Computer active
ISSUE 685 | 5 – 18 JUNE 2024
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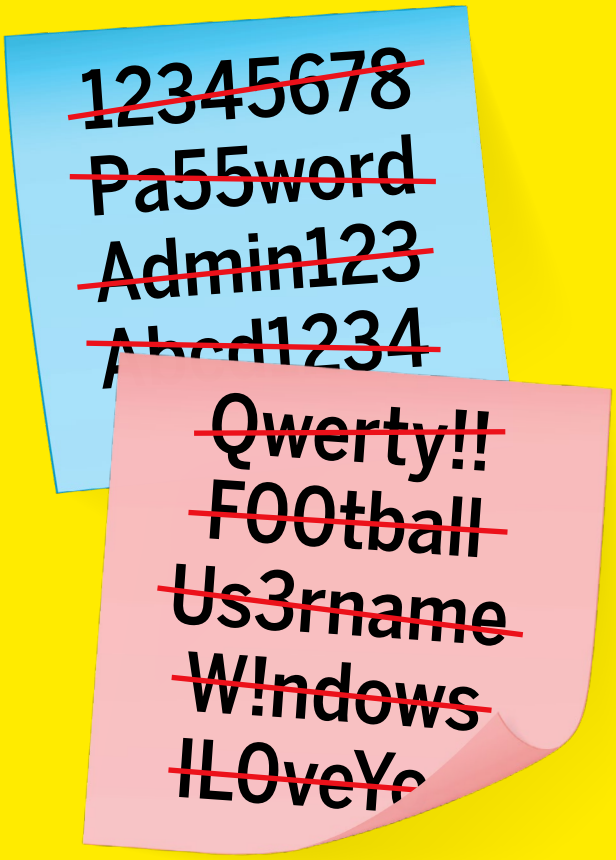

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MARKETING AND CIRCULATION
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From the Editor

When you next have some time on your hands, try to work out how many unique eight-character passwords you can create with the 94 characters on a typical PC keyboard. The answer, revealed on page 53, contains more zeros than the average Windows error message. And yet a computer would need only eight hours to crack it.

That reinforces the importance of taking your password security seriously. Nik Rawlinson needs no reminding. Writing our Cover Feature, he found a staggering 322 vulnerabilities in the passwords stored on his iPhone.

Fortunately, he's also the best person to explain how to generate unhackable passwords. I'm going to start using the phonetic technique he outlines, and also take his advice on setting up passkeys for all my accounts.

Before that though, he rounds up the nine deadliest hacks of the past six months and explains how you can check whether your passwords have been stolen. I reckon I'm affected by three of them. Don't log in anywhere until you've read it.

Daniel Booth
editor@computeractive.co.uk

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£255
Price of the BenQ BL2970QT monitor, which is our new favourite – *p24*

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New deadline for the UK's copper phone line switch-off – *p6*

700m
Number of Foxit PDF users at risk after design flaw detected – *p9*

HOW TO USE SNIPCA URLs

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

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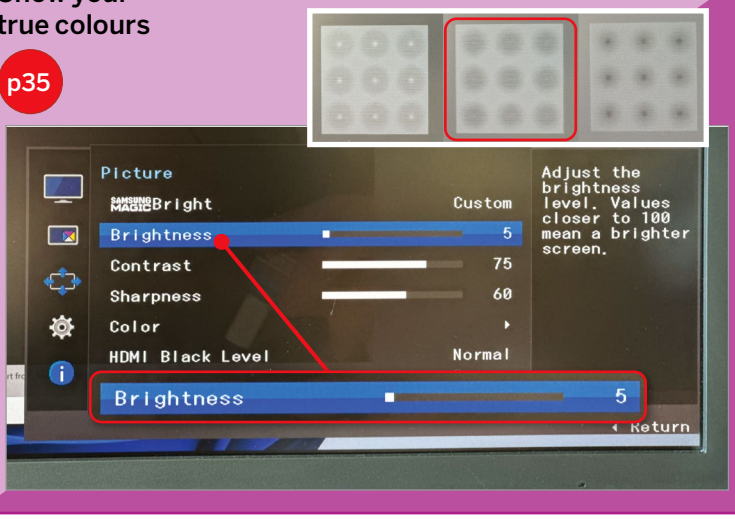


DITCH YOUR OLD PASSWORDS NOW!

COVER FEATURE P50

Check whether you've been hacked – then act so it NEVER HAPPENS AGAIN!

Make phone calls WITHOUT A SIGNAL

p60

Don't let signal failures derail your chats

BT delays phone landline switch-off to January 2027

BT has delayed plans to move customers from copper-based landlines to digital following growing concerns about vulnerable people.

It had aimed to complete the switch by the end of 2025, but has decided to postpone this deadline to 31 January 2027.

Virgin, which runs the UK's biggest cable network after BT, has yet to comment, but is likely to follow suit.

Both companies had already paused switching in December 2023 amid fears that too many telecare alarms would stop working after the change.

Nearly two million people use telecare systems to contact emergency services, but many require traditional phone lines and won't work with internet-based services.

Even those that are compatible won't work when internet access goes down due to a power cut, unless the customer has a backup power supply.

WHAT WE THINK

This delay is the correct decision, and has looked inevitable ever since BT stopped switching vulnerable customers in December. Industry leaders have both underestimated the disruption the switch-off is likely to cause, and overestimated the public's enthusiasm for it. That said, the ancient copper network is crumbling and must be replaced. The new 2027 deadline should give businesses, Government and customers enough time to adapt. However, there can be no excuses for extending it again.

Free battery backups and hybrid phones

In December, BT joined other major providers in signing a Government charter (www.snipca.com/48867) containing five pledges to protect vulnerable customers.

It then resumed switching customers in April, but is excluding vulnerable people such as those who use a telecare device, are aged over 70 or don't have a mobile signal.

It has also introduced new measures which it claims makes it "easier to identify and support those who need extra help". These include providing "improved" communications to customers about changes, and engineers offering "additional" support when installing digital phones in the home.

From Spring 2025, BT will resume contacting vulnerable customers, giving them at least four weeks' notice before the switch to make sure they're ready.

For customers who don't use the internet, BT is working on an interim landline service called 'SOTAP for Analogue' designed to keep them connected while moving them off the copper network.

It will also offer them free battery backups so they can use the internet during power cuts, as well as hybrid phones that can operate on both broadband and mobile networks.

Howard Watson, BT Group's Chief Security and Networks Officer, said the switch to digital remains urgent because "the 40-year-old analogue landline technology is increasingly fragile".

He added that it's "critically important" to make sure people with additional needs are looked after, but said local authorities and telecare providers must do more to tell BT where such customers live.

Read more about BT's decision at www.snipca.com/50550. You can register as a vulnerable customer at www.snipca.com/50549.

ALMOST 14M HOMES CAN GET BT FULL-FIBRE

Almost 14 million homes can now get BT's Fibre-to-the-Premises (FTTP) broadband, the company announced in its financial results for the year ending 31 March, 2024.

It said 13.81 million premises across the UK are now connected, up from 10.3 million a year ago – at a rate of 78,000 homes a week.

BT aims to reach 25 million homes by December 2026, then 30 million by 2030.

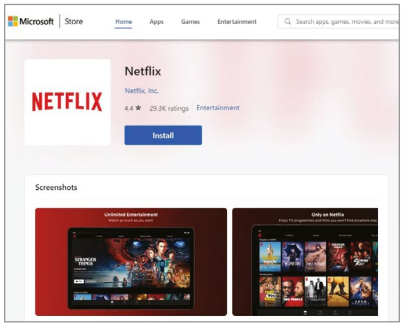
In addition, the results said that 75 per cent of the population can now get 5G from EE, which BT owns, up from 68 per cent last year.

BT also announced plans to cut a further 45,000 jobs to reduce its workforce to between 75,000 to 90,000 employees, in a bid to make savings of £3bn by 2029.

You'll like this... VMware has made its paid-for virtual machine software free for all (www.snipca.com/50554)

but not this... Courier firm Evri says reported scams have increased by 174 per cent in the past year (www.snipca.com/50553)

Netflix axes downloads on Windows PCs



Netflix will stop you downloading shows to watch offline in the next version of its Windows app.

The move will annoy users who currently download shows to watch on their laptops when they can't get a connection to stream, such as while travelling.

However, you'll still be able to download shows to phones and tablets, as well as Chromebooks if you've installed the Netflix app from the Google Play Store (www.snipca.com/50512).

Netflix outlines the change in a message that appears when you open the Windows version, and confirms it online at www.snipca.com/50516.

Its current Windows app – available from the Microsoft Store (www.snipca.com/50539, pictured) – has been criticised for being slow to load. It also lacks the cheapest version of Netflix, which contains adverts, so you have to pay the more expensive subscription to watch without ads.

This will change in the new version of the program, Netflix said. It will also let you watch live events and have better-quality streaming.

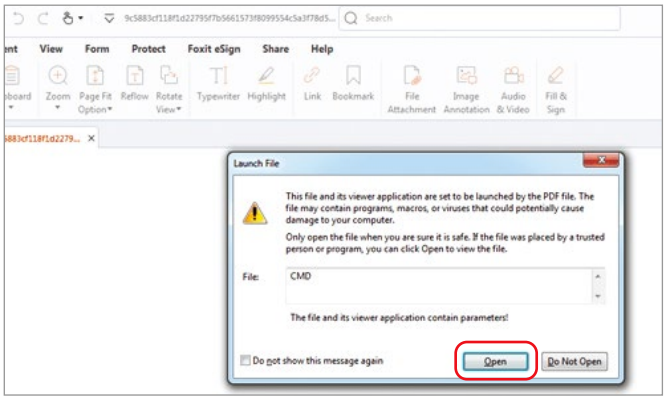
Netflix didn't say when the new version would launch, nor why it's removing downloads, though the reason is probably that most viewers choose to download shows to phones and tablets rather than computers.

That was the justification the BBC gave earlier this year for axing downloads from the Windows version of the iPlayer, angering many viewers in the process.

However, there are still unofficial programs that let you download iPlayer shows, such as Get_iPlayer (www.snipca.com/49454, see Issue 680, page 38 – buy the back issue from www.snipca.com/50517).

To download Netflix to phones, tablets and Chromebooks follow the instructions at www.snipca.com/50514.

Hackers target 'flaw' in Foxit PDF Reader



Hackers are targeting users of Foxit PDF Reader by exploiting a design "flaw" within security warnings shown by the software.

The attack was discovered by Israeli security firm Check Point, which said attackers show fake warnings with 'Open' buttons selected (see screenshot), copying the style of Foxit.

Check Point said the warnings appear when you try to open a PDF that you've made changes to.

These messages warn you that the file might contain "programs, macros, or viruses that could potentially cause damage to your computer".

The hackers hope you'll instinctively click the Open button because it's presented as the recommended choice. But doing so installs malware that gives them access to your device, letting them steal sensitive information.

Check Point said that the attackers are targeting both the Windows and Android version of Foxit, and that it lay undetected for years because most antivirus software focuses on spotting flaws in Adobe, which is the world's most popular PDF software.

However, with over 700 million users around the world, Foxit remains an attractive target for hackers.

Its research comes several months after we discouraged readers from using Foxit in Issue 673's 'What You Must Uninstall in 2024' Cover Feature – available as a back issue from www.snipca.com/50522.

We recommended using PDFgear instead – free from www.pdfgear.com.

Which PDF software do you use? Let us know: letters@computeractive.co.uk

IN BRIEF

NEW BODY TO BOOST UK CHIP INDUSTRY

A new independent Semiconductor Institute will bring together government departments, universities and the private sector to promote the UK's semiconductor industry. It's part of the Government's Semiconductor Strategy, announced last year, which will invest £1bn in the sector. Ministers said the new body will give researchers the resources they need to bring products to market. Read more at www.snipca.com/50530.

UK BROADBAND IS 96th CHEAPEST IN THE WORLD

The UK now has the world's 96th cheapest broadband, down from 76th last year. The figure comes in the 'Global broadband pricing league table 2024' report from broadband-comparison site Cable.co.uk. It found that the average UK price is £30.65 a month, up from £28.42, making it cheaper than Ireland, US and Canada, but more expensive than France, Germany and Spain. See the full list at www.snipca.com/50536.

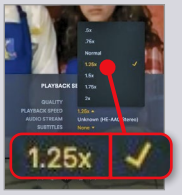
TOMORROW'S WORLD

We're thrilled by news that researchers at Groningen University in the Netherlands have built software to detect when people are being sarcastic. This invaluable work analyses text and audio to work out whether the speaker means what they say. Sounds fantastic. No, really, it does. We can't wait to read the report at www.snipca.com/50538.

IN BRIEF

CHANGE VIDEO PLAYBACK SPEED IN PLEX

Plex Pass subscribers can now change the playback speed of videos. The feature is supported on most platforms, including Amazon Fire TV, Android TV, iOS, Linux, Windows and Xbox. You can double the normal speed or halve it, with 0.25 increments in between. For details visit www.snipca.com/50501.

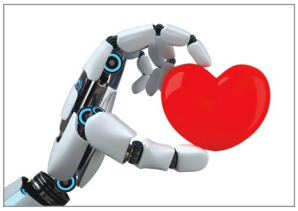


GOOGLE WALLET WON'T WORK ON OLD PHONES

Google Wallet will soon stop working on Android phones that run version 8.1 or earlier. This version of Android was released in 2017. From 10 June you'll need Android 9, released in 2018, or later to keep using the payment app. Read more on Google's support pages: www.snipca.com/50502.

THE WORLD'S GONE MAD!

The future of dating could be AI tools chatting to each other to avoid awkward encounters. Whitney Wolfe Herd, founder and CEO of dating app Bumble, said bots programmed with "interests, likes, dislikes, even conversation habits" could meet virtually to decide whether two people would get on in real life. How romantic.



Google lets you search without photos, videos and news

Google has added a 'Web' option to its search tool that removes videos, images, news panels and information boxes from the results, showing only text-based links.

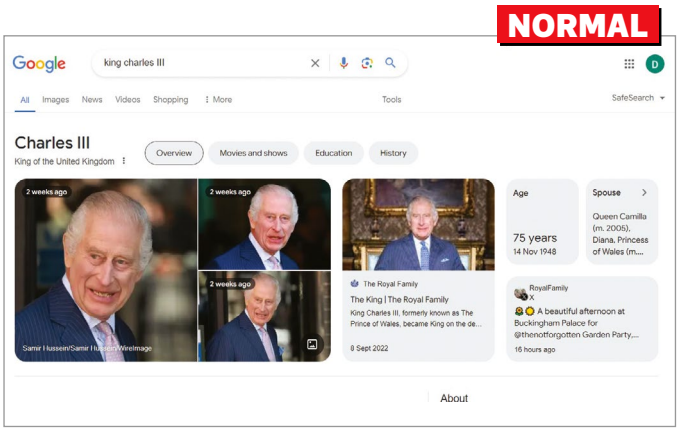
It also removes photos of sponsored products, though text-based ads remain.

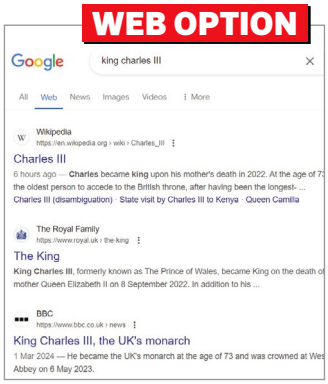
The effect is to make search results look simpler and less cluttered, reminiscent of how they looked in the early days of the internet.

Writing on X (formerly Twitter), Google said it added the option following feedback from users who said sometimes "they'd prefer to just see links to web pages in their search results, such as if they're looking for longer-form text documents" (www.snipca.com/50499).

To use it on a computer, type a search term into Google then click More on the right, followed by Web.

On phones and tablets the option appears alongside the other search filters – Images, Videos, News and more. You can see the difference it makes in our screenshots. All photos of and information about King Charles III in the normal search (above) has been removed in the 'Web' search (right).





Apple update brings back deleted photos and messages

Apple's iOS 17.5 update, released 13 May, has made deleted photos and voicemail messages reappear on phones.

The flaw was reported on social media by users confused to see photos and messages from years past popping up on their device.

One user on X (formerly Twitter) said he had 26 voicemail messages after the update, when previously he had just one (www.snipca.com/50505, pictured). On Reddit users said they were seeing photos they'd deleted in 2021 (www.snipca.com/50504).

When you delete a photo or message from iOS, it's not actually removed entirely from your device. It's only ever fully wiped when the location of the file is replaced with other data.

They also remain in a 'Recently deleted' album for up to 30 days, giving you some time to recover them. But the flaw in 17.5 is bringing back photos and messages that were deleted much earlier.

Apple hasn't commented on the flaw, but some experts have speculated that it could be down to a syncing problem between iPhones and iCloud Photos.

Credit: X

CONTROL iPADS WITH YOUR EYES

Apple is adding Eye Tracking to iPads and iPhones to help those with physical disabilities control their devices. It uses the front-facing camera and is built into iPadOS and iOS apps, so you won't need to install extra software. Apple says users will be able to 'tap' buttons and 'swipe' screens solely using their eyes. It's one of several accessibility features coming later this year – see www.snipca.com/50506.

UK watchdog probes Microsoft tool that records what you do

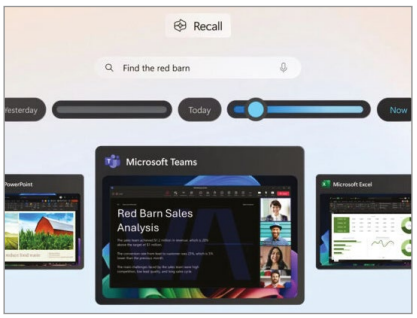
The UK's data watchdog is investigating Microsoft's new Recall tool, which records everything you do on your laptop by taking screenshots every few seconds.

It uses this information to let you search what you've done on your laptop by scrolling through a timeline of 'snapshots' that includes websites, documents, programs, emails and more (pictured).

Recall is a key part of the forthcoming range of Copilot+ laptops, which Microsoft claims "are the fastest, most intelligent Windows PCs ever built".

They're powered by processors capable of more than 40 TOPS (trillion operations per second) and use AI to let you "do things you can't on any other PC".

Laptops from Acer, Asus, Dell, HP, Lenovo and Samsung, as well as Microsoft's own Surface devices, are part of the range.



Microsoft says Recall "feels like having photographic memory", but the Information Commissioner's Office (ICO) has asked the company to make sure there are "safeguards in place to protect user privacy".

"We expect organisations to be transparent with users about how their data is being used and only process personal data to the extent that it is necessary to achieve a specific purpose," the watchdog said (www.snipca.com/50602).

Microsoft said the files will be stored on laptops, and that its staff won't have access to them. However, they won't be censored, so personal information like passwords will be kept in the screenshots.

Some security experts say this would make Recall extremely lucrative for hackers. Muhammad Yahya Patel, lead security engineer at Check Point, called it a "one-shot attack for criminals, like a grab and go, but with Recall they will essentially have everything in a single location".

You can watch how Recall works on Microsoft's blog: www.snipca.com/50610.

EE and Plusnet to refund 1.1m customers charged exit fees

BT will have to refund over one million EE and Plusnet customers who weren't given enough information about their contract.

Ofcom introduced rules on 17 June 2022 forcing phone and broadband providers to give you clear details of your contract before you sign up (www.snipca.com/50612).

This information must include the price and length of contract, the speed of the service and any early exit fees.

But an Ofcom investigation found that after 17 June 2022 EE and Plusnet, which are owned by BT, "made more than 1.3 million sales without providing customers with the required contract summary and information documents".

Ofcom said at times the companies "deliberately chose" not to comply with the rules.

You might be due a refund if you got a broadband, landline, mobile or TV contract with EE or Plusnet on or after 17 June 2022, but only if you weren't given contract information before signing up – and only then if you were charged an early exit fee for leaving or cancelling your contract.

BT now has five months to identify and refund affected customers who were charged for leaving. It also has three months to tell customers still in contract that they weren't given enough information before signing up, and can now cancel without paying a fee.

Ofcom has fined BT £2.8m for breaking the rules. It said the company must change its sales methods so that "all customers receive the right information at the right time".

BT apologised and said it has already contacted affected customers and arranged refunds.

IN BRIEF

WATCH RETRO TV ON NEW SKY CHANNEL

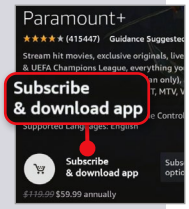
Retro channel Rewind TV has launched on Sky's satellite boxes, such as Sky Q. Available for no extra cost, it contains shows from the 60s to 90s, including *Drop the Dead Donkey*, *Hammer House of Horror*, *The Prisoner*, *Whicker's World* and Tony Hancock's self-titled 1963 ITV series (pictured), which has never been repeated. It's available on channel 190 – see www.rewindtv.uk.

CREATE 7-ZIP FILES IN WINDOWS 11

The latest preview version of Windows 11 lets you create 7-Zip and TAR file archives in File Explorer. Previously you needed to install a third-party program such as WinZip or PeaZip (see page 19). The new feature is available to Windows Insiders now, and is likely to be added to the full version when the 24H2 update is released later this year. Read more at www.snipca.com/50611.

AMAZON FIRE'S DEFAULT SUBSCRIPTION

Amazon now selects the option to subscribe to a channel on Fire TV by default, which could lead to some viewers signing up by mistake. Previously the default option was simply to download the free app. The change has been spotted in the US on services including Apple TV and Paramount+ (pictured). We'll let you know if it comes to the UK.



Which extensions slow your web browser?

Don't trade cryptocurrency, use VPN proxies or talk to AI assistants

Unless you're clever (or foolish) enough to trade daily in cryptocurrency, we recommend you never install the browser extension Bitget Wallet (www.snipca.com/50607). It makes web pages appear 1.18 seconds slower than usual, which is the longest delay of the 5,000 most popular extensions on the Chrome Web Store. It might not sound like a long time, but by the standards of web browsing it feels like an eternity.

This epic test was carried out by researchers at Hampshire firm DebugBear. They wanted to find out how the processing power of extensions – determined by how much code they run on websites – affected how long it took websites to render.

Rendering is the most important metric when measuring a website's speed. This is when a web page is ready to be used, and comes fractions after it 'loads' – which is merely grabbing all the web resources it needs.

DebugBear found that some extensions with a lot of code didn't slow websites much. That's because they process after a page has fully rendered. But extensions that processed code before a page had rendered were much slower.

Two of the worst offenders were VPN proxy extensions (see box right). This makes sense, DebugBear said, because they route traffic through an intermediary server, delaying page rendering.

AI extensions are also extremely slow. Monica lets you "chat, search, write, translate and more" using tools like ChatGPT, but it adds one second to every page rendered. Trancy, which uses AI to show subtitles, is almost as sluggish. Extensions offering shopping discounts, like Avast SafePrice and Avira Safe Shopping, aren't much better.

DebugBear also tested which extensions break the back and forward buttons at the top-left of a browser that let you go through web pages recently visited. Browsers try to make this smooth by restoring the previously opened page using a process called the back/forward cache.

However, some extensions run code on websites that interfere with the cache. Only 1.7 per cent of the most popular extensions do this, but they include some big names, such as Avast, Avira, LastPass, Microsoft Editor and Norton.

Now for some good news – all ad-blockers speed up web pages. You'd expect this, of course: adverts use a lot of processing power, so stopping them loading will make pages render faster.

But DebugBear found that the two most popular ad-blockers – AdBlock and the separately run Adblock Plus – make little difference, which will disappoint their 110 million users. By contrast, we're pleased to see that three of our favourite ad and tracker blockers – DuckDuckGo (https://duckduckgo.com), Privacy Badger (https://privacybadger.org) and uBlock Origin (https://ublockorigin.com) – perform well. As is often the case across many categories, smaller programs with a clearer focus perform better than larger software that tries to do too much.

You can read the full report at www.snipca.com/50605, but before that visit www.snipca.com/50606 to see where your extensions sit in the speed table. Simply scroll down or search using the box. It lists the top 1,000 extensions, and has columns for 'Page CPU Time' and 'First Contentful Paint'.

The latter is more important because it measures "how soon after opening a website the first bit of page content becomes visible". Click 'First Contentful Paint' in black at the top and you'll see the extensions listed with slowest first. And if it takes ages to appear, perhaps you should check whether you have too many extensions installed.

THE FACTS

- A test of 5,000 Chrome extensions found that cryptocurrency, VPN and AI tools made web pages render slowest
- Some security-related extensions break the back and forward arrows on a browser, including Avast, Avira, LastPass and Norton
- All ad-blockers made pages load faster, but AdBlock and Adblock Plus made little difference

FIVE SLOWEST EXTENSIONS

- Bitget Wallet 1.18 secs
- VPN Professional 1.16 secs
- Monica 1.07 secs
- VPN-free.pro 1.02 secs
- Trancy AI subtitles 0.996 secs

Protect your tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

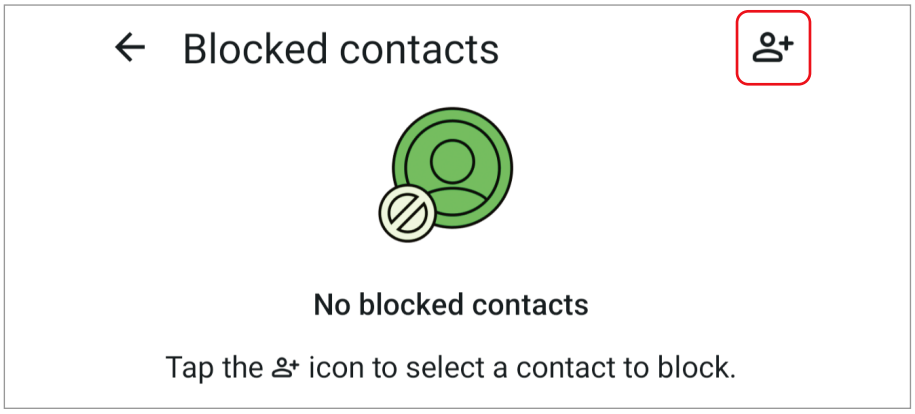
WhatsApp calls from fake members

What's the threat?

Scammers are phoning members of WhatsApp groups claiming to be another member in an attempt to take over their phone. First, they make an audio call through WhatsApp, using a fake name and profile photo. They tell the victim they're sending a six-digit code that will let them join an upcoming video call for members. The criminal then asks the victim to share this passcode with them so they can be 'registered' for the video.

In reality, once the scammer has this passcode they can register the victim's WhatsApp account to a new phone. This lets them take over the account. Next, they turn on two-step verification in WhatsApp, making it impossible for the victim to regain access to their account.

Now in full control of the phone, the scammer sends messages to other members of the group and the victim's contacts asking for money because they urgently need help. Action Fraud says more than 630 victims have reported the scam this year. Religious and work groups are the most commonly targeted.



How can you stay safe?

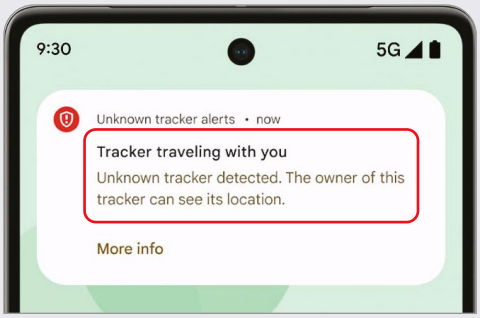
Never share your six-digit code with anyone, even friends and family.

If you receive an audio call through WhatsApp from someone you don't know, ask for their phone number so you can call them outside of the app. Even if you *do* know the sender, it's worth checking by asking them to send you a voice message. Learn how to play these at www.snipca.com/50457.

You can also block senders you don't trust. In Android, tap the three dots on the Chats page, then Settings, Privacy, then 'Blocked contacts'. Now tap the plus (+) icon (see screenshot) and select the person to block. You'll find iPhone instructions at www.snipca.com/50459.

New tools | Get Bluetooth-stalking alerts on your phone

Bluetooth stalking is when someone hides a tracking device like an AirTag or Tile upon your person (clothes, bag, car etc) and uses it to monitor your movements. Apple and Google have been working to tackle this growing threat, and will now warn you if they detect "unwanted" trackers moving with you.



Google has added a 'Tracker traveling with you' alert (pictured) if it detects an unknown tracking device moving with you. This will appear on phones and tablets that run Android 6.0 or later, released in 2015 (see www.snipca.com/50465).

Similarly, iOS 17.5 (released mid-May) will show the alert '[Item] Found Moving With You'. Apple already showed this message if it detected an unknown AirTag (made by Apple) moving with you, but will now warn you about *any* type of tracker (see www.snipca.com/50463).

If you see a warning, you'll be able to disable the tracker and make it play a noise so you can find where about you it's been hidden.

ScamWatch
Readers warn readers

Fake buyer on Vinted

After listing a DVD on Vinted (www.vinted.co.uk) I received an email from a customer asking for more photos sent directly to them because "the Wi-Fi in the office was too slow to load any of the pictures" I had uploaded to Vinted. Then I received an email saying, "Dear valued customer, click the link below to complete your purchase" and I had an email from the 'customer' saying they had paid via the app. There was nothing on the app to show the item had been bought. Alarm bells were ringing, so I blocked the seller and have had no further correspondence.

Jack Lewington

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

Letters

Tell us what's on your mind

I won't buy Dell again following hack

I was one of the people unfortunate enough to receive an email from Dell confirming that my details had been stolen in the recent hack (Issue 684, page 10). I'm more disappointed than angry about the hack, but I'm absolutely furious about the tone Dell uses in the email.

Fine, it tells us that no payment details, phone numbers or email addresses were taken. But then it claims the theft of names, home addresses and purchase data poses "no significant risk" to us. Are they being serious? Don't they know how easy it is for scammers to obtain email addresses and phone numbers from other sources once they have names and home addresses? Give me a day off work and criminal intent and I bet even I could work it out.

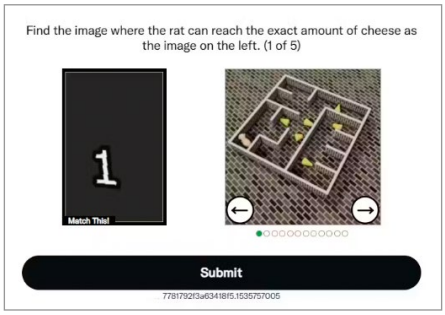
Dell was also wrong not to mention the scale of the leak. If 49 million records have been stolen, that makes it an attractive batch for criminal gangs to buy. They'll want a return for their money, so they'll put plenty of resources into launching scam attacks. A smaller batch of stolen data wouldn't be of such interest. I doubt I'll buy Dell products again. In my eyes the brand is tarnished irredeemably.

Malcolm Barnes

CA SAYS **Malcolm's right that Dell's email didn't sufficiently explain the risk of the hack. We can understand its desire to prevent panic, but its tone was far too relaxed. Read it for yourself at www.snipca.com/50434, then turn to page 50 for advice on changing your passwords so they're unhackable.**

New captchas are like applications for Mensa

I can't agree with Chris Brookman that Captchas are getting easier



(Letters, Issue 684). I accept that the squiggly words in old Captchas were sometimes hard to read, but you could always click a button to see a new one that might be easy to decipher. You could also hear it spoken by selecting the audio option. These were distorted to stop bots from understanding them, but you could generally make them out.

These Captchas were around for so long that, while occasionally annoying, at least everyone knew what they had to do. Ticking 'I'm not a robot' became an everyday part of the web.

But now we have to learn a new way of thinking. This wouldn't be so bad if the puzzles were easy, but look at this one that stumped me a few days ago (pictured above). It feels like you're applying for Mensa rather than simply logging into a website.

Bonkers to have over 7,000 saved tabs

You're not wrong when you described storing 7,470 active browser tabs as "obsessive" ('What's All the Fuss About?, Issue 684, page 49). In fact, I'd go further and say it's completely bonkers.

The woman who had all those tabs open, Hazel, reminds me of those hoarders you sometimes see on Channel 5 shows, where they're imprisoned in their own homes by all the clutter they've accumulated. They can't bear to throw anything away, just like Hazel couldn't bear to lose a tab. It can't be healthy.

Richard Dickinson

Books and vinyl look great, but I prefer digital

I understand John Barber's preference for physical items like vinyl records and books over digital (Letters, Issue 684), and I agree with much of what he says. But my preference for physical goods is only for how those items look, not their inherent quality or convenience.

For example, I collect classic Penguin paperbacks, mostly from the 1950s to 1980s. I love having them on display in the living room. They make a great conversation piece when people visit. However, when I want to read a book I download it to my Kindle.

Likewise, I think vinyl records are a work of art, particularly some of the designs from the 1970s. I have several covers framed around the house. But I've not played any on my stereo since I first digitised them for my iPod, 20-odd years ago.

Aesthetically, you can't beat paperbacks and vinyl. But those formats are no longer the best way to consume the content.

Bob Galway

What's the Issue...?

I want my next laptop and phone to be refurbished. Didn't you explain what to look for in a feature last year?

Gary Mortimer

CA SAYS **In Issue 662, page 60. Read it and the features above on our Back Issue CD: www.snipca.com/48860**

CA SAYS **Yes, in Issue 665's 'Never Pay Full Price' Cover Feature.**

When was your Workshop on using Upscayl to increase the size and resolution of old photos?

Eric Chisholm

I want to buy a cheap phone just to pay for parking. When did you review those?

Paul Dudley

CA SAYS **In Issue 674, page 38. Buy the back issue from www.snipca.com/50431.**

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5G routers are simply not reliable

There's been lots of letters and tips recently recommending mobile broadband, but for me this is currently feasible only on 4G routers, not 5G. I upgraded to a 5G router from EE last year and had endless problems with it. I had to reboot it several times a day to get any kind of connection. I've now switched to 4G and while it's probably slower, it's more reliable.

I've since read lots of reviews about 5G routers freezing and not living up to customers' expectations. Considering they cost over £400, I'm convinced they're not worth the risk. I'll wait a few years to see if the problems are fixed and prices come down.

Simon Jones

Free software is a gift, not entitlement

I'm frequently bemused by the number of people, your readers among them, who express outrage when a previously free app or program becomes paid-for.

I regard freebies as a gift, not an entitlement, and it seems perfectly reasonable to me that the creators should expect some sort of payment after spending days or even weeks creating apps, then refining and updating them for our security and ease of use – often adding extra functions. I'm sure those irate readers would never dream of putting in a week's work of their own without pay, or expect to pick up free groceries from Sainsbury's.

I'm more than happy to pay a nominal or reasonable amount for something that makes my computing tasks easier and more enjoyable, and often teaches me new tricks at the same time. That's why I make contributions in my own small way to the likes of the fantastic LibreOffice and Thunderbird, both of which I learned about from your magazine.

I know that most web designers make money from advertising but that isn't so for Joe or Josephine Public who provide apps without expectation of turning into another Bill Gates or Jeff Bezos. So let's give credit where it's due and not begrudge these innovators a paltry few pounds as recognition for what they're doing to make our computing lives easier and more pleasurable.

Carl Hughes

STAR LETTER

Freely is a solution searching for a problem

A few weeks ago I spent £139 on the JVC LT-32CR230 smart TV, after reading your (mostly) positive review in Issue 679 (page 29). You said that picture quality wasn't stunning, but I was prepared to put up with that for £139, and besides it had everything I wanted to watch – all the catch-up channels plus Freeview.

I then read in Issue 684 (page 6, pictured) that the only way I can access the new Freely service is to buy a TV costing £1,320, almost 10 times what I paid for my JVC model. But why on earth would I do that when I've already got all the channels I need?

I realise Freely is a long-term project that will take time to flourish, but you can often judge the potential success of a technology by the buzz it creates at launch. A good test of whether it's going to be popular is whether people can instantly understand what it's for. Products like the iPod and iPad passed that test years ago, as did the iPlayer. Likewise more modern devices like Fitbits and item trackers like Tile. The hype was justified for all these. But Freely seems like a solution searching for a problem.

News
The top stories in the world of technology
Freely launches, but only has a handful of channels
WHAT WE THINK

Greg Moss

CA SAYS We tend to agree with Greg – Freely's launch was underwhelming. We're not entirely sure who it's aimed at. Millions of people are happy getting live and on-demand Freeview through an aerial. There's nothing about Freely that'll make them want to splash out on an expensive new TV. Freely might eventually replace Freeview, but we can't see that happening until well into the 2030s.

The **Star Letter** writer wins a **Computeractive** mug!

Give us easy way to opt out of AI tools

In Issue 683's Cover Feature on free software to improve your privacy (pictured), you mention that ChatGPT stores your queries and commands, which are linked to your location, email address and phone numbers.

Why? To my mind this is more intrusive than all the other trackers we have to put up with, and all under the guise of "training the AI models and improving the accuracy of their responses". Surely tech companies will use this to find even more ways of making money from us through adverts.

I believe it's my right to choose whether I use a program rather than having it dumped on my PC by default. I don't have anything against the development of AI, but there are lots of ways criminals could exploit and hack it.

Whenever I see a method to get rid of tools like Copilot, Microsoft seems to respond by changing settings that might help me do so.

These big players definitely don't want the likes of ordinary PC users to be able to delete AI programs. They would simply lose all that free data and the chance to make money.

If Microsoft really values our loyalty, it should give us an easy way to remove these tools, or make them opt in, and not force them on us.

Stephen Brissenden

Consumeractive

We stand up for your legal rights

Can I get compensation from BT/EE for lost phone number?

LEAD CASE

Q I had serious problems with my BT broadband last autumn and decided to move to EE. My order was cancelled by EE three times, although I received four routers. I was told I'd need a new VoIP phone rather than going via copper cable, but I asked to retain my number. I was then sent a faulty phone, which took weeks to replace, so I lost my number. Am I entitled to compensation?

Helena Lane

A BT – which owns EE – belongs to Ofcom's automatic compensation scheme (www.snipca.com/50366), so we believe it will have to pay Helena some money.

In April, Ofcom increased to £9.76 the amount companies must pay for every day customers are without broadband or a phone service. However, because Helena's problems happened last autumn, she'll be entitled to the old amount, which is £9.33 a day.

We'll tell EE that it needs to sort out this compensation immediately, and ask why it wasn't paid automatically as it should have been. We'll also strongly suggest it additionally compensates her for the loss of her existing number.

As an 85-year-old housebound widow dependent on the phone and internet, Helena is precisely the kind of vulnerable customer telecoms firms must prioritise. EE's error means she's had to tell various people and organisations about the new number. She won't get the old one back because it's been reallocated.

Her appalling treatment might be down to BT and EE not knowing who's responsible. Although BT bought EE in 2016, it's only now merging the companies, with EE becoming the main brand for phone and broadband (see www.bt.com/ee). BT customers' contracts will remain with the company unless they switch.

CASE ONGOING

Why won't Vodafone compensate me for internet loss?

Q My Vodafone broadband went down on 30 March for 10 days. The problem was a faulty router, but Vodafone only refunded me £9.05 for 10 days' loss of service, saying I wasn't eligible for Ofcom's £9.76-a-day compensation scheme. Is that right?

Paul Davies

A Yes, we're afraid so. Vodafone does belong to Ofcom's compensation scheme – see Helena Lane's case left. However, it only covers loss of service caused by a fault with the fibre connection, not a broken router. As Ofcom says: "If the loss in service is caused by equipment or activity within your home, you are not entitled to compensation under the scheme."

After Paul contacted us, Vodafone admitted he was entitled to compensation for breach of contract. It also increased the amount to £20 after he complained about the paltry amount it initially offered. As frustrating as it must have been for Paul, legally Vodafone hasn't ignored its responsibilities, so it hasn't been a bad outcome for him.

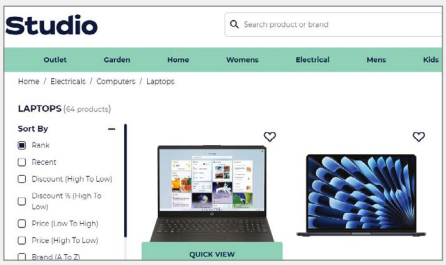
CASE CLOSED

CASE UPDATE

Studio refunds reader even though it didn't have to

We've had a superb resolution to Francis McDermott's case, after the retailer Studio refunded him the cost of the laptop that got lost in the post (see Issue 684).

Francis was returning the laptop within 14 days of purchase after changing his mind, as customers are entitled to do under the Consumer Contracts Regulations. It wasn't faulty – he'd just changed his mind about the purchase. In these cases, the customer has to pay to return an item, unless the company



offers to do so, and must ensure its safe return.

Francis didn't realise this, so didn't pay Royal Mail to track the item. He had no case against Studio, though could have recouped £20 from Royal Mail. However, we asked Fraser Group, which bought Studio in 2022, whether it would consider a goodwill gesture.

We hoped it might offer a partial refund as a compromise, but just a few days later a delighted Francis emailed us to say: "I don't know what you did but Studio has cleared my account."

A big thank you to Fraser Group and Studio for being so understanding.

Why won't Currys fix broken iPad screen?

Q On 6 February, I bought a new iPad from Currys. During April cracks developed in the glass. I sent it to Currys' assessment centre, but it was returned without action or explanation. When we complained to Currys we were told to contact Apple. It said the system had changed, and we had no claim against Currys. Is this right ?

Tony Archer

A No, it's not right, unless Currys has unilaterally declared its independence from the UK and now operates its own law. Sarcasm aside, this is poor service from Currys. It remains responsible under the Consumer Rights Act for repairing, replacing or refunding customers who have bought inherently faulty goods. Its procedure (or 'system') for handling these might have changed, but it can't override UK law.

Because Tony bought the iPad less than six months ago he doesn't have to prove that the fault is inherent. He says he takes care of his devices and hasn't damaged the iPad. If Currys disputes this, then it has to prove it. It can't use 'fair wear and tear' as an excuse after just two months.

Tony could take it to Apple under warranty to see if it can find out why the screen cracked, but in the meantime we've asked Currys to give him the correct advice.

CASE ONGOING

Must I pay delivery for replacing faulty product?

Q In November 2021, I bought a Hills rotary clothes line from Robert Dyas (www.robertdyas.co.uk), priced £259.99. When it became faulty, Hills agreed to replace it under my lifetime warranty, but said I must pay £35 delivery. To add insult to injury, it also wants me to pay any disposal costs at my local tip. Can it do this?

Anthony Rust

A Yes it can, as long as it makes these conditions clear in its warranty. Retailers and manufacturers can include terms in their warranties that aren't as fair or comprehensive as the Consumer Rights Act (CRA).

However, we're going to challenge Hills over its verdict. We think a rotary clothes line should last longer than two-and-a-half years, especially at the price Anthony paid. After all, the CRA gives customers six years (five in Scotland) to seek redress.

We're also going to contact Robert Dyas, because as the retailer it is responsible for dealing with Anthony. We don't think enough time has passed for it to claim 'fair wear and tear' is the reason why the clothes line broke. If it suspects that Anthony damaged it, then he'll need to prove otherwise by paying for an inspection.

What's not relevant is the 'lifetime' warranty. This doesn't have a specific definition in law, though some companies – especially manufacturers of electronic goods – consider it means how long a device can be used properly before being rendered ineffective by technological upgrades.

CASE CLOSED

CREDIT WHERE IT'S DUE

Cartridge People refunded order after my error

I made an error recently when ordering from Cartridge People (www.cartridgepeople.com). It was my first time buying from the site, so perhaps I didn't know what I was doing. Anyway, I ordered four cartridges, all in the wrong colours.

Fortunately I realised my mistake just a few moments after confirming my order. I thought that if I was quick, I'd be able to ask Cartridge People to change the order. I sent an email, and within an hour they replied saying the order had been paused.

I wanted to switch to the correct colours, but this was slightly more expensive. Their solution was to refund my purchase and let me start again. My refund came through within 24 hours, and I then bought the cartridges I had intended to.

I felt a bit daft, but Cartridge People didn't make me feel bad. They understood my mistake and reacted promptly.

KM Gallagher

Has a company impressed you with its customer service? Please let us know: editor@computeractive.co.uk

Contact
Cartridge People

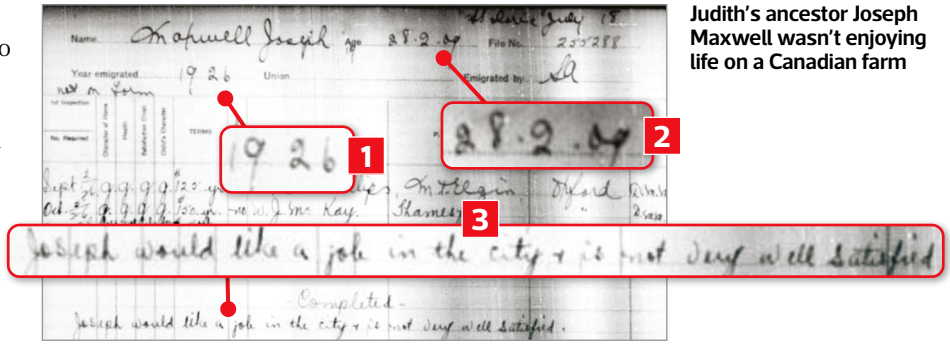
- **Email** customerservice@cartridgepeople.com
- **Online form** www.snipca.com/50476
- **Phone** 0203 001 0234

Grow Your Family Tree

Judith Batchelor explains how a batch of new Findmypast records will help you...

Find British Home Children sent to Canada

From 1869 to 1948 over 100,000 British 'Home Children' were sent to Canada by charitable organisations and local authorities to start new lives. Most worked on remote farms or entered domestic service. Their experiences varied greatly. Some were adopted and treated kindly by their host families, but others were exploited, and subjected to hard labour and cruel treatment. Most siblings were separated from each other and contact with their families in England was severed. After World War 1, the scheme was expanded to Australia, New Zealand and South Africa.



Judith's ancestor Joseph Maxwell wasn't enjoying life on a Canadian farm

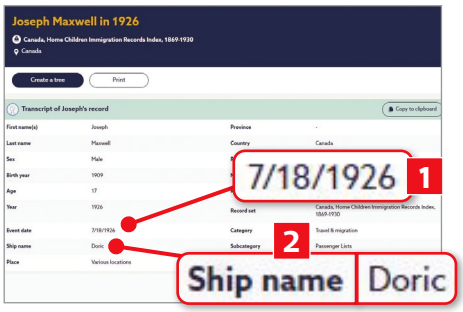
Search inspection reports and immigration records

Findmypast has released three new records you can search for free to trace children sent to Canada. I wanted to see if I could find my ancestor Joseph Maxwell, who I knew was sent to Canada in the early 20th century.

First, I searched for him in the Home Children Inspection Reports (www.snipca.com/50442), which cover the inspection of children in their foster homes in Canada – though as it says "not always accurately". Most range from 1920 to 1932 with a few as early as 1913.

Importantly, they reveal the agency that sent the child to Canada, and in some cases give details on the foster situation. I discovered that Joseph had been sent to Canada by the Salvation Army in 1926 (1 in our screenshot above), and was born on 28 February 1909 2. Joseph had had two employers but was evidently not enjoying farm work – the inspector reporting that "Joseph would like a job in the city and is not very well satisfied" 3.

I used these details to trace Joseph in the Home Children Immigration Records Index 1869-1930 (www.snipca.com/50441), which confirmed he left Liverpool on 18 July 1926 (1 in our screenshot above right), aboard the SS Doric 2.



Joseph Maxwell travelled from Liverpool to Canada on the SS Doric on 18 July 1926

Browse workhouse records

You can also search Findmypast's Home Children Board of Guardian Records (www.snipca.com/50444), which includes children sent to Canada from English workhouses. Some of the original records provide information in the notes column. For example, it was sometimes recorded that older boys were "on active service" if they signed up during World War 1.

If you don't have any luck there, try Findmypast's 'Lancashire, Liverpool, Children Sent To Canada 1883-1925' collection (www.snipca.com/50445). These records were taken from Liverpool workhouse records and organised by religion.

Finally, try the charity Home Children Canada, which has a free searchable database of 83,000 children: www.britishhomechildren.com.

Your Genealogy Problems Solved

My grandfather Harry Smith married his second wife Mabel Ellen Sheppard at Birmingham register office in 1944. She was divorced from Leslie Percy Sheppard and her maiden name was Bessant. I've tried to find out when Mabel and Leslie divorced, but had no success.

Dave Tovey

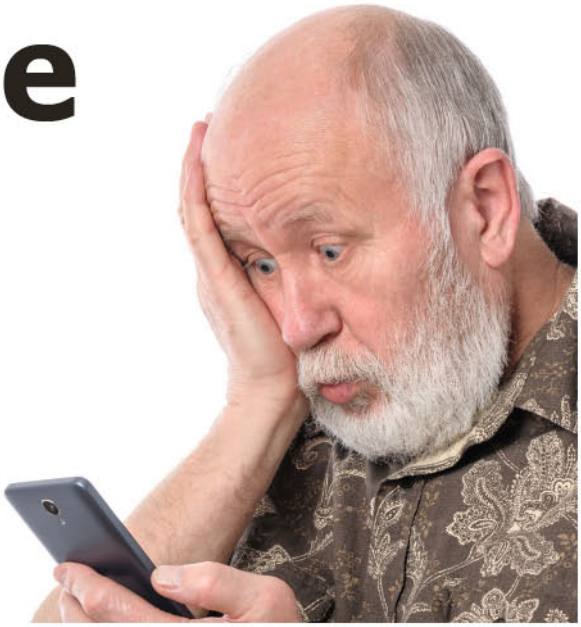
They probably divorced in the early 1940s, as they were living together in Birmingham when the 1939 Register was taken.

Unfortunately, less than 0.2 per cent of divorce records survive after 1937, so there's unlikely to be any paperwork. Divorces were sometimes reported in the newspapers, so try searching at the British Newspaper Archive (ww.snipca.com/50371). Consider contacting a member of the Sheppard family to see if anything is known about the circumstances of the divorce.

Have a genealogy question for Judith? Email letters@computeractive.co.uk with 'Grow Your Family Tree' in the subject line.

Next issue: Search records from lunatic asylums

Now's the time to tackle your smartphone



<u>Are you missing out</u> on everything you could do with it? With these helpful books, there's nothing to fear about using smartphones. Find out more...

Modern mobile phones (smartphones as they're called) can do so much more than just make phone calls – from browsing the web wherever you are, to checking train times, to acting as a sat-nav...

And best of all they can make it so easy to keep in touch with family and friends – in so many ways, from sharing photos to making video calls.

But using them isn't always as easy as you'd want – and that's putting it mildly!

Do the manufacturers do it on purpose?

Sometimes it can seem like the manufacturers deliberately make them complicated. It can drive you absolutely bonkers.

Whether you have problems with the basics or you're trying to do something slightly more advanced, it can be easy to use them... once you know how. But until you've been shown, it can be like talking a different language.

That's why we've published these books: *iPhones One Step at a Time, Android Phones One Step at a Time* and *Doro Smartphones One Step at a Time*.

Suitable for iPhones and Android smartphones like Samsungs, and DORO (not sure what phone you have? Best send off for the free info pack)

Plain English... and that's not all

They explain how to use the phone, in plain simple language with pictures of the screen showing you exactly where to tap or slide your fingers. No jargon!

What's covered?

I can't list it all here. But amongst other things, you'll discover:

- The basics of controlling it – swiping, tapping, opening apps & so on.
- How to use it as a sat-nav... in the car or even on foot.
- Send emails from your phone.
- Instant messaging and how to use it.
- Most phones have a good camera built in – here's how to use it properly.
- Share photos with friends around the world – quickly and easily.
- Video phone calls – a great way to keep up with family who live a long way away.

And obviously, you can make phone calls and send and receive text messages. ("Voicemail" is covered, too). All explained nice and simply. (Find out more in the free infopack – read on...)

What one reader had to say:

"Thanks for a fantastic smart phone book. Very pleasant staff as usual.

I think this book should be sold with every smart phone. I have learnt so much from it, the info you get with the phone is non-existent. Smart phones are quite complex, and your books speak in plain English."

Don't buy now, do this instead

The books aren't available in the shops or on Amazon – only direct from the publisher.

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Best Free Software

Robert Irvine recommends new programs that won't cost you a thing

SYSTEM TOOL

Winpilot 2024.5.22

www.snipca.com/50592
What you need: Windows 10 or 11

Some cynics have dismissed Microsoft's AI tool Copilot as a glorified version of its old Office assistant Clippy. Winpilot has fun with this notion by using a version of the animated paperclip to host a Copilot-style tool for tweaking Windows settings. Although it's primarily designed to fix annoyances in Windows 11, most of Winpilot's features also work in Windows 10, aside from those specific to the newer operating system.

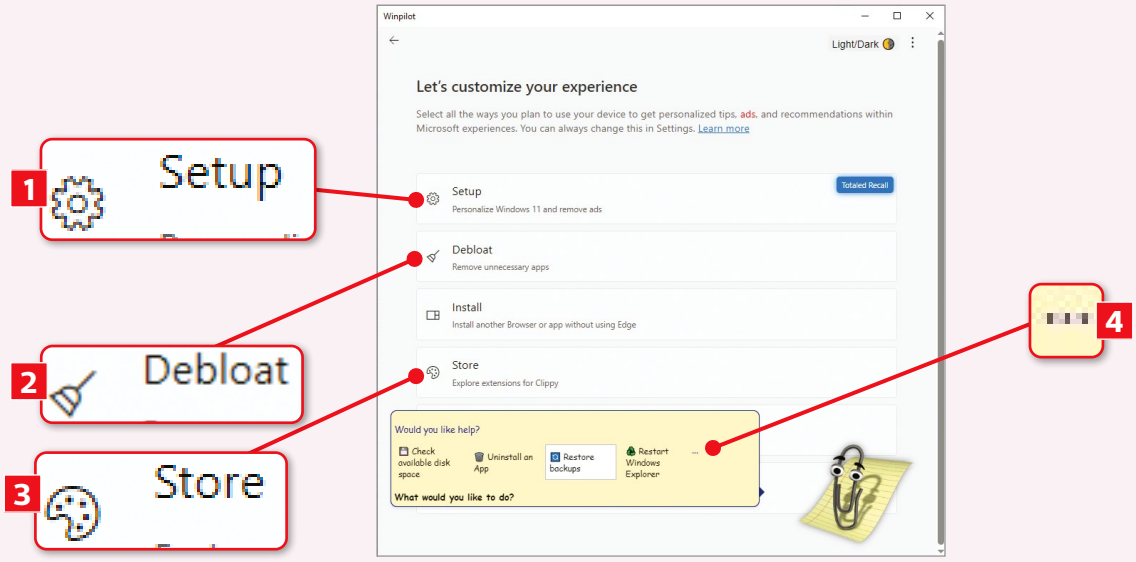
When you launch the program, the Clippy character – which Winpilot calls NeoClippy – immediately springs into action, offering to help with tasks such as 'Uninstall an app', 'Tweak Windows appearance and performance' and 'Check available disk space'. Select a suggestion to open the relevant Windows tool, if NeoClippy is unable to perform the job itself. Click the Refresh (three-dot) button to cycle through all available tasks, or click Ask Clippy to type a command and choose the nearest match.

Once the novelty wears off, you can try Winpilot's more practical and less gimmicky features. For example, the Setup section lets you hide many of the ads, tips and 'tailored experiences' that Microsoft is increasingly foisting on Windows 11 users. You can also restore the full right-click context menu and remove the Copilot button from the taskbar and Microsoft Edge – the latter also works in Windows 10.

We particularly like the Install section, which lets you download browsers and other useful tools without using Edge. These include Chrome, VLC Media Player, PowerToys, IrfanView and even the new Arc browser that we test in this issue's Easy When You Know How section (see page 74).

Winpilot is still a work in progress, so it's a little rough around the edges, and you may find NeoClippy as irritating as the original. But it's being updated frequently and could eventually become an essential Windows tool.

Note that opening the 'Winpilot.zip' file triggers a Microsoft Defender SmartScreen warning, but it's safe to use so just click 'More info' then 'Run anyway'.



1 When you click the Setup button, Winpilot will scan your system to identify which potentially unwanted Windows features are enabled, including the ads and tips on the Start menu and Lock screen. Switch off these options and they'll be instantly disabled.

2 Click the Debloat button and Winpilot will detect and list 'unnecessary apps' on your PC. Either select items you want to remove and click 'Remove selected (manual)' or click 'Remove found crapware with Assisted scan' to let Winpilot remove them all for you.

3 You can add more features to Winpilot by clicking the Store button to install optional extensions, such as 'Disable telemetry for third-party apps'. This section also includes the option to create a system restore point before making any changes.

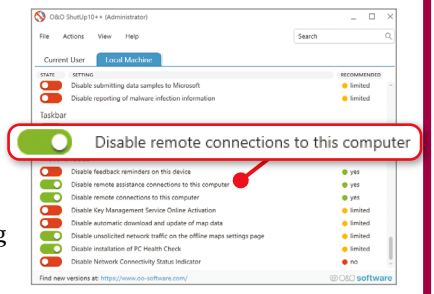
4 The NeoClippy assistant offers to help with dozens of tasks, which you can cycle through by clicking the three-dot Refresh button. To hide its speech bubble, click anywhere else in the program window. However, you can't hide the paperclip itself.

PRIVACY TOOL

O&O ShutUp10++ 1.9.1437

www.snipca.com/50579

What you need: Windows 10 or 11



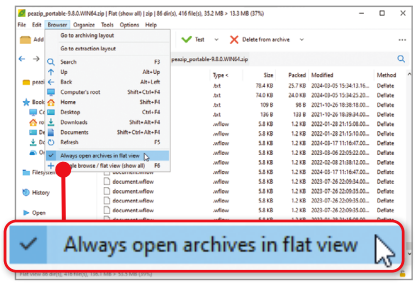
Our favourite free tool for protecting your privacy in Windows has been updated with several new settings. The most useful additions prevent anyone from connecting to your PC remotely so they can take control of your system – a function often used by tech-support assistants, but which can also be abused by hackers and spies. To enable this protection in O&O ShutUp10++, click the Local Machine tab (which applies settings to your whole computer, not just the current user account) and scroll down to the Miscellaneous section. Switch on 'Disable remote assistance connections to this computer' and 'Disable remote connections to this computer' (see screenshot). You can turn them back on if you need remote assistance in future. Other improvements speed up the program's launch time, and let you save different settings for multiple users and PCs.

COMPRESSION TOOL

PeaZip 9.8

www.snipca.com/50588

What you need: Windows 7, 8.1, 10 or 11, macOS or Linux



PeaZip's latest version adds a handy option to browse compressed archives in 'flat view'. This displays the contents of ZIP, RAR, TAR and 7Z files – and the hundreds of other archive formats the program supports – in a single list, saving you the hassle of clicking through subfolders to see everything an archive contains. To switch to this view, either click PeaZip's Browser menu and select 'Always open archives in flat view' (see screenshot), or right-click an archive and choose the option in the Navigation menu. You can also now add comments to ZIP and RAR archives by selecting them, right-clicking the status bar and choosing Comment; and apply new themes to the program's interface. Strangely, PeaZip's EXE file triggers a security warning in Chrome, even though it's safe to use. To avoid this, download the portable ZIP version from www.snipca.com/50590.

£ SHOULD I PAY FOR...?

Choose the right version of software

XYplorer

www.xyplorer.com

Price: £27.60 **Free trial:** 30 days

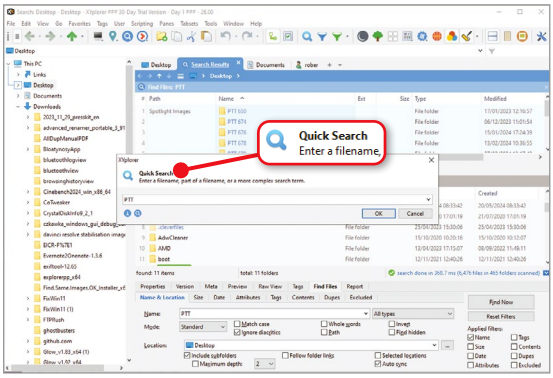
What you need: Windows 7, 8.1, 10 or 11

XYplorer celebrates its 25th birthday in December, and for many years it was the file manager of choice for savvy Windows users who found File Explorer (formerly Windows Explorer) too basic. Sadly, XYplorer discontinued its free edition in 2016, though you can still download the last release from www.snipca.com/50603. The paid-for program recently reached version 26.

XYplorer is packed with features that other file managers have since imitated, including tabs for exploring multiple folders at once, the option to categorise items with different coloured labels and a customisable interface. Speedy drag-and-drop, horizontal panels and a 'tree'-style structure make it easy to move items from one location to another, and the Quick Search tool (see screenshot) justifies its name with lightning-fast results.

On the downside, XYplorer's interface is dated and cramped, with far too many buttons on its toolbar whose purpose isn't clear until you hover your cursor over them to view tooltips. Additionally, some of its features, such as scripts, are likely to be too advanced for the average home user who just wants to browse and organise folders and drives on their PC.

Compared with the newer file manager Files (see our Workshop on page 38), which has a modern, streamlined interface and focuses on essential functions, XYplorer feels like a bit of a dinosaur.



OUR VERDICT: Don't pay for it

XYplorer was once arguably the best File Explorer alternative, with lots of innovative options. But it's no longer worth paying for the program when you can get its most useful features from a rival tool for free.

What should I download?

We advise you which software and apps to use

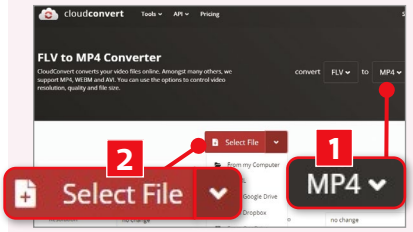
How do I merge several video formats into one clip ?

Q I've got about 20 short home videos running for up to a minute each, in various formats (WMV, MP4, MOV, FLV and AVI). Can I merge them all to make one continuous whole?

Carl Hughes

A Plenty of video-editing programs let you import a range of formats and combine them to produce a continuous whole. However, you might have a problem with FLV, because it's Flash video. As Adobe, which owns the Flash format, explains on its website: "Because Adobe has now discontinued support for Flash, you will likely need to convert any FLV file in order to open it or to edit it with a contemporary video editing program" (www.snipca.com/50417).

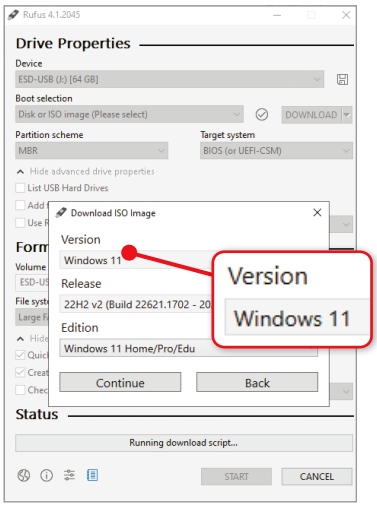
There are many websites that convert FLV files for free, such as the excellent Cloud Convert (www.snipca.com/50351). Pick the format you want to convert to – such as MP4 (1 in our screenshot below) – then click Select File 2 and locate your FLV file. There are options for changing resolution, aspect ratio, video codec and more. Once you've converted your files, import them along with your other clips into a video-editing tool like DaVinci Resolve (www.snipca.com/50352, pictured below).



How can I back up Windows to boot from a USB stick?

Q I'm about to buy a new Windows 11 PC and want to make sure I have a spare copy of the operating system on a USB stick. Is there a free program that makes this easy?

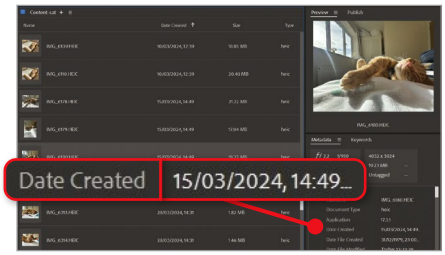
Robert Charles



A Yes, you should use the superb Rufus (www.snipca.com/47012). Download a Windows ISO file, then choose 'Disk or ISO image' in the 'Boot selection' menu and click Select to load it. Alternatively, click the arrow next to that button, choose Download and select the version of Windows you want to install (see screenshot). Click 'Start' and Rufus will erase and format your USB stick, then burn the ISO file to make the drive bootable.

Can I sort my photos by date and time?

Q I recently found that the photo gallery app I use – Simple Gallery Pro (www.snipca.com/50322) – sorts only by date, not by date and time. This was a problem when I tried to combine photos from two devices because it seemed to sort by date and then file name. Is there an app that *does* sort by date and time?



Peter Grainge

A Try Adobe Bridge (www.snipca.com/50355), used by both amateur and professional photographers. It's part of Creative Cloud, but Adobe now offers it for free. Use it instead of File Explorer to navigate your photo folders and you'll see lots of details, including the time and date photos were created (see screenshot).

Named & Shamed

Keumars Afifi-Sabet puts the boot into tech villains, jargon-spouting companies and misbehaving software

SOFTWARE WARNING!

McAfee's unwanted antivirus subscription via HP

It's the little pleasures in life that make it all worthwhile. Call me a tech-obsessed oddball, but that once included setting up a new laptop. But not these days. While I had hoped to get a kick out of using a shiny, new HP Spectre x360, I suspected that – like most modern laptops – it would come with loads of junk installed by HP. And so it proved.

Within minutes of signing in with my Microsoft account and setting up Windows 11 I received emails from McAfee welcoming me (see screenshot 1). Odd, I thought, considering I actually subscribe to Bitdefender antivirus, and have never paid McAfee a single penny.

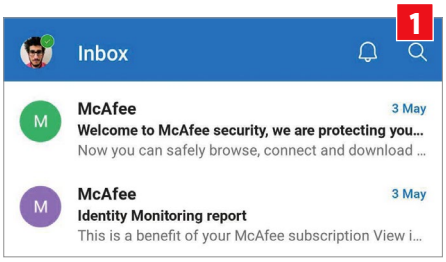
I then spotted a McAfee icon on the Spectre's desktop, and noticed the McAfee WebAdvisor extension had been added to Chrome. Worse, I was being peppered by pop-ups begging me to "extend my protection" 2.

I hadn't consented to any of this. I don't remember ticking any boxes nor agreeing to any installation terms. All I had done was provide my Microsoft account details to set up Windows. That was enough to trigger this onslaught from McAfee, and become a customer against my will.

Now, I'm not sure who to be more angry at: HP for fattening up an otherwise excellent laptop, or McAfee for using such invasive tactics to market its software. After all, companies like this should be blocking potentially unwanted programs (PUPs), not covertly installing them.

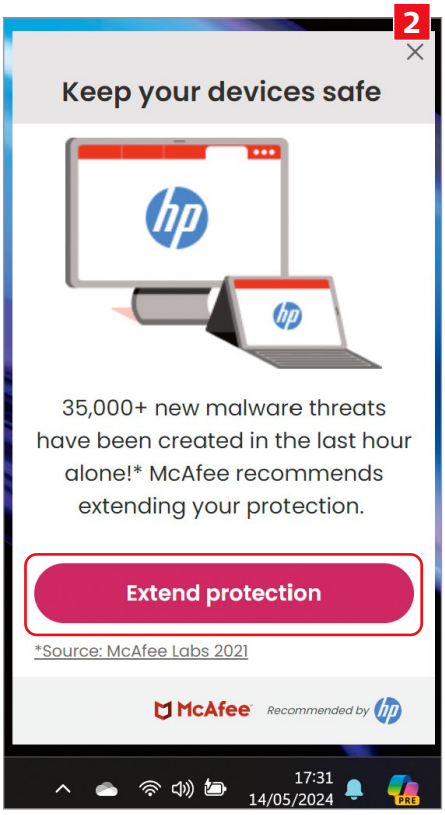
Needless to say, I stripped my laptop of any traces of McAfee and installed Bitdefender in its place. But Windows 11's own security protections are more than adequate – and you won't get pop-ups bugging you to renew.

1



McAfee spammed Keumars within minutes of him setting up the laptop...

2



...then started begging him to "extend protection" he never even wanted

WHAT ARE THEY TALKING ABOUT?

prime video

WHAT THEY SAY

Alan Moss, Amazon Ads

www.snipca.com/50478 "Amazon Ads continues to reimagine the streaming TV experience with interactive ad formats that are seamlessly shoppable and help advertisers meaningfully connect with customers. Ads in Prime Video provide an unparalleled experience for advertisers to deliver on any full-funnel marketing objective – whether it's awareness, consideration, or conversion."

WHAT THEY MEAN

We want to full-funnel more of your money into our advertisers' pockets.

KEUMARS' VILLAIN OF THE FORTNIGHT

Tinder fraudster Peter Gray

This is the photo Peter Gray used on dating app Tinder. If he was being honest, the accompanying description would've read: 'Will take photos of your driving licence and bank card and heartlessly scam you'. But that probably wouldn't have got him as many dates as 'Kind, caring and a good sense of humour'.

Gray, from West Yorkshire, used the data he stole from four dates to take out loans in their name, borrowing £80,000 in total. This led to one of the women having her mortgage approval revoked. Alarm bells rang for another when he sent flowers to her home even though she hadn't revealed her address. He's now serving 56 months behind bars and been handed restraining orders preventing him from contacting his four victims.

Credit: Tinder

MINI PC | **£600** from Amazon www.snipca.com/50420

Minisforum NAB9

Cool box

Chinese manufacturer Minisforum offers a broad range of mini PCs, including our current favourite the UM780XTX (£669 from www.snipca.com/50421, reviewed Issue 676 – see page 32). This NAB9 unit shaves a few pounds off that price by using a 12th-generation Intel processor that's two years old, rather than the slightly newer AMD Ryzen 7 7840HS chip in the UM780XTX.

> "An impressive PC for Windows work, but gamers should look elsewhere"

The NAB9's processor is an Intel Core i9-12900HX, one of the more powerful 12th-generation units and comprises 16 cores. Both PCs have a 1TB SSD, though the NAB9 comes with 32GB of RAM – half that of the UM780XTX.

In benchmark tests that push the processor to its limits, the cheaper NAB9 was about 12 per cent slower. There was a similar difference when testing general Windows tasks.

An area where AMD was squarely beating Intel 18 months ago was in built-in graphics hardware. Mini PCs rarely come with standalone graphics cards so they typically rely on the graphics components built into the processor to do all the heavy lifting when you're playing games or running demanding graphics software.

It should come as no surprise, therefore, that in graphics tests, the NAB9 managed just 58 per cent of the speed of the AMD-powered UM780XTX, but this is a bigger difference than you might expect given their respective price tags. If you don't play games or edit videos on a regular basis, however, it shouldn't be a deal breaker.

In terms of ports, the NAB9 is marginally better equipped. It has three USB-C ports (one on the front, two on the back) and four USB 3.0 ports spread equally between front and back. The front panel (pictured above) also accommodates the headphone jack, while the rear panel (pictured below left) features two HDMI ports and two 2.5Gb Ethernet ports.

Only one of the USB-C ports is able to carry video, but you could still run three screens from this device using that and the two HDMI ports.

If you like to access the inside of your PC to upgrade an SSD or RAM, the NAB9 makes this very easy. It's simply a case of pushing down on the front of the top plate. You will then hear the plate click – at which point it will be released and can be removed.

Keeping the temperature down is critical to the smooth functioning of any mini PC that has a powerful processor, and the NAB9 tackles this with an innovative cooling system that includes dual heat pipes, two air vents and a new active solid-state heat sink.

In conclusion, then, the NAB9 is a solid Windows-based mini PC, which is ideal for those who work with office programs, browse the web and occasionally use video- and image-editing software. It won't appeal to gamers, though, so if you want more graphical heft it's worth sticking with our favourite mini PC, the Minisforum UM780XTX.

SPECIFICATIONS

Sixteen-core Intel Core i9-12900HX processor • 32GB RAM • Intel Iris Xe graphics • 1TB SSD • Wi-Fi 6 • Bluetooth 5 • 2x 2.5Gigabit Ethernet port • 2x HDMI ports • 3x USB-C ports • 4x USB 3.0 ports • Windows 11 Home • 67x180x208mm (HxWxD) • One-year warranty www.snipca.com/50420

VERDICT A mini PC contender for those who mostly work with Windows programs, but it lacks the graphical power of some rivals

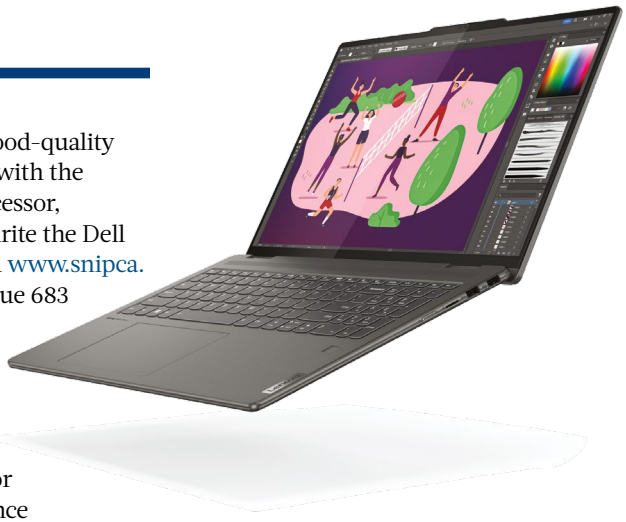
★★★★★

ALTERNATIVE Minisforum UM780XTX £669 Our current favourite mini PC has a higher price tag but more heft for games and graphical tools

LAPTOP | **£891** from Lenovo www.snipca.com/50432

Lenovo Yoga 7i 2-in-1 Gen 9

Off colour



We've reviewed plenty of good-quality laptops recently that come with the Intel Core Ultra 7 155H processor, including our current favourite the Dell Inspiron 14 Plus (£899 from www.snipca.com/50079, reviewed in Issue 683 – see page 30). So we were interested to see how this model – the first we've reviewed with the Ultra 5 125U chip – measures up. It's a less powerful processor that makes some performance trade-offs for its lower price.

> "It's cheap for a laptop at this size, but its performance and screen are poor"

The price difference between the two isn't exactly huge (£8 at the time of writing), but the Yoga comes with a bigger 16in screen and twice the storage. But has Lenovo got the balance right?

As you might expect, in tests that push the processors to their limits, the Yoga fell some way behind the Inspiron, running at just 74 per cent of its speed. We saw a similar gap in Windows performance.

Neither come with separate graphics cards so both rely heavily on the processor when running graphically intensive software such as games. Here the Yoga lagged further behind, running at 61 per cent of its rival's speed during gaming tests.

The Yoga's larger 16in screen is welcome, though Lenovo has hardly pushed the boat out with its 1920x1200-pixel IPS panel. That's less than the 2240x1400 pixels on Dell's 14in screen, which unsurprisingly offers a vastly superior sharpness.

The Inspiron also provides better colour accuracy, recreating 69.4 per cent of the the DCI-P3 colour standard, whereas the Yoga can only muster a disappointing 47 per cent. The Yoga's screen is also duller by comparison, with a peak brightness of 312cd/m² to the Inspiron's 367cd/m².

The overall design is impressive, though, with a screen that flips all the way over. It's a touchscreen, so you can use it as a tablet, albeit a rather large one. It has a fairly generous selection of ports. On its left edge there's an HDMI socket, two USB-C ports (one for charging) and a headphone jack. On the right are two USB 3.0 ports and a microSD card reader.

SPECIFICATIONS

Twelve-core Intel Ultra 5 125U processor • 16GB RAM • Intel Arc graphics • 16in 1920x1200-pixel IPS screen • 512GB SSD • 2x USB-C ports • 2x USB 3.0 port • 1x HDMI port • 1x microSD card slot • Wi-Fi 6E • Bluetooth 5.2 • Windows 11 Home • 17x362x250mm (HxWxD) • 1.99kg • One-year warranty www.snipca.com/50432

HOW WE TEST

Computeractive is owned by Future PLC, which employs a team of specialist technical reviewers. You'll often read references to our benchmark testing, which is a method of assessing products using the same criteria. For example, we test the speed of every PC and the battery life of every phone and tablet in exactly the same way. This makes our reviews authoritative, rigorous and accurate.

Future PLC also owns the magazines *Maximum PC*, *PC Pro* and *T3*, and the websites Laptop Mag (www.laptopmag.com), TechRadar (www.techradar.com) and Windows Central (www.windowscentral.com). This means we can test thousands of products before choosing the most relevant for *Computeractive*.

FAIR AND IMPARTIAL

Our writers follow strict guidelines to ensure the reviews are fair and impartial. The manufacturer has no involvement in our tests.

OUR AWARDS

We award every product that gets five stars our Buy It! stamp of approval. It means we were extremely impressed by the product, and we think you will be too.

Every product that gets a four-star review is given the Recommended award. We highly recommend these products, although they just fail to meet the high standard of our Buy It! winners.

PRICES

Our reviews contain a link to the best price we found online at the time of press.

VERDICT This might seem like good value, but it's slower than laptops which cost just a few pounds more, while the screen is poor

★★★★★

ALTERNATIVE Dell Inspiron 14 Plus £899 A smaller but superior screen, and significantly better performance

PC MONITOR | **£255** from Laptops Direct www.snipca.com/50454

BenQ BL2970QT

Bright on the money

There's a lot to like about this 27in, 1440p-resolution monitor. It has a brilliant on-screen menu that makes it simple to switch between Coding, Movie, Game and sepia-tinted ePaper profiles, depending on what you're doing. Those who find their eyes are tired by the end of the day will also appreciate the Care mode, which uses an ambient light sensor to keep the screen at sensible brightness and contrast levels.

You can also adjust blue light options, with five intensity levels to choose from. Meanwhile, BenQ claims its Flicker-Free Technology "reduces eye strain, fatigue and headaches". The monitor also has a Colour Weakness Mode, which lets you tweak the red and green filters.

> "Our new favourite monitor offers controls, adjustment options and a dazzling screen"

A 1440p resolution is a great choice on this size of screen. It works out to a pixel density of 109 pixels per inch, so at typical viewing distances it remains sharp. You miss out on the 4K detail of pricier models, but this struck us as a good balance between resolution and price.

Despite all those menu options, its DCI-P3 coverage stayed at around 70 per cent throughout our tests, and the panel appears to be tuned to the lesser sRGB standard, where it covered 98 per cent of the colours. This means the BL2970QT isn't a monitor for professional-level colour matching, but it should still be fine for keen photographers and video editors.

We measured the contrast ratio at 1031:1, which is a decent outcome. It's not as brilliant as an OLED screen, but you'll need to spend significantly more money to get that technology on a monitor of this size. We measured a peak brightness of 364cd/m². Again, that's a satisfactory score for the money you're paying, and should be good enough to use in a brightly lit room on a sunny day.

BenQ also packs in a pair of high-quality speakers, certainly good enough to listen to music as you work. There's no webcam, but oddly there is a microphone – complete with noise reduction – which does a better job than the mics on many of the standalone webcams we've reviewed.

Another pleasant surprise is that the stand rotates into portrait mode. If you regularly work on documents, this can be a great way to keep more on the screen at the same time. Its slim, square stem looks like it should stay in place, but it also offers 20-degree movement through both swivel and tilt. There's also a decent 110mm of height adjustment.

Connectivity is well catered for, as long as you have a USB-C port on your PC. There's no Ethernet port and no standard USB-A input, so its three USB 3.0 ports (two crammed into the rear, one at the side) and data-only USB-C port are only operational if you're connecting via USB-C. Those with power-hungry laptops should note that the USB-C port only delivers a 65W charge.

There's an HDMI port and a DisplayPort for connecting your PC, but – unusually – it also offers a DisplayPort-out socket for daisy-chaining a second monitor. There's a 3.5mm input to go along with the standard headphone jack.

Overall this is a great-value monitor. Its 27in screen means it's large without taking up too much room, and its 1440p resolution packs in the pixels so you can do more on screen. We think it's the best balance between size, resolution, quality and price that's available at the moment, and it's our new favourite.

SPECIFICATIONS

27in IPS screen • 2560x1440-pixel resolution • 16:9 aspect ratio • 60Hz refresh rate • 5ms response time • 1,000:1 contrast (quoted) • 1x HDMI port • 2x DisplayPorts (1x in, 1x out) • 3x USB 3.0 ports • 1x USB-C port • 424x614x239mm (HxWxD) • 8.4kg • Three-year warranty www.snipca.com/504

VERDICT An affordable 27in monitor with the kind of resolution that's great for all kinds of Windows work

★★★★★

ALTERNATIVE Iiyama ProLite XU2492HSU-B1 £120 A smaller and more affordable 24in 1080p monitor that's a bargain for its size and quality

TABLET | **£519** from John Lewis www.snipca.com/50494

Samsung Galaxy Tab S9 FE+

Power failure

We reviewed the standard Galaxy Tab S9 (£799 from www.snipca.com/47493) in Issue 667 and the Galaxy Tab S9 Ultra (£999 from www.snipca.com/48791) in Issue 675. Now it's the turn of the Tab S9 FE+, the larger of two FE models, which are cheaper, pared-down versions that are typically released a few months after the full-featured model.

> "A bigger screen, but it's less powerful than its closest rivals"

While this tablet seems fairly expensive, especially compared with the £349 Apple iPad, it offers a whole lot more. Its price is closer to the new £599 11in iPad Air, except that the FE+ has a huge 12.4in screen, which is nearer in size to the £799 13in iPad Air.

One key element the FE+ has that the iPad lacks is its IP68 water and dust resistance. It also has a microSD card slot, so if you outgrow the 128GB of storage on the standard model, or the 256GB on the £619 version (www.snipca.com/50495), you can add more later. Battery life is also impressive, lasting 18 hours in our video-playback test – eight hours longer than the iPad Air.

The FE+ also works with Samsung's S Pen, which is included in the box (with Apple devices you need to pay an extra £129 for its Pencil). The S Pen is arguably better because it doesn't require a battery, and therefore doesn't need charging.

Unlike most Android tablets, the version of Android you get on the FE+ is adapted specifically for tablet use. It offers proper multi-tasking functionality so you could, for example, edit a document while your email is open alongside, and there's a video playing in another window. You can also turn on the option to use Samsung's DeX desktop environment, which makes it more like using a PC if you connect a mouse and keyboard.

However, the big drawback of the FE+ is its performance. Where Apple endows the iPad Air with a desktop PC-level M2 processor, the FE+ uses Samsung's own Exynos 1380 – less powerful than both Apple's chip and the Snapdragon processor in the standard Tab S9. It's fine for some apps, but not for editing videos or playing the more demanding games.

The screen isn't OLED, but neither are those on the latest iPad Air models. Samsung's display is bright, though, peaking at 760cd/m² in our tests, compared with 600cd/m² on the latest iPad Air. However, it's not as sharp, with 2560x1600-pixel resolution (the 13in iPad Air has 2732x2048 pixels).

SPECIFICATIONS
Eight-core Samsung Exynos 1380 processor • 8GB RAM • 128GB storage • 12.1in 90Hz 2560x1600-pixel IPS touchscreen • 8-megapixel rear camera • 12-megapixel front-facing camera • Wi-Fi 7 • Bluetooth 5.3 • Android 14 with One UI 6 • 185x285x6.5mm (HxWxD) • 627g • One-year warranty www.snipca.com/50494

VERDICT A decent choice if you want a larger tablet that's cheaper than Samsung's regular S9 Tab, but it's not powerful enough for advanced work

★★★★★

ALTERNATIVE Samsung Galaxy Tab S9 £799 The original Tab S9 is smaller but its processor is more powerful, making it a better buy if you don't need a large screen

CHOOSE THE RIGHT SPECS

Intel Core Ultra processors

What are they?

We first mentioned Intel's 14th-generation processors in Issue 674 (page 22) in our review of the CyberPower Infinity X147 GRE Gaming desktop PC. Intel has since launched a range of Core Ultra processors, also in its 14th generation, specifically designed for slim laptops, including our current favourite, the Dell Inspiron 14 Plus (£899 from www.snipca.com/50079, reviewed in Issue 683, pictured – see page 30).

How do they work?

The Ultra processors continue with Intel's recent trend of including both performance and efficiency cores in its processors. The efficiency cores carry out background jobs, leaving the performance cores to focus on more demanding tasks. This speeds up PCs and increases battery life, because the performance cores aren't bogged down with menial tasks.

What are the specs?

The Ultra range comes in 5, 7 and 9 versions, which roughly equate to the Core i5, i7 and i9 system of desktop processors. However, they don't have the generation number in the following digits, so while we have desktop PC units with names such as Intel Core i7-14700K, the processor that powers the Insprion 14 is called the Intel Core Ultra 7 155H.

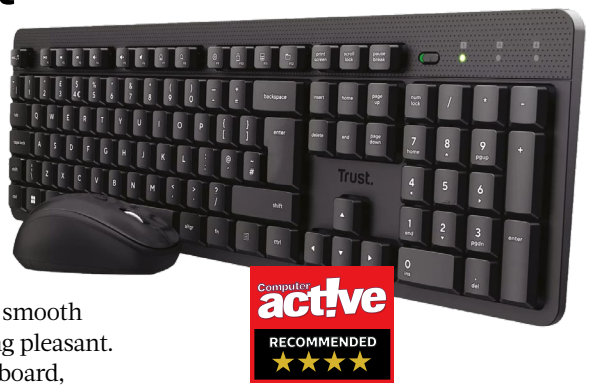
Can I change it later?

No. Desktop processors can often be upgraded with processors from the same range, but laptop processors are usually soldered to the motherboards and impossible to replace.

KEYBOARD & MOUSE | **£22** from Argos www.snipca.com/50483

Trust Ody II Wireless Deskset

Strong, silent type



Combining a keyboard and mouse in one package for a touch over £20, the Ody II Wireless Deskset is a very affordable way of upgrading both of your main computer peripherals at the same time.

> "For the money these are well designed, quiet and comfortable"

Dutch firm Trust promises you'll enjoy a quiet typing experience with its keyboard. Our current keyboard is incredibly noisy so the difference here was immediately noticeable. Smooth and near-silent, it's an impressive piece of kit for the price. It's also spill-proof, which is great news if you like a cuppa to hand when working and are prone to bouts of clumsiness.

We were impressed with the keyboard's overall design and construction. The 'pebbled' texture along the upper edge gives it an attractive, business-like feel, and there's a solid weight to it. The case is made of plastic but doesn't feel cheap, and the keys have a smooth movement, which makes typing pleasant.

Along the top row of the keyboard, you'll find an on-off switch, while the Function keys can be used as normal or temporarily converted into media playback hotkeys by pressing the Fn and Tab keys. This works well but it would have been useful to see some visual cue to show which key type is currently active.

The mouse is fine. It's a standard 800-1,600dpi controller with a speed button underneath and a scroll wheel on top that rotates nicely. It feels comfortable enough under the hand, with its rubber coating making it feel slightly more premium than it is. As with the keyboard, clicks are relatively quiet. It uses a single AA battery.

Both devices connect wirelessly to your PC via a single USB dongle, which you'll find in a small recess on the underside of the keyboard. It worked well, with no requirement to install software or drivers. As soon as the dongle was plugged into a USB port on our test PC, both devices were fully functional. With both devices running off the same dongle, this is a good space saver for those running short on ports. The only real complaint we have is that neither device has been designed with ergonomics as a priority, so you may not want to use them for prolonged periods.

SPECIFICATIONS
Membrane keyboard technology • Optical mouse sensor up to 1,600dpi • Wireless USB dongle supplied • Spill-proof keyboard • Keyboard: requires 2x AAA batteries; Mouse: requires 1x AA battery • Keyboard: 37x422x136mm (HxWxD) • Keyboard: 473g • Two-year warranty www.snipca.com/50483

VERDICT A mouse and keyboard set that represents exceptional value for money, with a quiet operation and cable-free connectivity

★★★★★

ALTERNATIVE Logitech Signature Slim Combo MK950 £110 More expensive but this combo from Logitech offers much more luxury

WHAT SHOULD I BUY? We solve your buying dilemmas

Can I buy a laptop with an Ethernet port?

Q I am looking to replace my current HP laptop and, in reviewing various options, I've noticed that few laptops come with an Ethernet port. Why is this? Wi-Fi is much slower than a wired connection. Without an Ethernet port what option is there to fully utilise my router's fastest network speeds?

Martin Wilkins

A The reason you don't see many Ethernet ports on laptops is because the current vogue is for slimmer machines. Due to their size Ethernet ports require more space, so by leaving them out manufacturers can make more slender laptops.

If you're unwilling to rely on Wi-Fi, the solution lies in USB-C. By attaching a USB Ethernet adapter to your PC and plugging your Ethernet cable into that, you can get the full benefits of a wired connection.

Belkin's 2.5Gb Ethernet adapter is available for £30 from Amazon (www.snipca.com/50484, pictured). This will guarantee you get the fastest speeds your router can manage to your laptop. If your router lacks 2.5Gbps capability, you should buy a cheaper standard Gigabit Ethernet adapter from the Amazon Basics range (£10 from www.snipca.com/50485).

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

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SECURITY CAMERA | **£35** from Amazon www.snipca.com/50472

Blink Mini 2

Wide-eyed

Since launching in 2021 the original Blink Mini security camera has gained a lot of fans because it was affordable and reliable. Its successor, the Blink Mini 2, seems a worthy heir, offering the same compact size and fantastic range of settings that let you tweak its configuration.

However, it now has a wider 143-degree field of view (up from 110) that means it can monitor a wider area. Plus, it has a new weatherproof exterior that's hardy enough to be left outside all year round, though you'll need to also buy the Weather Resistant Adapter, which costs an additional £9.

To keep the price down, the Blink Mini 2 makes a few sacrifices. For example, its resolution is lower than some rivals and it isn't able to identify packages, animals or vehicles.

While the camera's resolution is limited to 1080p, this still looks good in daylight and accurately captures movement. It also performs fine in low light and after dark. We switched between its colour night vision and infrared modes, and it managed to capture impressive detail with both. The built-in spotlight benefited the colour night vision mode in particular.

Blink's phone app brings everything together nicely and is easy to use. The only drawback is there's no internal storage, so you need a minimum subscription of £2.50 a month if you want to watch saved footage.

SPECIFICATIONS
1080p video-camera resolution • 640x360-pixel photo resolution • 30fps frame rate • 51x51x40mm (HxWxD) • 65g • Two-year warranty
www.snipca.com/50472

VERDICT An inexpensive home security camera that can be placed inside or out, but it needs a subscription to store recorded footage

★★★★★

ALTERNATIVE Ring Outdoor Camera Battery £90 A more expensive wireless alternative that has better features

WEBCAM | **£133** from Amazon www.snipca.com/50473

Opal Tadpole

Film clip

The Opal Tadpole is a capable webcam that's both beautifully designed and well engineered. At only 35x45mm, this unobtrusive little unit sits neatly at the top of your laptop screen, attached with an adjustable silicone clip.

It's not only small, but lightweight at 50 grams, so there's no chance it'll apply unnecessary strain on your laptop screen's hinge. This also makes it a doddle to carry around with you. The build quality is high and the painted aluminum finish looks stylish.

The Tadpole's cable is 55cm long, which is ideal for connecting to a laptop or monitor with a USB port, but it may struggle to reach a desktop PC tower that's positioned under your desk.

The camera's Sony IMX582 RS sensor does a fantastic job of producing clean footage, even in shadow. Colour replication is strong and vibrant, providing an image that truly pops. It also holds its own in low light.

Resolution is only 1080p, but that should be plenty for most people's purposes, particularly if you only use it for video chats. The camera also has a directional microphone, so it captures only the sound from directly in front of it. When we tested it, this helped to reduce the amount of distracting background noise, particularly when we compared it with the omni-directional sound capture of our laptop's built-in mic.

SPECIFICATIONS
1080p resolution • 70-degree field of view • USB-C port • 35x45x20mm (HxWxD) • 35g • One-year warranty www.snipca.com/50473

VERDICT A small, portable webcam that's nicely designed and easy to use

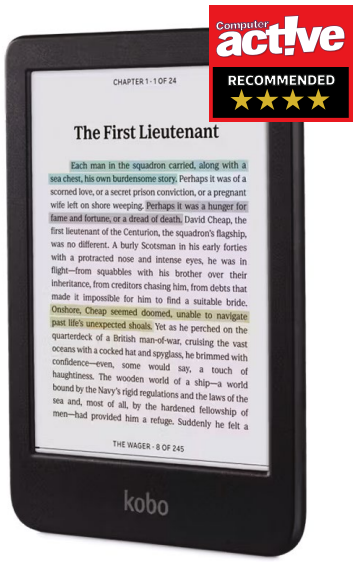
★★★★★

ALTERNATIVE Logitech C925e Business Webcam £70 If you can live without the portability and design chic, this alternative 1080p webcam is almost half the price

EBOOK READER | **£140** from Kobo www.snipca.com/50515

Kobo Clara Colour

Here are the highlights



If the £200 price tag of our current favourite ebook reader, the Kobo Libra Colour (www.snipca.com/50192, reviewed in Issue 683) is a little beyond your budget, it might be worth considering its little sister. The Clara Colour uses the same E Ink Kaleido 3 technology that lets you see your books in colour. However, it does have a smaller screen (six inches rather than seven) and it isn't compatible with Kobo's optional stylus, so you can't scribble notes in your books as you read.

> "A cheaper option for getting colour into your ebooks"

Having a colour ebook reader may sound like an unnecessary luxury if you only read ebooks with black text, but there are still plenty of benefits. The library is much easier to scroll through when the covers are further differentiated by colour. It also adds colour to the device's interface – for example, the tab at the bottom of the home screen changes to a reddish-brown colour when it's selected. You can also highlight text in various colours, which makes the effect look more like a real highlighter pen.

Page turns are fast, the on-screen keyboard is responsive and the device is waterproof, lightweight and portable.

The E Ink screen isn't like a standard tablet display. It has a matt, non-reflective surface and it can display only 4,096 colours compared with the millions on tablet and phone screens. This makes the screen look more muted, but the upside is that the battery lasts much longer, measured in weeks rather than hours. During testing we got 34 days out one charge when reading for around an hour a day with the screen set at 15-per-cent brightness.

We're big fans of Kobo's easy-to-use interface, which has everything neatly laid out on the home screen. Up to four of your current reads are listed at the top, followed by a My Books section and another that cycles through new recommendations, access to Kobo's optional subscription service or one of the Collections within your library.

SPECIFICATIONS

6in 300ppi E Ink Carta Kaleido 3 touchscreen • 1448x1072-pixel resolution • 16GB storage • Wi-Fi 5 • Bluetooth • USB-C charging port • 1500mAh Li-ion rechargeable battery • 160x112x9.2mm (HxDxW) • 174g • One-year warranty www.snipca.com/50515

VERDICT A more affordable colour ebook reader that might suit many, but it doesn't have all the features of our current favourite

★★★★★

ALTERNATIVE Kobo Libra Colour £200 A slightly larger colour ebook reader that also lets you add handwritten notes if you buy the optional stylus

DO I REALLY NEED...

A mini PC with a built-in touchscreen?

What is it?

Chinese manufacturer Minisforum has launched a new mini PC called the AtomMan X7 Ti (www.snipca.com/50523, pictured), which has a 4in touchscreen.

What does it do?

It's a powerful little PC run on the Intel Core Ultra 9 185H processor. It can be bought barebones (without memory or storage) for £639, or with 32GB of RAM and a 1TB SSD for £829.

What's the catch?

Four inches is too small to run Windows, so you can't use the AtomMan without a monitor. Instead, the screen can only be used to display system information or a fancy clock, though you can add themes.

So can I do without it?

Yes. Anything you can display on the device's screen can also be shown via a monitor. We can see this becoming more useful in time, perhaps if it could show notifications, but it isn't there yet.

NEXT ISSUE

On Sale Weds 19 June

Apple iPad Air
The latest super-slim iPad has more power than some laptops

GMKtec NUCbox K8
The first mini PC we've tested with one of AMD's latest processors

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Our pick of products that have won the **Buy It** award

LAPTOP

Dell Inspiron 14 Plus
£899 from www.snipca.com/50079
Tested Issue 683

Has the same processor (Intel Core Ultra 7 155H) as our previous favourite (Acer Swift Go 4), but manages to squeeze more speed out of it. Has 16GB RAM, 256GB SSD and a 14in 2240x1400-pixel screen. Excellent value overall.

ALTERNATIVE Acer Swift Go 14 Still a fast and powerful laptop, with a great 14in screen. £899 from www.snipca.com/49733

DESKTOP PC

Palicomp AMD Cobra
£400 from www.snipca.com/43515
Tested Issue 643

This fast PC is a mouth-watering bargain, with 16GB of RAM, a 1TB SSD and a six-core processor – though it lacks USB-C ports and built-in Wi-Fi.

ALTERNATIVE Wired2Fire Ultima WS Home Office Workstation Blisteringly fast PC, powered by an overclocked eight-core processor and 1TB SSD. £656 from www.snipca.com/41500

APPLE iPAD

Apple iPad 10.2in
£319 from www.snipca.com/48634
Tested Issue 623

The 9th-generation of the basic iPad, released in 2021, is now the best-value Apple tablet. The 2022 version looks better and has a faster processor, but it's not worth paying £130 extra for.

ALTERNATIVE iPad Mini With an even better, but smaller, screen than the 10.2in iPad, the Mini also supports the Pencil and has 64GB of storage. £499 from www.snipca.com/33050

ANDROID TABLET

Samsung Galaxy Tab S9
£799 from www.snipca.com/50039
Tested Issue 667

With a much brighter screen than our previous favourite – the Galaxy Tab S8 – this is perfect for watching TV. It also has a faster processor, so tasks feel smoother, even with several windows open. £799 will get you the 128GB version. If you want 256GB you'll need to spend around £100 more.

ALTERNATIVE Lenovo Tab P11 Pro It's slower than the Tab S9 and the screen is duller, but has a detachable keyboard so you can use it as a laptop. £420 from www.snipca.com/45244

APPLE iPHONE

Apple iPhone 13
£599 from www.snipca.com/43498
Tested Issue 627

Now £200 cheaper than its 2021 launch price, the iPhone 13 has a superb screen, long battery life and an excellent camera – particularly for taking quick snaps without blurring. You could pay £799 for the newer iPhone 15, but we're not convinced it's worth the extra money.

ALTERNATIVE iPhone SE With a single camera and smaller screen but the same powerful A15 processor and 64GB storage as the iPhone 14, it's great value. £429 from www.snipca.com/34773

ANDROID PHONE

Google Pixel 7a
£399 from www.snipca.com/46332
Tested Issue 660

A cheaper version of Google's flagship phone, this uses AI to add clarity to photos, and lasts an impressive 10 hours. Has a fast processor and 8GB RAM to supercharge performance.

ALTERNATIVE Nothing Phone 2a Don't be put off by the odd name. This has a distinctive design, superb camera and decent battery life. From a UK company too! £319 from www.snipca.com/49930.

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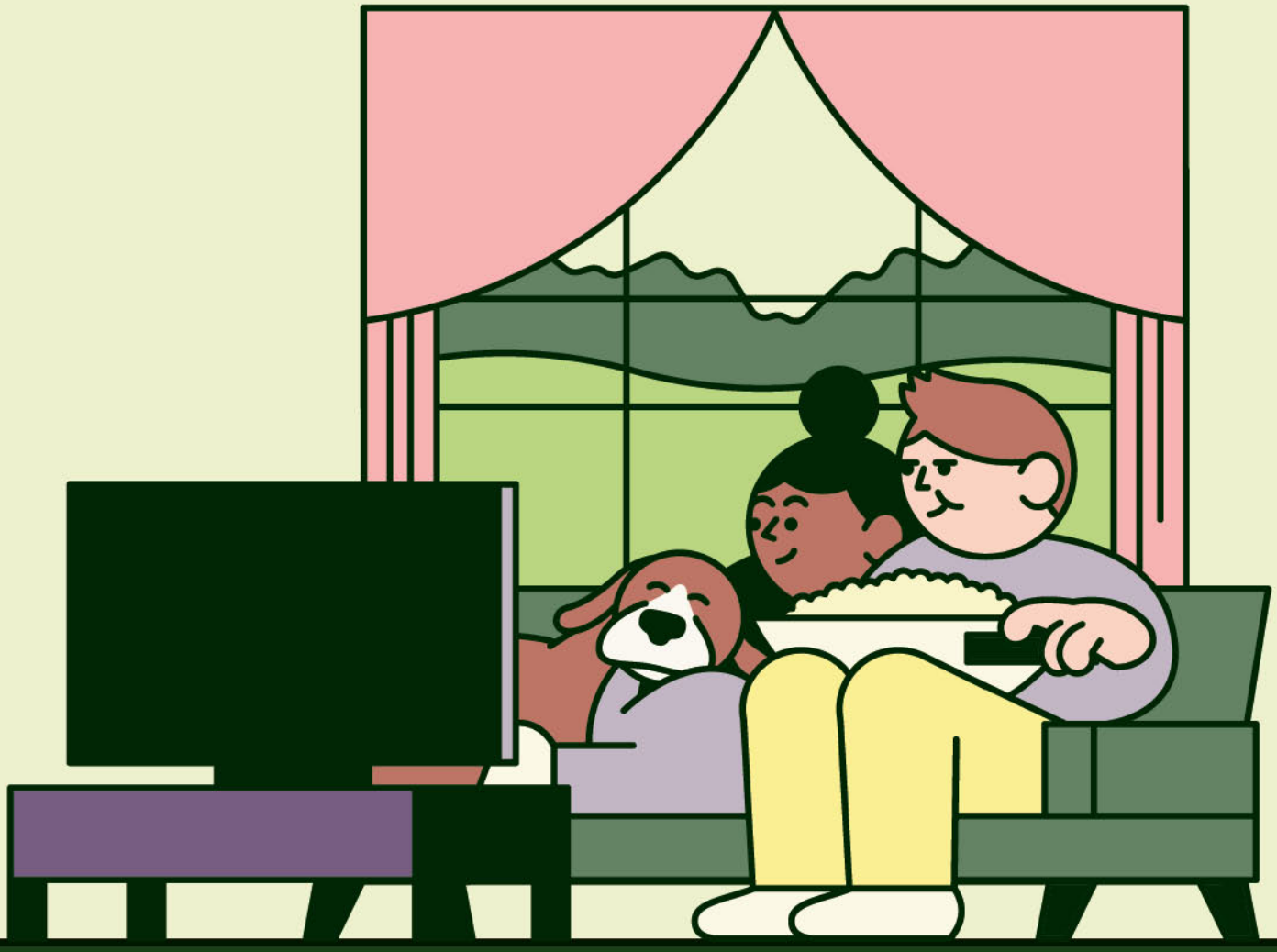

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Buy It

Our pick of products that have won the **Buy It** award

MINI PC

Minisforum UM780XTX
£669 from www.snipca.com/48917
Tested Issue 676

This powerful machine costs only £80 more than the Beelink SER6 Pro, but has twice the memory, twice the storage and a superior processor. These help it run PC tasks faster and handle graphics more smoothly. Ports include USB-C, USB 3.0, HDMI, DisplayPort and Gigabit Ethernet.

ALTERNATIVE Beelink SER6 Pro 7753HS Has 32GB RAM and a 500GB SSD for slick Windows performance. £659 from www.snipca.com/46416

EBOOK READER

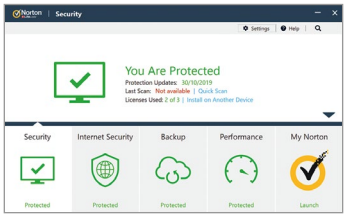
Kobo Libra Colour
£200 from www.snipca.com/50192
Tested Issue 683

Kobo's first colour e-reader, with an E-Ink Kaleido 3 screen that supports 4,096 tones, making illustrations and photos leap out at you. You can also make notes using a stylus, though that costs £70 extra. Has 32GB storage and Bluetooth for playing audiobooks.

ALTERNATIVE Amazon Kindle This low-cost option is a good choice, especially now it has 16GB of storage. £85 from www.snipca.com/44221

SECURITY SOFTWARE

Norton 360 Premium
£19.99 from www.snipca.com/33247
Tested Issue 629



Norton has always performed strongly in our antivirus tests, regularly making the top three. Owned by US firm NortonLifeLock, it's available at a discount on our Software Store. Use the link above for a 10-device, two-year licence. Other versions are available, including Norton 360 for Gamers.

ALTERNATIVE Bitdefender Total Security Another top performer that we're offering at a discount. £29.99 from www.snipca.com/41141

WEBCAM

PRICE DROP

Logitech C925e Business Webcam
£69 from www.snipca.com/41104
Tested Issue 608

Despite the name, this webcam is also great for home users. Its standout feature is automatically adjusting itself to keep your picture looking sharp. It offers a 78-degree field of view, which is fine for everyday video chats with one person in front of the camera.

ALTERNATIVE Creative Live Cam Sync 4K Affordable 4K webcam with high-quality video and captures voice from a distance. £55 from www.snipca.com/48944

PC MONITOR

NEW ENTRY

BenQ XBL2970QT
£255 from www.snipca.com/50454
Tested Issue 685

With a 1440p resolution on a 27in screen, this has a pixel density of 109 pixels per inch, making it extremely sharp. Also has great speakers, lots of controls and plenty of ports. It's the best balance between size, resolution, quality and price.

ALTERNATIVE Asus ROG Strix XG27ACS Another excellent 27in monitor with 1440p resolution, with a fast refresh rate aimed at gamers. £269 from www.snipca.com/49898

SOLID-STATE DRIVE

Corsair MP600 Pro LPX 500GB
£67 from www.snipca.com/41547
Tested Issue 630

In our tests, this M.2 SSD hit speeds of 7,364MB/s and 6,870MB/s when reading and writing data – astonishingly fast scores. It's compatible with the new PCIe 4.0 standard, which is twice as fast as PCIe 3.0. The 1TB model costs £87; 2TB costs £170.

ALTERNATIVE Crucial MX500 500GB As fast as an SSD can get in the traditional 2.5in SATA format, this is a great-value upgrade. £57 from www.snipca.com/37304

COMPETITION

Win 1 of 3 Woodland Glow outdoor speakers

Pure's Woodland Glow is where music and light come together. It's a waterproof outdoor speaker with a dimmable LED lamp, so you can enjoy great music and a soft glow to make your nights under the stars unforgettable. It's like having a lantern that also plays music, making it both practical and fun.

You can play music from your phone or other devices using Bluetooth 5.3 or AUX, with 14 hours of playtime and nine hours of light, it'll keep the party going. Its round shape makes sound go in all directions, giving you a great 360-degree audio experience wherever you are. Charging is easy via USB-C, and you can connect two Woodland Glow speakers for stereo sound.

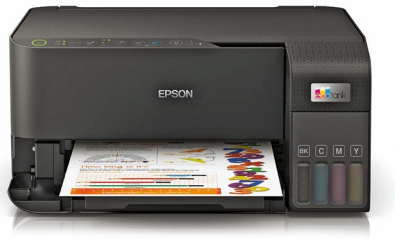
You don't need to worry about bad weather. The Woodland Glow's tough design and IPX6 rating means it can handle heavy rain and dust. The light will guide you home when storm clouds darken the sky.

To enter this competition, answer the question at www.snipca.com/50337 and submit your details. It runs until midnight Tuesday 18 June.

You can buy the **Pure Woodland Glow** outdoor speaker for £89.99 from www.snipca.com/50338. For more details on Pure's products, including speakers, radios, CD players and complete music systems, visit www.pure-audio.com.

PRINTER

Epson EcoTank ET-2830
£220 from www.snipca.com/50202
Tested Issue 676



This replaces the ET-1810 as our favourite printer because it adds copying and scanning to its functions for only £60 more. Print quality is great, especially for photos, which have crisp details, vivid colours and realistic skin tones.

ALTERNATIVE Epson EcoTank ET-1810
Not the fastest printer, but comes with enough ink for 4,500 mono and 7,500 colour pages. £160 from www.snipca.com/49863

SMART TV

Samsung Q60B
£405 from www.snipca.com/45083
Tested Issue 652

With our former favourite – the TCL 55RP620K – out of stock, Samsung's 43in set is our new pick. It has excellent colour reproduction in well-lit scenes, and the picture is wonderfully sharp, especially in 4K.

ALTERNATIVE LG OLED42C3
LG's 42in TV is more than double the price, but unlike TCL's model it has an OLED screen, boosting picture quality considerably. £799 from www.snipca.com/47271

ROUTER

Asus RT-AXE7800
£196 from www.snipca.com/47586
Tested Issue 665

This router has Wi-Fi 6E, so will be capable of the fastest possible speeds on the 6GHz network over the next few years. It has five Ethernet ports and also a USB 3.0 port to connect a hard drive or NAS drive.

ALTERNATIVE Synology WRX560
Our previous favourite remains an excellent choice, delivering speeds of up to 791.5Mbps. Add more units to set up mesh Wi-Fi. £244 from www.snipca.com/49161

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

35 Calibrate your monitor and printer
38 Find any file on your PC within seconds
40 Readers' Tips
42 Browser Tips: Translate selected text on web pages

PLUS
44 Phone & Tablet Tips
46 Make Windows Better
47 Make Office Better
48 In the Club: Create a digital suggestions box

HOW TO...

Calibrate your monitor and printer for perfect printing

by Nik Rawlinson

What you need: Windows PC, monitor and inkjet printer **Time required:** One hour

Monitors and printers are fundamentally incompatible. Your printer produces images by placing tiny drops of cyan, magenta, yellow and black (CMYK – K stands for key, meaning black) so close together on a sheet of paper that they're impossible to distinguish with the naked eye. Your monitor, on the other hand, uses red, green and blue (RGB) pixels.

Translating the red, green and blue colours you see on screen into the cyan, magenta, yellow and black (plus, if your device supports them, any supplementary tones) used by your printer is no small achievement – and one that's made more complicated by several factors.

The first is that red, green and blue are what's known as additive colours, which is logical because your screen starts as a black rectangle that gets brighter (meaning it has brightness added) when the colours are applied. Adding the colours simultaneously, each at 100-per-cent strength, would produce white.

Cyan, magenta and yellow, on the other hand, are what's known as subtractive colours. Again, this makes sense, because you start with a white page and for each colour you add, it gets a bit darker (meaning it has brightness subtracted). If you added them all at 100 per cent you'd more or less get black. The fact that it's 'more or less' explains why printers also include a dedicated black cartridge.

This complication is exaggerated by the fact that colours on a screen are lit from behind, and effectively projected on to your retinas. In contrast, colours on a piece of paper are illuminated by reflected ambient light that bounces off the page before reaching your eyes.

There are countless other variables to consider, like the brightness of your display, the quality of the paper you use, the precise mix of the inks in your printer, and whether your screen has gone into night mode.

Then there's the paper and ink to consider. If you really care about accurate colour reproduction, you should be selecting a specific paper type, which knows how the manufacturer's own ink reacts to each media and uses this data to refine the formula used by the printer to precisely mix each dot on the page.

Printer manufacturers, for whom ink and paper production is a lucrative business, use this fact to justify why you should buy their own supplies. Only by combining a known hardware configuration, a driver they've created themselves, and their own components, can they incorporate precise variables in their calculations and guarantee an accurate result. Use third-party ink or budget paper and the results might not be what you expect.

Fortunately, all of these calculations go on in the background. As long as your computer, monitor and printer are properly set up, you rarely need to think about them. We'll show you how to check that all three are set up correctly.

1 Manually calibrate your monitor

Open your monitor's on-screen menu and navigate to its picture or colour controls. The precise method for doing this depends on the make and model, but on our Samsung display we press the single control button on the back, then use it as a joystick to select the full menu option, and press the button to open it.

When you've found those settings on your display, reset it to its factory defaults if there's an option to do so. If your monitor doesn't have a reset option, we'd recommend balancing the red, green and blue tones at around 50 per cent each to minimise bias in any one direction. We also checked that our monitor's game

As well as resetting our monitor, we checked that Game Mode was turned off

mode setting (pictured above), which can boost colours and brightness, was turned off.

Close the menu if you can. If not, just leave it and it will usually disappear after a few seconds. Now launch Windows' monitor-calibration tool by opening the Start menu, typing calibrate and clicking 'Calibrate display colour'. If the window doesn't automatically take over the whole screen, maximise it. Read the guidance on the first three screens.

On the third screen, drag the slider until you can barely see the dots in the middle of each circle. We found that the slider's original position gave the best result – the middle image in the photo below – but needed to drag it up and down the scale to confirm this, before returning it to the original position. When you've found the optimal setting, keep clicking Next, following the instructions on each screen.

You might need to trust your own judgement on some of the steps. For example, one prompts you to set your brightness so that a black shirt inside a black suit is distinguishable, while a black X on a black background in the same frame is almost lost. This is done using the controls on the monitor itself, rather than dragging an on-screen slider.

We needed to reduce the brightness of our monitor to five per cent to achieve this (pictured above right), which naturally dimmed the image considerably. However, the next step, which focused on the contrast setting, asked us to use the monitor's onboard controls to set the contrast as high as we possibly could without losing view of the wrinkles and white buttons on a white shirt.

While it was possible to do this, we found that increasing the brightness again, and decreasing the contrast, actually gave us a better result than leaving the brightness at the previous setting and working with contrast alone.

Finally, you'll be asked to use three on-screen sliders – for red, green and blue – to remove any colour bias from the image. Windows displays five different shades of grey, which need to be entirely neutral. We could only really detect when there was any bias in the colours after we'd dragged the sliders a little.

The trick, we found, is to work with all three in turn, dragging each one a little way. If that meant we'd reduced the blue so much that the screen started to look a little red, either correcting the blue, or moving the red slider, evened things out.

Once you've got your settings right, you can live with them for a long time and be confident that all of the colour-critical editing work you do on your photos will pay dividends.

When you click through to the last screen, you'll find two buttons: one labelled 'Previous calibration' and the other 'Current calibration'. Click backwards and forwards between them to compare how your image looks now to how it looked before you started calibrating it. You might be surprised how big a difference it has made.

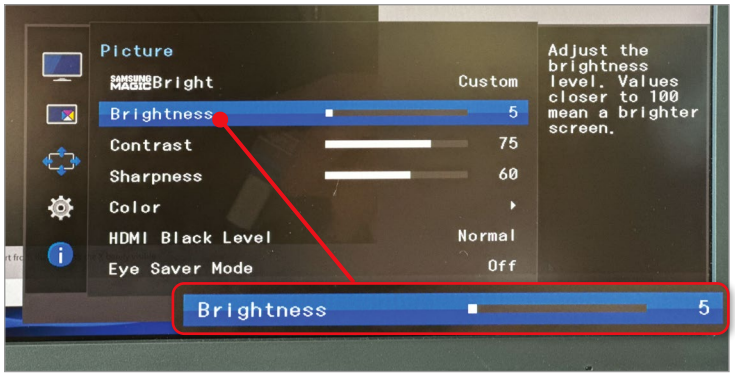
The reason you can make this comparison is that the changes you've made could – possibly – have made things worse, rather than better. If that's the case, leave 'Previous calibration' selected and quit the calibration tool. Then, either stick with what you've got, or launch the calibration tool again and work through the process a second time.

How I use colour management

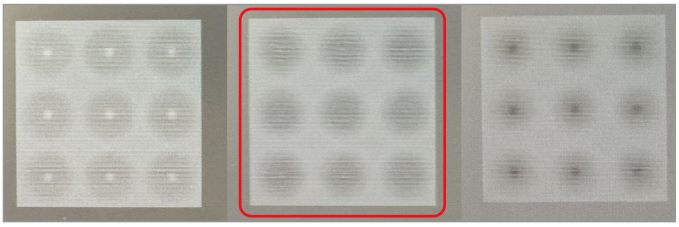
I'm a bit sloppy, to tell the truth. Most of my photo editing is done with a specific and unusual purpose in mind: creating contact negatives for cyanotype printing. As these need to be monochrome for best results (and the tones inverted) I rarely worry myself too much about colour correction. However, if I am laying out a page for print, I'll make sure that the workflow is properly set up to preserve any original tones as far as possible.

Nik Rawlinson

How do you manage your monitor and printer's colours? Please let us know: letters@computeractive.co.uk

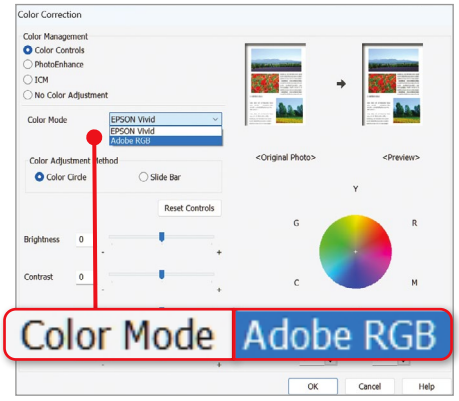


We had to reduce the brightness of our monitor to five per cent, but increased it again during the following test

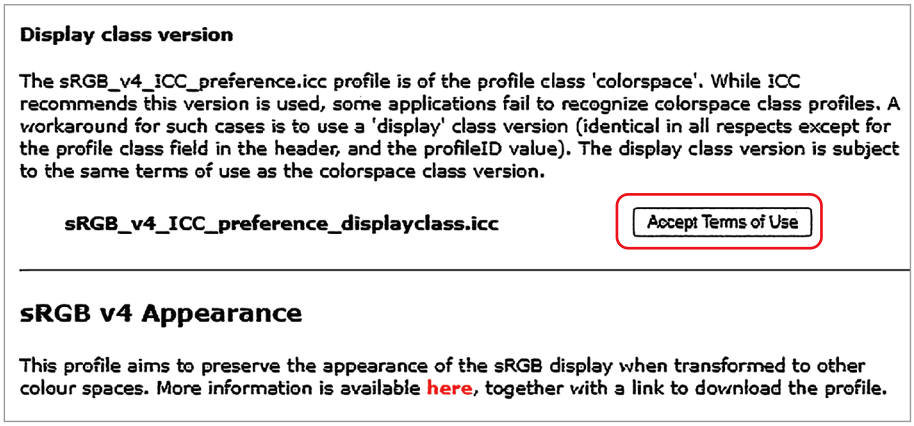


This composite of three photos shows that the dots can barely be seen in the middle image

This composite of two photos shows neutral greys at the top, and an obvious red bias at the bottom



Our printer supports Adobe RGB, so we selected it from the Color Mode menu



Click 'Accept Terms of Use' to download International Color Consortium's sRGB display profile

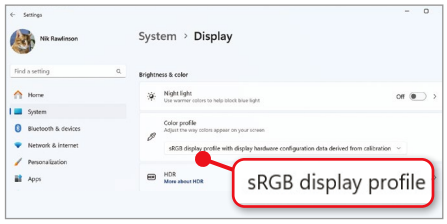
2 Find your printer's colour profile

Now that you've checked your monitor is performing optimally, you need to make sure any image-editing programs that send graphics to both the screen and your printer are talking the same language. A colour profile translates colours from additive tones on a specific screen to subtractive tones on a specific printer. Selecting the same colour profile in your software and on your printer can help to preserve your selected tones as they transfer from screen to page.

Start by checking which colour profiles your printer supports. The process for doing this differs between manufacturers and models. However, working with our Epson WorkForce WF-7840 printer, we opened a new document and selected Print. When the printer box appeared, we clicked Properties, then switched to the More Options tab and, in the Color Correction section, selected Custom. This made an 'Advanced...' button active. When we clicked it, we could select Adobe RGB from the Color Mode menu (see screenshot above).

3 Find your monitor's colour profile

You now need to check the colour profile of your monitor. In Windows 10, type colour management in the search bar then press Enter. Look for the profile under the 'ICC Profiles' heading. In Windows 11, open Settings (press Windows key+I), click System followed by Display, then check the 'Color profile' section. Here, we can see that our monitor uses an sRGB display profile (see screenshot below left).



Our monitor uses an sRGB colour profile

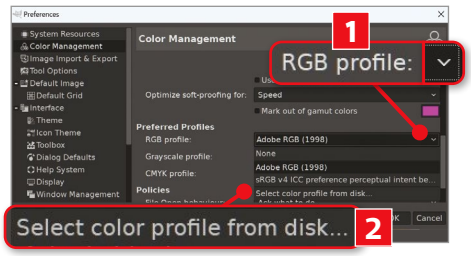
We now need to make sure our image-editing software has the appropriate colour profiles installed, starting with Adobe RGB, which is available for download from www.snipca.com/50402. Select 'Windows' at the bottom of the screen and, when you've downloaded the profile, extract the compressed files. We'll now download the International Color Consortium's sRGB display profile from www.snipca.com/50403 by scrolling down to the 'Display class version' section and clicking 'Accept Terms of Use' to the right of 'sRGB_v4_ICC_preference_displayclass.icc' (see screenshot above).

If your monitor uses a manufacturer's own ICC profile, search for it online rather than using the sRGB profile that we've downloaded. You may find that the manufacturer makes it available in their support or downloads pages.

4 Convert photos in your image-editing software

Now launch your image-editing software. We're working with GIMP (www.gimp.org), but look for similar instructions if you use different software. Open GIMP then click Edit followed by Preferences. Click 'Color Management' in the sidebar. Now click the menu to the right of 'Monitor profile' followed by 'Select color profile from disk...'.

Now navigate to the .icc file you downloaded from the International Color Consortium site. Scroll down to Preferred Profiles, still in GIMP's Color Management settings, then click the menu beside 'RGB profile' (1 in our screenshot above) and choose 'Select color profile from disk...' 2. Navigate to the colour profile you downloaded from Adobe and select 'AdobeRGB1998.icc' from the RGB folder.



Specify your preferred colour profile for your RGB and CMYK editing work in GIMP

Close GIMP's Preferences, then open the photo you want to work with. If it's not already been encoded using GIMP's built-in colour profiles, it will offer to 'Convert to RGB Working Space'. Click 'Keep' to preserve the image's existing settings and, when it's opened, click Image on the menu bar, then hover over Color Management and select 'Convert to Color Profile...'. Click the menu below 'Convert to' and select 'Preferred RGB (Adobe RGB (1998))' – see screenshot below – then click Convert.

We're converting this image's colour profile so the colours can be properly managed

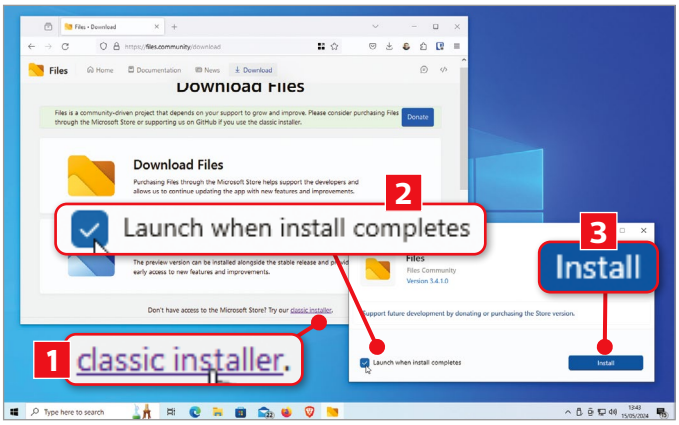
Your entire workflow for this image should now be colour managed, and you will be able to make adjustments to the picture with greater confidence that what you see on screen will be representative of what appears on the page.

Find any file on your PC within seconds

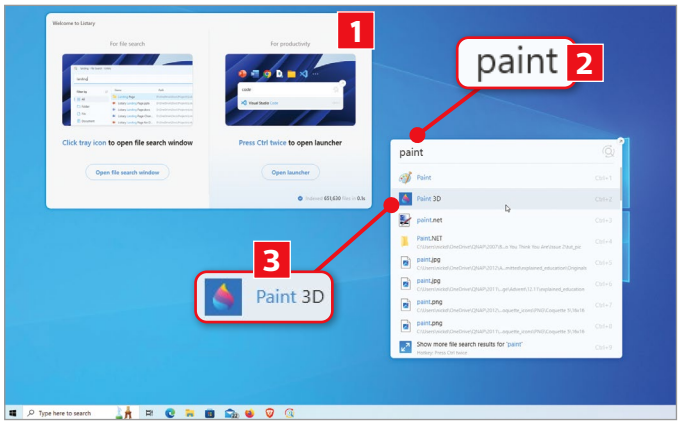
What you need: Files 3.4, Listary 6.3
Time required: 10 minutes

We're big fans of Files, the open-source file-management tool and alternative to File Explorer. And with its latest release, Files has got even better. It's now teamed up with the powerful search tool Listary to let you perform instant file searches across your entire PC. Here, we'll show you how to install Files 3.4 and Listary, then explain how to use them – individually and in combination – to quickly locate every single file across all your drives.

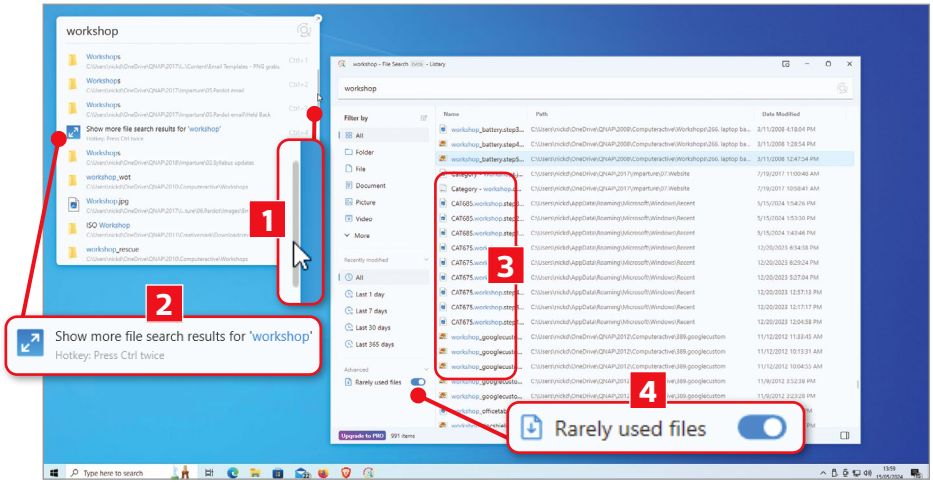
STEP 1 If you're not already a Files user, download and install the latest version from www.snipca.com/50481 – the Microsoft Store version costs £7.49, so to get it free, click the 'classic installer' link 1 at the bottom of the screen to save the 'Files.Stable.exe' file to your Downloads folder. Double-click the file and tick 'Launch when install completes' 2 before clicking Install 3. Once Files is installed, download Listary from www.snipca.com/50482 – follow the setup instructions, leaving 'Standard (recommended)' selected when prompted. Leave the 'Run Listary' box ticked on the final screen and click Finish.

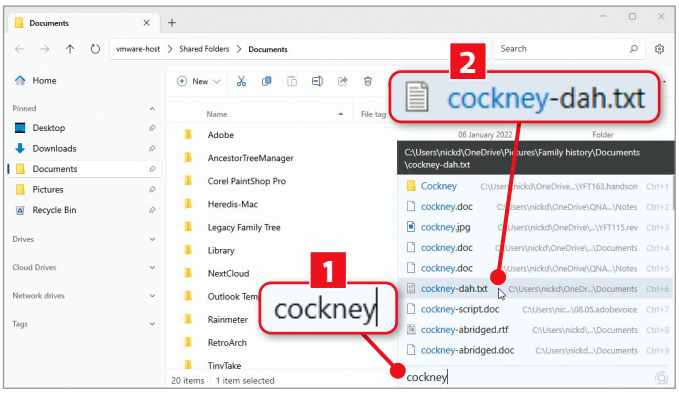


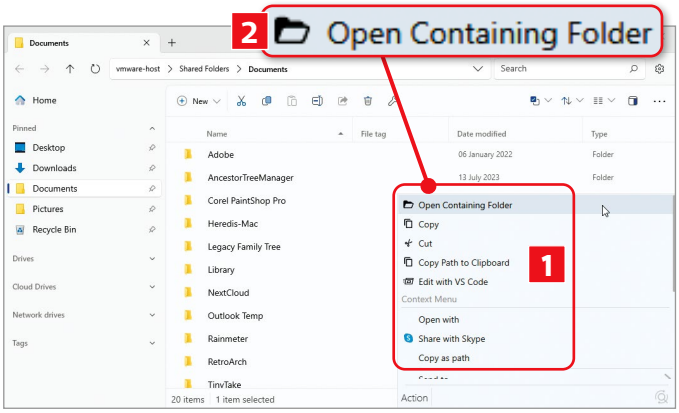
STEP 2 A welcome screen 1 will pop up that explains how to access Listary as a standalone program. You can open it at any time by pressing Ctrl twice – this brings up a floating 'Search for Apps and Files' search bar. Type your search term into it 2 and a list of potential matches will appear below, including files, folders and programs 3. Click a program to open it; click a file to open it in its default program; and click a folder to open it in your default file manager, which may be Files or Windows' File Explorer.



STEP 3 When browsing the search results, you'll see that only nine are displayed at any one time. Use your mouse's scroll wheel or click and drag on the scrollbar next to the results 1 to view them all. Look out for the 'Show more file search results for...' option 2 – clicking this opens Listary's new File Search tool. This lets you filter results using the options in the left-hand pane 3. Choose between folders and files, file type and when the file was last modified. Click the 'Rarely used files' slider 4 to exclude files you don't access frequently.



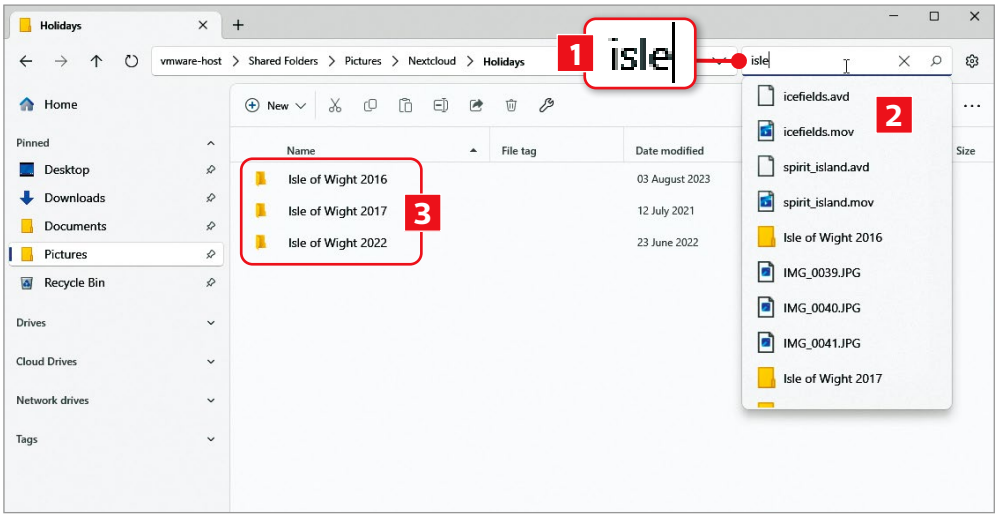


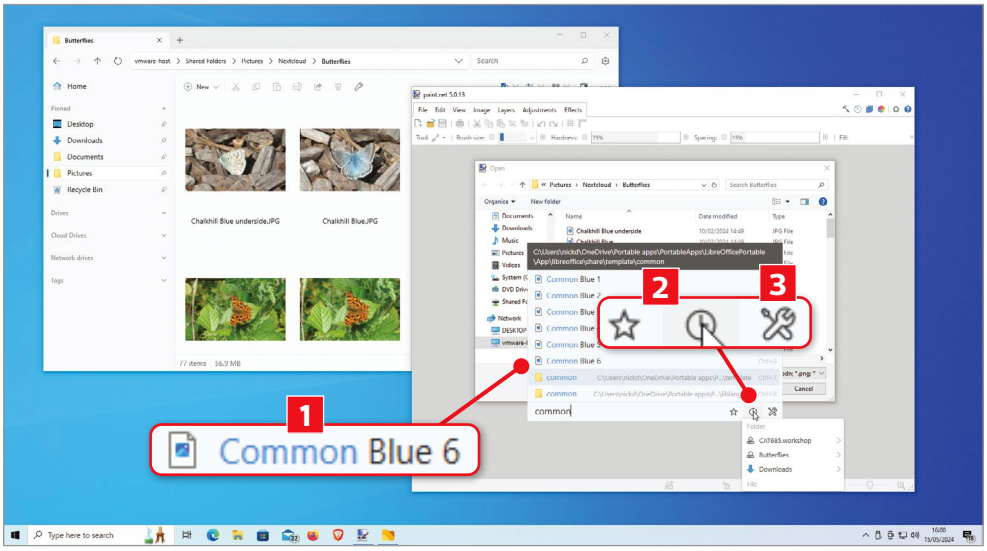


STEP 4 Now we'll explain how to use Listary in combination with Files. Open the latter, press the Ctrl key twice and you'll see Listary's search bar appear inside Files 1. This searches only inside Files, and only for files and folders. As with the main tool, type one or more keywords and a list of results will appear 2. Again, only nine results are displayed at any given time, so use the scrollbar or your mouse's scroll wheel to navigate through the list.

STEP 5 As with Listary's standalone search tool, clicking a result either opens the file in its default program or opens the folder in Files. Right-click a search result, and you'll see the Action menu 1. This will display options that are relevant to the item you've clicked. Many are similar to the right-click options in Files or File Explorer, but some are exclusive to Listary, including 'Open In Containing Folder' 2 at the top of the menu. This quickly opens the file's parent folder in Files.

STEP 6 Despite adding support for Listary, Files hasn't abandoned its own search tool 1. Use this when you want to restrict your search to the current folder. As you type, matching files and folders will be displayed in a dropdown menu 2 – click one to open it, or press Enter to display the results in the main Files interface. Files 3.4 also adds a new feature to its search tool: as you type, the main window becomes a filter to show only those items that match your search terms 3.





STEP 7 Listary also has a Quick Switch bar, which is a file-search tool that works with most programs that let you open and save files, such as Paint.NET in our screenshot. You can use it to quickly find a file or folder to open or navigate to 1, plus it provides easy access to favourite and recently accessed folders 2. Click the spanner icon 3 and you can also jump to the last folder opened in your file manager.

Readers' Tips

TIP OF THE FORTNIGHT

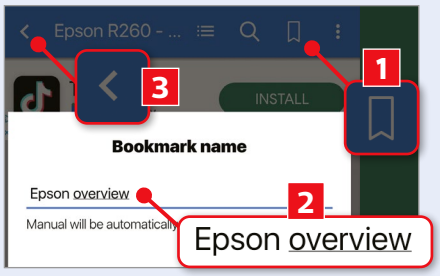
Bookmark pages within device manuals

I miss the days when devices used to come with instruction manuals, so I'm grateful for your recommendation of the Android app ManualsLib (www.snipca.com/49782, Issue 681, page 45). I've found manuals for around 10 old devices.

The app's best feature is bookmarking pages so you can easily refer to them again. This is essential because the manuals can be over 100 pages long. One example is the manual for my old Epson Stylus R260 photo printer, which has 150 pages. I don't need to read all of it, so I've bookmarked the pages that I'll need to refer to most often.

Find the page you want then tap the bookmark icon (1 in our screenshot). Give the bookmark a name 2, then tap OK. You'll see a message at the top confirming your bookmark has been added.

Now tap the top-left arrow to go back, being careful to avoid any advert 3. Tap 'Bookmarks' at the bottom, then tap a product to see the pages you've bookmarked. You can then swipe through the manual if you need to.



Michael Bannen

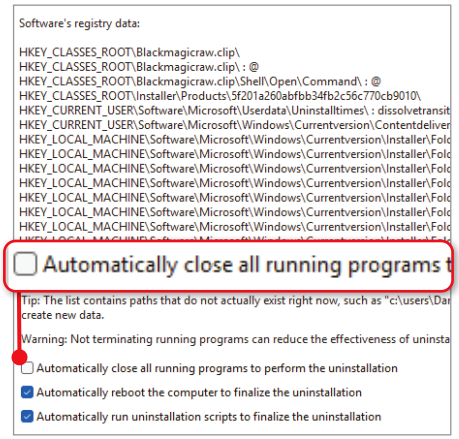
Michael wins a copy of our 2023 Back Issue CD

Buy it from us at www.snipca.com/48860

SOFTWARE

Untick box to stop Uninstalr crashing

I was keen to try Uninstalr 2.3, which was your main program in Issue 682's Best Free Software section (page 18). It had been updated to version 2.4 by the time I got around to downloading it. I installed the portable edition on my Windows 11 Pro PC and it seemed to go fine, but when I tried to remove programs my screen kept crashing, showing the message 'CRITICAL_PROCESS_DIED'.



I read online that a few people have had this problem, and that they managed to fix it by unticking the box 'Automatically close all running programs to perform the uninstallation'.

This worked for me too. You need to select the program to remove, then click Uninstall at the bottom. You'll see the box to untick at the bottom of the next page (see screenshot left).

Since unticking it, I've had no crashes. I can now see why you recommended it. It's the easiest tool I've ever used for uninstalling programs in one go.

Mick Gregan

OFFICE

Add passwords to LibreOffice PDFs

You recently explained how to create password-protected PDFs in OnlyOffice (Issue 683, page 47). LibreOffice users might be wondering whether they can also do this, and the answer is yes. It's as simple as it is in OnlyOffice. Click File, then Export As followed by 'Export as PDF'. Click the Security tab in the box that opens (1 in our screenshot above right), then Set Passwords 2.

You can now set a password for opening the PDF 3, and another for

Why I stopped using...

Cherry Stream Desktop keyboard and mouse

I wanted a quieter keyboard, so followed your recommendation in Issue 668 (page 28) to buy this Cherry model. I enjoyed the peaceful typing, but there's little separation between Caps Lock and A, so ended up retyping all the time to delete upper-case letters.

And what I use instead...

I've gone back to my old **Logitech MK345 Comfort Wireless Keyboard and Mouse** (£44.99 from www.snipca.com/50449, pictured). It's like a VW Beetle – it lasts for years, but is incredibly noisy.

As I started using it again, I realised Logitech had done the intelligent thing of modelling the extra-wide Caps Lock key to have a lowered rim between it and letter A key. So I keep my eyes on the keyboard rather than the screen and clatter away with only spelling errors, not upper-case letters.

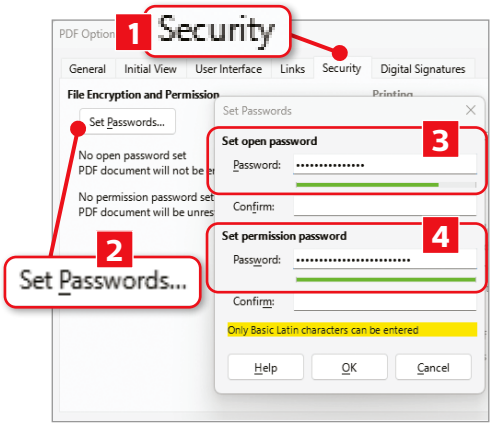
In your reviews of keyboards and mice, can you in future mention their ergonomic qualities, as well as how technically good they are. That would help when deciding which model would be most suitable.

Bob Vickery

Tell us why you stopped using a website, app or program: letters@computeractive.co.uk

Handy hints and tips from your fellow readers

Email us your tips: letters@computeractive.co.uk



'permissions' 4, which allows printing, making changes and altering the contents. Make sure the password is long and complex enough for LibreOffice to show a green bar, which is the highest security rating.

Ruth Ellison

Reader recommends...

Ugreen Nexode Pro

£49.99 from www.snipca.com/49719

In your feature on buying the right charger for your needs (Issue 680, page 62), you named Ugreen's Nexode Pro as one of the best multi-port wall chargers. My experience concurs with your view. I was impressed from the first time I used it, when it fully charged both my iPhone and iPad within one hour. It's faster than any charger I've used before.

Those two devices charge when plugged into the 65W USB-C ports, which leaves one USB-A port for any wireless mice, external hard drives, old tablets, and even older digital cameras that need charging.

You have to be aware that the overall wattage is 65W, which will be shared among the devices you're charging. As such, when I charge my laptop – which needs 45W – it doesn't have much power left to share between other devices I've got connected. It's also much smaller than I realised from photos online. You can easily slot it in a coat or trouser pocket when travelling.

Frank Nelligan

Want to recommend hardware or software to fellow readers?
Email letters@computeractive.co.uk

HARDWARE

Use wireless presenter to control laptop volume

In Issue 683 (page 26) you recommended to reader Colin Culpitt-Smith that he could use the WeChip Mini Air Fly Mouse Remote (£18 from www.snipca.com/50186) to control the volume of his laptop remotely. As an alternative I'd like to suggest the Amerteer Wireless Presenter Flip Pen (£11.99 from www.snipca.com/50374, pictured left) which I've been using for a few years to manage PowerPoint presentations.

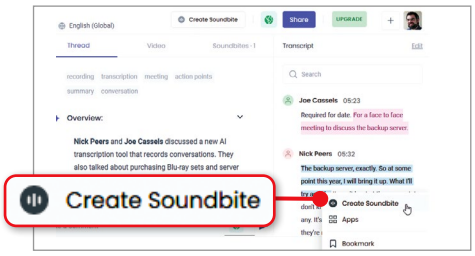
It has buttons to control slide changes and a laser pointer, which Colin probably wouldn't need, but it also has volume control buttons on the side. It's about the same size as a pen. I find it very useful.

Tony Harris

SOFTWARE

Create audio 'soundbites' from transcribed meetings

I've been using the excellent Fireflies (https://fireflies.ai) to transcribe club meetings for several months, so was pleased to see you recommend it in Issue 684's In The Club (page 48).



As well as the excellent summarising tools you mention, there's a clever way to create an audio 'soundbite' of parts of the transcribed text. Simply click to select the text, then click Create Soundbite from the menu that pops up bottom right (see screenshot below left).

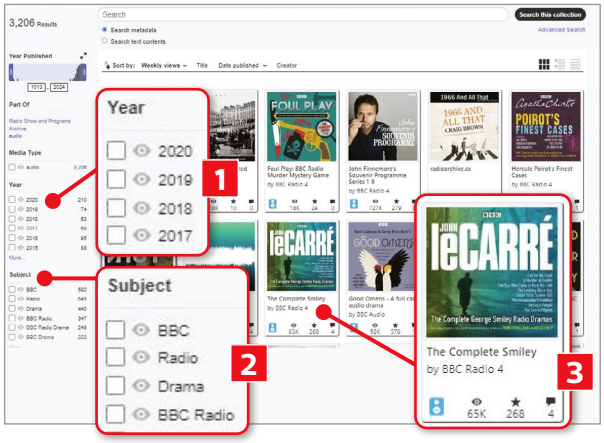
You can use this audio snippet to emphasise something important from the meeting – whether as a reminder for yourself or to clarify what was said. I find that it helps to resolve any ambiguity about what was jointly agreed.

James Lee

INTERNET

Download archive of BBC radio shows

Every now and then I dive into the Internet Archive for new things to watch and listen to. My current obsession is the collection of BBC radio shows (www.snipca.com/50376), which has over 3,200 results. Listing the highlights would probably take several issues of *Computeractive*, but it's fair to say that almost everything you can think of is here, from drama (Alan Bennett, Agatha Christie) and comedy (Douglas Adams, Tony Hancock) to panel shows (*Just a Minute*, *Heresy*).



Narrow your searches on the left by selecting a year (1 in our screenshot above) or type of show 2. If you want somewhere good to start, may I suggest *The Complete Smiley* 3, starring Simon Russell Beale as George Smiley.

David Cole

SOFTWARE

Export AUP files to MP3

I had some old AUP files, which I recorded using Audacity many moons ago. I didn't know what AUP meant, and I couldn't play them. I wanted to convert them to MP3 to make them playable, and did this by clicking File, Export followed by MP3. I offer this as a solution to anyone else who's stuck with unplayable AUP files.

Nick Cromwell

Browser Tips

CHROME

Chat with AI tool Gemini from the address bar

Google has now added several AI features to Chrome and launched an Android app for its AI chatbot Gemini (previously called Bard), but – at the time of writing – these aren't yet available in the UK.

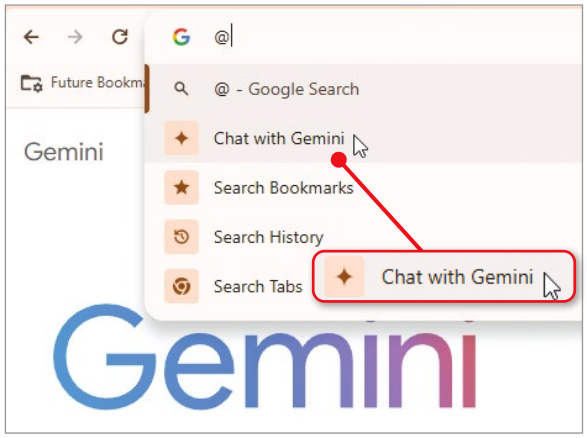
However, you can interact with Gemini by visiting its website (www.snipca.com/50423) and entering a text prompt, uploading an image or speaking a command.

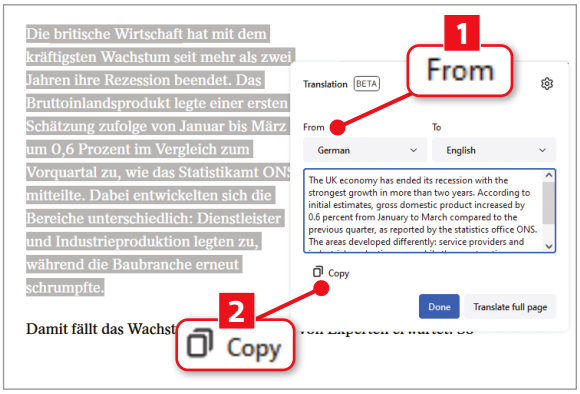
While we wait for the new AI tools to roll out here, Google has updated Chrome with a Gemini shortcut. This lets you start a conversation with the chatbot directly from the browser's address bar, without opening the Gemini website first.

Type @ into the address bar and click 'Chat with Gemini' in the set of options that opens below (see screenshot below left). The address bar will now change to a Gemini text-prompt box, where you can enter your query for the chatbot.

When you press Enter, you'll be redirected to the Gemini site to get your response – you must be signed into your Google account. You can then continue your conversation until you have all the information you need.

See www.snipca.com/50511 for more information about what to expect from Chrome's new AI features.





FIREFOX

Translate selected text on web pages

It's nearly a year since Mozilla finally added a translation feature to Firefox (see Issue 662, page 42), long after the option was offered by rival browsers. Although the addition was better late than never, some users were disappointed that it only lets you translate entire web pages in foreign languages, not just sections of text.

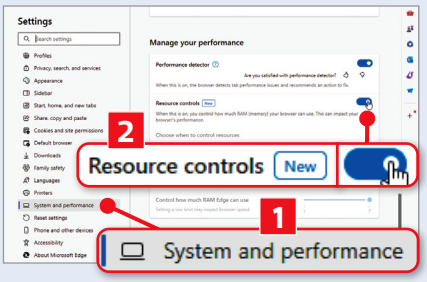
Firefox 126, released in May, addresses this limitation by introducing the ability to translate selected text. To do so, simply highlight a section of foreign text, or just a specific word or phrase, then right-click and choose Translate Selection.

When the Translation box opens, Firefox should automatically delete the language to translate from – if not, select it in the From dropdown menu (1 in our screenshot above). Choose 'English' in the To menu to perform the translation – click Copy 2 to copy and paste the result elsewhere. You can also use the new option to translate English content into another language, including French, German, Italian, Portuguese and Spanish.

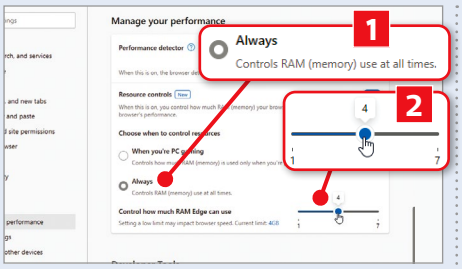
If you don't see the Translate Selection option when you right-click, try enabling it manually. Type about:config into the browser's address bar, press Enter and click 'Accept the Risk and

WORKSHOP Monitor and control Edge's memory usage

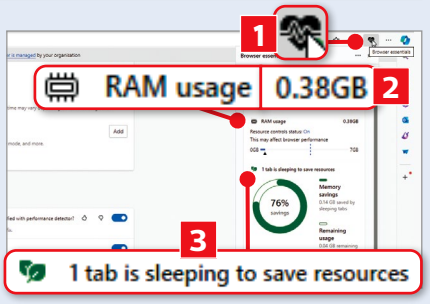
Edge's new 'Resource controls' feature stops the browser hogging system resources and slowing your PC, by limiting how much memory it can use. The option is being rolled out gradually, so you might not see it yet, but here's how to activate it when available.



1 Click the three-dot menu button in Edge's top-right corner and click Settings, then 'System and performance' 1. Scroll down to the 'Manage your performance' section and switch on the 'Resource controls' option 2 to manage Edge's RAM usage.



2 By default, the new feature only limits Edge's memory usage when you're playing games on your PC. Select 'Always' 1 to control its RAM usage at all times. Use the slider 2 to reduce the maximum amount of memory you want to make available to the browser.



3 To monitor the browser's memory usage, click the 'Browser essentials' button on the top-right toolbar 1. Here you'll see details of Edge's RAM usage 2 and the amount of memory it's saving by putting idle tabs to sleep with its 'Sleeping tabs' feature 3.

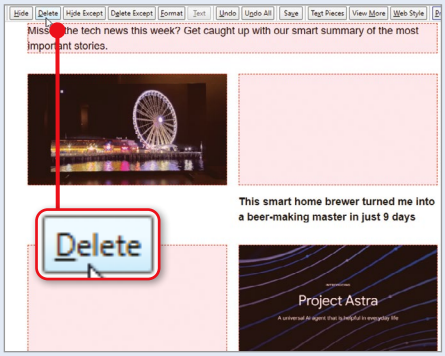
BEST EXTENSION FOR... Editing web pages for printing

Print Edit WE

Chromium www.snipca.com/50428
Firefox www.snipca.com/50429

Most web browsers now optimise web pages when you print them, to reduce the amount of paper and ink you'll need. This extension produces even better results by letting you edit pages before you print them to remove specific text, images, adverts and other unwanted elements.

Click its toolbar button and Print Edit WE will display a set of options along the top of the current page. Choose 'Select', click the element you want to exclude from printing and click either Delete (see screenshot) or Hide. Alternatively, to print only selected elements, click Delete Except or Hide Except.



Other useful options let you add your own text to pages before printing, edit existing text and adjust the fonts, spacing and margins of the page layout. Click 'Preview' to see how your edited page will look before you print it.

If you don't like that, try... PrintFriendly

Chromium www.snipca.com/50509
Firefox www.snipca.com/50508

This extension makes web pages 'print friendly' by removing ads and unnecessary design elements. It also lets you convert them into clutter-free PDFs.

Continue'. Search for the preference browser.translations.select.enable and double-click it to change its value to 'true'.

As with Firefox's full-page translations, the feature works privately offline rather than sharing and storing your data – like Chrome and Edge do.

EDGE

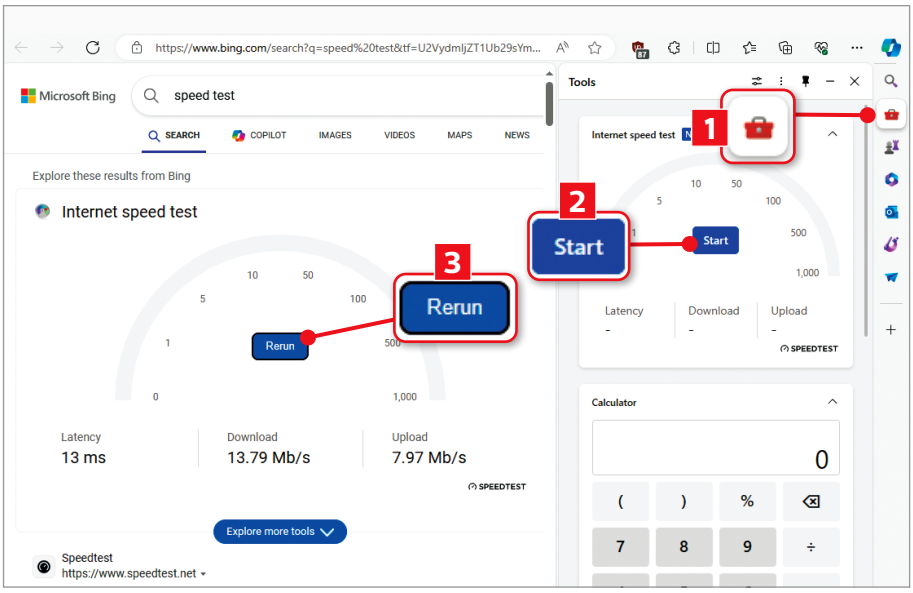
Test the speed of your internet connection

Microsoft has updated Edge with a speed-test tool, which you can access from the browser's right-hand sidebar. This lets you check your internet connection's current download and upload speeds, which sounds useful but has been implemented rather strangely.

To access the tool, click the Tools button in the sidebar (1 in our screenshot below) to open Edge's Tools panel. You should see the new 'Internet speed test' tool at the top of the panel – click the Start button 2 to begin your test.

Bizarrely, instead of running the test inside the sidebar, Edge opens a new tab containing a Bing search-results page – even if Bing isn't your default search engine. This includes an 'Internet speed test' widget at the top of the page, where you'll see your download and upload speeds, and your connection's latency, as detected by 'Speedtest by Ookla'. Click 'Rerun' 3 to perform the test again.

Another big new feature in Edge lets you monitor and manage the browser's memory usage, and is thankfully better integrated. See our Workshop opposite to learn how it works.



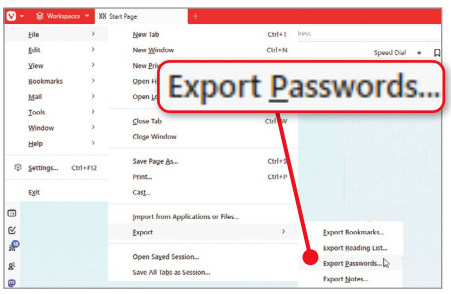
VIVALDI

Export your passwords and RSS feeds

Vivaldi 6.7 introduced so many useful new features that we didn't have space to cover them all in Issue 684 (page 42). One of these is the ability to export the passwords you've stored in the browser, so you can import them into a dedicated password manager – or another browser.

Click the 'V' menu button in Vivaldi's top-left corner, and select File, then Export, followed by Export Passwords (see screenshot below). Enter your Windows password or PIN when prompted, and Vivaldi will open a Save As box. Choose the drive and/or folder you want to save your passwords to, and click Save to export them as a CSV file – you can change the default file name from 'Vivaldi Passwords.csv'. Import this file into another password manager, to copy your login details to there. See our Cover Feature on page 50 for more advice about passwords.

The browser also now lets you export RSS feeds from its built-in feed reader. Select 'Export Feeds' in the Export menu to save your feed subscriptions as an OPML file.



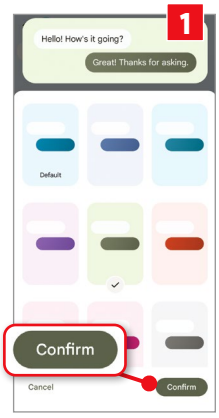
Phone and Tablet Tips

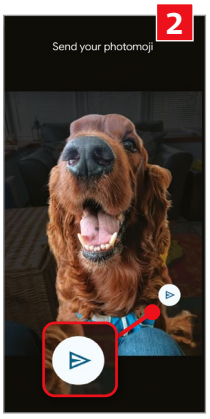
ANDROID

Customise your chats in Google Messages

Google has updated its Messages app for Android phones (www.snipca.com/50518) with more ways to customise your conversations, bringing it closer in line with WhatsApp. The new options are only available in RCS chats, not standard SMS ones. To enable RCS, tap your profile picture, choose 'Messages settings' and switch on 'RCS chats'.

The most notable new feature is Custom Bubbles, which lets you change the colour of the message bubbles and the background of your Messages conversations. Tap the three-dot menu button in the top-right corner of an RCS chat and choose 'Change colours' to view the available options. The default theme is blue, but you can also make your bubbles and background purple, green, pink and more. Select your preferred theme and press Confirm to apply it (see screenshot 1 below left).





Messages also now lets you use custom emojis to respond to other people's messages. Previously, when you long-pressed a message to add an emoji response, you could either choose one of the six suggested designs or tap the emoji icon with a plus-sign symbol to browse the full selection. These options are now augmented by a Create button that lets you turn your own photos into emojis.

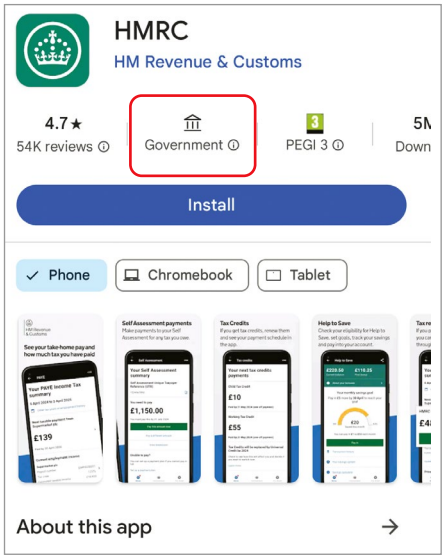
To do so, tap the Create button, select the picture you want to use and Messages will automatically identify and cut out its subject, to create a 'photomoji'. Tap the Send button (see screenshot 2) to insert and share the emoji response. The photomoji will be added to your emoji library for future use.

ANDROID

Identify official government apps in the Play Store

Google has introduced new labels in the Play Store to indicate official apps from government departments in 14 countries – including the UK. These are intended to help Android users avoid installing dodgy apps that steal your data by pretending to be from government bodies, including HMRC, NHS and 'UK Visas and Immigration'.

The new Government badges are displayed either in the information bar below an official app's name, or the 'About this app' section. Tap the label (see screenshot above) and you'll see a message saying: 'Play has verified that this app is affiliated with a government entity'. The new badges also appear in search results and charts in the Play Store app (though curiously not on its website).



At the time of writing, some official apps still lacked a Government label – including the Gov.uk ID Check tool – but over 2,000 now have one, spanning countries such as the US, Australia, France, India and Japan.

iOS

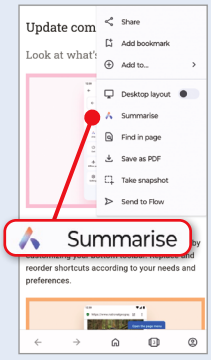
Control your device more easily using Assistive Access

Although iPhones and iPads are famously simple to use, some people

BEST NEW APPS — What you should install this fortnight

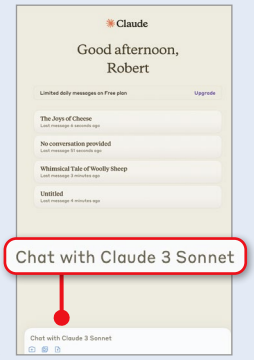
Opera
Free
Android www.snipca.com/50528

Opera's updated Android browser lets you summarise web pages using its built-in AI assistant Aria. Tap the three-dot menu button in the top-right corner, select Summarise and Aria will give you the gist of the page's content. You can also now customise the browser's bottom toolbar to include only the options you need.



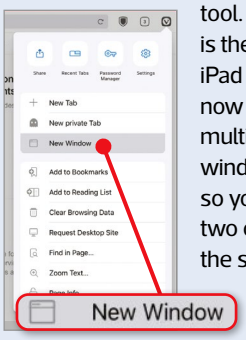
Claude by Anthropic
Free*
iOS www.snipca.com/50529

This new ChatGPT rival combines a sophisticated interface with the ability to perform all manner of useful AI tasks. It's particularly effective at analysing images and documents to summarise their content and answer follow-up questions. Claude can also generate emails, blog posts, stories, poems and more, based on your text prompts.

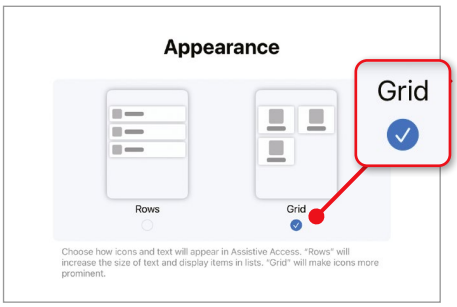


Vivaldi
Free
Android www.snipca.com/50526
iOS www.snipca.com/50527

Vivaldi has made some changes to its Android browser, improving its bookmark manager, tracker blocker and translation tool. More significant is the update to its iPad version, which now lets you view multiple Vivaldi windows side by side, so you can browse two or three sites at the same time, and resize them as required.



*Contains in-app purchases



with cognitive impairments have trouble coping with the large number and small size of apps on their devices. To make things easier, Apple offers a handy feature called Assistive Access, which enlarges and simplifies on-screen options to suit different needs.

Switch it on by opening Settings on an iPhone or iPad and tapping Accessibility, then Assistive Access. Select 'Set Up Assistive Access' and confirm the relevant Apple ID – whether that's yours or the person you're helping. On the Appearance screen, choose whether to display on-screen items in rows (which enlarges the text) or a grid (which makes app icons more prominent – see screenshot above), then choose the apps you want to include on the Assistive Access screen – such as Calls, Messages and Camera.

Confirm the security method for unlocking the device, such as a Face ID or Touch ID, and enter a four-digit PIN for enabling and disabling Assistive Access. Finally, tap Start Using Assistive Access to switch to its simplified layout and clearer options. To return to standard mode, triple-press the side or Home button, select Exit Assistive Access and enter the PIN.

ANDROID & iOS

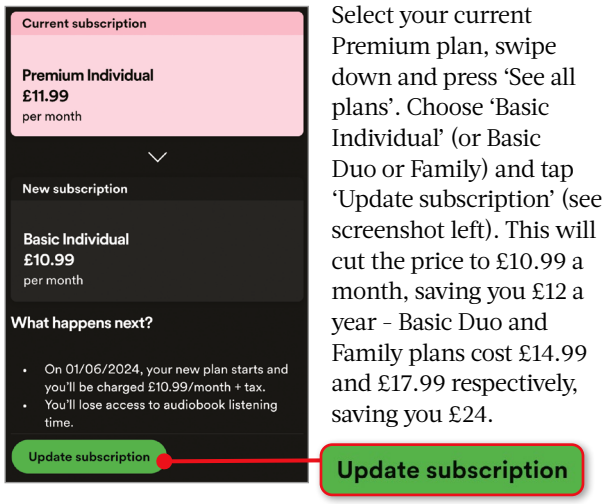
Beat the latest Spotify price rise

Spotify has increased the price of its subscriptions for the second time in a year, with the cost of a Premium Individual plan (for a single user) rising from £10.99 to £11.99 a month. Before last July, the price of a Premium subscription was only £9.99 a month, so you may now be paying £24 more per year than you originally did.

A Premium Duo plan, which shares a Spotify subscription between two users, has increased from £14.99 to £16.99, while a Premium Family plan, which covers up to six listeners in the same household, has also risen by £2 to £19.99 a month.

Thankfully, there is a workaround that lets you beat the price rise without 'downgrading' to Spotify's restrictive and ad-supported Free plan. This involves switching to a Basic subscription, which includes everything from the Premium plans except audiobooks.

In the Spotify app, tap your profile picture and choose 'Settings and privacy' then Account.

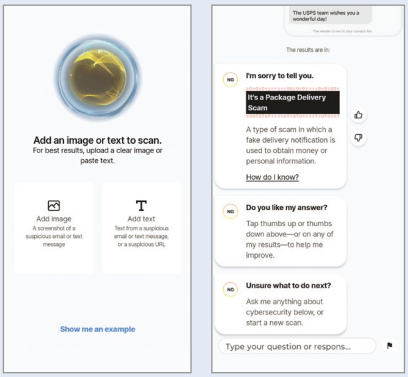


Select your current Premium plan, swipe down and press 'See all plans'. Choose 'Basic Individual' (or Basic Duo or Family) and tap 'Update subscription' (see screenshot left). This will cut the price to £10.99 a month, saving you £12 a year – Basic Duo and Family plans cost £14.99 and £17.99 respectively, saving you £24.

BEST APPS FOR... Avoiding scams

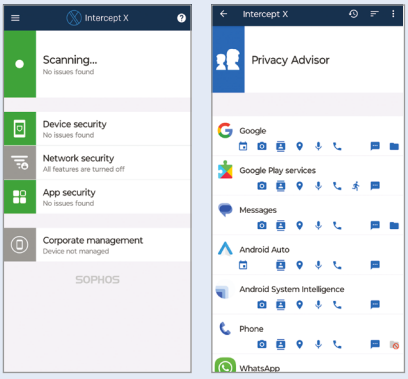
Norton Genie

Free
Android www.snipca.com/50534
iOS www.snipca.com/50535
Norton Genie uses AI to identify and protect you against online scams. Take a screenshot of a suspicious message, email, social-media post or website, or copy and paste a snippet of text or a URL, and the app will scan its content for 'scam tactics' and tell you whether it's trustworthy.
Best For Using AI to detect scams



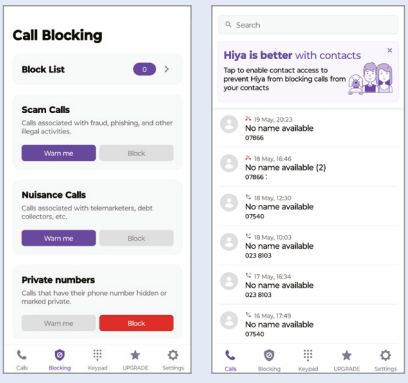
Sophos Intercept X

Free
Android www.snipca.com/50544
iOS www.snipca.com/50545
There are lots of dodgy apps on the Play Store that aren't detected by Google's Play Protect tool. Sophos Intercept X scans your Android device for scam apps that contain security and privacy threats. This option isn't available in the iOS version, but other features are – including a password safe, network scanner and web filtering.
Best For Identifying scam apps



Hiya – Caller ID & Block

Free*
Android www.snipca.com/50540
iOS www.snipca.com/50541
Although Android and iOS detect some automated calls, Hiya offers stronger protection, drawing on a huge database of spam numbers to warn you about dubious calls before you answer. You need to pay £3.99 a month to block these calls automatically, but the free plan lets you block them manually, along with calls from hidden numbers.
Best For Avoiding scam phone calls



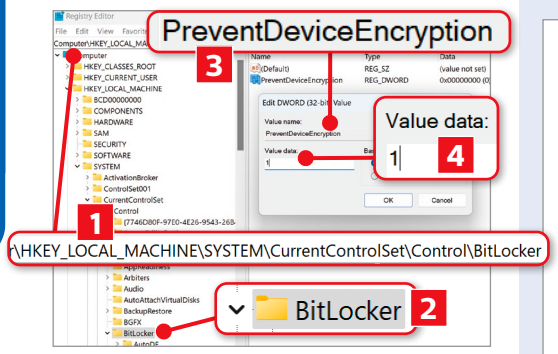
*Contains in-app purchases

WINDOWS 11

Stop BitLocker encrypting your hard drive

Computers that come with Windows 11 Pro include Microsoft's BitLocker, which automatically encrypts your hard drive. If you don't want this, you can stop it from happening when setting up a new computer or reinstalling Windows.

On the screen that prompts you to choose your country, tap Shift+F10 to open Command Prompt. Now type regedit and press Enter to open the registry editor. Expand the **HKEY_LOCAL_MACHINE** folder, then SYSTEM, followed by CurrentControlSet, then Control and finally BitLocker. Alternatively, type this into the address bar at the top: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\BitLocker (1 in our screenshot below).



Right-click BitLocker 2 and select 'Dword (32-bit) Value', which will create an entry in the main panel. Rename this PreventDeviceEncryption 3. Double-click this to open a box and change the number under 'Value data:' to 1 4. Click OK. Close the Registry Editor and Command Prompt, then continue with the installation.

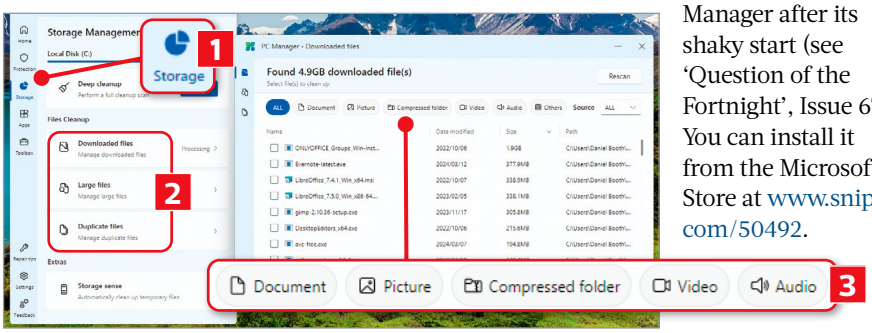
WINDOWS 10 & 11

Clean your downloaded, large and duplicate files

Microsoft has added a 'Files Cleanup' setting to its PC Manager tool, which aims to be a built-in replacement for third-party system-cleaning programs like CCleaner.

Click the Storage icon on the left (1 in our screenshot right) and you'll see options to manage downloaded, large and duplicate files 2. Clicking one scans your computer, then lists what it's found. Select a file category at the top to only show that type of file – for example, document, picture, video or audio 3.

This option significantly improves PC Manager after its shaky start (see 'Question of the Fortnight', Issue 678). You can install it from the Microsoft Store at www.snipca.com/50492.



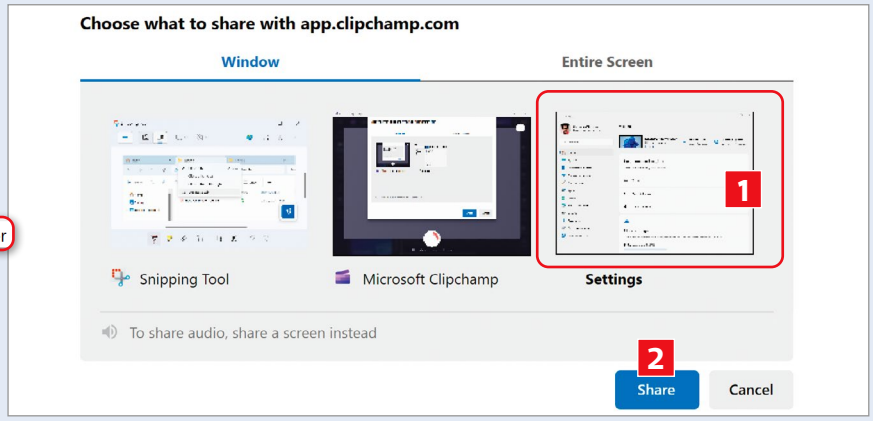
WINDOWS 10 & 11

Record 15-second instruction GIFs

As well as editing video clips, you can use Microsoft's Clipchamp to record short videos under 15 seconds as GIFs. These are commonly shared online for amusement, but you can also use them to share short instructions with others. They're quicker to upload and download because the file size is much smaller than MP4 or other video file formats.

First, open a window on your PC showing what you want to record. Now search for Clipchamp on your PC, then open it. If you can't find it on your PC, install it from the Microsoft Store: www.snipca.com/50490. Open it, then click 'Create a new video'. On the next screen, click 'Record & create' at the top left, then the purple Screen button. Allow Clipchamp to access your camera and microphone, then click the red record button at the bottom.

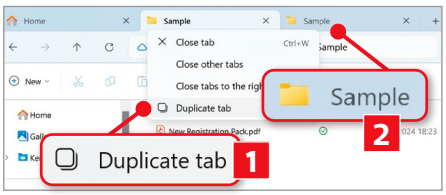
Next, choose a window on your screen to record (1 in our screenshot), then click Share 2. Carry out the instructions you want to illustrate, remembering to keep it under 15 seconds. Click 'Stop sharing' when done, then 'Save and edit'. Your video will appear in Clipchamp's editing interface. Click the top-right Export dropdown menu, then select GIF and name and save the file.



WINDOWS 11 INSIDER

Duplicate a tab in File Explorer

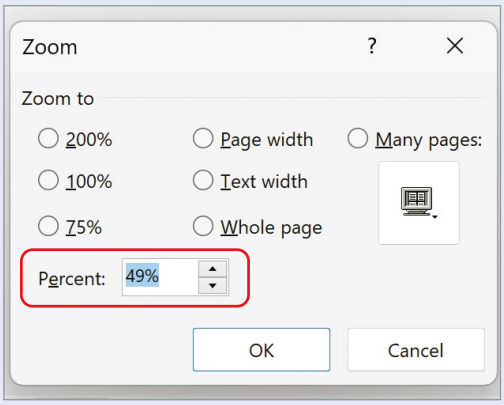
File Explorer has received a number of improvements in the last few months, including the ability to create different tabs while searching through your files and folders rather than making new windows. Now, Windows Insiders on the Beta channel (using build 22635.3570) can duplicate a tab so they can browse much faster. First, right-click any tab in File Explorer, then click 'Duplicate tab' (1 in our screenshot below). In our example, we duplicated the Sample folder, which appeared to the right of the first one as a new tab 2.



MICROSOFT WORD

Zoom into documents without using your mouse

Instead of using your mouse, you can zoom in and out of Word documents using only your keyboard. First press Alt+W to switch to the View tab and make letters appear next to buttons in the menu. Tapping a letter will perform the task it's next to. So, for example, Q appears below the 'Zoom' magnifying-glass icon. Press Q to open the Zoom box, then press the tab button on your keyboard (two arrows, pointing left and right) until the number in the 'Percent:' box is highlighted. Now enter your zoom- magnifaction level (see screenshot) and press Enter. You'll now zoom in or out depending on the level you chose.



LIBREOFFICE

Check the strength of your passwords

Version 24.2 of LibreOffice, released in January, added a password-strength meter that indicates whether passwords you've added to documents, spreadsheets and presentations are strong enough.

First, click File at the top, then 'Save As...'. In the box, navigate to the folder where you'd like to save your document and tick 'Save with password' below 'Save as type:'. Now click Save and the Set Password box will appear.

As you type your password into 'Enter password to open', a bar will appear beneath it to indicate the strength of your proposed password (see screenshot below). Red means weak, yellow medium, blue strong and green very strong. In our example, LibreOffice deems the password 'LibreOffice2024!@£' as 'strong' (blue). Click OK when you've retyped your password and your document will now be protected.

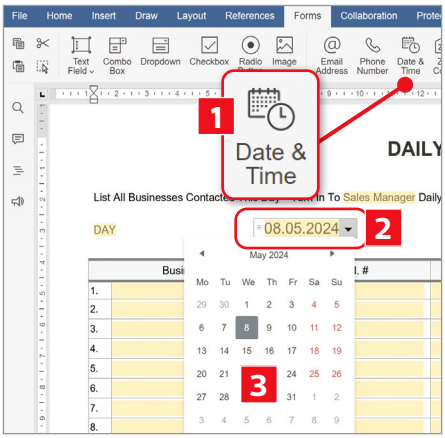
See page 41 for adding passwords to PDFs in LibreOffice.

ONLYOFFICE

Add a date-picking calendar to forms

In recent issues we've covered several PDF tools that OnlyOffice added with its January update to version 8.0. Another handy new option is the Date Picker tool, which adds a calendar view to any Date field you create in PDF forms and documents.

First, place your cursor where you'd like the field to appear. Click the Forms tab at the top, then click 'Date & Time' (1 in our screenshot below left). The Date Picker tool 2 will appear. Clicking the field opens a small calendar window 3 that lets people pick a date rather than type it.



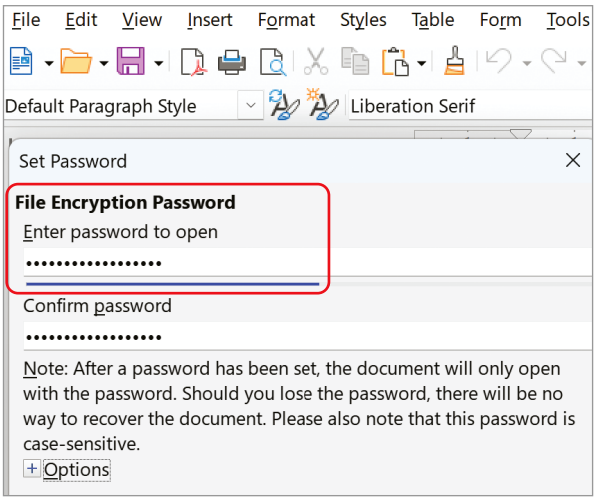
MICROSOFT OUTLOOK

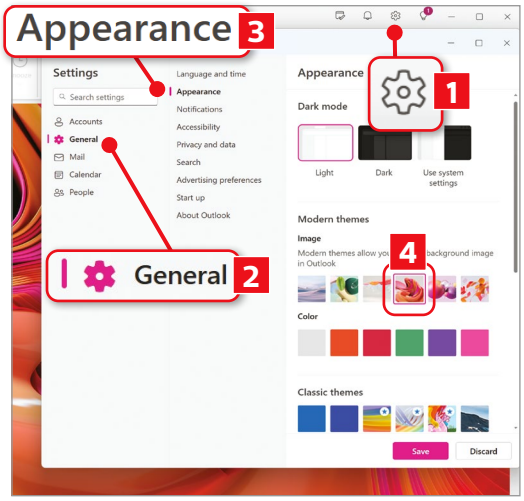
Add a theme to the desktop version of Outlook

Recently, Microsoft has been revamping the desktop version of Outlook to match the features available in its online equivalent. One of these is the option to change the theme colours through the Settings menu. This also adds an image to fill the empty space when no message is selected.

First, click the gear icon at the top (1 in our screenshot below) to open Settings. Next, click General 2, Appearance 3, then choose from six colours, six 'Modern themes' or 53 'Classic themes'. In our example, we chose the Modern theme Magnetic Mood 4 before we clicked Save for the change to take effect.

If you don't have the new Outlook, turn on the 'New Outlook' slider at the top right of your Outlook screen or download it from the Microsoft Store at www.snipca.com/50448.





In The Club

Run a club or society? Here's how your tech can make it easier

Create a digital suggestions box

Padlet (www.padlet.com) lets you share digital boards of images, videos, notes and links with others. It's a bit like Pinterest, but more specific to your club, rather than sharing everything with the world. Every Padlet starts as a blank slate, on to which you add any elements you want. Invited club members can add to your boards too.

While Padlet is free to use, you're limited to three boards and a 20MB file limit per upload. You'll have to pay for more boards and higher file limits – see www.snipca.com/50475 for the choice of plans. By default, each board is moderated, so all posts require your approval before publication, though you can change this in Settings.

Sign up and choose a template

A perfect use for Padlet is as a digital suggestions box. For example, if you like the look of some mugs or T-shirts that another club has produced and want to suggest a similar idea for your club, you can add a picture of the items to your club's Padlet board and ask other members what they think.

First, sign up at www.snipca.com/50474, choosing 'With a team' when asked how you'll use Padlet, then 'Get started' to access the free 'Neon' tier. You'll arrive at your dashboard. Click the pink 'Make a padlet' button at the top right, then scroll down the templates on the right and select the 'Suggestions box' template, then the pink Create button. If you don't see this template, you might need to click 'View gallery' to see all of them.

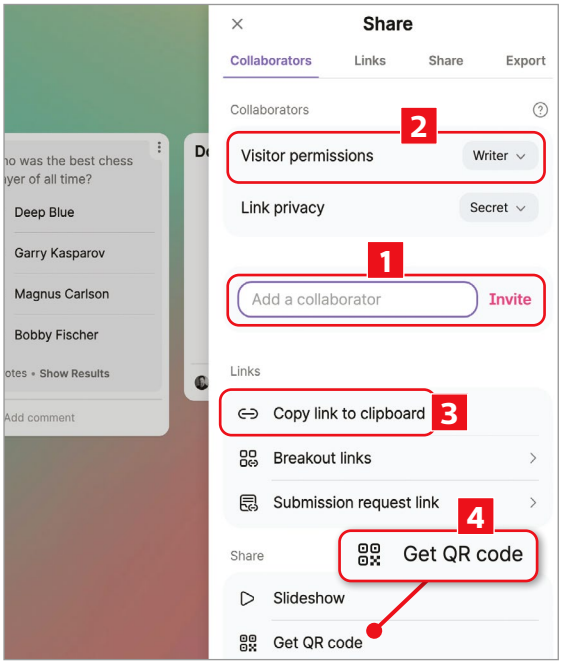
Add items to your board

To add content, double-click anywhere on the board or click the plus (+) symbol at the bottom. You can also drag and drop content from your web browser or computer. Click '12+' in the box that pops up (see screenshot below left) and you'll see every type of attachment you can add, including web links, polls and AI-generated images (the green 'I can't draw button'). Choose what you want to add, then click the pink Publish button.

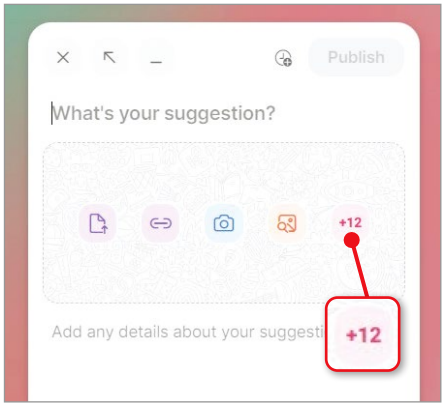
Everything is saved automatically as you go. In our example for a chess club, we've added an AI-generated image, a poll and a photo asking whether members like a mug we might start selling (1 in our screenshot below). To let other people add elements, click the Share button 2.

Now add their email address in the 'Add a collaborator' box and click Invite (1 in our screenshot above right). But before sending, click the 'Visitor permissions' menu 2 to set what your collaborator can do: read, write, comment or moderate. Once your board is complete, decide how to share it with club members. You can copy a link for it 3 or create a QR code 4. You can also embed it on your site, or save in various formats.

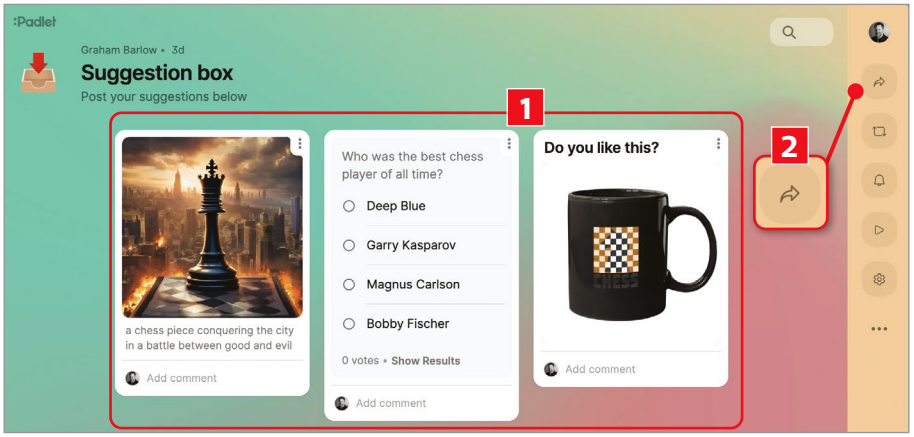
You should open the 'Activity panel' to keep an eye on what's been added to the board and when. Do this by clicking the bell icon, which is two icons below the share arrow mentioned above. Click an item to comment on it.



Invite people to work on your board and choose how to share it with members



Click '+12' to see all the attachment types you can add to your board



Add elements to your board then click the Share button

Next issue: Create a wiki for your site

What's All the Fuss About...

Lost glasses

Google wants to help you find where you left them

What are they?

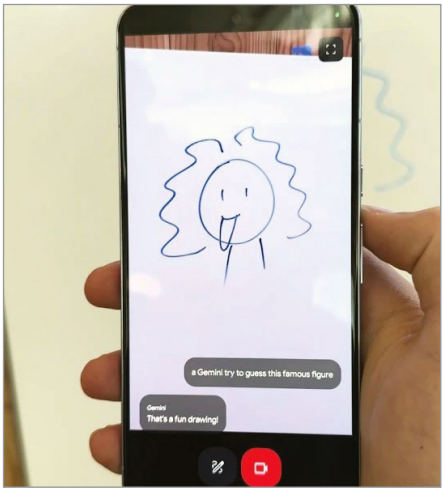
Anyone who wears specs will know. Did you leave them on the coffee table? Upstairs next to the bed? Or are they resting on top of your head (we've all done it)? It's maddening when you can't find them, but Google has a very hi-tech solution.

Surely you won't be able to search for them online?

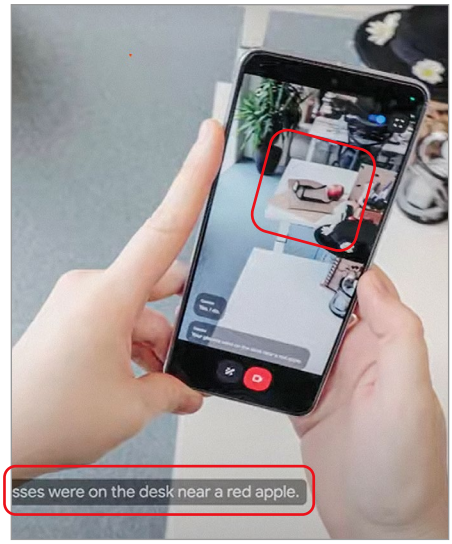
Not quite. Instead you might be able to move your phone's camera around the home and ask Google's AI assistant Gemini to find them. It can recognise objects and respond to questions and commands. Or, as Google puts it: "It can reason about its environment in real time and interact with the tester in a conversation about what it is seeing."

Can I see it in action?

Yes, on Google's YouTube channel: www.snipca.com/50468. A Google employee first asks her phone to find "something that makes sound". Gemini responds by finding a speaker, and then points out the tweeter at the top. She then focuses on a pot of crayons and asks for a "creative alliteration" about them. Gemini replies with, "Creative crayons colour cheerfully. They certainly craft colourful creations."



Quick on the draw: Google's Gemini instantly recognised this as Albert Einstein



OK, that's all very impressive. But what about the missing glasses?

Patience, we're coming to that. Next, Gemini correctly identifies some software code, then looks out of the window and recognises the area as King's Cross, London – home to Google's UK head office. And then – drum roll please – it says that it saw the missing glasses next to a red apple (see screenshot). The worker then returns to her desk where, sure enough, her specs are sitting next to an apple. What's remarkable about this is that Gemini spotted the glasses while scanning the office a few seconds before it was even asked about them. It had 'remembered' seeing them in passing. Google says this demonstrates the "multimodal" capabilities of Gemini.

What does that mean?

It means Gemini can process and understand information from multiple sources (or 'modalities'), such as text, images and speech. The idea is to create AI that achieves a comprehensive understanding of the world, much like how humans perceive and interpret information using multiple senses. In this case, Gemini was able to understand both the picture of glasses and the voice command given to it.

> "Gemini can name parts of a Formula One car, identify landmarks, memorise sequences and recognise drawings"

Is the technology available now?

Partly. You can use Gemini (https://gemini.google.com) to summarise and translate text, answer questions, create template letters and more.

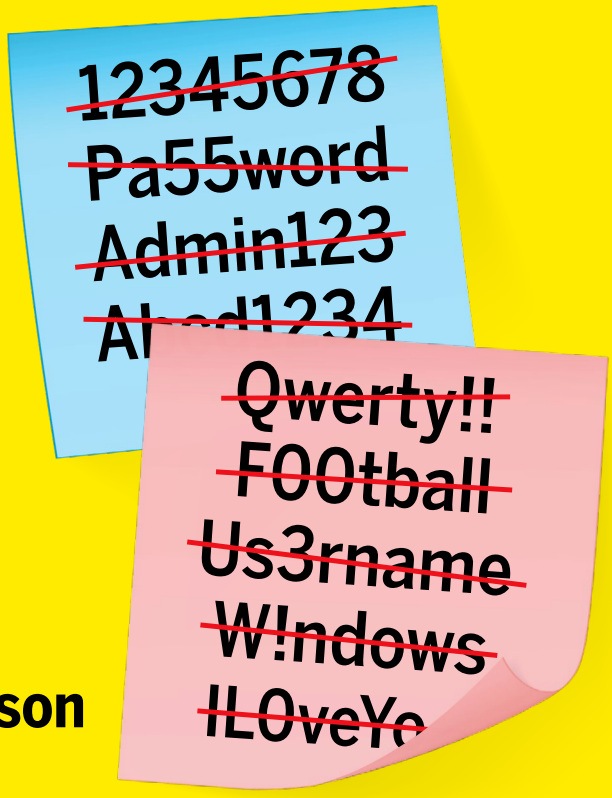
So it's Google's answer to ChatGPT?

Yes. And like ChatGPT, there's a paid-for version that performs more advanced tasks. But what you can't do yet is actually ask Gemini to find your glasses. The video demonstration was to introduce Project Astra, which is Google's plan to build an AI assistant for your phone. It's only a prototype, not available to the public, but early signs are promising. Visit www.snipca.com/50480 and you'll see it name parts of a Formula One car, identify landmarks, memorise sequences and recognise a simple drawing of Albert Einstein (pictured left).

That's all great fun, but does it do anything more serious?

Not yet. As with lots of AI, we can imagine the novelty wearing off fairly quickly, so to become popular it would need to serve a particular function in daily life, not be merely entertaining. If it could also find your lost keys, remote controls, watches, chargers, money and even your marbles, then perhaps it'll catch on.

DITCH YOUR OLD PASSWORDS NOW!



With password theft rocketing, it's never been more important to get rid of your old, unsafe logins and start using new and unhackable replacements – including passkeys. Nik Rawlinson explains what you must do

Attempts to steal passwords have shot up in the past few years. In 2015, Microsoft's security team detected 115 every second. That has now risen to over 4,000 – a rise of more than 3,370 per cent. Hackers continue to target passwords because – deep down – humans are predictable. Too many of us use the same passwords over and over again, despite all the security advice telling us it's a terrible idea.

In this feature we'll give you a complete password audit, so you can see which ones have been stolen and what you must do to make your new ones unhackable. We reveal a password-creation technique that's served us well over the years, and it's more sophisticated than replacing the letter 0 with zeroes, and the number 3 with pound signs. We're sure you have your own similarly ingenious methods – so please let us know.

We also explain how to prepare for passkeys, which are rapidly replacing passwords. You can now use these in password managers to sign into your Microsoft, Google and Apple accounts, and into many websites. We know some of you are unsure about the security and convenience of passkeys, but the tech industry is adopting this technology so quickly that we have no choice but to learn how to use them.

Our advice should help protect you from the worst consequences of password theft, even if your accounts appear in data leaks. Talking of which, we start with the nine deadliest hacks of recent months. If you suspect you've been affected, take action straight away.

WHAT YOU CAN DO

- Discover the nine deadliest password hacks of the past six months
- Check whether your passwords have been leaked online
- Get email alerts telling you as soon as your password is leaked
- Create complex and unique passwords that hackers won't be able to crack
- Start using passkeys on your phone, tablet and PC, and across all sites that support them
- Set up passkeys in your password manager

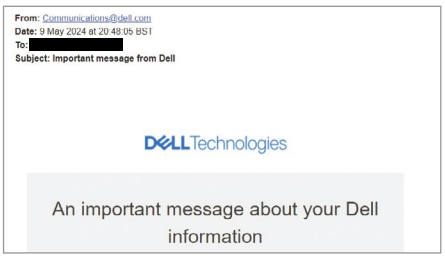
NINE RECENT HACKS YOU MUST KNOW ABOUT

Dell customer database

April 2024

Customers affected 49m

As we reported in Issue 684's 'Question of the Fortnight' (page 10), a hacker called Menelik claims to have stolen 49 million customer records (2017–2024) from Dell, and put them up for sale on the dark web. The data comprises names, addresses and purchase details, but not payment details, emails accounts or phone numbers. Dell emailed affected customers (pictured below), saying there's no "significant risk".



Dell emailed customers that their personal data had been stolen

Facebook Marketplace accounts

February 2024

Customers affected 200,000

Account details of 200,000 Facebook Marketplace users were stolen in February, including names, mobile numbers, email addresses and IDs. The hackers claim it was stolen not from Facebook itself, but from the system of a contractor working for Meta (which owns Facebook, WhatsApp and Instagram). Because the data includes mobile numbers, hackers might be able to intercept two-factor authentication codes sent to phones. Meta hasn't commented on the leak, so it's difficult to tell who's been affected.

Roku customer details

March/April 2024

Customers affected around 570,000

Roku was hacked in both March and April. Hackers took known passwords and email addresses for other services and fed them into Roku's login forms, unlocking Roku accounts where the same details had been used. This let them purchase Roku devices and streaming services.

It's important to note that Roku was a victim here, rather than the source of the leak. It's a reminder to not use the same password for multiple sites or services. Roku has reset the passwords of affected accounts and is refunding any unauthorised purchases.

British Library member data

October 2023

Records affected around 500,000

The British Library was effectively shut down by hackers last October, who put its Wi-Fi, catalogue, shop and other services out of action. They also copied 600GB of data, including personal details of staff and users, and demanded a ransom of £600,000. Rather than comply, the Library set to work rebuilding its services at a cost of up to £7m.

It's not known how the attackers gained access, though the Library thinks it may have been via a brute-force attack, in which passwords are repeatedly tried against user accounts.

If you're worried your data was leaked, email **customer@bl.uk**, and visit www.snipca.com/50462 for updates.

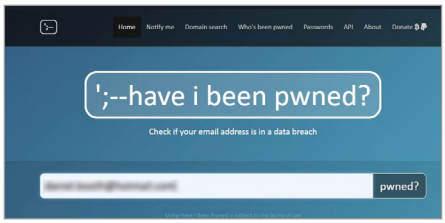
Naz.API data breach

January 2024

Records compromised Over 1bn

At the start of the year hackers rolled together several lists of stolen data to build a massive stash of logins, comprising more than a billion records and 71m email addresses. This was significant because a third of those addresses had never been leaked before.

Worse still, many of them were paired with passwords and tied to specific online services, making the data a valuable hoard for hackers to get their teeth into. The quickest way to see whether you've been affected – by this or any other hack – is to type your address into the search box at Have I Been Pwned (www.haveibeenpwned.com, see screenshot below).



Type your email address into Have I Been Pwned to see if it's been leaked online

23andMe customer data

October 2023

Profiles affected 6.9m

Genetic testing company 23andMe announced that the data of 14,000 customers had been illegally accessed by hackers. This is just 0.1 per cent of its users, though they appear to have been connected to almost seven million others thanks to 23andMe's ability to match patterns in users' DNA to identify previously unknown relatives. 23andMe has notified affected customers but, for the latest updates, check the article at www.snipca.com/50464.

British Armed Forces payment data

May 2024

Records affected Around 270,000

Hackers suspected to be backed by China gained access to the Armed Forces payment network, which is maintained by a contractor and kept separate from the Ministry of Defence's core network. Defence Secretary Grant Shapps told Parliament there's "no evidence that any data has been removed", but those whose details might have been compromised had been alerted to the fact. If you've not received an alert, it's unlikely your own data was accessed. For more details call the Government helpline on 01249 596 665.

NHS Scotland records

March 2024

Records compromised Around 3TB

Hackers infiltrated NHS Dumfries and Galloway's records, stealing what the trust described as "very small, separate pieces of data", such as individual letters sent to patients, test results and x-rays. The stash still amounted to some three terabytes, which the thieves sold on the dark web. As of 10 May, NHS Scotland hadn't contacted affected patients, claiming that doing so was "neither quick nor easy" due to the type and volume of data involved. Check the dedicated cyber-attack website at www.snipca.com/50456 for updates.

UK councils

Ongoing

Records affected unknown

Gloucester, Leicester, Canterbury, Dover, Thanet, North Yorkshire... throw a dart at a map of the UK and there's a fair chance you'll hit a local authority area that's been attacked. In Gloucester and Yorkshire, systems were struck by malware delivered via email. In Leicester, 1.3TB of data was stolen and held ransom. In Kent, councils in Canterbury, Dover and Thanet – all near neighbours – experienced outages across several of their online systems.

It's impossible to say how many residents have been affected nationwide. Keep an eye on your local press and your council's website for updates.

HAS YOUR PASSWORD BEEN LEAKED ONLINE?

You might be surprised by how many times your passwords and usernames have been leaked. We certainly were (over 300 according to Apple)! Get into the habit of regularly checking whether they've appeared online using the following tools.

Check on the web

As mentioned on the previous page, Have I Been Pwned (HIBP, www.snipca.com/50489) is one of the best sites for checking whether your details have been stolen. Run by Australian security expert Troy Hunt, it's updated whenever news of a breach breaks. It told us that one of our addresses had been breached an alarming 18 times. It also lets you search for leaked passwords (www.snipca.com/50586) – '12345678' appears nearly seven million in breaches!

If you don't want to keep checking HIBP every week or so, sign up to its 'Notify me' service instead. Visit www.snipca.com/50477, type your email (1 in our screenshot below), then tick the Captcha and click 'notify me of pwnage' 2. It'll send you an email that you'll need to verify. Once you've done that, it will email you whenever that email address appears in a newly leaked stash of data.

Mozilla Monitor (https://monitor.mozilla.org), which is made by the developers of the Firefox web browser, revealed 30 instances of our email address and password appearing online. It's compatible with all browsers and now works with Firefox's password manager to alert you when your details have been compromised. To use it you'll need to create a Mozilla account at www.snipca.com/50488 – click Sign Up top right.

Mozilla Monitor uses the same database of breaches as HIBP, so you might wonder whether it's worth trying it if you've already visited the latter. We think it is because it provides handy links for changing your passwords at the hacked sites.

Mozilla Monitor provides links for changing leaked passwords, while HIBP gives more information on breaches

Look at the screenshot above right. On the left Mozilla tells us our password for photography network 500px was exposed, and provides a link to change it (1 in our screenshot above). It also gives us the date it was leaked. On the right HIBP gives us more information about the breach itself 2, but no direct help on changing our password.

Also, unlike HIBP, Mozilla Monitor told us when our IP address and phone number had been leaked and, because these can't be changed, suggested steps we could take to keep ourselves safe in the future.

You should also try Google's Password Checkup, which is available at www.snipca.com/50479 – having previously been available only as a browser extension. Read on for more on this tool.

Check on your phone or tablet

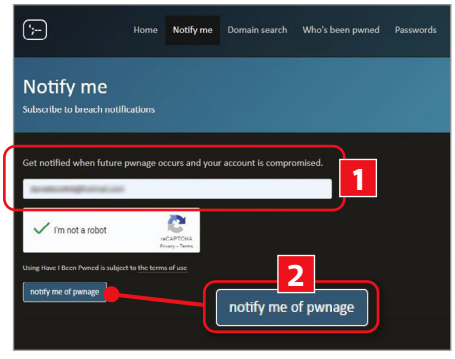
iPhone & iPad

On your Apple device, open Settings, then tap Passwords. At the top of the next screen, you'll see a Security Recommendations box containing the number of compromised logins associated with the accounts you've set up on your device or saved to your Apple keychain. As we've set up six accounts in Apple Mail and been using the keychain for decades, it's showing 322 vulnerabilities (see screenshot below left). Tapping the box reveals what they are, along with a link to the website associated with each one.

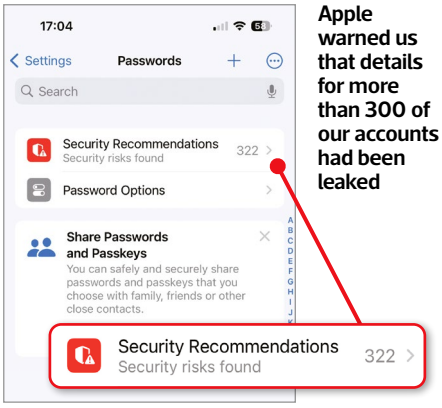
Android

You can use Google's Password Checkup on your Android phone or tablet, as well as via a browser (www.snipca.com/50582). Open Settings, then search for 'password manager' at the top. Tap the 'Password Manager Google Play services' result, then the Checkup button bar at the bottom (this might be 'Check passwords' in blue higher up the screen, depending on your version of Android).

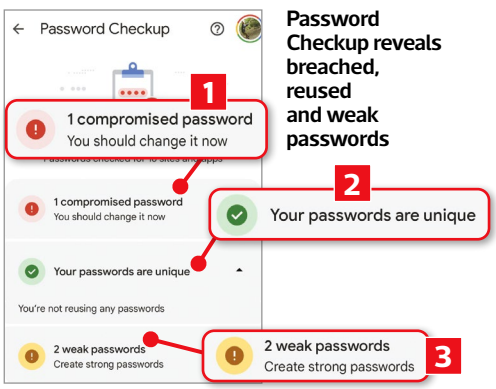
It will now check the passwords you've saved to your Google account. You'll see leaked passwords (1 in our screenshot below), as well as any that have been reused (all ours are unique 2), and those that are weak enough to be cracked by a brute-force attack 3. Tap 'Change password' for any results you want to remedy and you'll be taken to the relevant site or instructed to open the matching app if you have it installed.



Type your email address then click 'notify me of pwnage'



Apple warned us that details for more than 300 of our accounts had been leaked



Password Checkup reveals breached, reused and weak passwords

HOW WE CREATED THE ULTIMATE UNHACKABLE PASSWORD

A good password is long, but not necessarily complex. Don't believe us? The stats bear it out. Pivot Point Security explains (www.snipca.com/50486) that with the 94 characters on a regular keyboard you could create six quadrillion unique eight-character passwords. Finding the exact one you chose would take a computer eight hours.

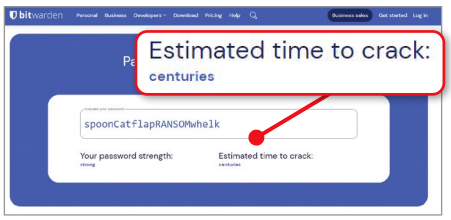
But, if you chose a 10-character password, the same machine would take eight days to crack it – and, if you extended it to 12 characters, it would still be working on it in the year 2085. With that in mind, we set out to create the ultimate password – one that's uncrackable but easy to remember.

Make it unfamiliar

Computers don't understand words, so while 'password' makes a lot more sense to us humans than 'yrhd65tf', a computer sees them both as a combination of eight random characters. That's why complexity isn't necessarily more effective than length.

All things being equal, it would take a computer roughly the same amount of time to cycle through all possible combinations until it arrived at 'password' as it would for 'yrhd65tf', 'zzzzzzzz' or '12345678'.

However, there's one respect in which choosing 'password' over 'yrhd65tf' is less safe: the fact that it appears in the dictionary. The first thing a hacker is likely to do is subject our login to a dictionary attack, in which they try every word in the book – quite literally – to see if we've been sloppy. So, we'll steer clear of single real words.



Bitwarden estimates it would take 'centuries' to crack 'spoonCatflapRANSOMwhelk'

Make it confusing

How can we combat this? We have two options: either make up a random string of letters, digits and special characters like #, @ and $, or combine multiple dictionary words like **spoonCatflapRANSOMwhelk**. We could even put spaces in there, too.

In doing so, we've created a combination of words that's fairly easy to remember, including lower-case and capital letters, which is long enough to take 'centuries' to crack, according to Bitwarden's password-strength testing tool (www.snipca.com/50487, see screenshot above).

Of course, that password wouldn't satisfy every site on which we wanted to use it because it lacks numbers or special characters, but now that we have our base phrase, those elements will be easy to add and remember.

Make it complex

We've extended our password by adding 228 to the beginning, those digits being the last three of our phone number, and added an exclamation mark and dollar symbol to the middle. Our password is now **228spoonCatflap!$RANSOMwhelk**. It's still easy to remember, but even more complex than before. If you're wondering why we chose a dollar symbol rather than a pound sign, it's because some keyboards lack £, but all feature $.

Our phonetically inspired passwords

228spoonCatflap!alphamike$RANSOMwhelk

228spoonCatflap!bravobravo$RANSOMwhelk

228spoonCatflap!foxtrotalpha$RANSOMwhelk

Make it unique

Our login still fails in one very important respect: it's a single password, rather than a system. We could learn it by heart and use it for Amazon, the BBC, Facebook and countless other sites and, for a while, feel smug and secure. The first time it's hacked or is leaked, though, all of the accounts that use it will have been compromised. That's why it's so important to use a different password for every login.

It's unrealistic to expect anyone to come up with four different words for every site, plus numbers and punctuation, without forgetting them or writing them down. So, we'll use the same pattern as our starting point and build from there by adding something that ties it specifically to the site we'll be logging into.

Let's imagine we're creating a password for Amazon. We'll take the first two letters of its name – AM – and add the phonetic alphabet words for each of them between our two special characters (alphamike). We'll then do the same for the BBC (BB, bravobravo), Facebook (FA, foxtrotalpha), and so on. Our passwords would all then be unique as well as uncrackable – as shown in the box above.

You'll find the phonetic alphabet at www.snipca.com/50493, but if we were feeling really clever, we could even come up with our own alternative to the phonetic alphabet, using things in our home – as long as we remained consistent. If either of those passwords should leak, it will only compromise the site to which it applied, and not any other, unless it also began with the same first two characters. Again, Bitwarden tells us all three would take centuries to crack. Good luck with that, hackers.

Use a password generator

If you're struggling to come up with your own password method, try a password generator. The best ones, usually from password managers, let you create passphrases (for example, four or five random words) as well as passwords, and choose whether to include numbers, upper-case letters and special characters.

Bitwarden's tool (www.snipca.com/50496) does all these, letting you create passwords that are 128 characters long – though this is beaten by www.strongpasswordgenerator.org which allows *thousands* of characters. We also like LastPass's tool (www.snipca.com/50497), particularly the option to make passwords "easy to read" (see screenshot). This avoids "ambiguous characters" like 1, l, 0 and O.

Of course, password managers create passwords to encourage you to use them in their tools, but you don't have to. Just click the option to copy it and you can use it anywhere.

SET UP PASSKEYS FOR MICROSOFT, GOOGLE & APPLE

We've been using passwords to secure computers since the 1960s. That's given hackers plenty of time to find ways around them. Two-factor authentication (2FA) has had some success in redressing the balance, making your password effectively useless unless the hacker also has access to your phone or another physical device tied to your identity. The next logical step is the passkey, which relies completely on that secondary device and does away with passwords altogether.

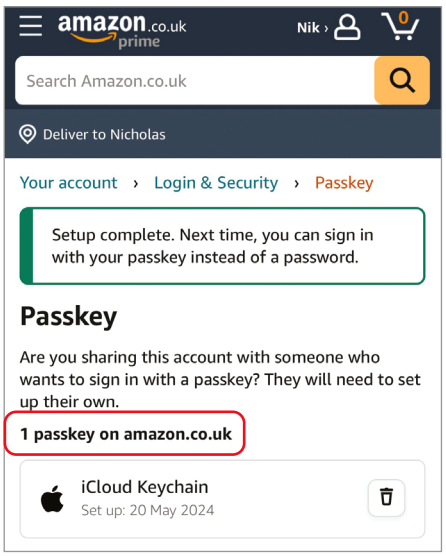
The process for setting up a new passkey differs slightly between devices, but typically you'll scan a barcode with your phone, then use the biometric information stored on that device, like your fingerprint or a scan of your face, to confirm who you are.

Once you've done that, the phone uses the half of the passkey to which it has access to partially unlock the site you've visited. The remote computer hosting the site does the same thing with the half of the passkey it retains, and you're granted access. Apart from the fact that passkeys are simpler to use than passwords because you don't need to remember anything, we reckon the clearest advantage is that you can't be fooled into logging into a fake website. Why? Because a spoof site won't have access to the other half of your key, like a genuine site does.

To demonstrate how passkeys work, we'll set up a key for our Amazon account on iOS, Android and Windows, before showing you how to secure your Microsoft and Google accounts the same way. The process will work similarly on other sites that accept passkeys.

Use passkeys on iPhone and iPad

Passkeys are supported in iOS 16 and iPadOS 16 (released 2022) or later on devices with two-factor authentication and that have iCloud Keychain activated. These have been supported for many years, so there's a good chance they're already enabled on your device, but it's worth checking before going any further.



We logged into our iPhone with our face to save our Amazon passkey

Open Settings and tap your name at the top of the screen. Tap 'Sign In & Security', and check that it says 'On' next to Two-Factor Authentication half way down the screen. If it doesn't, tap

Computer active READER OFFER!

Upgrade to Windows 11 Pro for just £49.99!

Your PC almost certainly came with Windows 11 Home. But did you know it's easy to upgrade to **Windows 11 Pro** to get advanced features like BitLocker drive encryption?

There's need to install a new version of Windows – just take your new Professional key, go to System, Activate, then select 'Change Product Key'.

To upgrade, visit **www.snipca.com/50563** and click the red **Buy Now** button on the right.

JUST SO YOU KNOW...

This offer can be used by one person only, and expires at midnight on **18 June, 2024**. It's a lifetime licence for one computer.

'Turn On Two-Factor Authentication' followed by Continue. Enter a phone number that you control and tap Next, and Apple will send a code to it. Type this code into your phone or tablet to complete the process of setting up Two-Factor Authentication.

To check whether iCloud Keychain is enabled, return to the Settings home screen and once again tap your name at the top of the screen. Tap Apple ID followed by 'Passwords & Keychain'. If the keychain isn't enabled, turn it on and follow the on-screen instructions to complete the process.

Now, visit www.amazon.co.uk in your phone or tablet browser. Log into your account in the usual way, then tap your name at the top of the screen. Tap the See All button beside Your Account in the sidebar menu that appears, followed by 'Login & security' in the Account Settings section.

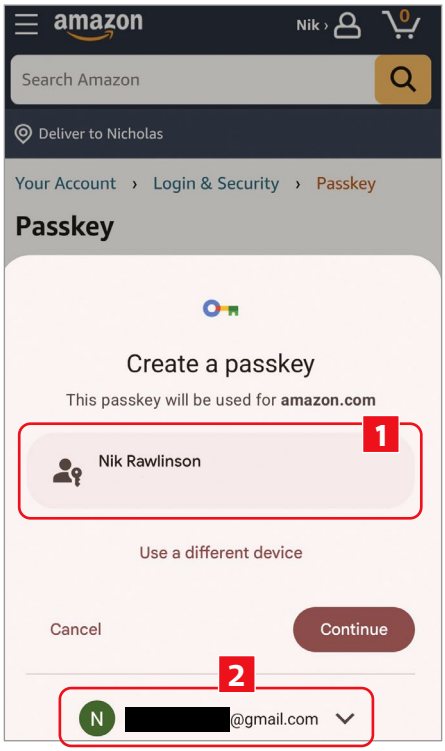
Scroll down to the Passkey section and tap 'Set up', followed by the yellow 'Set up' button on the next screen. You'll now see the regular unlock box asking you to use the biometric method you've set up on your device to create the passkey. On our iPhone we log in using Face ID, so at this point it asks us whether we'd like to use Face ID to sign in. We do, so we tap Continue and it scans our face. Having recognised us, it creates the passkey (see screenshot above left).

Use passkeys on Android devices

Passkeys are supported on devices running Android 9 (released in 2018) and later. Visit www.amazon.co.uk on your Android device, then log in. Tap your name at the top of the screen, followed by the See All button beside Your Account, then 'Login & security'. Scroll down to Passkey and tap 'Set up', followed by 'Set up' (or 'Add a passkey' if you've already created a passkey using a different device).

Android will show you the Amazon login for which you're setting up a passkey (1 in our screenshot above right) and the Google account 2 that will be used to store the passkey and synchronise it between your devices. If you want to change the associated Google account, tap it and select an alternative from the menu.

Once set up, your passkey will be unlocked using whatever process you use to unlock your phone. Tap 'Use screen lock' and you'll be asked to unlock your device. In our case, we were asked to touch the fingerprint sensor on the back



You'll see the Amazon account you're creating a passkey for and the Google account it will be saved in

of our Pixel 5 phone. Once we'd done this, the process completed and the passkey was added to our Amazon account.

Use passkeys in Windows PCs

You can also use Windows to store your passkeys, as long as you're running at least Windows 11 with the Moment 4 update. When you've saved a passkey to the operating system, it can be unlocked using whatever process you use to log into Windows (PIN, facial recognition, and so on).

To secure an Amazon account, log in at www.amazon.co.uk using your regular browser, then hover over 'Account & Lists' on the bar at the top of screen and click Your Account in the menu that appears. Click 'Login & Security', then log in again to access the settings you require. Tap 'Set up' beside Passkey, and on the following screen click 'Add a passkey'.

A Windows Security window will appear (pictured below left) asking you to log in using the same credentials as you use to log into Windows. As soon as you do so, a passkey will be created and saved to Windows, which you can now use to log into Amazon.

Set up passkeys for Microsoft and Google accounts

Now that you've set up passkeys for your Amazon account, you should do the same for other accounts on sites that support the process. We recommend starting with your Microsoft and Google accounts.

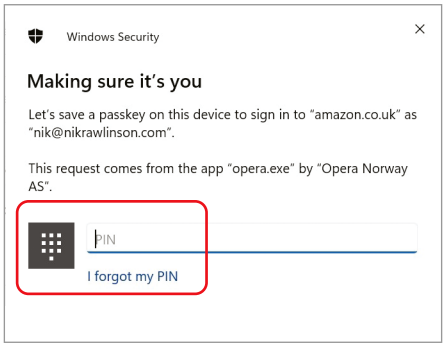
Microsoft account

After adding passkeys to Windows 11 last year, Microsoft now lets you sign into all its 'consumer' accounts. It means you can log into Office, OneDrive, Outlook, Skype, Windows and Xbox using your face or fingerprint.

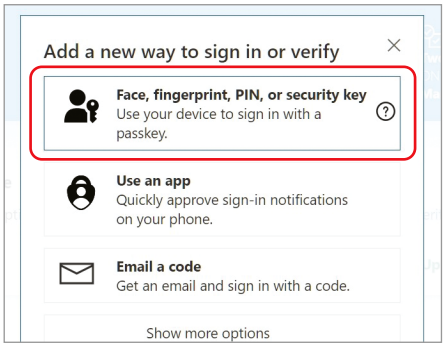
Visit www.snipca.com/50520 and log in using your existing Microsoft username and password. At the bottom click the blue link 'Add a new way to sign in or verify'. A Windows Security window will appear.

Click 'Face, fingerprint, PIN, or security key' in this new window (see screenshot below), and the site will ask where you'd like to save your passkey. The default option is 'iPhone, iPad, or Android device'. Assuming you want to use your mobile device, leave this selected and click Next. The options will be replaced by a QR code. Leave this on screen, and open the camera app on your phone or tablet. Point the camera at the QR code and an option to 'Save a passkey' will appear on your phone screen. Tap this.

A 'Sign In' window will appear on your device, asking you to use your biometric login to confirm who you are. Tap 'Continue', then use Face ID or fingerprint



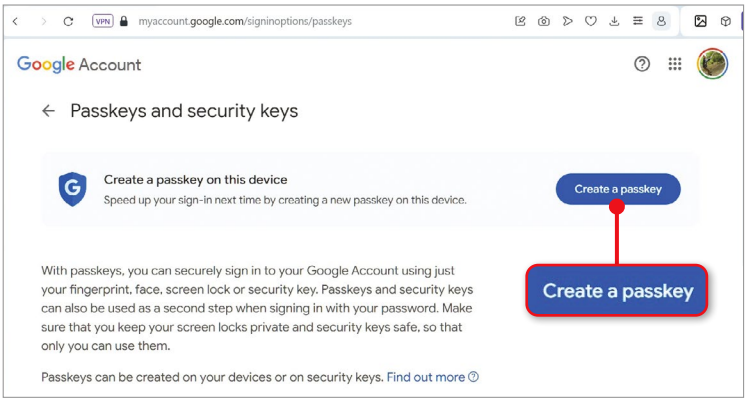
Windows will ask you to log in using the same credentials as you use to log into Windows



Click 'Face, fingerprint, PIN, or security key' then select where to save your passkey

to unlock your device. Once you've been recognised, you'll see the Windows Security window on your PC change to confirm that 'You can now use your device to sign in to "login.microsoft.com"'.

Click Next, then give your passkey a name. Because we've set up our passkey on an iPhone, which saved it to iCloud Keychain from where it can be synchronised between devices, the process suggests Apple iCloud Keychain. We'll stick with this by clicking Next.



Log into the Google account for which you want to set up a passkey, then click 'Create a passkey'

Google account

Google is promoting passkeys in a big way, and is working with firms including Adobe, eBay, Nintendo, PayPal and Uber to make sure they are adopted. It has also launched its first Titan Security Key capable of storing passkeys. It can hold 250, and comes in USB-A and USB-C versions, each priced £30 from Google's store: www.snipca.com/50525.

Visit www.snipca.com/50521 and log into the Google account for which you want to set up a passkey. Now click 'Create a passkey' (see screenshot above right) – at which point a Windows Security window will ask you to log in. Choose your preferred method.

As soon as you've logged in, Windows will save the passkey, just as it did for the Amazon account previously. To check you're able to use it to log in, open a new private browser window (press Ctrl+Shift+N in a Chrome-based browser), then visit www.google.co.uk and click Sign In.

Now, type the email address associated with the account that you just created a passkey for, and click Next. When prompted to 'Enter your password', click 'Try another way' followed by 'Use your passkey'. The Windows Security window will reappear, asking you to use your regular Windows login option (the PIN in our case) to unlock your Google account. Do whatever it asks and click Next to complete the process.

USE PASSKEYS IN YOUR PASSWORD MANAGER

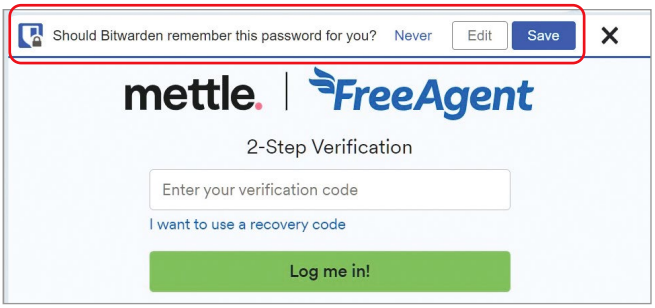
When you use a password manager, you no longer need to remember any passwords. It can generate a unique login for every site and save this to an online vault, letting you use it across all your devices.

Our favourite password manager is **Bitwarden**, available as an app for iOS (www.snipca.com/50546) and Android (www.snipca.com/50547), as well a Windows program and browser extension (www.snipca.com/50559).

We recommend installing the extension for your browser at the very least, even if you don't download the software, as you can use this to save passwords to your Bitwarden vault and automatically enter them when you visit a site.

One of the reasons we particularly like Bitwarden, aside from the fact the free plan offers everything you're likely to need, is that it's frequently being updated. Last year, it added passkey support, so it can be used like iCloud Keychain, Google's Password Manager, or Windows, to store and synchronise your passkeys.

This is good news if you work with multiple devices because you'll be able to set up a single passkey that will be shared across each of them, rather than having a different passkey for each operating system.



Click 'Save' to store your login credentials in your Bitwarden vault

Set up Bitwarden

Go to www.bitwarden.com, click 'Get started' at the top, then type your email address and name, as well as a master password. This is the only password you'll need to remember from this point – it's vital not to forget it (follow our advice on page 53 for creating an uncrackable but easily remembered login). The setup process also asks you for a password hint. Again, make this a bit cryptic, so you can remember it but not give the game away.

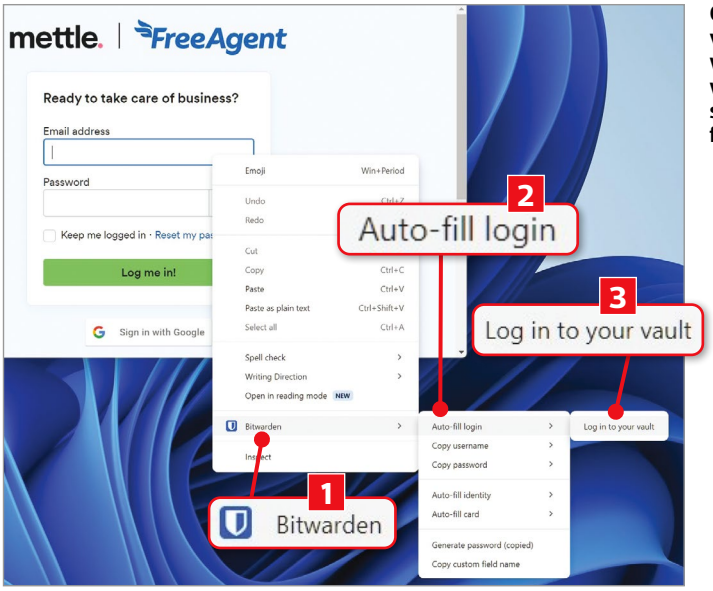
Now install the extension for your browser, then click the jigsaw icon (or cube in Opera) followed by the pin next to Bitwarden's name. This will pin Bitwarden's shield icon to your browser bar. When you next log into a site, Bitwarden should spot that you've typed a username and password and offer to save it for you (see screenshot above).

Which websites support passkeys?

Passkeys are growing fast – Google alone said that they now secure over 400 million accounts. The reason is that many websites now let you sign in with them. These include Amazon (as we've explained), as well as Dropbox, eBay, Nvidia, PayPal and WhatsApp. The most comprehensive list we've seen online is at the FIDO Alliance site www.snipca.com/50576, which currently lists 131 services. It's updated regularly, so keep checking it.

Click Save to store your details.

Next time you need to log into the same site, rather than typing your details manually, right-click in the username or password field and hover your cursor over Bitwarden (1 in our screenshot right). Next, hover over 'Auto-fill login' 2 and click 'Log in to your vault' 3. Enter your master password in the window that appears and Bitwarden will fill in your username and password.



Click 'Log in to your vault' and Bitwarden will sign you into websites you've saved your details for

Save passkeys in Bitwarden

To save a passkey to your Bitwarden vault, follow the same procedure as you would when saving one to Windows. For Amazon, for example, navigate to your account settings as we did on page 54, click 'Login & Security', then click the Edit button beside Passkey.

On the following screen, click 'Add a passkey' and this time, rather than a Windows Security window appearing, the Bitwarden pop-up will open. Type your Bitwarden password to unlock your account, then click 'Save passkey as new login' (see screenshot 1 below) to store it in your vault. The next time you want to log into your Amazon account, when asked for your password, click the 'Sign in with a passkey' button 2. When you do, the Bitwarden window will reappear and, having detected the site you're trying to access, will suggest the most appropriate passkey from your vault. Click Confirm and it will sign you in 3.

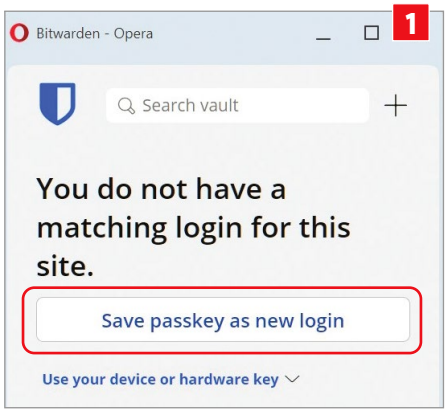
Other password managers with passkeys

Bitwarden is far from the only password manager to have added support for passkeys. **1Password** introduced them last September for iOS and Windows, and extended this to Android (version 14) in March – see www.snipca.com/50568.

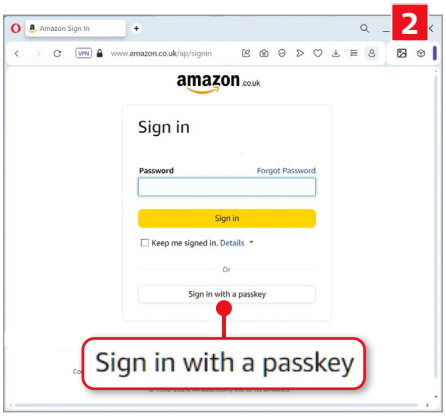
Dashlane implemented a version of passkeys in December, though it's using its own "passwordless" security system, not the FIDO technology that's been built by Apple, Google and Microsoft and is likely to become the universal standard – see www.snipca.com/50569.

KeePassXC meanwhile added passkeys in March, though you'll need to install its browser extension to use them – find the relevant links at www.snipca.com/50571. You'll also need to select Enable Passkeys in the extension's settings. See www.snipca.com/50585 for more instructions.

There's no sign yet of LastPass supporting passkeys, despite saying a year ago that it was coming soon (www.snipca.com/50573). But with the company suffering two severe breaches in 2022, affecting 30 million users, we'd advise you steer clear anyway. See Issue 650's Workshop (page 38) to learn how to import your passwords from LastPass to Bitwarden. ca



Click 'Save passkey as new login' to make Bitwarden save your passkey in its vault...



Next, click 'Sign in with a passkey' when you want to sign into a website...

Bitwarden will then choose the relevant passkey from your vault, which you need to confirm

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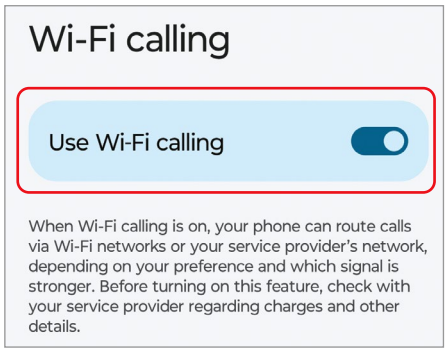
Make phone calls WITHOUT A SIGNAL

Don't let patchy mobile reception prevent you from making and receiving phone calls. **Robert Irvine** explains how to keep talking when you can't connect to 4G or 5G

Switch to Wi-Fi calling on your phone

The easiest way to make and receive calls when you can't get a reliable 4G or 5G signal is to switch on Wi-Fi calling on your phone. This free feature routes calls through your wireless router, or a nearby Wi-Fi hotspot you connect to, so you can talk over the internet and enjoy superior reception to that provided by a distant mobile mast.

All the main UK mobile networks, and most of the MVNOs (mobile virtual network operators) that 'piggyback' on them, now support Wi-Fi calling. GiffGaff finally introduced the feature at the end of April, though the rollout may take a few months (www.snipca.com/50552), which just leaves Lyca Mobile and Talk Home. Wi-Fi calling is included with pay-monthly plans (and pay-as-you-go ones from Three, EE and some MVNOs), and only costs you extra if you exceed your monthly minutes allowance.



Switch on Wi-Fi calling to keep talking when you lose your mobile signal

Once the option is enabled, your phone will automatically switch to Wi-Fi when your 4G or 5G signal is too weak to make calls. You can call emergency numbers and should also be able to send and receive text messages, if your mobile provider allows this over Wi-Fi.

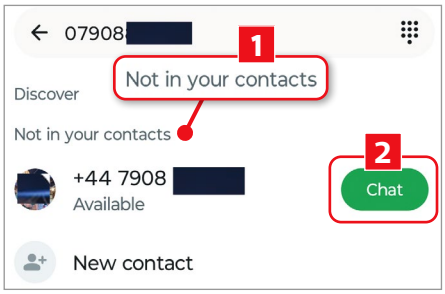
To activate Wi-Fi calling on an Android phone, open the Phone app, tap the three-dot icon in the top-right corner and choose Settings. Depending on which version of Android you're using, tap either Calls or 'Calling accounts', select your mobile network and you should see a 'Wi-Fi calling' option. Press this and turn on 'Use Wi-Fi calling' (see screenshot below left).

On Samsung Galaxy phones, choose 'Wi-Fi calling' in the Phone app's Settings and switch on the option there. To use Wi-Fi calling on your iPhone, simply go to Settings, select Phone and turn on 'Wi-Fi Calling on this iPhone'.

You may need to update your emergency address, so emergency services can identify your location when you contact them over Wi-Fi. On an iPhone, you can also extend Wi-Fi calling to other devices that are signed into your iCloud account, such as your iPad or Apple Watch, to make and receive calls without your phone to hand.

Call anyone for free using WhatsApp

Another option when you can't get a sufficient 4G or 5G signal is to call people through WhatsApp. This uses your phone's internet connection, rather than your mobile plan's minutes, which means you can call people for free over Wi-Fi even if they're in another country and you'll usually enjoy higher-quality reception. You also have the option of recording and sending a voice message, if the connection is too flaky to hold a conversation.



Call people through WhatsApp without adding them as contacts

There are some restrictions to be aware of: the other person will need to be using WhatsApp; you can only phone mobile numbers, not landlines; and you can't call 999 and other emergency services. However, contrary to popular belief, it is possible to call people through WhatsApp without first adding them as contacts.

Tap the New Chat button in the bottom-right corner of the Chats tab, and type the number you want to call into the search box. Provided the person has WhatsApp installed, the number should appear under 'Not in your contacts' (1 in our screenshot above), accompanied by a green Chat button 2. Tap this to start a

conversation, then tap the phone icon in the top-right corner to call the person, as you would normally.

Downgrade your mobile signal to 2G

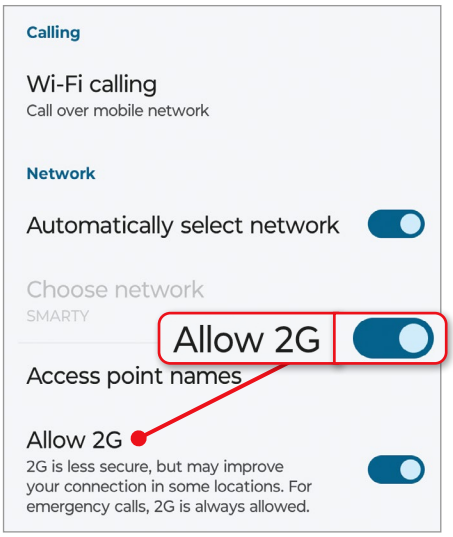
The ongoing 3G switch-off means you may no longer have the option of connecting to a 3G network when you can't get a 4G or 5G signal. Vodafone and EE have now switched off their 3G services, Three will do so by the end of this year and O2 plans to follow suit in 2025 – this also applies to their MVNOs.

Your phone should automatically switch to 2G when no other mobile signal is available, which allows you to make calls and send text messages, but not to use the internet (2G doesn't support data services). However, it's worth tweaking your network settings to prioritise 2G when you can't connect to a 4G or 5G network.

On an Android phone, open the Settings app, tap 'Network & Internet' and select 'Mobile network' or similar. Tap 'Preferred network type' and downgrade the connection to ignore 5G and include 2G. Also ensure that 'Allow 2G' is enabled on the 'Mobile network' screen (see screenshot below), as some devices now limit the option to emergency calls (not all phones have this setting).

Apple no longer shows a 2G option in iOS, though you may see one if you're abroad and your iPhone is in roaming mode. Open the Settings app and choose Mobile Data, then Mobile Data Options. Tap 'Voice & Data' and switch to 2G if available.

Note that 2G is less secure than 4G and 5G because it uses weaker encryption, and that UK 2G networks will be switched off by 2033.

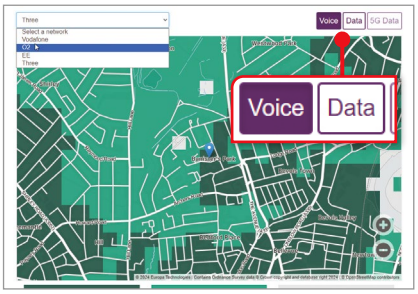


When you can't connect to 4G or 5G, set your phone to connect to 2G instead

Check your 4G and 5G coverage

The network-coverage maps on mobile providers' websites often give an inaccurate impression of the availability of their 4G and 5G services. Ofcom's 'View mobile availability' checker (www.snipca.com/50575) is independent, unbiased and more accurate, though its latest data is from January 2024.

Enter your postcode and select your address to see predicted voice and data availability for different networks – both indoors and outdoors. Click the 'View map of available services' button for a more detailed overview, which uses colour-coding to indicate areas with the most and least likely voice and data coverage (see screenshot). Click the dropdown menu



in the top-left corner to switch between Vodafone, O2, EE and Three.

If you usually get a good signal, but it seems to have dropped, search for your network on Downdetector (www.snipca.com/50578) to see if other users in your area have reported problems.

Boost your mobile signal with a repeater

If Wi-Fi calling doesn't provide a reliable alternative to 4G and 5G calls, consider buying an indoor signal repeater. This is a handy solution if you're able to get a decent mobile signal outside your home, but reception is poor or non-existent when you're inside.

Place the indoor repeater in a spot where the outdoor mobile signal can be detected, such as near a window or in an upstairs room, and it will boost the signal inside (see Ofcom's illustration below), so you can make phone calls, send text messages and use 4G and 5G data. There's no limit on how many people can share the amplified signal, and repeaters aren't tied to specific mobile networks.

The tricky part is installing the repeater, because (contrary to Ofcom's diagram) most require you to set up an outdoor antenna to pick up the 4G or 5G signal from your nearest mast, and transmit it to the indoor booster. The supplier may be able to help with installation, or the repeater may have a mobile app that advises you where best to place its

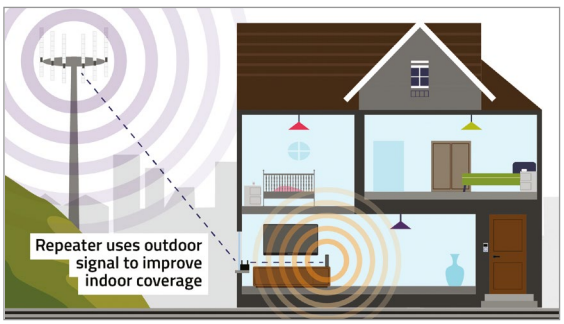
This Huaptec repeater is the cheapest approved by Ofcom, but it's still expensive

antenna for optimum signal strength, such as on your roof.

Ofcom provides a list of approved indoor repeaters at www.snipca.com/50566, so you can avoid buying a dodgy device that either doesn't work or fails to meet legal technical requirements. These can boost multiple mobile networks at the same time, so guests can make calls without needing your Wi-Fi password (as they would for Wi-Fi calling).

Be warned that repeaters are expensive, and primarily targeted at small businesses – though home users can buy them too.

The cheapest device approved by Ofcom is the Huaptec HiBoost Hi10-3S-Pro (www.snipca.com/50567, pictured above), which is compatible with all UK mobile networks and offers coverage of up to 1,500 square feet – provided you have an outdoor signal strength of two to three bars. You need to request a quote through the website, but expect to pay about £600. ca



Indoor repeaters bounce mobile signals from nearby masts around your home

HOW NOT TO SAVE YOUR VIDEOS

It's sensible to be paranoid about your videos not being playable in years to come. Unless you store them wisely, future generations will miss out on your recordings. **Daniel Booth** explains what you should and shouldn't do

We've often recommended the 3-2-1 strategy of backing up files, and that advice still holds true – though some experts now prefer 3-2-2 (see box on opposite page). To recap, it means you should create 3 versions of your data (the original and two copies); store the copies on 2 different drives; and keep 1 copy of this drive 'off-site' in a different physical location to the original data (ie, not in your home) – to protect against disasters like fire, floods and theft.

But you can still make many storage mistakes even within that 3-2-1 method. It doesn't matter how many copies you create if they're all in formats or on devices that are becoming obsolete. None of the mistakes we explain here will vapourise your videos overnight, but they all increase the chances of them being unplayable to future generations.

HARDWARE

Don't rely on M-Discs

When US firm Millenniata launched M-Discs in 2009, it claimed they'd last for 1,000 years. That was a silly boast to make because it was so abstract to people. Most of us just want our children and grandchildren to watch our videos, not any distant descendants living on Mars.

There's no doubt the discs are extremely robust. Unlike regular DVDs and Blu-rays that use organic dyes to store data, M-Discs are coated in a glassy carbon material that's more resistant to heat, humidity and light. Several laboratory tests suggest this is enough to make them last much longer than DVDs and Blu-rays.

Verbatim's M-Discs can apparently store your videos for 1,000 years, but will there be any devices to play them?

But will anyone be able to play them in 10 years, let alone 1,000? Yes, they work in many modern DVD/Blu-ray players, but those devices are becoming obsolete. John Lewis stopped selling DVD players in 2019, following sales falling by 40 per cent the previous year. Formats can make limited comebacks (vinyl and cassettes, for example), but it's a huge gamble. So while there's nothing wrong per se with storing videos on M-Discs, it shouldn't be your only backup method.

Millenniata went bust in 2016, but M-Discs are still made by Taiwanese firm Verbatim. For £20.89 you'll get four 25GB discs, while £93.53 will get you five 100GB discs (www.snipca.com/50564, pictured above).

Don't choose SSDs over hard drives

Both hard-disk drives (HDDs) and solid-state drives (SSDs) have the same disadvantage as M-Discs: they're physical-storage formats that will become incompatible with computers far sooner than online-storage services will vanish. But that won't happen overnight, and of the two devices hard drives are the better choice – for long-term storage at least.

The reason is that SSDs store data in a 'cell' maintained by an electrical charge. Over time, if the drive is not plugged in, this data will degrade. You won't have the same problem with HDDs, which retrieve data using spinning platters. These are slower than SSDs, but are a better option if you plan to shove them in a drawer for years without opening files.

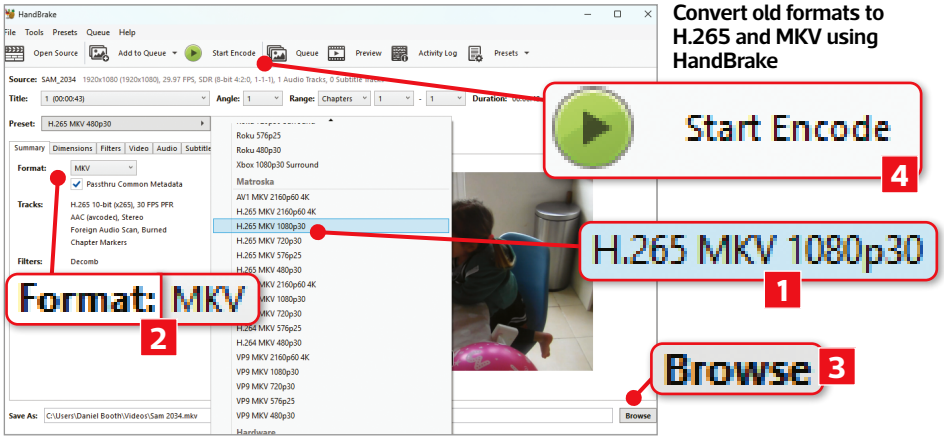
Our favourite HDD is WD's Elements model, priced £100 for 4TB (www.snipca.com/50584) – big enough for 1,000 hours of HD video.

Don't ignore RAID on NAS drives

If you decide to store your videos on a NAS drive, make sure you set up RAID (Redundant Array of Independent Disks) to combine two or more drives into a single-storage volume. This reserves some capacity on each drive to store backup copies from the others. It's a process called data redundancy, and means that if one drive fails, all your data will remain intact. The drawback is you'll lose a certain amount of overall storage capacity, but it's worth it to create a safety net for your videos.

When you set up your NAS, you'll usually be asked what type of volume you want to create. It's here that you can

Choose a RAID 1 NAS drive like Synology's DS224+ to avoid losing your data



choose from the numbered RAID modes. You need a minimum of two hard drives for RAID 1, which simply mirrors the contents of one drive on the other, while RAID 5 spreads data across three drives – with one used solely for recovering data.

As you'd expect, the extra drives in NAS boxes with RAID 5 make them more expensive. One of our favourites, Synology's DS1522+, costs £674 for storage that can be expanded to 108TB. (www.snipca.com/50595).

RAID 6 and 10 offer more advanced backup across more drives, but the drives are even pricier. The best balance between price and peace of mind is a RAID 1 NAS like the powerful DS224+, also from Synology, which costs £318 for 32TB from www.snipca.com/50597 (pictured above).

Whatever you do, don't choose RAID 0. This combines multiple drives into a single volume without any data redundancy, which means you can use their full combined capacity. But if one drive fails you'll lose the data on all of them.

SOFTWARE & ONLINE

Don't leave videos stuck on old formats

Nobody knows which formats will be common in 20 years, but we can have a good guess. The best option currently is to compress your videos using the H.265 codec and save it as an MKV file.

To convert old videos on disc and from camcorder tapes, use HandBrake (https://handbrake.fr). Click 'File' on the Source Selection screen (click Open Source if you don't see this) to select a video and HandBrake will show you preview images of the contents.

Click the Preset dropdown menu, then scroll down and choose one of the H.265 resolutions (1 in our screenshot above). H.265 (also known as HEVC) was released in 2013 – 10 years after H.264 – and works on most modern devices and operating systems (including Windows 10/11) – see www.snipca.com/50589. It's certainly more likely to be working for longer than its predecessor.

Now check that MKV 2 is selected in the Format dropdown menu. Unlike the 'lossy' MP4, MKV can compress files without losing data, meaning videos will stay at a higher quality for longer. Click 'Browse' 3 to decide where to save your video, followed by Start Encode 4.

Don't save videos on Mega or Dropbox

Since last December Google has been closing accounts that users haven't signed into in the past two years. It justified this on security grounds, saying "forgotten or unattended accounts often rely on old or re-used passwords that may have been compromised" (www.snipca.com/48100).

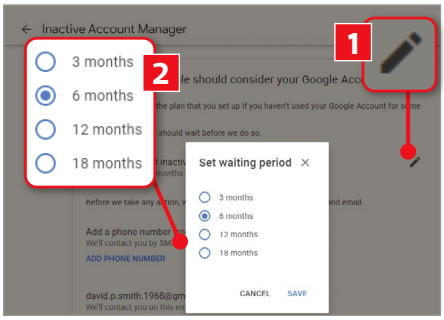
Microsoft is no better. It's been deleting inactive OneDrive accounts since 2019, again judging two years' inactivity to be an acceptable cut-off point (www.snipca.com/50593).

But this is generous compared with other storage services. Dropbox deletes accounts after 12 months of inactivity (www.snipca.com/50598), while Apple "reserves the right" to delete iCloud backups after 180 days if you don't back up to it (www.snipca.com/50608). Mega is even less forgiving, locking you out after only three months (www.snipca.com/50600).

These periods might seem like a lifetime to tech firms, but people lead busy lives and can forget to sign into online accounts for many months, even years – especially if they always intended to tuck away their videos for long-term storage.

Saving videos online should still be a vital part of any backup strategy, but only do so if you set reminders to regularly sign into your storage account. Google lets you do this in its Inactive Account Manager (www.snipca.com/50601).

Click the pencil icon next to 'After 3 months of inactivity' (1 in our screenshot above) and specify how long Google should wait before considering your account inactive – from three to 18 months 2. Google will contact you by text message and/or email a month before your chosen deadline to remind you that you haven't used your account for that period of time. ca



Tell Google to send you reminders when you haven't used your account for a period of time

Is 3-2-2 the new 3-2-1?

Many backup experts now believe that storing files only on physical devices is a mistake, even if you have two of them and one is locked in a Swiss bank vault. It's safer, they say, to also save your videos in an online-storage service, and treat this as one of *two* off-site locations.

Following this rule, you'd create three copies of your videos, save them on two different drives, then keep one of these drives locked away and also upload all the videos to a secure site. But make sure you check how often you have to sign into it (see above).

Problems Solved

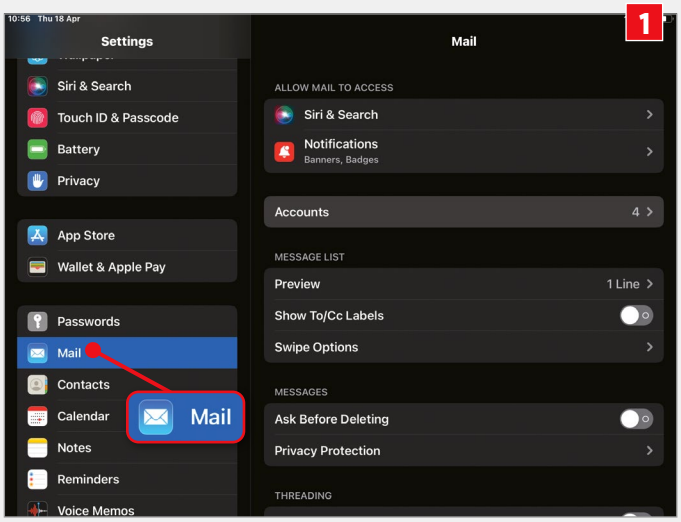
Our experts solve all your tech problems

PROBLEM OF THE FORTNIGHT

What's wrong with Gmail on my iPad?

Q I use Gmail on an iPad as well as on a couple of laptops. My iPad insists on labelling my messages as 'googlemail'. In most cases this is no problem, but contacts I have created on my iPad have my address as **davebaron@googlemail.com** and their emails to me sometimes do not arrive. I've tried deleting 'googlemail' on the iPad and entering Gmail, but the iPad rejects it as already in use. Any suggestions, please?

Dave Baron



1 **To edit your Gmail address, first in Settings, select Mail on the left...**

A We've changed your name to protect your real email address. Whether or not you're aware, there is some history behind your dilemma. Specifically, the 'googlemail.com' domain name was one that Google was forced to use for a few years, but only in some countries – including the UK. This was because of a trademark dispute that was resolved over a decade ago, with UK-based Gmail accounts in particular reverting to the 'gmail.com' domain from 2009 onwards.

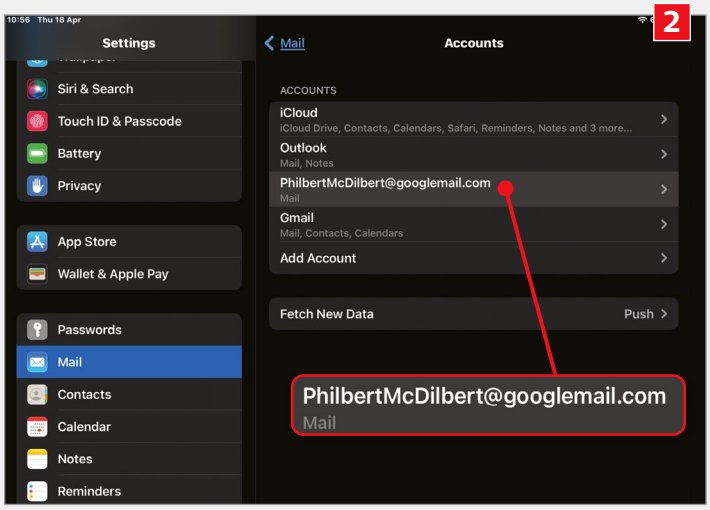
During this time, Google adopted the Google Mail branding and 'googlemail.com' domain. However, throughout the dispute users were able to use either variant of their email address – in your case meaning **davebaron@googlemail.com** or **davebaron@gmail.com**. Then as now, emails sent to **davebaron@googlemail.com** will also arrive in the **davebaron@gmail.com** inbox, and vice versa. So, if messages are not arriving at your end, it's likely that they're ending up in your iPad Mail app's Junk folder, or the senders are simply using a different and wrong version of your address (such **davebaron@google-mail.com**).

This is all important background information because it seems that when your iPad was set up, it was done so using the 'googlemail.com' variant. So, when you send emails from the iPad Mail app, they will appear as having been sent from that domain.

That's relatively easy to change, but we're slightly confused about what you've done to date. You say that you tried "deleting 'googlemail'... and then entering Gmail", but our guess is that you've actually tried to add the 'gmail.com' variant of your Gmail account without having first deleted the 'googlemail.com' version.

In fact, you don't need to delete the existing account, or add a new one – you just need to edit what's already there. To do that, first launch Settings then, on the left, tap Mail (see screenshot 1). Next, on the right, tap Accounts, followed by the relevant account name 2. Next, again on the right, tap Account then, in the Account box that opens, tap the Email field, then edit it to replace 'googlemail.com' with 'gmail.com'.

Note that you might want to edit the Name and Description fields as well, especially if these include references to 'googlemail.com' – but remember the Description field in particular is information that exists only on your iPad. The Name field is what recipients see as your name.



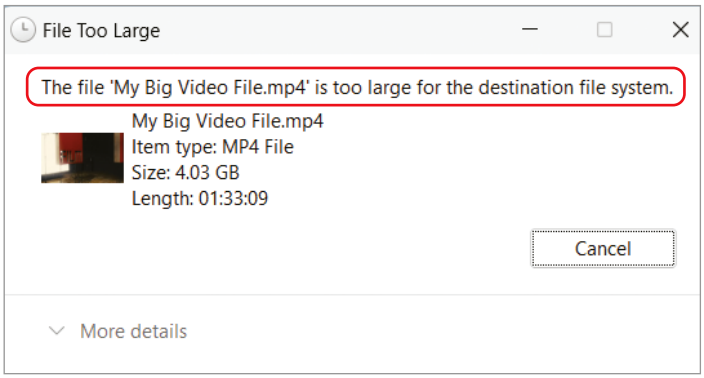
2 **...then in Accounts, click the relevant googlemail.com account name**

Have I bought a fake USB stick?

Q I have a 32GB USB stick with well over 10GB free – or so I thought! I've been using this for several months without any problems, but recently, when I tried to copy a video file to it, Windows said it was unable to do so because the file was too large (see screenshot). However, the file is only 4.5GB, so clearly my stick should have enough room to accommodate it. It's not the end of the world because I didn't pay very much for this stick, but now I'm wondering if I've bought one of the fakes that you've warned about previously.

In case it's relevant, I wanted to watch the video file on my TV, which I've done before without a problem.

Nathan Evans



The Windows message stating that the MP4 file was too large to copy across to the USB stick

A It's possible that your stick is a fake. However, given its relatively small size, it's more likely that it's been formatted using the FAT32 file system. This is great if you want the best possible compatibility, particularly with devices like TVs, but comes with a few restrictions. These include a 4GB limit on the maximum size of any individual file, which is what we believe you're coming up against here.

It's possible to remove this limit by formatting the stick using the newer NTFS file system, but that may not be compatible with your TV. The alternative is a file system called exFAT, which retains much of FAT32's compatibility at the expense of a little performance (though it's unlikely you'd notice any difference).

Formatting means erasing the stick's contents, so if there's anything you want to keep be sure to back it up first. Then, in File Explorer, first right-click your USB stick then choose Format. Next, under 'File system', click to open the dropdown menu and choose exFAT. Next, click Start and sit back for a few moments while Windows prepares your USB stick with the revised file system.

When it's done, you should be good to copy across your 4.5GB file – and your stick's updated exFAT file system should still be recognised by your TV.

How can I resolve buffering problems when streaming TV?

Q My internet provider is TalkTalk and I'm using its supplied router. My problem is that, when watching streaming services on my TV, there's constant buffering. Switching everything off and on again sometimes helps, but not for long. There is never more than just the TV and a PC or laptop running at any one time.

The TV is about five metres from the router, which is in another room. Would replacing the TalkTalk router solve my problem? Or would an Ethernet cable from the TV to router do the job?

I'd need to buy a 10-metre cable, but when I tested with a cable I already had I could get decent 69Mbps download speeds. Or could the TV be at fault?

Ron Cushing

A We know you're running streaming apps built into your TV, and it's possible they are to blame: set manufacturers are not renowned for doing a great job with this software. The TV's own Wi-Fi card might also be substandard.

However, the chances are this is simply down to the distance (and wall or two) between the router and TV. There's nothing stopping you replacing the router, but a long Ethernet cable would certainly be a simple, cheap option.

Moreover, from your own tests with an existing cable, it sounds like it would do the job – so we'd suggest to try that first. You can pick up a 10-metre cord for less than a tenner (www.snipca.com/50270, pictured).

Solve your buffering issues when streaming TV with this £9 10-metre Ethernet cable from Amazon

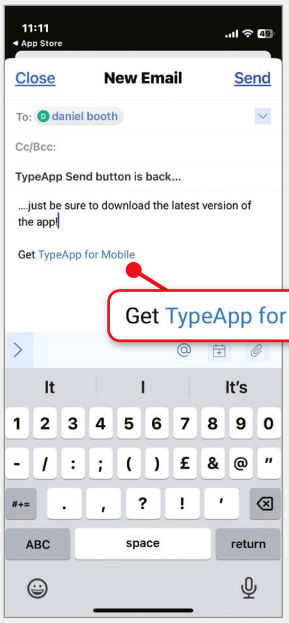
Where did my TypeApp Send arrow go?

Q For some time I've been using email client TypeApp to send emails from my Android phone and tablet. Recently, I was about to reply to an email when I noticed that the Send arrow was missing. I checked on my other device and it had also vanished from there. Because I couldn't find any way to send or reply to emails, I removed the app and replaced it with FairEmail. So far it looks easy to use, so I'll keep it installed. However, I wonder if you know how to fix TypeApp?

Bill Cole

A This was a bug caused by an update to TypeApp, which has since been fixed by the developer. However, it took a while for this to be done, so you're not alone in having uninstalled the tool. And by doing so you missed the update that fixed the very problem you're asking about.

The app is back in working order – just download the latest version from the Apple App Store (www.snipca.com/50274) or Google Play Store (www.snipca.com/50275)



The message is clear – get the updated TypeApp

Should I trust Device Manager or Kerish when updating drivers on my PC?

Q For years, I've used what I consider the Swiss army knife of Windows maintenance programs, called Kerish PC Doctor (www.kerish.org). I know some programs of this type have a reputation for being over-zealous, even harmful, but I've never had an issue with it – until now.

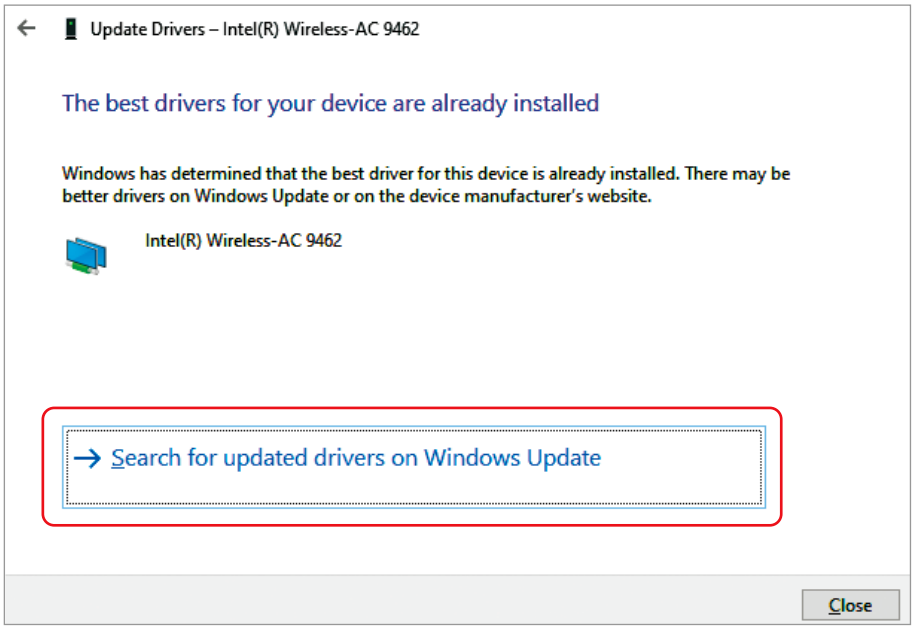
Recently, it showed that the driver for my Intel Wireless-AC 9560 network adapter had changed by a whole version number, rather than the usual minor jumps I'd seen before. I double-checked in Device Manager, which told me that the best driver is already installed. So which advice is correct?

David Ayrton

A Kerish has been around for many years and plenty of people rely on it. If you're happy with it, you should keep using it.

The wording Device Manager uses is a little confusing. Its headline statement that 'The best drivers for your device are already installed' distracts from the clarifying information below, which states that better drivers might be available on Windows Update or the manufacturer's website – the latter being the case here. That's because, in the first instance, Device Manager is checking only on your PC, whereas Kerish checked on Intel's website.

So, Device Manager isn't 'wrong', as such – it's just not as clear as it could be. The newer drivers would likely eventually make their way in via Windows Update – and you can force Device Manager to search immediately by clicking the 'Search for updated drivers on Windows Update' button (see screenshot). But if you want to get them sooner, follow the advice of Kerish.



Get Device Manager to search for newer drivers by clicking 'Search for updated drivers on Windows Update'

Q: Is my broadband being throttled?

A: Issue 666, page 67 – find it on our 2023 Back Issue CD

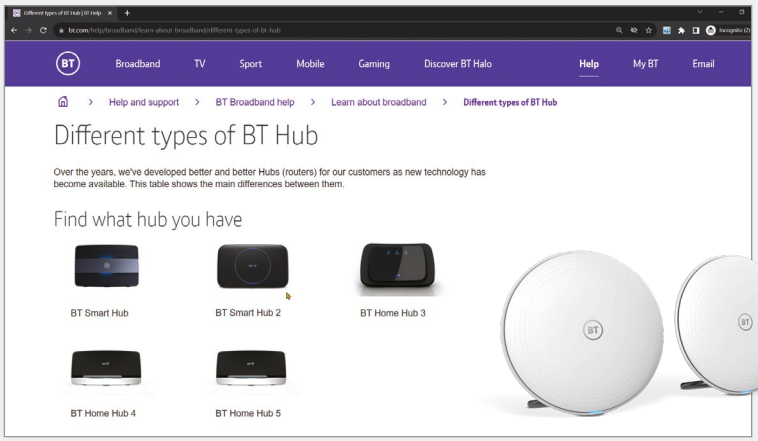
Buy it from www.snipca.com/48860

Will my Wi-Fi 5 devices work on Wi-Fi 6?

Q I understand from Issue 679's 'What's the difference between...?' box (page 69) – about Wi-Fi 6 and Wi-Fi 6E – that to take advantage of the latest standard, devices need also to be compatible with the 6GHz frequency. However, I'm wondering if my existing devices, which presumably work on earlier Wi-Fi versions and 2.4GHz or 5GHz bands, will still work? Or is it the case that only newer devices will work with Wi-Fi 6?

I may make the leap as I want the best experience, but don't want to get Wi-Fi 6 if all my current devices must be 6 to work. Also, I have BT Smart Hub 2 and wonder if BT might be bringing out a Wi-Fi 6 model?

John Emm



The BT website lists its Wi-Fi hubs and the differences between them

A The short, simple answer to your question is that whether you opt for a Wi-Fi 6 or Wi-Fi 6E router, either would be backwardly compatible with essentially all earlier versions of Wi-Fi – so all your existing devices would continue to work.

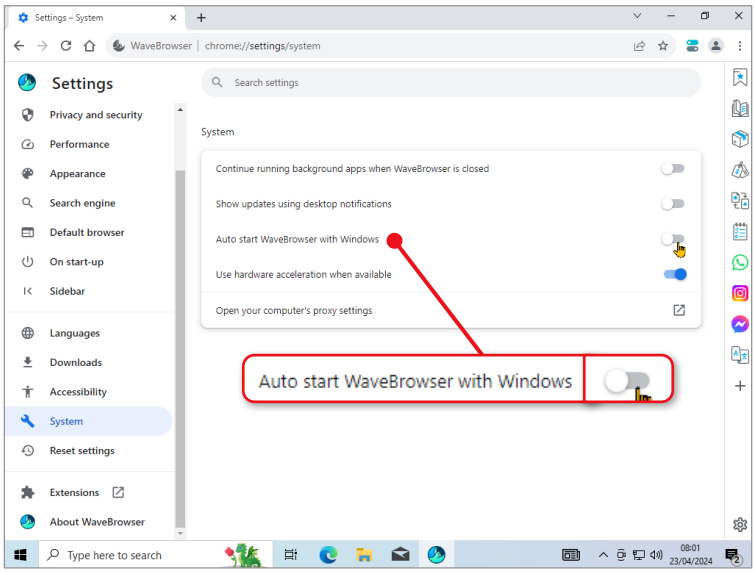
You have slightly misunderstood the new 6GHz radio band, which is part of Wi-Fi 6E but – crucially – *not* Wi-Fi 6. The industry is to blame for any confusion its numerical branding is causing. Your BT Smart Hub 2 supports up to Wi-Fi 5. In that respect, it's no better or worse than the latest, standard-issue BT Home Hub 5 (for all the differences in BT's hubs see the table at www.snipca.com/50271, see screenshot).

BT has offered Wi-Fi 6-enabled packages, such its Whole Home Wi-Fi 6 mesh system (www.snipca.com/50272, pictured above), and we expect it'll release a Wi-Fi 6 (or 6E) router as standard for new installations.

How do I stop WaveBrowser opening when I start my PC?

Q My gripe is more of a nuisance than a problem. I have browsing tool WaveBrowser installed and would like to keep it, but want to stop it opening when I start up my PC. I have disabled all the apps that are listed in startup, but can't stop WaveBrowser. The tool does have an 'On start-up' section, but there's no option to stop itself opening. Any ideas?

John Brown



Click to flip the 'Auto start WaveBrowser with Windows' slider to its Off position

A First, for the benefit of other readers, we feel compelled to say that some people consider WaveBrowser a potentially unwanted program, or PUP. That's because, while ostensibly it's just another Chromium-based browser, like Chrome, Edge and Brave, it does have questionable aspects.

These include default installation settings that, among other things, effectively give it permission to run permanently in the background. As well, it's sometimes 'stealth installed' on the back of other programs, so some people find it on their machines without ever realising it was there.

The software's privacy policy, which you can read in full at https://wavesor.com/privacy, also reveals that it collects personal data in part to provide targeted advertising.

But in your case, you've made it clear that you're happy to keep WaveBrowser. So, with that in mind, the annoyance that's bothering you can be resolved – you were just looking in the wrong place.

After opening the program's menu (three dots, top right) and choosing Settings, on the left go to the System tab. Finally, on the right, click to flip the 'Auto start WaveBrowser with Windows' slider to its Off position (see screenshot).

Can I have two SIM cards for one phone number?

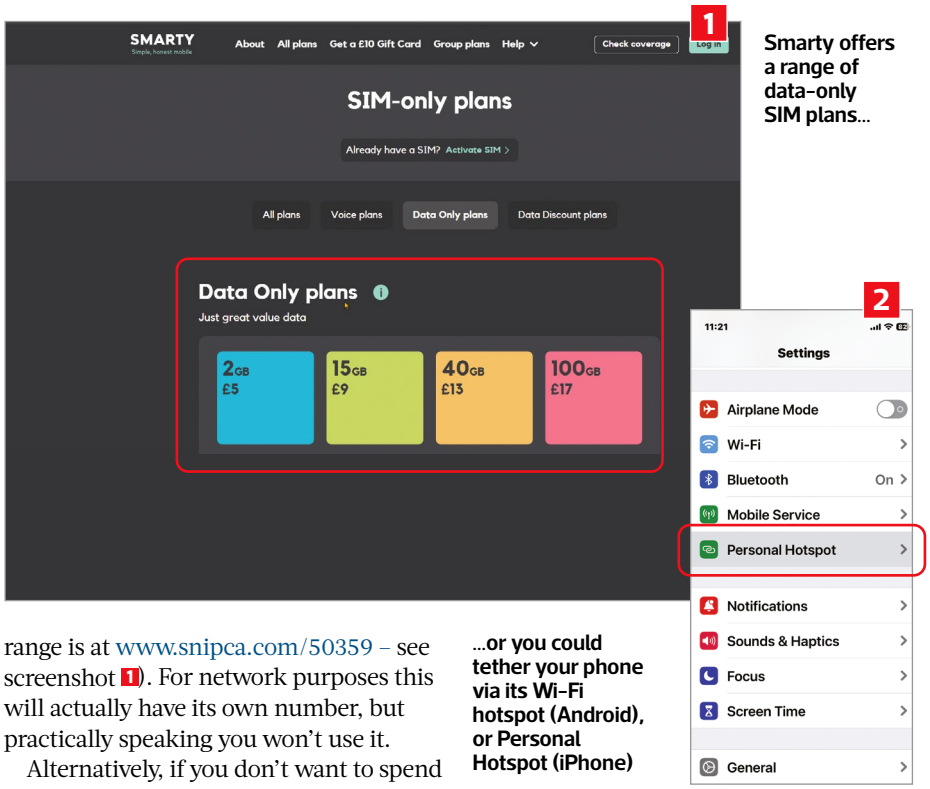
Q I followed reader Brian Steer's recommendation, back in Issue 669 (page 41), and bought a Doogee tablet. It's fabulous! On finding it had a slot for a 4G SIM card, I contacted my mobile network, Smarty, and asked for a SIM card with my existing mobile number. I was told that they do not issue cards for an existing number. Other than taking out another plan or joining a different network, it would appear my SIM slot will remain unused. Any suggestions, please?

John Scoote

A This is a restriction in the way mobile-phone networks work, and it's not specific to Smarty. In simple terms, each phone number can be associated only with a single SIM card. Practically, this is because an incoming call can't be routed to more than one active SIM at a time. Various technical workarounds have been attempted over the years but, in the UK at least, all operators have abandoned them – so it's one SIM, one number.

Given that, you have two options. You could buy a data-only SIM (Smarty's range is at www.snipca.com/50359 – see screenshot 1). For network purposes this will actually have its own number, but practically speaking you won't use it.

Alternatively, if you don't want to spend money, you can always tether to your phone to use data from your existing Smarty number. If your phone is Android, look in Settings for the Wi-Fi Hotspot slider; on an iPhone, it's the Personal Hotspot feature 2 that you need to enable.



1 Smarty offers a range of data-only SIM plans...

...or you could tether your phone via its Wi-Fi hotspot (Android), or Personal Hotspot (iPhone)

What will happen to my Plusnet landline after switch-off?

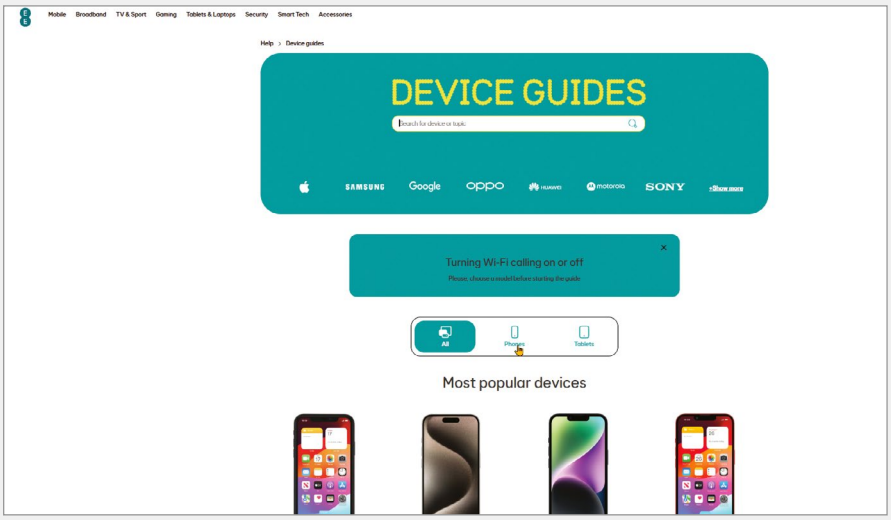
Q Plusnet currently provides me with broadband and a phone landline. The latter is important because my mobile signal at home isn't very strong. I've no qualms about the eventual copper switch-off, but although my Hub 2 router has a phone socket, Plusnet has not yet made clear its plans for VoIP services. Will it eventually do so or will I need to look for another internet service provider who will offer this service?

Neil Howells

A Like you we're not entirely sure, because Plusnet simply isn't saying. Currently, the company has no plans to offer VoIP services to replace its existing copper-based landline services. We suppose that might change nearer the switch-off, but we're not privy to its commercial plans.

As you have a mobile phone anyway, one option would be to use its Wi-Fi Calling feature. This should resolve the problem with your weak indoor signal, allowing you to rely more on your mobile phone – and saving you the cost of a separate VoIP service.

How you enable the feature depends on which phone you have, so check EE's guide at www.snipca.com/50360 (see screenshot).



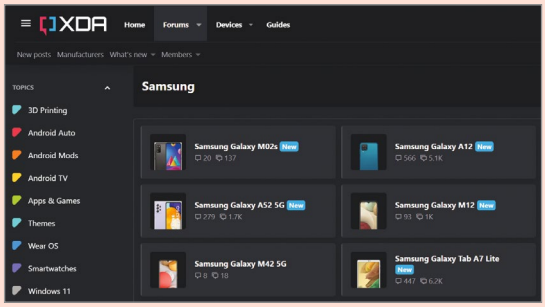
EE's guide should explain how to enable your phone's Wi-Fi Calling feature

WHAT'S THE DIFFERENCE BETWEEN...

Rooting and jailbreaking?

Q **A friend of mine insists that I'd be better off 'rooting' my Samsung phone to get rid of all of Samsung's customisations. Some of those do annoy me if I'm honest, but I'm not very experienced with these things – and it reminded me that I once read in *Computeractive* about how difficult it was to 'jailbreak' iPhones. So is rooting the same as jailbreaking? Is either a good idea?**

Geoff Scott



The XDA Forums website offers information on rooting and includes an index of Samsung phone models

A Rooting and jailbreaking are very similar, conceptually, but neither is particularly 'easy', nor necessarily all that desirable.

In either case, the idea is to take control of a smartphone in a way that the manufacturer didn't intend. This might be to remove pre-installed software that is otherwise hard to shift – as with your Samsung phone – or to add tools or features that cannot be installed on the phone in any other way – as is the case with Apple devices.

Jailbreaking does tend to be very much more difficult than rooting, and it's often not possible for months or years after each iOS update – as is the case currently with iOS 17.

Moreover, while the benefits of jailbreaking iPhones were once worth the risk – and included access to alternative app stores – these days it's more of hobby for those who like a challenge, rather than a yearning to unlock desirable features denied by Apple. In short, we wouldn't recommend it.

Much the same is true of rooting. However, because Android is based on open-source code it's generally easier – which isn't to say it's easy. So yes, it is possible that by rooting your phone and installing a different ROM image, you could remove some or all of Samsung's Android modifications. However, the process can be risky because if it goes wrong you could end up 'bricking' your phone, rendering it useless.

The best starting point for anything related to rooting is the excellent XDA Forums website. You'll find the Samsung index at www.snipca.com/50362 (pictured).

Want to know the difference between technical terms? Email noproblem@computeractive.co.uk

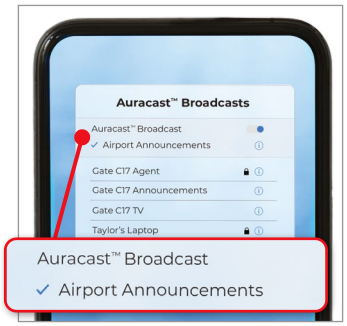
How do I listen to Auracast via a cochlear implant?

Q **I've read recently about a technology called Auracast, both in *Computeractive* and elsewhere. I have a cochlear implant and believe this system would help me. Could you tell me who I should contact for help in making use of this system?**

David Avery

A Before proceeding we must emphasise that medical matters should be discussed with qualified healthcare professionals, but we're happy to outline the underlying technology here.

The basic idea behind Auracast is that it's like an audio version of a public Wi-Fi hotspot, with amplified sound signals broadcast to anyone nearby who wants to connect via a set of compatible headphones, earbuds or, in your case, cochlear implant.



Auracast is a technology that sends sound to anyone who needs audio assistance, in places such as airports

It could be used for listening to airport announcements (pictured), say, or for assistive listening at the theatre or cinema. You'd typically do this by tapping the name of the broadcast in the Bluetooth settings section of a smartphone that's also connected to the same listening device.

That's the theory, but it's fair to say that Auracast has earned the dubious status of vapourware. This means it's been promised for several years by the Bluetooth Special Interest Group (www.bluetooth.com) but never materialised into real-world products or services.

However, there does seem to be an effort by the Bluetooth SIG and product manufacturers to make 2024 the year Auracast finally happens. For example, ReSound Nexia (www.snipca.com/50273) hearing aids now include support for Auracast signals.

We don't know of any cochlear implants that currently work with Auracast, but we suspect they'll arrive later this year or early next. If or when they arrive, we'd suggest consulting your local expert audiologist for advice on which models might best suit your particular needs.

Next Issue

ON SALE **Weds 19 June**

- **Why can't I extend my C drive?**
- **How do I stop these telephone scammers?**
- **Can I fit an SSD to my old PC? ...And many more**

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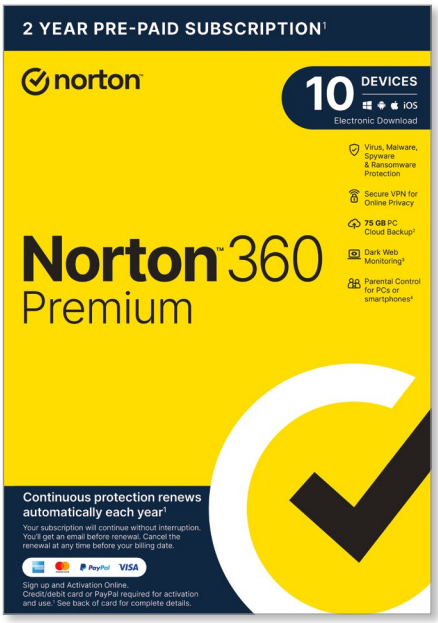

WHAT YOU GET

- ✓ Real-time malware protection
- ✓ Secure VPN
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Reader Support

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Why can't I remove files from 'Software Distribution'?

Q Issue 681's 'Remove All PC Junk Safely' Cover Feature was timely because the 60GB hard drive on my Windows 10 laptop has just run out of space. Following your instructions, I've created 187MB space, but the big one eludes me: 'Software Distribution'.

As you suggested, I opened the Temporary Files window, ensured that 'Windows Update Clean-Up' (3.04GB) was ticked, and pressed Remove Files. The message 'Purging: Windows Update Clean-Up' appeared, then 'Finished Temporary Files Clean-Up'. Great, I thought. But the files were still there.

Maybe my memory is so low that it won't process the request? I would delete something to see if it helped, but there's not much left on the drive. I now keep all my personal files on an SDXC card.

Brian Murphy

A You can clear the Software Distribution folder manually, but we wouldn't recommend doing so. As we explained in the feature, it's worth being overcautious with the contents of this folder, as you could end up accidentally erasing something that affects Windows Update's performance.

You can move Microsoft Store apps to an external drive to clear space on your PC

This is why we advise using Windows' own Storage cleaner tool instead.

We're not certain why the tool is leaving behind such a large amount of data in your case. Are there any updates in progress when you try to clean up the temporary files?

Should you wish to go ahead and free up that space yourself, click Start, type services.msc and press Enter. In the list of Services, right-click both Windows Update and Background Intelligent Transfer and select Stop. Next, open File Explorer and navigate to **C:\Windows\SoftwareDistribution**. Once you've deleted the contents of the folder, go back to the Services window, right-click Windows Update and Background Intelligent Transfer, select Start, then restart your PC. As we've said, however, this isn't a route we wouldn't necessarily recommend.

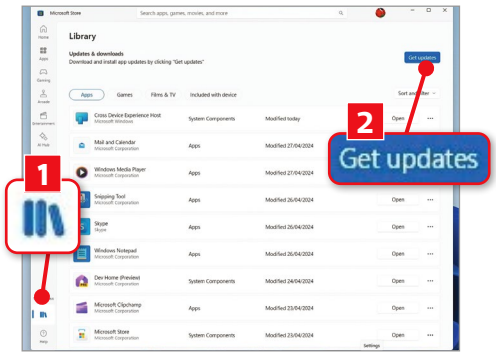
The main problem here is the size of your hard drive – we'd say that 60GB is probably a bit tight these days. You could add external storage, though you're already storing personal files on an SDXC card. You could consider moving some of your apps and programs to external storage also.

To move Microsoft Store apps, for example, open Settings, click Apps, scroll to an app you want to move and click it. Click Move, select the external drive you want (1 in our screenshot left), then click Move again 2. If the Move option isn't available or is greyed out, it means the app in question can't be moved. Traditional Windows programs will need to be uninstalled, then reinstalled on your external drive.

Why can't I remove objects using Photos app?

Q Issue 680's Make Windows Better (page 46) explains how to remove objects from photos using the new Generative Erase option in Windows 11's Photos app. Unfortunately, I can't see this option on my PC, which runs Windows 11 Pro. Any idea what might be wrong?

Jean Pavan



Click the Library icon then 'Get updates' to install the latest version of the Photos app

A You may need to update the Photos app itself, if it hasn't updated automatically. Close it, then open the Microsoft Store and click the Library icon (1 in our screenshot above). Next, click 'Get updates' 2. Once the process has finished, re-open the Photos app and follow our original instructions.

How can I get rid of Copilot?

Q I tried following Robert Irvine's instructions to remove Copilot from my PC (Issue 680, page 74), but I can't find the CoTweaker ZIP file he refers to. Neither of the Snipca URLs you link to show a 'Release' page displaying a link to the ZIP file. Please help me get this ZIP file because Copilot is driving me mad.

David Kelso

A As Robert wrote, the developers had already changed its name once from Bloatynosy to CoTweaker. But they've now changed it again, this time to Winpilot. It should still work as Robert described, and the Snipca links we published will still download the correct tools. Head to www.snipca.com/49553 and click 'Winpilot.zip' under the latest version (currently Winpilot 2024.5.4).

Jargon Buster

3G/4G/5G Technologies that deliver faster mobile broadband.

4K Video with a resolution of at least 3840x2160 pixels.

720p/1080p/1440p Common types of high-definition video of 1280x720, 1920x1080 and 2560x1440 pixels respectively.

7-Zip A free, open-source file archiver.

AI Artificial intelligence. Intelligence demonstrated by a machine, not a human being.

Aspect ratio A measurement of the shape of a screen. Traditional PC screens are 4:3. Widescreen displays are 16:9 or 16:10.

AUP A file saved in Audacity in an XML format. It's a reference to audio files and any changes made to them.

Benchmarking Comparing software and products with an accepted standard.

Biometric Using measurable personal characteristics, such as fingerprints, for identification.

Blue light Light given off by PC and phone screens. Can disrupt sleep patterns.

Bluetooth SIG Bluetooth Special Interest Group. The body that oversees the development of Bluetooth standards.

Bot Automated software designed to perform specific tasks.

Brute-force attack A method of breaking encryption by simply guessing all possible passwords until the right one is found.

Buffering Downloading a certain amount of data before starting to play a video. Can cause delays to your streaming.

Cache A temporary space for storing information.

Captcha Distorted text you have to type to prove you're a human.

cd/m² Candela per square metre. Standard unit of brightness.

Chatbot A program that recreates conversation with human users.

Client A program that acts as an interface between PC and server.

Code Programming languages used to create software.

Codec Short for Compressor/Decompressor. A file that tells a computer how to record or play a type of media file.

Contrast ratio A measure between the darkest and lightest possible shades on a screen.

Core Units on a processor that carry out program instructions.

Cryptocurrency A digital currency not backed by any country. The most popular is Bitcoin.

CSV Comma Separated Value. A file format that can be opened by most spreadsheet programs.

Daisy-chained A wiring system in which multiple devices are connected together in sequence.

Dark web Websites that can only be accessed using special software such as the Tor browser.

DCI-P3 A colour space that has a wider spectrum than sRGB.

DisplayPort A socket for connecting monitors.

Domain The address typed into a browser to access a website.

dpi Dots per inch. A measure of printed image quality, or the size an object will be shown on screen.

Driver A file telling Windows how to work with an external device.

E Ink Electrophoretic ink. A special type of ink used to display content in electronic devices.

Emoji A small graphic inserted into a text message or email.

Ethernet A standard used for almost all wired computer networks.

exFAT Extended File Allocation Table. Microsoft's file system for USB sticks and SD cards.

FAT32 An old system used for formatting hard drives.

FIDO Fast IDentity Online. A set of security protocols for login methods that don't need passwords, such as passkeys.

FLV A video file saved in the Adobe Flash Video format.

FTTP Fibre-to-the premises. Fibre broadband that goes straight to the doorstep. Faster than FTTC (fibre-to-the-cabinet).

GHz Gigahertz. A measure of how many instructions a chip can process per second.

GIF Graphics Interchange Format. A type of image file often used on the web.

Graphics card A component in a computer that produces the image shown on the monitor.

H.265 (aka HEVC, High Efficiency Video Coding) The successor to Advanced Video Coding (AVC).

HDMI High-definition media interface. A type of connection that transmits high-definition video and audio signals.

Heat sink A block of metal used to help dissipate the heat from a computer chip.

Hotkey A key set up to perform a complex action.

Hotspot A public area covered by a Wi-Fi network that allows you to access the internet.

IP address Internet Protocol address. A unique set of numbers used to identify computers and websites on the internet.

IP68 International Protection marking. Denotes that a device is resistant to particles and can be placed underwater for 30 minutes.

ISO file A type of image file that contains all data from a CD or DVD.

Latency A measure of the delay in exchanging data between devices and web servers and on networks.

MicroSD card A small type of memory card.

MKV Matroska. An open-source type of video file.

Mobile broadband Internet access provided by mobile phone networks rather than fibre cables.

MOV A type of video file that can be played by Apple's QuickTime.

MP4 Versatile media file, ideal for streaming videos across devices.

MVNO Mobile virtual network operator. A mobile provider that piggybacks on another network rather than its own.

NAS Network-attached storage. A hard drive attached to a network that can be shared with other PCs.

Night mode A phone setting that allows its sensor to let in more light so photos are brighter and clearer in low light.

NTFS New Technology File System. A file system used by all recent versions of Windows.

OLED Organic light-emitting diode. A thin-film organic light-emitting diode used in computer displays and television screens.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

OPML Outline Processor Markup Language. File format for organising data.

Passkey A method for signing into accounts by typing a one-off code, by fingerprint or facial recognition.

PUP Potentially unwanted program. A program not desired, despite the user consenting to it.

QR code Quick Response code. A barcode read using smartphones.

RAR Roshal Archive. A format for storing compressed files.

RCS Rich Communication Services. A method of sending text messages over phones.

Refurbished Device repaired by a manufacturer and sold as second-hand.

Roaming charge Fee for using your phone to receive data overseas.

ROM image A file that contains a copy of the data from a read-only memory chip.

RSS Really Simple Syndication. A simple format for distributing news and other content from the web.

SDXC card Secure Digital Extended Capacity card. A very small flash memory card.

SIM Subscriber Identity Module. The smart card used by all digital mobile phones.

SMS Short Message Service. More commonly called text messaging.

sRGB A standard RGB colour space for use on monitors, printers and the internet.

SSD Solid-state drive. Storage that uses no moving parts.

System restore point Files stored by System Restore on a given date and time to which Windows can revert if a problem occurs.

TAR Short for Tape Archive, it's a format for archiving files and directories.

Telemetry Microsoft's system in Windows 10 that tracks how the operating system is used.

Tethering Turning a phone into a modem.

TOPS Trillion operations per second. A modern measurement of how fast an AI processor works.

Tooltip A small message that appears when the cursor hovers over an option.

Tweeter A speaker designed to produce high audio frequencies.

Two-factor authentication A system that uses two different means to identify the user.

USB 2.0/3.0/3.1 Faster successors to USB.

USB-A The original type of USB connector, released in 1996.

USB-C A new connector that's reversible, letting you plug it in upside down.

Vapourware Software or hardware that's been announced or advertised, but hasn't been released.

Virtual machine A software-based computer running inside another computer.

VoIP Voice over IP. The routing of voice calls over the internet.

VPN Virtual private network. Keeps all internet communication safe and private.

VPN proxy Can mask your IP address, but doesn't necessarily encrypt the traffic, so is less secure than a standard VPN.

Wi-Fi 6 Wi-Fi standard with speeds up to 10 times faster than 802.11ac. Also called 802.11ax.

Wi-Fi 6E Wi-Fi 6 extended to include the 6GHz band.

Wi-Fi calling Lets you make and receive voice and video calls over a Wi-Fi connection.

Wi-Fi card Adds Wi-Fi connectivity to a computer.

Widget A small program such as a calendar that runs on the Windows desktop.

WMV Windows Media Video. A Microsoft file format for video.

ZIP file A file that contains compressed documents or files.

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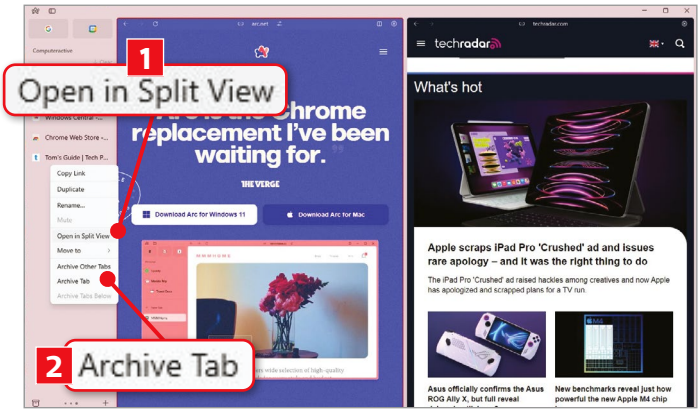
Know How

Bored with Chrome and Edge, **Robert Irvine** test-drives a much-hyped new browser and tries to...

Make web browsing fun again

As the writer of *Computeractive*'s Browser Tips sections, I spend a lot of time testing browsers and finding interesting things to say about them. This was much easier before Chrome, Edge and Firefox switched to incremental releases, back when each new version introduced exciting tools, rather than 'bug fixes' and under-the-bonnet tweaks.



Arc has several useful features including split-screen view and tab-archiving

> **Arc has uBlock Origin built in, so blocks all adverts as you browse**

It's no wonder several new browsers have sprung up in the last year, while the big names obsess about AI. These include DuckDuckGo's private browser (www.snipca.com/50410), the Japanese-made Floorp (https://floorp.app) and the climate- conscious Ecosia Browser (www.snipca.com/50411). However, the most hyped browser of 2024 is undoubtedly Arc from The Browser Company (www.arc.net).

Arc's website claims the browser "shapes itself" and "doesn't just meet your needs – it anticipates them", which implies it's some form of personal-hygiene product. But spurred on by a review that said Arc "makes browsing the web fun again", I decided to take the new browser for a spin.

I downloaded and installed Arc on my Windows 11 laptop (it isn't yet available for Windows 10), clicked past the welcome screen, which boasted 'Meet the internet, again', and was prompted to create an account. This was annoying, because you usually only need an account to sync data between devices, but I reluctantly obliged and signed in.

After skipping the options to import tabs, passwords and bookmarks from another browser, and an invitation to set Arc as my default, I was presented with an 'Arc Card', which labelled me an 'Imaginary Technician'. I couldn't understand the point of this, so ignored it and clicked Get Started.

The Arc browser now launched, to my initial bemusement. The homepage was blank, the interface was minimalist and grey, and the tab bar was in a left-hand sidebar, instead of across the top. At the top of this sidebar was a Spaces section, which helpfully included an Arc Basics collection of explanatory articles, so I perused this before proceeding further.

Spaces is the pivotal feature in Arc and lets you create 'distinct browsing areas' that contain different tabs and files, and have their own themes. For example, you can have a Work and Personal space, and switch between the two by clicking their dots at the bottom of the sidebar. It's similar to the profiles you create in other browsers, and even closer to the Workspaces feature in Edge, but Arc's presentation is slicker.

To set up my first 'space', I clicked the plus in the sidebar and chose Spaces, then New Space. I named my space 'Computeractive', gave it a reddish theme and clicked Create Space. When my new space opened, I clicked the New Tab button, which launched a search-cum-address box in the middle of the page – much more convenient than a bar across the top.

I typed the names of a few websites to open them in tabs, and was pleasantly surprised by the lack of ads. This is because the brilliant content blocker uBlock Origin is built into Arc. The browser is based on Chromium code, so you can install more extensions from the Chrome Web Store. Cleverly, when you click New Tab, Arc lists the tabs you already have open – including in other spaces – so you can jump straight to them.

Other nice touches are the option to view two tabs side by side in Split View (1 in our screenshot); and an Archive Tab feature 2 that closes and stores tabs so you can reopen them later. However, aside from the clean design, there wasn't much else that impressed me or made the web fun.

Arc is certainly different to Chrome, but then so is Vivaldi (www.vivaldi.com), which also has a Spaces-style feature, left-hand sidebar, built-in ad-blocker, split-screen view and lots more besides. It's early days, so perhaps the browser will eventually justify the hype, but for now Arc doesn't really float my boat.

Need help with using your chosen browser? Let us know: noproblem@computeractive.co.uk

Next issue: Robert tries to extract text from screenshots

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