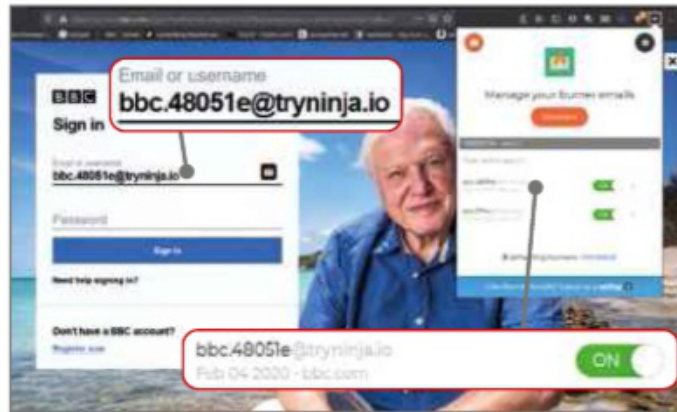
FIREFOX

Create disposable email addresses

Back in Issue 491 (bit.ly/webuser491), we looked at AnonAddy – a clever tool that lets you create temporary email accounts to use when signing up for websites or mailing lists. Messages are then funnelled through to your real email address, without websites knowing who you are.

BurnerMail (bit.ly/burner495) offers much the same service, with the added advantage that you don't even need to touch the extension to create a fake address. When you visit a site that demands an email address, you'll see an icon that looks like a small envelope on fire. Click this and the tool generates a random email address along the lines of 'website.triffin490k@tryninja.io'. The free version lets you create up to five of these, which it stores for you. If you need to use them elsewhere, you can copy them from the extension. Protecting your privacy has never been so easy.

Get an Opera-style speed dial tab

Toolbar Dial (bit.ly/dial495) brings Opera's finest feature, Speed Dial, to Firefox, placing all your favourite websites within easy reach. The tool displays bookmarks you've saved to your browser's bookmarks bar whenever you open a new tab. To ensure new sites are added to your speed dial, click the Library symbol, Bookmarks, Bookmark This Page. Then use the drop-down menu under Folder to switch from Other Folders to Bookmarks Toolbar. To change the order of the bookmarks in speed dial, simply drag and drop them into place.

Other than that, customisation is non-existent. Each speed-dial entry is given its own coloured box with the website's URL squeezed inside. Click the link to visit that page, or drag and drop a speed-dial box to open it in a new tab.

Turn off the lights in WhatsApp Web

WhatsApp's mobile dark mode has finally arrived in beta. Reviews have been mixed, with many testers complaining that the dark backgrounds aren't dark enough. We can expect such kinks to be ironed out before the setting is made available to everyone.

Still, the news isn't all bad for dark-theme lovers. WhatsApp Web Dark Mode (bit.ly/whatsapp495) brings night mode to the browser-based version of the chat app. Easy on the eyes and uniquely balanced, this extension swaps glaring whites for various shades of deep blue, which stops everything bleeding into everything else, while WhatsApp's familiar greens become a more tasteful ochre. No setup is required: just install the add-on and sign in (or refresh the page). To switch back to light mode, you need to open Firefox's Add-ons Manager.
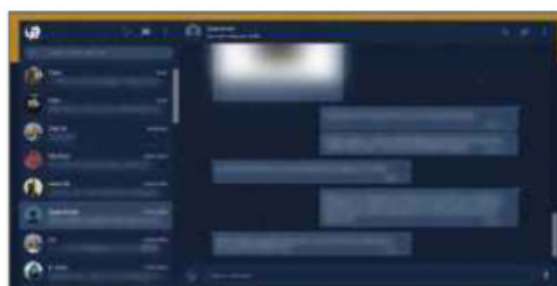
OTHER BROWSERS

Block unwanted apps in Edge

If you're running the beta version of the new Edge, there's a setting you'll want to switch on immediately: 'Block potentially unwanted apps' (PUAs). Armed with this extra layer of security, Edge shields you from 'low-reputation' apps such as adware, spyware and bloatware, which are sneakily packaged with other programs. When it detects a PUA, Edge flashes a warning, so you can click Delete. If it's an app you potentially want, click the three-dot menu and select Keep. To activate this feature, open Settings, 'Privacy and services', Services and switch on 'Block potentially unwanted apps.'

Block potentially unwanted apps
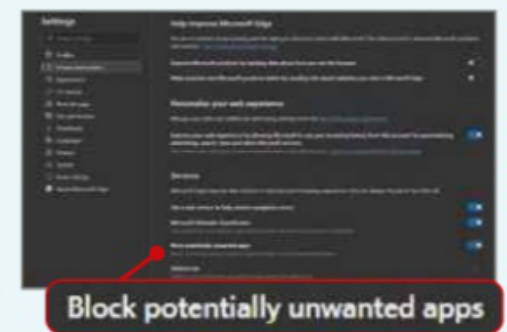
Open tabs in incognito mode

As the range of extensions for Edge continues to grow, one icon in particular stands out: a spy in sunglasses, with his trilby tipped and his collar turned up. It's called Incognito This Tab (bit.ly/incognito495) and it does away with the need to copy links from web pages, then paste them into an incognito window.

When you find yourself on a site you'd rather open in Edge's InPrivate mode – perhaps to sign in using a new account, for example – click the extension's toolbar button. You can also activate Incognito This Tab through an option in the right-click menu, or by using the keyboard shortcut Alt+O.

Best Free Apps

App of the Fortnight

CAMERA `NEW`

Doubletake
bit.ly/doubletake495

 13

There was a time when phones with built-in cameras were considered so unusual that they had their own special name. Now, of course, pretty much every smartphone is effectively a 'cameraphone' – in fact, these days it's common to find devices equipped with not just one but two, three or even more cameras. Sadly, in the majority of cases, these cameras are intended to serve distinctly separate purposes – it's almost never possible to use both front and rear cameras simultaneously, for example. But what if it *was*?

That's clearly the question the camera boffins at FiLMiC Pro asked themselves when they came up with the concept for Doubletake. This app works like many other video-recording tools, with the exception that it lets you use your device as a multi-camera setup, viewing and recording clips from all the cameras on your device, either separately or simultaneously.

This provides a range of benefits, including the ability to frame your shots better by comparing different camera views side by side. You can also capture a shot and reverse a shot (for example between an interviewer and an interviewee) simultaneously without the need for two cameras, which is very useful for editing. And, if your device supports it, you can capture footage at two separate focal lengths at the same time. Doubletake also lets you use picture-in-picture (PiP) and split-screen effects, and more.

Developer FiLMiC Pro has been known to produce apps for Android, but Doubletake is currently only available for iOS. Not only that, but some of the app's key functions – including recording on two cameras at once – are restricted to Apple's latest, most powerful devices, so be sure to check for compatibility with your model before downloading.

Our rating ★★★★★

MINI WORKSHOP
Capture dual-camera photos using Doubletake

1 Download Doubletake from the App Store, then launch it. Tap Camera Permission **1** followed by OK, then Audio Permission **2** and OK again, then press Continue. **3** Next, you'll be taken to the main camera view. It's worth noting that, while Doubletake supports both portrait and landscape mode, for the most part, the app works better when you hold your iPhone on its side horizontally, rather than vertically.
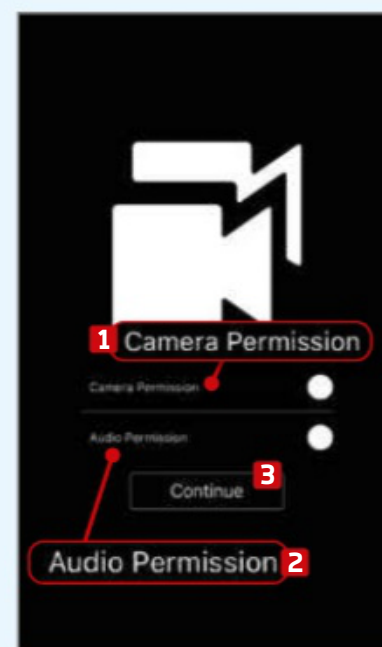
2 Doubletake's main interface is straightforward. The camera view takes up the middle part of the screen **1** flanked by four icons – one in each corner – and a live histogram at the bottom-centre. **2** To start recording, just tap the round button icon in the bottom-right corner of the screen. **3** To choose or change camera views, press the lens icon, bottom-left. **4**
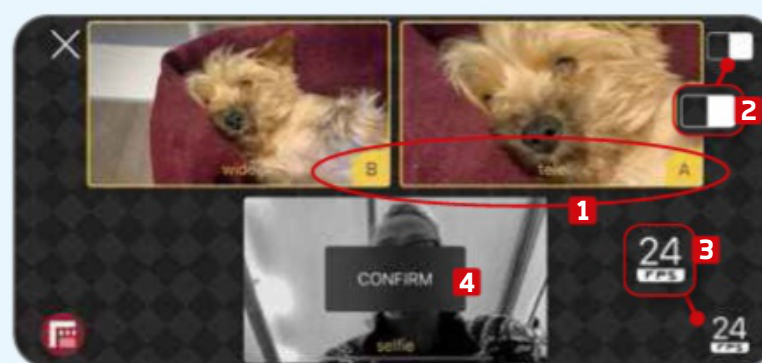
3 All your different camera views are shown simultaneously. Tap the two you want to select – they'll be marked A and B. **1** Now press the overlapping square icon in the top right corner **2** to toggle through the different views – Discrete (separate), Split Screen or PiP. By default, recordings are made at 24fps (frames per second), but you can tap the icon **3** to select a different frame rate if needed, then choose Confirm. **4**

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

BROWSER

UPDATED

Opera for Android

bit.ly/operadroid495

🤖 (varies)

Opera 56 has just launched for Android, adding even more great tools to an already feature-packed browser. There are three major changes, the first of which is an improved reader mode that converts busy pages into a more readable format. The mode can now be quickly enabled using the action switch in the address bar. Opera 56 also provides more customisation, so you can select your own function for the address bar's action switch, for example. Finally, an option to restore multiple closed tabs has been added.

Our rating ★★★★★

TOOLS

NEW

Microsoft Launcher Preview

bit.ly/mslauncher495

🤖 (varies)

Having seemingly abandoned its own ambitions to create a mobile OS, Microsoft has made great strides with creating apps and tools for other operating systems. Its Android launcher, for example, is a popular, polished alternative to your device's stock interface. There's a stable release of Microsoft's launcher, but if you want a taste of what's to come, you could try this recently updated early access version. The app is built on completely fresh code and looks great, with its most notable attraction being a very cool landscape mode.

Our rating ★★★★☆

VIDEO

NEW

Byte

bit.ly/bytedroid495
bit.ly/byteios495

🤖 5.1 11.1

For those of you who mourned the demise of short-form video app Vine, we have some good news. Byte is effectively Vine 2.0 in all but name. Developed by Vine's co-founder, Dom Hofmann, Byte lets you shoot and share six-second video clips. Ultimately, Byte's success as a social platform will depend on its enduring popularity. According to expert reports, Byte was downloaded 1.3 million times during its first week, but only time will tell if it will win users away from current social-video sensation, TikTok.

Our rating ★★★★☆

KEYBOARD

NEW
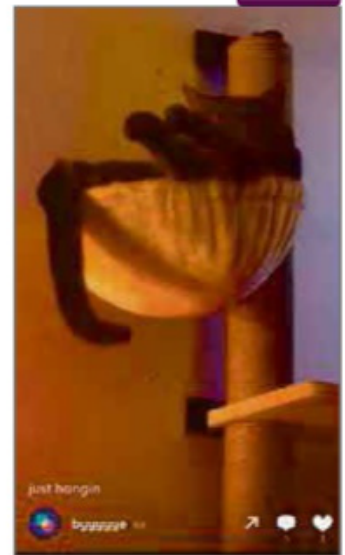
Typewise

bit.ly/typedroid495
bit.ly/typeios495

🤖 6 12

If you're fed up with constant typos, then you may already have considered using an alternative keyboard. Unfortunately, keyboard apps don't always solve the problem, and some require an uncomfortable level of permissions. Step forward Typewise, which not only claims to reduce typing mistakes by 80% – thanks to large, hexagonal keys – but also boosts it privacy cred by requiring zero permissions. Its unusual layout takes some getting used to and some of its best features (such as personalised predictions) require subscribing to the paid-for (£8.99 per year) Pro version. But it's definitely worth a try if you're frustrated by your current keys.

Our rating ★★★★☆

GAMING

NEW
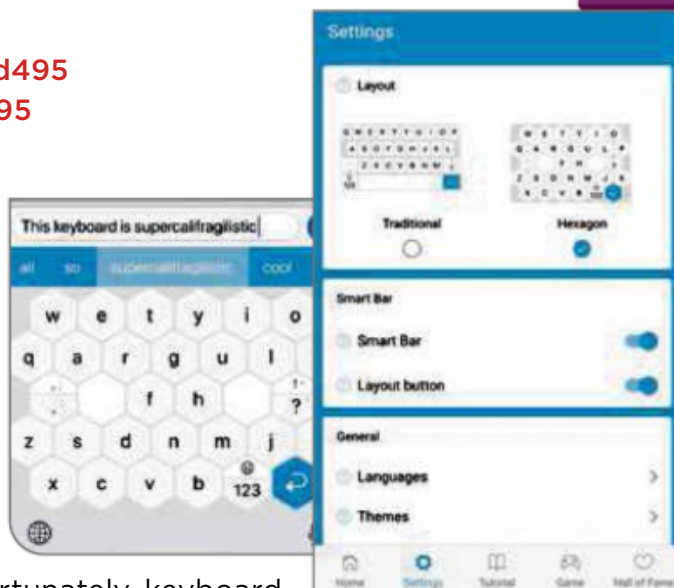
Nvidia GeForce Now

bit.ly/geforce495

🤖 5

Game streaming is all the rage right now but, while services such as Google Stadia and Microsoft's xCloud are all about buying and streaming new games, Nvidia's GeForce Now app takes a different approach. As we explain in What's New Online (page 6), the idea is that you can stream games you already own – not from your own PC, as with Steam Link, but from Nvidia's powerful gaming servers in the cloud. Sign up for the limited (one-hour session length) free service or a £4.99 per month unlimited, priority-access account, and you can match your PC games with cloud versions, then play them anywhere.

Our rating ★★★★☆
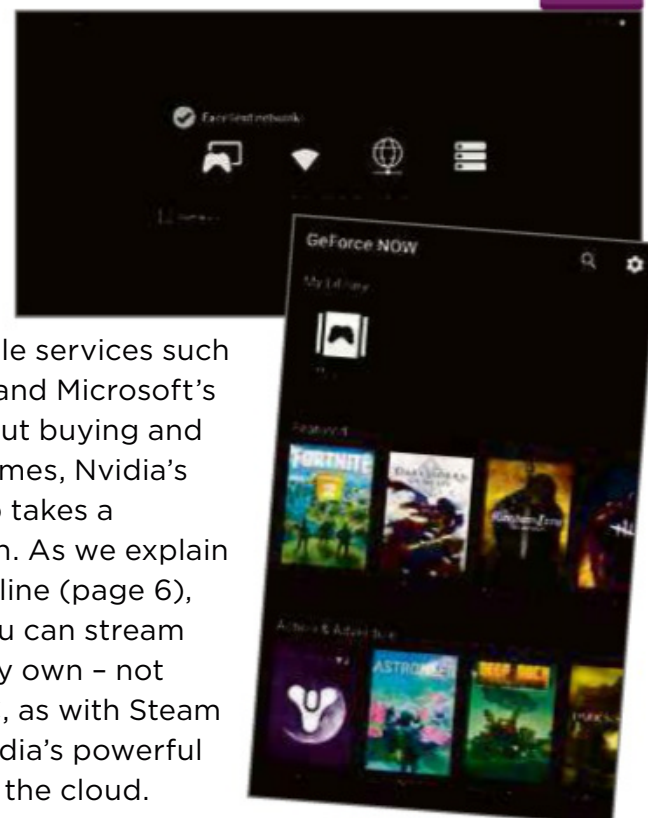
⑤ NEW APPS WORTH PAYING FOR

TOOLS
GesturePlus
bit.ly/gesture495
Price: £1.79
🤖 10

One for owners of swanky new phones, GesturePlus lets you customise the way that Android 10's gesture navigation system works, allowing you to launch any app or action with a quick tap.

GAME
Kharon 108
bit.ly/kharon495
Price: £1.99
🍎 12.1

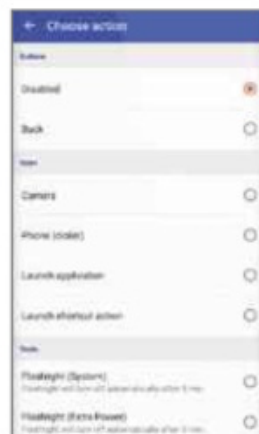Taking its name from the underworld ferryman of Greek mythology, this puzzle game involves you collecting souls and guiding them through 108 different pixel-art levels that get progressively harder to navigate.

ENTERTAINMENT
Ultimate Lion Simulator 2
bit.ly/liondroid495
bit.ly/lionios495
Price: 89p (Android),
99p (iOS)
🤖 4.4 🍎 10

Ever wanted to feel like a lion prowling the savanna? Well, now you can, thanks to what the makers claim is the "most realistic" simulation of lion life ever. Stalk prey, expand your pride and more.
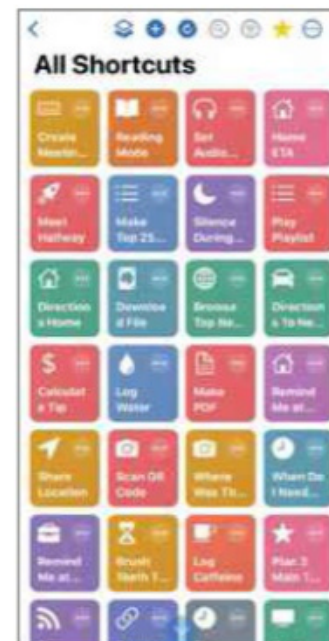
TOOLS
LaunchCuts
bit.ly/launchcuts495
Price: £7.99
🍎 13.2

LaunchCuts makes iOS 13's useful Shortcuts feature even better. It's effectively a launcher that allows you to organise, filter and generally take control of your shortcuts.
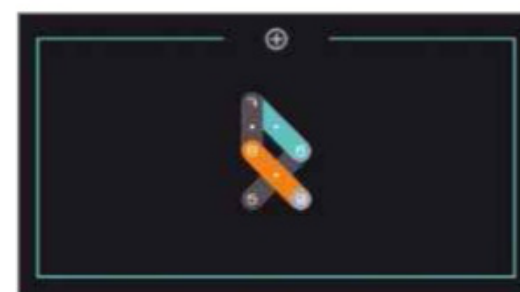
PUZZLE
SEN
bit.ly/sendroid495
bit.ly/senios495
Price: £2.99
🤖 6 🍎 9

Stimulate your brain with this puzzle game based around recognising patterns of numbers, colours and shapes. The rules are easy to pick up and levels get more challenging as you progress.

GesturePlus	Kharon 108	Ultimate Lion Simulator 2	LaunchCuts	SEN

✔ Install this app...

Bubble Level
bit.ly/bubble495
🤖 (varies)

Smartphones and tablets have all kinds of handy built-in technology that can be put to practical use with the right apps. Bubble Level, for example, uses the accelerometers and gyroscopes found in many modern handsets to convert your device into a pocket spirit level – useful for hanging pictures, taking photos or fulfilling everyday DIY tasks. It's not the flashiest app in the universe, but it's accurate and simple to use, mimicking the way a traditional spirit level works, complete with an animated bubble. It features both horizontal and vertical levels on the same screen, alongside a bullseye meter and a calibration tool.

...Not this one ✗

Spirit Level with Sound
bit.ly/spirit495

While Bubble Level is straightforward to use, Spirit Level with Sound is downright crude, with a very basic design that apparently hasn't been updated for more than half a decade. It's not made clear why the app needs so many permissions (access to photos and files on your USB storage, for example) to do such a simple job. And, if anything, the addition of sound only makes the experience of using the app slightly more irritating.

Take a Screen Break

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

CAN YOU GUESS THE SONGS FROM MUSICALS 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?

1 "Considered by some to be the 'father of the computer', he is credited with inventing the first mechanical computer, which eventually led to more complex electronic designs."

2 "He was instrumental in founding the Royal Astronomical Society. Its original aims were to reduce astronomical calculations to a more standard form, which closely connected with his ideas on computation."

3 "In 1822, he began what he called the Difference Engine, which was created to calculate a series of values automatically, and avoid the need for multiplication and division."

4

5 "He then designed a more complex machine called the Analytical Engine, which was to be programmed using punched cards, and marks the transition from mechanised arithmetic to fully fledged general purpose computation."

COMPETITIONS

Loot boxes

There's hidden treasure to be found in many games, but it'll cost you. **David Crookes** explains why loot boxes have become so controversial

What are loot boxes?

Loot boxes are a feature that's appearing in an ever-growing number of console and mobile games. They offer players a chance to gain special items, such as weapons or costumes for their character, which enhance the gaming experience and can even give players an advantage. Opening a loot box costs real money, however, and because players don't know exactly what they will receive in return, some people have deemed them a form of gambling. As a result, there are growing calls for them to be banned.

How do they work?

During a game, players are given the option to obtain and open a loot box. This grand unveiling is accompanied by flashes of light, special effects and a cascade of items falling past the screen to increase the levels of excitement. You're guaranteed to get something each

NHS Mental Health Director Claire Murdoch has called for loot boxes to be banned

time but not necessarily what you wanted, such as a particular weapon or a coveted rare item. This can encourage players to buy another loot box for another chance of success, drawing on the feelings of anticipation and release that are typical of gambling.

Are they really a form of gambling?

That depends on who you talk to. In 2017, the Entertainment Software Rating Board in the US said it did not consider loot boxes to be gambling and justified its position by saying that players always receive *something*. Instead, it put loot boxes on a par with collecting cards or stickers, where duplicates and unwanted items are simply part and parcel of the hobby. However, NHS England's Mental Health Director Claire Murdoch said earlier this year that she believes loot boxes are "setting kids up for addiction by teaching them to gamble on the content", and many people agree.

How prevalent are loot boxes?

According to researchers at the University of York (bit.ly/research495), 71.28% of gamers had encountered titles containing loot boxes by April 2019 – a rise from 4.27% of gamers in March 2010. These figures were based on the 463 most-played desktop titles on the

gaming platform Steam during that period, and were compiled after a report by the Gambling Commission in 2018 found that 31% of 11 to 16-year-olds had paid money or used in-game items to open loot boxes.

Juniper Research estimates that gamers spent £23 billion on loot boxes last year, and it forecasts that the revenue will almost double by 2022. The UK alone is said to account for £270 million of loot-box purchases.

Do loot boxes only appear in free games?

No, you'll find them in some of the biggest paid-for games around. The annual football favourite FIFA 20 offers loot boxes in the guise of Ultimate Team Packs, with algorithms determining which

FIFA 20 lets you buy Ultimate Team Packs to add new footballers to your teams

footballers players receive. You'll also find loot boxes in Call of Duty: Black Ops 4, Apex Legends, Halo 5: Guardians, Counter-Strike: Global Offensive and Magic: The Gathering, so the phenomenon spans many gaming genres.

Do players have to buy loot boxes?

In general, no. In many cases, loot boxes are awarded to players who complete certain missions, achieve particular feats or level up their characters. There have even been instances of loot boxes being given away in promotions, such as when Amazon Prime subscribers were handed five standard loot boxes for the game Overwatch in 2017. If loot boxes contain only cosmetic items – a new character costume, for instance – then deciding not to buy one has no impact on the game.

What are the worst examples?

A major turning point in attitudes towards loot boxes came in 2017 with the release of Star Wars Battlefront II for PlayStation 4, Xbox One and PC. In this game, buying loot boxes with real money gave gamers a gameplay advantage, because they contained major characters such as Darth Vader as well as other enhancements. Although it was possible to unlock these for free by playing the game, doing so would take many dozens

Star Wars Battlefront II encouraged players to buy loot boxes to gain gameplay advantages

of hours. Paying customers were also guaranteed more Star Cards and characters, which increased the chances of in-game victory – something that encouraged the shortcut of "paying to win".

But don't some players actually enjoy loot boxes?

From a player's perspective, loot boxes generate excitement – it can be fun to open a mystery box and see what you've got. By paying, players can also avoid having to grind through a game to unlock items for free, but this transforms the items from a badge of honour to one of prestige. Indeed, in a report called Gaming The System (bit.ly/gaming495), Children's Commissioner Anne Longfield suggested some children were being labelled "poor" by their peers if their in-game characters were not wearing or using items gained from loot boxes.

There is a strong argument that loot boxes give players something that should be available to them from the start, particularly if they've already paid for the game. It's often unclear how likely a gamer is to win a rare item, which is what makes loot boxes so addictive.

Are games publishers responding to criticism?

Yes, but slowly. For example, the latest Call of Duty game, Modern Warfare, featured a Battle Pass system – which lets players know what they're buying – instead of loot boxes, while Fortnite changed its system so that players could see inside loot boxes before paying. Valve now publicises the escalating odds of finding a very rare item in Dota 2. Following the outcry against Star Wars Battlefront II, EA's chief

Shadow of Loot Box is a satirical game about loot boxes and other cash grabs

design officer Patrick Söderlund said its loot boxes would contain only cosmetic enhancements. "We can't afford to make similar mistakes. And we won't," he said.

There's even a satirical game about the issue from EastAsiaSoft: a first-person-shooter called Shadow of Loot Box.
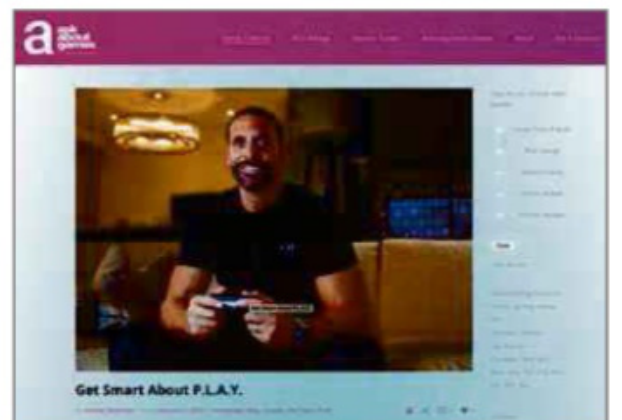
How are loot boxes regulated?

Some countries – notably Belgium and the Netherlands – have banned loot boxes, while China is putting regulations in place to limit daily purchases and give players a better chance of obtaining rare items. Last year, the British government's Digital, Culture, Media and Sport Committee condemned a "lack of honesty and transparency" and called for loot boxes to be regulated under gambling laws. It also called for a ban on selling loot boxes to children and an in-depth report into the long-term effects of playing video games.

What about the video-game industry?

The Association for UK Interactive Entertainment (UKIE) recently launched a campaign called Get Smart About PLAY to make parents and carers more aware of in-game transactions. The campaign offers guidance on its website Ask About Games (www.askaboutgames.com).

Meanwhile, in the US, the Entertainment Software Association has asked Microsoft, Sony and Nintendo to reveal details of the relative rarity of virtual items and the probability of players finding them. Publishers including Activision Blizzard, Bandai Namco, EA, Epic, Konami and Ubisoft have also promised to disclose such information.

HOW TO AVOID LOOT-BOX BILLS

Some gamers are spending hundreds or even thousands of pounds on loot boxes. In many cases, these players are children who rack up huge bills on a parent's bank cards. That's why it makes sense to enter your payment details only when you need to buy something, such as a new game, rather than adding a debit or credit card to the account of a console or gaming device. You can also use the parental controls built into consoles, handhelds and mobile devices to prevent unauthorised purchases. Ask About Games guides you through these controls at bit.ly/parental495.

Visit the Ask About Games website to learn more about in-game purchases
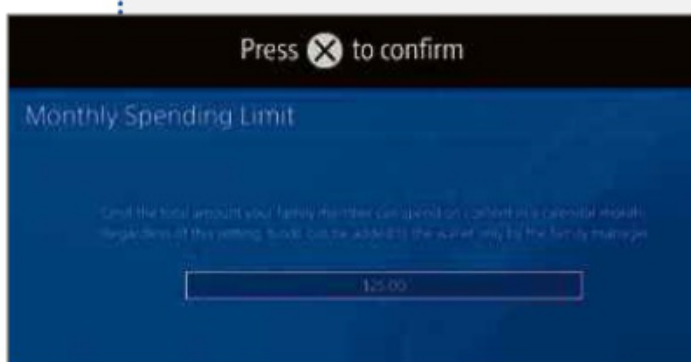
DON'T MESS UP
YOUR BACKUP

Don't risk losing your photos, documents and other irreplaceable files to disaster. **Wayne Williams** reveals the best free ways to ensure all your precious items are regularly and properly preserved

We all know we're supposed to back up our personal files regularly, but many of us either forget or can't be bothered, which can lead to bitter regret when disaster strikes. Making backups certainly isn't the most interesting thing you can do on your PC, but with so many threats to our data – from ransomware and system corruption to hard-drive failure, fire and theft – it's an essential task that can't be skipped.

Fortunately, there are lots of great tools available that make backing up your data quick, easy and free – which only leaves the problem of deciding which one to use. In this feature, we round up and compare the best backup options available to see what tools they offer to keep your precious files safe. We also reveal the best ways to back up specific types of data and device to ensure you never lose anything important again.

Best free backup tools

You don't need to pay for backup software to ensure your files are copied somewhere safe. Here we compare the best free tools for the job
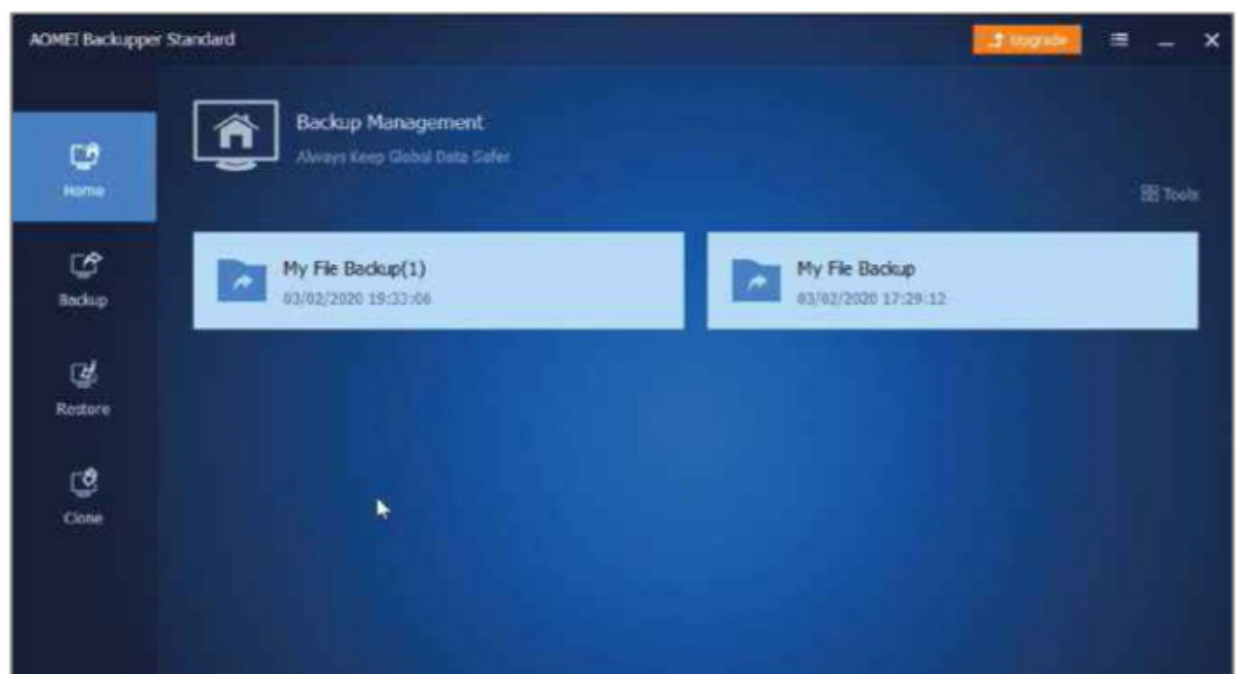
AOMEI Backupper Standard 5.6 | bit.ly/backupper495 | ★★★★★
FEATURES ★★★★★   PERFORMANCE ★★★★★   EASE OF USE ★★★★★

What we liked:

Backing up the contents of your computer doesn't have to be difficult, as AOMEI Backupper Standard proves. This excellent free tool has a streamlined interface that's easy to use and offers a wealth of useful options. It can back up your system drive, hard disks, partitions, files and folders, and also clone drives and partitions. You can back up and sync to a local or external drive, USB stick, network server, NAS device or even a cloud-storage service such as OneDrive.

The Standard edition lets you schedule regular backups at a time and frequency that suit you. It offers a choice of two backup types: Full, which backs up everything, and Incremental, which backs up only files that have changed since the last backup. A Differential backup option, which targets files that have changed since the last *full* backup, is available only to users who pay for the Pro edition.

AOMEI Backupper Standard has an interface that's streamlined and easy to use

If you choose, Backupper Standard installs a service that runs scheduled tasks, and can even run a missed backup when your PC next starts up. Alternatively, you can use Windows Task Scheduler for this. The latest version of the software adds the ability to wake your PC from sleep or hibernation to run scheduled tasks, which it does two minutes before the task is due to run.

You have several options for how the software creates your backups. Intelligent Sector Backup is the recommended choice and produces smaller image files, while Exact Backups is more precise but results in larger files. Alternatively, you can use Microsoft's Volume Snapshot Service (VSS) method or AOMEI's own backup service. There are also three compression options – none, normal or high compression – and you can divide backups into custom-sized chunks or choose from the predetermined sizes.

Restoring a backup is easy enough: click the Restore button and choose to restore from a previous task, or navigate to a saved Image file.

Additional tools in Backupper Standard include a backup image explorer and the ability to create an emergency boot disk that uses either Linux or Windows PE. The program can also run commands before or after performing a backup or synchronisation.
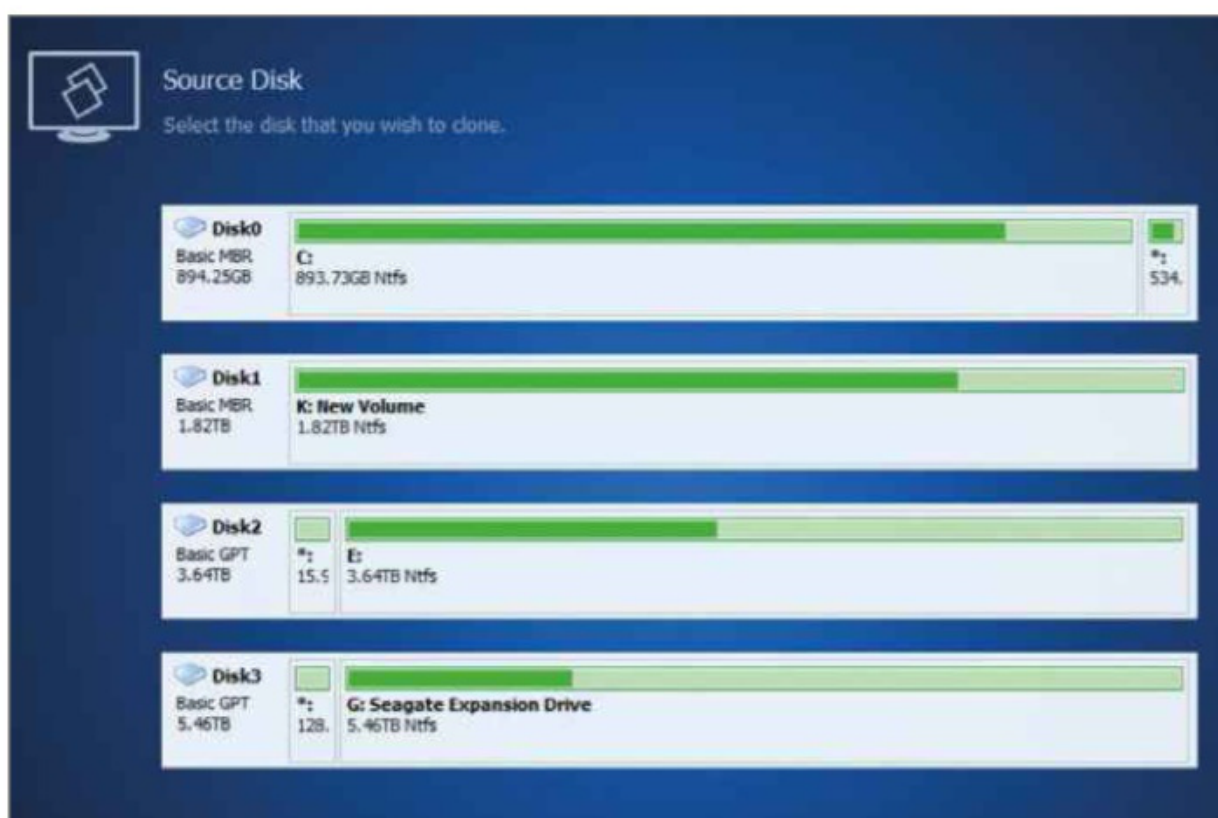
You can clone partitions and drives for free but not your entire system

Back up to OneDrive using AOMEI Backupper Standard

1 Backing up and syncing your files to cloud storage services such as OneDrive and Google Drive is easy with Backupper Standard, as long as you have enough free space in your online account. Click Backup on the left, **1** then choose the File Backup option. **2**
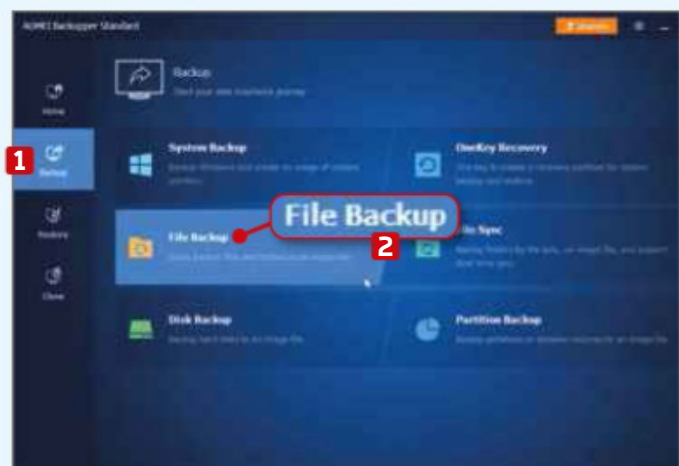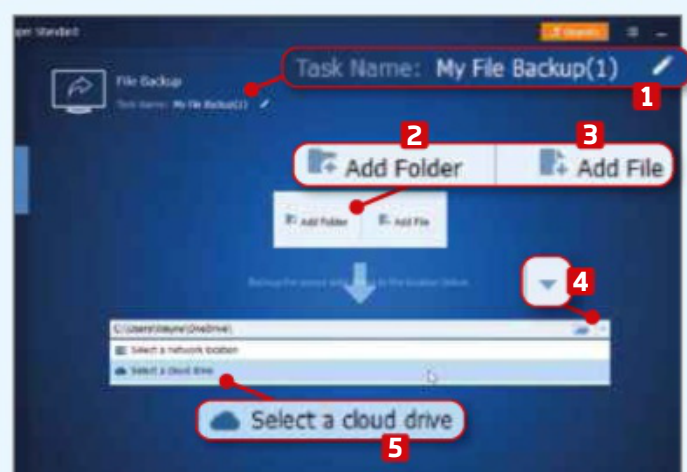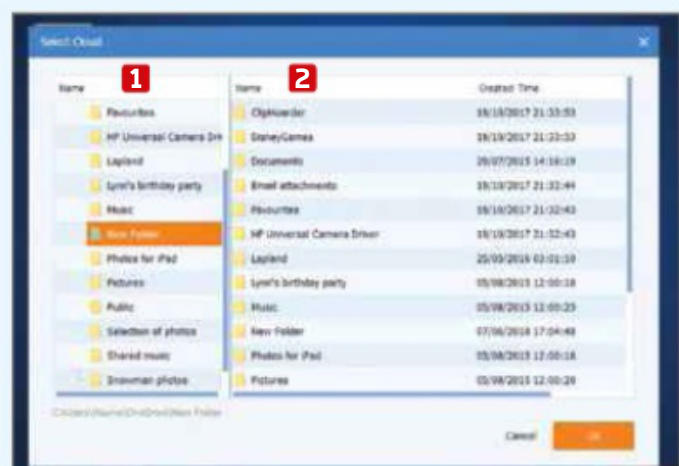

2 You can change the name of this task at the top **1** if you wish. Then click the Add Folder **2** or Add File **3** button and navigate to the items you want to back up. Click the arrow at the far right of the destination bar, **4** then choose 'Select a cloud drive' from the drop-down menu. **5**

3 In the next window, double-click the OneDrive entry **1** and select the folder in which you want to save your back up. **2** There's no option to create a new folder here, so you'll need to do that yourself in the cloud service. Once you've created your folder, return to the File Backup page and click the Start Backup button or schedule the task.
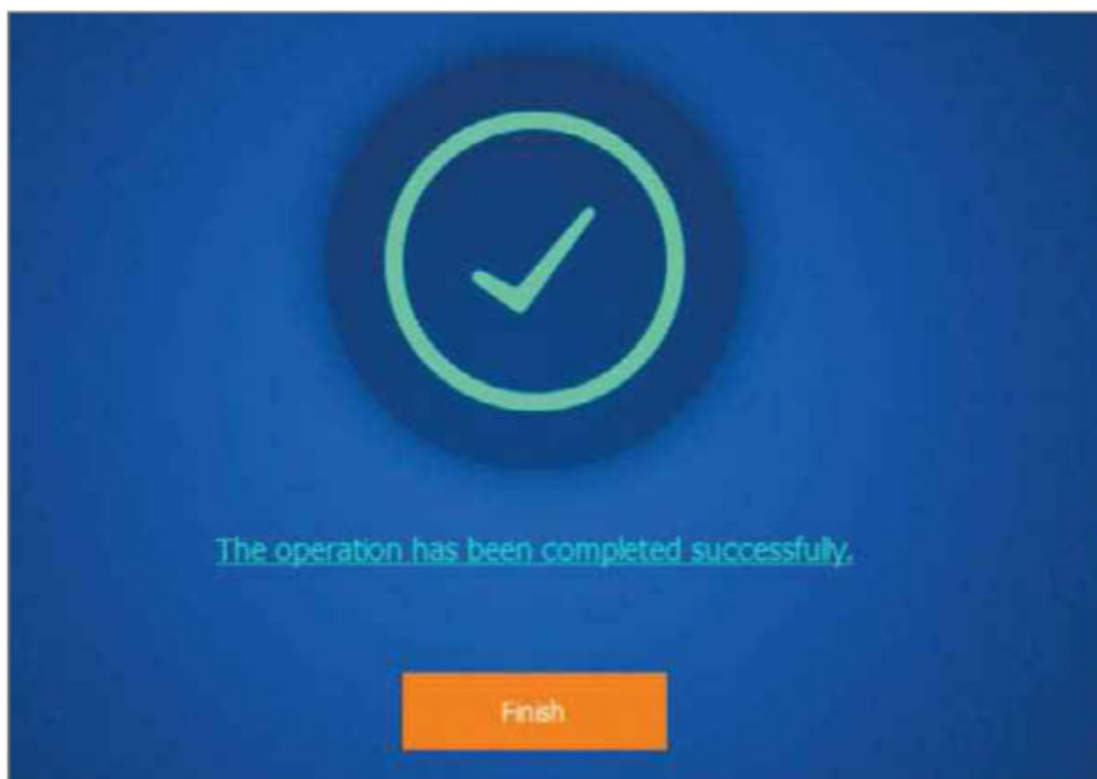
AOMEI Backupper Standard works quickly and reliably, bringing peace of mind

How it can be improved:
Not everyone will appreciate Backupper's basic interface, and some features – notably system clone (which can move your entire system from one drive to another, including the OS and apps), Differential backup, and SMS and email notifications – are available only in the Professional edition, which costs $49.95 (£37.80)

While you can schedule daily, weekly or monthly backups for free, features such as event triggers, USB plug-in and real-time sync are all reserved for Professional users.

OUR VERDICT
AOMEI Backupper Standard is easy to use and powerful enough to satisfy the backup needs of most home users. The free version lacks a few features we'd like to see, such as Differential backups, but otherwise it's a quick, thorough and reliable backup tool.

MADE IN CHINA

There isn't much to choose between our Gold and Silver Award winners. Each has its pros and cons, and you can't really go wrong with either of them. However, both products have Chinese origins. EaseUS (the company behind ToDo Backup Free – opposite) is owned by ChengDu Yiwo Tech Development Co, while AOMEI is owned by ChengDu AoMei Tech Co, Ltd. Both companies have their headquarters in Chengdu, the capital of southwestern China's Sichuan province. Meanwhile, our Bronze winner, Minitool, has headquarters in Canada but also in Hong Kong.

There's no reason to distrust these products, but some people are suspicious of China and Chinese companies – as you'll know if you've followed news of the talks between the UK and Huawei over implementing our 5G infrastructure, and the critical response from the US. You should at least be aware of who you're dealing with.

EaseUS ToDo Backup Free 12 | bit.ly/todo495 | ★★★★★

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

WebUser SILVER AWARD

What we liked:
ToDo Backup Free is easy to use and can back up your hard drives, partitions, individual files or your entire operating system, as well as clone disks. The clean interface offers quick access to the tool's various options through a strip down the left-hand side.

The program offers Full, Incremental and Differential backups, which you can run manually or according to a schedule. You can set automatic updates to run daily, weekly or monthly, at a date, time and interval that suits you, and the software can wake your computer to run a backup if it's asleep. If you miss a backup, ToDo Backup can perform that task when you next power up your PC. An 'image-reserve strategy' ensures you have only as many backup

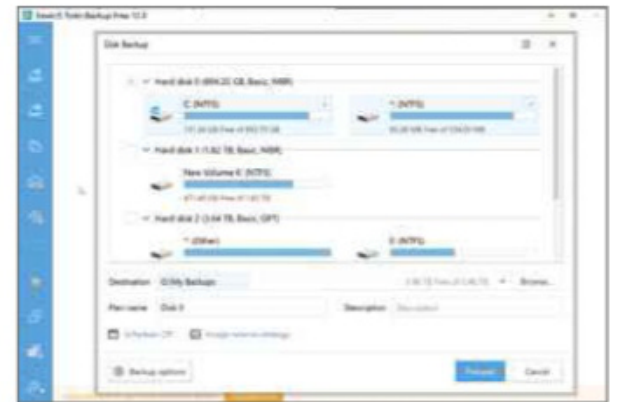*You can create an emergency disk to restore your system if things go wrong*

copies as you need, which helps minimise the amount of space used.

For further space savings, the software can compress your backups, offering a choice of normal, fast or high compression, and also encrypt them for security. You can adjust the priority and transfer speeds of backups on your network, although backup and restore speeds are limited for free users.

ToDo Backup Free also comes with a number of tools that let you check a disk image, create an emergency rescue disk, mount or unmount a drive and refresh a disk.

How it can be improved:
EaseUS ToDo Backup has long been one of our favourite backup tools, but some of its most important features are now missing from the free version, which means it's not quite as easy to recommend as it was. You can't clone your entire system or transfer it to another PC for free, and the Smart Backup feature, which targets your most important locations, isn't available either. The free version can schedule backups at a time that suits you, but the Home edition, which costs from $29.95
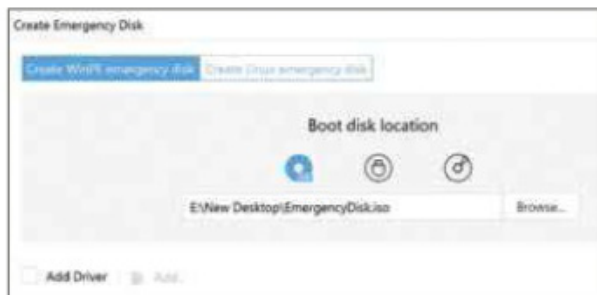

EaseUS ToDo Backup Free's well-designed interface makes it easy to use

(£22.67) per year, can initiate a backup in response to an event, too, such as system startup or shutdown, or plugging in a USB stick.

Email notifications and file exclusions are two more features you have to pay for, which is disappointing.

OUR VERDICT
You can't really go wrong with EaseUS ToDo Backup Free because it offers most of the features you're likely to need, but AOMEI Backupper Standard just pips it to our Gold Award this time.

MiniTool ShadowMaker Free 3.2 | bit.ly/shadowm495 | ★★★★☆

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

WebUser BRONZE AWARD

What we liked:
MiniTool ShadowMaker lets you back up your hard drives and partitions, as well as folders and files. You can run backups manually or schedule them at a frequency that suits you, and also create a rescue disk that will restore your operating system to a previous state if your PC fails to boot.

The interface is simple but attractive, with a strip along the top that takes you to the Home, Backup, Sync and Restore screens, as well as the Manage, Logs and Tools sections. Creating a backup is

ShadowMaker's simple interface puts its most important tools on the home screen

just a matter of selecting a source and a destination, then choosing to back up now or later. You can opt for high, medium or no compression, add comments to backups, receive email notifications when a backup is complete, exclude Windows Page File and Hibernation files, and password-protect and verify your backups.

If you want to sync files or folders, select the source and destination, then click Sync Now. The Tools section includes a media builder, and lets you add a boot menu, mount or dismount tasks and clone a disk.

How it can be improved:
ShadowMaker Free looks good and is easy to use but, like a lot of similar tools, it reserves many of its more useful features for the paid-for Pro edition, which costs from $29 (£22.08). To make matters worse, you can't really tell what's missing until you try to access something – such as remote backup, back up on event, the ability to change data encryption and more – which

Dig deeper and you can unlock additional options such as the media builder

brings up a table summarising the differences between the free and paid editions. It would be much less frustrating if the unavailable features were clearly labelled as such.

OUR VERDICT
ShadowMaker offers many of the features we'd expect from a free backup tool, but the interface doesn't make it clear which options are unavailable in the free version. It would be useful if we could change the backup scheme, too.

Best of the rest

Macrium Reflect 7 Free Edition
bit.ly/macrium495

Macrium Reflect isn't strictly a backup tool like the other programs featured here. Instead, it's designed to create a copy of a hard disk or partition. This is useful if you need to restore your system in the event of a major problem, or if you're upgrading to a new hard drive. As well as disk imaging and cloning, the software can create a bootable rescue disk. It's very good at what it does, but if you want to back up individual files or folders, you'll need to upgrade to the paid edition. This costs £47.95, although a 30-day trial is available that reverts to the free edition

Macrium Reflect Free lets you back up drives and partitions rather than files

when it expires and doesn't require a credit card number to activate.

The free version is licensed for commercial as well as home use, which means you can run the program in an office environment, provided you only back up and restore single PCs.

OVERALL ★★★★☆

Paragon Backup & Recovery 17 Community Edition
bit.ly/paragon495

The Community Edition of Paragon's backup tool is free for non-commercial use and can back up your entire computer (including all your drives), individual disks and volumes, or specific

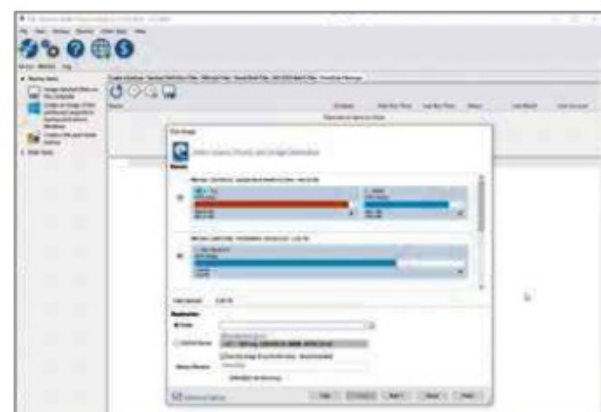*Paragon's free software offers a good mix of backup and recovery options*

files and folders. You can save the backup to a local folder, an external drive or a networked location, and the tool even provides information on your drives and partitions, including the capacity, free space, file system and disk type. Run a backup on demand or schedule automatic backups for a date, time and frequency that suits you.
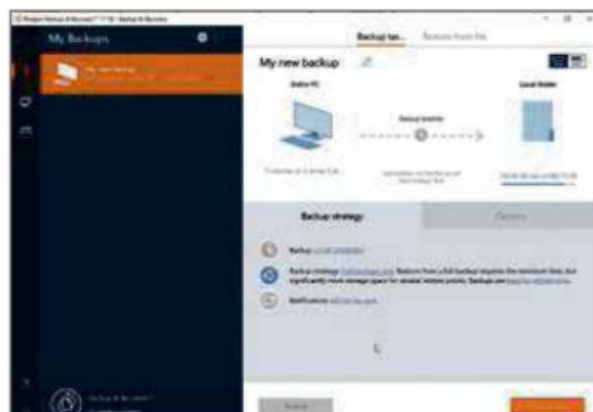
One useful feature is that you can browse your archives as you would any disk, making it easy to recover individual files. You can also create a rescue disk for use in the event of a disaster.

This is a good program, but it lacks some of the backup features found elsewhere.

OVERALL ★★★★☆

Iperius Backup Free 6.5
bit.ly/iperius495

Iperius Backup Free can back up your files, folders, drives and partitions to local and networked disks, USB flash drives and NAS devices. You can run Full, Incremental, Differential or scheduled backups, compress your files to Zip format (with no limitations) and execute external scripts and programs before or after a backup. When the backup is complete, this tool will send you an email notification and shut down your computer. If you want to back up a drive image, create recovery media or save to FTP and cloud-storage services, you'll need to upgrade to the Home version, which costs from €29 (£24.24).

OVERALL ★★★☆☆

Iperius Backup Free offers differential backups but lacks other key options

Cobian Backup 11
bit.ly/cobian495

Back in 2013, Cobian Backup's creator sold the source code to a developer but kept the rights to version 11 (codenamed Gravity). This version is still available to download for free, and it works with Windows 10. It's easy enough to use – just create a new task, choose what to back up and where (directory, FTP or manual),

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SHOULD YOU PAY FOR BACKUP SOFTWARE?

The answer to this question largely depends on what data you have on your PC and how important it is. If you use a free tool to save a copy of your data to another drive, and also back up your photos and important documents to a cloud service such as OneDrive, that's probably all you need. We always recommend keeping backups in more than one location, just in case. You should also avoid backing up to a drive that's in or connected to your PC, because that won't help you if your PC is stolen or infected with ransomware.

If you have a large quantity of essential data on your PC, such as work documents, photos and invoices, paying for a cloud backup is a wise choice, and you won't need to worry about running out of storage space. One of our favourite backup services is Backblaze (www.backblaze.com), which offers unlimited cloud backups with no restrictions on file sizes or how often you can restore data, and costs just $6 (£4.54) a month or $60 (£45.45) a year. It's available for Windows and macOS, and you can access your files on iOS and Android devices. It supports two-factor authentication (2FA) for additional security, too.

Carbonite (www.carbonite.com) is one of the better known cloud backup services. Backing up a single computer costs $6 (around £4.54) a month (billed annually) and provides unlimited storage. For $9.34 a month (around £7.07) the Plus version adds external hard drive backup and automatic video backup. You can make further savings by switching from a one-year subscription to a two- or three-year plan.

If you're willing to pay for backup, then Backblaze is an excellent choice

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DELETE YOUR OLD WINDOWS BACKUPS

Cobian Backup has lots of useful features but it's starting to show its age

then select a backup type (Full, Incremental, Differential or Dummy) and set a schedule. Backups can be compressed and encrypted, too. There are lots of settings to play with, and it works very well.

However, Cobian Backup looks rather dated – the developer is said to be planning a new backup program to replace it. As a result, this software can't really compete with newer tools that are updated more often.

OVERALL ★★★☆☆

While it's important to back up your files regularly, you'll quickly fill your destination drive if you don't manage your backups properly. If you use Windows' own backup tools, such as File History, or 'Backup and Restore', it's all to easy to run out of space.

File History (pictured) is available in Windows 8 and 10, and backs up your desktop, documents, images, music and more. To delete old backups, type `control panel` into the Windows search box and press Enter. Open 'System and Security', then click File History and choose the Advanced Settings link on the left. From here, you can set how often to save copies of files, and how long to keep saved versions. Change this from Forever (the default option) to something like '1 month'. Click the 'Clean up versions' link to delete older backups. Your options range from 'All but the latest one' to 'Older than 2 years', but 'Older than 3 months' is probably best.

If you're using 'Backup and Restore', open Settings and select 'Update & security'. Click Backup on the left, then the 'Go to Backup and Restore (Windows 7)' link and choose 'Manage space'. The window that opens gives you the option to view backups and change settings. The second option lets you set how long Windows keeps older system images. Click 'View backups' and you'll be able to delete the older ones.

Keep saved versions: Forever (default)

Back up everything you're not

Backup software is great for copying files, drives and partitions, but there are other options for specific types of content. Here are some of the best

Back up your emails

There are a number of ways to back up your emails so you don't lose important messages, but MailStore Home (bit.ly/mshome495) is our favourite. This free program works with POP3, IMAP and all major webmail services, including Gmail and Outlook .com, and adding new accounts is easy, because the software does most of the configuration for you. It backs up all

Back up your emails using MailStore Home to safeguard your messages

your messages to a location on your hard drive and lets you search through them, read their contents and restore them to your email account. Everything is fully encrypted for security purposes.

Back up photos and videos

If you have an Android phone, backing up your snaps automatically to Google Photos makes a lot of sense.

Preserve your precious pictures by backing them up to Google Photos

Similarly, iPhone users can back up to Apple iCloud or use Google's service instead. If you take a lot of snaps, you'll run out of free cloud storage space in no time, but upgrading to a larger amount doesn't cost much: 100GB of Google Drive storage (which includes photos) costs from £1.59 a month, while iCloud costs 79p a month for 50GB, £2.49 for 200GB and £6.99 a month for a massive 2TB of storage.
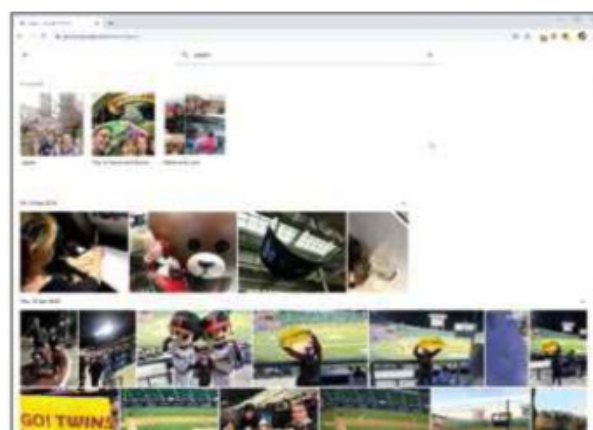
Back up your phone and tablet

We've already recommended Apple iCloud and Google Drive for storing photos from iOS and Android devices. These services are all you need to back up other data on your phone or tablet, too, because they're included with the device as standard.

Alternatively, you can connect your phone or tablet to your PC and copy

Use iCloud to back up your iPhone or iPad and protect yourself against loss and theft

Back up your WhatApp chats to the cloud in case you lose your phone

ImageUSB lets you make an exact copy of the contents of a USB stick

files to it that way, or use a third-party cloud storage service and app such as OneDrive or Dropbox.

Back up your browser

Browsers including Chrome and Firefox save your browsing history, favourites, add-ons, cookies, preferences and other settings in your user profile. You can back this up manually by exporting that data, or use a tool such as Simple Firefox Backup (bit.ly/ffback495) for Mozilla's browser, or FBackup (www.fbackup. com) for Chrome and Firefox profiles, Edge Favorites and more.
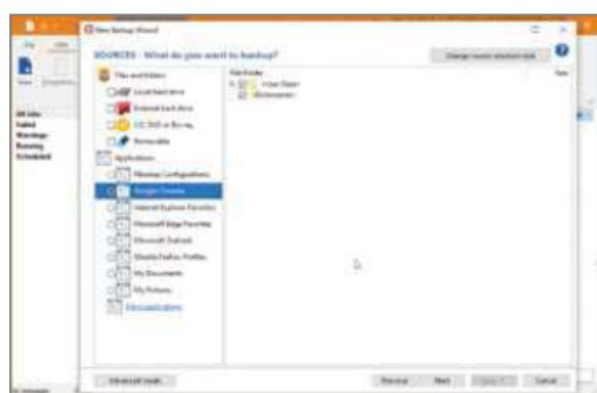
Create a backup of your browser's user profile to avoid losing data

Back up messaging chats

To back up WhatsApp chats on your mobile device, tap Settings, Chats and choose Chat Backup. If you use an iPhone, your chats are backed up to iCloud, while on an Android device, they're backed up to Google Drive. You can access these backups through your web browser on a PC or Mac.

To back up Facebook messages, log into Facebook on your computer, click the down arrow in the top-right of the screen and open Settings. Click 'Your Facebook Information', then 'Download your information'. Deselect everything, then reselect Messages to download just those conversations.

Back up your SD cards

Google Backup and Sync (bit.ly/ googlesync495) can upload copies of files from SD cards, cameras and folders to Google Drive/Photos. You need a Google account to use it, but you can sign up for a new one if you need to, which may be useful for keeping your images separate from other backups.

Back up a USB stick

If you want to back up a USB flash drive, the easiest way is to open it in File Explorer and copy the contents of the drive to a new location. However, if you want to make an exact bit-level copy of your drive, use the free tool ImageUSB (bit.ly/imageusb495). This can clone a drive and write its contents to multiple USB sticks. The result is an exact copy, including the Master Boot Record (MBR) and any free space. Make sure your destination drive isn't much larger than the source, however, or you could lose a lot of usable space – copy
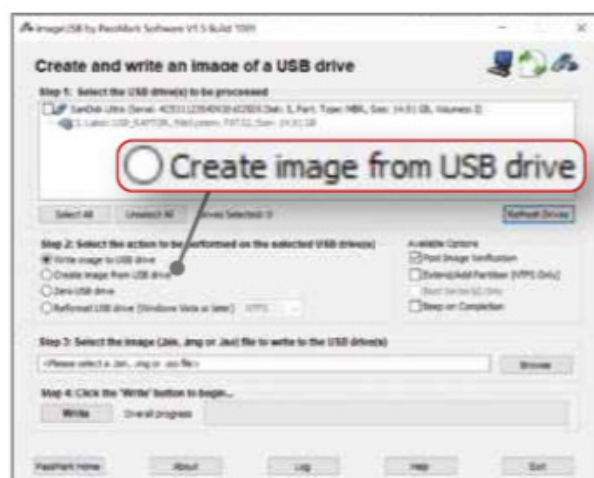
an 8GB drive to a 16GB drive using this software, for example, and you'll lose 8GB of the destination drive.

Protect important files using OneDrive

Microsoft's cloud storage service offers a feature that automatically syncs your Windows documents, pictures and desktop folders. To use it, click the OneDrive icon in the Windows 10 system tray and choose More, Settings. Open the 'Back up' tab, then click 'Manage backup' and choose what you want to include by clicking any of the three options (Desktop, Pictures and Documents). Windows tells you how much space each item takes up, as well as how much free space you have on OneDrive. ■
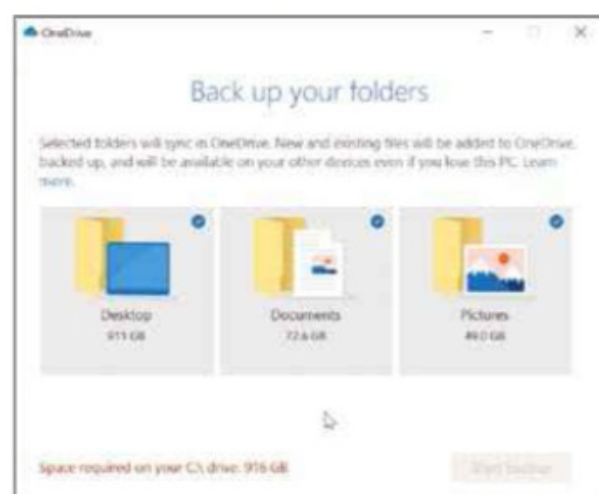
Take the hassle out of backing up by syncing files automatically with OneDrive

Clever uses for What3words

Traditional postcodes often prove vague and inaccurate, especially on roads and in rural areas. **Barry Collins** explains how What3words makes pinpointing locations much easier

///scuba.dream.round

What3words (what3words.com) has divided the entire globe into 3 x 3m squares – around 57 trillion of them! Each square, even those slap bang in the middle of the Atlantic, has a three-word address. So, for example, the entrance to 10 Downing Street is at **slurs.this.shark**. To try it yourself, download the free What3words app for Android (bit.ly/w3wdroid495) or iOS (bit.ly/w3wios495) or enter the address on its website. Here are just a few of the handy things you can do with What3words.

/// Report a breakdown

Speaking as someone who recently spent two hours on a freezing hard shoulder because my breakdown vehicle was sent to a location eight miles away, I was hugely relieved to hear that the AA has started accepting What3words addresses. If your car breaks down, open the What3words app, press the crosshairs button to get your precise location, then give the three-word address that appears on screen to the call handler. No more guesswork over which junctions of the M25 you're stuck between.

///pimples.valuables.squeezed
SHAP, CUMBRIA

/// Find friends and family in the open

Imagine you're on a walking holiday near Grasmere in the Lake District. You've split from your companions and

///cheaper.umbrellas.broken

now you're trying to direct them towards you, but "over here by the big tree" doesn't really cut it. What3words doesn't care if you're nowhere near a road, a building or an obvious landmark. Press the location button and you can tell your companions you're at **cheaper.umbrellas.broken** and be reunited in minutes, as long as they have the app, too. The same applies in car parks, at festivals or anywhere else you might spend five minutes trying to describe where you are.

/// Help identify vulnerable people

It's a sad fact of life that not everyone has an address. What3words is helping those who don't have a roof over their heads, let alone a postcode. The Sleep Pod charity (sleeppod.org.uk) provides emergency tents to help the homeless stay warm and dry in the wintry weather. It now accepts What3words addresses in cities such as Bristol so that members of the public can report a vulnerable person, and volunteers can easily locate them and offer shelter.

/// Talk to your sat-nav

If you've ever tried using voice commands to set a destination in your car's sat-nav, you'll know that it can be a painfully slow process. Thankfully, What3words is working with car manufacturers such as Mercedes to integrate its service with their in-car navigation systems. This means you'll be able to tell the car to drive to **forces.**

cool view spark

draw.putty, for example, and receive directions to the car park behind Old Trafford, rather than trying to work out its address.

/// Go orienteering offline

Now there's no need to worry about soggy maps. With What3words, you can create an orienteering course that directs people to different three-word locations. But what if they can't receive a signal on their phone? Not a problem. What3words works offline, too. Even if there's no data signal to download the map, you can switch to compass mode and follow the pointer to your next destination. It tells you the distance to the next location, too.

Compass
Your Destination
///ordinary.shrimp.shrugging
ordinary.shrimp.shrugging
saga.trophy.dorms
Your Current Location
///saga.trophy.dorms
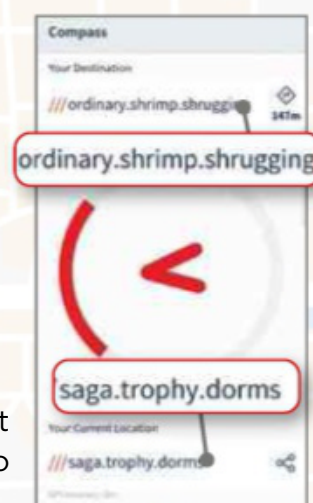
/// Get a unique door sign

Want a door sign that stands out on the street? The What3words shop (shop.what3words.com) sells personalised plaques bearing your three-word address, which you can fix to your front door or office building. It's certainly a talking point, and the signs are reasonably priced at £9 upwards. ∎

///your.three.words
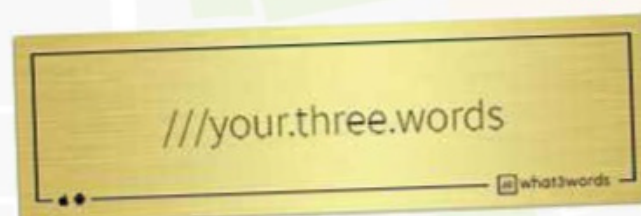
Reinstall RESURRECTED

Lots of great programs abandoned by their developers have been brought
Robert Irvine rounds up the best classic software you can still use safely to

Windows Movie Maker 6
Discontinued: 2009
Get it from: bit.ly/movie495

Microsoft introduced its classic video-editing program with Windows Me in 2000. Movie Maker was included in XP and Vista, too, before Microsoft ditched it from Windows 7 in favour of an inferior version that appeared in the Windows Live Essentials suite. Following its final release in 2012, Movie Maker was removed from the web in 2017 and replaced by the video editor in Windows 10's Photos app.

If, like many users, you believe Movie Maker achieved perfection in version 6, you'll be pleased to learn that you can still download it from the blog in the link above. Optimised for PCs running 32-bit or 64-bit Windows 7, 8.1 or 10, it lets you enjoy all the benefits of the old software, including the timeline, effects, titles, narration and simple interface.

Be warned, however, that there are lots of dodgy downloads masquerading as Windows Movie Maker, which may contain malware, although this one was deemed completely clean by VirusTotal.

If you'd prefer a more modern take on the program that offers additional features and works with a wider range of video formats, MiniTool is a good free alternative (moviemaker.minitool.com). We covered this excellent program in last issue's Best Free Software section.

Winamp
Discontinued: 2013
Get it from: www.winamp.com

The hugely popular Winamp media player was treated pretty shabbily after AOL bought its development company, Nullsoft, and the once-great program was soon usurped by iTunes. After abandoning Winamp in 2013, AOL sold it to the Belgian radio service Radionomy, which proceeded to do nothing with it for four-and-a-half years.

Finally, in 2018, there were rumours that Winamp was set to make a comeback in a more streaming-friendly version and an early build was leaked online. Radionomy responded to the leak by releasing an official beta through the Winamp website that had been updated to work on Windows 8.1 and 10.

We've heard nothing since, but if you want to reinstall Winamp and listen to your music through its pleasantly nostalgic interface, we'd recommend using the official download link for Winamp 5.8, which the developers "guarantee is safe for you to use". As Radionomy closed its streaming service last month, it's possible that Winamp could change hands again and we may yet see a version 6. You can still get help with the software and its many plugins and skins by visiting the Winamp forums (forums.winamp.com).

Classic Shell
(now Open-Shell)
Discontinued: 2017
Get it from: bit.ly/shell495

Classic Shell had been around for years before it suddenly gained popularity in the wake of Microsoft's ill-advised plan to make Windows 8 without a Start button or menu. This handy free tool gave users a choice of three 'classic' Start-menu styles, all offering instant access to your important programs, documents and settings. Many users stuck with it even after the Start menu made its official return in Windows 10.

When Classic Shell's developer abandoned the program in 2017, he published the source code so others could continue the project, and it soon re-emerged as Classic Start, before changing its name (for copyright
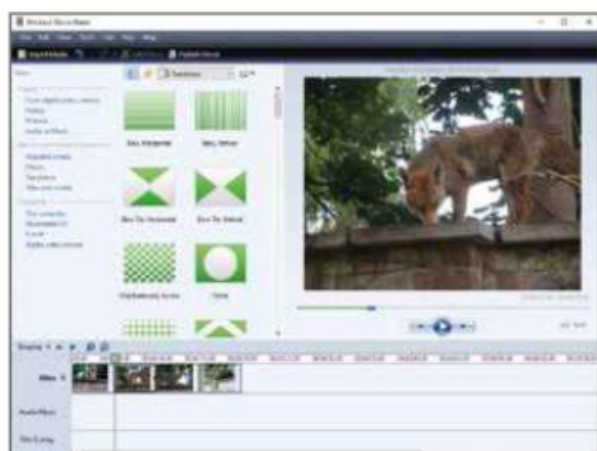
Edit your videos like it's 2009 using the classic version 6 of Windows Movie Maker

Winamp's comeback has stalled but you can still download the most recent version

Customise the Windows Start menu using Classic Shell replacement Open-Shell

software
back from the dead.
day

DOWNLOAD SAFE OLD SOFTWARE

When companies stop supporting a program and remove its official download links, scammers and hackers often try to trick web users into installing fake, malware-infected versions. If you're desperate to get hold of a discontinued tool, visit OldVersion.com (www.oldversion .com) or OldApps (www.oldapps .com), rather than searching for it on Google. These repositories offer thousands of old versions of programs for Windows, macOS and Linux, "because newer is not always better", across categories such as Image Editing, Audio Utilities and Office. Just click the name of an abandonware application and choose the version you want to download.

Remember that outdated editions of web-connected software, such as browsers, communication tools and security programs, put your PC at risk, so they're best avoided.

reasons) to Open-Shell. This works in exactly the same way as the original software, allowing you to customise the Start menu and button to suit your taste and needs, no matter which version of Windows you're running.

TrueCrypt (now VeraCrypt)
Discontinued: 2014
Get it from: www.veracrypt.fr/en

TrueCrypt was the preferred encryption tool of security experts, until it was suddenly discontinued six years ago, with the developers warning of "unfixed security issues". They also suggested that the program was no longer necessary because Windows now offered built-in support for encrypted drives and virtual-disk images.

Plenty of loyal TrueCrypt fans disagreed, and the software was swiftly 'forked' into VeraCrypt, which looks almost exactly the same as its predecessor and is constantly updated to fix and prevent security flaws. This powerful free tool can encrypt any hard drive or partition and even transform a spare USB stick into a portable private vault for your most sensitive data. It also offers more algorithm options than TrueCrypt for encrypting your files, including AES, Twofish and Serpent.
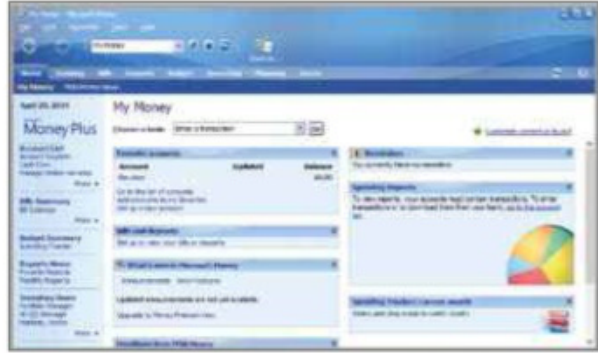
Microsoft Money
Discontinued: 2009 (2004 for UK version)
Get it from: bit.ly/money495

With so many clever online tools and mobile apps available to help you manage your money these days, you may be wondering what's so appealing about Microsoft's long-defunct Money software. However, there are plenty of people who'll tell you it's never been bettered.

Money Plus Sunset Deluxe was released in 2011 for users who were reluctant to ditch the original program, and you can still download it for free today. This cut-down version uses the same simple interface and lets you import financial data or enter it manually; use scheduled transactions to ensure you pay your bills on time; create and track a budget; and view and print reports of your income, expenses and savings. Despite what the web page says, the software works perfectly well in Windows 10, too, although it lacks any online tools or support.

On the downside, Sunset Deluxe isn't compatible with data files created using old, non-US editions of Microsoft Money – you'll need to export those to Quicken (QIF) format to open them. It also overwrites any existing versions of Microsoft Money installed on your PC.

Hiren's Boot CD
Discontinued: 2012
Get it from: bit.ly/hirens495

Hiren's Boot CD was once considered the king of free bootable-recovery disks – an essential all-in-one tool for any IT professional or computer buff looking to sort out a failing or faulty PC. Then, for a long time, the project was discontinued, until fans took up the challenge to bring it back and keep it in development for a new audience.

The resurrected Hiren's Boot CD uses Windows PE, a lightweight version of Windows 10, but it still provides every tool you need to repair or recover a broken or malware-infected PC. These include driver-management tools, a reset-password feature for when you're locked out, useful programs such as Rufus and Malwarebytes, and the ability to retrieve lost files from your hard drive. If your computer is particularly old, you can also download official, pre-discontinuation editions of the software from the website. ∎

VeraCrypt is an updated replacement for discontinued encryption tool TrueCrypt

The sun hasn't set on Microsoft Money – the Deluxe edition is still available

Hiren's Boot CD was too good for its fans to lose so they rebooted the project

Best free portable image viewers

There are better ways to browse and view your images than the Microsoft Photos app in Windows 10, especially if you need a tool you can take anywhere. **Steve Clark** puts six portable image viewers in the frame

FastStone Image Viewer | bit.ly/faststone495 | ★★★★★

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

WebUser GOLD AWARD

What we liked:

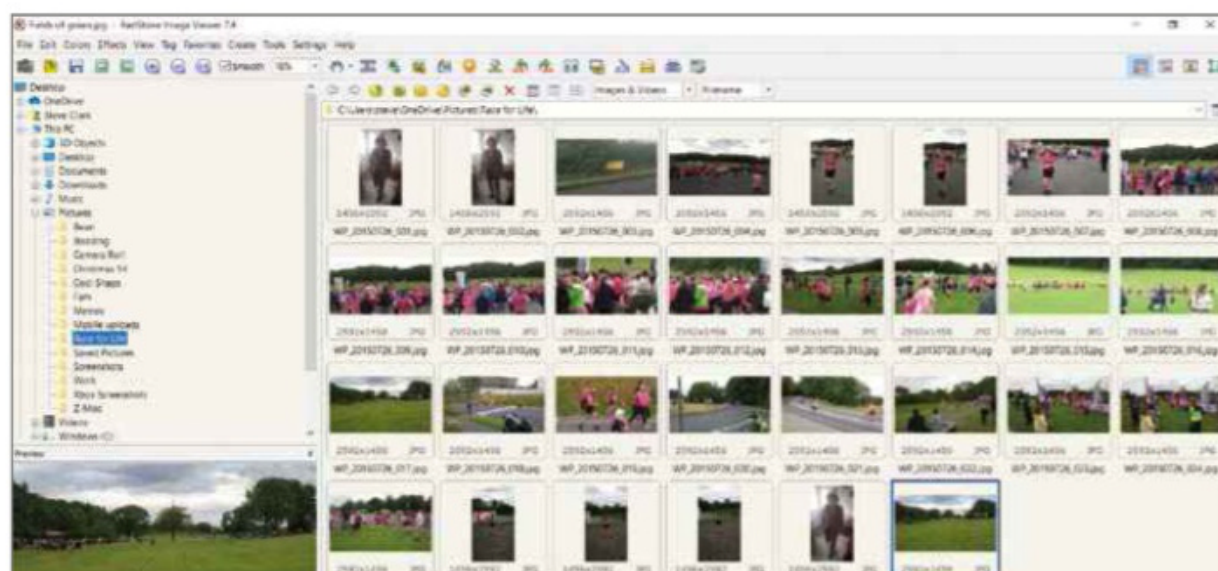Microsoft's latest Photos app now comes as part of Windows 10 whether you like it or not. As with most bundled programs, however, that doesn't mean there aren't better options available. We set ourselves the task of finding alternative lightweight portable image viewers that offer faster and more efficient ways to view your photos.

Ask people to recommend an alternative image viewer and you won't have to wait long before someone mentions FastStone. Famous for its speed and simplicity, this hard-working program supports most image formats.

It's this simplicity that informs FastStone Image Viewer's design. A toolbar of quick actions along the top caters for most needs, while three icons at the far end let you switch layouts without having to scour drop-down menus. Double-click an image to open it in glorious, distraction-free full screen and to enable one-click grab-and-zoom.

FastStone Image Viewer is streamlined but not short of features. It offers a basic range of effects, including a couple that turn your photo into an oil painting or a sketch. This is perhaps a little cheesy in the age of powerful PhotoShop filters, but you'll also find more useful tools for creating borders and adding watermarks. Colour tweaks, lighting adjustments and image sharpening are on hand in their most basic (though arguably more useful) forms, and FastStone handles image conversions with ease. With just a couple of clicks, your JPEG becomes a TIFF or a GIF.

The program also receives regular updates to iron out bugs, improve performance and add new filetypes.

How it can be improved:

It's rare that we come across a piece of software that can't really be improved. At the very least, we usually find a slight niggle. More often than not, we stumble on a glaring oversight or design flaw. FastStone Image Viewer, however, does its job perfectly. There's nothing to add to this well-oiled machine that the developers aren't probably already working on in the background.

OUR VERDICT

FastStone Image Viewer is a streamlined and incredibly capable tool that meets every user's basic requirements. This is one portable image viewer that you'll want to use wherever you go.

IrfanView | www.irfanview.com | ★★★★☆
FEATURES ★★★★☆   PERFORMANCE ★★★★★   EASE OF USE ★★★★★

WebUser SILVER AWARD

What we liked:

FastStone may be the first name on everyone's lips when it comes to image viewers, but IrfanView is never far behind. As quick and lightweight as its rival, this single-pane tool places the focus solely on your photos. We love the Blade Runner-style effect of zeroing in on specific areas of photos, then clicking inside the box to zoom in further.

The interface places a handful of basic actions in a row above the image, while the more in-depth controls are hidden away in menu tabs. Don't let the design fool you: IrfanView packs in plenty of photo-enhancing options and effects. Visit the Image tab and you'll find a host of image-editing options – in fact, the list is so long that a few more sub-menus would make it easier to use. It's here that you can perform most tweaks, from rotation and panorama creation to colour corrections.

Like FastStone, IrfanView also receives frequent updates from its developers.

How it can be improved:

There are a few minor tweaks IrfanView could make. For instance, it doesn't offer a tree-view layout – although once you've opened a photo in File Explorer, you can at least cycle through every image in the folder. Also, despite offering a plugin that can edit the date and time in a photo's EXIF data, there's no option to wipe the data, which seems odd in these security-conscious times.

OUR VERDICT

If you want a truly basic tool – and we mean that as a compliment – IrfanView deserves space on your USB stick. Not only does it display photos, it lets you edit them, too.

Honeyview | bit.ly/honey495 | ★★★★☆
FEATURES ★★★☆☆   PERFORMANCE ★★★★★   EASE OF USE ★★★★★

WebUser BRONZE AWARD

What we liked:

Like Microsoft Photos, Honeyview is an incredibly simple program that mixes image viewing with basic editing tools in a svelte package. And the emphasis here is firmly on 'basic'.

A playback-style bar at the foot of the screen lets you open photos and cycle between them using the 'fast-forward' and 'rewind' buttons. Zoom and rotate controls are within easy reach, too. In the centre of this bar is a handy slider control that lets you flick effortlessly between images. Or, if you're feeling playful, you can drag the slider back and forth to create the illusion of video.

There are no fancy tab menus here. Six buttons provide access to all HoneyView's other functions, such as the EXIF icon, which lets you view any data embedded in the photo, including when and where it was taken, and the model of camera used.

Click the Edit button and you're hardly spoilt for choice: the only controls on offer are convert, copy, open, and set as background image.

How it can be improved:

A few more editing options wouldn't go amiss, even if you don't need much more than the Windows 10 program offers. If you right-click a photo, you'll find a few extras in the context menu but Honeyview is not a practical choice for anything but the most basic uses.

OUR VERDICT

If you want something just like Microsoft Photos, Honeyview is your best bet. The minimalist layout and foolproof playback bar are great, as is its wide format support. The lack of features lets it down, however.

BEST OF THE REST

EZView
bit.ly/ezview495

At first glance, EZView may seem lacking compared with other tools in our test. For a start, its list of supported image formats isn't quite as encyclopaedic, although it can handle the most common file types, so that shouldn't be a problem. There's a customisable ribbon of hot-keys, but with so few options – and no editing tools whatsoever – it's hard to see what's worth removing. Used strictly as an image viewer, however, it's fast and easy to use.

JPEGView
bit.ly/jpeg495

JPEGView is so super-light, it barely has an interface at all. Images open in full-screen with a few options at the bottom that are so faint, you could easily miss them to begin with. Once you get used to the interface, you'll find this a surprisingly sophisticated tool that offers an unprecedented range of image adjustment. It can be frustrating, though: exit the full-screen view, for example, and you need to load the entire tool again.

Void Image Viewer
bit.ly/void495

Void Image Viewer is an old favourite that looks similar to EZView. There isn't much on offer here other than a standard, if unimaginative, image viewer. This tool has a solid pedigree, though, because it's from the same stable as the much-loved (and also portable) Everything file locator (bit.ly/every495). Void's selling point is its animation options, which allow the tool to cycle through photos according to your preferences.
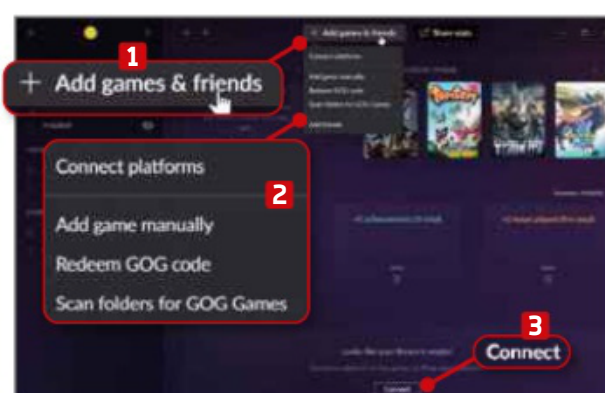
Manage all your computer games in one place

GOG Galaxy brings all the PC games you've bought from various services together in one handy launcher. Here's what you need to know

**GOG Galaxy: bit.ly/gog495** | 🕐 **20 mins** | ⊞ **8, 10** 🍎 **macOS X**

If you play games on your computer, you might use a number of services to acquire, store and play them. That means loading a different program every time you want to play a game, even before you actually start loading the game itself. GOG Galaxy 2 aims to simplify the process by offering a central access point for all your games, whether they're from GOG, Steam, Origin, uPlay or Epic Games.

To use it, you need to sign up to GOG, either by setting up a GOG account through the program or using Facebook.

FRIENDS
Activity shows your in-game achievements and ratings, while 'Friends online' lets you know when your gaming contacts are available

1 Click 'Add games & friends' on the main screen. **1** The menu lets you connect other gaming platforms, add a game manually, redeem a GOG code if you have one, or scan folders for existing GOG games. **2** Click 'Connect platforms' to add some services. You can also do this by clicking the Connect button. **3**
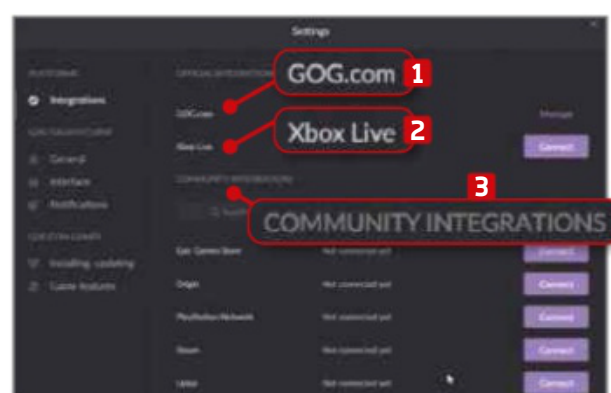
2 A new window opens with a list of supported platforms and buttons to connect to them. There are two Official Integrations: GOG.com **1** (which you're already connected to) and Xbox Live, **2** which Windows 10 users can join. Below these are the Community Integrations, **3** including Epic Games and Steam.
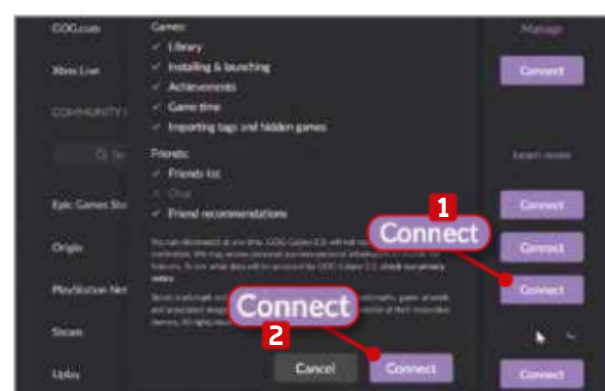
3 To connect a service you use – such as Steam – find it in the list and click the Connect button next to it. **1** A new window opens, explaining what features the integration will enable. Click the Connect button **2** to open the official login window for that service.

4 Sign in with your account details, then click the Proceed button. Steam is now connected. **1** The software doesn't store your login details or upload them to GOG, and you can disconnect an integrated service at any time. **2** Now repeat the process to connect any other gaming services you use.
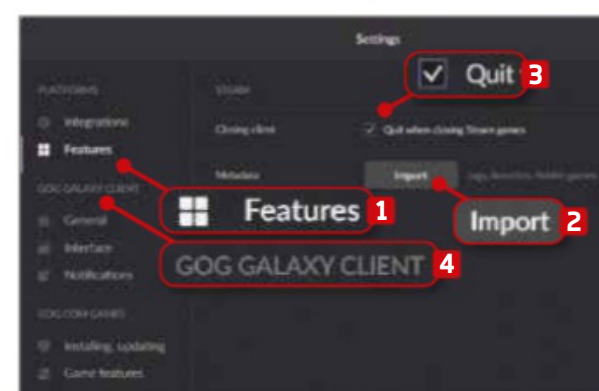
5 Click Features on the left. **1** From here you can import tags, favourites and hidden games from each client you've added. **2** Tick the box **3** to quit GOG Galaxy when you close your games, which frees up system resources. You can also customise the software so that it looks and works more to your liking. **4**

FILTER
Filter your list of games by genre, platform, OS, status (installed, not installed or hidden) and more

SEARCH
If you have a lot of games, you can find the one you want by typing its name into the box. The list of matches updates as you type
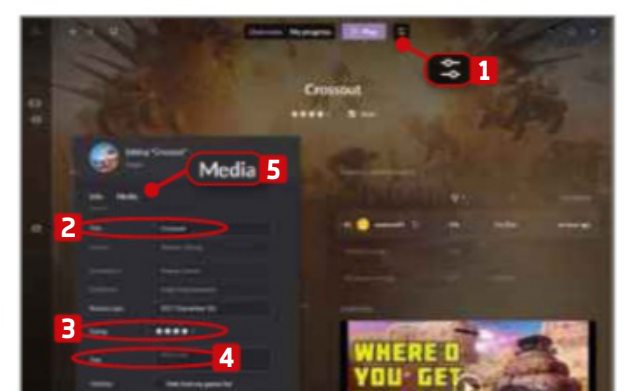
CUSTOMISATION SETTINGS
Open this menu to switch between Grid and List views, and choose how GOG Galaxy sorts and groups your games

6 Once you've configured your settings, close the window and return to the main interface. This shows any games you've played recently **1** and those others have played. **2** A summary appears below, **3** along with a list of recently added games. **4** You can filter the list using the options on the left. **5**
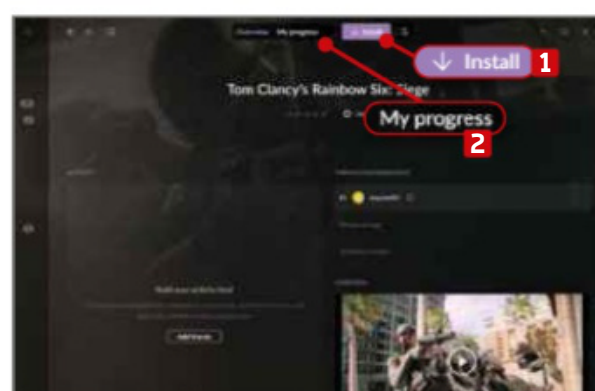
7 To install a new game from one of your connected services, click its cover in the games list, then the Install button at the top of the page. **1** This opens the platform's own installer. Once the game is installed, the button changes to say Play – click it to launch the game. You can also see your progress. **2**

8 Click the customisation button **1** and select Edit. This lets you edit the title of the selected game, **2** give it a rating **3** and add tags. **4** You can also hide the game so it no longer appears in your games list. Click the Media tab **5** to change the game's artwork, background and icon.

Purge Windows of unwanted bloatware

Windows10Debloater: bit.ly/bloat495 | ⏱ **20 mins** | ⊞ **Windows 10**

Bloatware is the unwanted software that comes preinstalled on your PC when you first get it. If you don't take steps to remove it, you'll be stuck with it forever, polluting your Start menu and hard drive, tempting you to play vapid games and littering your menus with sponsored tools you'll never use.

You can uninstall some of these unwanted programs in the usual way, but others are more stubborn, so to shift them you'll need to type some commands into PowerShell. At the end of this Workshop we'll show you a neat PowerShell script that wipes all the bloatware from your PC – as long as you're happy to give up any choice about what stays and what goes.

Now take a look at your Start menu. If it's cluttered with unused icons that have been around since your PC was new, there's no better time to wipe it clean.
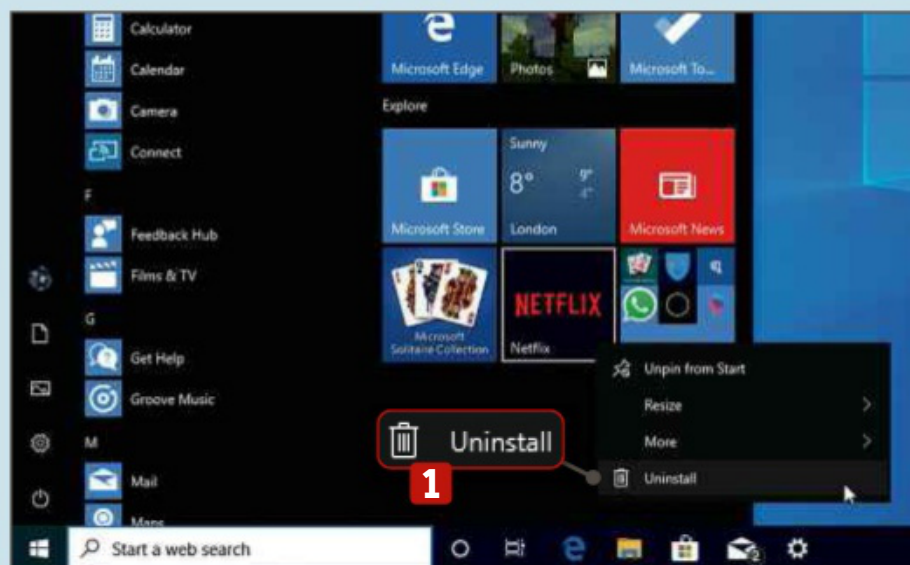
1 Whenever you want to uninstall some software, it's best to try the standard Windows method first. Find the unwanted program on your Start menu and right-click it. Choose Uninstall, **1** then click Uninstall again to confirm your decision. With a bit of luck, Windows will remove the program without any further complications.

2 There may be programs on your Start menu that you want to remove only for the current user. You can do this by hiding them. Although it may look a little advanced, the easiest way to achieve this is to use PowerShell. Find Windows PowerShell in the Start menu **1** and launch it in administrator mode. **2**
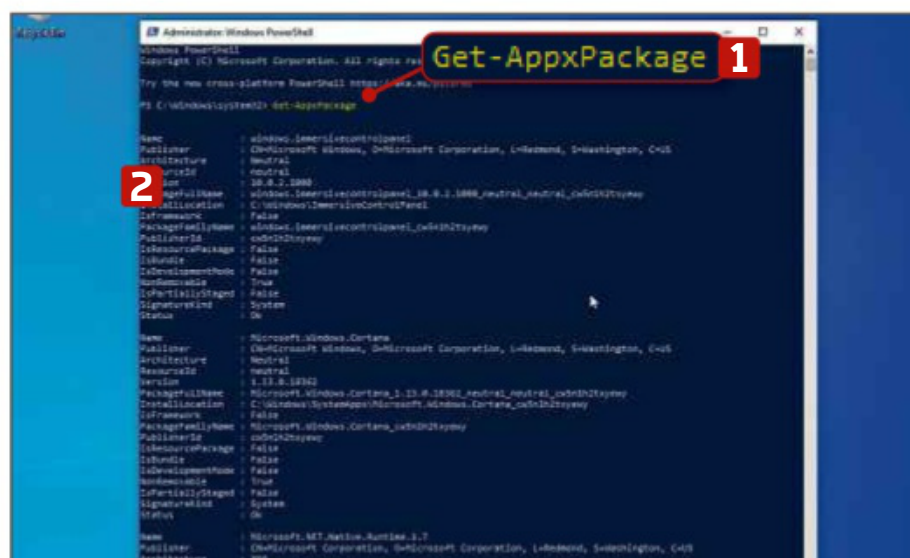
3 Type the command: `Get-AppxPackage` **1** and press Enter. PowerShell presents you with a list of all the preinstalled apps you might want to remove. **2** Find the 'Name' entry for the app you want to get rid of. We've listed a few common examples in our Expert Tip at the top of this page.
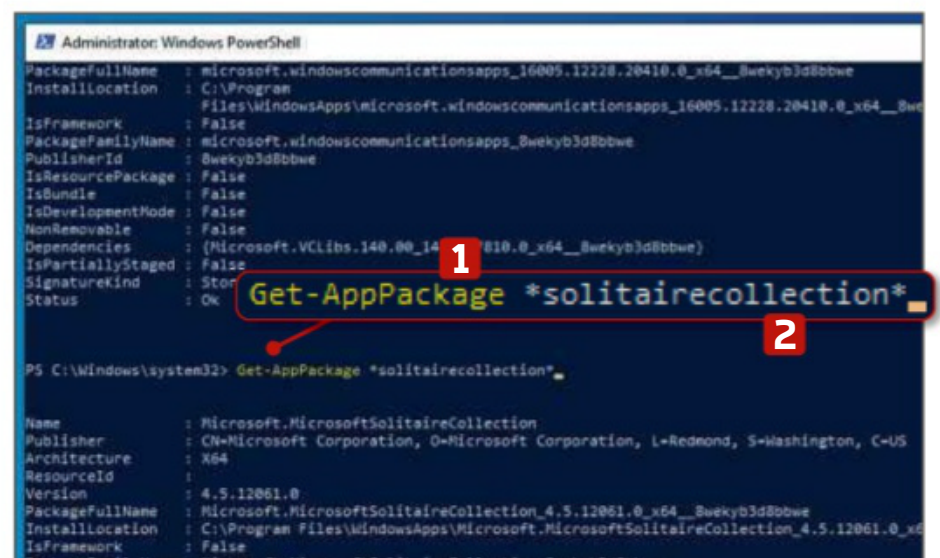
4 Now type `Get-AppxPackage *name*`, **1** leaving the asterisks but changing `name` to the name of your chosen app. You don't have to type the whole thing – the asterisks will capture most of it. Press Enter. If PowerShell comes back with more than one app, type more of the name between the asterisks to ensure there's only one result. **2**

5 Now you can remove the app by typing `Get-AppxPackage *name* | Remove-AppxPackage` **1** and pressing Enter. Remember, this only removes the link to the software from the current user account, so it's still available to your PC's other users.
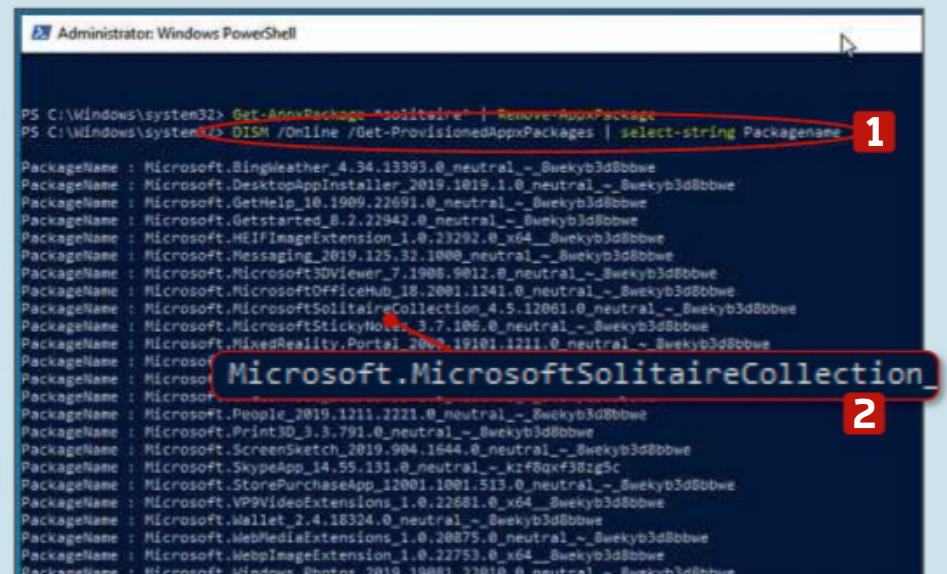
6 To completely purge your PC of a particular piece of bloatware, type `DISM /Online /Get-ProvisionedAppxPackages | select-string Packagename`. **1** Look through the list of items PowerShell returns to find the app you want to remove. **2**

7 Highlight the program's PackageName. **1** Note that this will remove the app completely for all users. Press Ctrl+C to copy its name to the clipboard. Then type `DISM /Online /Remove-ProvisionedAppxPackage /PackageName:` **2** but don't press Enter yet.
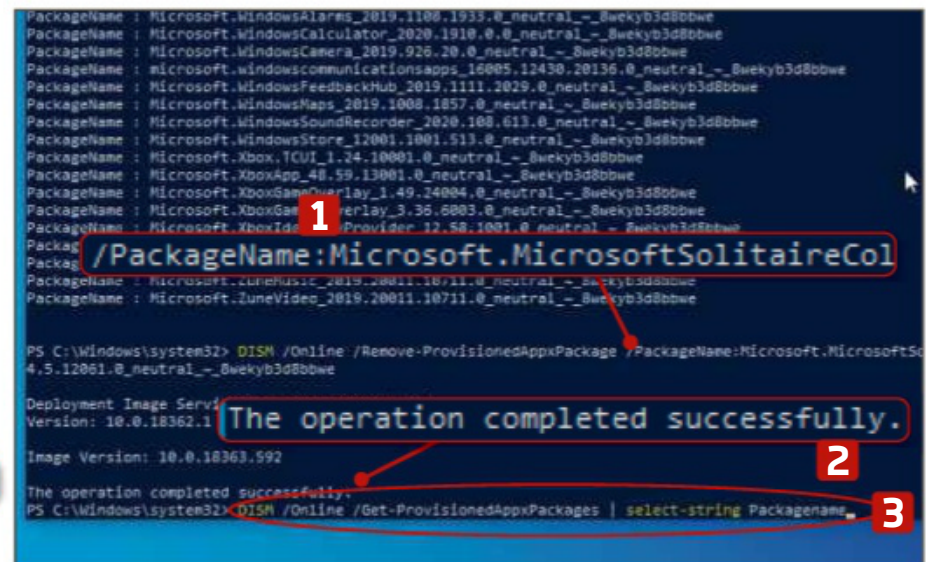
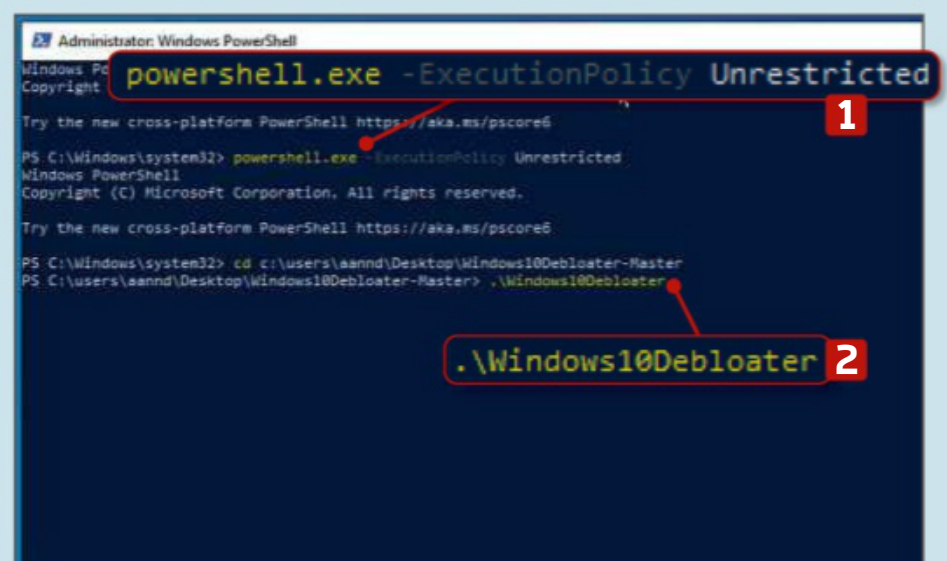**8** At the end of the line, paste the PackageName you copied earlier by pressing Ctrl+V. **1** Now press Enter. A message appears confirming that you have deleted the app. **2** You can check it's gone by re-entering `DISM /Online /Get-ProvisionedAppxPackages | select-string Packagename`. **3**

9 If you'd rather remove all your bloatware in one go, download Windows 10 Debloater from Github at bit.ly/bloat495. Click the 'Clone or download' button, save the zip file and unpack it to a convenient folder. **1** Then run PowerShell as an administrator as you did in Step 2. **2**

10 Type `powershell.exe -ExecutionPolicy Unrestricted`. **1** Use the `cd` command to switch to the folder you unpacked the files to – in our case `cd c:\users\aannd\Desktop\Windows10Debloater-master`. Type `.\Windows10Debloater` **2** and agree to everything. Then wave goodbye to all your bloatware.

View all your downloads in one place

Nirsoft's BrowserDownloadsView is a clever free tool that combines the download histories of the most popular browsers into a single list, so you don't have to switch between browsers to see the files you've downloaded.

It supports Firefox, Chrome and Chromium-based browsers including Edge, Vivaldi and Opera. No setup is required – simply download the program and open it.
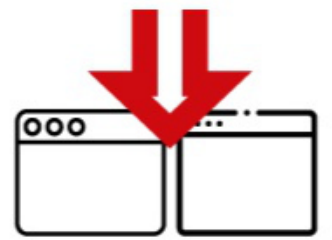
**BrowserDownloadsView: www.nirsoft.net** | ⏱ **10 mins** | 🪟 **7, 8, 10**
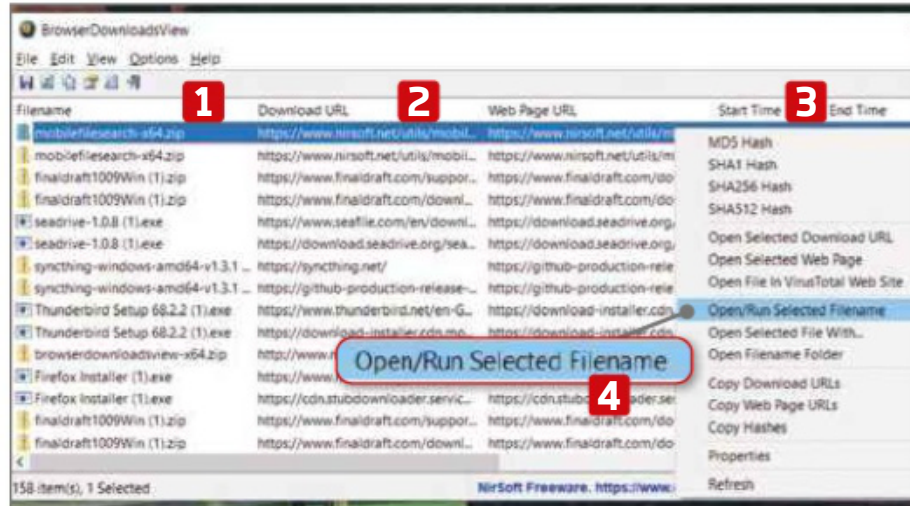
1 The program's familiar Windows list view shows you every file you've downloaded using a supported browser, **1** where you downloaded it from **2** and when. **3** Scroll right for more details. To open a file, right-click to view the context menu, then choose Open/Run Selected Filename. **4**
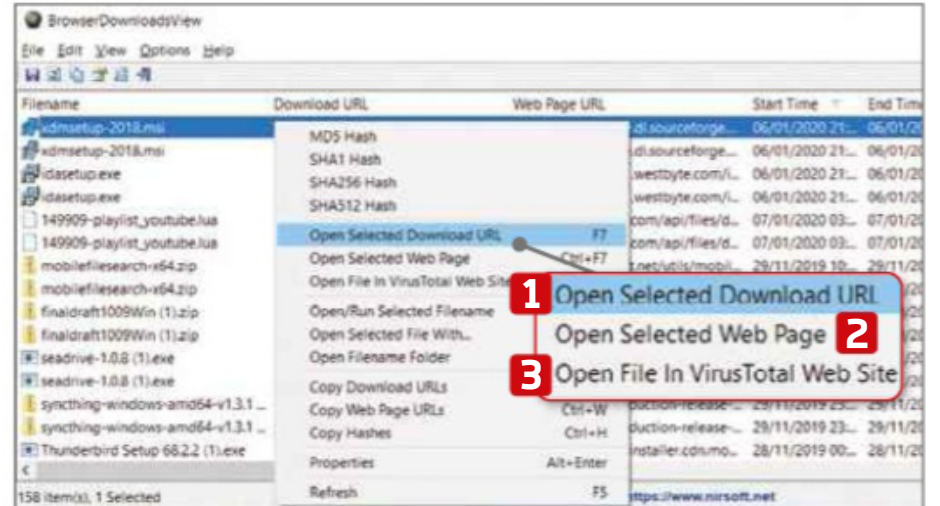

2 The context menu contains other useful options, too. With a right-click, you can open the URL of a downloaded file **1** or visit the web page it came from. **2** More useful – especially for security-conscious readers – is the option to 'Open File In VirusTotal Web Site'. **3**
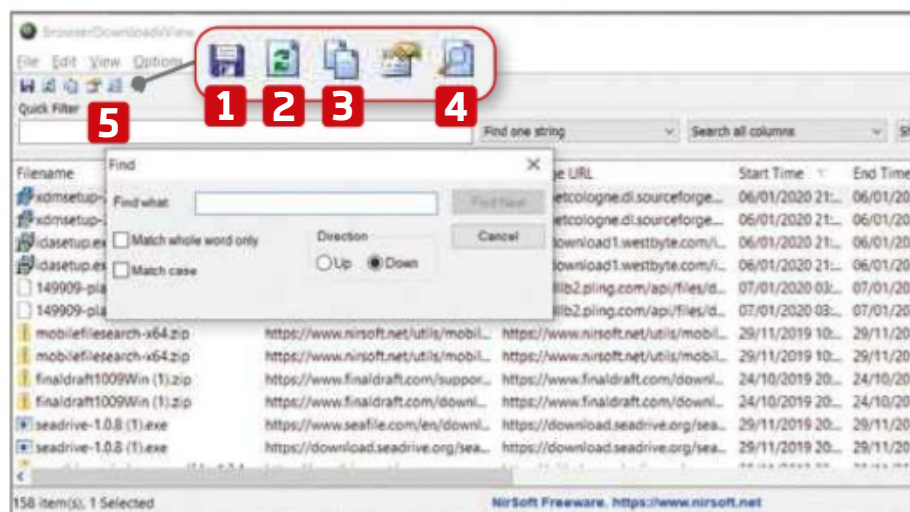
3 A toolbar at the top of the window lets you perform quick actions, such as saving, **1** refreshing **2** and copying. **3** You can locate specific files by selecting Find **4** and using the search box. Alternatively, click View, then Use Quick Filter **5** to narrow down the results.
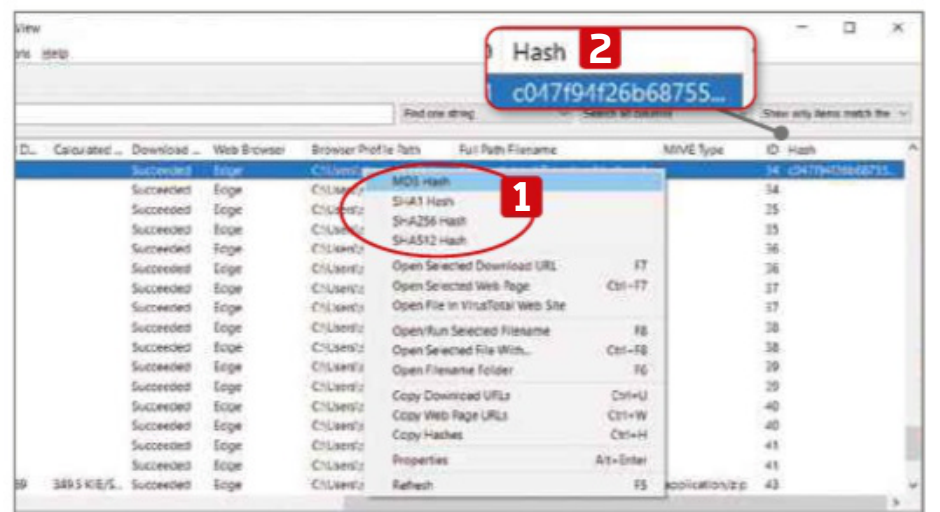
4 A hash is a mathematical operation that lets you verify the authenticity of downloaded files. To calculate MD5, SHA1, SHA256 or SHA512 hashes of single or multiple files, right-click the file or files, then select your chosen hash. **1** Drag the scroll bar to the right to view the hash. **2**
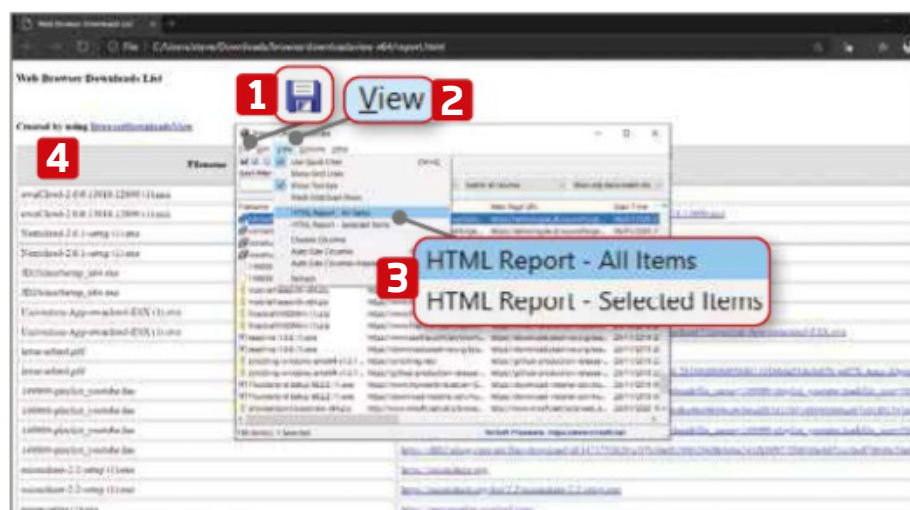
5 Keeping a list of current downloads across all your browsers is simple. To create a text file, click the Save icon. **1** Alternatively, click View **2** and look for the HTML Report section. **3** You can create a list of All Items or Selected Items. The list then opens in your browser. **4**
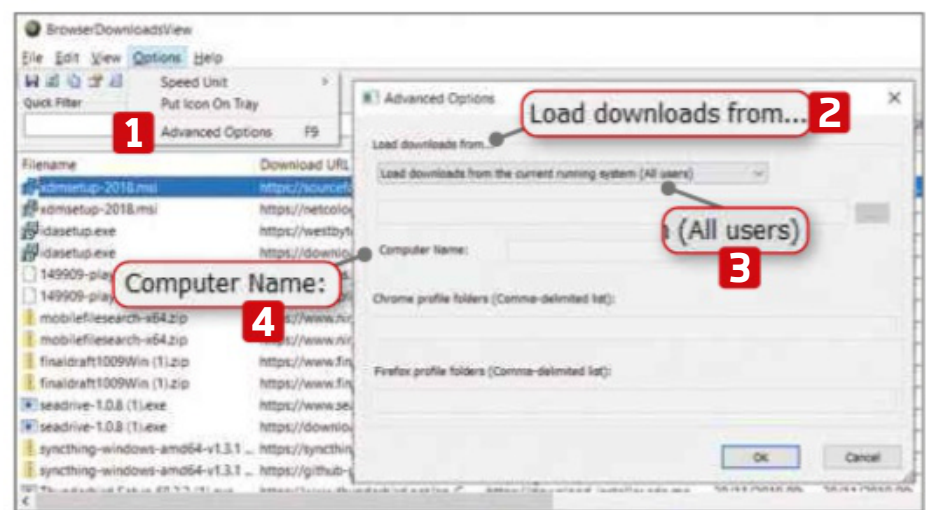
6 Open the Options menu and select Advanced Options. **1** The 'Load downloads from' menu **2** lets you view downloads for all users, current users or specific folders or browsers. **3** You can even retrieve downloads from remote computers by using the Computer Name text field. **4**

Stop Facebook tracking your activities

It's no secret that Facebook collects information about us while we're using it, but the company revealed a while ago that it also collects information about us from businesses and websites it interacts with. Now you can opt out of this 'off-Facebook' data collection, anonymise your Facebook account and remove existing data the company has collected about your browsing habits.
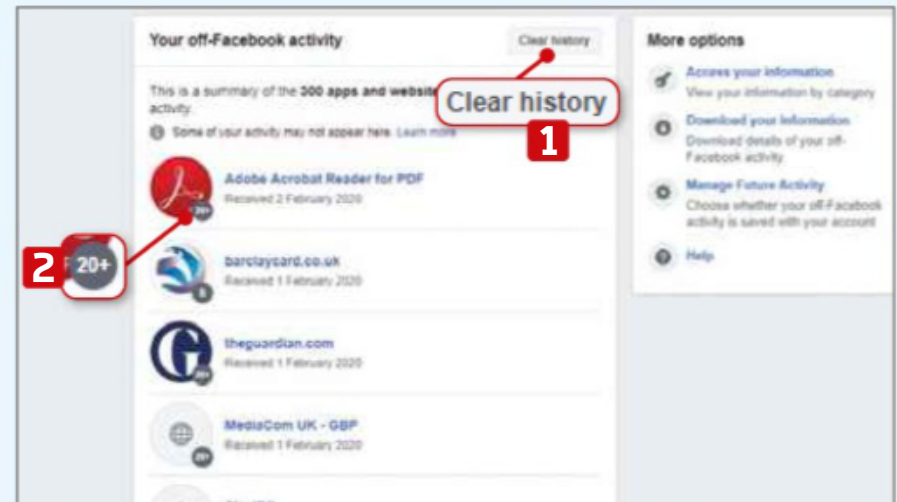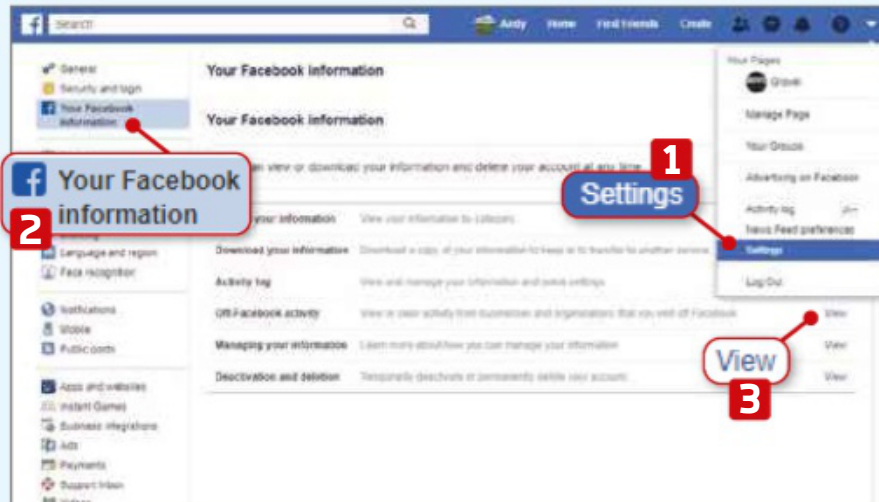
Facebook: www.facebook.com | ⏱ **10 mins** | **Any browser**

1 From the menu in the top-right corner, choose Settings, **1** then click 'Your Facebook information'. **2** Find the 'Off-Facebook Activity' section in the list and click the View link. **3** Two options appear in the box on the right. Select 'Manage your Off-Facebook activity'.

2 You'll see a long list of sites and apps that share your activity with Facebook. You can wipe all the data in one fell swoop by clicking the 'Clear history' button. **1** The number that appears over a website's icon **2** tells you how many times the site has reported your activity to Facebook.
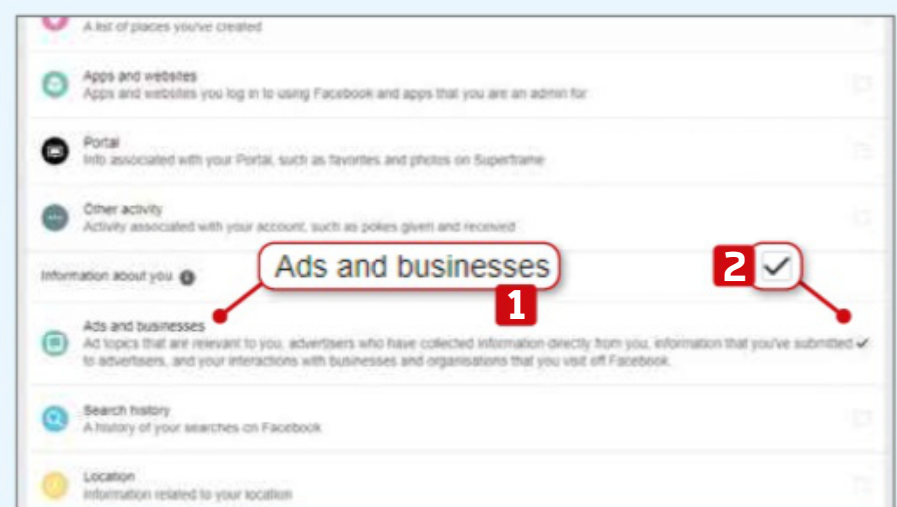
3 If the number for a website is '20+', click to see an exact figure. **1** If you don't want Facebook to receive any more information from this source, click the link to 'Turn off future activity from…' **2** Be aware, however, that if you use Facebook to log into the website, you may lose your account.

4 To see what data companies have shared, click the 'X interactions were received' section. Scroll down and select Download Activity Details. To see off-Facebook activity only, click 'Deselect all', scroll to 'Ads and businesses' **1** and tick the box. **2** Scroll back up and click Create File.

5 Facebook sends an email to confirm that it's creating the file and another when it's done. Click the link to the 'Download your information' page, then 'Available copies'. **1** Press the Download button, **2** unzip the file that downloads and drag the index.html file into your browser.

6 If you don't want Facebook to share your data with its partners, click the Manage Future Activity link, then the Manage Future Activity button. Switch off the 'Future off-Facebook activity' option. **1** Facebook will warn that you may lose your logins, but if you don't mind, click Turn Off.

Weekend Project

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

MTWTFSS

How to... Use your existing tech to create a home intercom

Tired of shouting up the stairs at meal times? **Wayne Williams** shows you how to communicate better using gadgets you already own

I f you live in a busy home, with family members doing their own thing in different rooms, getting everyone together for a shared activity such as eating dinner or watching a film can be difficult. Shouting might work, but there's no guarantee you'll be heard over the myriad distractions, such as TVs, phones, computers and blaring music. One alternative is to install a home intercom, which lets you broadcast your message in a calm and tempered tone to anyone in the house. Bespoke intercoms can be pricey but, thankfully, it's possible to make your own using tech you probably already have.

Install walkie-talkie apps

If you want to get through to the younger generation, the easiest way is through their phones. After all, if a child isn't near enough for you to see and speak to them, there's a good chance they're looking at a screen in a different room. You could call them or send a WhatsApp message, but a simpler solution is to install a walkie-talkie app on everyone's devices. This lets you send quick voice messages to anyone at the click of a button, and has the benefit of being fun to use – initially, at least.

A number of 'push-to-talk' apps are available for iOS and Android. Zello (zello.com) is a paid-for tool aimed at businesses, but it also offers free cross-platform apps for home use. The app lets you speak to others over your network and send text messages and photos – perhaps a picture of the dinner that's waiting on the table, for example. There are no adverts to worry about, and if you need to speak to more than one person at a time, you can add several contacts to a group chat. This transmits everything you say to all the group's members simultaneously. Responses are also relayed to everyone, unless someone decides to reply to you only. We'll show you how to set up and use Zello in our Mini Workshop opposite.
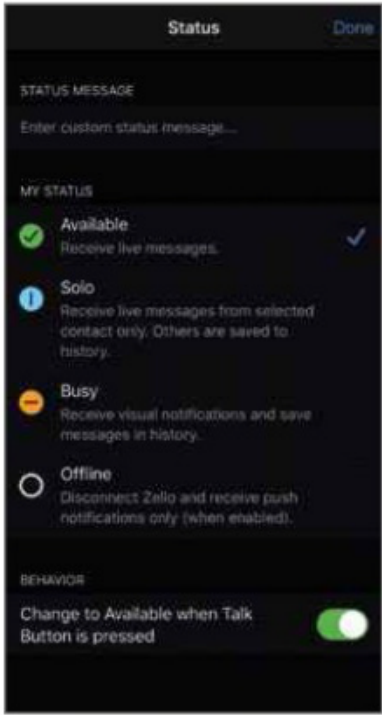
Change your Zello status to avoid being disturbed

Voxer is another excellent free walkie-talkie app

Apple Watch has a built-in walkie-talkie that lets you chat with other Apple Watch-owning friends and family members

You can toggle between the various status settings (Available, Solo or Busy) at any time by tapping the link at the bottom of the talk screen. If you receive a message while you're busy or offline, the app stores it and then plays it to you when you're next available.

Other free walkie-talkie apps worth considering are Voxer (www.voxer.com/individuals) for iOS, Android and the web, and VoicePing (www.voicepingapp.com). Like Zello, VoicePing is a tool that's designed for businesses but can be used by anyone.

Use Apple Watch

If you and at least one family member own Apple Watches, you can chat to each other using the walkie-talkie feature. For this to work, you also need iPhones running iOS 12.4 or later, with the FaceTime app set up to make and receive FaceTime audio calls. To start a chat, open the app, select your contact and wait for them to accept your invitation. The app works just like a typical walkie-talkie: press and hold the talk button, start speaking, then let go of the button when you're finished. Saying "over" after each sentence and "over and out" when you've finished the conversation is entirely optional.

Use your smart speakers

Many homes have one or more Amazon Echo or Google Home devices. Both systems offer a broadcast feature that lets you make announcements to all the smart speakers in your home – the modern equivalent of bellowing up the stairs. You don't need to install anything to use this feature, or even spend time setting it up. Simply say the relevant broadcast commands, followed by whatever it is you want to announce.

This approach does have some limitations compared with a walkie-talkie app on your phone. It's a one-way broadcast, for example. You can tell everyone "dinner's ready!" or "the film is about to start", but you won't receive a reply unless each person announces their response (which could get annoying). You also need compatible smart speakers throughout the house (although you can also make broadcasts – but not receive them – using the smartphone app).

MINI WORKSHOP | **Turn your phone into a walkie-talkie with Zello**

1 Install Zello on your phone and give it the permissions it needs. If you want to use headsets, microphones and speakers, allow Bluetooth. Sign up by entering a username, password and email address. Once you've logged in, you can customise your account **1** and change your status. **2** Then you can start adding contacts. **3**

2 Test your audio by selecting 'echo'. **1** To add a new contact, tap the Add button. **2** You can search for a Zello contact by username, use your phone contacts or, if your contact is nearby, scan a QR code. To view a person's QR code, tap their username, then the QR button.

3 When you add a contact, they need to accept your request before you can start communicating with them. To chat, press and hold the talk button, **1** speak, then let go when you've finished. Click the camera button **2** to take and send photos. You can also play back the last message. **3**

Broadband Deals

	Provider	Package name	Monthly price	Contract length	Broadband speed	Allowance	First-year cost*
1	TalkTalk For Everyone	TalkTalk: Fast Broadband	£17.95 (£30 after 18 months)	18 months	11Mbps avg. speed	∞ unlimited	**CHEAPEST** £215.40
2	Shell ENERGY broadband	Shell Energy: Fast Broadband	£19.99	18 months	11Mbps avg. speed	∞ unlimited	£239.88
3	sky	Sky: Broadband Essential	£20.00 (£25 after 18 months)	18 months	11Mbps avg. speed	∞ unlimited *	£240.00
4	Virgin media	Virgin Media: Big Bundle + Fibre Broadband + Weekend Calls	£33.00 (£54 after 12 months)	12 months	213Mbps 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 3 February 2020.

Ofcom

Broadband Genie's helpline is powered by Simplify Digital, the Ofcom-accredited switching service
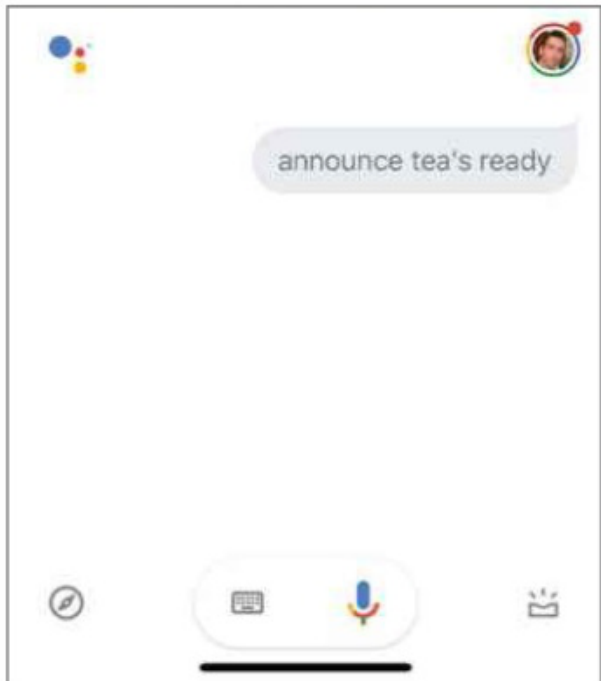
Use the Google Assistant app to broadcast a message through your Home speakers

Make an announcement to all the Echo devices in your home at the same time by using the "broadcast" command

If there are certain rooms you don't want to include in your broadcast – perhaps because a baby is sleeping in one – you can use the Do Not Disturb setting to exclude a room (or rooms) from your announcement.

Alexa announces incoming messages with a chime to get your recipients' attention, followed by the message, which it broadcasts in your voice. Make sure you speak clearly when recording your message, especially if you're using an Echo to broadcast the announcement. For the clearest possible message, use the smartphone app and microphone on your phone.

The benefits of a home intercom system

It may seem rather lazy to set up an intercom system to communicate with people in your own home. After all, shouting was good enough for our parents and grandparents. However, there are plenty of benefits besides simply saving your voice and your patience. An intercom is particularly useful if you have an elderly relative living with you, for example, because they can make a voice announcement to Alexa or Google Assistant if they need help and can't reach their phone.

You can also use the system remotely to tell everyone in the house that you're on your way home, rather than having to send multiple texts or WhatsApp messages. The only downside with using Alexa or Google Assistant in this way is that you won't necessarily know whether anyone has received your announcement. ■

MINI WORKSHOP | Broadcast a message to everyone in the house with Amazon Echo

1 Broadcasting announcements through your Echo speaker is easy – just say: "Alexa, announce" (or "broadcast") followed by your message. You can also make an announcement through the Alexa app. Simply press the Alexa button at the bottom, **1** then speak the command above followed by your message.
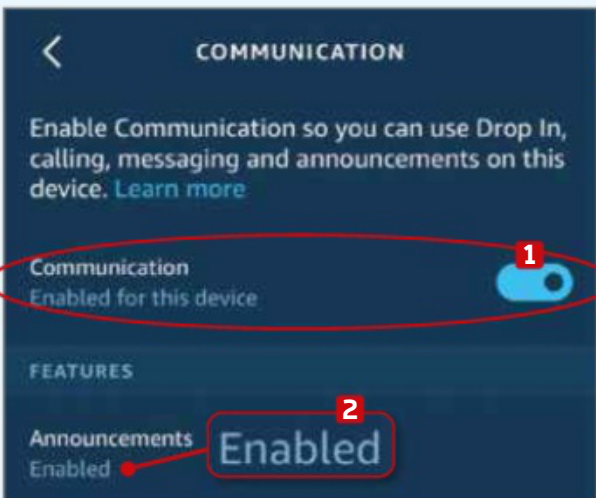
2 If a particular Echo device isn't broadcasting your announcements, open Settings in the Alexa app, then Device Settings. Tap the name of the unresponsive Echo, then scroll down and press Communication. Make sure the Communication setting is enabled for this device, **1** as well as the Announcements setting. **2**
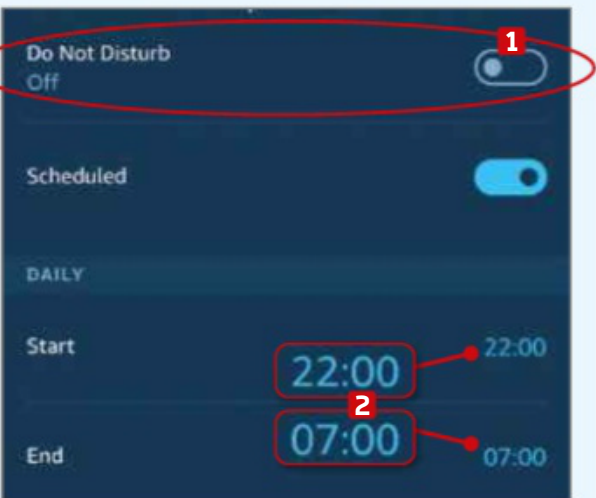
3 There's also a handy Do Not Disturb entry in the app's Device Settings. Enable this, **1** then configure start and end times **2** to stop any announcements coming through that particular Echo device. Remember to disable the feature when you no longer need it so that future broadcasts can be heard once more.

NEXT ISSUE
How To... Recycle your old computer

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Web User Masterclass
Get more from your mobile device's lock screen

Add important information to your lock screen

Android phones and tablets are much more customisable than Apple devices, with built-in settings and lots of apps that can completely change the way the operating system looks and behaves. Because there are so many different makes and models of phone, not to mention versions of Android, the features available may differ, but try opening Settings, 'Lock screen & security', 'Info and app shortcuts'. Tap 'Owner information' and enter some text you'd like to appear on the lock screen, such as "If lost, call 01234 56789", which could be your home phone or your partner's mobile number. Doing this could help you get your lost phone back. Alternatively, you could show important medical information in case someone checks your phone if you have an accident.
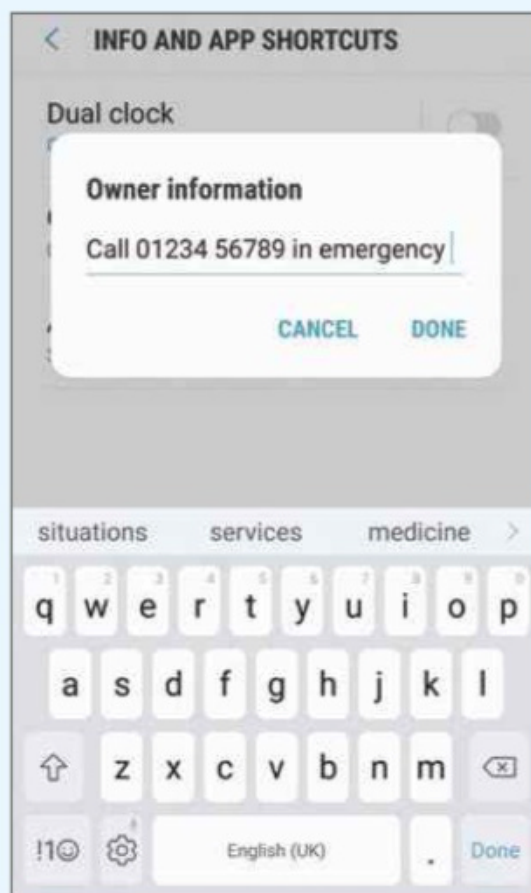
Add useful information to the lock screen of your Android phone

Choose lock screen shortcuts

It's possible to place app icons on your lock screen so you can access them quickly without having to unlock your phone. On Android phones, go to Settings, 'Lock screen & security', 'Info and App Shortcuts', then 'App shortcuts'.

The options available may vary depending on which phone and Android version you have, but look for left and right shortcuts for the bottom left and right corners of

Add apps to Android's lock screen for quick and easy access

your lock screen. Tap 'Left shortcut', activate the switch and select an app.

Most apps still require you to unlock your phone before you can use them, but at least this shortcut saves you hunting through screens of icons. The camera app is an exception: by adding it to the lock screen, you can take a quick snapshot without first having to unlock your phone and locate the app, which means you need never miss a photo opportunity.

Choose iPhone lock screen options

Apple's iPad and iPhone offer less scope for customisation than Android devices, but there are some optional features that you can enable and disable. Open Settings and tap Face ID & Passcode. Swipe up, and at the bottom of the screen you'll see a section called Allow Access When Locked.

Here you'll find on/off switches for the Today View, Notification Centre, Wallet,

Siri and more. Activating any of these items lets you access them while your iPhone is locked – but bear in mind that anyone else who picks up your locked device can access these features too.

If you decide you want access to Siri from the lock screen, for example, flick the switch on. You can then perform all sorts of tasks without unlocking your iPhone. You could say "Hey Siri, tell me a joke," or ask a more serious question. Go to Settings, Siri & Search, and you can also enable or disable 'Suggestions on Lock Screen'.

As mentioned above, if you activate Siri on the lock screen, anyone who gets hold of your iPhone can try to use it too, potentially giving them access to all sorts of things. Siri shouldn't comply, but if you're worried, disable lock screen access.

Notes is another app you can access without unlocking. Open Settings, Notes, 'Access Notes from Lock Screen'. The options here include Resume Last Note, which is useful if you need to add to a note throughout the day. As with Siri, though, you need to consider the balance between convenience and security before enabling this option.
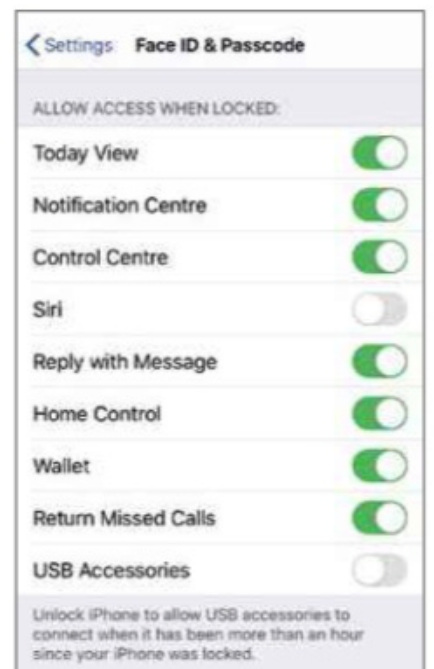
Choose which features can be accessed from the iPhone lock screen

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.

Set the lock screen wallpaper

Fresh wallpaper can give your device a whole new look. Changing your lock screen's background image is easy, and you can use a different image on your home screen.

To do this on an Apple device, go to Settings, Wallpaper, 'Choose a New Wallpaper'. You have a choice of Dynamic, Stills and Live categories. Tap an image to see a full-screen preview, then tap Set. This gives you the option to use it on the lock screen, home screen or both. As well as the images supplied, you can select one of your own photos. Open a photo in the Photos app, press the actions button at the bottom of the screen, pull up the menu and select 'Use as Wallpaper'.
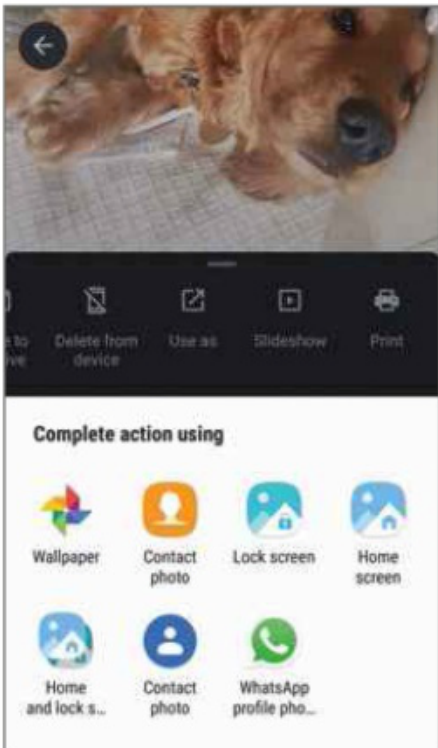
On an Android phone, go to Settings, 'Wallpaper and themes'. There are usually several to choose from. Select one, then choose whether to use it on the lock screen, the home screen or both. There may be additional wallpapers from your phone's manufacturer.

To use your own photos on the lock screen, open Google Photos in Android and select a photo. Tap the three-dot menu in the top-right corner, then 'Use as'. The options include 'Lock screen' and 'Home screen'.

Select a photo in Google Photos and set it as the lock screen wallpaper

Configure the Today screen

Swipe right on the lock screen on an iPhone or iPad to see the Today screen. Some apps have widgets you can add to show information, such as upcoming appointments, local places of interest, traffic information, weather and more.

On the home screen, swipe right and tap Edit at the bottom to see a long list of widgets. Tap the plus sign next to a widget to add it to the Today screen. Choose wisely, though, because anyone who picks up your phone can see your widgets. Most show general information rather than anything private, but check after adding anything new.

TAKE IT TO THE NEXT LEVEL
More advanced tips for when you're feeling brave

Choose an Android unlock method

Open Settings, 'Lock screen & security' and select Lock Type. Here you'll find several unlock methods to choose from. Never select Swipe, because this disables Android Pay and you have to go through the hassle of authorising your phone with your bank all over again.

Pattern is an unusual way to unlock a phone using a grid of nine dots. Trace a pattern from dot to dot and store it. You must then trace the same pattern on your lock screen to access your phone. If you don't have this feature on your Android phone, install Pattern Lock Screen (bit.ly/pattern495) or Lock Screen (bit.ly/lock495) from the Play store.

Some versions of Android let you unlock your phone by swiping a pattern of dots

Use a smart lock

Some Android phones have a Smart Lock feature that locks or unlocks your device automatically depending on certain conditions. For example, on-body detection keeps your phone unlocked while it's in motion, such as while you're holding it. Then when you put it down, it locks.

You can also set your phone to unlock in certain locations using the 'Trusted places' option. If you activate it while you're at home, your phone remembers the location using GPS and automatically stays unlocked. It locks when you leave.

Automatically lock and unlock Android phones depending on conditions

'Trusted devices' can also unlock your phone when it's near another device such as your computer, car or smartwatch. Move away and it locks. This works using Bluetooth – simply pair your phone with the other device.

To activate these options, go to Settings, 'Lock screen & security', Secure Lock Settings, Smart Lock.

Customise lock screen notifications

Some apps produce notifications. Messaging services, text messages and email are obvious examples, but there are many more. Both Android and iOS let you set which notifications can appear on the lock screen.

In Android, go to Apps, tap an app and select Notifications. Use the master switch at the top to allow or block notifications. Tap 'On lock screen' for three options. 'Do not show notifications' is obvious, but the other two are Hide and Show content. These let you decide whether notifications include part of your email, text message and so on. You may want to be notified without enabling others to read your texts when they appear on the lock screen.

On an iPhone, go to Settings then Notifications to choose which app notifications show on the lock screen.

Get more options on older phones

Old versions of Android allow apps to modify the lock screen and add information and features. For versions of Android up to 7, try apps such as Floatify Lock Screen (bit.ly/float495). This lets you reply to messages from the lock screen, control your music and perform direct actions.

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

Fix problems with an old tablet

Q I'm having trouble with my Samsung Galaxy Note 10.1 tablet. When I first switch it on, the home screen goes black and takes a long time to come back. Then it says I have no recently used apps. Swiping to get to the home screen is difficult, and often activates S Voice instead. If I do manage to get to the home screen, I find I can't connect to the internet.

I've tried various suggestions for solving this problem, such as resetting the device, and turning flight mode on and off. When I go into settings and try to connect to my home WiFi, the tablet won't let me enter a password.

I think this problem occurred after I connected the tablet to a new Sony TV to use screen mirroring. I don't know whether it's a hardware or software problem, and because it's a fairly old tablet, I don't know if it can be repaired. I have a few apps and Amazon Kindle books on it, which I fear I may lose.

Alison Dandy, via email

A Is the tablet faulty or just very slow? We had an Android tablet that became slower with every operating system update until eventually it was unusable. The problem was that the processor, memory and storage simply weren't up to running the latest versions of Android and apps. Looking at your tablet's specification, however, that doesn't seem to be the case. It should be good enough.

You can't repair the hardware, so the only thing that might help is to erase the tablet and reset it to its factory defaults. This removes all your apps, settings, files, passwords and so on, and can breathe life into a slow Android device.

The location of the factory reset option varies depending on the version

Use 'Factory data reset' to refresh an Android device that's slowed down

of Android you're running, but look for it in Settings, General Management. Make sure there's nothing on the tablet that you need because everything will be erased. If you then set up the tablet using the same username and password as before, it will restore many items automatically. You can then restore other items manually, including free and paid apps such as Amazon Kindle and your books.

GENERAL PC

Reclaim space to update

Q I have an HP Stream 11 laptop that runs Windows 10 and has 2GB of memory. It also has 29.1GB of storage, of which 25.3GB is in use. There are only two programs on the PC, WordPad and CCleaner, both of which are installed on an SD card. When I try to download the Windows 1903 update, the PC tells me to remove 8GB from the C: drive, even though I've inserted a large SD card and memory stick. I've tried using Cleardisk but there's nothing left to remove, and the update still fails every time. Is there another way I can get the update or do I need to ditch the laptop?

Henry Farnsworth, via email

A We don't think manufacturers should sell laptops with just 32GB of storage because it causes problems like this. What usually happens during an update is that Windows downloads the necessary file, which is around 5GB. It then backs up your system files, which may use up to 25GB. This means Windows needs 30GB of free drive space just to perform an update.

One thing you should do is compress the drive to free up space. Open Explorer and select This PC in the sidebar. Right-click the C: drive, then select Properties from the menu. In the window that appears, tick the box next to 'Compress this drive

If you run out of space on a drive, tick 'Compress this drive to save disk space'

It's easy to erase your web browsing history in Safari on the iPhone or iPad
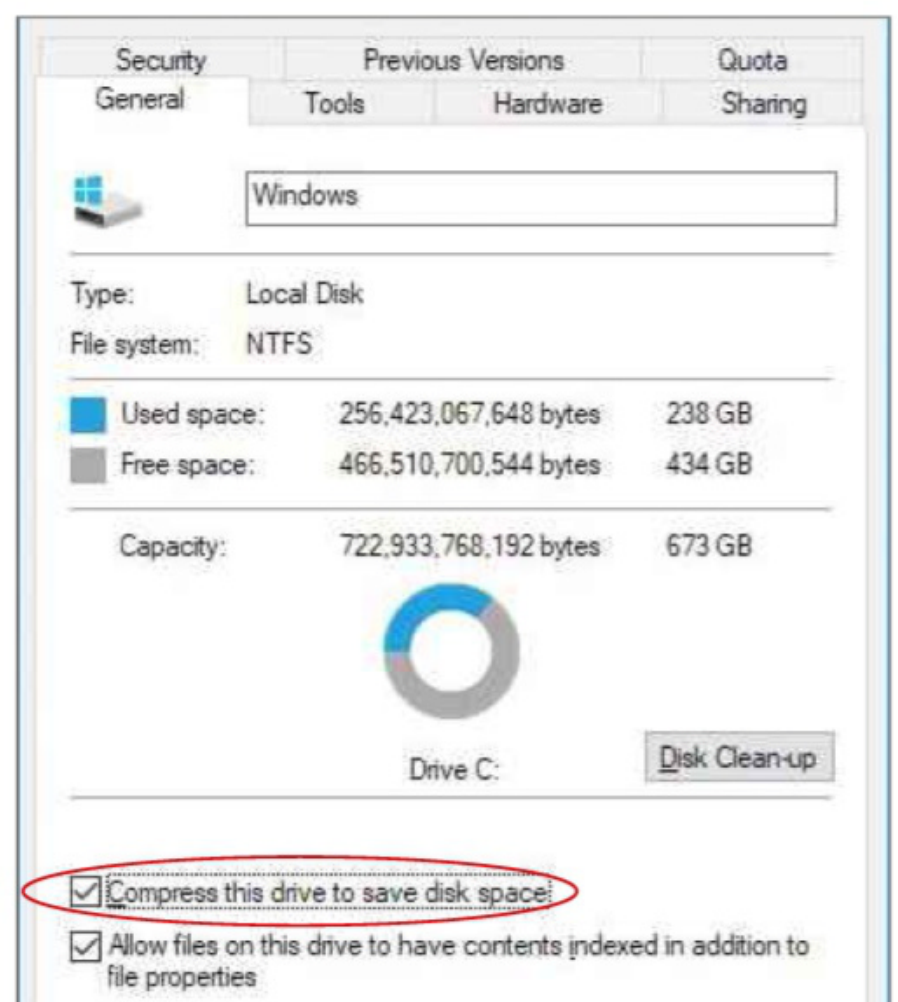
'All time'. You'll also find an option to 'Clear History and Website Data' when you open the main iOS Settings and select Safari.

If you simply want to remove details of one particular website, go to Settings, Safari, Advanced, Website Data. Here you'll see a list of all the websites that have stored data on your device, either through browsing or adverts. Swipe left on an entry to delete it.

If you want to cover your tracks or appear anonymous on the web, open Safari and tap the two-squares icon. Select Private, followed by the plus sign to open a private browsing window. You have no history or cookies in this mode, and when you quit and return to normal browsing, any history or cookies saved during your private browsing session are deleted.

Similar options are available in Chrome. Tap the menu icon, select History, then Clear Browsing Data. You can choose exactly what you want to clear and how far back you'd like to clear it.

to save disk space'. Click Apply. When the process has finished, everything will look and work as it did before, but you'll have more free drive space.

Next, right-click OneDrive in Explorer and select Settings. On the Settings tab, tick 'Files on demand'. Click the Backup tab, then 'Manage backup'. Add Desktop, Documents and Pictures, then click 'Start backup'. Once you've done that, use Explorer to move any files in C:\Users\YourName\Desktop to the OneDrive Desktop folder. Repeat this for Documents and Pictures. When everything has synced, right-click OneDrive in Explorer and select 'Clear space'. This won't delete any files but it will clear some space.

Run Disk Clean-up from the Start menu and, in the next window, click 'Clean up system files'. Select all the options and delete everything. With luck, you may have recovered the 8GB you need to perform the update.

Finally, download the Windows Media Creation tool (bit.ly/wini495), which lets you turn a USB memory drive into a bootable drive with Windows on it. This saves you having to download the 5GB Windows Update to your PC's internal drive. Run Setup from the USB drive to install the update.

BROWSERS
Cover your tracks on an iPad

Q How do I delete all my browsing history, cookies and other traces of my web activities on my iPad? Is this even possible?
William Miller, via email

A Yes, it's possible, and it's also easy to do. Open Safari and press the book icon in the toolbar. Tap the clock

icon to open the History tab, then tap Clear. Safari gives you the option to remove browsing data for 'The last hour', 'Today', 'Today and yesterday' or
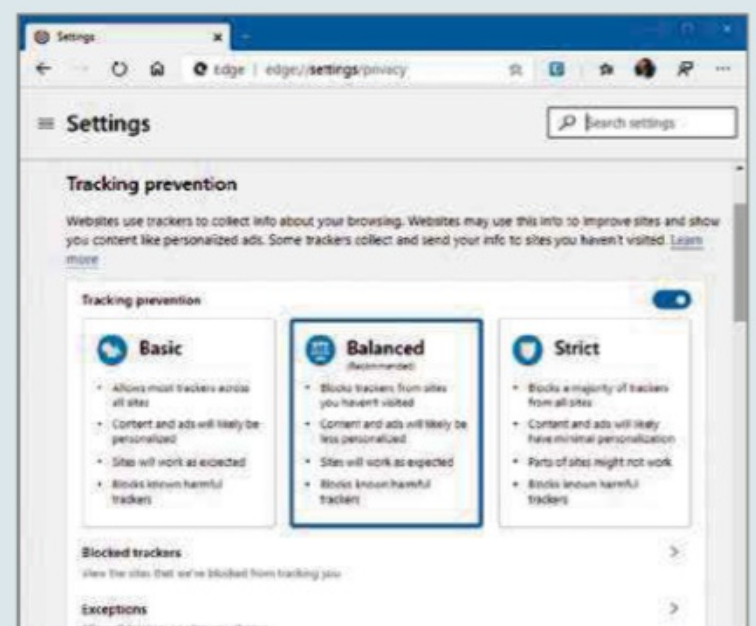
PRIVACY
Block tracking cookies

Q I've been using a program called HitmanPro (www.hitmanpro .com) to monitor my PC for malware and, if necessary, remove it. If I run it after browsing the web for a while, it finds dozens of tracking cookies, and I have to remove them. Other than HitmanPro, I only use Windows Defender for security. Is that why I keep getting this malware? Should I buy different security software instead?
Gary Nicks, via email

A Tracking cookies aren't considered malware, so security software tends not to block them. They are a privacy concern, however, because advertisers use them to record information about the adverts you've been shown while browsing. This might tell them which ads you've seen and how many times you've seen them. It might also report what other pages you've visited on the same site.

People don't like advertisers tracking their online activities, so they use browser tools to block trackers. The new Edge browser, based on

Tracking prevention is one of the features in Microsoft's new Edge browser

Chrome, has tracker-blocking features built in, so you don't have to install any extensions.

Go to the menu, Settings, 'Privacy and services'. Turn on the 'Tracking prevention' switch, then choose between Basic, Balanced and Strict. If you block too much, some websites may stop working. Try the Strict setting, but switch to Balanced if you run into problems.

If you use Chrome, try the Ghostery extension (bit.ly/ghost495). This has 2.6 million users and a high rating, and is one of the most popular extensions for blocking trackers. Privacy Badger (bit.ly/privbad495) is an alternative option. When it sees a tracker on three sites, it blocks it automatically.

Ask the Expert
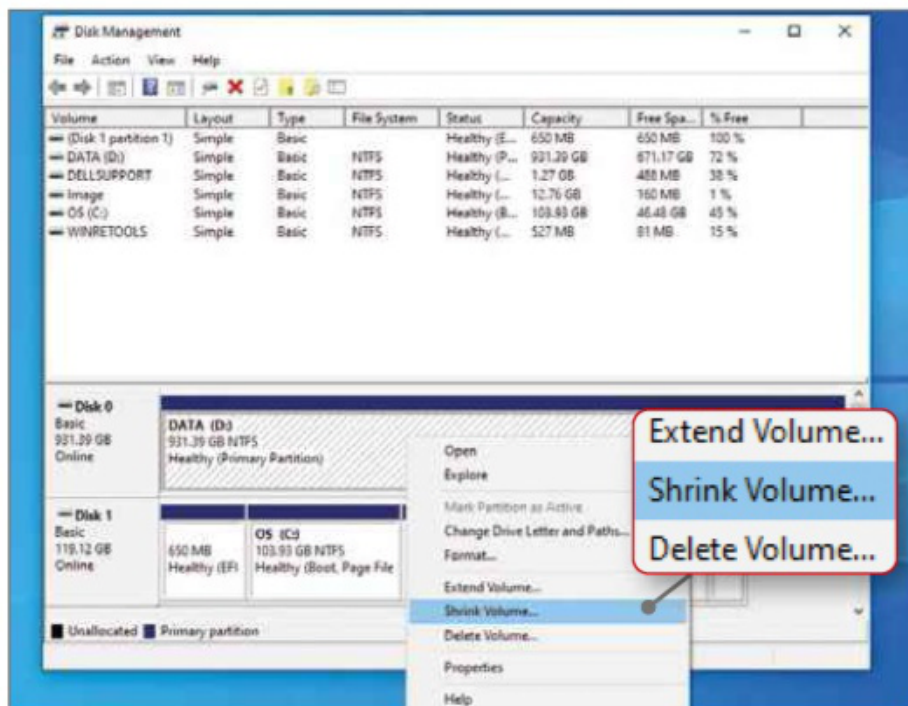
Use Windows' Disk Management tool to partition your hard drive
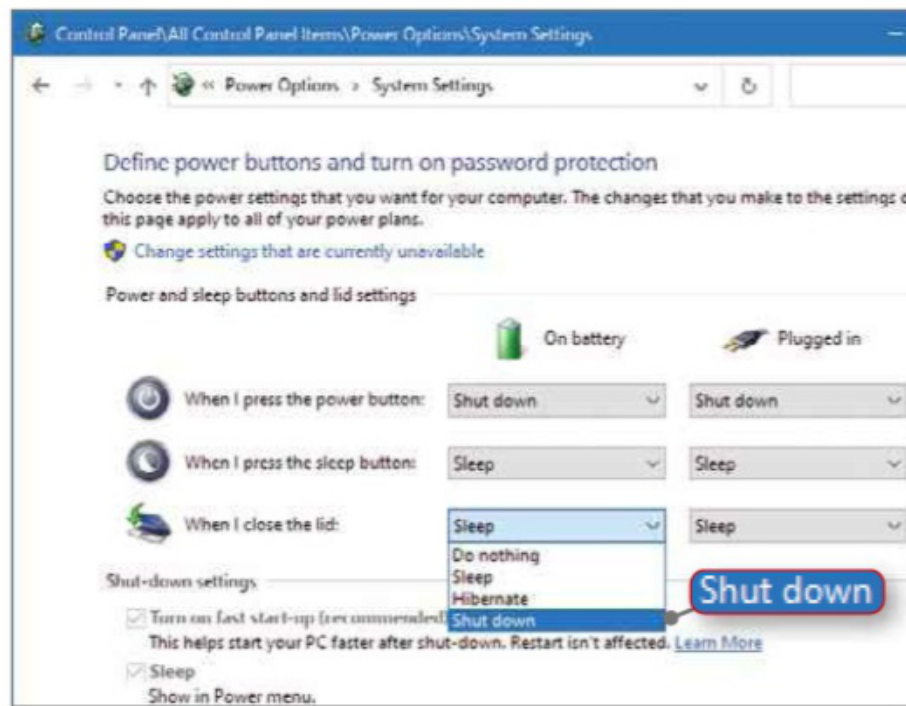
Select what happens when you close the lid of your laptop

HARDWARE
Choose whether to partition your hard drive

Q My new computer has a 1TB drive, which means I have plenty of free hard drive space. I was thinking of using a tool to create two or more partitions on the drive. What are the advantages of having two 500GB partitions instead of one 1TB partition? Would you recommend it?

Marcy Brooks, via email

A A partition can be useful for storing media. For example, some people have over 100GB of photos and videos. It makes no difference to the computer where you put them, but you may find it more convenient to organise them into folders on a separate disk partition.

If you can manage with 500GB or less of hard drive space for Windows and your files, you could create a second partition to store backups using backup software. This won't protect your data from a hardware fault, but hard drive problems are often software-based, such as corruption or malware. In either case, you could boot from a rescue disc or USB flash drive and restore your backup from the second partition.

Our preference, however, is to create a single partition for Windows and all our files, and use an external USB hard drive for storing backups.

EMAIL
Replace old email software

Q I can no longer send or receive messages in my email program, Windows Live Mail. When I contacted my email provider, they told me they no longer support it. What can I do?

Ben Brown, via email

Thunderbird is a powerful email program that also works on older versions of Windows

A Windows Live Mail is an old program that Microsoft created for Windows 7. The company has long since abandoned it, so it's no longer safe to use. Many people access their email in a web browser these days, so this may be a good option if your email service provider offers it. Alternatively, Windows 10 has a basic Mail app you can use instead, although if you still use Windows 7, you would need to upgrade to 10 first.

Thunderbird (www.thunderbird.net) is a free email program from Mozilla, the makers of Firefox, that still works in Windows 7. Another good option is eM Client (www.emclient.com), which also offers a free version.

HARDWARE
Fix a sleeping laptop error

Q My laptop goes into sleep mode when I shut the lid, and wakes when I open it again. However, it often crashes when resuming and displays a green screen that says it's gathering data to send a report to Microsoft. Then it restarts and works normally.

To avoid this, I shut down rather than using sleep mode, because the laptop has no trouble starting from cold. Is there anything I can do to stop the laptop crashing so I can just close the lid?

Chad Wlash, via email

A Try quitting all your open software before you close the lid. It may be that restoring a particular program is causing the green screen. In theory, your software should just resume where you left off, but you never know.

The cause is probably an incompatible driver or a bug that's generating an error when the PC wakes from sleep mode. Updating the drivers may be the solution. Click Start, type **Device Manager**, then open it. Expand each section all the way down to, but not including, 'System devices'. Right-click each item and click 'Update driver'. Select 'Search automatically for drivers'.

It's a long, tedious process and Driver Booster Free (bit.ly/driboo495) can do the job faster. Always create a backup before updating drivers, just to be safe.
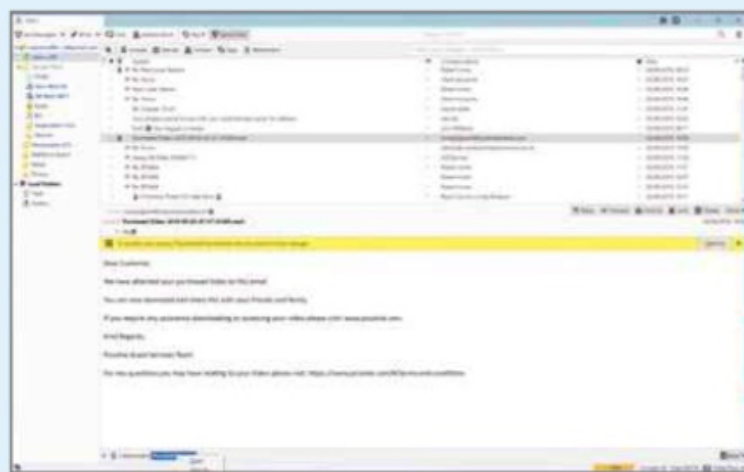
If new drivers don't help, you'll just have to set the laptop to shut down when you close the lid, instead of sleeping. Open the Control Panel and click Power Options in 'Small icons' view. Click 'Choose what closing the lid does', then change the option next to 'When I close the lid' to 'Shut down'.

![Roland photo] **This fortnight Roland has been using his new smartwatch to verify how unfit he is**

Readers' Helpdesk

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

IMAGE EDITING
Add speech bubbles to photos

Q I've been using a brilliant free site called SuperLame (superlame.com) to add word balloons to photos, but the site has suddenly disappeared. A message on the homepage says 'SuperLame will return' but I can't find any information about why it's gone or when it'll be back. Have you any idea, and can you recommend a similar site?
Jim Crosfield, via email

A Unfortunately, we don't know why SuperLame has disappeared. Fingers crossed it'll be back soon, but in the meantime, there are plenty of sites that offer a similar service. PhraseIt (phraseit .net) is devoted to adding speech bubbles to images and, like SuperLame, it's very easy to use. However, if you need something a little more sophisticated, head over to LunaPic (www.lunapic.com), which has lots of photo-editing tools and runs in your browser. You'll find the word balloon tool under the Draw section, which you can access once you've uploaded your picture.
Steve Clark, Features Writer, Web User

Create your own captions and comics in your browser using LunaPic

EMAIL
Stop unwanted emails

Q Like many people, I receive hundreds of unwanted emails from shops and websites I've visited. I don't want them, so I simply delete them without opening them. Is there an easy way to stop companies sending me these emails?
D Oliver, via email

READERS RESPOND

HARDWARE
Choose the right tablet for you

A In Issue 492 (bit.ly/webuser492) Gillian Cartwright asked what to look for when buying a new tablet. My priority is portability, so my main concerns were screen size and battery life. However, if you're using the tablet at home, you may want a larger screen.

Choose an operating system that fits your needs. Apple iPads are versatile but pricey. Android tablets cost less but vary in quality. Amazon's Kindle Fire is dirt cheap but has fewer apps.

Cheap tablets with low specifications can be frustrating to use. Look for a dual-core processor or one that's over

The best tablet to buy is the one that fits your needs

1GHz, and at least 4GB of memory. Also consider how much storage you need – I think 64GB is the minimum. If you can afford it, I'd choose either an iPad or a Samsung Galaxy tablet.
Bob Hayes, 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.

GENERAL PC

Q My HP laptop refuses to update Windows 10. I have lots of updates awaiting installation, but they fail every time. What's going wrong? Do I need to buy a new laptop?
CJ Holmes, via email

MOBILE

Q Which is the better online map service: Google Maps or Here WeGo? I have a number of issues with Google Maps and I'm hoping there's a superior alternative.
**Dan Holden, via email**

A The only thing more annoying than nuisance emails is nuisance phone calls. Luckily, it's easier to put an end to unwanted email. If you receive mail from sites you have an account with, log in and see if you can change your email preferences. Look for an 'Unsubscribe' button at the bottom of the email, too.

Both Gmail and Outlook now offer tools for dealing with unwanted messages. Open and click the three-dot menu inside an unwanted email, and you should see options to block the sender or mark the email as spam. After a while, Gmail and Outlook remember this and automatically junk these emails for you.

If you're still having problems, create a rule telling your email provider to redirect messages from specific senders and addresses to the Junk or Trash folder. That way, you won't even see them arrive.
Steve Clark, Features Writer, Web User
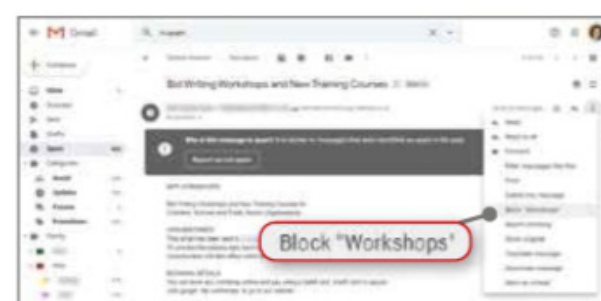
Webmail services such as Outlook and Gmail can learn to block problem senders

Your Top Tips

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

TOP TIP

EMAIL

Add Gmail to Outlook

I've just discovered that you can now add your Gmail inbox (mail.google.com) and calendar to Outlook webmail (www.outlook.com). I already do this in Outlook for Android, so it's nice to be able to do the same in my browser.

Open the Outlook website and click the envelope with a plus sign icon – it's on the sidebar to the left of your emails. Select your Gmail account and give Outlook any permissions it needs. Unlike the Outlook app, the webmail version doesn't merge your inboxes; instead, it lets you open Gmail from within Outlook by clicking the
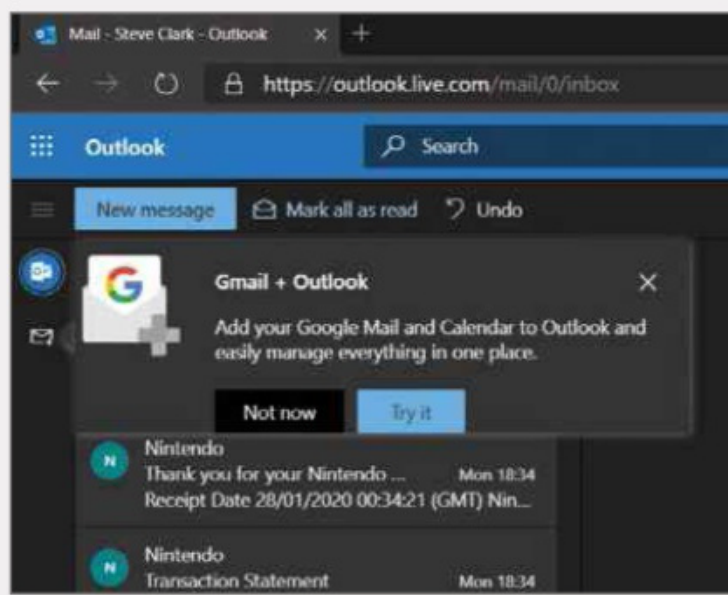
*Bring your webmail services together in one inbox*

envelope-plus icon, so you don't have to sign in separately.

Haz Singh, via email

OFFICE

Use Word Online's editing tools

I'm writing a book in Word Online (bit.ly/word495), which I hope will eventually be published as a Kindle ebook, although I still have a long way to go. I have a friend who I pass each chapter to so she can proofread it, suggest improvements and correct my mistakes. Anyone else who works on Word documents in this way may be interested to hear about a useful feature.
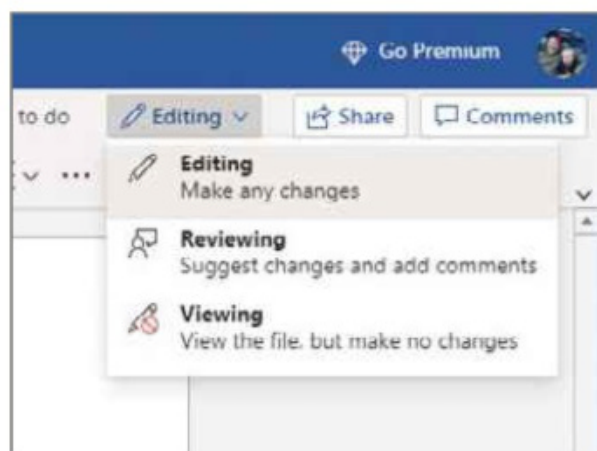
Choose the type of activity you're doing on a document from the menu on the right

The last item in the menu bar offers three options: Editing, Reviewing and Viewing. I write in Editing mode and my friend works in Reviewing mode. The difference is that any changes she makes are highlighted in red, and both the original text and the changes appear side by side. The original is struck out and the changes follow. When I get the chapter back, I can see the changes she's made alongside my original work. Right-clicking a change highlighted in red opens a menu with options to accept or reject the change. I find this very useful.

Clive Hobson, via email

GENERAL PC

Print lists of multiple PC files

In Roland Waddilove's solution to JR Pound's query "Print a list of PC files" (Issue 492, bit.ly/webuser492), he suggests entering the following command into the command line: `dir *.avi /b /s >files.txt`. I use this command a lot for various file extensions, and add the result to the "files.txt" file. However, there are more extensions for

video files than just '.avi', and the same is true of images and other commonly used files. So, while the recommended command lists files with that particular file extension, subsequent uses would need to add their results to the same file.

This is where the double >> symbol should be used instead of >, because it adds subsequent searches to the result file. As such, if I'm searching for more than one file extension, the >> symbol is a good way to get all my images, videos and ebook filenames in the same file. The appropriate commands would be `dir *.mkv /b /s >>files.txt`, `dir *.mp4 /b /s >>files.txt`, and so on. This information may be useful to JR Pound, so he doesn't have to ask the follow-up question: "How do I get the titles of all my images and videos in one file without copying and pasting?"

John Coates, via email

GENERAL PC

Make fewer mouse clicks

A long time ago when Windows 95 was new (and I had less grey hair), the operating system worked very differently.

Stop double-clicking everything in Windows and try single-clicks instead

You only had to click icons and files once to run or open them. Few people liked it at the time, and Windows reverted to double-clicking everything. Now that we all use the internet and mobile phones, it may be time to revisit this idea. Single-clicking is normal in web browsers, and a single tap is used for almost everything on phones, tablets and touchscreens, so why not single-click in Windows too? Open an Explorer window and click View to open the ribbon toolbar. Click Options, and the General tab lets you choose between single- and double-clicking items. Select single-click and save yourself a lot of mouse clicks.

Bill Fry, via email

EMAIL
Cut, paste and clear
When you copy text from a web page or document, and paste it into an email you're writing, it often brings the font and style with it. This makes a mess of your email, because part of the message is in the usual font and size, while the rest is in the pasted style. If you then type some more, you can't be sure whether the new text will be in the pasted style or the original.

I don't know about other email services, but here's how I solve this problem in Gmail. First, click and drag over the text in the email you're writing to select it, then click the A symbol to reveal the formatting toolbar. Click the arrow on the right, then the T with a line through it. This clears the formatting and sets the text to the default style.

David Pipe, via email

Andy Shaw, Technical & Reviews Editor says: Another way around this problem is to paste into emails using Ctrl+Shift+V. This pastes just the text without any of the formatting.

GENERAL PC
Read Microsoft's Windows 10 Quick Start guide
RIP Windows 7. I'm sorry to see it go, but I'm also excited to try Windows 10, having held off for so long. I'm sure there are many similarities and differences between the two, but thankfully Microsoft has made switching to this 'new' operating system a little easier with

Microsoft's informative guide helps you make the move to Windows 10
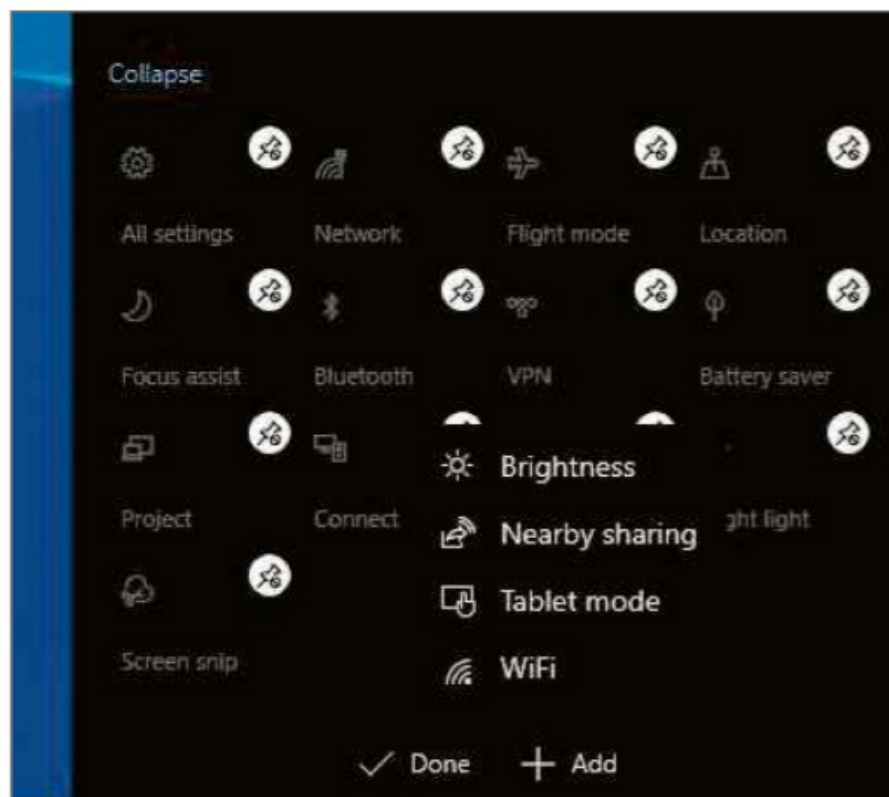
Add or remove buttons at the bottom of the notifications panel

its 'Quick Start Guide to Windows 10', which you can read at bit.ly/ quickstart495. The guide covers topics from 'Understanding your desktop' to 'Security, privacy, and scam protection', and everything in between to help us newbies get to grips with Windows 10. It's very helpful and well worth a read for anyone else who finds themselves trying to learn a new OS after the demise of our much-loved Windows 7.

Clive Stanhope, via email

GENERAL PC
Customise quick action buttons
Click the last icon in the taskbar and the notifications panel opens. At the bottom of this there are four buttons. Click Expand and many more appear. These do useful things such as enable/disable flight mode, turn Bluetooth on and off, and so on. Right-click any of these buttons and a menu appears. Click 'Edit quick actions' and you can remove buttons, add more and rearrange them. Just click and drag the buttons around to move them. Only the top row of buttons is visible when the notifications panel is collapsed, so put your favourites at the top. Click the pin on a button to remove it and click +Add at the bottom to add more buttons. I seem to remember that this tool was in the Settings app originally, but now you configure them directly in the panel.

Stan Skelton, via email

BLUNDER OF THE FORTNIGHT

MOBILE
Delete files from your Android bin
For weeks now, I've been trying to clean up my phone. While removing photos, I received the message: "Delete item permanently? Your device's bin is full". I've always been a tidy sort when it comes to computer devices. My recycling bin is always empty and I frequently use Android's File app. As such, you can imagine I was concerned to see this message, so I started removing all manner of apps and unnecessary files from my phone. Nothing seemed to work, and I couldn't find a recycle bin on my phone. It turns out that the device's bin is actually an option in Google Photos, although the message didn't make this clear. If Android is informing you that your device's bin is full, open Google Photos on your phone and tap the three-lines menu button. Here, you'll see an option called Bin. Tap this, and
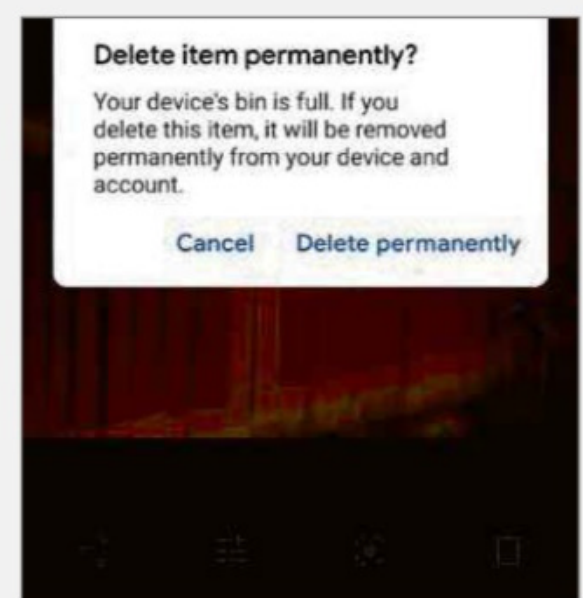
If you see this message on your Android device, empty your Google Photos bin

you can Restore all your photos or press the three-dot menu and select 'Empty bin'. Panic over!

Carole Bissett, via email

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

Inbox

You can let us know your views via:
editor@webuser.co.uk, www.facebook.com/webusermagazine
and www.twitter.com/webusermagazine

Star Email

Facial recognition treats us like criminals

After reading your main news story in Issue 494, 'Police to roll out facial recognition despite concerns', I am alarmed and dismayed that this invasive and inaccurate technology is now being implemented on our streets without proper public consultation.

It's bad enough that wherever we go in this country we are spied on by CCTV cameras. Now we're supposed to tolerate having our faces automatically scanned to determine whether we're criminals or not – and without having given our consent for this information to be gathered. No other nation on Earth, not even oppressive regimes such as Russia and North Korea, invades the privacy of its citizens to such an unnecessary extent. Whatever happened to the notion that we are innocent until proven guilty?

The heavy-handed use of live facial recognition assumes the opposite, and is likely to lead to many innocent people being apprehended, interrogated and frightened by police for no good reason.

As you state in your story, tests of the technology have so far shown that it has a very poor accuracy rate, so why the rush to introduce an ineffective and intrusive system that's unlikely to yield the desired results. As the Liberal Democrat MP Sarah Olney said in a parliamentary debate on this issue last month, the use of facial recognition to identify criminals is questionable at best, and "we must not allow the UK to become a society where innocent people feel as though their every movement is being watched by the police" (bit.ly/facial495).

We all want protection against terrorists, knife crime and other threats on our streets, but we also have a right to privacy. I only hope the Metropolitan Police will be transparent about the success or failure of facial recognition in London before other police forces adopt the technology.

Peter Hanover, via email

Not all PAYG phone users are criminals

Regarding your news story in Issue 493, 'Police want to ban pay-as-you-go phones'. Are the police saying that I might be a drug dealer because I use a "pay-as-you-go phone", and do I have to prove myself innocent to keep using it? Am I not innocent of something until a court of the land says I'm guilty.

My pay-as-you-go phone is about three years old. I spend less than £1 a month on calls and I never text, but I've been known to take the odd picture. So why would I sign up for an expensive contract with an expensive new phone (we all know they don't have any old ones left), and give up more of my personal information to be stored on some company's system?

When will the police stop chipping away at our last remaining areas of privacy? Only when there's nothing left to chip away at, it seems.

Robert Lindsay, via email

Why I never click links in emails

I'm concerned by the number of high-profile organisations that still invite their customers to click links in emails and text messages, which as everyone should know by now is a serious security risk. My simple rule is that I never, under any circumstances, click or copy and paste any link in an email. Instead, I go to the website and proceed from there.

It really is about time organisations ceased this practice, which increases the risk of customers accessing fake sites, compromising the integrity of their data and infecting devices with malicious code.

Trevor Jordan, via email

Quiz Answers: Issue 494

1. *Chinatown*
2. *The French Connection*
3. *The Railway Children*
4. *Paper Moon*
5. *Straw Dogs*
6. *Deliverance*

WINNER!
Well done to **Angela Glover** who wins a Web User Back Issues Disc

WIKIPEDIA ARTICLE

Napster

An easier way to type diacritics

In response to your advice about typing diacritic marks in your 'Restore missing keyboards tools' feature in Issue 493: why bother using the Character Map in Windows when the ASCII code is much simpler? For example, typing "Alt 0128" produces the Euro symbol, €, while "Alt 130" represents é, and so on. It's a lot quicker than selecting and copying from Character Map.

If I have to type a letter in Vietnamese (my wife's language), I use an online keyboard, which is absolutely necessary with an alphabet of 68 accented letters, as well as the 26 English letters. I can probably write a whole sentence in the time it would take you to select and copy the characters for a single word. Why make life complicated?

John C Kent, via email

Who's logging our conversations?

With regard to Terry Cowley's 'What you say' comment in Issue 493, where he states that some people "overestimate their own importance" by assuming smart speakers are listening to them. I visited my niece yesterday and she has a log-burning fire, as well as an Alexa-enabled device, and we were talking about the fire and the stuff you have to buy when you have one. This morning at home, while I was looking at Apple News, up popped an advert for log-fire ancillary items such as fans. How strange! Or am I just being paranoid?

Steve Woodbridge, via email

New Edge is better than Chrome

As a long time user of Google Chrome, and having briefly tried a few other browsers before coming back to it, I decided to give Microsoft's new incarnation of Edge (bit.ly/edge492) a spin. I agree with your cover feature in Issue 492 that the new Edge is faster, cleaner and more versatile than my previous browser, and I plan to keep the trial going.

Henry Evans, via email

What you say...

DOES THE NEWS THAT RING DOORBELLS SHARE USER DATA (bit.ly/ringdata495) PUT YOU OFF HAVING ONE?

Nothing is private any more, so it doesn't put me off at all. Well, not when you use Google, Amazon and Facebook anyway.

Elena Okharedia

Definitely. While an exchange of data is the price we pay these days for many "free" services such as Facebook, the Ring doorbell is not a free service. As such, the collection of data, particularly by companies not listed in the privacy policy, shouldn't happen. At the very least we should have the option not to allow it. I wonder how much of this data was being collected before Amazon bought Ring.

Rich Grove

Any web-connected device we use carries the risk of sharing our data with third parties. However, I do think companies should be more open about what they do with their customers' data. In fact, declaring such uses should probably be a legal requirement.

Colin Ellis

If people are too lazy to get up and answer their front door when the doorbell rings then they deserve all they get!

Brian Hunderby

DO YOU THINK 10 YEARS OLD IS TOO YOUNG TO OWN A SMARTPHONE (bit.ly/ smart495)?

Provided there is proper parental supervision over which apps their children use, I don't really think it's a problem. Kids are much more savvy about technology than their parents, anyway.

Sarah Franks

No, not in this day and age. Whether you approve of smartphones or not, they are now an essential accessory for children, or else they risk becoming isolated and left behind.

Graham Hartley

Personally, I wouldn't allow my child to have a smartphone until they reach their teens, but there is so much peer pressure to own one these days that I understand why some parents allow it. Giving kids a basic non-smart phone for calls and texts is a fair compromise, I think.

Darren Beasant

Children should be outside in the fresh air, learning about the world, not glued to a phone screen. It's bad for their eyes and their imaginations.

Paul Duffy

✚ Air your views, write to us at editor@webuser.co.uk

⚠ **Page 404**

Free sat-nav apps could limit the dangers of so-called smart motorways, says **Barry Collins**

Smart motorways aren't smart enough

Smart motorways, it turns out, are not so smart. Removing the hard shoulder from these busy roads has resulted in avoidable deaths and a sharp increase in the number of near misses. Who could possibly have foreseen that, eh?

However, the failure of smart motorways isn't necessarily down to the removal of that hard shoulder, even though that may seem an obvious cause. It's just as much due to a failure of technology – specifically, the technology that was supposed to put the "smart" in "smart motorway".

The introduction of smart motorways has been "conducted with a shocking degree of carelessness," according to Sir Mike Penning, the former Roads Minister who originally signed off on the idea of smart motorways back in 2010. Most significantly, the radar technology that was supposed to detect stationary cars and close their lanes immediately has been implemented on just 6% of the smart motorway network,

according to a report by *The Guardian*.

The rest of the network relies on drivers reporting that they're stranded, or CCTV operators spotting stationary vehicles. As the All-Party Parliamentary Group on Roadside Rescue and Recovery noted, "many motorists don't know what to do in such situations". The recordings of 999 calls from drivers stranded in fast-moving traffic were described as "harrowing".

Transport Secretary Grant Shapps – a reader of this column, as I know from previous correspondence with him – is conducting an urgent review of smart motorways. But one thing's for sure: the government won't be replacing the hard shoulders or installing life-saving radar immediately. In the meantime, can I suggest to Mr Shapps that he urges the public to start using a free smartphone app that's smarter than the motorways

> **" 999 calls from drivers stranded in fast-moving traffic were described as "harrowing" "**

his government has rolled out?

Every time I set off on a longish road trip these days, I use the Google-owned sat-nav app Waze – even if I know where I'm going. Not only does its brilliant live traffic monitoring diligently reroute around jams, it also warns me of upcoming hazards in the road, whether it's roadworks, a pothole or – yes – a driver who has broken down. The accuracy of Waze's broken-down vehicle reports is astonishing, and it gives you plenty of time to slow down, reducing the risk of collision.

Waze relies on other drivers reporting incidents – and I do have some safety concerns about drivers fiddling with their smartphones to do this while they're supposed to be driving. But the system also detects when a Waze user has suddenly stopped on an otherwise fast-flowing carriageway, and asks if they're caught up in traffic or an accident. This means reports can be near-instant if the affected driver is also using Waze.

In the absence of the radar that was supposed to be looking out for us on the roads, Mr Shapps and his department should be recommending that we all use apps such as Waze. Better still, the Highways Agency should start using the app to report broken-down vehicles – and to monitor the motorways, too.

A stretch of smart motorway is being installed near me on the M23. I won't be driving up it without Waze to warn me of impending dangers. Who'd have thought Google would be better at keeping us safe on the roads than our own government?

Illustration: Andrew Torrens

✚ Do you agree? Let us know at webuser@webuser.co.uk