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Computer active

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- ☑ Mirror your phone screen
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WELCOME

From the Editor

Here's my dilemma: can I write about advances in TV technology without sounding like a cliched middle-aged bloke reminiscing about the 'good old days' when there were only three (and then four) channels to watch?

My kids have heard it all before. When they moan about Netflix stuttering, I bore them with tales of waiting hours on a drizzly Sunday just for *Bullseye* to start. 'Hacking' your TV back then meant hitting the top or twisting the aerial. Now it's entering Developer Mode and 'sideloading' apps.

We explain how to do this (sideloading, not twisting aerials) in our Cover Feature, as well as mirroring your phone's screen, streaming files from your PC, listening via wireless headphones, and more.

It's all a long way from gazing glumly at Ceefax pages between programmes – and I'm well aware that even that would've seemed incredible to readers who grew up in the days of the potter's wheel interlude (www.snipca.com/39408), or before television entirely. I'd love to hear your own memories.

Daniel Booth
editor@computeractive.co.uk

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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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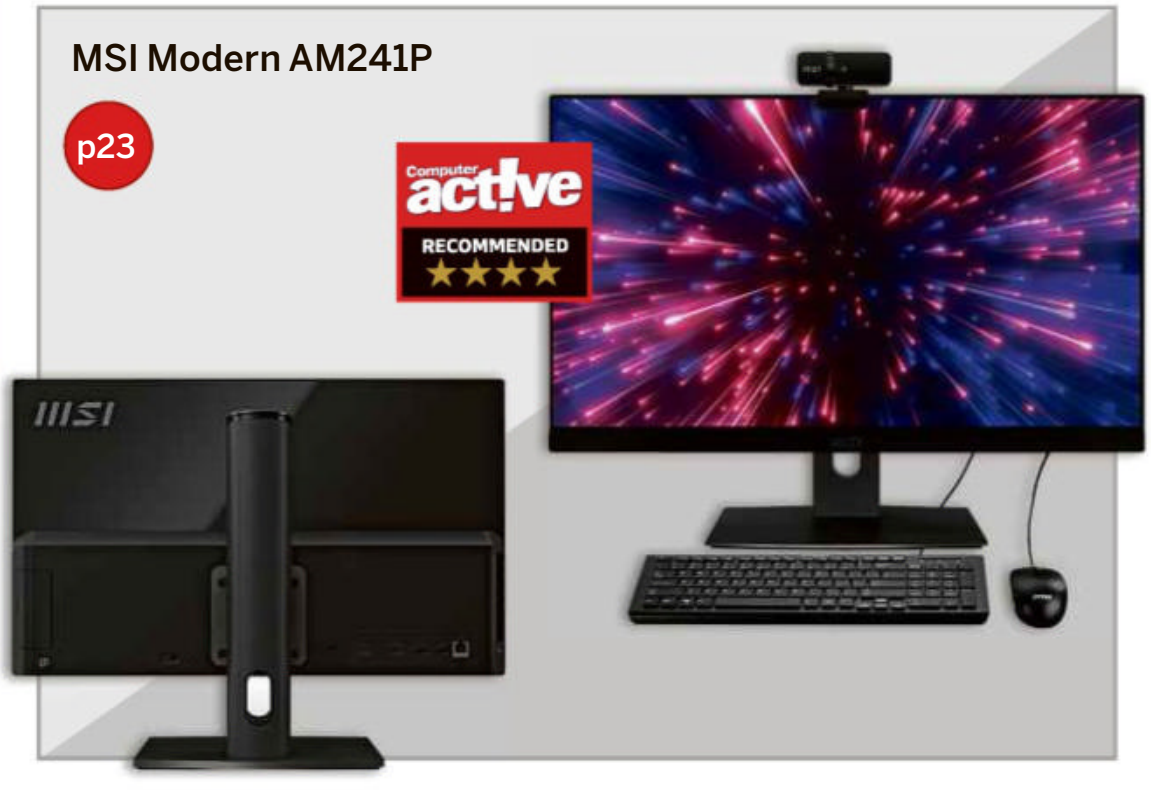

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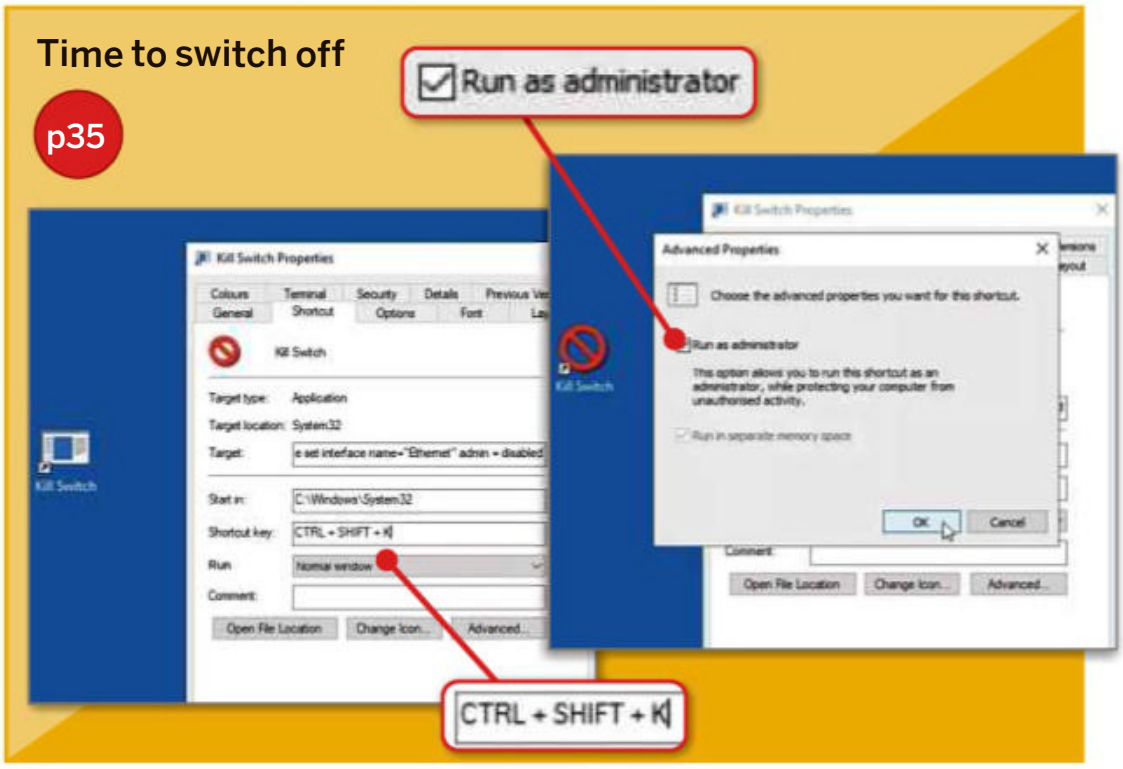

Hack Your SMART TV

Clever tricks to unlock secret features

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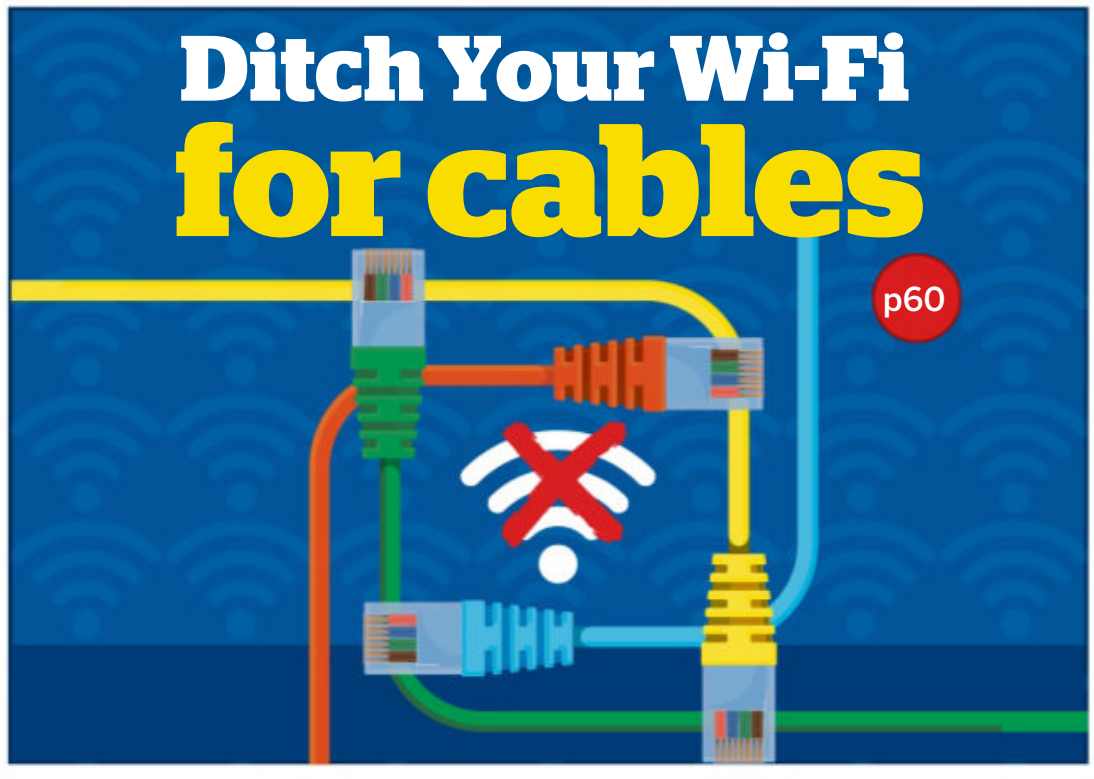


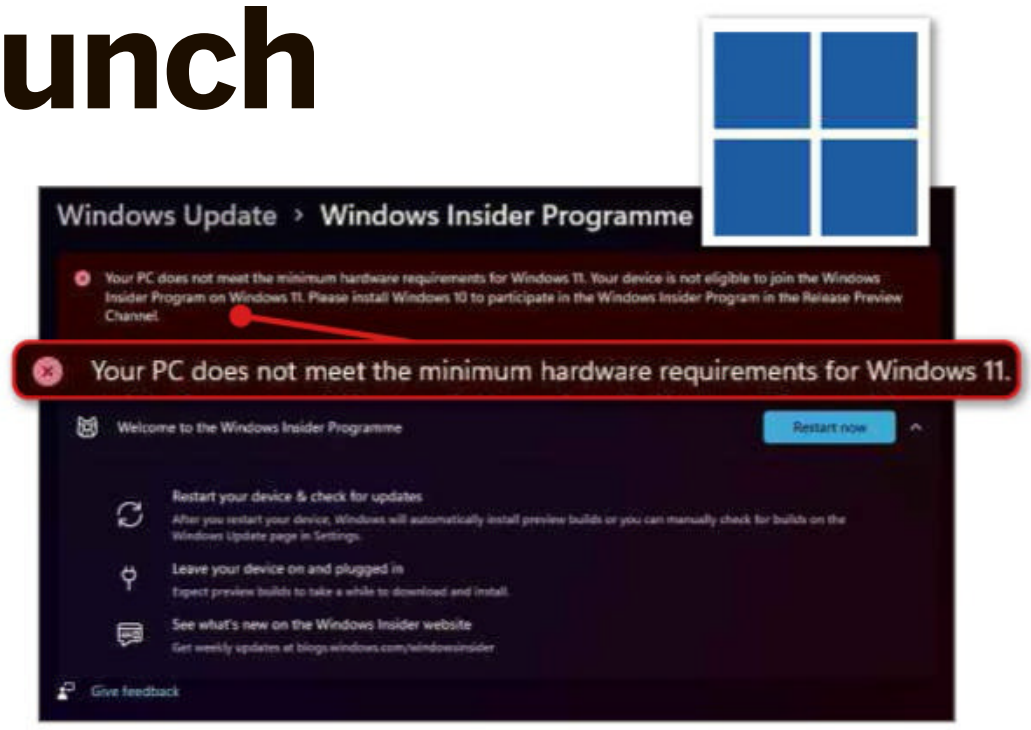
Windows 11 rejects old PCs days before launch

Microsoft is beginning to kick users out of the Windows 11 Insider Programme if their computers aren't considered powerful enough to run the new operating system.

It comes as the company puts the finishing touches to Windows 11 ahead of its release on 5 October.

Windows Insiders have reported seeing the message "Your PC does not meet the minimum hardware requirements for Windows 11" (see screenshot) and therefore "is not eligible to join the Windows Insider Program on Windows 11". It goes on to say that users should re-install Windows 10 instead and continue with the Insider Programme for that system.

The warning will raise concerns that many computers won't have sufficiently advanced hardware to run Windows 11. Microsoft previously said that Insiders wouldn't be pushed back to Windows 10 until Windows 11 was widely available.



WHAT WE THINK

We can't recall another time when the launch of an operating system has left so many questions hanging. How many PCs will be able to run it? What hardware will you need? When will it become widely available? How long will it be free for? And all these questions feed into the dilemma facing you now: should you upgrade? We're currently thinking hard about that question, and will give you our verdict in our next issue – out on Wednesday 6 October. Don't click 'upgrade' until you read it.

'Phased and measured' release

Many users remain confused about whether their computers will be able to run Windows 11. Microsoft is hoping to minimise any disruption by releasing the system in a "phased and measured approach".

This means it will be first offered to new computers that have been built especially for the system, followed by existing Windows 10 machines that it thinks will cope with the upgrade.

Windows marketing manager Aaron Woodman wrote (www.snipca.com/39418) that Microsoft will evaluate factors such as a computer's age, reliability, and hardware eligibility.

Woodman added that all eligible devices should be offered the free upgrade to Windows 11 by the middle of 2022, and that you'll receive a message from Windows Update saying when it's ready. You can also check by opening Settings, then clicking Windows Update, followed by 'Check for updates'.

No Android apps at launch

Microsoft's blog post confirmed some of Windows 11's most significant new features, including desktop widgets, and Snap Layouts and Snap Groups, which make it easier to move and use multiple programs.

It also said that Windows 11's new design and sounds are "modern, fresh, clean and beautiful, bringing you a sense of calm and ease".

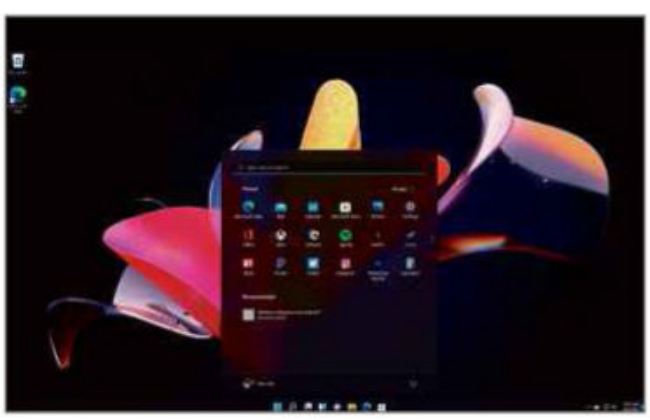
But it won't yet be able to run Android apps, one of its most eagerly awaited features. This is now expected to be added in 2022.

DARK MODE WILL SOUND SOFTER

The noises Windows 11 makes while in Dark mode (pictured) will be "calmer" and more soothing than in Windows 10, Microsoft has said.

It has used "rounder wavelengths" for sounds such as notification alerts, so they can "still alert/notify you, but without being overwhelming". Sounds when you're using Light mode will be brighter and louder.

To play both the new Dark and Light sounds, visit www.snipca.com/39420 and scroll down.



You'll like this...
Forty per cent of homes can now get 1Gbps broadband (www.snipca.com/39415)

but not this...
Phone network Three has brought back roaming charges (www.snipca.com/39414)

Govt wants Netflix to follow same rules as BBC and ITV

New rules to protect TV-streaming viewers from misleading health advice and "pseudoscience documentaries on climate change" could be introduced by the Government.

Currently, traditional broadcasters such as the BBC, ITV and Sky have to follow Ofcom's Broadcasting Code, which sets out standards for content in areas including offensive material, accuracy, fairness and privacy.

Culture Secretary Oliver Dowden wants similar rules to apply to the likes of Netflix, Amazon Prime and Disney+ to ensure a "level playing field between traditional broadcasters and online streaming services".

He wrote on GOV.UK: "Right now, viewers in the UK know that if they switch on their TV, there will be a high standard of rules in place to protect audiences, including the 9pm watershed and certain content standards. The same is not currently true of video-on-demand (VoD) services - BBC iPlayer excepted."

He acknowledged that TV-streaming services must currently follow rules to protect children from harmful content, but said that age ratings are often inconsistent, meaning parents can't rely on them.

One of the problems, according to the Government, is that TV-streaming services don't have to be based in the UK to be made available here. For example, Netflix UK is subject to Dutch regulation because it's based in the Netherlands.

Dowden said that rules set by other countries "might not reflect UK views on the appropriateness of certain content", adding that "now that we have left the EU, we have the opportunity to set out our own regulations in the best interests of UK viewers".

The Government will hold a consultation with interested parties until the end of October, and publish a report on the future of broadcasting later in the autumn.

Lossless audio coming to Bluetooth headphones

You'll soon be able to listen to lossless audio through wireless headphones, after semiconductor company Qualcomm announced it was making the technology available for Bluetooth.

Lossless audio files are compressed (made smaller) without affecting the sound. This contrasts with 'lossy' audio, which discards information during the compression process, reducing sound quality.

Bluetooth exacerbates this by applying its own lossy compression. That's why you typically need wired speakers or headphones to listen to lossless audio. Qualcomm said that until now Bluetooth has unavoidably degraded the audio signal.

However, Qualcomm's aptX Lossless technology, which is part of its Snapdragon Sound program, can transmit "mathematically bit-for-bit exact" audio at CD quality.

Lossless audio's appeal is growing, aided by leading audio-streaming services that have started offering it. It's now available through Deezer, Tidal, Amazon Music HD and Apple Music (see www.snipca.com/39332), with Spotify to follow soon.

To use Qualcomm's lossless technology, you'll need devices such as phones and earbuds that support it. These are expected in early 2022.

CAN YOUR EARS DETECT LOSSLESS AUDIO?

Whether you can detect the extra quality of lossless is down to your hearing and the standard of headphones or speakers you use. You can check by taking the test at www.snipca.com/38062, which plays the same tracks at lossless and lossy quality and asks you to compare them to a 'target' sample. See Issue 607, page 42 for full instructions.

IN BRIEF

ADD BRITBOX TO ROKU STREAMING DEVICES

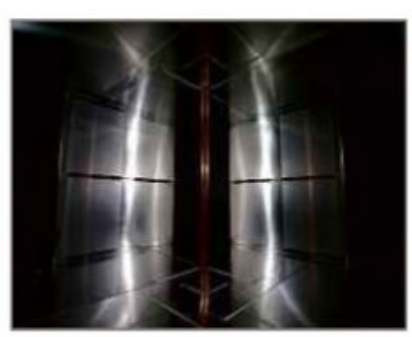
You can now add the BritBox TV-streaming service to Roku players and TVs. Launched in the UK in 2019, BritBox offers classic shows from the BBC and ITV archives, plus new programmes including the new series of *Spitting Image*. Read the Roku blog for instructions on how to add the service: www.snipca.com/39320.

SAMSUNG TO AXE CLOUD BACKUP SERVICE

Samsung is reminding users that its online Cloud backup service will soon stop storing photos and videos. Users in 'Group 1' have until 30 September to download their content; Group 2 has until 30 November. Samsung will delete any remaining photos and videos on those dates, though they will remain on your phone if you have stored them there. The service will continue to back up your contacts, calendar and notes. Visit Samsung's site for more details: www.snipca.com/39321.

TOMORROW'S WORLD

It may look like the set of a Channel 5 game show, but this is actually a wireless-charging room that can power your devices as you walk around. Built by scientists at Tokyo University, it creates magnetic fields to generate up to 50 watts of power without harming people. Watch it working at www.snipca.com/39327.



IN BRIEF

VIRGIN'S BROADBAND HITS 10M HOMES

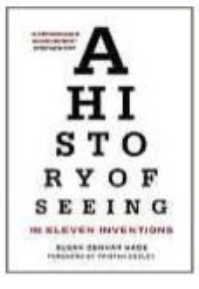
Virgin Media O2 has extended its hyper-fast broadband network to a further 1.7 million premises, bringing the total to 10 million. It claims to deliver an average download speed of 1,130Mbps, and 52Mbps uploading. New areas include Blackpool, Cambridge, Leicester, Nottingham, Oxford and Swindon (for details visit www.snipca.com/39411).

FREE WEB INSTALLS FOR PEOPLE ON BENEFITS

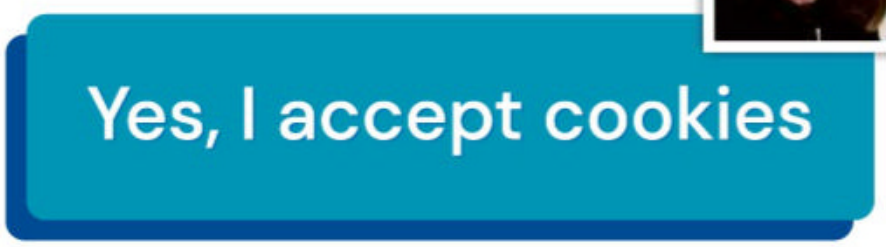
Openreach will now install broadband for free to households on universal credit that have no other earnings. The company would normally charge providers such as Sky or TalkTalk for connecting households, who then pass the fee on to the customer. Openreach estimates about one million people could save up to £92, assuming providers pass on the saving. Read more at www.snipca.com/39409.

THE WORLD'S GONE MAD!

Staring at smartphones for hours non-stop is weakening our sense of smell, touch, taste and hearing. That's according to Susan Denham Wade, whose new book *A History of Seeing in Eleven Inventions* (pictured below) examines how human sight has been affected by technology. We'll get around to reading it just as soon as we've finished taking our 57th selfie of the day.



UK privacy chief urges G7 to scrap cookie pop-ups



The UK's privacy watchdog has called on the world's leading tech countries to push for a solution that stops users being bombarded by cookie pop-ups online.

Information Commissioner Elizabeth Denham (pictured above right) told her G7 counterparts that "no single country can tackle this issue alone".

She added: "Together we can engage with technology firms and standards organisations to develop a co-ordinated approach to this challenge".

Many internet users dislike having to accept cookie pop-ups every time they visit a site. Denham said this was leading to "cookie fatigue", and that people instinctively click the boxes to accept cookies without reading the details, leading to them giving away "more personal data than they would like".

She urged the G7 to pressure browser developers and device manufacturers to introduce settings that apply across every website. Users could then agree once to cookies, rather than do so every time they visit a site.

This would be technically possible, she said, and would "ensure people's privacy preferences are respected" while also make browsing the web less annoying.

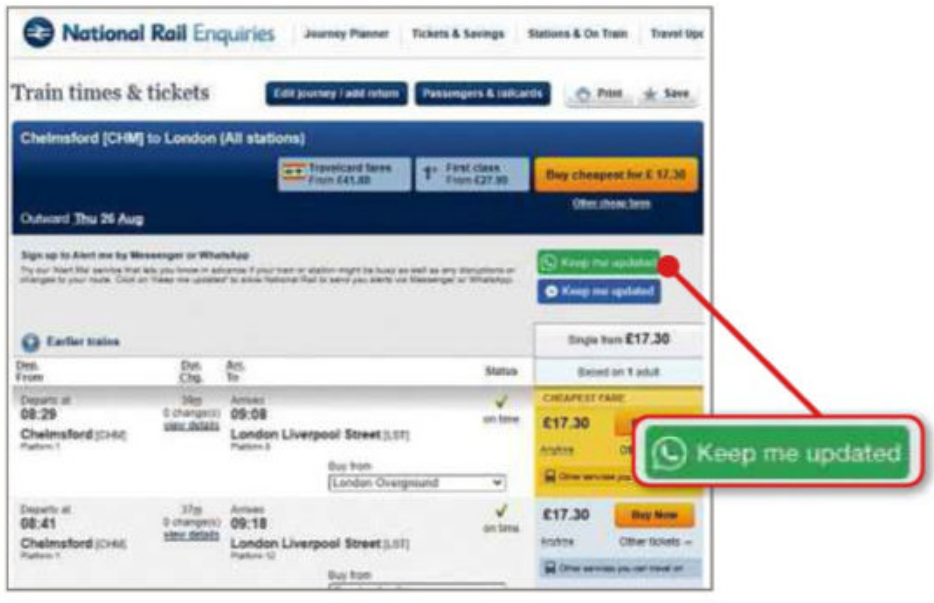
However, privacy campaigners Open Rights Group said the UK should take action by itself rather than "asking the G7 to do their job for them".

Denham will soon be succeeded by John Edwards, currently New Zealand's Privacy Commissioner. News of his appointment in August came as Digital Secretary Oliver Dowden announced plans to "shake up" the UK's data rules, including scrapping cookie pop-ups.

He said this was "one of the big prizes of leaving the EU", though some pop-ups would remain on "high-risk" sites.

How annoying do you find cookie pop-ups? Let us know: letters@computeractive.co.uk

Get personalised train updates through WhatsApp



You can now get personalised train updates sent to your WhatsApp account, giving details of departure platforms, delays and alternative travel routes.

To get the 'Alert me' updates, visit National Rail enquiries (www.nationalrail.co.uk) then enter the details of your journey. Next, click the green 'Keep me updated' button on the right (see screenshot). You can also click the blue button below to receive updates on Facebook Messenger, which has been an option since 2018.

On the next page select the time of departure you want to receive updates for, then enter your phone number. National Rail will then send you a message asking you to confirm whether you want to receive updates. Text OPT OUT to WhatsApp to stop receiving updates.

The service is free to use, and you don't need to actually book the tickets through National Rail's site to get the updates. However, it seems to work only on major browsers like Chrome and Edge, not Brave. National Rail's existing text (SMS) service will continue.

• **Will WhatsApp stop working on your phone? See page 44.**

Russian hackers hit news sites with anti-Western comments

Kremlin-backed gangs have been leaving comments on Western news websites to promote views favourable to Russia, researchers have claimed.

Analysis by Cardiff University Crime and Security Research Institute found hackers targeted 32 popular sites across 16 countries, including Mail Online, the Express and the Times in the UK.

Researchers identified 242 stories where "provocative pro-Russian or anti-Western statements" were posted. Russian news websites reported on the comments as the basis for their own stories.

The "sophisticated and co-ordinated" attacks were spotted earlier this year, but researchers believe they've been going since 2018. They saw a sharp increase in the number of pro-Russian comments amid the chaotic military withdrawal from Afghanistan.

Director of the Crime and Security Research Institute Professor Martin Innes said: "By hijacking the comments sections of Western media brands, it has been able to present its propaganda as indicative of mainstream opinion".

He added: "The Western media outlets we investigated are especially vulnerable to this kind of manipulation, with no security measures in place to prevent, deter or detect this kind of activity".

In one example, anti-Western comments were left on a Mail Online report about the Taliban taking over Afghanistan. A Russian news site referred to these comments in a news article headlined: "The British have compared the rise of the Taliban to power with the end of Western civilisation".

The research was funded by the UK Foreign, Commonwealth and Development Office.

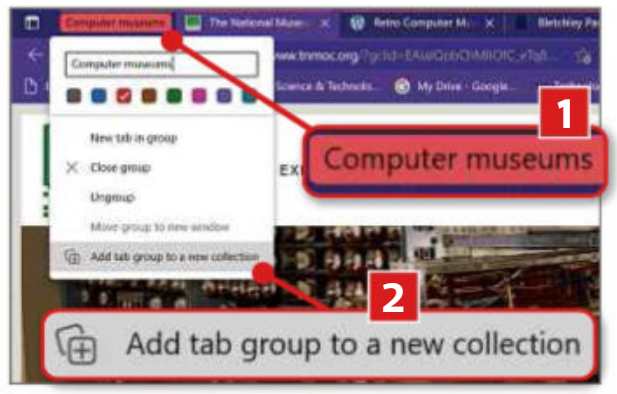
SPEAK ENGLISH? THEN SCAM FOR US!

Russian criminals are advertising for native English speakers to write email scams that sound more believable. Security firm Intel 471 say they've seen adverts on cybercriminal forums asking for scammers to target a batch of stolen Microsoft 365 email addresses. The gangs want to recruit scammers who speak English as their first language because they're less likely to make the kind of grammatical errors that plague many phishing emails.

Group your Edge tabs for easier browsing

Microsoft has officially launched the 'tab groups' feature in Edge, after testing it since the end of last year. It lets you place browser tabs into groups, making it easier to browse the internet.

To use it, first make sure you're running Edge 93, which was released in early September. Click the top-right menu (three horizontal dots), then scroll down and hover over 'Help and feedback'. Click 'About Microsoft Edge' and check your version number under the 'About' heading. If you're not already running Edge 93, you should be automatically updated to it.



Next, open Edge and visit a group of related websites in different tabs. Now right-click one of the tabs, then select 'Add tab to new group', name the group, and optionally choose a colour to represent the tabs.

Once that's done, right-click another tab, then select 'Add tab to group', followed by the group you've just created. That tab will now be placed in the group, with the same colour if you set one. You can also remove tabs by right-clicking.

To save a group of tabs to open in another browsing session, right-click the group's name (1 in our screenshot), then select 'Add tab group to a new collection' 2. The next time you open Edge, click the menu icon, then Collections, and you'll see your grouped tabs saved.

IN BRIEF

KINGSTON RELEASES 1Gbps USB STICK

Kingston has released a USB stick with "record-breaking speeds" of 1Gbps (1,000Mbps) reading files, and 900Mbps writing. The DataTraveler Max (pictured) is a USB 3.2 Gen 2 stick, with a USB-C connector and capacities of 256GB, 512GB and 1TB. However, Amazon doesn't appear to be stocking it yet (check www.snipca.com/39375), and prices are unconfirmed.

OPEN WORD & EXCEL IN GOOGLE DRIVE OFFLINE

You can now save any file format in Google Drive to open offline, including Microsoft Word and Excel, and PDFs. Google first added this option to business users in 2019, but is now making it available for everyone. You just need to mark the file as 'Available offline'. Read Google's blog for more instructions: www.snipca.com/39373.

TOP UP EVERY MONTH TO USE 1PMOBILE

Customers of low-cost phone network 1pMobile (www.1pmobile.com) will soon have to pay a minimum of £2.50 a month. Currently, you have to top up by at least £10 every 120 days. The network says the move will prevent customers growing a credit balance they may never use. The changes, to be implemented on 1 October, don't affect its core pricing of 1p per minute, text or megabyte of data used.

Question of the Fortnight

Is Facebook harming police enquiries into child abuse?

Charities accuse its encryption of 'blindfolding' investigators

Balancing the rights of users with the powers police need to catch criminals has been one of the most contentious debates in the internet age. It's about to spark fresh anger on both sides of the question as a coalition of charities prepare to release adverts accusing Facebook of "blindfolding" the police in their efforts to catch paedophiles.

Drawn up by advertising agency M&C Saatchi, the ads will warn that Facebook's plans to introduce end-to-end encryption (E2EE) on voice and video calls made through its Messenger app will make it impossible for investigators to hack phones they suspect are being used by gangs spreading images of child abuse.

Facebook insists this level of encryption is needed to preserve the privacy of its users. It already provides E2EE on WhatsApp, as do Apple on iMessage and Zoom for video chats. It's stronger than

> "It weakens the chance of convicting paedophiles because exposing messages they send to victims is vital"

In E2EE, messages are encrypted on the sender's system or device, and can be decrypted only by the intended recipient. As the message travels to its destination, it can't be read or changed by anyone – whether that's the company providing the service, or law-enforcement authorities investigating a possible crime. This weakens the chance of convicting paedophiles because exposing the 'grooming' messages they send to victims are vital in proving guilt.

default encryption, which does allow messages to be intercepted as they're being delivered.

But pressure against E2EE is growing from a number of sources. Home Secretary Priti Patel looks set to support the adverts, and has launched the Safety Tech Challenge Fund (www.safetytechnetwork.org.uk) which will pay tech experts to develop new systems that allow the detection of child sexual abuse without breaking end-to-end encryption.

In February, Rob Jones, director of threat leadership at NCA, called E2EE a "disaster for child safety and law enforcement", and accused tech companies of placing "the pursuit of profit above the safety of the people on their platform".

Met Police chief Cressida Dick, writing in the *Telegraph* to mark the 20th anniversary of the 9/11 attacks, said that advances in communication technologies meant terrorists could now "recruit anyone, anywhere and at any time" through social media and the internet.

However, cyber-security experts say that paedophiles and terrorists can be identified by tracking their behaviour, without having to access files on their phones. Alec Muffett, head of the team that built Facebook Messenger's E2EE, told the BBC: "If you've got a Facebook account of a middle-aged male who is randomly messaging a dozen teenagers out of the blue, then you have a potentially suspicious activity. It might be innocent, but it is certainly an issue worth delving into."

Other specialists say that you can't detect images of child abuse without breaking E2EE, and that Patel's fund is seeking to achieve the impossible. One expert, speaking anonymously to the BBC, said: "You can change the law of the land, but you can't change the law of science – there's no way of allowing the mass scanning of devices without undermining the protections of end-to-end encryption".

It's building to one of the biggest clashes between the Government and tech giants in modern times. What the adverts show is that those against E2EE are keen to get public opinion on their side. Should this expand the debate from computing magazines to tabloids and radio phone-ins, tech firms will need to work a lot harder to justify their position.

THE FACTS

- Charities have launched a campaign accusing Facebook of "blindfolding" the police's attempt to tackle child sexual abuse
- They've also criticised the company's decision to introduce end-to-end encryption (E2EE) on all its messaging services
- Facebook says that they can detect suspicious individuals through their behaviour without hacking into their phone

Protect your tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

‘Covid Pass’ application scam

What’s the threat?

Scammers are trying to trick you into paying £4.99 for a ‘Covid Pass’ that shows your Covid-19 status.

They’re sending text messages that contain links to what appears to be an NHS website. The URL begins with HTTPS, suggesting it’s secure, but tapping it takes you to a scam site where you’re prompted to “enter the exact name you used when you registered with your GP surgery”.

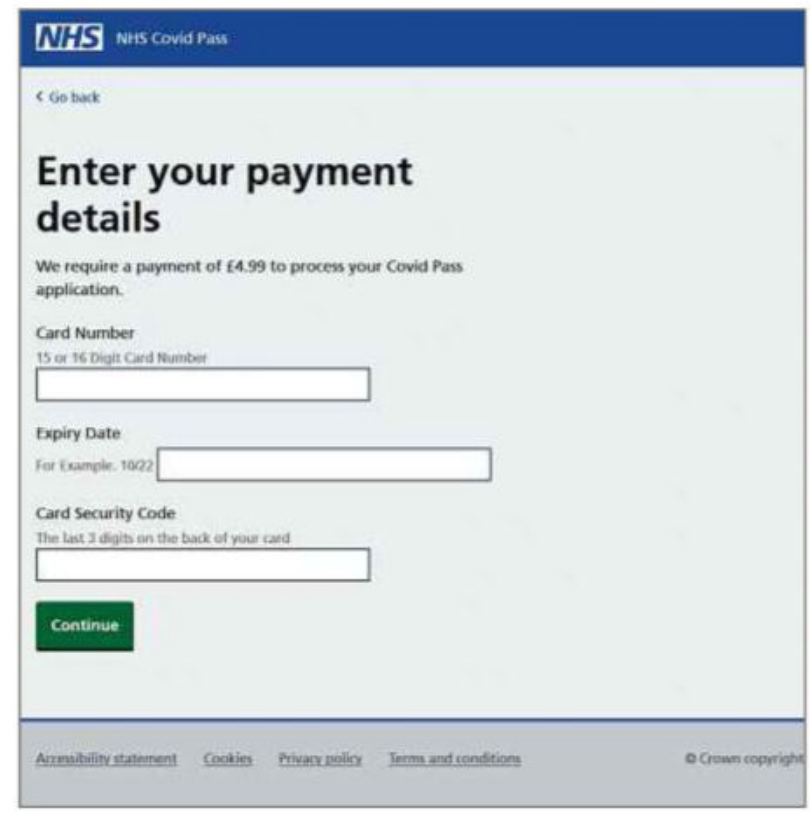
On following pages you’re asked for your date of birth, postcode, and an email address where they can deliver “your Covid pass credentials to be registered on our NHS app”.

Once you’ve done that, you arrive on a page that asks you for “a payment of £4.99 to process your Covid Pass application”. Below that request there are boxes for your card number, expiry date and card security code (CSC) – see screenshot.

How can you stay safe?

Never respond to a text or email that claims to be from the NHS and asks for money. The Covid Pass *does* exist and you can get it for free, though it’s devolved across the four nations: England (www.snipca.com/38730); Northern Ireland (www.snipca.com/39319); Scotland (www.snipca.com/38731) and Wales (www.snipca.com/38733).

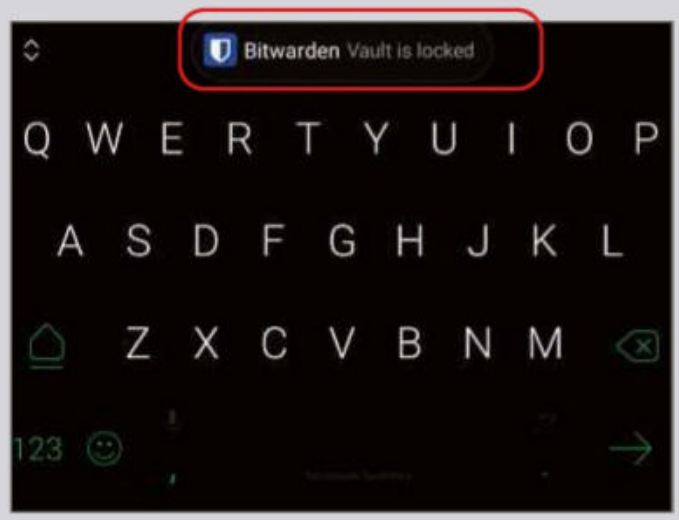
Remember that scammers will continue to exploit every twist in the Covid-19 story. We’ve previously reported on scams that urged you to sign up for a ‘Coronavirus Digital Passport’ (see Issue 610), and we expect these to intensify if the Government pushes ahead with plans to introduce so-called ‘vaccine passports’ for nightclubs and other crowded indoor areas. Make a mental note to ignore any that are sent to you.



New tools | SwiftKey Beta

www.snipca.com/39344

If boots were made for walking, then fingers were made for swiping. Gliding them across a phone’s keyboard when sending a message is much easier than jabbing individual letters. It’s why we love Microsoft’s SwiftKey app, which replaces your default keyboard and adds swiping, autocorrect and other advanced tools.



The beta version for Android was recently updated to show password options at the top of the keyboard (the screenshot shows Bitwarden, but it works with other password managers too, including LastPass). These appear as you type, so you don’t need to wait.

Like all betas, the app may contain the odd flaw, but it’s a great way to get an early look at features heading towards the main version (available for Android and iOS at www.snipca.com/39346). Password suggestions work only on “supported devices”, which is frustratingly vague, but appears to mean Android 11 and the imminent Android 12.

ScamWatch

Readers warn readers

Don’t fall for £100 ‘Asda gift card’ scam

I don’t normally shop at Asda, but was briefly tempted by an email that promised to give me a £100 gift card just for taking a “marketing survey”. That initial moment of excitement was quickly replaced by the realisation that it must be a scam. I searched for confirmation and found that Action Fraud had warned about it (www.snipca.com/39317). The email looked reasonably professional, with no horrendous spelling errors, though it used some capital letters where it shouldn’t have (‘Your Opinion is important’). In my experience, there’s always *something* that gives it away.

Alan Frayne

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

Letters

Tell us what's on your mind

Let's talk in pubs, not hand over data

I have no intention of giving pub apps my data (News, Issue 614, page 9). In fact, I have no intention of using pub apps at all, nor those in restaurants. Now that restrictions have been lifted, why can't we just go back to talking to each other again? Remember that? It worked well for millenia, so we shouldn't scrap it just because of one pandemic.

I'm very much a social creature, so lockdown was hard for me. One of the reasons I missed going to pubs and restaurants was that I enjoyed chatting to the staff and regulars. I'd miss out on that now if I started ordering food and drink using my phone. My heart sinks to think this might be the way things are now.

Jean Ridley

Brave needs a search bar

I was interested in using the Brave browser (https://brave.com) as recommended recently, so I downloaded it. It seems very good apart from one annoying problem: there's no way to add a search bar. This means that once you've searched for and opened a website, adding a new tab doesn't show the previous search. There are many comments on online forums about this missing feature, which makes the browser virtually unusable for many people. I'm familiar with Firefox, which has a search box next to the address bar.

Stephen Baker

CA SAYS **Stephen's right that Brave still lacks some of the features found in more popular browsers. But what's encouraging about the rise of Brave and Vivaldi (see page 74) is that they're offering real choice to Chrome's dominance, while Edge, Firefox and Opera continue to improve. With such thriving innovation, we've decided to introduce a section on browsers to highlight new tools you can use. Look out for it soon.**

Early adopters of tech help 'Voluntary Luddites'

I see things a little differently to Rob Sedgwick ('Why are my fellow readers scared of change?', Letters, Issue 613). My computer is a tool, not a hobby or a passion. I suspect I'm not alone in this. I choose the programs that suit me and tend to cycle through a fairly small group over the years. For example, I rotated between the browsers Opera and Vivaldi for years, but have recently been giving Brave a thorough road test. I like it. And while I use Windows 10, I'll probably upgrade to Windows 11 once it's been thoroughly sorted.

A lot of changes are just mildly irritating, and I often turn off unwanted new features. Others are as jarring as finding your familiar old car suddenly has a non-standard gear-shift pattern, or the steering wheel has moved to the wrong side. We really shouldn't have to play 'where's the settings?' in order to personalise our computers.

I wear my 70 years lightly because I don't chase after every shiny new object. But I'm glad there are early adopters like Rob to thrash out the inconsistencies in new systems and software, thus making them more accessible to the Voluntary Luddites like me. Each to his own, and long may it remain so.

John Craggs

I fear that Mr Sedgwick shows little comprehension of the dangers posed by some aspects of modern society. I too started with a Sinclair ZX81. In those days, one might be as curious and exploratory as one desired. At best, if there was a mishap, one might fail in an enterprise. At worst, one might lose a great deal of valuable work.

These days, if there is a mishap, one might well lose one's entire life savings or become embroiled in a network of hate, including death threats. I believe that Mr Sedgwick should acquire some sense of proportion in these matters.

Martyn Hodgson

1971 RAM would now cost £76bn!

Issue 614's Cover Feature ('Ditch Your Old USB Sticks') informed us that you can now buy a 64GB stick for under £10 (at www.snipca.com/39113). This reminded me that back in 1971, the first memory chips I ever used were 128 bits (yes, that's *bits*, not even bytes) of dynamic RAM (DRAM), and they cost £19 each, which works out at a little over 14.8p per bit or £1.19 per byte. A little maths soon shows that a 64GB stick at 1971 prices would have cost in the region of £76 billion. I think it's a bargain at a tenner!

David Hobbs

My old USB stick survived the washing machine

In response to Adam Pride's letter about his 20-year-old USB stick, here's my first stick (pictured

What's the Issue...?

With Windows 11 looming, can you remind me when you listed all the computers that can run it?

Harry Colne

CA SAYS **Yes, in Issue 611, page 6. We'll have more up-to-date information on Windows 11 in our next issue.**

I've switched from Chrome to Brave as you recommend, and love it. But I can't work out how to wipe my history. Didn't you explain this recently?

Paul Sexton

CA SAYS **We did, in Issue 612, page 63.**

We'll start covering Brave much more soon.

Before his recent departure, didn't Will Stapley write a piece explaining how he used a tool to manage his Kindle clippings, bypassing Amazon's restrictions in the process?

I remember thinking I'd like to do that soon. But now I can't find the article!

Brain Casey

CA SAYS **Yes he did. You'll find it in Issue 608, page 20.**

right), which I bought in the mid-Nineties and is still working. However, it's rarely used because it's only 128MB. It's been in a washing machine twice (left in a shirt pocket!) but survived without any damage at all. They don't make 'em like they used to!

Kevin Ashton

May I offer my 128MB Integral USB stick (pictured right), which still works. Maybe we could start another challenge – who's got the lowest-capacity stick?

Tym Burrow

CA SAYS We thought that sounded like a great idea, but just as we were heading to press we received the following email.

I have one of the earliest USB sticks, a Disgo from about 1998 (pictured right). Its capacity is a whopping 8MBs, enough to hold over five floppy disks' worth of files, and it still works.

John Walker

CA SAYS If anyone can go lower than 8MB in this USB limbo dance, please let us know.

Add the £ sign to your passwords

Further to your news story on using three random words being safer than "complex" passwords, I work in IT security and have been dealing with this for many years. I agree that three random words is excellent because you don't have to write them down. However, between, before and after those random words you should add the £ sign (if you can). The reason is simple: the UK is the only country that uses this sign, and password-cracking software finds it hard to decipher.

Mike Fitzgerald

One system I use for passwords are car registrations that I can remember from the past. For example ABC123 and W456XYZ, using upper and lower case letters, become ABC123w456xyz (these are obviously made-up registrations). They may look complex, but I find them easy to remember.

John Davies

I use Bitwarden (https://bitwarden.com) and some passwords get the long random treatment, but I still keep a list of words (including numbers and special characters) for others. For shorter passwords I use the first letters from words in a sentence. So, 'My dog has no nose78$' becomes Mdhnn78$. It's easy to type and, I hope, hard to guess (I don't use this particular example, of course!).

Martin McMerkin

I take a favourite book, select a page at random, then use the first three words (or any). Make a note of the page. Only you know the book and the page number.

Sam Porter

CA SAYS We always love hearing your techniques for creating memorable passwords, so please send us more. For inspiration turn to page 62.

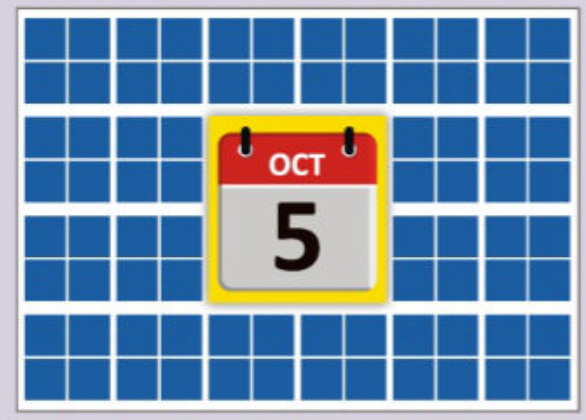
STAR LETTER

There must be millions hesitant about Windows 11

It looks like *Computeractive* may have jumped the gun. In Issue 614, page 6, you say you've already put 20 October in your diary as the release date of Windows 11. Presumably you went to press before Microsoft announced the actual date as 5 October?

What interested me was you saying you had a "hunch" that Windows 11's full availability as a free upgrade would be delayed beyond next spring as Microsoft coped with fixing problems identified by early users. I had the same hunch, and it's become stronger since Microsoft announced 5 October. Surely this is too early for an operating system that was announced as recently as June? I've tried a few versions of the preview so far, and while it looks nice I can't see any outstanding tools that people are clamouring for.

I'm beginning to wonder whether Microsoft made a huge mistake when deciding to release twice-yearly updates for Windows 10. It got users like me so hooked on incremental improvements that maybe we no longer see the need for a big one-off leap on to a new operating system. The upshot is that while I was desperate to move from Windows 7 to 10, and did so as soon as I could, I'm more hesitant about Windows 11. There must be millions more like me.



David Giggs

CA SAYS David's right that Microsoft caught us on the hop by announcing 5 October as Windows 11's release date. It seems early to us also, but Microsoft is planning a staggered release, hoping this will avoid problems. Read more on page 6, and in our next issue – out Wednesday 6 October.

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

Consumeractive

We stand up for your legal rights

Can I get refund for extended Dell warranty?

LEAD CASE

Q In May I bought a refurbished Inspiron 5406 laptop (pictured) for £610 from the Dell Outlet (www.snipca.com/39328), along with an extended warranty to cover it. It had to be repaired just over a month later, and I've now found another fault with the audio recording function. Dell says it's a software problem and therefore not covered by the warranty. I know I can get a full refund under the Consumer Rights Act (CRA), but would rather Dell offered me a more powerful laptop. If that's not an option, can I get my money back for the extended warranty I bought?

Frank Davidson

A Frank's been seriously inconvenienced by these problems, but he's not entitled to a more powerful laptop as compensation. Customers can claim a full refund for an unclaimed warranty, but only within 45 days of buying it. Frank has missed this deadline, but he can still seek a partial refund.

Dell is allowed to set whatever terms it likes in its warranty, such as excluding software. But the CRA always trumps warranties, and it covers problems caused by software manufacturers install on computers before selling them. Frank now needs to ask Dell whether it's referring to its own software. If so, this means the fault has existed since purchase (in other words, it's inherent) and he's now entitled to a full refund because Dell has already had its one chance to fix the laptop. His case is weaker if Dell claims the problem is caused by software *he* has installed. However, Dell would need to prove this in order to refuse the refund. He should make this point to Dell and wait for its response.

CASE ONGOING

Should network block sex texts?

Q Someone is sending me inappropriate text messages, which are mildly sexual. I've told them to stop, but they've continued to send them. Shouldn't my network have blocked these? Can I claim money from it in compensation?

Paul Lucas

A No, you can't sue networks for failing to block unwelcome texts. This case falls under criminal law, not consumer law, so it's a matter for the police. But Paul should still tell his network about the harassment and give them the number of the person sending the messages.

The sender could be guilty of an offence under the Communications Act 2003. Sending a single message isn't considered harassment, but sending several over a period of time is taken far more seriously, and could lead to them being jailed.

We looked up the sender's number and found that it's on the Orange network. Data-protection law prohibits us from finding out their name and location, but the police can. Paul should report it to his local police station. He should also keep the messages for evidence, however upsetting they are.

CASE CLOSED

CASE UPDATE

Reader gets refund after threatening legal action

Occasionally we have to reopen a case when a promised refund fails to appear. Once a retailer agrees to a refund, it has 14 days to send it. But Pierre Reynaud, whose case we covered in Issue 608, ended up waiting two months for Furniture@Work (www.furniture-work.co.uk) to return the money he spent on a desk that arrived damaged. This was on top of the two months he had already wasted waiting for the retailer to sort things out.

We're surprised Pierre had to wait so long because when we contacted the company, we spoke to a helpful member of staff who said they would get the refund processed. We chased again when Pierre told us the refund hadn't arrived, but the retailer refused to speak to us. We then advised Pierre to tell the company he was starting legal action. This worked – partially. The company collected his desk, but the refund still didn't arrive.

It wasn't until mid-August that he got his money back. Even then, it took the threat of legal action from Pierre to force the company to respond. He's had to fight tooth and nail to get a refund that should have been his within days.

Contact us so we can investigate your case

Email: consumeractive@computeractive.co.uk
Please include your name, phone number and address.

Does consumer protection last just six months?

Q I bought some garden furniture earlier this year, but the umbrella broke after seven months. The company, Laura James (www.laura-james.co.uk), is refusing to replace it because I've owned the product for more than six months. I thought I had 12 months of protection. Who's correct?

Donald MacLeod

A It depends how Donald is seeking redress. If he's using a six-month warranty, he's now past the deadline, though most warranties are for 12 months. They also tend to be from the manufacturer, not the retailer.

However, if the umbrella has broken, Donald might be able to claim that it was inherently faulty under the Consumer Rights Act (CRA) - and here the six-month deadline is relevant. Within six months of purchase, it's up to the retailer to prove that an item isn't inherently faulty. After six months, the onus moves to the customer. This may be what Laura James is referring to.

As with all online purchases, Donald could've rejected the purchase within 14 days for a refund, whether or not it was faulty. This period starts from the day you receive your goods. If you buy multiple goods in a single order, the 14 days run from when you receive the final item.

Since first emailing us, Donald has bought a replacement umbrella. He can now seek damages from Laura James for the cost of this umbrella, emphasising that he had to buy it because the company hadn't offered to repair or replace the original.

CASE ONGOING

Have I been scammed by Chinese site?

Q I bought two Kampa camping chairs for £33.86 from www.jahanacsa.com, but was charged £37.13, which included a fee to change sterling to the Chinese yuan. I couldn't cancel the order and received a fake Cartier ring instead of the chairs. I was told to keep this and accept a refund of 20 per cent. Have I been scammed?

Richard Dolphin

A Yes, we fear Richard has been scammed, though he did get his money back by applying for a chargeback from his card issuer. Credit-card companies don't have to honour these requests, but they usually respond in cases of fraud. For payments over £100, Section 75 of the Consumer Credit Act protects credit-card users.

We're happy to warn readers not to buy from www.jahanacsa.com, but because it's based in China it's beyond the reach of the UK authorities. If it does get shut down, you can expect its owners simply to open another website under a different name to target British shoppers.

Anyone scammed by a non-British site can report it to the UK International Consumer Centre (www.ukecc.net). It can give advice on what to do next, and work with EU organisations to investigate dodgy sites.

CASE CLOSED

CREDIT WHERE IT'S DUE

Ring Automotive replaced unregistered car charger

I've had one of Ring Automotive's Smart Battery Chargers/Analysers (model RSC612, pictured) for four years, and it's been extremely useful. I recently tried to recharge the leisure batteries on my campervan, but it didn't work. I contacted Ring Automotive and explained how long I'd had the unit, and that I couldn't find a receipt proving purchase from Maplin (before my local store closed).

The company asked me if I could find a bank statement showing the purchase. Apparently, registered models have a five-year warranty. I found it, and sent a screenshot plus a photo of the faulty unit. I hadn't registered the unit correctly, but they still sent me a new one a few days later. I can't thank them enough for being so pleasant and helpful. I'll gladly buy from them again – and register the item correctly this time.

Tony Lightowler

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

Contact

Ring Automotive

- **Email** ring-technicalsupport@osram.com
- **Phone** 0113 213 7339

Grow Your Family Tree

Lots of records are stored in formats that were once cutting edge, but are now obsolete. **Nick Peers** explains how to...

Download free microfilm records

Before computers, the most efficient way to archive old documents and newspapers was on microfilm. Many of these records have since been digitised, and they're full of references to ancestors and other useful background information. Some have been made free to download, as we explain here.

Search the National Archives and FamilySearch

There are two main sources of free microfilm online: the National Archives and FamilySearch. We advise trying the former first because its microfilm records are all on one page, while FamilySearch requires more effort. However, most of the records are related to the military, so they may be too narrow for your needs.

Each record set has a link beside it that takes you to a separate page, where it's divided into sections called 'subseries'. Click 'Details' to read more about the record and see a preview.

If you think a record may be of interest, click 'Add to basket'. Repeat for any other records, then click 'Go to basket', followed by Checkout (they're free, despite this checkout process). Enter your email address, then click 'Submit order'. You will receive an email receipt and a link to download the file as a PDF. You're limited to 100 orders every 30 days,

Click 'Invert' to view microfilms as negatives

but that's more than it sounds, because a multi-page microfilm document counts as a single file.

FamilySearch offers a far wider variety of sources. Once you've logged into your free account, visit www.familysearch.org/search/catalog, enter a place name, then select 'Online' under Availability before clicking Search. You'll see a list of categories with hundreds of titles to browse. Most are general guides or histories, but there are also records such as census statistics and indexes.

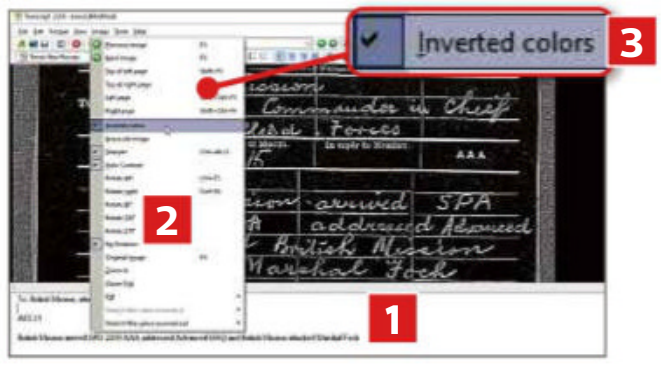
Click one for a description, and if the microfilm has been transcribed (as census returns have, for example), the site directs you to a tool that lets you search it like any other record set. If not, look for a Film/Digital Notes section, where you should see a small camera icon under Format. Click this to browse the microfilm in FamilySearch's online viewer. If you see a small camera icon with a key, the document may not be available to view online.

The viewer is easy to use. You'll see thumbnails of all available pages – click one to view that page. If it's hard to read, try clicking the Tools button then Invert to view it in 'negative' (see screenshot left). If you find a page that's of interest, click Download to save it as a JPEG.

Transcribe and edit what's on the microfilm

You can view the file in your default image or PDF program, but a better option is to transcribe its contents into a document that you can edit. You can do this using the free Transcript 2.6.0 tool – visit www.snipca.com/39309 and click the blue Download link at the top. Also install the 32bit AGPL (*not* commercial) version of Ghostscript (www.snipca.com/39308), which acts a plug-in for Transcript. Note: install the 32bit version even if you have a 64bit computer. It will work fine.

Launch Transcript, then choose File, 'Open imagefile', to select your document (if it's a PDF, Ghostscript will convert each page into a separate JPEG). You'll see a text-editing pane beneath the first page for typing your transcription (1 in screenshot below). Open the Image menu 2 for tools to make text easier to read (including an 'Inverted colors' tool 3). Finally, after typing your transcription, press Ctrl+S to save your text in RTF format, which you can open in Word or any other word-processing program.



Transcribe your file in the free Transcript tool, inverting the colours if it's hard to read

Your **Genealogy** Problems Solved

Is there an Australian archive for old newspapers that's similar to the British Newspaper Archive (BNA, www.britishnewspaperarchive.co.uk)?
Hywel Llewelyn

Yes, and it's completely free. Head to Trove (www.snipca.com/39299), where you can browse a rich archive from a wide range of local and national titles stretching back to 1803. The search tool is as good as the BNA's. Refine your basic keyword search by date, place, title or category.

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

Next issue: Search 'non-conformist' religious records

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*Sales subject to our terms of sale available online - www.palicomp.co.uk - Configuration issues will be advised by phone - any alternatives will also be advised by phone before proceeding with the order. Systems Custom built then are tested 100% prior to dispatch - dispatched via courier for next working day delivery - other delivery options available online. 0% Finance upto 12 months only - terms online - early settlement fee just £29.00 - apply online or phone. Prices inclusive of VAT and free UK mainland shipping. Q-jump cut-off time 15.00pm.

Best Free Software

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

VIDEO EDITOR

OpenShot Video Editor 2.6.1

www.openshot.org

What you need: Windows 7, 8.1 or 10

Many free video-editing programs are either too basic or too complex, but OpenShot strikes the perfect balance between advanced features and ease of use, and this new version is its best yet. The open-source software has added lots of useful new tools while keeping its interface simple.

The most exciting change in version 2.6.0 (which is the latest major release – the '2.6.1' in the heading above relates to a minor update that fixed some bugs) is the introduction of 'computer-vision' AI effects for enhancing your videos. The best of these is Stabilizer, which offers an easy way to detect camera shake, and eliminate it with a single click, making the clips you capture look steadier and more professional.

There's also Tracker, which lets you draw a box around any element in a video to track its motion throughout each frame – very useful for recordings of moving vehicles or people. Another new AI effect, Object Detection, automatically identifies objects in a scene and lets you add text labels to them, but it's currently still in beta and requires you to download extra files (from www.snipca.com/39393) to use it.

OpenShot has also added nine new audio effects, which let you reduce the volume of loud sounds in videos while amplifying quiet ones, apply echo to your audio track, and make voices sound robotic, whispered and more.

On a more practical level, OpenShot's Timeline – the most important part of any video editor – now offers a 'zoom slider', which makes it much easier to navigate multiple clips, tracks and transitions. This feature was apparently requested by the developer's daughter, and we think she made a great call.

The Timeline also now offers smoother 'snapping', for aligning tracks as you trim them, while the program's improved Transform mode speeds up the process of resizing, rotating and cropping video content.

1 Add a video to OpenShot by clicking the File menu and choosing 'Import Files'. Drag the clip to a track in the Timeline at the bottom of the window.

2 Click the clip you want to edit and it will appear in the Video Preview pane, where you can play, pause, fast-forward and rewind it.

3 Click the Effects tab and choose an option to apply. We've selected the new Stabilizer effect to remove camera shake from our footage.

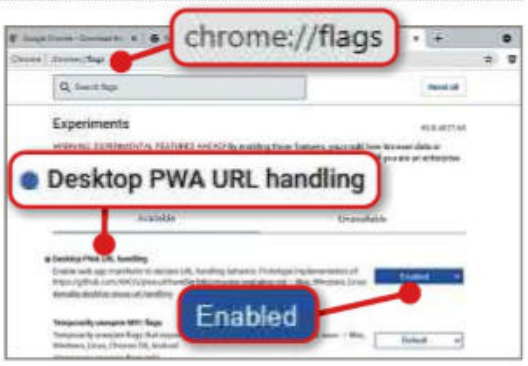
4 Drag and drop the effect on to the clip in the Timeline. When the Initialize Effect box opens, click the Process Effect button to apply the change.

WEB BROWSER

Google Chrome 93

www.snipca.com/39388

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



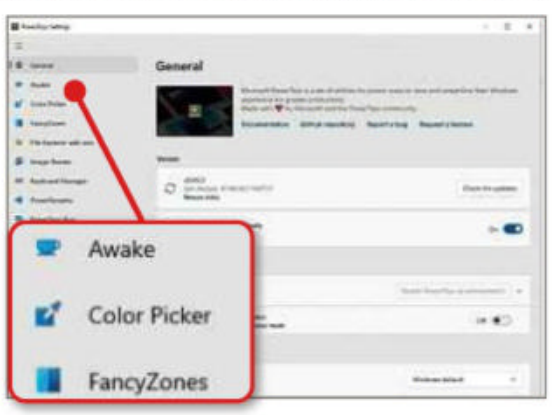
In Issue 611's Cover Feature 'Stop using Chrome and Edge', we criticised Chrome for its lack of innovation, so we're pleased that this latest version shows a few signs of progress. Most notably, there's a new feature that syncs OTP (one-time pin) codes between your PC and phone. This means that when you're sent a verification code by text when you sign into a website using two-factor authentication, it will be filled in automatically in your PC's Chrome browser – provided you're signed into your Google account on both devices. Chrome can also now open certain web links in their progressive web apps (PWAs) – for example, a YouTube video in the YouTube app, instead of in a browser tab. However, this option needs to be turned on in Chrome's Experiments (type chrome:flags in the address bar and enable 'Desktop PWA URL handling' – see screenshot). Because few sites currently provide PWA links, it will be more useful in the future than it is now.

SYSTEM TOOL

Microsoft PowerToys 0.45.0

www.snipca.com/39389

What you need: Windows 10



Microsoft's brilliant suite of system-tweaking tools has been given a Windows 11-style makeover, just in time for the release of the new operating system on 5 October. Thankfully, this doesn't mess with the program's settings just for the sake of it, but gives its interface a fresh and less cluttered appearance, complete with coloured icons next to each entry in the left-hand sidebar (see screenshot). The updates to individual tools are mostly under the bonnet, so you're unlikely to notice much difference, though plenty of minor bugs reported by the PowerToys community have been fixed. You can now also open Microsoft's helpful information page about PowerToys by right-clicking its taskbar icon and choosing Documentation. We look forward to seeing what's coming in the next version.

WHAT SHOULD I DOWNLOAD?

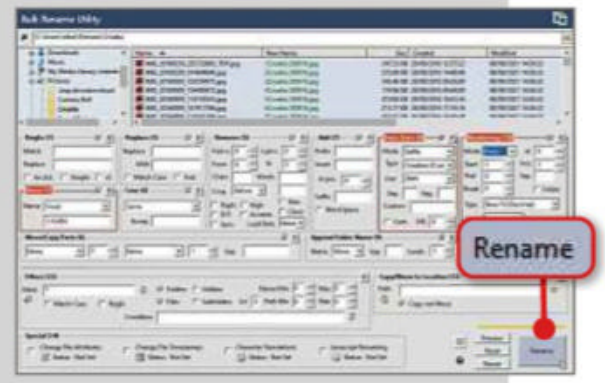
We tell you what software & apps to use

How can I rename loads of photos in one go?

Q I recently downloaded hundreds of photos from Google Photos because I was worried about Google deleting them. The trouble is that they all have names like 'IMG_170618277.jpg'. Can you recommend an easy way to rename my image files without going through them one by one?

Alan Goodwin

A You can rename multiple files in one go using File Explorer in Windows 10. Open the folder containing your photos, click the View tab and choose Details or List. Press Ctrl+A to select all the files, then right-click the first image in the list and choose Rename. Type your chosen name, and keep pressing Enter to apply it to every file. This will be followed by sequential numbers in brackets – for example, 'holiday (1)', 'holiday (2)' and so on.



A more sophisticated solution is to use Bulk Rename Utility (www.bulkrenameutility.co.uk), which is free for personal use. This tool can rename thousands of files in one go, and is particularly useful for images because it's able to extract EXIF data from JPEGs.

Bulk Rename Utility's interface looks confusing at first, but it's actually simple to use. In the folder tree top left, choose the folder containing your photos, then press Ctrl+A to select them all. Click the 'Renaming Options' menu and choose 'Extract Exif data (Photos)' from the 'ID3/ Exif Data/ File Properties' side menu.

Next, click the dropdown menu next to Name in the options below and choose Remove to clear the current file names. Enter the name you want to use instead and it will be applied to all images in the folder. You can now add the date they were taken to the file name. Click the Mode dropdown menu in the Auto-Date section then choose whether to include the date as a prefix or suffix. Do the same in the Number section, if you also want to number your images. Finally, click the Rename button bottom right (see screenshot) to save your photos with their new names.

Do you need our advice on what software to use? Just email us at letters@computeractive.co.uk

HOW I USE...

Rainmeter

Wayne Williams misses Windows 7's widgets, so he uses this program to bring similar tools back to his Windows 10 desktop

Windows 10's Personalisation settings let you replace your wallpaper, choose between light and dark mode, turn transparency effects on or off, and select a new colour scheme. That's not a bad range of options, but it isn't enough for me. Remember the desktop widgets in Windows 7? I loved those, and I miss them in Windows 10. But I've found a way to recreate them using the excellent Rainmeter (www.rainmeter.net), which brings a modern version of widgets (which it calls 'skins') to my desktop.

Here's how Wayne has set the Glasses skin on his desktop

When you first run the program, it displays a simple set of skins called 'illustro' that includes a 'getting started' widget. This contains a clock, a calendar and system and hard-drive information. To customise this skin, right-click any widget, then click 'illustro' and you can turn items on or off. Some skins have more than one design, which you can switch between by selecting Variants in the right-click menu. You can also change a widget's position, transparency and behaviour.

I like to customise Rainmeter by clicking its icon in the notification area to access the Manage Skin menu. This opens a separate window where you can load and unload skins, and refresh them if they freeze or don't update. You can also adjust the transparency of each skin and set a load order so your favourites appear first. Once you've arranged your skins as you want them, save their positions in the Layout tab. I find the 'Game mode' tab particularly useful, because it unloads all skins – freeing up memory – when it detects that you're doing something intensive such as playing a game or editing videos.

Ilustro is a great place to start, but visit www.rainmeter.net/discover for skins made by other Rainmeter fans. However, my favourite are at DeviantArt (www.deviantart.com/rainmeter). You'll need to sign up for a free DeviantArt account before you can download anything.

When I find a creation I like, I click its download button and unzip the contents to my desktop. Double-click the *.rmskin file (if there is one) to open it in the Rainmeter Skin Installer, then click Install. Not all skins include an installer. For those, I right-click an existing skin and go to Rainmeter, Skins, Open Folder. I drag the folder here from my unzipped download, then right-click any widget and select Refresh Skin. To access the new skin, I right-click and choose Rainmeter, Skins. Hover over the skin collection, then an item in it and click the *.ini entry to launch it.

I can turn skins on and off in the Manage Skin window (I like to mix and match skins from different packs). If I need to make more precise changes to an item or change a folder location (to point a photo widget to my photos, for example), I right-click it and go to Edit Skin. This opens a configuration file in Notepad, where I make my changes before saving and closing the file.

My current skin pack is Glasses by VClouds (www.snipca.com/39323 – see screenshot). I have the clock 1 and system information 2 on the left, and my news feed 3 and music player 4 on the right. I've linked the player to iTunes, where I keep my music, although it supports other services such as Winamp. I set the countdown widget 5 to different events, depending on the time of year. At the moment it's set to Christmas, because hopefully this year - unlike 2020 - we'll have a big family celebration. My daughter Elena - the *real* star of my desktop - is already preparing her 'Dear Santa' list.

WHAT I'D LIKE TO SEE IN RAINMETER

Once you know how Rainmeter works, adding and editing skins is simple, but I don't like having to edit the configuration in Notepad. I'd rather be able to make changes in Rainmeter itself. Also, when I install and launch a new skin collection, I'd like Rainmeter to disable the old one. It does this sometimes, but not always.

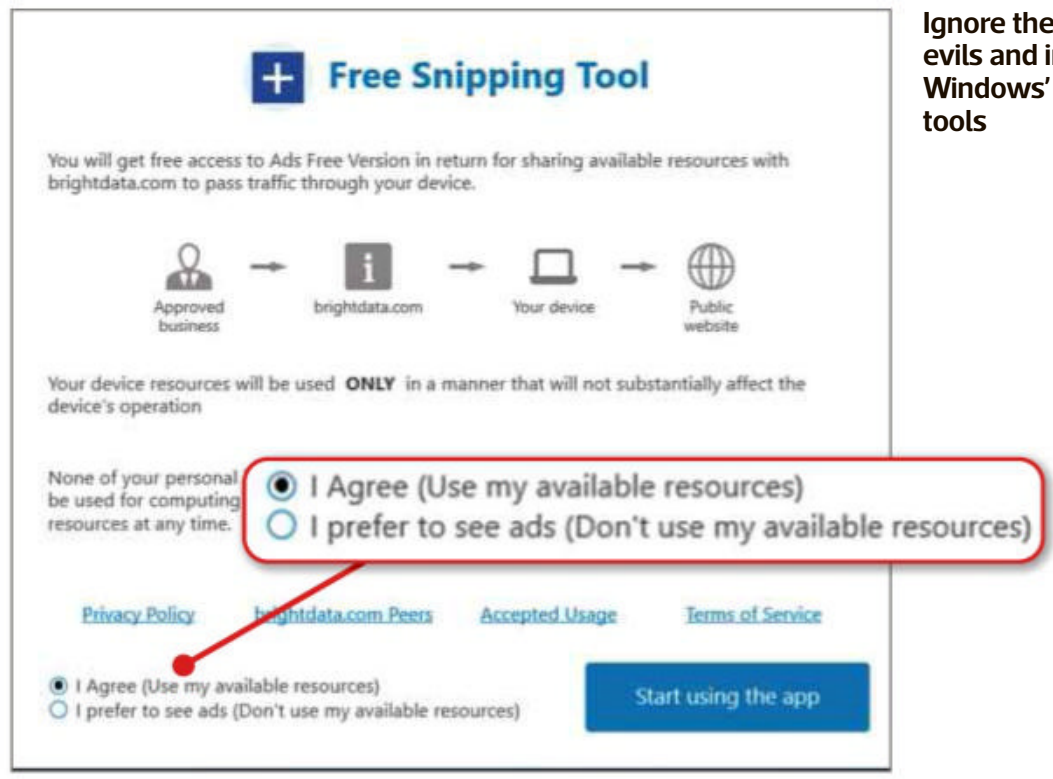
Next issue: How I use... Paragon Backup & Recovery

Named & Shamed

Jonathan Parkyn puts the boot into tech villains, jargon-spouting companies and software stuffed with junk

WARNING: JUNK AHEAD

Junk offender:
Free Snipping Tool



Ignore these two evils and instead use Windows' screenshot tools

Chips or wedges? Cake or ice cream? Bordeaux or Côtes du Rhône? These are just a few examples of impossible decisions I can think of (you can probably tell it's nearly dinner time as I write this). Free Snipping Tool (https://freesnippingtool.com), on the other hand, presents you with an altogether less appetising choice.

It's a screen-capture program and, yes, it's free – at least in the sense that there's no financial transaction involved. As with a lot of my Junk Offenders, however, there's a hidden cost. The difference is you get to choose how to pay.

Run the installer and you'll soon reach a screen that says you can remove adverts from the program if you agree to let it "pass traffic through your device". As the screenshot shows, there are two options: 'I Agree (Use my available resources)' or 'I prefer to see ads (Don't use my available resources)'. What this boils down to is a choice between two evils – either let it batter you with adverts, or allow some obscure data-collecting service to hog your bandwidth and gather private data, including your PC's IP address.

Thankfully, you should never need to make this choice, because you should never find yourself in a situation where you need to install Free Snipping Tool. Windows 10 comes with two perfectly decent snipping tools installed (click Search, type snip, then select either Snipping Tool or Snip & Sketch). And Windows 11 has a revamped Snipping Tool that Microsoft promises will make taking screenshots "super easy" (read more on its blog: www.snipca.com/39176). Now all you need to choose is what to have for dinner.

WHAT ARE THEY TALKING ABOUT?

WHAT THEY SAY

Reed Rayman, Apollo (Yahoo's new owners)
www.snipca.com/39377 "We look forward to... position the new Yahoo for long-term success as a standalone consumer internet and digital media leader. We couldn't be more excited about this next chapter for Yahoo as we look to invest in growth across the business, including accelerating its customer-first offerings and commerce capabilities, expanding its reach and enhancing the daily user experience."

WHAT THEY MEAN

We've just spent $5bn on Yahoo, but can't explain why.

JONATHAN'S VILLAIN OF THE FORTNIGHT

Abdisalaam Dahir

Abdisalaam Dahir's scamming reads like a greatest hits of recent frauds. During the past two years he sent texts about fake Royal Mail deliveries, HMRC Covid-19 grants that didn't exist, and frozen bank accounts that were perfectly fine. It's likely you've received at least one of these.

In August, Inner London Crown Court heard how the 20-year-old computer-science student from Enfield conned victims out of £185,000. Dahir was arrested following an investigation by the Dedicated Card and Payment Crime Unit (DCPCU), and was sentenced to 22 months behind bars after pleading guilty to committing fraud by false representation.

Ofcom advises that you should forward suspicious texts to your mobile network by sending them to 7726. Doing so will help the authorities track down all the other Abdisalaam Dahirs still out there.

LAPTOP | **£649** from HP www.snipca.com/39305

HP Pavilion 14

Windows of opportunity

Affordable laptops rarely surprise us. The best you can usually expect is a serviceable computer that makes a few compromises. True to form, this 14in laptop from HP isn't bad for the price, and you'll probably be happy to live with the corners it cuts.

> "Runs Windows tasks well and has all the ports you need"

Our review laptop was equipped with an Intel Core i5 1135G7 processor, but cheaper i3 and pricier i7 models are also available. This was accompanied by 8GB of RAM and a 256GB SSD. It performed reasonably well in our Windows benchmark tests compared with laptops at a similar price with the same processor. It even kept up with slightly pricier models, but couldn't match the performance of our current favourite laptop, the Lenovo Yoga Slim 7 (see page 30). For basic productivity, though, the Pavilion 14 has plenty of potential.

It uses Intel's built-in Iris Xe graphics, so don't expect to run the latest games at top performance. However, it maintains reasonable frame rates if you drop the resolution to 720p and scale back some of the 3D detail settings. In our video-playback test, the battery lasted a few seconds short of eight hours, which is a good performance for the price.

The Pavilion's 14in Full HD IPS display is average, but not much worse than we've seen on other affordable laptops. It mustered only 55 per cent of the colours in the sRGB colour standard, leaving everything looking a little drab. We were pleased to find that it's also a touchscreen, which is rare at this price, and its anti-reflective matte finish ensures the on-screen image is easy to see even under bright lights.

The laptop measures 17x325x216mm (HxWxD) and weighs 1.4kg. That's reasonably small and light for a 14in budget laptop. The keyboard is spacious and sensibly organised, too, although for some reason HP has placed the power button between the print-screen and delete key. There's also a fingerprint scanner for quick logging in, which is located below the cursor keys where it's nicely out of the way. The keyboard has a bit of flex but nothing to worry about, and the 115x73mm trackpad is faultless.

Connectivity is also good, with two USB 3.0 ports and a USB-C port that also supports DisplayPort video and power (or you can use the DC-in socket and supplied charging cable). There's an HDMI port, a microSD card slot and a 3.5mm audio jack, too. However, it supports only Wi-Fi 5, not Wi-Fi 6.

As a general-purpose laptop, the HP Pavilion 14 takes some beating at this price. It looks and feels as if it should cost more, and has some features we wouldn't expect, such as its touchscreen. The screen's quality could be better, but that's our only serious complaint and, if you're using the laptop for Windows work and web browsing, its dull colours won't be much of a problem.

Having said all that, we'd still recommend the AMD-powered Lenovo Yoga Slim 7 (www.snipca.com/38429), which at the time of writing was available for £629 and is even faster when running Windows.

SPECIFICATIONS

Four-core Intel Core i5-1135G7 processor • 8GB of memory • Intel Iris Xe graphics • 14in 1,920x1,080 pixels IPS touchscreen • 256GB SSD • 720p webcam • Wi-Fi 5 • Bluetooth 5 • 1x USB-C port • 2x USB 3.0 ports • MicroSD card slot • HDMI port • Windows 10 Home • 17x325x216mm (HxWxD) • 1.4kg • One-year warranty www.snipca.com/39305

VERDICT A great-value laptop for running Windows tasks smoothly, though the screen is a little dull

★★★★★

ALTERNATIVE Lenovo Yoga Slim 7 £629 Currently on sale down from £749, this AMD-powered alternative is even faster at running Windows

RIGHT SIDE

LEFT SIDE

ALL-IN-ONE PC | **£999** from www.snipca.com/39322

MSI Modern AM241P

Keeps it together

If space is scarce and you just don't have room for a huge desktop PC, an all-in-one could fit the bill. These devices squeeze an entire PC into the casing of a monitor.

MSI's AM241 is a good example. It comes in two versions: an Intel Core i7-based PC with 16GB of RAM at £999, and a Core i5 model with 8GB of RAM at a lower £799. We tested the i7-equipped version, which is differentiated by a 'P' at the end of its model name.

> A tidy all-in-one PC with good performance and a great screen

The PC looks like a 24in monitor, with narrow 6mm top and side bezels, and a reasonably slender 23mm space below the screen. There's no way to access the internal components, but a hatch tucked away at the back of the unit conceals a 2.5in drive bay for adding extra storage. This may not be necessary, though, because the PC comes with a reasonably generous 512GB Western Digital SSD.

The Core-i7 1165G7 processor in the AM241P is more often found in laptops than desktop PCs, but it performed well in our Windows benchmark tests. Even better, the PC was almost silent during our tests. We could hardly hear it even with the fans running at full speed.

There are plenty of ports, with one USB-C, two USB 3.0 and three USB 2.0, plus HDMI-in and an HDMI-out. The

HDMI-in lets you use its screen with another HDMI device, such as a laptop or TV-streaming stick. There's also a Gigabit Ethernet port and a 3.5mm headphone and mic jack. Wireless support includes Wi-Fi 6 and Bluetooth 5.1.

You can adjust the height of the display by 135mm, and tilt it five degrees forward and 15 degrees back. Image quality is great, too, recreating 94 per cent of sRGB colours and with a peak brightness of 348cd/m² in our tests.

There aren't many all-in-one PCs with 16GB of RAM available for £999 or less. Most 16GB models have better processors, graphics and storage, making them more expensive. The HP Pavilion 24-k0019na gives you 16GB of RAM for £900, but its older Core-i5 processor means it won't be as quick at demanding Windows tasks.

For the best value, it might be worth seeking an alternative with less RAM. Dell, for example, makes an all-in-one with almost the same specification but just 8GB of RAM for £749 (see below right). It may be slightly slower if you keep a lot of windows or browser tabs open, but a saving of £250 should make the compromise worthwhile.

SPECIFICATIONS

Four-core Intel Core-i7 1165G7 processor • 16GB memory • Intel Iris Xe graphics • 512GB SSD • Wi-Fi 6 • 1x HDMI-out port • 1x HDMI-in port • 2x USB-C ports • 2x USB 3.0 ports • 3x USB 2.0 ports • Gigabit Ethernet • Windows 10 Home • 535x541x195mm (HxWxD) • 6.16kg • One-year warranty www.snipca.com/39322

HOW WE TEST

Computeractive is owned by Dennis Publishing, 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.

Dennis Publishing also owns the magazine *PC Pro* and the websites Expert Reviews (www.expertreviews.co.uk) and IT Pro (www.itpro.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 A competent all-in-one desktop PC with plenty of RAM, but cheaper models are available without sacrificing too much performance

★★★★★

ALTERNATIVE

Inspiron 24 5000 All-in-One Desktop £749 Dell's similarly specced 24in all-in-one has half the RAM (8GB) but is £250 cheaper

PROMOTIONAL FEATURE

Start your family history for FREE!

TheGenealogist is offering *Computeractive* readers a free three-month subscription to the First Steps Plus package (worth £29.95)

TheGenealogist is offering *Computeractive* readers a three-month First Steps Plus subscription completely free (the normal price is £29.95).

When researching your family tree, the best way to start is to talk to your relatives to get as much information from them as possible. You could ask if they mind you recording their answers on a phone, Skype or Zoom call. If you can't record your conversations, it's important to take notes so you can sketch out a basic family tree, combining your own knowledge with the information they have provided. Then you're ready to start filling in the gaps by working your way back through your tree.

A subscription with TheGenealogist includes the tree-building software TreeView (www.thegenealogist.co.uk/researchguide/treeview) for adding people, notes, images and more. It also links automatically to all the records available in your subscription.

Find births, marriages and deaths

First Steps Plus offers the core resources essential to any family historian. Key records include the 1841, 1851, 1861, 1871, 1881, 1891, 1901 and 1911 censuses for England and Wales, and civil registration indexes of births, marriages and deaths (BMD) 1837–2005.

Using the information gleaned from your relatives, you can search for births, marriages and deaths in our indexes and order certificates from the General Register Office (GRO) website (www.gro.gov.uk/gro/content/certificates/login.asp). A birth certificate will give you the person's date and place of birth, their father's name and occupation, and their mother's maiden name.

A marriage certificate will provide the date and place of the marriage, the forenames and surnames of the couple and their ages (before 1855 it will show only 'full' if over 21 or 'minor' if under). It also lists the residence and profession of the father plus the names of the marriage witnesses.

Winston Churchill's birth record shows he was born in 1874 in Woodstock, Oxfordshire

Before you can order a certificate from the GRO, you'll need a few important details, and that's where the indexes from TheGenealogist's First Steps Plus subscription will help. As an example, we consulted the indexes to find the particulars we needed to order a certificate for the birth of Sir Winston Churchill.

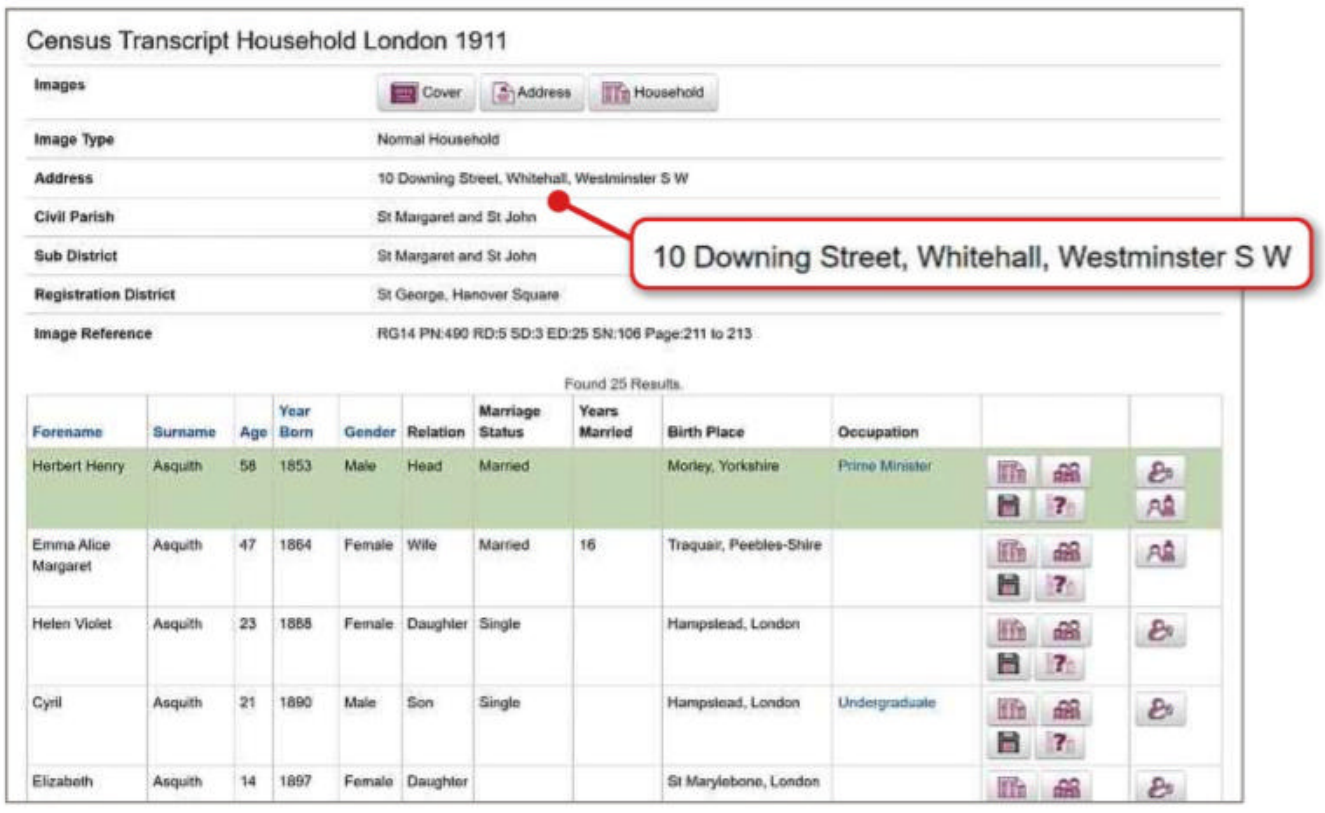
Churchill was born in 1874 at Blenheim Palace in Oxfordshire, his family's ancestral home. As you can see in the record (pictured left), the birth was registered in the district of Woodstock, Oxfordshire in the fourth quarter of 1874 in Volume 3a; Page 695.

Search the census results

You can then use these facts to search the censuses. When you search for known family members, you often find the whole family listed with their ages (using our Family button). You can then use this information to search for further births and marriages, working your way back through the generations. You can also work forwards along new branches of the tree to find any living relatives.

The Master Search lets you explore the English & Welsh Census Records to find out where ancestors were living in 1891, 1901 and 1911, complete with original images from The National Archives. You can search the census on TheGenealogist in a variety of ways – either by looking for a person, a family group or an address.

This choice of options makes it easier to identify ancestors who are otherwise



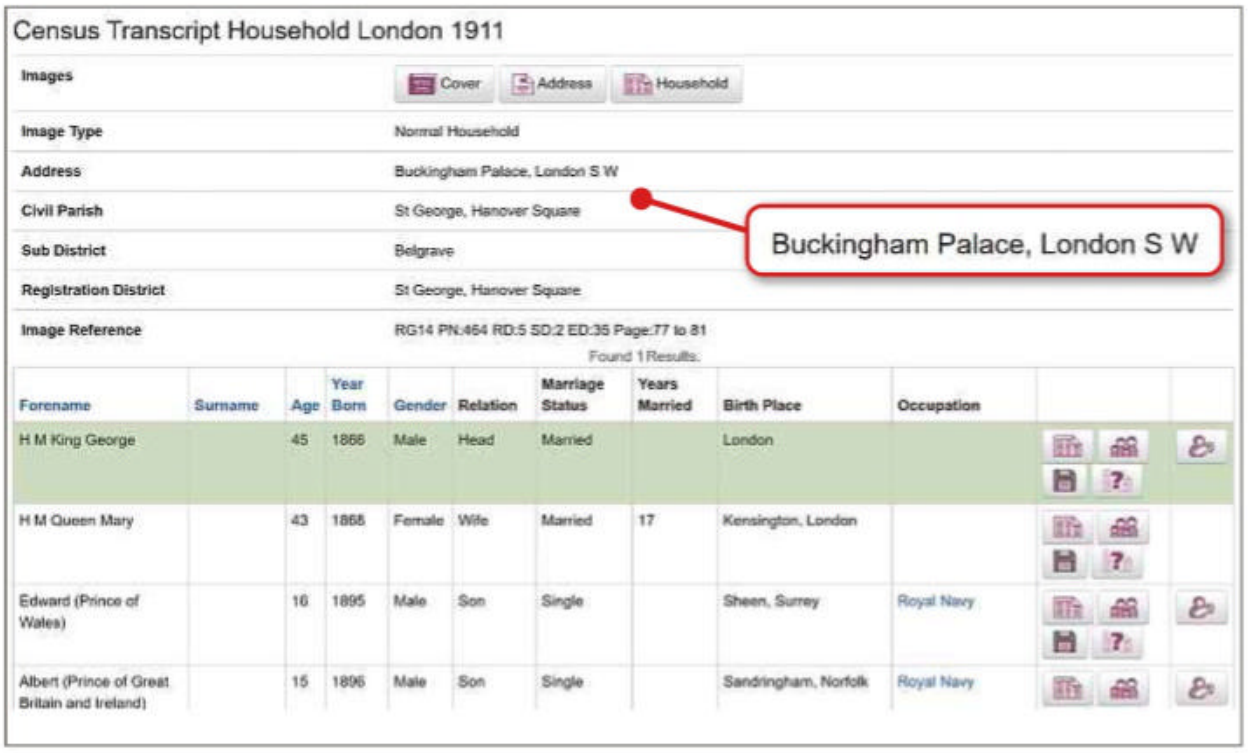
The 1911 census shows that Prime Minister Herbert Asquith was living at 10 Downing Street

hard to find – perhaps because they have a common surname. A keyword box in the person search also lets you include any words you'd expect to see in the record, such as an occupation, place of birth or address.

As an example, we looked up Herbert Asquith, who was Prime Minister in 1911. When selecting Search for a person and entering the names into the search box, we also added Prime Minister as a keyword. TheGenealogist's records returned a household of which Mr Asquith is the head. Not surprisingly, considering his occupation at the time, the address was 10 Downing Street, Whitehall, Westminster (see screenshot below left).

The address search is useful in cases where you know where an ancestor lived but can't find them in other ways. People sometimes change the spelling of their surname or even adopt a different last name to inherit from another branch of their family.

The next example shows how an address search can help in cases where you can't use a surname. Looking for Buckingham Palace in the records, for example, we found a number of households in Buckingham Palace Road, London, but also one for the palace itself, whose head of the household is HM King George (see screenshot above).



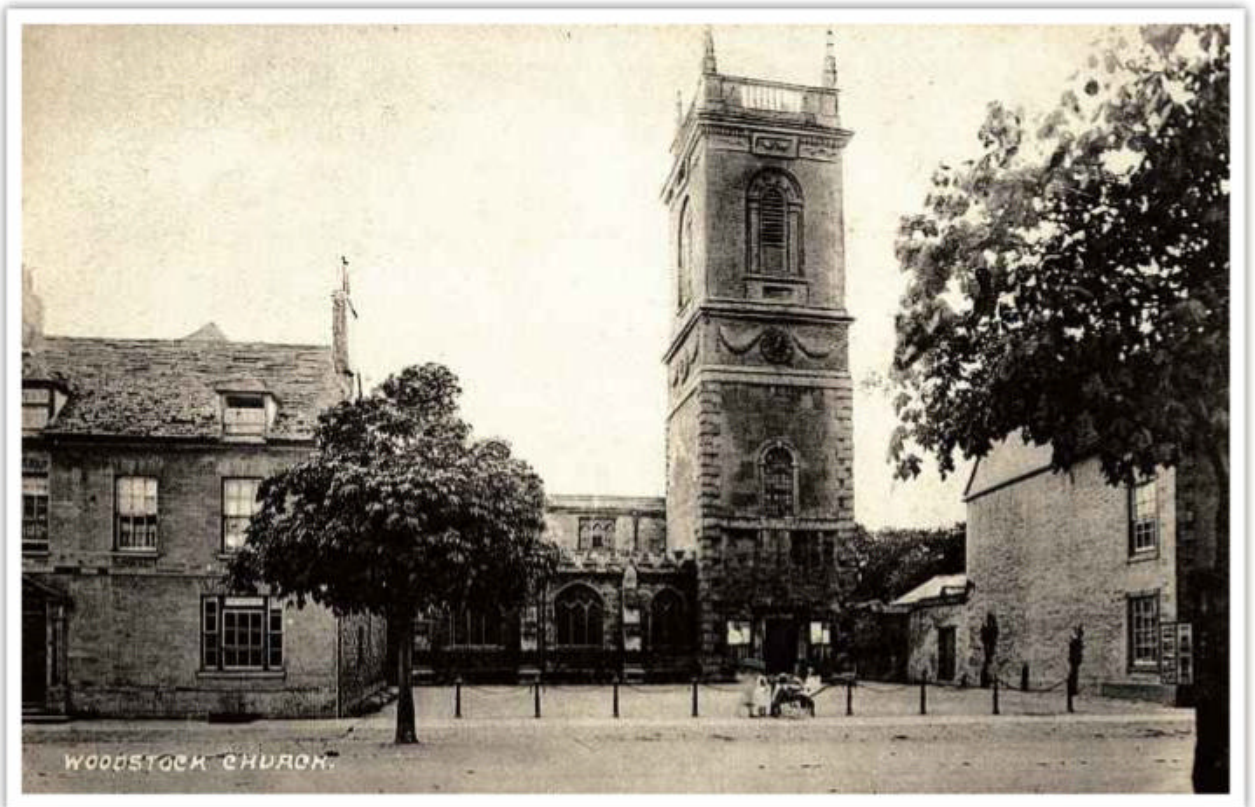
Forename	Surname	Age	Year Born	Gender	Relation	Marriage Status	Years Married	Birth Place	Occupation
H M King George		45	1866	Male	Head	Married		London	
H M Queen Mary		43	1868	Female	Wife	Married	17	Kensington, London	
Edward (Prince of Wales)		16	1895	Male	Son	Single		Sheen, Surrey	Royal Navy
Albert (Prince of Great Britain and Ireland)		15	1896	Male	Son	Single		Sandringham, Norfolk	Royal Navy

Searching the 1911 census for Buckingham Palace and George returns H M King George's family

As the King and a member of the monarchy, he has no surname. This would make it difficult to find him in a search using just his first name, George. By using his address, however, we can see exactly who was present at the palace on census night, which in a Royal residence includes staff and servants.

We can then use the 'View Family' icon on the transcript page to select results just for the family. Refining the results in this way narrows them down to the King, the Queen and Princes Edward, Albert and John, who were all present at the address on census night - 2 April, 1911.

Ancestors' names aren't always spelled the way we would expect in the records. As well as using wildcards and playing around with the phonetic and standard surname filters to look for variant spellings, you can leave the name boxes blank, entering just a keyword and year of birth, and selecting a county. This is a particularly useful way to identify name variations.



Churchill's baptism is recorded in the parish registers of Woodstock Church, Oxfordshire

Search the Image Archive

Your First Steps package also includes access to the Image Archive, so you can find images of towns, places, churches and more that your ancestors may have known. For example, we found the local Woodstock church (pictured left), near Blenheim Palace, in whose Parish Registers the baptism of Winston Churchill is recorded (although it actually took place in the country house itself).

TheGenealogist's First Steps Plus package provides invaluable help when beginning your journey on the road to discovering your ancestors. You can also choose from a range of options that take you much further, taking advantage of our special offers. Whatever you choose to do, we're sure you'll find researching your family a rewarding experience.

TO START YOUR FREE SUBSCRIPTION
Visit www.TheGenealogist.co.uk/CAFSP
and enter your special code >>>>>>>>>>>>
34BSD9MW

TV STREAMER | **£22** from www.snipca.com/39326

Amazon Fire TV Stick Lite

Won't get your fingers burnt

The Fire TV Stick Lite is the cheapest product in Amazon's range, with its full price of £30 a tenner cheaper than the standard stick (though at time of press Amazon was offering the Lite for £21.99). It comes with the same 1080p Full HD video at 60fps, but has a more basic remote control that removes the standard Fire TV Stick's ability to switch your TV on and off, and adjust the volume. However, it still has a voice search button that activates Amazon's Alexa smart assistant, so you can control the Fire TV Stick Lite with voice commands.

> "Same as the standard stick except the remote doesn't turn TV on and off"

Like all Amazon's Fire TV Sticks, it plugs straight into an HDMI socket on the back of your TV and receives power through a mains charger that connects via a microUSB cable. It provides your TV with the full range of streaming services, including the terrestrial catch-up channels (BBC's iPlayer to My5), as well as on-demand options such as Netflix, Disney +, Now and Amazon Prime Video.

Setup is as easy as it gets, assuming you already have an Amazon account. Once you've plugged everything in, select the correct HDMI source on your TV, then follow the on-screen guidance. You'll soon have the device synced with the remote control, connected to your Wi-Fi network (it supports devices up to Wi-Fi 5) and registered to your Amazon account. From there you can start choosing apps and streaming content on any service for which you have a subscription.

The interface is slick and user-friendly, if a little heavy on promoting Amazon's own content. The Home section offers a platter of recommended apps and content, along with a sidebar of your favourites. You're only ever about three clicks away from launching one of the apps you use most frequently, but it's well worth using the built-in Alexa voice control, which is the fastest way to navigate.

If you have a 4K TV it's definitely worth going for Amazon's Fire TV Stick 4K (£45 from www.snipca.com/39374), which can provide the higher resolution streams that your TV is capable of. Those looking for a streamer for a standard Full HD TV need to decide whether they want their streamer's remote to be able to adjust the volume and switch the TV on or off. If you can live without this, you can save a few pounds on a standard Fire TV Stick with this Lite version.

SPECIFICATIONS

Supports TVs with resolutions up to 1080p at 60fps • Wi-Fi 5 • Requires HDMI port • 13x86x30mm • 32g • One-year warranty www.snipca.com/39326

VERDICT Amazon's cheapest TV-streaming device is limited to Full HD resolution and can't control your TV from its remote control

★★★★★

ALTERNATIVE Roku Express £20
This doesn't have voice control in the remote but is better for anyone without an Amazon account

WHAT SHOULD I BUY? We solve your buying dilemmas

Can I replace my combined TV and monitor?

Q Around 2009 I bought a 22in LG Flatron TV/monitor as recommended in your magazine. It proved to be a really useful purchase, but now it has failed. It's great to have a standalone Freeview TV built into the monitor, because it can operate without a computer. A bit of computer-free BBC News is ideal while you're waiting for a major update to complete. I'd like to replace it with another TV/monitor that has the same features. I think a 22in screen would be the minimum size.

Chris Colley

A LG still makes TV and monitor combinations, and since you were happy with the previous model (until it gave up after a reasonable 12 years of service) it seems unnecessary to seek out a different manufacturer.

The current smallest LG model is 24in and has its own Wi-Fi and operating system, so while you can still use it to watch news on Freeview, it can also stream the likes of Netflix and iPlayer without a PC. You can get it from Argos for £159 at www.snipca.com/39330 (pictured). Argos also sells the previous model, now discontinued, for just £139 at www.snipca.com/39329, though we'd recommend buying the newer TV.

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

SMARTPHONE | **£1,600** from Amazon www.snipca.com/39334

Samsung Galaxy Z Fold 3 5G

Welcome to the fold

Samsung has been pushing the foldable Android smartphone concept for a few models now, and the latest is the Z Fold 3 5G. It's eye-wateringly expensive – one of the priciest phones you can currently buy – so is it worth it?

Unlike Samsung's previous foldables, this one is waterproof (but not dust-proof), with an IPX8 rating. Despite the fold, it feels solid enough to survive even the clumsiest user. With its double-sized screen it's bigger than most phones, and weighs a fairly hefty 271g. It's 6.4mm thick when unfolded, but this increases to 16mm when closed up.

It offers a 6.2in 2268x832-pixel screen when closed. However, open it up and this expands to 7.6in with a resolution of 2208x1768 pixels. It's very impressive, recreating 91.7 per cent of sRGB colours and dazzling brightness levels of 1,089cd/m². However, the square aspect ratio produces black borders at the top and bottom of the screen when viewing full-screen 16:9 or 21:9 video. The phone's software helpfully lets you choose whether to use it in full screen or as two separate split screens. The latter option is like having two phones side by side.

The Z Fold 3 5G has the latest Qualcomm Snapdragon 888 processor and a generous 12GB of RAM. It performs quickly and smoothly, and should have enough power to stay that way for years to come.

In the final analysis, however, you could buy a decent phone and tablet for less, so there seems little point paying so much for something that combines the two.

SPECIFICATIONS

Octa-core Qualcomm Snapdragon 888 • 12GB of RAM • 256GB or 512GB storage • 6.2in 2268x832-pixel cover screen • 7.6in 2208x1768-pixel inner screen • 12-megapixel main rear camera • 12-megapixel telephoto camera • 12-megapixel ultrawide camera • 10-megapixel front camera • Android 11 (One UI 3.5) • 6.4x158x128mm (unfolded), 16x158x67mm (folded) (HxDxW) • 271g • One-year warranty www.snipca.com/39334

VERDICT At last Samsung has launched a solidly built foldable phone, but its benefits don't justify its high price

★★★★★

ALTERNATIVE

Huawei Mate Xs 5G £2,300
Huawei's take on the foldable phone is larger – 8in when opened, with a resolution of 2480x2200 pixels

SMARTPHONE | **£399** from Amazon www.snipca.com/39335

Sony Xperia 10 III

That's tall, folks!

The most unusual thing about the Sony Xperia 10 III is its shape. It has a 21:9 aspect ratio screen, which is something of a rarity with phones. Sony claims this is perfect for streaming films on the move, because 21:9 is the ratio Netflix uses to produce its content. However, you'll find it requires thicker-than-average black bars on the edges to show regular 16:9 content. As a result, the design is narrower and taller than most phones.

The 6in 2520x1080 pixel OLED panel is impressive, covering 97.9 per cent of sRGB colours with perfect contrast. It's not particularly bright, though, only reaching 329cd/m² in our tests.

It uses the Qualcomm Snapdragon 690 processor, which is disappointingly underpowered for a phone at this price. In our performance tests it was slower than many cheaper phones. For example, our current favourite Android phone – the Xiaomi Poco F3 – costs £279 (www.snipca.com/38395), but has a Snapdragon 870 processor. In our performance benchmarks, the F3 left the Xperia 10 III trailing in its wake, both in general Android and gaming performance tests.

Sony makes many of the cameras you'll find in other manufacturers' phones and the cameras here are decent for the price, but they aren't enough to win us over.

SPECIFICATIONS

Octa-core Qualcomm Snapdragon 690 • 6GB RAM • 128GB storage • 6in 2520x1080-pixel OLED screen • 12-megapixel main rear camera • 8-megapixel 2x zoom camera • 8-megapixel wide camera • 8-megapixel front camera • Android 11 • 8.3x154x68mm (HxDxW) • 169g • One-year warranty www.snipca.com/38411

With stiff competition from the likes of Xiaomi, Sony simply isn't offering enough with this model to make it stand out from the crowd.

VERDICT Although its unusual aspect ratio gives it a unique appearance, the Sony Xperia 10 III is underpowered and uninspiring given its relatively high price

★★★★★

ALTERNATIVE

Xiaomi Poco F3 £279 Xiaomi offers a faster phone that's significantly cheaper

SECURITY CAMERA | **£120** from Amazon www.snipca.com/39381

Eufy SoloCam E40

The eye has it

You can't move for wireless security cameras these days, but few get as much right as the Eufy SoloCam E40. With many rivals, such as Arlo's range of cameras (www.arlo.com), you have to pay a monthly subscription fee to access footage or unlock features. This camera bucks that trend.

In the box is the camera itself, which has a rechargeable (non-swappable) battery, so you don't need to worry about wiring or cables. There's also a small plastic bracket for mounting on a wall. There's no need for anything else, as it connects directly to your home Wi-Fi network.

> "Security with no subscription, wires or online storage – just clear images"

It can be mounted anywhere – indoors or outdoors – because it's weatherproof to IP65 standard. Eufy claims it will last up to four months on a single charge, but that will depend on how many video clips are recorded, how long they are and which resolution you choose.

We found that by optimising video quality and restricting recordings to 20 seconds, the battery comfortably lasted six weeks. We managed to make the battery last two months by recording even shorter clips, which could, however, make them less useful for security purposes. Recharging is done by simply removing it from its mount and plugging it into a wall socket with the supplied microUSB cable.

It can record footage up to 2K resolution (2560x1440 pixels), has automatic infrared night vision and can make individuals recognisable. It can also be voice controlled using Alexa and Google Assistant.

The SoloCam E40's main attraction, however, is that you don't need to pay for a subscription to access any of these features. Also, instead of being stored online by default, video clips are recorded straight to the camera's 8GB internal storage, which can keep two months' worth of footage and is accessed through the Eufy Security phone or tablet app.

Once you've hung the camera in place, setup is a doddle. The app uses your smartphone's settings to connect the camera to your Wi-Fi network. It's also very easy to use, though we found setting up motion zones (where any movement will trigger recordings) was a bit tricky on a touchscreen.

All of this worked flawlessly when we tested it. Notifications are only generated when required and video quality is crisp and clear. With the 2K resolution, we found details such as faces were easy to pick out. Its night-vision footage was also good quality, albeit slightly softer and more blurry than daylight captures.

SPECIFICATIONS

8GB storage • 2K resolution (2560x1440 pixels) • IP65 water- and dust-proof • Rechargeable battery • Wi-Fi networking • 1x Infrared LED • 57x96x57mm (HxDxW) • 399g • One-year warranty
www.snipca.com/39381

VERDICT Combining great image quality with easy setup, a rechargeable battery and a generous 8GB of onboard storage, this security camera is a great buy

★★★★★

ALTERNATIVE Blink Outdoor £125
A pack of two outdoor cameras for the price of Eufy's single model, but they only offer 1080p resolution (1920x1080 pixels)

CHOOSE THE RIGHT SPECS

Monitor sync

What does it do?

Monitor-syncing technology enables better communication between your graphics card and monitor. When playing games on a PC, the frames per second (fps) produced by the graphics card fluctuates depending on what's happening on screen. Say you're flying over a densely built-up urban area with lots of detail in Microsoft Flight Simulator, the number of frames your card can produce may drop, because it takes it longer to solve all the calculations that are being done behind the scenes.

How does it work?

With monitor syncing, the graphics card and the monitor are constantly aware of the other's limitations, so if the card's frame rate drops below the refresh rate of the monitor, the monitor won't try to fill in the missing frames. This avoids visible "tearing", whereby frames are started, then replaced with new frames part way through. Likewise, the graphics card won't attempt to send more than the maximum number of frames that the monitor can handle.

What are the specs?

The original monitor-sync specification was called V-Sync, but it only works with monitors with refresh rates up to 60Hz. For faster monitors with better refresh rates, look for G-Sync or FreeSync (logo pictured). G-Sync was developed by Nvidia and works with its GeForce graphics hardware. FreeSync was developed by AMD to work with its Radeon graphics cards. Look for the spec that matches your graphics hardware. For example, the HP 27xq gaming monitor (£250 from www.snipca.com/39386) supports FreeSync.

Can I change it later?

Both monitors and desktop PC graphics cards are replaceable, so you can start with one type of monitor-syncing technology and switch to another later, but only by buying new hardware.

PICTURE FRAME/SPEAKER | **£179** from Ikea www.snipca.com/39368

Ikea Sonos Symfonisk picture frame

Wall of sound

This picture-frame speaker is the third collaboration between Ikea and speaker manufacturer Sonos, and follows on from the bookshelf speaker (£89 from www.snipca.com/39369) and the table-lamp speaker (£150 from www.snipca.com/39370). It's aimed at anyone that wants decent-quality music in their home, but doesn't want to spoil the look of their home decor with an ugly speaker.

> "A smart speaker that's disguised as a work of art"

The picture frame measures 570x410x60mm (HxWxD) and looks smart, but might not be quite what you expect. To us, a picture frame is a blank space into which you insert the photo or art print of your choice. This isn't the case with the Symfonisk, which comes with geometric art (pictured above right) that clips on to the speaker's frame.

The artwork is designed by British artist Jennifer Idrizi and printed on a thin mesh fabric that resembles the amalgamation of a spider's web and a constellation of planets. You can remove it and replace it with one of two alternative panels, which are sold separately for £17 each. The panel below is called Splash; to see the other, called Vinyl, visit www.snipca.com/39383.

Everything else is as you'd expect. You can mount it on the wall, in landscape or portrait orientation, or simply sit it on the floor or other surface, and lean it against something flat (such as a wall). The frame and the art panel that clips on to it are made of plastic and sturdily constructed.

Setting up the speaker is as simple as any Sonos device, performed using an app on a smartphone or tablet. You can then use this app to play music, and it's well integrated with all the radio stations, podcast providers and streaming-music services you're likely to wish for.

We were impressed by the Symfonisk's sound quality. The 102mm woofer and 25mm tweeter delivered a well-balanced sound, particularly on tracks featuring lots of vocals. It's loud enough to fill a room with sound, without vibrating when you turn the bass up.

Given the choice, we'd opt for a £179 Sonos One speaker over this, because it's easier to move around and provides better sound. However, if you prefer to hide your speakers in home furnishings, this is a useful option.

SPECIFICATIONS

1x 102mm woofer • 1x 25mm tweeter • 570x410x60mm (HxWxD) • 4kg • One-year warranty
www.snipca.com/39386

VERDICT A high-quality speaker that looks like a piece of art, though it would be nice to have more choice over the picture

★★★★★

ALTERNATIVE

Sonos One £179 A standalone speaker that's more versatile and easier to move around the house

DO I REALLY NEED...

A 200-megapixel phone camera?

What is it?

Samsung has invented a 200-megapixel camera sensor (pictured) to enhance cameras in smartphones. However, there's currently no indication of when we'll see a phone that uses one.

What does it do?

Although you'll be able to use the sensor to take incredibly detailed 200-megapixel photos, Samsung's also designed it to use a process called pixel-binning to create the best possible image at a smaller scale. This can, for example, enable each pixel in a 12-megapixel photo use up to 16 sensor pixels to inform what colour it should be. This will help the camera take more accurate photos, particularly in low light.

What's the catch?

The number of pixels represents a huge leap forward, so expect it to be reserved for Samsung's most expensive devices, when it finally arrives.

So can I do without it?

Yes. Your photos might not be as detailed or perfectly formed, but most phones already take great photos.

NEXT ISSUE

On Sale Weds 6 Oct

Microsoft Surface Laptop 4
Fast new version of Microsoft's classic laptop

MSI Summit E13 Flip Evo
Leightweight laptop offers power and style

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Our pick of products that have won the Buy It award

LAPTOP

PRICE DROP

Lenovo Yoga Slim 7 (256GB)
£629 from www.snipca.com/38429
Tested Issue 601

Weighing just 1.16kg, this is an excellent lightweight laptop with a great screen and an AMD processor faster than many Intel rivals. It has two USB-C ports, two USB 3.0 ports and a microSD card reader. Battery lasts nearly 16 hours.

ALTERNATIVE Dell XPS 13 New Intel CPUs and a taller screen make this a more powerful, all-round slim laptop. Prices start at £1,399 from www.snipca.com/36642

DESKTOP PC

Palicomp
Intel Mercury
£600 from www.snipca.com/34223
Tested Issue 576

If you don't need advanced gaming, your money's well spent here on a six-core Intel i5-9600K processor overclocked to 5GHz. 16GB of memory and a full terabyte of fast SSD storage round off a powerful PC with good expansion potential.

ALTERNATIVE Chillblast Photo Zen Fast Ryzen 7 CPU plus adequate GPU makes a superb work PC. £1,760 from www.snipca.com/35840

APPLE iPAD

Apple iPad 10.2in
£329 from www.snipca.com/36178
Tested Issue 566

The basic iPad is great value, especially now it's been updated with a powerful A12 processor and iPadOS 14. It includes Scribble handwriting recognition with the £89 Apple Pencil. Storage isn't expandable; consider 128GB at £429.

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. £399 from www.snipca.com/33050

ANDROID TABLET

Lenovo Tab P11 Pro
£600 from www.snipca.com/38585
Tested Issue 609

A fast tablet that comes with a magnetic stand and keyboard that means you can also use it as a laptop. It has an outstanding screen, 128GB storage and a 17-hour battery life, while its excellent dual mics make you sound clear in video chats.

ALTERNATIVE Samsung Galaxy Tab S6 Lite Slower than the Lenovo Tab P11 Pro, but the 64GB storage and decent 10.2in screen make it good value. £311 from www.snipca.com/38606

APPLE iPHONE

Apple iPhone 12
£799 from www.snipca.com/36582
Tested Issue 595

The latest iPhone has a modest increase in already exceptional processing power plus even better photos and videos from the front and twin rear cameras. It comes in a redesigned case with aluminium frame and even tougher glass. Consider paying the £50 extra for 128GB of storage.

ALTERNATIVE iPhone SE With a single camera and smaller screen but the same powerful A13 processor and 64GB storage as the iPhone 11, it's great value. £399 from www.snipca.com/34773

ANDROID PHONE

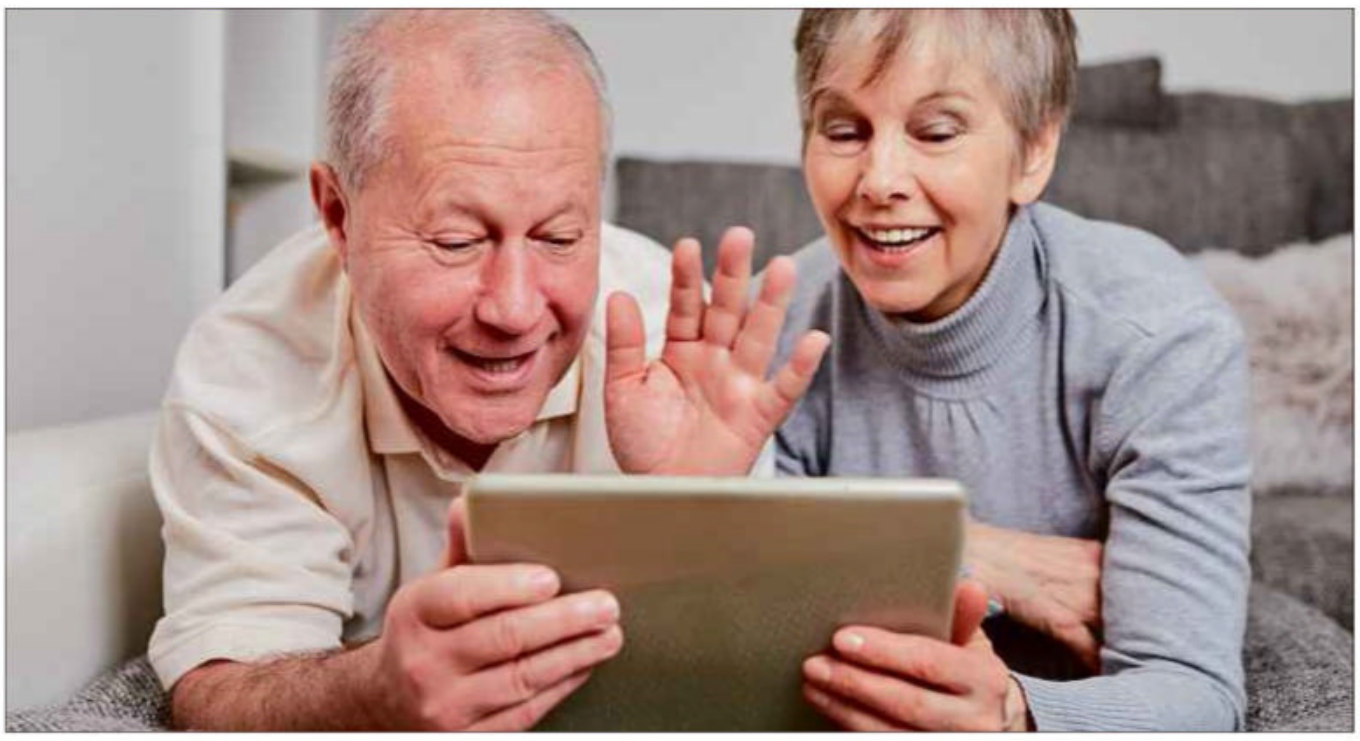
Xiaomi Poco F3
£279 from www.snipca.com/38395
Tested Issue 608

This is a phenomenal phone for the price. It's 5G, has a brilliant screen, and comes with 6GB of RAM and 128GB storage (256GB costs £349). Performance is exceptional – in fact, the only phone under £450 that's faster is the iPhone SE.

ALTERNATIVE Google Pixel 5 Cheaper than previous Pixels, this has great cameras, wireless charging and a superb screen. Battery life is 23 hours. £599 from www.snipca.com/36586

Now's the time to tackle your iPad (or Android tablet)

Tablets – iPads and Android tablets – can be great once you know how to use them. It's amazing all the things they can do.



These helpful books mean there's nothing to fear about using tablets – from sending a quick email to video calling your family and friends.

And possibly the best thing tablets can do for you is help you keep in touch with family and friends. I don't just mean letting you send emails instead of writing paper letters, though that can be handy.

In just a few taps of the screen you could be talking to them as if they were sat right there beside you.

But when you buy a tablet, there's something missing.

It's not the charger (hopefully!).

It's not a case, though it's usually a good idea to buy one to protect your new tablet.

It's a manual – something to show you how to use the thing. The manufacturers seem to assume that you'll just know how to use it, as if by magic. It's "intuitive," they say.

Well, it can be. In parts. But there are other things you simply need to know how to do. It's not obvious that you have to swipe from the top of the screen, pull up from the bottom or tap with two fingers instead of one.

Who would know you had to use two fingers and pull them apart on the screen or rotate them... or that they'd bury the option you want behind three little dots?

Things like that you just can't know – someone has to explain it to you.

But if you do ever find a book about it or get someone to tell you, they always seem to assume you already know how to do it. Daft, really – you wouldn't be asking if you did. But they whizz through it so fast you can't possibly take it in. Not to mention the steps they leave out because "everyone knows that"!

That's where a set of books from a small, employee-owned company based in Cumbria comes in. They're called The Helpful Book Company and lots of their customers say they certainly live up to their name!

They've published *iPads One Step at a Time* and *Android Tablets One Step at a Time* – and these books have proved hugely popular with all sorts of people who have a tablet – but who aren't experts at using it.

Whether you're frustrated with the very basics, want to know what else it can do for you or wish you knew how to do some of the slightly fancier things, this book might be just what you need.

It explains everything nice and simply, in plain English, without all the confusing jargon and gobbledegook. And it has lots of pictures showing exactly what to do – where to tap the screen and so on.

"Plain English without all the confusing jargon and gobbledegook"

The company has already published books about computers and smartphones that have helped thousands of people. But they actually started much smaller – the author wrote some notes to help his Mum and Dad on their PC and realised that other people might find them useful too. Several thousand happy people later, he decided to bring out a book on tablets as well – and if you've ever been frustrated with your tablet, it's worth finding out more.

As a small independent publisher, the books aren't in the shops or available on Amazon, but you can get a free information pack telling you about what's covered in the books, who they're suitable for and how to get hold of them.

Just ring 01229 777606 today (lines open weekdays 8am-6pm and Sat 9am-3.30pm). Or post back the coupon below or email your name and address to PC0921@helpfulbooks.co.uk

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Buy It

Our pick of products that have won the Buy It award

EBOOK READER

Amazon Kindle (2019)
£55 from www.snipca.com/31621
Tested Issue 555

Now with built-in light and audiobook support, this budget model is fine for most users, though limited by its 4GB of storage. The Paperwhite (£120) is even sharper, waterproof, and has bigger storage options as well as a cellular data option (£100 extra).

ALTERNATIVE Kobo Clara HD
Not waterproof, but has more lighting options to avoid blue light. £110 from www.snipca.com/32586

SECURITY SOFTWARE

Kaspersky Internet Security 2021
£14.99 from www.snipca.com/21532
Tested Issue 564

Kaspersky Internet Security has won our past nine antivirus tests and the 2020 version is now available at an exclusive reader discount on our Software Store. Go to the link above for a one-year, one-device licence or buy a two-year, two-device licence for just £32.99.

ALTERNATIVE Norton 360 Deluxe
Almost as good as Kaspersky, but blocks more legitimate software. £15 from www.snipca.com/32069

WEBCAM

PRICE DROP

Logitech C925e Business Webcam
£65 from www.snipca.com/38385
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 Anker PowerConf C300
Good image quality, crisp audio and lots of features. £90 from www.snipca.com/38752

PC MONITOR

BenQ GL2780
£179 from www.snipca.com/34834
Tested Issue 581

This budget 27in screen offers accurate sRGB colour with good contrast, plus auto brightness and low blue light modes. Speakers are built in. Using TN LCD rather than IPS, it needs to be viewed straight on, but works well for games too.

ALTERNATIVE Philips Brilliance 241B7QPJEB With a great picture, stylish design and speakers, this 24in Full HD IPS is an excellent smaller screen. £266 from www.snipca.com/37096

ROUTER

Netgear Nighthawk RAX80
£240 from www.snipca.com/39013
Tested Issue 603

This is the fastest Wi-Fi 6 router we've ever tested, transferring data at speeds of 520Mbps in the same and adjacent rooms of our test house. Also works with Wi-Fi 5, and comes with four spare Ethernet ports and two USB ports.

ALTERNATIVE Asus RT-AX82U
Slower than the Nighthawk on Wi-Fi 6, but faster on Wi-Fi 5, so a better choice for older devices. Has four Gigabit Ethernet ports. £124 from www.snipca.com/37675

PRINTER

Canon Pixma TS8350
£215 from www.snipca.com/38079
Tested Issue 606

For an affordable general-purpose printer, its photo prints are stunning. They come out in phenomenal detail, with rich, bold colours and deep blacks. It uses six cartridges, so stick to Canon's own reasonably priced XXL cartridges to reduce running costs.

ALTERNATIVE Epson Expression Premium XP-6105 This six-ink printer/scanner/copier is a good choice for photos first and text second. It's easy to use, but ink costs can be high. £90 from www.snipca.com/37995

COMPETITION

Win 1 of 5 Pinnacle Studio 25 Ultimate

Pinnacle Studio 25 Ultimate combines a full suite of powerful video-editing tools and a robust selection of creative effects to help you achieve stunning results.

With a wealth of new tools, it will help you exceed even your highest movie-making expectations. The latest updates include new Blend Modes that bring artistic flair to your videos by creating superimposed effects, blending masked areas and creating light bleeds, as well as other colour and exposure effects.

Also new is Smart Object Tracking (pictured), which uses shape-aware motion tracking to follow any object in your video. In addition, the new Advanced Audio Editing features ensure your audio sounds crisp and clear. You can even identify and remove unwanted sounds with Noise Reduction to ensure your voiceover or musical track sounds perfect.

To enter this competition, answer the question at www.snipca.com/39367 and enter your details. It runs until midnight Tuesday 5 October. Good luck!

Pinnacle Studio 25 Ultimate, **Pinnacle Studio 25 Plus** and **Pinnacle Studio 25** are available to buy for £114.95, £89.95 and £59.95 respectively. For more information, please visit www.pinnaclesys.com. You'll find Pinnacle Studio on Facebook at www.facebook.com/pinnaclesys.

MESH ROUTER

BT Whole Home Wi-Fi
£200 from www.snipca.com/26990
Tested Issue 496

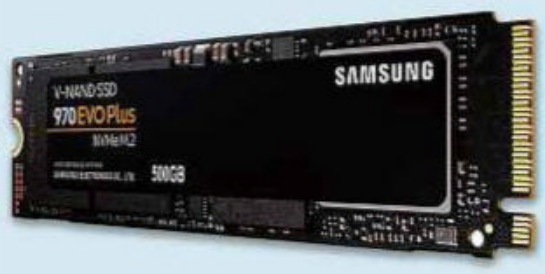
BT's set of three discs, managed from an Apple or Android app, connects to your broadband and spreads high-speed Wi-Fi all around the house. Reception is far better than a single router, and the price is lower than any rival.

ALTERNATIVE Zyxel Multy X
These two pillow-shaped boxes are powerful enough for most homes and provide four Ethernet ports apiece. £265 from www.snipca.com/27309

SOLID-STATE DRIVE

PRICE DROP

Samsung 970 Evo Plus 500GB
£67 from www.snipca.com/31265
Tested Issue 552



Although its price has fluctuated since we tested it at £99, this is a very fast (over 3GB per second) M.2 SSD unfazed by tests that make others slow to a crawl. Also consider the Adata XPG SX8200 Pro if you find it a bit cheaper.

ALTERNATIVE Crucial MX500 500GB
As fast as an SSD can get in the traditional 2.5in SATA format, this is a great-value upgrade. £60 from www.snipca.com/37304

SMART SPEAKER

Google Nest Audio
£90 from www.snipca.com/36475
Tested Issue 593

Produces a rich, clear sound, and better understands your questions than Amazon's Echo devices. You can use Google's app to control audio from other units around your home (pair two of them for £160). The clever Ambient IQ tool increases the volume if it detects external noise, such as a hairdryer.

ALTERNATIVE Amazon Echo (4th generation) The latest version of the Echo changes the shape from a cylinder to a ball, which improves sound quality – though the Nest's is still superior. £70 from www.snipca.com/36602

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Issue 615

Workshops & Tips

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

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HOW TO...

Create a 'kill switch' in Windows 10

by Daniel Booth

What you need: Windows 10 **Time required:** 30 minutes

A 'kill switch' may sound extreme and sinister, but it could prove a lifesaver if you notice something suspicious happening on your computer. It's not an official Windows term – it's far too apocalyptic for Microsoft – but many VPNs use the expression to mean taking you offline when your encrypted connection to a server is interrupted. This ensures you're not left unprotected online where you could be at the mercy of hackers.

The same method works on Windows computers. If you think your PC is under attack, trigger a kill switch to sever your connection instantly. It's the ultimate form of defence when malware starts downloading itself to your machine, or if your desktop is overwhelmed by pop-up adverts.

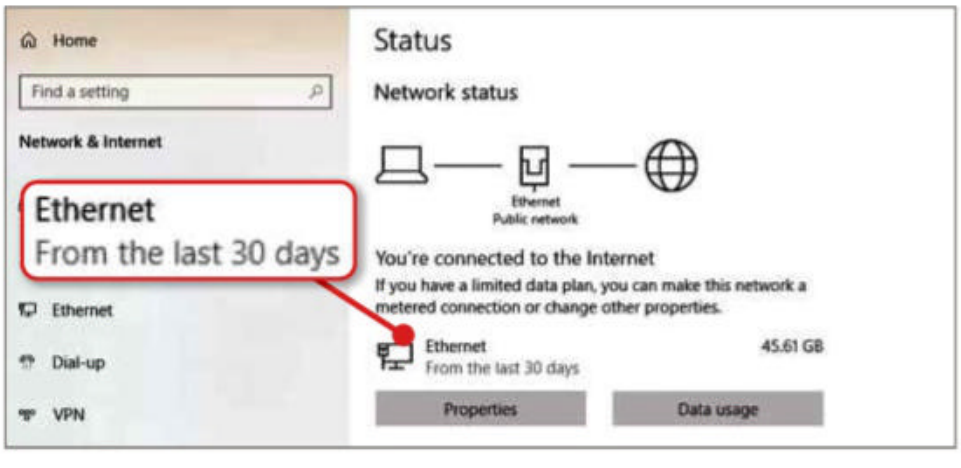
You can also use kill switches in less dangerous situations, such as to stop a large file uploading or an embarrassing email being sent – or even to cancel a software update you don't want. It's like a virtual panic button, or the Windows equivalent of a 'break glass in emergency' alarm. It's quicker and more convenient than yanking out your network cables or switching off your router.

1 Check your network status and name your kill switch

We'll explain how to create a kill switch in Windows by setting up a shortcut that you can activate by clicking an icon or pressing a keyboard shortcut. We'll also show you how to create a shortcut that reconnects you to the internet once the emergency has passed.

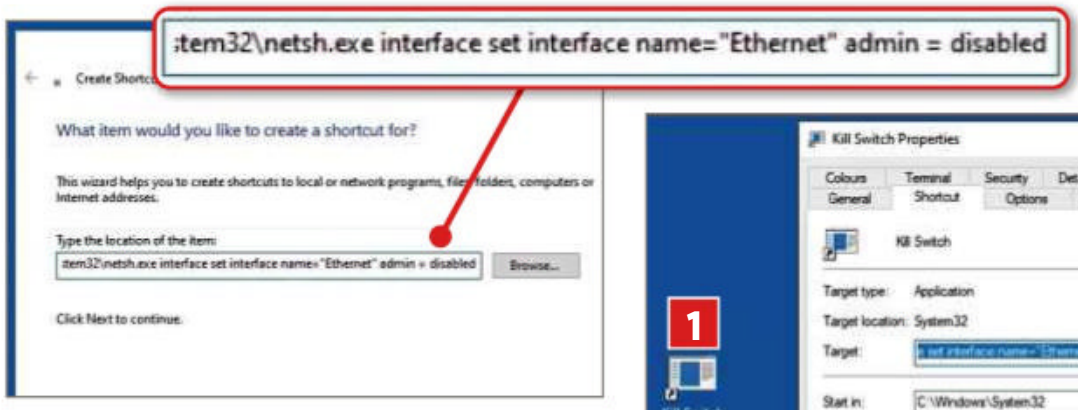
Windows 10 doesn't offer a kill switch option, so you'll need to create one. First, open Settings, either by pressing Windows key+I, or clicking the Start button followed by the Settings gear icon.

When the Settings window opens, click 'Network & Internet'. Look under 'Network status' on the right, and note down the name of the network adapter that connects your computer to the internet. If it's a wired connection, you should see 'Ethernet' (see screenshot above); wireless connections will show 'WiFi'. The adapter's name may differ.



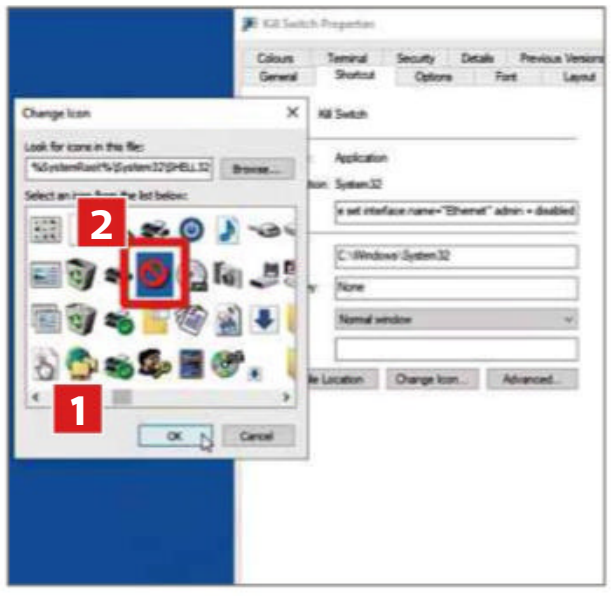
Make a note of your network adapter – it'll be either Ethernet or Wi-Fi

Now you can close Settings. Next, right-click a blank area of your desktop, then click New, followed by Shortcut. The 'Create Shortcut' box will open. You need to type the following command into the box under 'Type the location of your item', to the left of the Browse button: C:\Windows\System32\netsh.exe interface set interface name="XXXX" admin = disabled (you can cut and paste this from our Pastebin account: www.snipca.com/39324).



Enter this command to create a shortcut that switches off your network adapter

Right-click the 'Kill Switch' shortcut then click 'Change Icon'...



...then select an appropriate icon for your shortcut, such as the red no-entry symbol

Where we've put XXXX, type the name of your network adapter you noted down earlier. For example, for Ethernet type C:\Windows\System32\netsh.exe interface set interface name="Ethernet" admin = disabled (see screenshot above). Also note that if Windows isn't installed on your C drive, you'll need to change that letter.

Next, you need to give this shortcut a name that you'll remember and easily spot in an emergency. 'Kill Switch' is a good option, but you may forget what this means when you're under pressure. 'Switch off internet' is more literal and so might have more impact. When you've decided on a name, click Next then type it in. Now all you need to do is click Finish. The shortcut will appear on your desktop, ready for you to click when the time comes.

2 Add an icon to your kill switch

Giving your kill switch a memorable name is only half the task of making it stand out. You should also change the icon so it grabs the eye immediately. There's no point in having a panic button that you can't find when you need it.

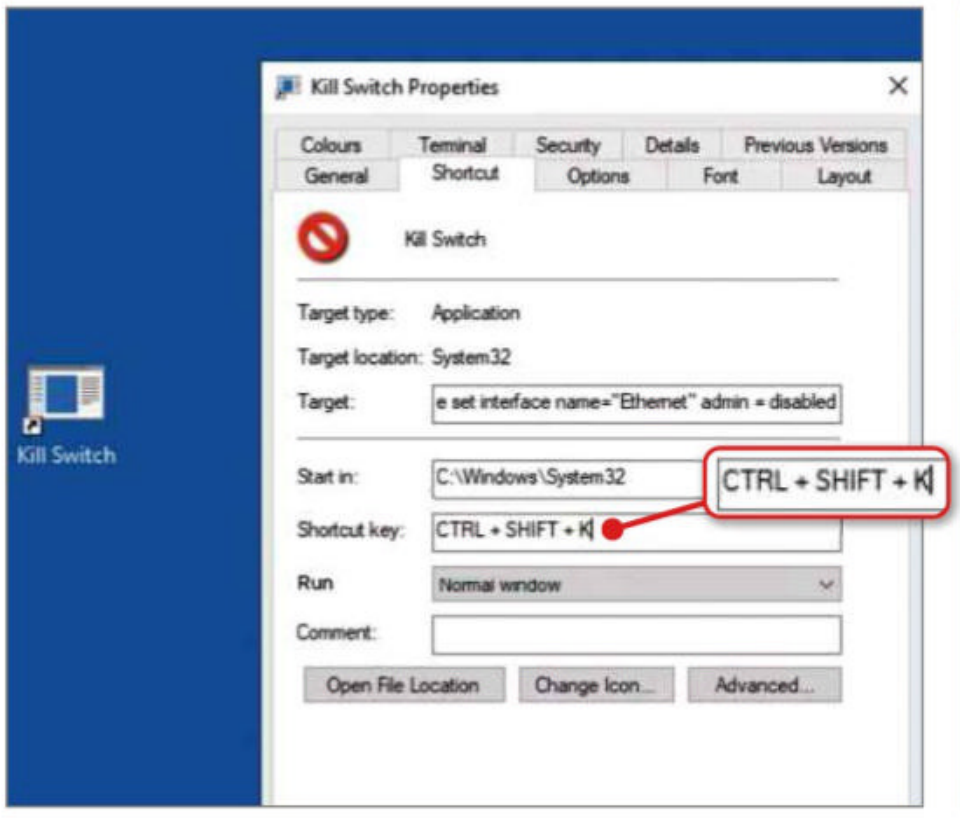
Right-click the shortcut you've created (1 in screenshot above) and choose Properties. When the Properties box opens, click 'Change Icon...' at the bottom 2. If you see a message saying that the file contains no icons, click OK to dismiss it. Now use the slider at the bottom of the Change Icon box(1 in screenshot above right) to find a suitable high-impact image. The red 'No entry' sign 2 is a strong option, as is the yellow warning triangle. When you've decided on an icon, click it, then OK below.

3 Add a keyboard shortcut to your kill switch

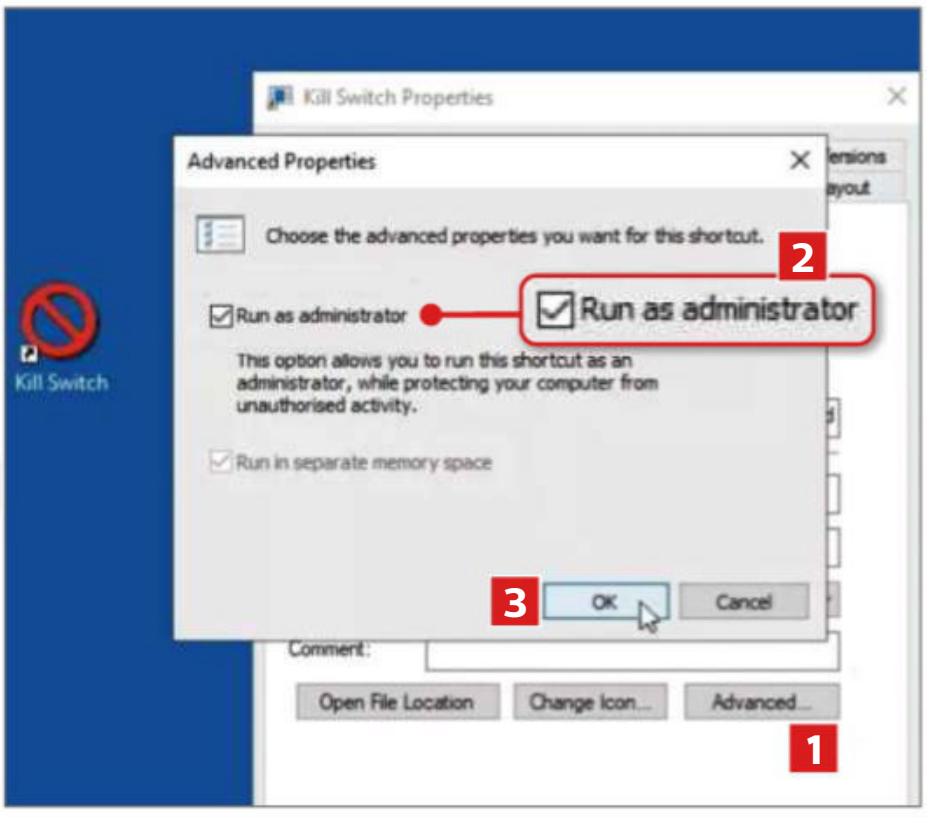
Now it's time to create a keyboard shortcut for your kill switch. Go back to the Properties box and look for the 'Shortcut key' field. Click within this field, then press the combination of keys you want to use to trigger your switch (Windows may try to complete this for you). We've chosen Ctrl+Shift+K (see screenshot below left), with K for Kill. Click 'Apply' at the bottom right to save your choice. You now have two ways of activating your kill switch: by clicking an icon or pressing a keyboard shortcut.

There's one more important tweak to make. Turning off a network adapter requires administrator privileges, so click the Advanced button at the bottom right of the Properties box (1 in screenshot below), then select 'Run as administrator' 2 and click OK 3.

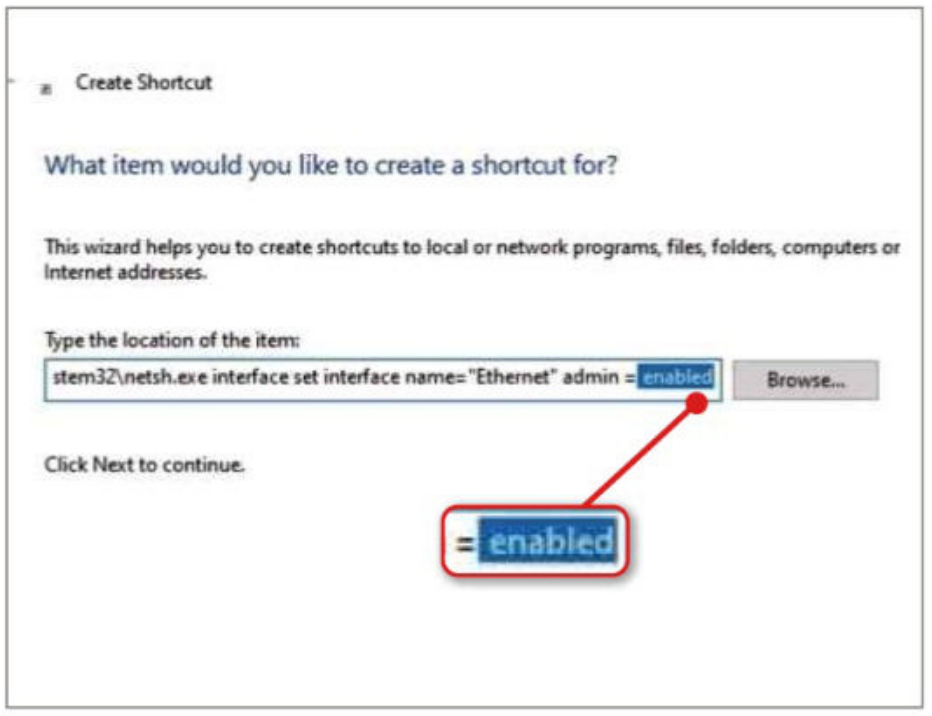
Click 'OK' one more time in the Properties box, then click OK to save the changes to your kill switch. You can keep the switch on your desktop, but you may find it easier to click by dragging it to the taskbar and pinning it there.



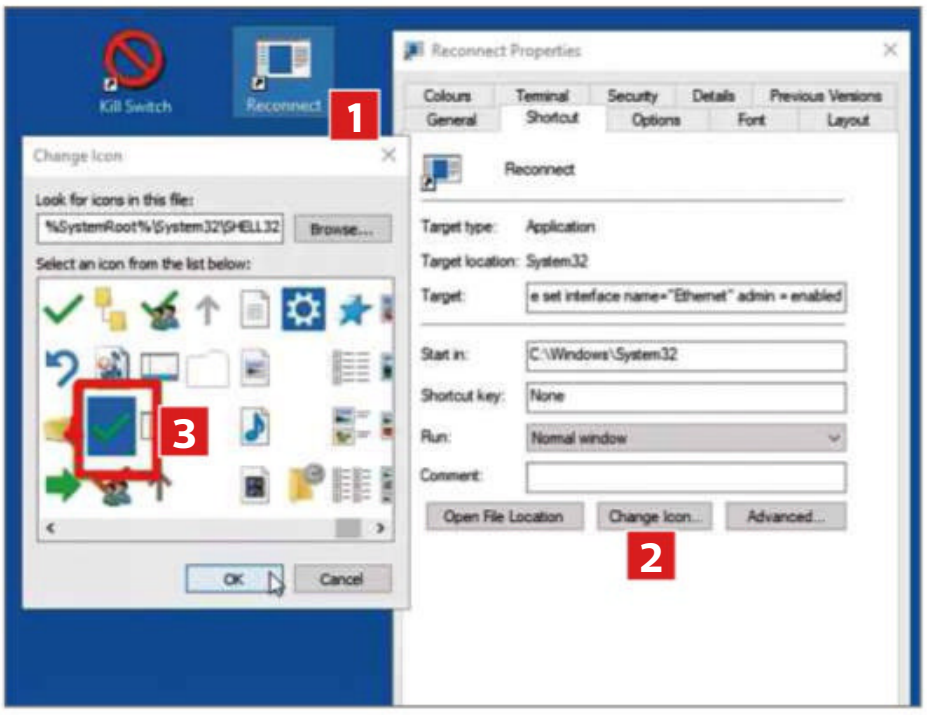
Enter your keyboard shortcut in the 'Shortcut key' field



Tick 'Run as administrator' for permission to turn off your network



Enter this command to create a ‘Reconnect’ switch



Change the icon for your Reconnect switch – we chose a green tick

4 Create a ‘Reconnect’ switch

Don’t be tempted to test your kill switch just yet. First, you need to create a ‘reconnect’ switch to get your PC back online when the danger has passed. To do this, repeat steps 1 to 3. When you open the ‘Create Shortcut’ box in Step 1, type the following into the location box:

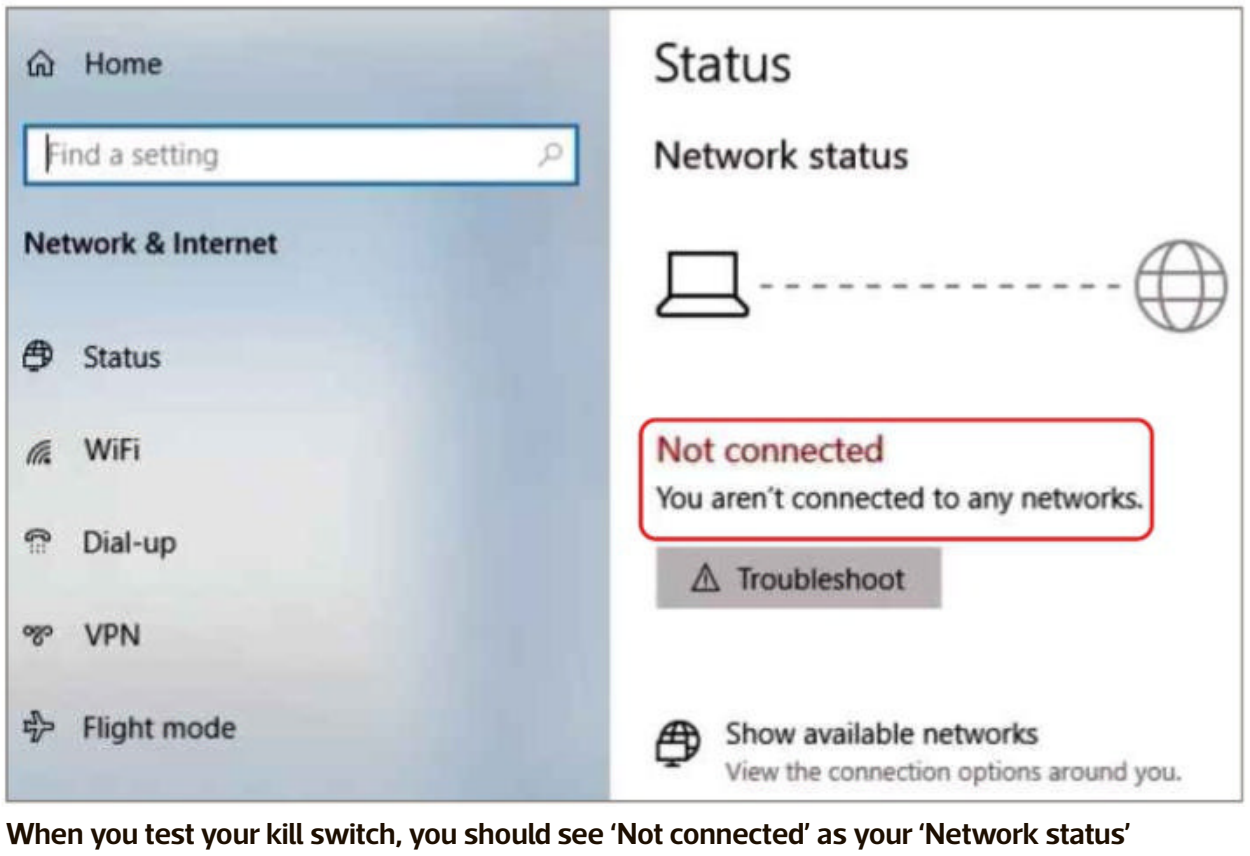
C:\Windows\System32\netsh.exe interface set interface name="XXXX" admin = enabled (see screenshot above). You can cut and paste this from www.snipca.com/39325). Note that ‘enabled’ has replaced ‘disabled’ from the earlier command. As before, replace the ‘XXXX’ with the name of your network adapter, adding the letter of your hard drive if necessary.

Now give the shortcut a suitable name, such as ‘Get back online’ or ‘Reconnect’, then click Finish. You can make the same changes to this icon as you did to the kill switch: right-click it (1 in screenshot above right), then select Properties, ‘Change Icon...’2. Move the slider along and you’ll see several suitable icons, including green ticks 3, globes and computer screens. To set up a keyboard shortcut, follow the same process as before – and don’t forget to grant administrator permission.

Click OK to save your ‘Reconnect’ switch, then exit the Properties box. You can then leave the icon on the desktop, or drag it to the taskbar - though it’s probably a good idea to keep the kill switch in a separate place.

5 Test your kill switch

Now it’s time to check that your kill switch works. Try both of the methods you set up to activate it, clicking the icon and pressing the keyboard shortcut. You’ll see a User Account Control prompt asking if you’re sure you want to allow this app to make changes to your device. This is an important warning. Yes, it adds an extra step to your kill switch, but it also stops you triggering it accidentally. Click ‘Yes’ to continue.



When you test your kill switch, you should see ‘Not connected’ as your ‘Network status’

Your network adapter should now be disabled, terminating your internet connection. Open Windows Settings, then click ‘Network and Internet’. Under ‘Network status’ you’ll see ‘Not connected - you aren’t connected to any networks’ (see screenshot left). To turn it back on, just click or double-click your reconnect icon, or use the keyboard shortcut.

Don’t panic if you can’t get back online. Just go to Settings, ‘Network & Internet’ and select ‘Change adapter options’. Double-click your network adapter to enable it and reconnect to the internet.

GOOGLE’S VPN KILL SWITCH

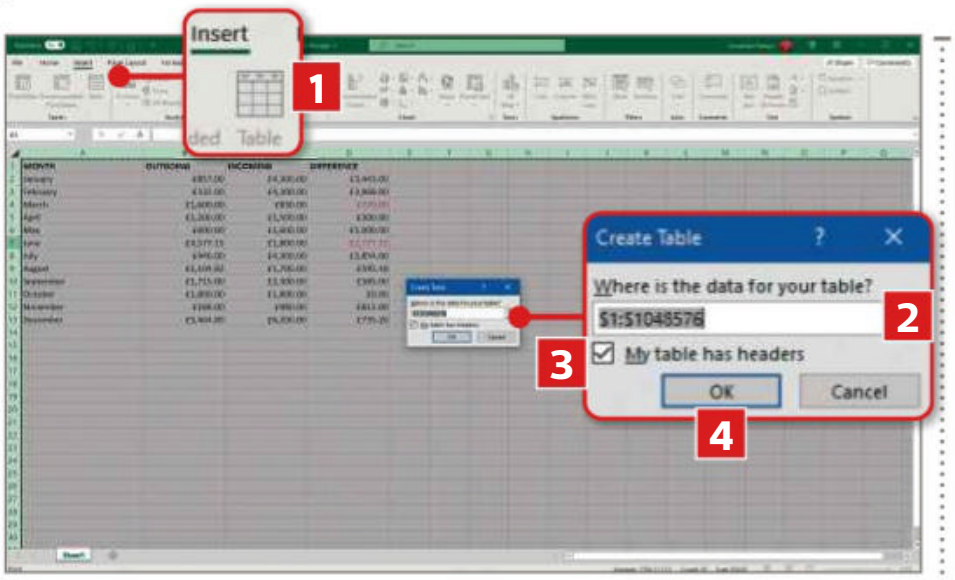
Any VPN worth using has a kill switch to block internet access should you lose your secure connection. It’s no surprise then that Google includes one in its new VPN app for Android devices (www.snipca.com/39412). However, it’s available only as part of its Google One online-storage service – and even then only if you sign up to the 2TB tier (£7.99 a month) or higher. That’s still cheaper than most VPN packages though, and they don’t offer web storage as part of the deal.

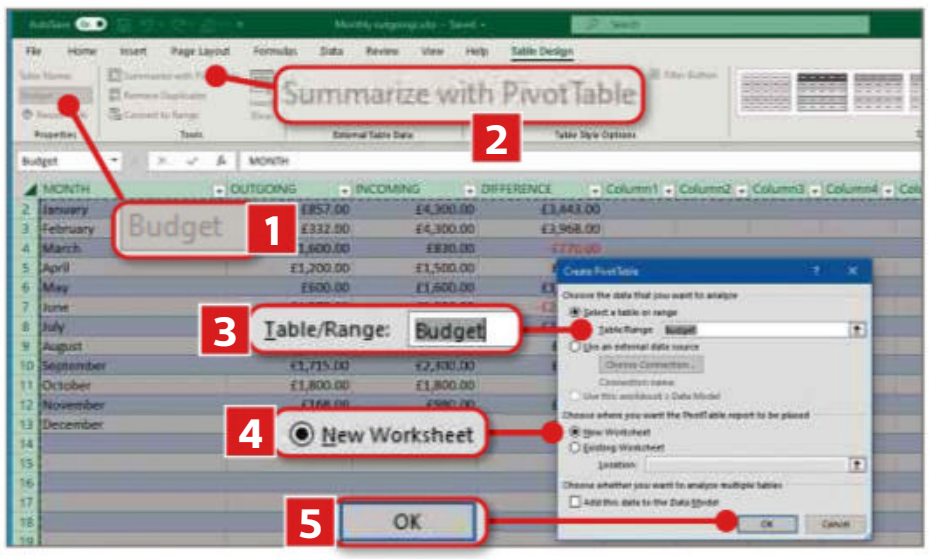
Create an attractive data dashboard in Excel

What you need: Windows 7, 8.1 or 10; Excel 2010 onwards
Time required: 20 minutes

A dashboard is a great way to visualise the data in your Excel spreadsheets, so you can track and analyse the information they contain. Dashboards can include charts, graphs and maps, all of which are updated automatically when you edit the spreadsheets they're based on.

A dashboard can help you keep track of any project that involves combining data from multiple Excel files – from a simple household budget to your savings and pension fund, for example. We're using the latest version in Excel 365, but the steps will be similar for older editions.

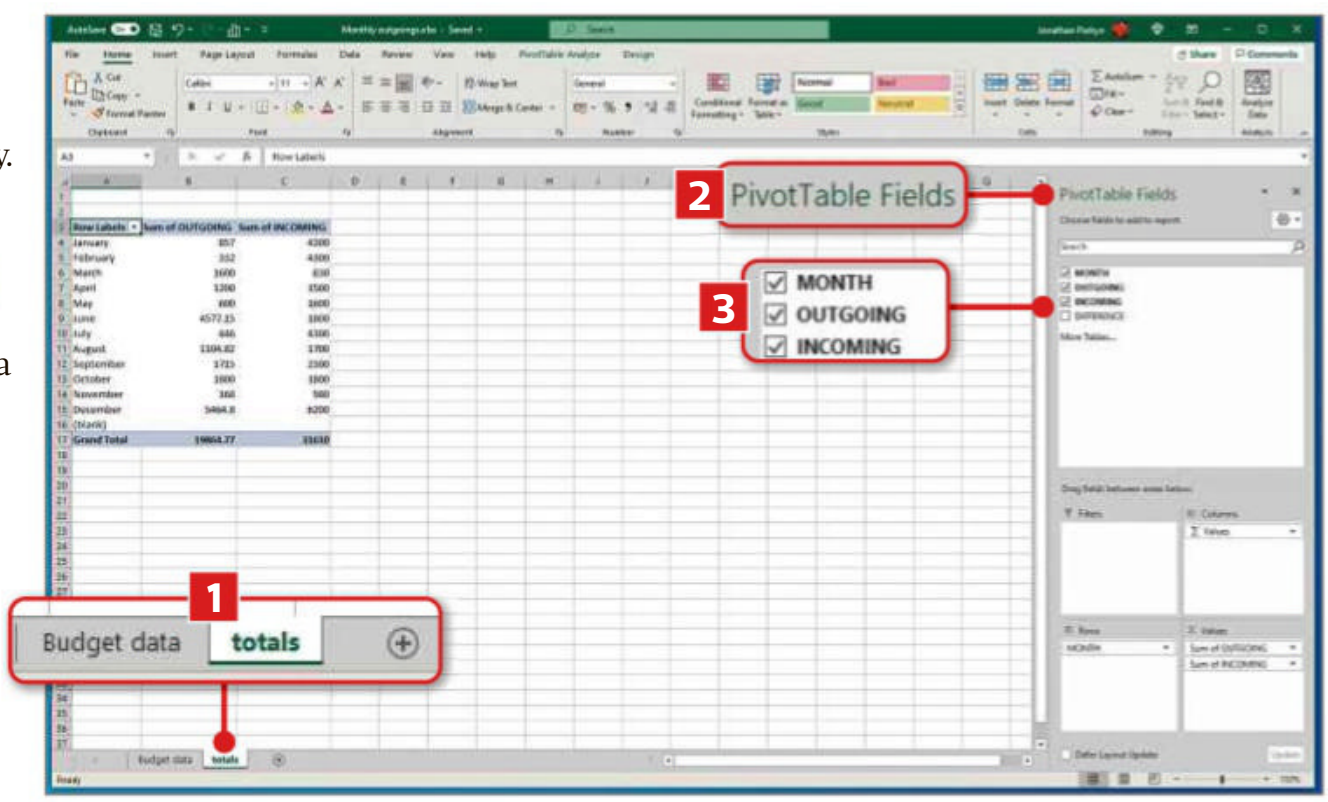




STEP 1 Open a spreadsheet file you want to include in your dashboard. Here, we're using a very basic monthly budget sheet, with columns for incoming and outgoing funds, as well as a column showing the difference. First, you need to format your spreadsheet as a table. Click and drag to select all the cells in the sheet, then click Insert, Table 1. In the Create Table box that appears, leave the 'Where is the data for your table?' field as it is 2, and make sure there's a tick next to 'My table has headers' 3. Then click OK 4 and OK again.

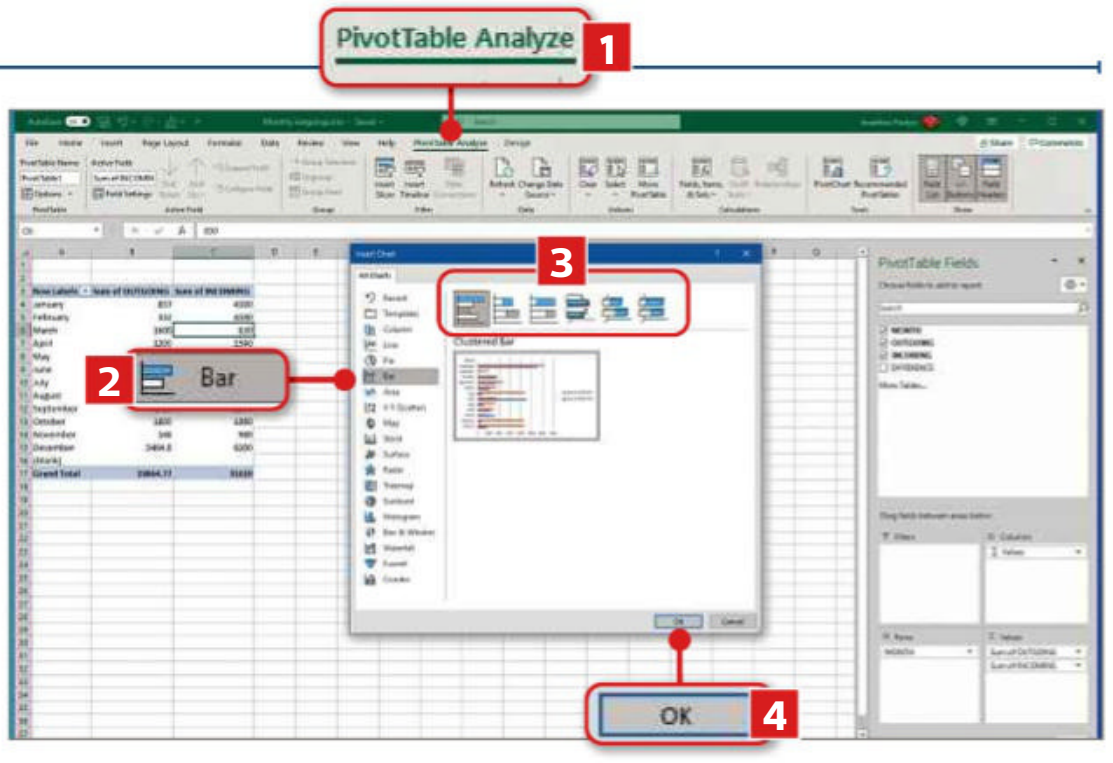
STEP 2 Click the Table Design tab on the Ribbon (if it isn't already selected), then under Table Names 1, type in a name for your table – Budget, for example – making sure you don't include any spaces. Next, on the Tools section of the Table Design tab, click 'Summarize with Pivot Table' 2. Make sure the name of your new table appears in the Table/Range box 3 and that the New Worksheet option is selected 4, then click OK 5.

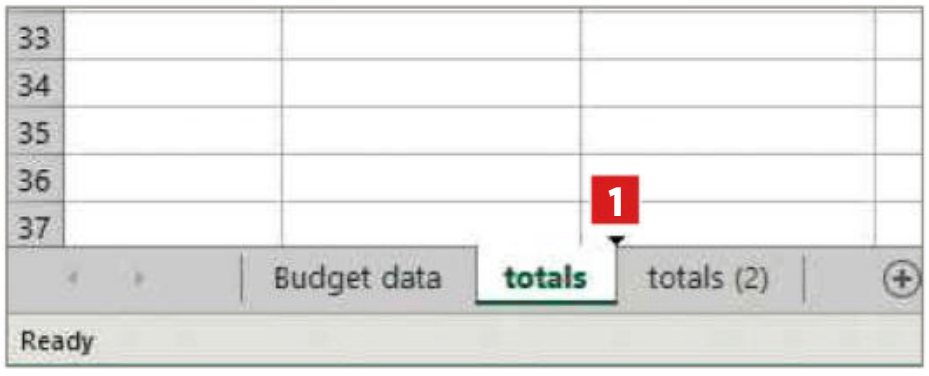
STEP 3 A new worksheet will open. Double-click the tabs at the bottom of each sheet 1 and rename them so they're easy to identify. Now we're going to create the first chart for our dashboard. Using the PivotTable Fields panel on the right 2, select the data you want to include in the chart. For example, we're creating a simple monthly totals chart, so we've ticked the boxes next to the Month, Outgoing and Incoming columns 3.



STEP 4

Click your Pivot Table, then the PivotTable Analyze tab 1 and select PivotChart. The 'Insert Chart' window will open. From the options on the left, select a type of chart that's suitable for your data. We've selected Bar 2, for instance. On the right at the top, you'll see further options to customise the way your chart looks 3, with a preview of what it will look like below. When you're happy with your choices, click OK 4.



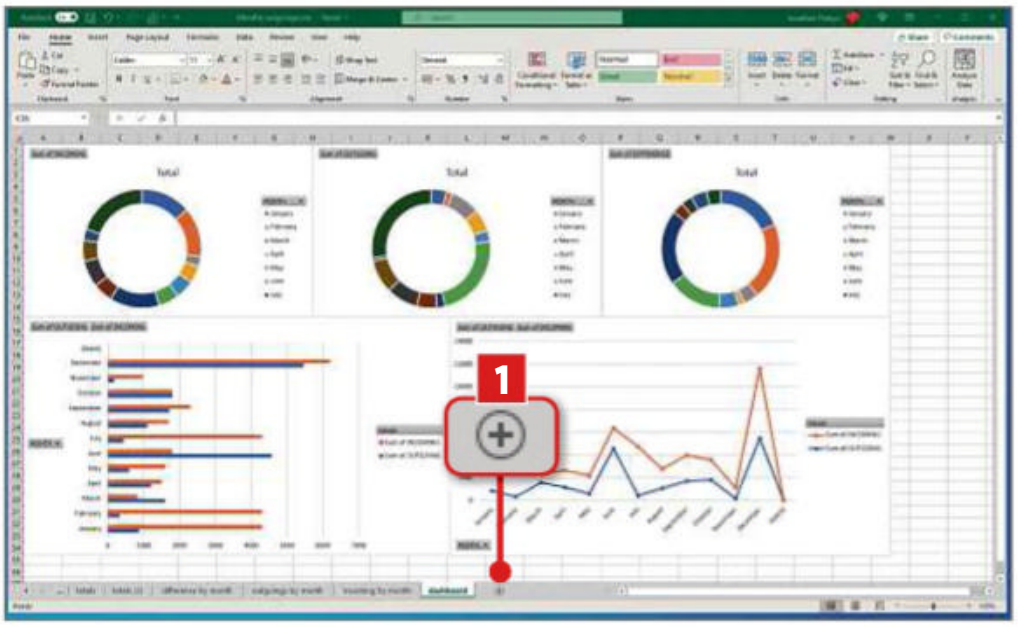


STEP 5

Now you need to create more charts and choose how you want the dashboard to represent the data. Create a copy of your Pivot Table by holding down Ctrl, then clicking the tab for your Pivot Table's worksheet 1 and dragging it to the right. Delete the chart in the new copy of your Pivot Table worksheet, then repeat steps 3 and 4 – this time selecting different data from the PivotTable Fields panel, a different chart style or both. Keep doing this until you have all the charts and graphs you need.

STEP 6

Now it's time to assemble your graphs into a dashboard. Click the + sign 1 next to the tabs at the bottom of the screen to add a new worksheet, and name it dashboard. Next, open one of the tabs that contains a Pivot Chart, click the chart, then press Ctrl+C to copy it. Then open your dashboard tab, click an empty space in the worksheet and press Ctrl+V to paste your chart. Do this with all your charts, arranging, redesigning and resizing them as you wish. Be as creative as you like.



STEP 7

As a finishing touch, you can add extra tools such as filters and timelines to help you analyse your data. To add a 'filter by' function, for example, click one of your charts, then PivotChart Analyze 1. Now select Insert Slicer 2. In the box that appears 3, tick a box to select the data you want to filter by and click OK 4. This adds a new panel to your dashboard that lets you filter the data displayed in the chart. In our case, we can now filter the chart by month 5.

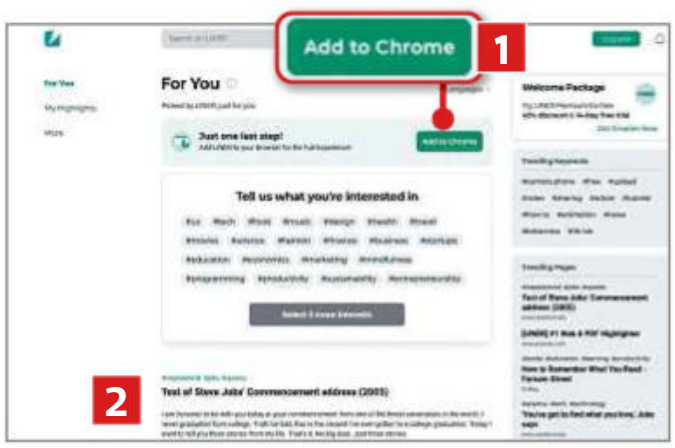
Workshop 2

Annotate and highlight text and videos

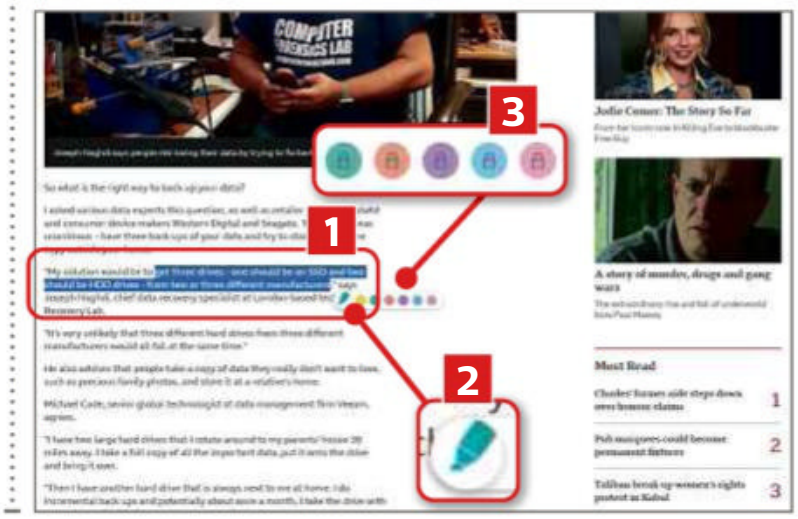
What you need: Web browser (not Firefox); Android or iOS
Time required: 10 minutes

As you browse the web, you may often come across content that you want to read or view later, or even return to regularly. Bookmarking is a great way to save websites or pages, but if you'd like to return to a particular section, paragraph or sentence on a site, or even a specific moment in a video, you need something capable of capturing more detail. Liner is the perfect tool. It effectively works as a highlighter pen for the internet that you can use on all your devices. Here, we explain how to make the most of it.

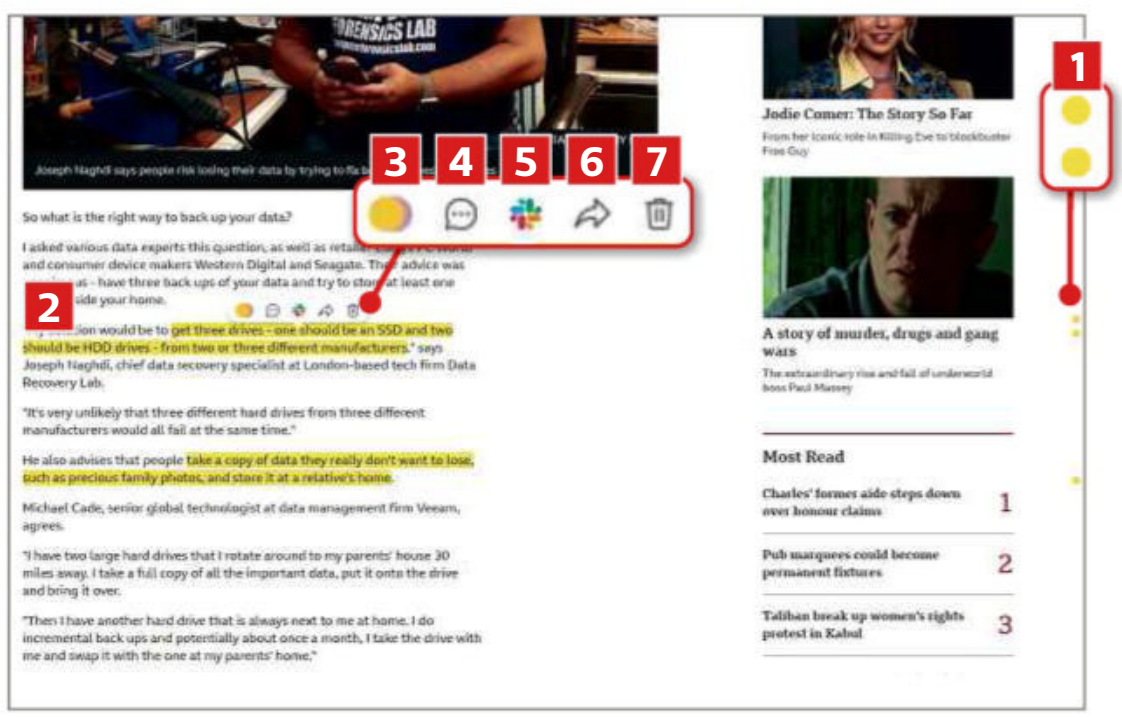
STEP 1 Go to http://getliner.com and sign up for a Liner account. You can sign in with an existing Google, Apple, Facebook or Twitter account, or set up a new account. Once that's done you'll see the For You page, where you'll see a 'Just one last step' box at the top. Here, click the link to the relevant browser extension 1 if you use a Chrome-based browser (such as Chrome, Edge, Brave or Opera) or Safari on macOS. Unfortunately, it doesn't work with Firefox. Once the extension is installed go through the introductory tutorials. You'll be prompted to choose topics you're likely to highlight so Liner can share relevant highlights from other users on the For You page 2, but if you can't see anything you like, simply choose a random selection.



STEP 2 Once the extension is installed, browse the web as normal. If you see a piece of text you'd like to save for later, highlight it with your cursor in the normal way (left-clicking at the start of the text, keeping the mouse button held down, and dragging to the end of the text 1). Release the button and the text will be selected as usual with a Liner icon at the end 2. Click this, ignoring the coloured circles that also appear 3, to highlight the text in yellow. The other colours are only available to paying customers, which costs $95 (around £68) per year. Most people will find the free version is more than sufficient for their needs.

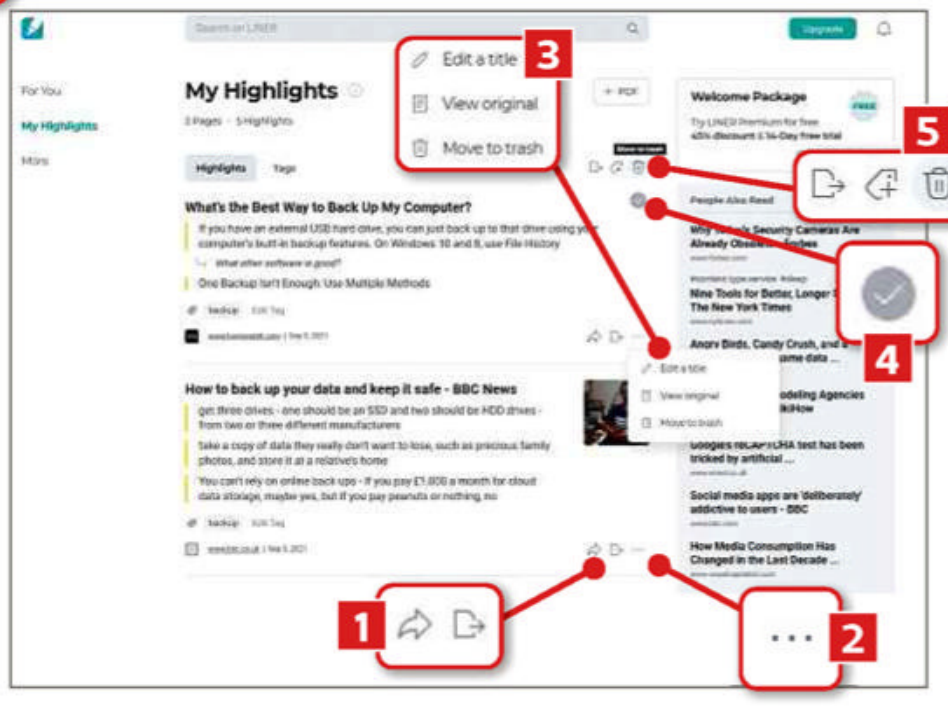


STEP 3 Whenever you revisit the web page that contains your highlighted text, click one of the yellow dots 1 next to the scroll bar to go straight to it. Click your highlight 2 to see a number of options. Paid-for users can change the colour 3, but free users can add a comment 4, share the highlight via Slack (if you use it) 5, or share it via several other services (such as Facebook and Twitter or by copying a link) 6. If you no longer need it, click the bin icon 7 to remove it.



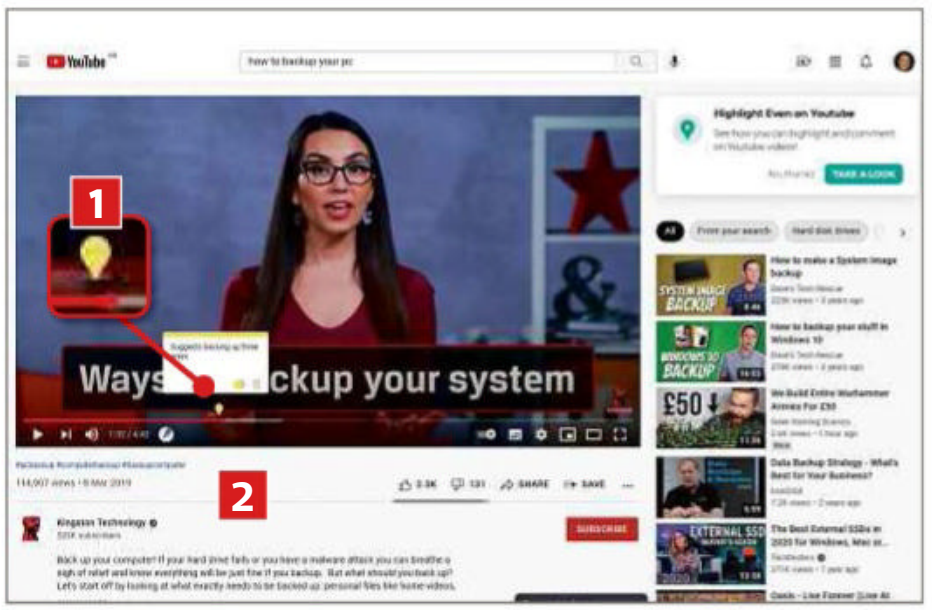
STEP 4

Return to the Liner website and click My Highlights 1 on the left to see your highlights 2. They will be listed in the order they were created, with the most recent ones at the top. Multiple highlights from the same web page will be grouped under the title of that page 3. Any comments you've made will be displayed below the highlighted text 4. If you intend to collect a lot of highlights, you can organise them using tags. Click the Edit Tag link 5 and type any relevant keywords that will help you find the highlight later. This can also be used to group similar highlights. You can then choose to list your highlights by their Tags 6. Click Highlights 7 to return to a chronological ordering.



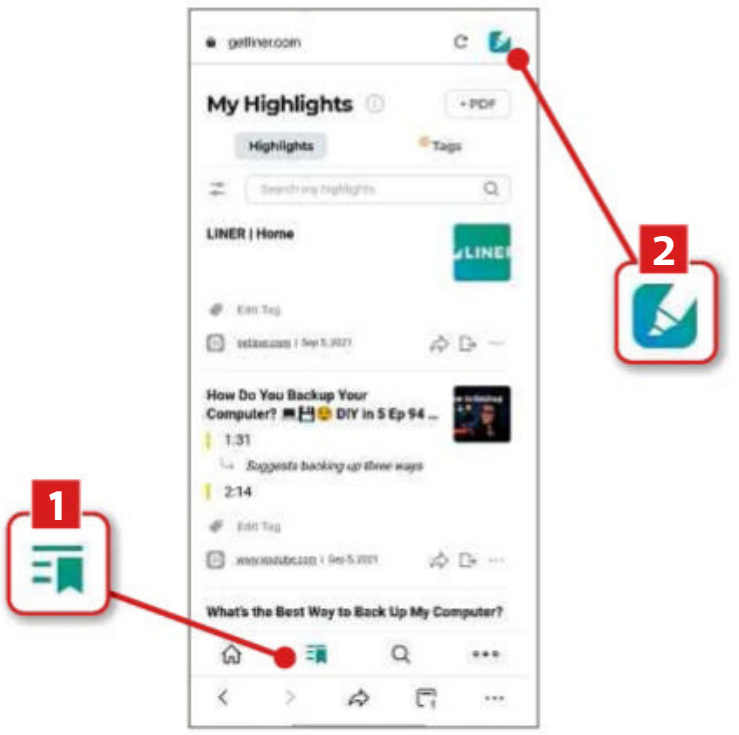
STEP 5

Share or Export highlights by clicking the appropriate icon 1 (the Export option lets you save the highlights as a Word, OneNote, Evernote or text file). Click the menu button 2 for more options that let you edit the title of the page, click through to the original or delete it 3. If you hover your cursor over a highlight, you'll see a grey tick in the top-right corner 4. This lets you select one or more highlights so you can manage them as a group. Once you've made your selection, Export, 'Add tags' and 'Move to trash' icons 5 will appear where the search bar was previously.



STEP 6

Liner has recently introduced a tool that lets you highlight moments in YouTube videos. While watching a video in a browser with the extension installed, hover over the video's progress bar at the point you want to highlight. Click the teardrop icon 1 and enter a comment 2 (optional). Highlights sit on the progress bar as yellow markers, so you can go back and edit or delete them later. When you return to the Liner website, the video highlights will be listed alongside the text highlights in the My Highlights section.



STEP 7

Liner has Android (www.snipca.com/39365) and iOS apps (www.snipca.com/39366), which let you access your highlights on your phone or tablet. It doesn't integrate with the browser you use, but instead installs a bespoke browser on to your device, which takes you straight to http://getliner.com when you open the app. From here, use the bookmark icon 1 at the bottom of the screen to access the My Highlights page. To add a new highlight, navigate to the relevant web page, then select text by long-pressing one word and adjusting it to cover everything you want to include. Finally, tap the Liner icon next to the selection. Use the Liner icon top right 2 to return to the My Highlights page.

Readers' Tips

TIP OF THE FORTNIGHT

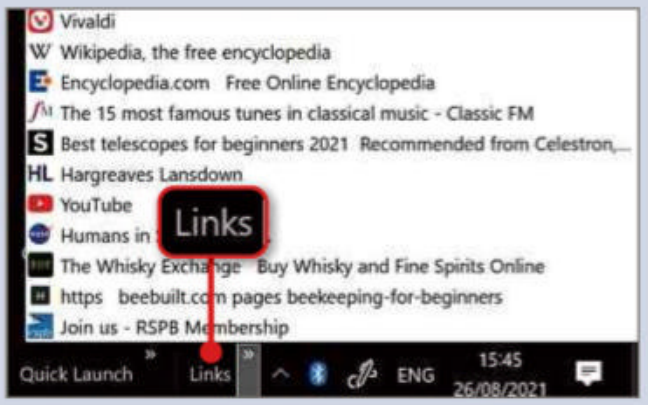
Add web-page apps as toolbar links

In Issue 612's informative How To on recovering icons (page 35), Nik Rawlinson explained how to add Quick Launch to your toolbar. I can see why this is useful, but I prefer the Links option, which gives me easy access to web pages I've turned into apps.

To turn a page into an app, click the top-right menu icon in Chrome (or another browser), followed by More Tools, then 'Create shortcut'. Give your app a name, then click Create. This adds it to your Start menu.

Next, right-click on a blank area of your toolbar, then click Toolbars, Links. You will see the Links option appear on your toolbar. I simply drag the apps I use most frequently into this. Instead of pressing the Windows key to show my apps screen, I click Links and open what I want from there (see screenshot).

This method is quicker than opening my apps screen because there I have to open the appropriate categorised folder before clicking the app I want.



David Cowling

David wins a copy of our 2020 Back Issue CD

Buy it on Amazon www.snipca.com/38164

AUDIO

Use DTS Play-Fi to stream music via Spotify

I use DTS Play-Fi software (https://play-fi.com, pictured below) to play music from Spotify around my house. It works flawlessly, with no connection problems or delay between rooms. I have an amp in my bedroom connected with an Audiolab streamer and another amp in the living room connected via a Klipsch Gate. I can control music from my laptop, phone or iPad, or from my iBasso audio player. I also have Onkyo and Pioneer speakers that connect via Play-Fi or Google Chromecast. In the iBasso player I have a 256GB microSD card containing 22,000 songs that I've collected over the years. I use Poweramp (https://powerampapp.com) to listen to those, and again I can cast those across the house.

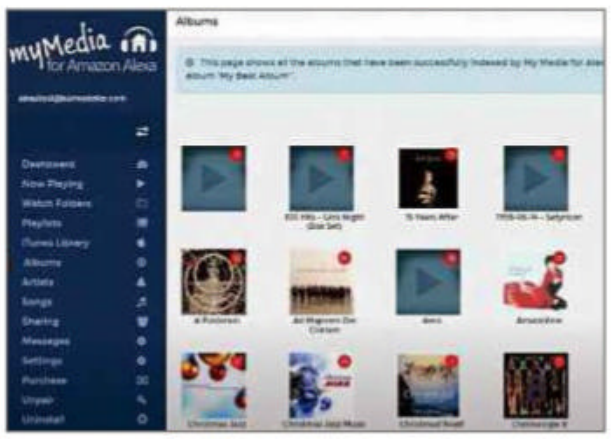
Tim Derricott

AUDIO

Stream music on Alexa from a Windows server

I have a number of Amazon Alexa devices in my home and like to listen to my own music, which I store on a small Windows server.

To do this I use 'My Media for Alexa' (https://mymediaalexa.com, pictured above), which you install on the computer that contains your media files. It runs in the background and catalogues your music collection. It also plays music from your iTunes library through Alexa.



It gives you a 'skill' to add to the Alexa app on your phone. I just say "Alexa, ask my media to play music by...", and it does.

It costs £4.50 a year, though there's a free trial. I've used it for more than five years and think it's great.

Phil Burton

Why I stopped using...

Google Play Music

When I got my first Android smartphone I used Google Play Music. It was a pretty basic music player, though sufficient for my needs. Then Google made the rather odd and annoying decision to withdraw it.

And what I use instead...

I tried a few alternative players before finding **Musicolet** (pictured) on the Play Store (www.snipca.com/39286). It's a free download, though I was impressed enough to pay for the upgrade.

It immediately highlighted all the deficiencies in Play Music, giving you 20 playlists to choose from. It also lets you play all the songs and albums by an artist in date order. Editing tags is made easy with a useful warning to prevent mistakes.

Paul Denyer

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

WEBSITE

Discover what type of glue you need

To your list of the internet's most useful websites (Cover Feature, Issue 614), I'd like to add www.thistothat.com. The name says it all. It tells you what type of glue you need to stick something (this) to something else (that). The dropdown menus (pictured) will suggest materials that you didn't even realise *could* be glued together (styrofoam to leather?).

Pete Crooke

TV STREAMING

Add apps to Amazon Fire Stick's home screen

In response to Robert Irvine's attempt to tweak the home screen of his Amazon Fire Stick (Issue 612, page 74), here's how to get your favourite six apps on the screen. Do a long press on the home key, then select Apps. Now go to your list of six favourites, then click the top-right menu button (three horizontal lines). Scroll down to and select 'Move to Front'. Do the same for the next five. Doing them in reverse order results in the last one becoming the first available.

Keith Holman

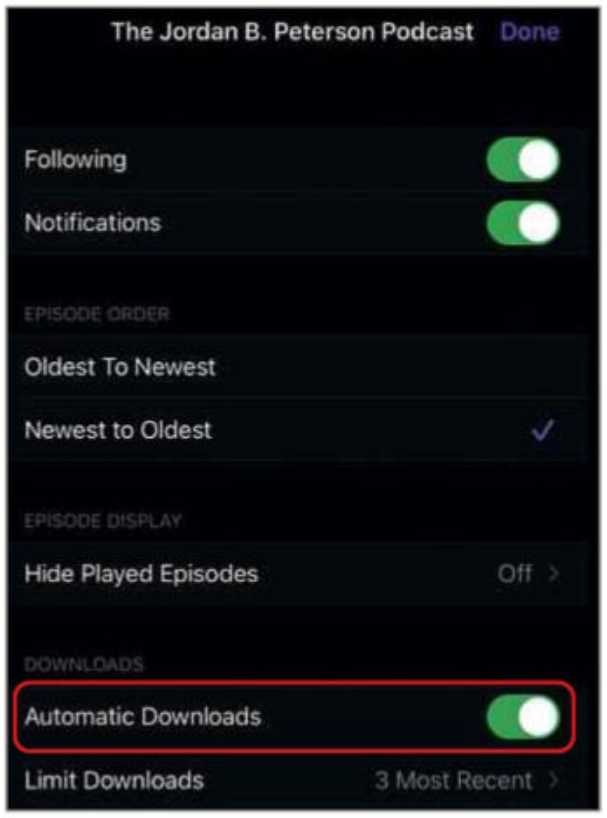
PODCASTS

Turn on 'Automatic Downloads' to save phone data

Lockdown has turned me into a podcast addict. I never listened to any before March 2020 – now it's about 20 a week!

However, I'm also a frugal pensioner, so I can't afford to bust my monthly data limit. So, on my iPhone, I select my favourite shows to automatically download, letting me listen to them offline.

To do this, open a show in your podcast library, then tap the three-dot icon at the top right. Now tap Settings, then tap the Automatic Downloads slider so it turns green (see screenshot above right). All



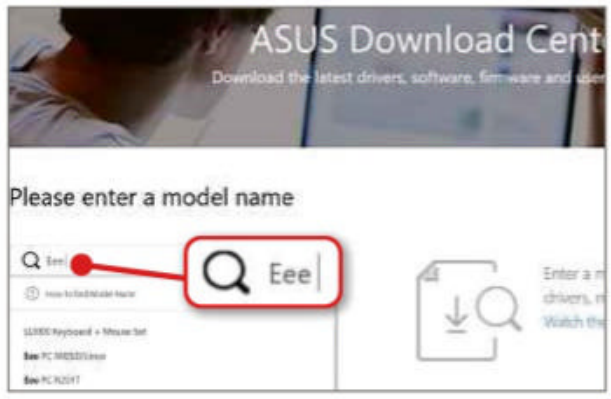
future episodes will now download, without you having to remember to do so manually. I should add that this works on my newish iPhone running iOS 14, but I haven't checked whether it's the same on older models.

Harriet Grey

WINDOWS

Install Asus driver to update Windows 10 versions

I have an Asus laptop (the Eee PC Seashell series), which is about 10 years old. It came with Windows 7, but a few years ago I upgraded to Windows 10 (version 1709). However, I've not been able to update beyond that. Installation to version 20H2 stalled at 23 per cent.



I was delighted to read in Issue 612 (page 68) that Asus released a driver update that should allow users to update Windows 10. I couldn't find that specific driver for my laptop on Asus's website (www.snipca.com/39287, pictured above), but there was one for Windows 8.1 so I downloaded that. I then tried to update to version 21H1, leaving it running overnight. When it finished, it showed a warning that my user profile could not be found. I rebooted and it began to check the C: drive. Once that had completed, I could sign in but had to reset the country and language from US to UK. I'm telling you this in case it is of help to anyone else who might be having similar problems.

Roger Lewry

Reader recommends...

Anker PowerConf C300 webcam

£80 from Amazon www.snipca.com/38752

When lockdown began I started co-hosting an online video quiz with my wife. Restrictions may have ended now, but we've continued the quiz to include my local church group, and regularly have four or five people 'hosting' the quiz in the same room.

This meant I needed to find a webcam that could capture several people without making them look distorted. You gave Anker's PowerConf C300 a five-star review in Issue 610 (page 28), and I was tempted by its 115-degree angle. But its £100 price was more than I was prepared to pay for a webcam. I checked again a few weeks later and the price had fallen to £80. That was cheap enough.

Since buying it, I've been impressed by its superior features. I never knew webcams could follow your face, zooming in and out. It's fantastic.

Richard Delaney

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

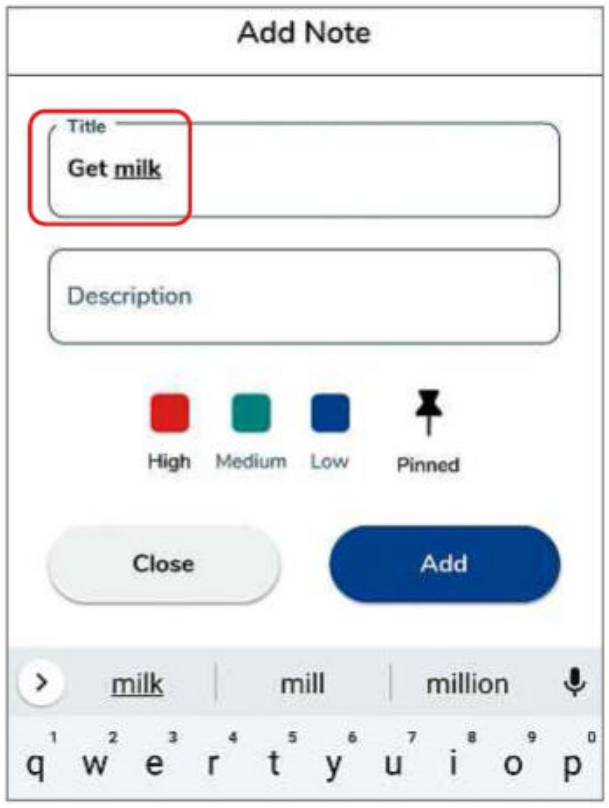
Phone and Tablet Tips

ANDROID

Pin notes to self on your notification bar

Setting a reminder or alarm is a good way to jog your memory. But if you've ever dismissed the alert or notification, only to instantly forget the important thing you were supposed to do, then you'll know these methods aren't infallible.

A free app called Notepin (www.snipca.com/39355) provides a solution. It lets you pin notes (reminders, to-do tasks and more) to your Android device's notification bar. The big difference is that you can't just swipe these away as with other notifications. They'll remain there, constantly reminding you of what it is you need to remember until you manually delete them.



To pin a note to yourself, open Notepin then tap the '+' button. Type a title for your note – 'Get milk', for example (see screenshot below left) – then add a brief description (optional). Choose a priority level – High, Medium or Low – and tap Add. To remove the note from your notification bar, open Notepin again and tap the X button on your note, then tap Delete.

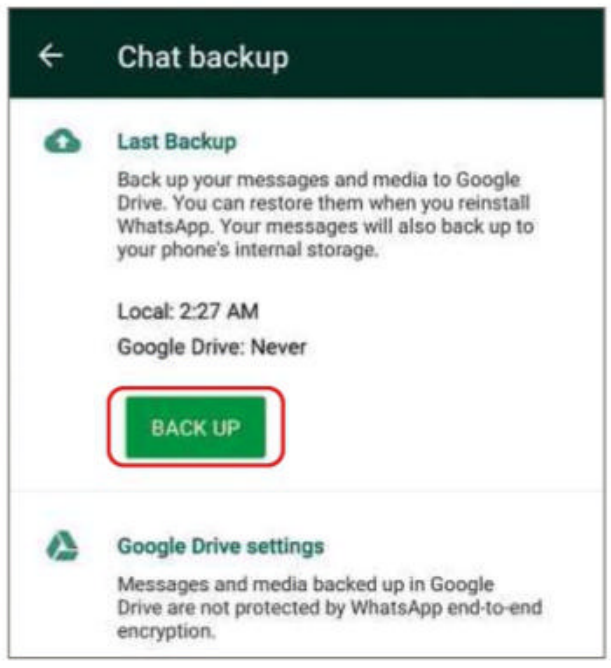
ANDROID

Back up your WhatsApp chat history before it's too late

From 1 November, WhatsApp will stop supporting devices that run Android version 4.0.4 or older – check Settings, then 'About phone' to see which version of Android you're running.

If your phone is affected, the only solution is to upgrade to a newer model that runs Android 4.1 or later. And unless you take action before the 1 November deadline, you could end up losing your chat history. We recommend waiting until just before the November deadline to back up your chat history – otherwise any messages you send or receive after you've backed up may be lost.

First, open WhatsApp, then tap the menu (three dots) icon and select Settings, Chats, followed by Chat backup. Here, tap Google Account and enter your Google login details. Enable the 'Include videos' option, then tap Back Up (see screenshot above). This will save a copy of your chats to your Google Drive account.



As a precaution, you can also export individual chats with groups or contacts as a .TXT file. To do so, open the chat you want to export, then tap the menu icon and select 'Export chat'. You'll be prompted to Include Media (photos, GIFs and so on) or export Without Media. We suggest selecting Without Media here, because WhatsApp limits the number of messages it will export if you choose to include media (you can always save individual photos that you want to keep separately). Make your selection and you'll be presented with some sharing options – you can choose to save to Google Drive here or send your TXT file to yourself as an email attachment.

BEST NEW APPS What you should install this fortnight

Soosee

Free*

Android www.snipca.com/39358

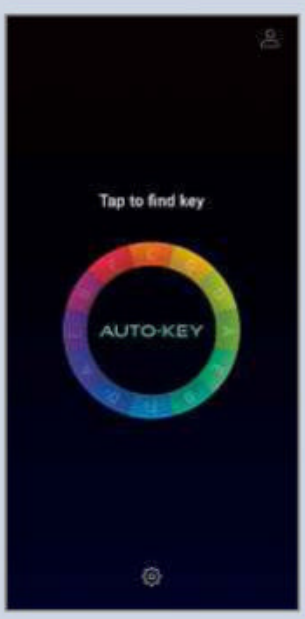
iOS www.snipca.com/39359

The ingredients on food packaging are often hard to read. But Soosee lets you quickly identify anything you might need to be aware of – handy for those with food allergies and intolerances, for example. Select the food types you want – such as gluten or shellfish – then point your device's camera at the text.

Auto-Key

Free

iOS www.snipca.com/39357



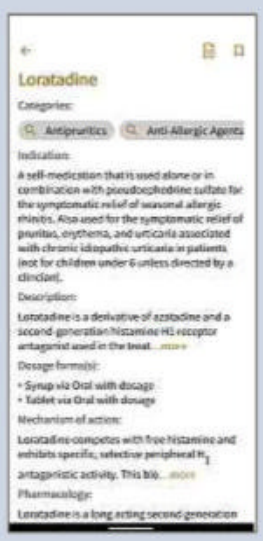
Ever heard a piece of music and wondered what key it's in? Now there's a quick and easy way to find out. This app works a bit like Shazam – tap the big Auto-Key button and let it listen to the tune that's playing. After a moment's analysis, it will display the relevant key.

Fowsi

Free*

Android www.snipca.com/39356

Why drug companies like to give their products such incomprehensible and unpronounceable names is beyond us. Happily, you can now look up any medication using Fowsi – a searchable database of drugs that provides details, including what each one is used to treat, typical dosage formats, brand names and more.



*Contains in-app purchases

iOS

Convert iPhone notes to PDF files

The iOS Notes app lets you share notes with other people. But unless they are iOS or Mac users, they'll have trouble accessing the files. There is, however, a hidden way to convert Apple's notes into PDFs. That way anyone can open them, whether they're using a Windows PC, Android phone or pretty much any other device.

To do so, open your note, then tap the menu (three dots) button in the top-right corner of the screen and select 'Send a Copy'. Select 'Markup' from the options that slide up from the bottom of the screen.

You can annotate your note before you convert it using the tools at the bottom of the screen. When you're ready, tap Done, then select Save File To (see screenshot above). Choose a location – either your iCloud Drive storage or your iPhone – then tap Save. You can now navigate to that location using the Files app and use the Share option to send it.

ANDROID & iOS

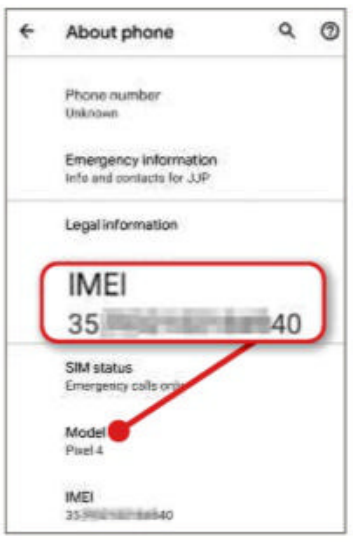
Check if a second-hand phone was previously stolen

Buying a second-hand smartphone can save you money, but it's always a risk. If it's been previously stolen, for example, it may have been blocked by mobile networks, rendering it useless.

To check you'll need to find the IMEI number of the phone and you'll only be able to do this if you have it in front of you – for example, if you're buying it in person from a high-street store. If you're buying from someone online, you could ask them to send you a screenshot of the IMEI number. However, there's no way of verifying whether the number they send you belongs to the phone you're buying.

If you're unable to carry out the IMEI check prior to purchasing, we suggest you do so as soon as the phone arrives. Assuming you bought it through a reputable outlet, such as eBay or Amazon, and it turns out to be stolen, you should be able to report the seller and get your money back.

To locate the IMEI number on an iPhone, open Settings then tap General followed by About. Scroll down to the Primary section to see the IMEI number. On an Android phone, you'll find the IMEI number listed under Settings, then 'About phone' (see screenshot above right).



Make a note of the number, then go to https://imeipro.info. This site lets you check the IMEI number against an international database of devices that have been reported stolen. Type the number you noted down in the box labelled 'Enter IMEI Number here...' and carry out the captcha test, then click or tap the Check button. With any luck the device's Blacklist status will be listed as Clean.

It's worth making a note of your phone's IMEI number anyway – that way, if it's ever lost or stolen, you can report it to IMEIpro yourself, so the site can add it to its blacklist.

BEST APPS FOR... Counting your daily steps

Pedometer++

Free*

iOS www.snipca.com/39360

If you're fed up with health apps having too much clutter, this iOS-only app could be the answer. It focuses on just one thing – counting your steps – and presents your achievements in easy-to-understand charts. Everything is straightforward, from customising your daily step goal to switching between kilometres and miles.

Best For Simple step-counting

Pacer

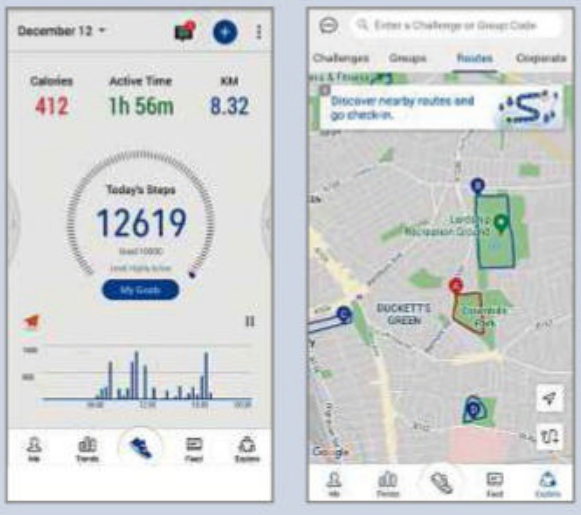
Free*

Android www.snipca.com/39361

iOS www.snipca.com/39362

Those looking for something with more features should check out Pacer. Most notably, the app's GPS support lets you track your exercise on maps, along with suggested local routes. The premium version (£4.99 per month) adds extra video workouts, support for third-party fitness-tracking devices and more.

Best For Monitoring walking routes



Runtastic

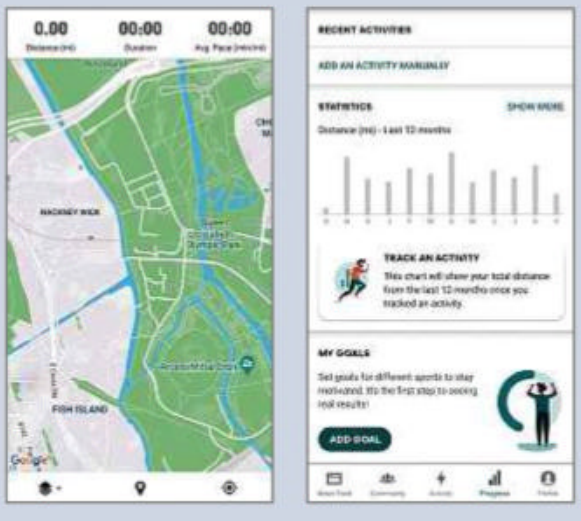
Free*

Android www.snipca.com/39363

iOS www.snipca.com/39364

This fitness app from Adidas is designed to track your exercise across jogging, cycling and other activities, as well as walking. It has built-in GPS support, community challenges and the ability to connect to other fitness apps. Going premium (£53 per year) lets you set custom training plans.

Best For Serious fitness enthusiasts



*Contains in-app purchases

Make Windows Better

Expert tips for every version

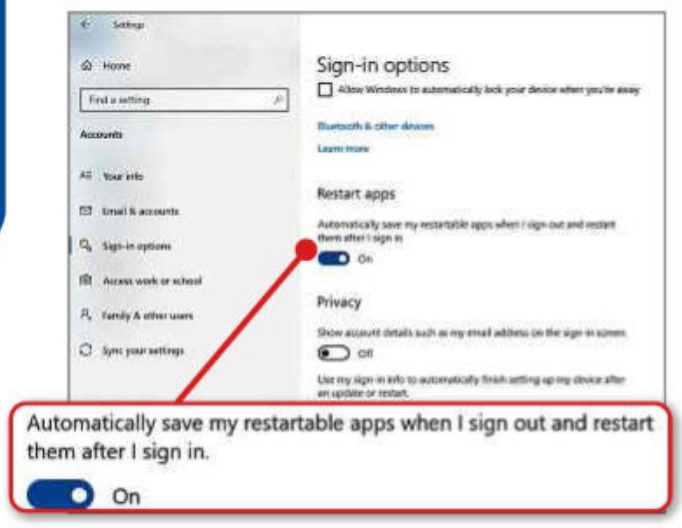
WINDOWS 10

Resume apps after a PC restart

By default, when you restart your PC, Windows shuts down any apps you were using, so you have to relaunch them manually. But a useful Windows feature automatically launches built-in apps such as Photos and Mail (and any you install from the Microsoft Store) that were open before you restarted. For example, Mail will launch and open the same folder you were using.

Press Windows+I to open Settings, then click Accounts and choose 'Sign-in options' from the sidebar. In the pane on the right, scroll down to the 'Restart apps' section. Here, turn on the slider next to 'Automatically save my restartable apps when I sign out and restart them after I sign in' (see screenshot below).

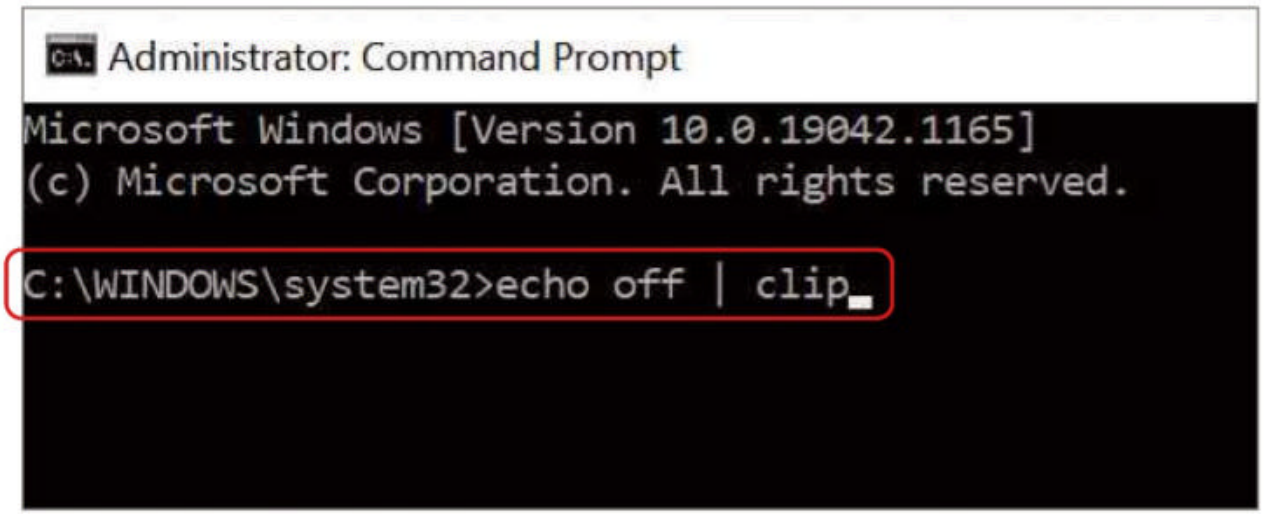
Windows 10 will now remember which apps you had open before you restarted your PC, and launch them automatically when it reboots.



WINDOWS 10

Clear clipboard cache to fix cut and paste

If you find you can't paste files you've copied to your computer's clipboard, the problem might be that your clipboard's cache has grown too big and contains too many items. You can fix this by removing the items. Open the Start menu, type Command Prompt, and select 'Run as administrator' on the right. In Command Prompt, type the command echo off | clip, then press Enter. Once Windows has executed the command, your problem should be fixed. The cache will now accept new files, allowing you to use the copy and paste functions again.



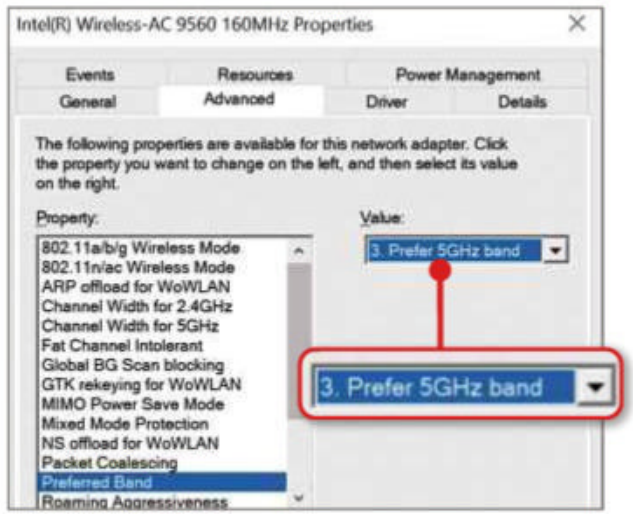
WINDOWS 10

Set 2.4GHz or 5GHz frequency

Most Wi-Fi networks use either the 2.4GHz or 5GHz frequency. The latter provides faster data speeds but a shorter range. You can check which frequency your computer is using in Device Manager - open it by right-clicking the Start menu and selecting Device Manager, or press Windows key+X and select Device Manager in the menu that pops up.

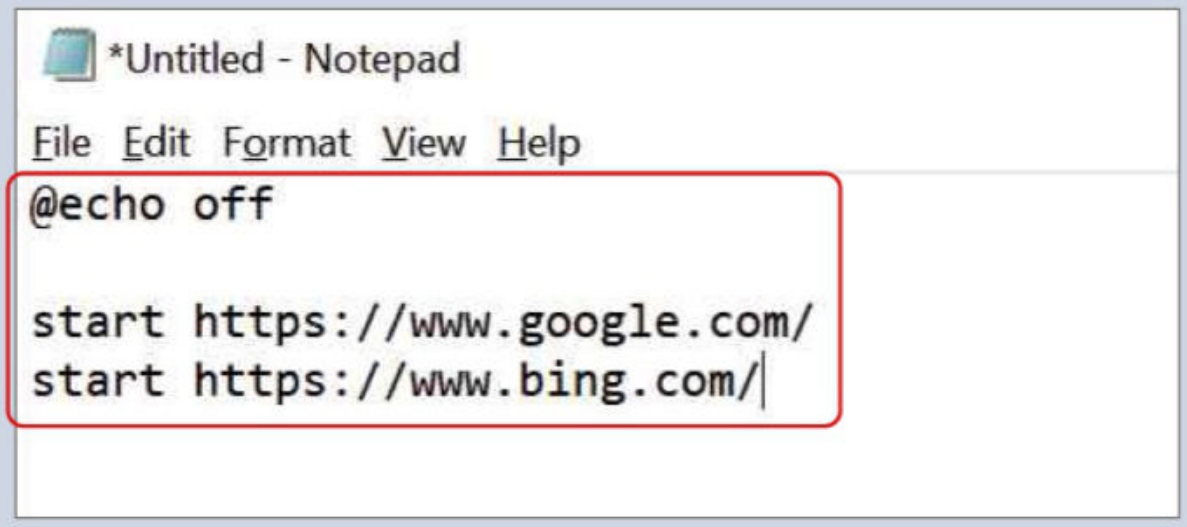
Next, select View, followed by 'Show hidden devices'. Click 'Network adapters', right-click your Wi-Fi adapter, then select Properties. Now open the Advanced tab, select Preferred Band on the left and choose either 2.4GHz, 5GHz or no preference (see screenshot below). Click OK to save your changes.

You should only choose 5GHz if your router supports it.



WINDOWS 7, 8.1, 10

Launch multiple sites using a batch file



Do you have a few favourite websites that you always launch when browsing? If so, you'll appreciate a feature in Windows 10 that lets you launch these sites with a double-click. To do this, you must create a batch file, which is a file containing a series of commands that Windows processes in sequence.

Open Notepad on your computer and type the following (see screenshot)

```
@echo off

start https://www.google.com/
start https://www.bing.com/
```

When typing the command above, change the links for Google and Bing to those for sites you want to open. Then click File, Save As. Give your file a name, adding .bat at the end (opensites.bat, for example). Select All Files from the 'Save as type' menu. Finally, click Save to save your file.

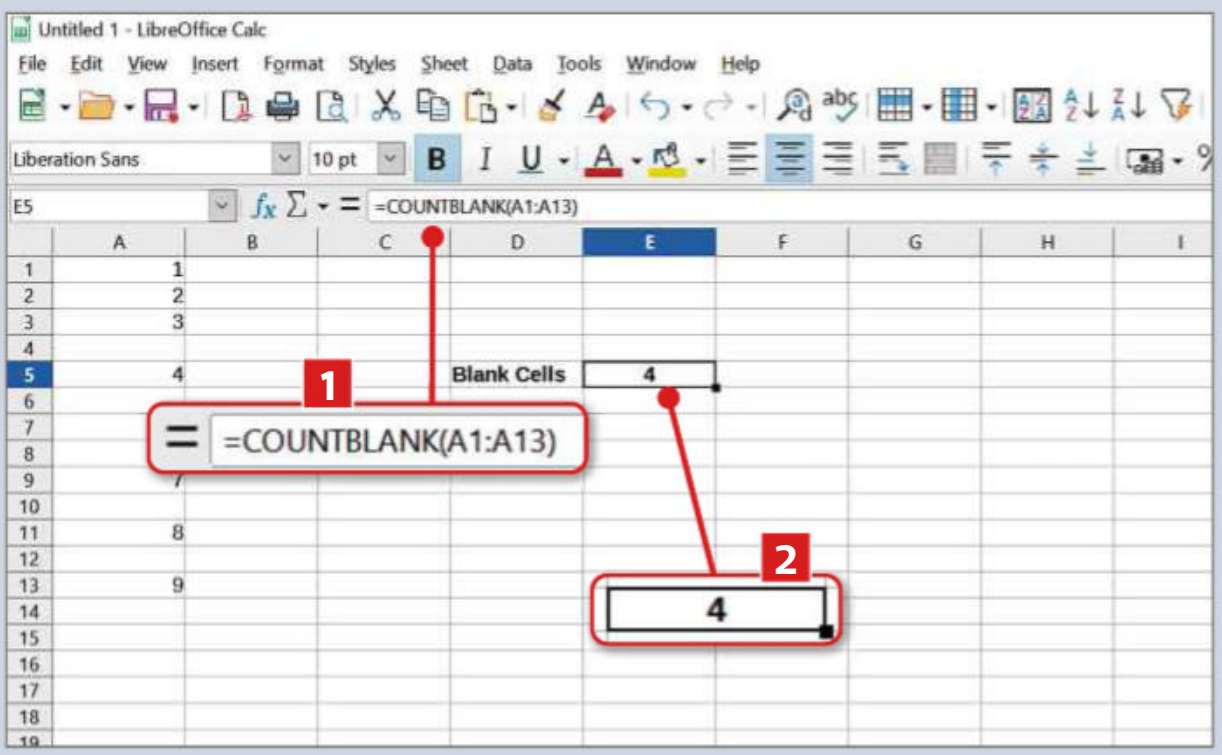
Now when you double-click your new batch file, it will launch all your specified sites in your default browser.

LIBREOFFICE CALC & MICROSOFT EXCEL

Count the empty cells in your spreadsheet

There may be times when you need to count the number of empty cells in a spreadsheet. You can do this in LibreOffice Calc and Microsoft Excel using the 'COUNTBLANK(range)' function.

First, click the cell in which you want the answer to appear (we've chosen E5), then type COUNTBLANK(range) into it and press Enter. Replace 'range' with the range of cells you want to include in your calculation. To count all blank cells from row A1 to A13, for example, use the function =COUNTBLANK(A1:A13). This function will appear in Excel's formula bar (1 in our screenshot). The answer '4' is revealed in cell E5 2.



LIBREOFFICE WRITER

Create a picture watermark

If you want to create a watermark for your documents and images, you're not limited to using words – you can create picture watermarks, too. In LibreOffice, open a document and click Format, then Page Style. Next, open the Area tab and click Bitmap. Click Add/Import (see screenshot below) and add the picture you want to use as a watermark. Then click OK.

To ensure your watermark appears in the centre of the page, click the Position dropdown menu and choose Center. Next, open the Transparency tab, switch on the Transparency option and set it to around 50 per cent, then click OK.

Your chosen image will now appear as a watermark on your page. To adjust the watermark effect, play around with the options in the Area and Transparency tabs.

MICROSOFT EXCEL

Hide and unhide sheets

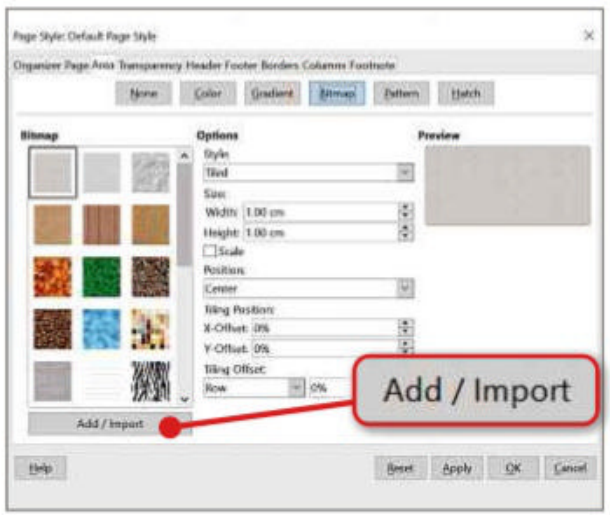
Microsoft Excel lets you hide sheets so you can focus just on those you're currently using. At the bottom, where Excel displays your sheets, right-click the sheet you want to hide, then select Hide from the menu (see screenshot above). Your sheet will disappear from the sheets bar. To make it reappear, right-click any sheet on the sheets bar and select Unhide. In the box that opens, choose the sheet you want to unhide and click OK. Keep in mind that anyone can use this option to reveal hidden sheets, so don't use this technique to keep confidential data out of sight.

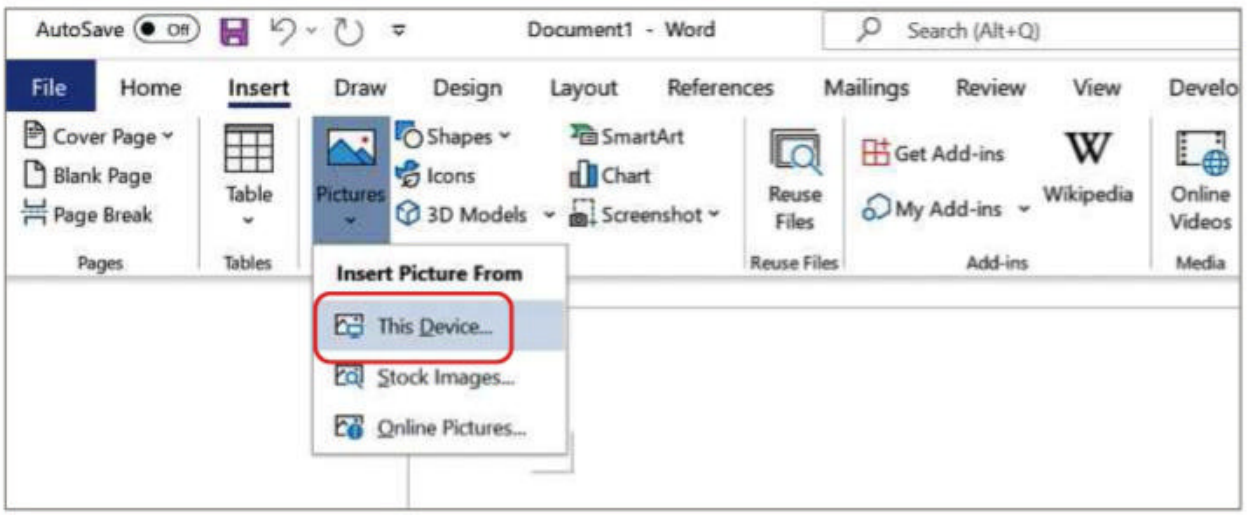
MICROSOFT WORD

Add a GIF to a document

As well as still images, you can add animated GIFs to your Word documents, bringing a touch of fun or interest to your work. Open your document and then, in the top bar, select Insert, Pictures, This Device (see screenshot below). Choose a GIF you've saved on your PC, and Word will import it into your document. You can now edit this GIF as you would any other image.

If you don't have any animated GIFs, go to Giphy (https://giphy.com) and Tenor (https://tenor.com), where you'll find thousands you can use for free.





In The Club

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

Design your own template for newsletters

Sending regular newsletters is a great way to keep members informed about what's happening in your club. You could send this as a simple email, but if you want more professional-looking results, try a newsletter service. Here, we'll explain how to use EmailOctopus (https://emailoctopus.com), which has plenty of templates you can customise, and also lets you create your own.

Create a list of subscribers

First, we should point out that the free version of EmailOctopus has a few limitations. You can only send emails to a maximum of 2,500 subscribers, and no more than 10,000 emails per month in total – so, for example, if you have 2,500 members, you'll be able to send four newsletters a month. If you have more than 2,500 subscribers, switch to Pro, which costs from £18 a month.

Sign up to the service, validate your account by clicking the link you receive in an email, then fill in your personal details such as your first and last name, club name, club website address, and so on. Click 'Next', then enter your club's address (you need to do this to comply with anti-spam laws). Click 'Next' again, and EmailOctopus will review your account to make sure everything is fine.

You now need to create a list of subscribers. Click 'Lists', followed by the 'Create a list' button on the page that opens. Enter the name of your club, then either import the list of subscribers from a file (in CSV, DSV or TXT format) or enter each member's details, one at a time. Each entry requires an email address, first name, last name and status (subscribed or unsubscribed).

Choose or create your template

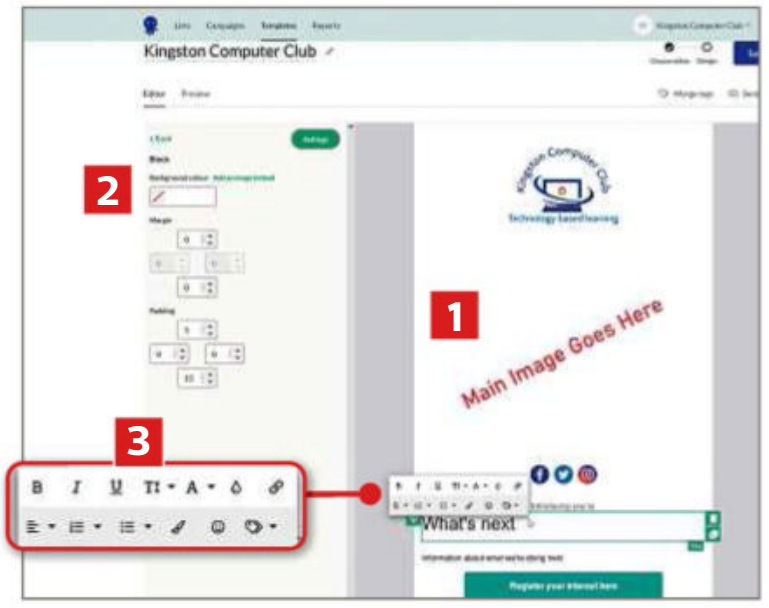
EmailOctopus comes with 34 templates. To browse them, click the Templates tab at the top followed by 'Our templates'. Alternatively, create your own. Click 'Your templates', then the 'Create a template' button.

You can create templates using either the Classic editor (which is ideal for basic emails or editing text and HTML) or Drag & Drop, where you drag blocks of content such as sections and headings. The latter is the easier option for beginners, so we'll use that.

Click 'Choose' under Drag & Drop, give your template a name, then click Logo. Click 'Change image' to upload your club's logo, then use the slider to adjust its size. You also have the option of adding a generic image to the template, by clicking 'Choose an image'. However, you'll probably want to use a different image for each edition of your newsletter, so you could leave this blank, or type a reminder to insert the main image, as we have done (1 in screenshot below).

Now click the text boxes under the image and start typing to change the text. You can add a background colour and, in the left sidebar 2, adjust line spacing, margins and padding (the space between content and its border). A formatting bar appears above the text 3, which you can use to change the font, text size and colour, and add URL links.

Click the Back button to go to the editor screen, then click Content. From here you can add elements to your template by dragging and dropping the relevant box (title, text, image and so on) to a place on the template. Use the Rows section to add more spaces for



When creating your template, you can add a main image (or a reminder) 1, adjust spacing 2 and format the text 3

The Preview shows you what your template will look like on a computer or phone screen

content, or Settings to customise the background colour (or add a background image) and adjust the style, size and colour of your text.

Click 'Preview' (1 in screenshot above) to see what your template looks like. The screenshot shows how ours looks on a computer screen 2, but you can also check what it looks like on a phone 3. When you've finished designing your template, click Save at the top right.

Send your newsletter

To send your first newsletter, click Campaigns, then 'Create a campaign'. Choose which type of email to send: regular (one-off) or automated (when someone subscribes). Fill in your details as the sender, and select the list of recipients. Advanced tracking options can tell you who has opened the newsletter and when. Click 'Save & next' at the top right, then 'Your templates' and choose the template you created. The editor screen will open. Now you can write your newsletter, adding images as you go. When you've finished, click 'Save & next', then choose when to send the newsletter – immediately or at a specific time.

Next issue: Create an online map that members can add details to

What's All the

Fuss About...

Tone detector

Microsoft wants to watch your language when you write emails

What is it?

"What is it, *please*?" we think you mean. It can be tricky to gauge a person's tone from their written words, which is what Microsoft's new tone detector aims to help with. It's a feature that's been added to the web-based version of Outlook (https://outlook.live.com), which will "offer writing refinements and suggest conversation tone" when you're writing emails.

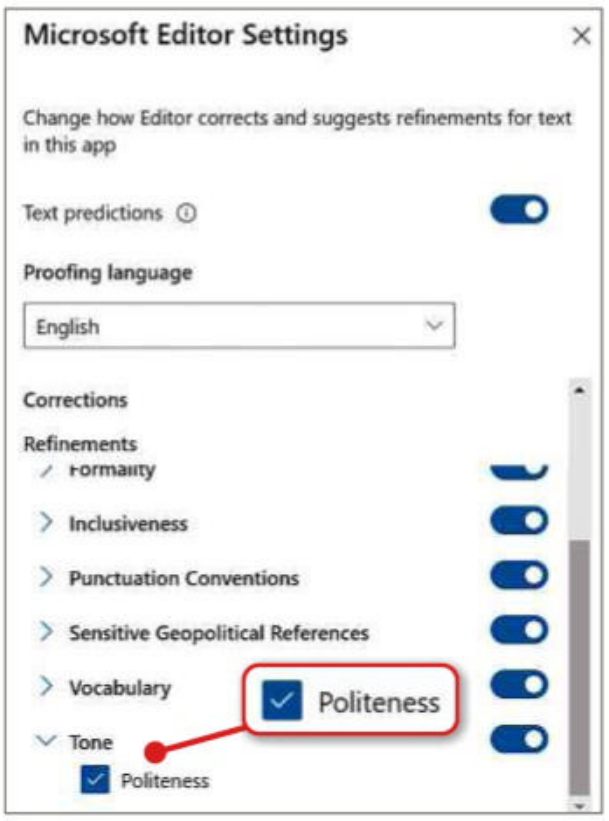
Does Microsoft think I can't write proper?

Not necessarily, but the tone detector will (theoretically) ensure that your message is properly understood by the recipient. Microsoft says it will allow you to "communicate more clearly and in a desired tone to deter misinterpretation". It works by using AI to analyse a "combination of signals" in the email you're writing, and suggesting how you can improve your phrasing to sound the way you intend.

The feature is similar to a spelling and grammar checker, such as Grammarly (www.grammarly.com), but recommends refinements in tone instead of highlighting misspelled words, punctuation mistakes and grammatical errors.

So will Microsoft be reading my emails?

Sort of, but the company says that the tone detector will only generate its suggestions by collecting data on the same server as your Outlook mailbox, and that it won't store content from your emails on Microsoft's own servers.



Another innovative idea from Microsoft? Hey, watch your tone, cheeky!

Why am I not reassured by that?

Well, you might be more reassured to learn that the tone detector feature is disabled by default. It's actually part of the Microsoft Editor tool, which is built into Outlook (and Word) in paid-for Microsoft 365 plans, and can also be installed as a browser extension for Chrome and Edge (www.snipca.com/39371).

This free add-on checks your spelling and grammar on other websites, too, including Facebook, LinkedIn and Gmail, but - unlike the built-in tool – it doesn't offer any extra options.

Additionally, at the time of writing, the updated Microsoft Editor that contains the tone detector is only available to Microsoft 365 Business users. It will eventually be offered to everyone who subscribes to Microsoft 365 Personal (£5.99 per month) or Family (£7.99 per month), but won't be included in the free version of Microsoft Editor. If you pay for a plan, Microsoft Editor will also detect potentially sensitive geopolitical references, and matters of inclusiveness, formality and vocabulary, such as suggesting you use "police officer" instead of "policeman".

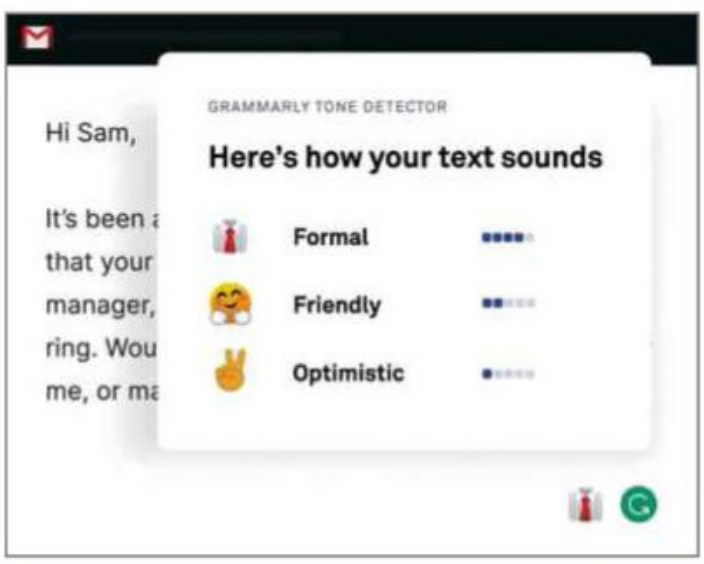
> "It lets you communicate more clearly and in a desired tone to deter misinterpretation"

How do I turn on the tone detector when available?

All you need to do is click the Microsoft Editor icon, which looks like a blue pencil next to a slanted 'E', at the bottom of the message you're writing, to open the tool's settings. Switch on 'Tone' and choose the tone you want your Outlook emails to adopt, such as "Politeness" (see screenshot above). The tone detector will then analyse what you write and make recommendations to help you achieve your desired tone.

Can't I get a tone detector right now?

No need to be abrupt – you clearly need one! Yes, the aforementioned Grammarly introduced tone detection two years ago (see screenshot left), which is available in its browser extension and the Grammarly Keyboard mobile app (www.snipca.com/39372). However, you'll need to pay for Grammarly Premium to use it, which costs from $12 (£8.70) per month.



Grammarly already offers a tone-detection feature as part of its Premium plan

Hack Your SMART TV

TVs have never been more advanced, but there are ways to make them perform even smarter tasks. Robert Irvine and Wayne Williams reveal expert tricks for getting the most out of that clever box in the corner of your living room

WHAT YOU CAN DO

- Add new apps to your TV by sideloading them
- Remove unwanted apps from Samsung TVs
- Mirror your phone or tablet's screen on your TV
- Stream files from your PC to your smart TV
- Listen to TV wirelessly through Bluetooth headphones
- Control your TV using your voice
- Stop your TV collecting data about what you watch

Just as colour televisions superseded black-and-white sets, smart TVs have become the most popular means of watching telly at home, and around 65 per cent of us now own one (see www.snipca.com/39413). That figure should rise even further now that Amazon has announced plans to make them (www.snipca.com/39419). The days of missing your favourite programmes or complaining that there's "never anything good on" are long gone.

With so many great streaming services and apps to choose from, smart TVs provide such a constant flow of entertainment you might wonder how there could possibly be even more to them. But as we'll explain over the next few pages, it's likely you've barely scratched the surface of your smart TV, and all the clever things it can do.

While many smart TV owners simply stick with the apps provided on their home screens, we'll explain how to become a 'power viewer' by installing any app you want. We'll also reveal how to add superb new features to your set, which aren't mentioned in any manual, and personalise your smart TV to reflect your tastes and needs. And if you're concerned about the privacy aspects of using a web-connected television, we'll explain how to prevent your particular model from collecting your personal data.

ADD APPS TO YOUR SMART TV

Install new apps from your store

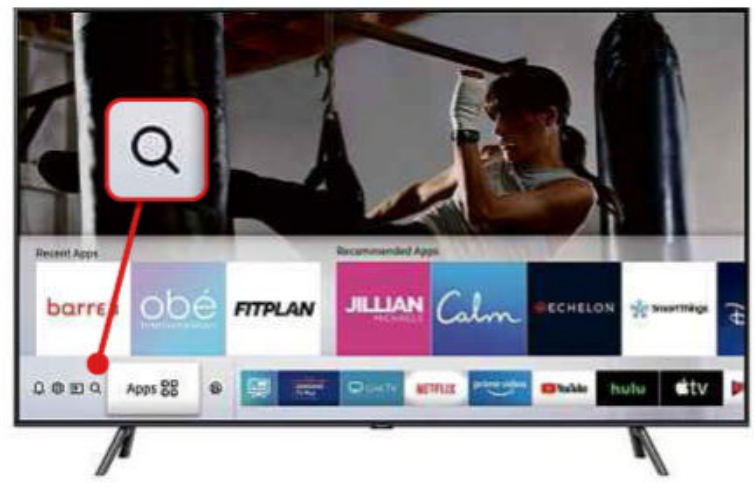
Your smart TV should come with plenty of apps, but adding more isn't difficult. The exact process will depend on the make and model.

If you have a **Samsung** TV, you'll need a free Samsung account to install apps. Assuming you do, press the Home button on your remote control, and select Apps at the bottom of the screen. You can browse popular and recommended choices, or if you know the name of an app you can select the magnifying-glass icon (pictured above right) and search for it. Select an app you want, then click Install on its page.

For **Panasonic** models, press the Apps or Internet button on the remote then select Market. Browse and install any app from there. **Sony** smart TVs are powered by Android, which means you can add new apps through the Google Play Store. Press the Home button on your remote control to open the Home Menu screen. Google TV replaced Android TV on new Sony models at the start of this year (see box on page 52 for the differences).

It's a bit more complicated with **Toshiba** TV sets because other manufacturers make the TVs and pay to use the Toshiba brand. Most new models are powered by Android TV, so you can install apps through Google Play Store. Click the Apps section under Explore Apps, then Get More Apps. Finally, **LG** TV owners can install apps by pressing Home on the remote to open the LG Content Store, then selecting the Apps category.

You may find that some new apps, such as Disney+ or BritBox, are absent. For example, Apple TV+ can be installed on Samsung, Sony, LG and Vizio smart TVs,



Search for Samsung apps by selecting the magnifying-glass icon

but not on Panasonic sets.

You can't force these missing apps to appear in your TV's app store, but set-top boxes, streaming sticks and games consoles also support apps, so try installing them through one of these devices. This method does mean you will need to launch the installed app through the device's menu, rather than directly through the TV, but it's a useful workaround.

Install TV apps from outside Google Play Store

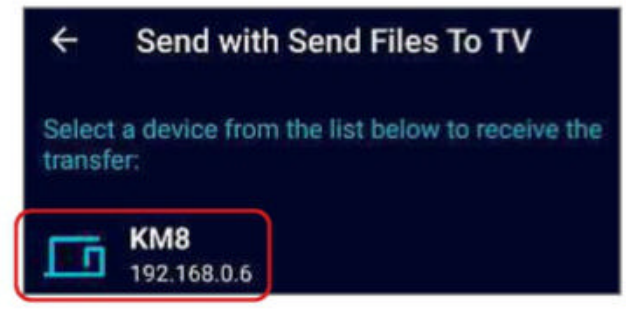
If you have a Sony or Toshiba TV that lets you download apps from the Google Play Store, you'll also be able to sideload apps from elsewhere. This is similar to sideloading apps from outside Google Play on to Android phones and tablets.

If you have an Android device, this process is very easy. First, you'll need to find the app you want to run in APK (Android Application Package) format. A good place to find these is at APKMirror (www.apkmirror.com). Go to the site on your Android phone or tablet, then search for the app you want to install (if you know its name), or browse by category (at the top). You can also simply scroll through the new releases.

When searching, tap the sliders at the right to open Advanced Search, then tap the Capabilities dropdown menu. Tick the 'Android TV' box (see screenshot below) to narrow your search, then tap Apply.

Next, install the 'Send Files to TV' app

Tick the 'Android TV' box to narrow your search for apps on APKMirror



Select your TV in the 'Send Files to TV' app to sideload apps from your phone to your Android TV

(www.snipca.com/39390) on both your Android device and your TV. Once it's installed on both, run it on your TV and select 'Receive', and then launch it on your phone and select Send. A list of files will appear on your phone in the Download folder, including the APK of the app you installed from APKMirror. Select this, then select your TV in the list of devices (it's KM8 in our screenshot above). When the transfer completes, you'll be able to choose to open the APK on your TV and install it. If you see a message stating that installations from unknown sources are not allowed, tap the Settings button in the message and select the slider next to the app you want to install. This should now work.

Another way to install an APK (and a good solution if you don't own an Android device), is to download the file from www.apkmirror.com to your PC, then copy it to Google Drive. Next, download 'File Commander' (www.snipca.com/39391) on your TV, and sign into Google Drive on your TV. Select the APK in Google Drive and it will install (again you'll need to change permissions so it can install apps from unknown sources). Turn to page 52 for our pick of the best apps on APKMirror.

You can also use File Commander to install apps stored on a USB stick that's connected to your TV. To find any app you've installed, click the cog icon on Android TV and navigate to the Apps section.

Sideloading: a health warning

As you might expect, sideloading isn't without risks: you need to be extremely careful about what you install because these apps haven't been vetted by Google. However, APKMirror is safe because it doesn't allow pirated apps, nor those that give you illegal access to pirated content. Also, it doesn't contain paid-for apps and checks that they work before listing them. Other APK sites aren't as safe. See box on page 52 for our five favourite apps on APKMirror.

Remove unwanted apps from Samsung TVs

Smartphones usually come with apps that you have no use for and which are locked to prevent you from deleting them. The same is true with smart TVs. While you'll be happy to have BBC iPlayer, ITV Hub and YouTube apps ready to use, you may have much less interest in CHILI, Rakuten TV, Hayu and TikTok. Removing these will help to declutter your TV's interface, making it easier to find what you want.

Samsung (like other manufacturers) lets you remove apps you install yourself – look for a delete option in the Apps menu. But unlike other manufacturers it also lets you delete apps that are built in using its Developer Mode (it doesn't work on *all* models, but it's worth trying).

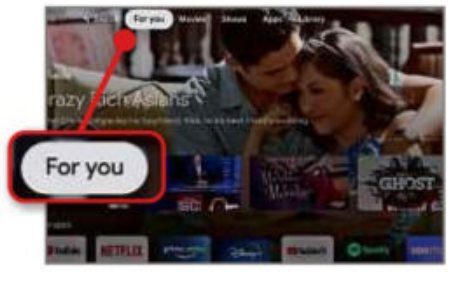
Press the Home button on your remote control and select Apps. On the virtual keyboard type 12345. If it works, on your TV you'll see the 'Developer mode' box open in the centre of the screen. Select On (1 in our screenshot below), then OK 2 and a box will appear saying 'Developer mode is in On status'.

Next, turn your TV off and back on again. Go back into the Apps screen, and you should see 'Apps (Developer Mode)' at the top. Click the cog top right to open Settings, then choose an app to remove. The Delete button will still be greyed out, but if you scroll all the way down you'll see a new button called Deep Link Test. Click this and a new window will appear asking for a payload and content ID. Ignore this and click Cancel. The Delete button for the app should now be active, and you'll be able to click it and remove that item.

If Delete remains greyed out, the solution is to reset the Smart Hub on the TV. This is a bit extreme as it means you'll need to reinstall any apps you've downloaded as well as any accounts stored on your TV, so think carefully before proceeding. If you want to go ahead, open Settings, select Support, go to Self Diagnosis and click Reset Smart Hub. Enter the PIN you entered when you first set up your TV.

Enable Samsung's Developer Mode to delete locked apps that come with your Samsung TV

GOOGLE TV REPLACES ANDROID TV

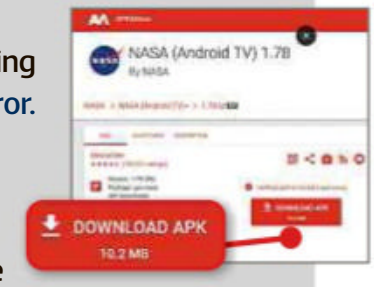


Google TV is the successor to Android TV and brings big changes and improvements. Smart TVs that come with the system are still rare – the first models arrived only at the start of 2021 – but it will soon become much more common, especially on Sony TVs. The operating system is still based on Android, but with a new interface and a greater focus on content (TV shows and films), not just apps.

Signing into a Google account delivers personalised viewing recommendations (pictured). If someone else signs in with their account they'll see different recommendations, and you can set up child profiles with parental controls. You can use an Android phone as a remote control for your TV (this has more options than the Android TV remote), and link any smart home devices – like a Ring doorbell – and control them using your voice through Google Assistant.

There's also a Google TV app for Android devices (www.snipca.com/39394) that lets you control and customise the system, though it's only available in the US for now.

5 APPS TO DOWNLOAD FROM APKMIRROR



If you've never downloaded anything from www.apkmirror.com, here are five apps to get you started. Just make sure you ignore the misleading download adverts and click either the 'See Available Downloads' or 'Download APK' button (pictured above).

ExpressVPN

www.snipca.com/39402

One of the more popular VPNs, offering access to over 3,000 servers across 160 locations in 94 countries. There's a seven-day free trial after which it costs £9.63 a month, or £74.30 a year. For instructions on setting it up follow the guide at www.snipca.com/39416.

RetroArch

www.snipca.com/39403

As well as media players, RetroArch contains excellent emulators (called ROMs) for recreating old gaming systems like Atari, NES and Nintendo 64. Find out more at www.retroarch.com.

TuneIn Radio

www.snipca.com/39404

This app lets you listen to live news, sports, music, podcasts and radio from around the world. It's free to use, but if you want more content and fewer ads you can upgrade to the premium version for £7.84 a month.

Speedtest by Ookla

www.snipca.com/39405

If you find streaming video on your TV has started buffering, use Ookla's tool to check your and your 'ping' speed (also called latency), which is the time it takes for data to be sent from your end to a server on the internet and back again.

Nasa

www.snipca.com/39406

Nasa's app lets you view space images (over 16,000 of them) and videos (over 14,000), catch up on news and mission information, and find out when you'll be able to see the International Space Station overhead.

ADD SUPERB FEATURES TO YOUR SMART TV

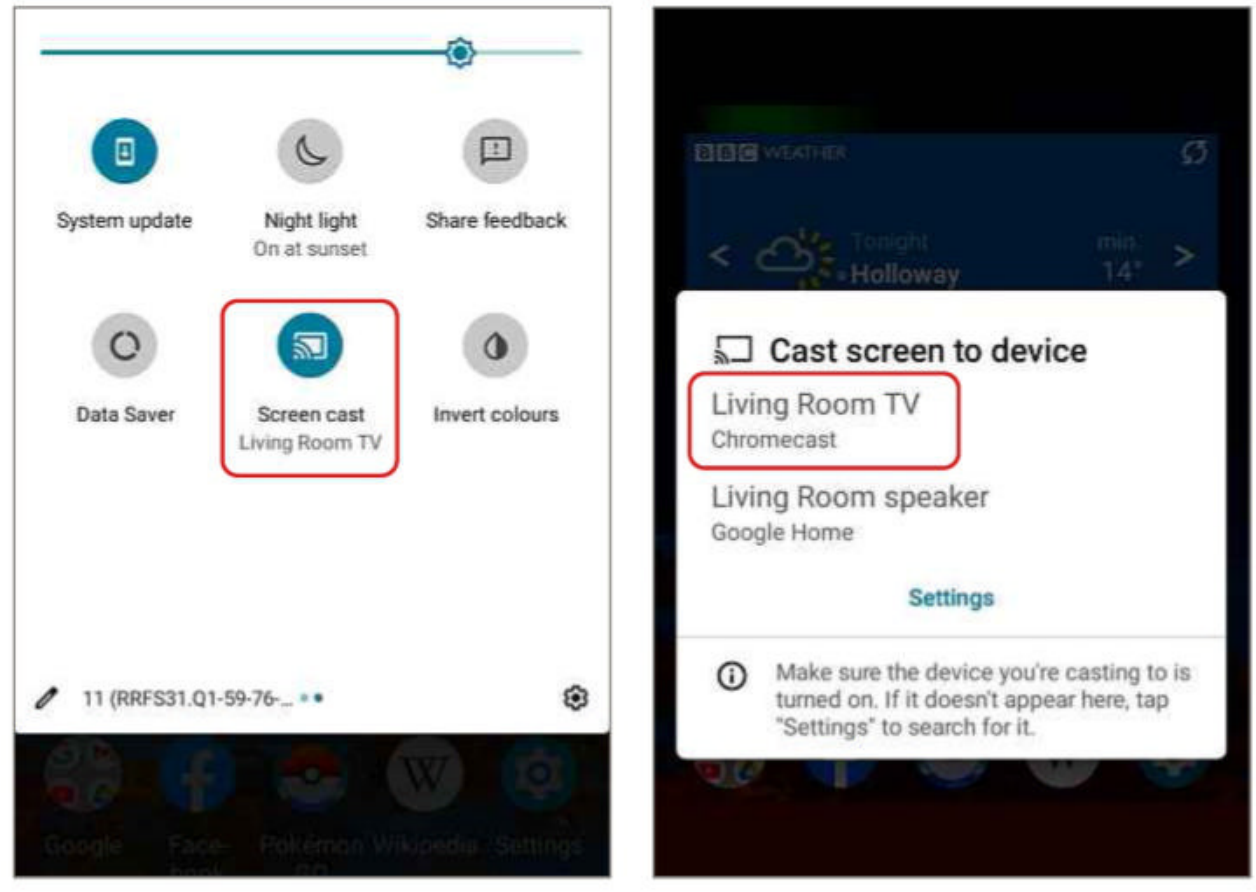
Mirror your phone or tablet screen

Whether you want to browse the web, view photos and videos, or read emails and documents, duplicating the content of your phone or tablet on your smart TV's much larger screen can help you see things much more clearly. You shouldn't even need a cable or extra hardware to mirror your device's screen, because phones and tablets now offer this as a built-in feature. Provided your phone or tablet is connected to the same Wi-Fi network as your TV, you should be able to mirror its screen with a couple of taps.

On an Android device, swipe down from the top of the screen and look for an option called Cast, 'Screen cast' (see screenshot right), 'Screen mirroring' or similar (the name varies between manufacturers). Select this and your phone or tablet will search for a compatible TV set. Tap your TV's name when it appears (see screenshot far right) to connect the devices and mirror the smaller screen on your TV.

On an iPhone or iPad, swipe down from the top-right corner of your screen to open the Control Centre. Tap 'Screen mirroring' and choose your smart TV to connect the devices using Apple's AirPlay technology. If this doesn't work, you may need to activate AirPlay on your TV. On a Samsung set, for example, go to Settings and select General, then 'Apple AirPlay Settings'. Select AirPlay and switch it on.

Many Android and iOS apps now provide their own options for mirroring video and photo content from your phone or tablet. Look for the Cast icon (rectangle with three curved lines) or AirPlay icon (rectangle with smaller triangle) in an app – this is usually in the top-right corner – then tap it to mirror your device's screen. This is a useful trick for viewing content on streaming services that aren't installed on your smart TV, such as Disney+, NOW TV and BritBox.



Use Android's built-in Cast feature to mirror your device's screen on your smart TV

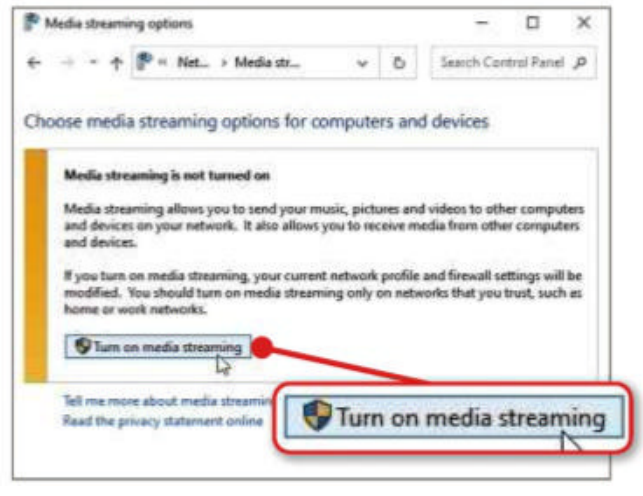
Stream files from your PC to your smart TV

One of the most useful hidden tricks for your smart TV is streaming videos, music and photos from any computer or other network-connected device with a DLNA (Digital Living Network Alliance) server. This means you can enjoy locally stored content on the big screen from the comfort of your sofa – and you don't need to install dedicated software.

Windows 10 has a built-in DLNA server that you need to turn on to stream media files from your PC to your smart TV. Open the Settings app in Windows 10 and select 'Network & Internet', then 'Network and Sharing Centre'. In the window that opens, choose 'Media streaming options' in the left-hand menu, then click the 'Turn on media streaming' button (see screenshot below).

By default, this will let you stream all compatible files stored in your Pictures, Music and Video folders to other DLNA devices on your home network, including your smart TV. Give your media library a suitable name, then click OK to confirm and exit.

You can now browse and stream content from your PC's media library on your smart TV, though different TV models offer different methods for accessing your DLNA server. On a Samsung TV, you should find it in the Sources menu. If you have a Panasonic TV, press the Home button on your remote control and select Devices. On an LG TV, go to Sources, then SmartShare. Sony Bravia owners should press Home on their remote and look for their media files in the Photo, Music and Video folders. Android TVs let you install dozens of DLNA streaming apps from the Google Play Store, including our favourites VLC (www.snipca.com/39384) and Plex (www.snipca.com/39385).



Activate media streaming in Windows 10 to play music and video files on your smart TV

Create a custom photo screensaver

Most smart TVs display a screensaver when you're not using them. This prevents them from suffering 'screen burn' by showing the same still image for too long and also conserves power. The screensaver, which your TV may call 'Ambient mode', 'Gallery mode' or similar, starts automatically after a set period of inactivity and cycles through attractive images and abstract designs from the manufacturer's collection. Some TVs let you make your screensaver more personal and interesting by using your own photos, though this depends on the model and you may be limited to just changing your home-screen wallpaper.

On an Android TV-powered set, the easiest way to do this is to use the Google Home app for Android (www.snipca.com/39379) and iOS (www.snipca.com/39380) in conjunction with Google Photos. Open the Home app on your Wi-Fi-connected phone or tablet, select

Computer active

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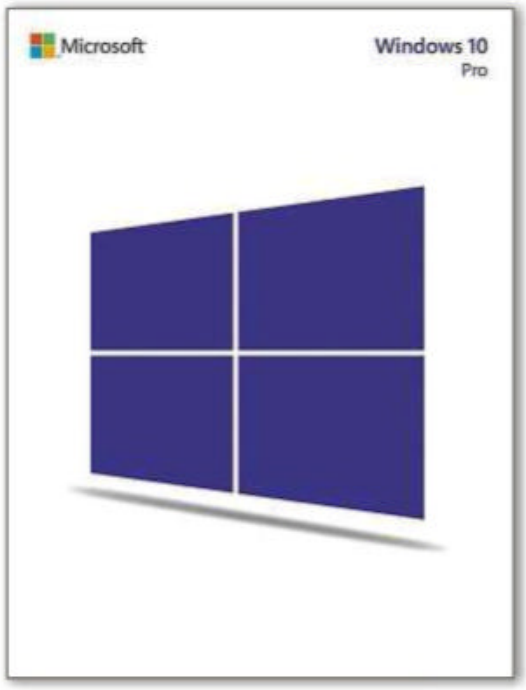


JUST SO YOU KNOW...

This offer can be used by one person only, and expires at midnight on **5 October, 2021**.
It's a lifetime licence for one computer.

your smart TV, then press the three-dot menu button and choose 'Ambient mode settings'. Tap the Google Photos option and select the albums you want to include in your screensaver. You can also show information about your pictures, display the current time and weather, and adjust the slideshow speed.

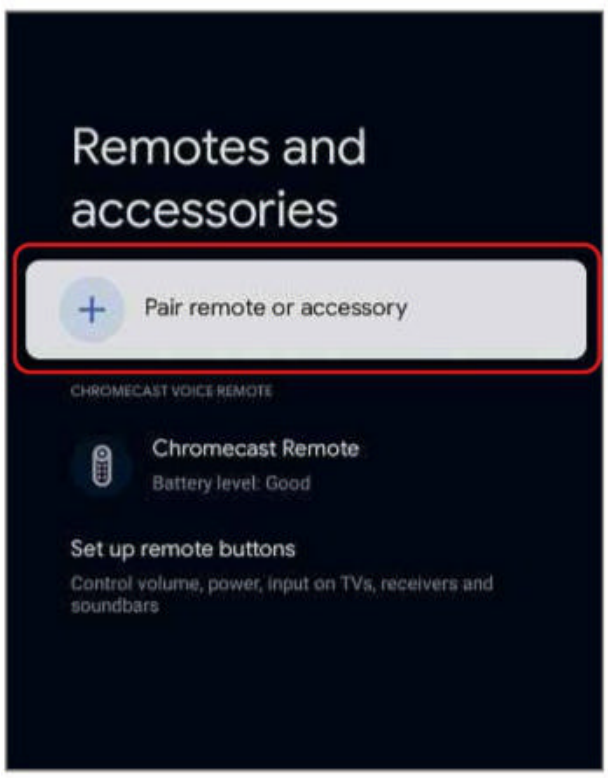
Other smart TVs may offer a similar option through their own mobile apps – for example, Samsung's SmartThings (www.snipca.com/39382). Check the support section of the manufacturer's website for details.

If you can't display photos directly from an app, you may be able to plug a USB stick into your TV and access them from there.

Listen to your TV via wireless headphones

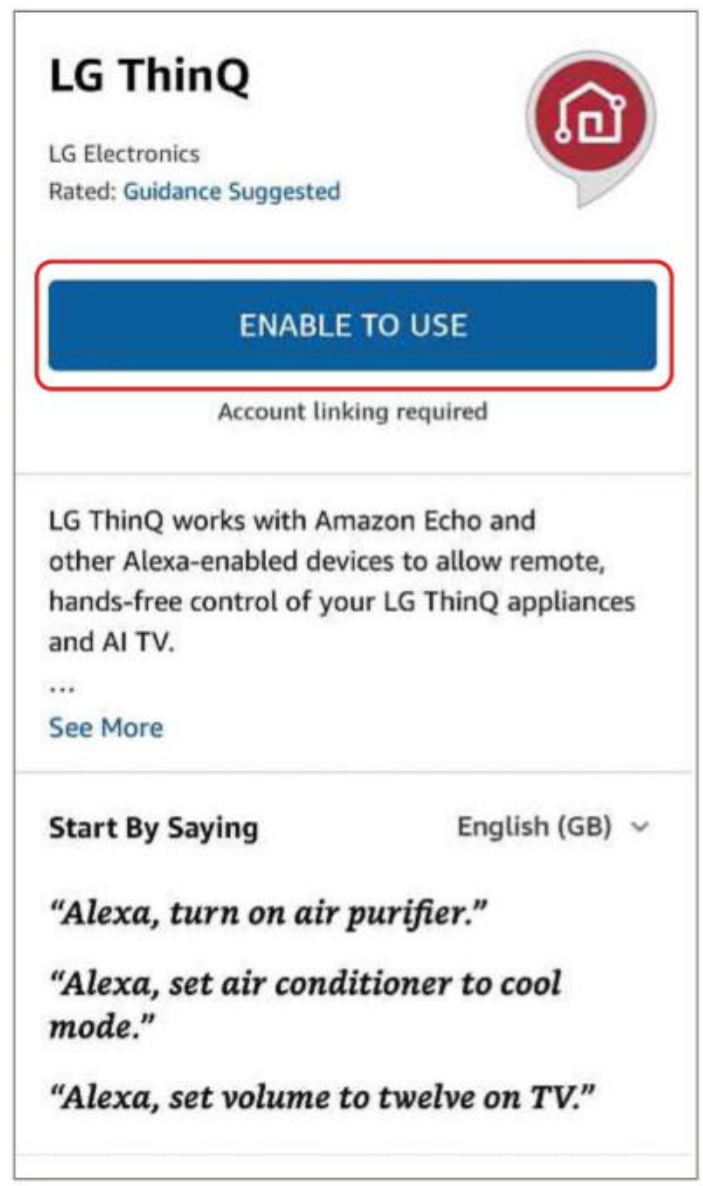
When you're watching TV late at night, or in a room where someone is working or sleeping, it's only good manners to keep the volume down – but this can mean missing important dialogue. One solution is to connect a pair of wireless headphones to your smart TV, so you can hear what's going on without being cabled to your set. Provided your TV supports Bluetooth (which most newer smart models do), this is easy to set up, whether you have a cheaper set of Bluetooth headphones or pricier 'earbuds', such as Apple's AirPods (pictured below right).

First, check if your smart TV has Bluetooth built in. On a Samsung TV, for example, go to Settings, select Sound, then choose Sound Output. If the option Bluetooth Speaker List appears, your TV supports Bluetooth. Search your TV manufacturer's support website if you're unsure where to find this setting.



Next, put your Bluetooth headphones in pairing mode – usually done by long-pressing the power or 'call' button for several seconds. On your smart TV, find the setting to pair a Bluetooth audio device, scan for available devices and select your headphones when they appear. With Samsung TVs, you can follow the steps above, while on Android TVs go to Settings, then 'Remotes and accessories' and choose 'Pair remote or accessory' (see screenshot left) or 'Add accessory'. On LG TVs, go to Settings, then Advanced Settings and choose 'Sound Out' from the Sound menu.

Pair your Bluetooth headphones or Apple AirPods (right) with your smart TV to watch it without disturbing others



Enable your smart TV's Alexa skill to control it hands-free through your Amazon Echo smart speaker (above right)

Control your TV with your voice

Being able to control your smart TV with your voice saves you having to navigate on-screen menus when you want to find something to watch, adjust the volume or turn the set on or off.

Most smart TVs now come with Alexa or Google Assistant built in: you simply press the microphone button on your remote control and speak your command. But if you can't find your remote, or you want to operate your TV entirely hands-free, you can use your Amazon Echo (pictured above) or Google Home/Nest smart speaker for voice-only control.

To do this, you'll need to integrate your smart TV manufacturer's app with the relevant voice assistant. For Samsung TVs, install the SmartThings app (www.snipca.com/39382) on your phone or tablet. For LG sets, install the ThinQ app (www.snipca.com/39387). Open the app and follow the on-screen instructions to connect it to your TV.

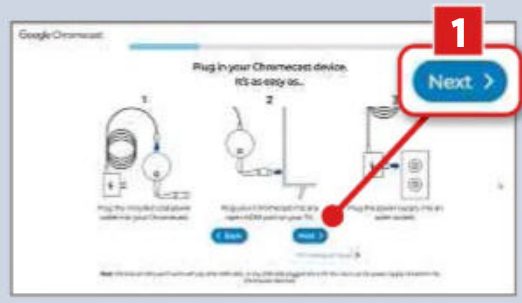
If you have an Amazon Echo, open the Alexa app on your phone or tablet, tap More then choose 'Skills & Games'. Search for your smart TV's skill – such as 'SmartThings' or 'LG ThinQ' – then tap Enable To Use (see screenshot above left). Sign into your account with your TV manufacturer, then tap Authorise. You can now use voice commands such as "Alexa, turn off living room TV".

For Google Home/Nest speakers, open the Google Home app then tap the plus sign in the top-left corner. Choose 'Set up device', then 'Works with Google' and select the appropriate smart TV app. Tap 'Link' when prompted, sign into your account with your TV manufacturer and choose Authorise. With Android TVs, the Home app should detect your smart TV automatically, which makes setting up hands-free voice control much easier.

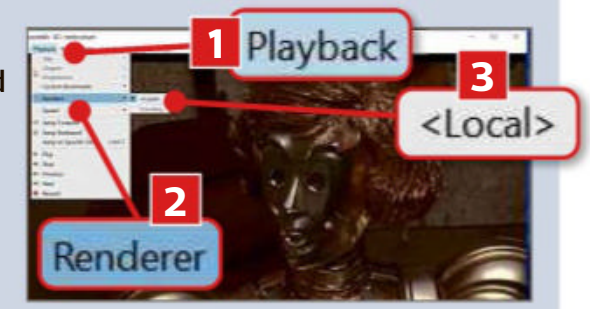
WORKSHOP Stream videos from VLC to Google Chromecast

There are two ways to get VLC on your TV. On an Android TV, you can install it from the Google Play Store: simply search for it by typing VLC on your remote control. But if you have a lot of videos to watch on your PC, or your smart TV runs a non-Android operating system, you can stream them to your smart TV using VLC (www.videolan.org) and Google Chromecast, which plugs into a spare HDMI socket on your TV. There are more expensive models of the Chromecast, with Google TV and Netflix included, but you can buy the cheapest £30 model from www.snipca.com/39422.

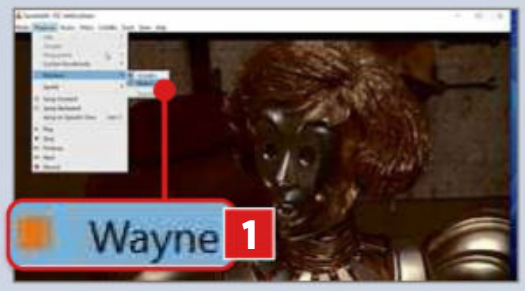
1 If you haven't yet set up your Chromecast, go to www.snipca.com/39423 on your computer. Click the blue Start button, then Next. Plug your Chromecast into an HDMI port on your TV and switch to the correct AV source using your remote control. Click Next in your browser 1 and follow the rest of the setup instructions, which will include downloading the Google Home app on your phone or tablet and using this to connect the device to your wireless network.



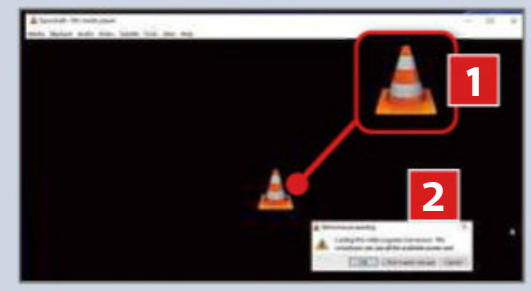
2 Once your Chromecast is working correctly and connected to your network, it's time to stream some video to it. Unlike some other programs, VLC doesn't offer a Cast button. Start a video playing on VLC on your computer then go to Playback 1, then Renderer 2. <Local> should be selected 3, which means that video will play inside VLC. The software will now scan your network.



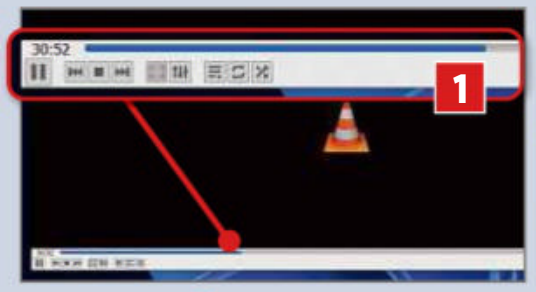
3 Wait for a few seconds then open the Playback, Renderer menu again. This time you should see your Chromecast listed (it's 'Wayne' in our screenshot 1). If you don't see this entry, double-check that the Chromecast and your PC are connected to the same wireless network and repeat the process.



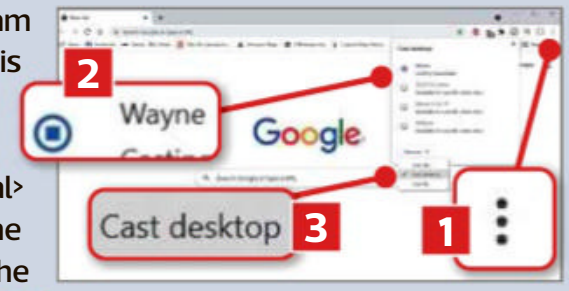
4 Once you see your Chromecast listed, select it and the VLC window will go black and show its traffic-cone logo 1. This means the video is now streaming to your device. Sometimes, you may try to play a video in a format that requires conversion, and you'll see a message 2 warning that this can use a lot of resources. Just click OK to close this.



5 You can control the playback in VLC just as if it was playing in the video window. Although you'll obviously only see a black screen there, the progress bar at the bottom will show you where you are in the video 1. When you've finished streaming the content, go back to the Renderer menu in VLC and select <local> again. The video will start playing in the app and not via Chromecast.



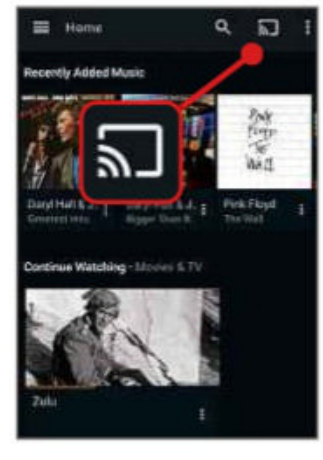
6 Another way to stream video playing in VLC is to use Google Chrome. Start your video (the renderer should be <local> as normal) and launch the Chrome browser. Click the three dots at the top right 1 and select Cast. In the window that opens, select your Chromecast 2, then click the Sources dropdown menu and select 'Cast desktop' 3. Switch back to VLC and maximise the window. What's playing in VLC will now also appear on your TV.



WATCH VIDEOS USING PLEX

If your TV lets you install apps, you should be able to run Plex on it directly – just search for plex in your TV's app store (on Android TVs you can run the same Plex app from the Google Play Store as used on Android phones and tablets). Once installed, run the app and sign into your Plex account to access your media library. You can see a full list of Plex-supported TVs at www.snipca.com/36049.

Don't worry if your TV isn't listed or is no longer supported – there are other ways to use Plex with it. Our favourite is via a Chromecast (which you can also use with VLC – see Workshop above). With your Chromecast device set up and plugged into your TV, open the Plex app on your phone or tablet, tap the Cast icon (see screenshot) and select your Chromecast device from the list. Once connected, you can use your mobile device as a remote control for your Plex library. Anything you select will be played on your TV – you can pause, fast-forward, rewind and more using the app.



Open the Plex app on your phone or tablet then tap the Cast icon

Plex apps are also available for other streaming devices, including Amazon's Fire TV (www.snipca.com/36051) and Roku sticks (www.snipca.com/36052).

STOP YOUR SMART TV SPYING ON YOU

As with any 'smart' device that's always connected to the internet, your smart TV can compromise your privacy by collecting data about you. Although you may be happy with it tracking your viewing habits so it can make recommendations based on TV shows and films you've watched, there's no reason for it to gather details about *everything* you do. The only way to prevent all data collection is to disconnect your smart TV from the internet, and turn it into a 'dumb' device.

Instead of that extreme option, you can at least turn off automatic content recognition (ACR). This is the technology used by smart TVs to collect data about everything you watch across streaming services, terrestrial channels and even DVDs and Blu-rays. The information is then used to target you with relevant ads.

After their use of ACR was exposed in 2017 (www.snipca.com/39407), manufacturers now let you opt out of the feature when you set up your TV, but the option is easy to miss and you may have bought your set before this consent was required. Here's how to protect your privacy by disabling ACR on the most popular smart TVs.

Samsung

On newer Samsung smart TVs, including 2019 and 2020 models, go to Settings, then Support and scroll down to 'Terms & Privacy' (or 'Terms & Policy'). Select 'Privacy Choices' and turn off 'Viewing Information Services'. You can also switch off 'Internet-Based Advertising' to stop your TV showing personalised ads.

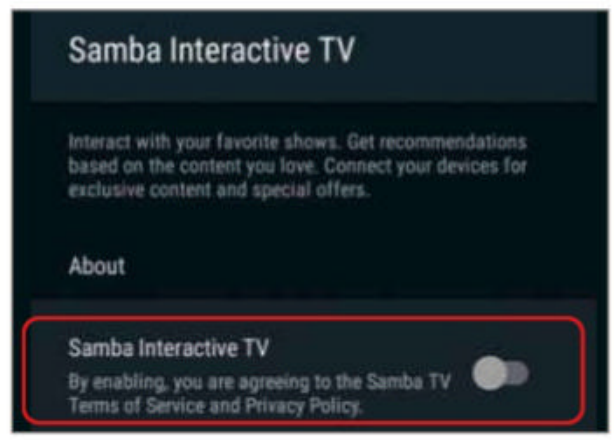
On older Samsung sets, select Settings in the Smart Hub menu, and go to Support, then 'Terms & Policy'. Choose 'SyncPlus and Marketing' and select 'Disable SyncPlus and interactive marketing services'.

LG

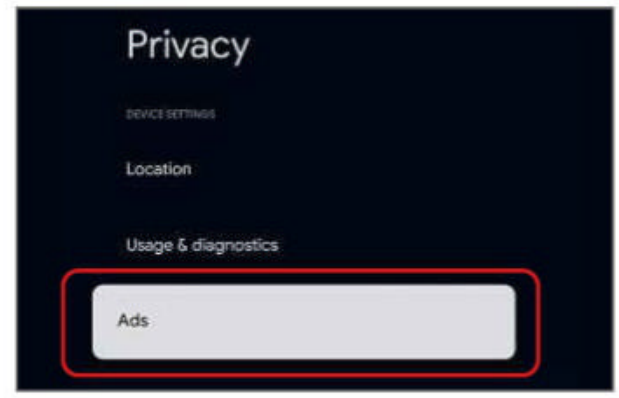
The key setting to disable on LG TVs is the 'user agreement' for Live Plus (the company's name for ACR). On most LG sets, you go to Settings, then All Settings, scroll down to General and select 'About This TV'. Choose 'User Agreements' and switch off the 'Live Plus User Agreement'. You can also disable 'Personalized Advertising' (or 'Interest-Based Advertisement') here. If you don't see 'User Agreements', look under Support, then Additional Settings.

Sony

Since 2018, all Sony Bravia smart TVs have run Android TV (now called Google TV – see page 52), and there isn't a way to opt out of Google's data-collection privacy policy. However, some older Sony sets also use an ACR system called Samba, which *can* be disabled. Go to Settings, then System Preferences or Device Preferences (depending on the model), select 'Interactive TV Settings' or 'Samba Interactive TV' (see screenshot below left) and choose Disable or Off. You can also choose Privacy Policy below this option and enable 'Limit Ad Tracking' to prevent personalised advertising.



Turn off this option to stop your Sony Bravia TV tracking your viewing habits



Prevent personalised ads on an Android/ Google TV using the Privacy menu

Other Android TVs

As with Sony sets, you can't stop Google tracking your viewing habits on other Android-powered smart TVs, such as those from Sharp, Toshiba, HiSense, Philips and Panasonic,, but you can look for a similar option to disable ACR technology in their settings menus.

On an Android/Google TV, it's also worth going to Settings, then Privacy and choosing Ads (see screenshot above), then selecting 'Opt out of Ads Personalisation'. This will stop Google displaying creepy ads based on your viewing and browsing activities. ca

Turn off your smart TV's mic and camera

We mentioned the benefits of controlling your smart TV with your voice on page 55, but if you never use this feature you can switch off your TV set's microphone. Otherwise, it could be 'listening' to your private conversations, though to be fair most TV manufacturers require voice control to be activated manually via a button on the remote.

To prevent eavesdropping on a Samsung smart TV, go to Settings, then System, open Expert Settings and turn off 'Voice Interaction'. On older sets, look for a 'Voice Recognition' option under 'Smart Features' on the Expert Settings screen. On an LG TV, go to Settings, then General, and select 'About This TV'. Choose 'User Agreements' and switch off 'Voice Information'.

Smart TVs generally don't let you disable their cameras, so the standard advice for addressing this risk is to place a piece of black tape over the lens.

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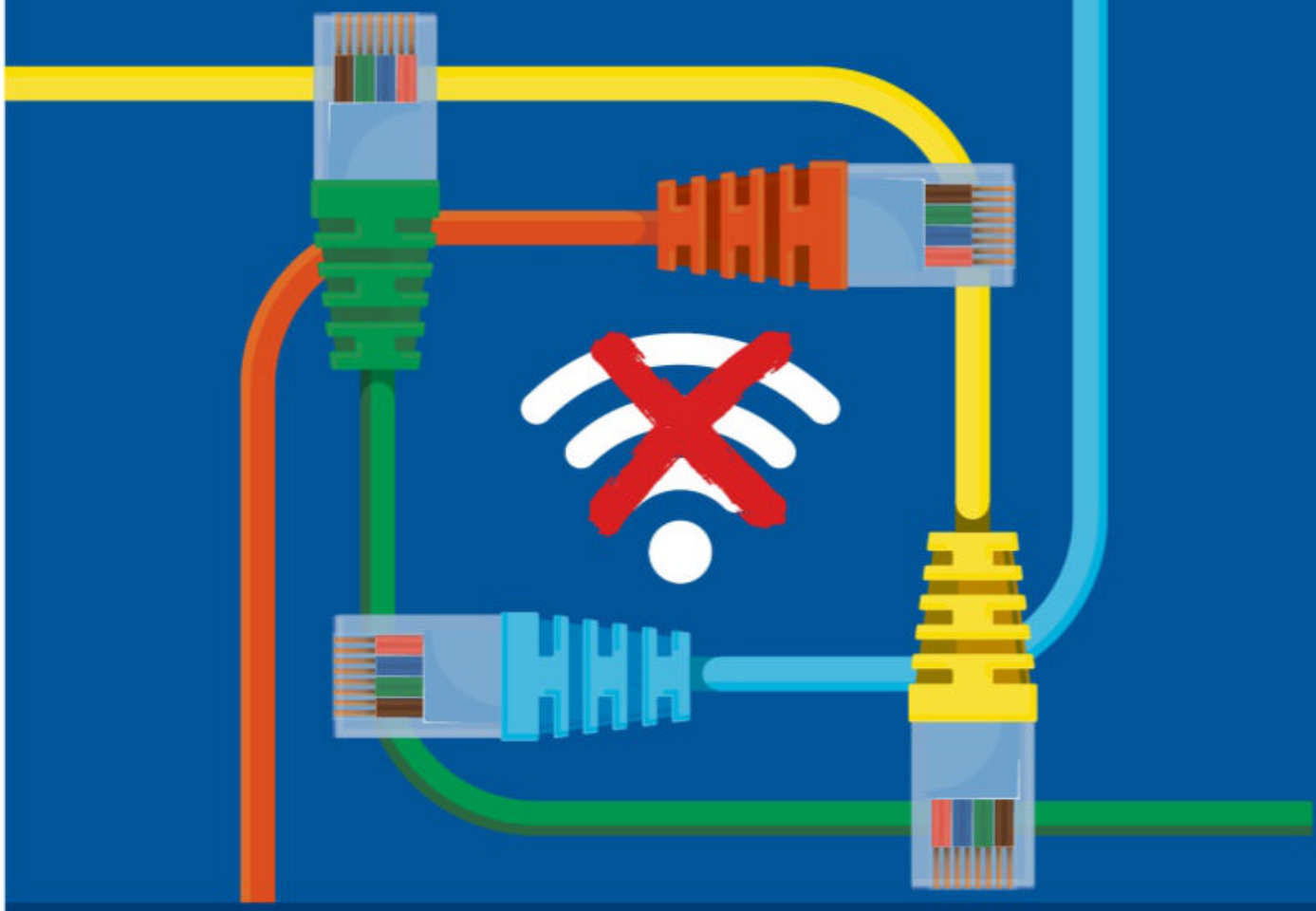
Ditch Your Wi-Fi for cables



Ethernet cables remain a cheap and reliable way to guarantee fast speeds, but you need to know which category to buy. **Daniel Booth** guides you through the different types

We're living in an increasingly wireless world, as illustrated by the number of Wi-Fi-equipped gadgets that fill our homes. But we shouldn't underestimate the benefits of Ethernet. Cabling your devices to your router may seem old-fashioned, but in plenty of cases it provides a more reliable connection than Wi-Fi and delivers consistently higher speeds – up to one gigabit per second on most computers.

Ethernet also has less latency, which is the delay between performing an action on your machine and the response on-screen. This makes Ethernet ideal for streaming video and games through your home. But not all Ethernet cables are created equal, with significant differences in speed and reliability. Before we move on to that, we'll explain the different categories.

Understand cable categories

The easiest way to tell Ethernet cables apart is to look at their category ratings. Today's standards start at category five (known as Cat 5), designed back in 1999. These can handle 100Mbps connections but not the full speed of a Gigabit Ethernet network (up to 1Gbps, or 1,000Mbps). For that, you need Cat 5e, which is more resistant to interference from other devices and can carry Gigabit traffic over 100 metres. These days, Cat 5e is the absolute minimum we'd recommend buying, and even then it's worth paying the small additional cost for the step up to Cat 6.

Cat 6 supports 10 Gigabit Ethernet (often shortened to 10GbE) connectivity at lengths of up to 50 metres. It has its own enhanced version, Cat 6a, which uses an updated design to further reduce interference, extending this distance to 100 metres (perfect for those far-flung garden offices).

Cat 6a cables tend to be slightly more expensive than Cat 6 and have thicker shielding and sheathing, which can make them less flexible. If you're buying a two-metre cable, the difference won't be huge, but it's something to bear in mind if you're planning to wire up your home. See Cat 6 as your basic, tried-and-tested option, and Cat 6a as the ambitious choice for ensuring you can take advantage of more advanced technologies when they become widely available.

Cat 7 cables use GG45 connectors, while other categories use RJ45

That's as advanced as you'll probably need for the next few years, but there are even more powerful cables. Cat 7 cables let you run a 40GbE connection up to 50 metres, and 10GbE over distances of more than 100 metres. Like most cables at the upper end of the market, Cat 7 uses a GG45 connector (pictured left). However, most Ethernet cables come with a standard RJ45 connector (also pictured) at each end. Check before you buy, because it's a fair bet your devices will have RJ45 sockets.

Which category do you need?

Right now, very few of us have home equipment that supports 10GbE, let alone anything faster. In theory, Cat 5e should cover all your immediate needs, but given that there's so little difference in price between that and Cat 6 – or even between Cat 6a and Cat 7 – it's worth going for the faster cables now. That goes double if you're wiring up your home, because using faster cables now will save you having to replace them in five years if 10GbE-compatible devices take off.

If you're running Ethernet cables around your home, instead of individual cables you'll want a spool that you can cut to length and attach to wall-mounted sockets (see the Kenable product on opposite page). Some cables come with the necessary connectors and crimping tool. If not, you'll need to buy them separately. Either way, fitting the ends is

easier than you might imagine.

A less obvious consideration is the cable's construction. Most Ethernet cables consist of stranded, shielded wires inside a flexible plastic casing, which is easy to wind up and move around. However, solid-core cable is less susceptible to interference and offers slightly better performance. It's less flexible, but it's a good choice when running cable inside a wall.

Cables you should buy

The best-value multi-pack you can buy is the Cat 6 Ethernet patch cable 5 Colour combo (pictured below), from Rankie. Prices on Amazon range from £7 for five 0.3m cables to £12 for five 4.5m cables (see www.snipca.com/39306). You get five well-made Cat 6 cables, rated for 1Gbps, with sturdy RJ45 connectors in a five-colour pack, making it easier to track what's plugged in where.

If you're connecting devices over short distances - under 10 metres, say - then buy these 10Gbps cables from Primewire (pictured right, visit www.snipca.com/39307). You can get cables up to two metres for less than a fiver, and 7.5 metres for under £10. Even longer lengths aren't expensive, with up to 25m costing less than £16.

With a Cat 7 rating, these cables should last you long into the future. The flat design is ideal for running under the carpet or across a skirting board, and they come in a choice of black or white, with a sturdy kink-resistant PVC jacket.

At the other end of the scale, Veetop's Flat Cat 7 cable (www.snipca.com/39311) provides the best value for distances up to 50 metres. It's a bargain, with prices from £6 for 0.5m to £40 for 50m, and 10Gbps speeds. It's covered by a tough, flat PVC jacket, and has passed industry-standard Fluke testing. We'd usually say Cat 7 isn't worth the extra money, but at this price, why worry?

Another Fluke-tested cable is StarTech's Cat 6 model (www.snipca.com/39310), with moulded boots and snag-resistant connectors that make them hard to damage. This added durability means they're more expensive than the other cables (£4.43 for 0.5m to £19 for 15m), and they're probably overkill for the average home network. But they're a sensible choice if you depend on having consistently high speeds.

This five-colour pack is the best-value collection of cables

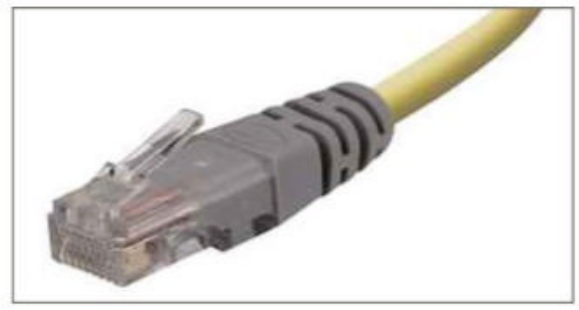
Cabling the whole house or garden

If you're wiring up your home with Ethernet cable, you'll be buying large quantities. Avoid cheap spools or reels of Cat 6 and Cat 7 because they're usually made from copper-clad aluminium, which is more vulnerable to breakage and interference. Instead, look for a cable with a stranded or solid-copper core, such as this 10Gbps model from Kenable (www.snipca.com/39315, pictured above), which costs from £21 for 50m to £101 for 305m.

All the cables we've mentioned so far have been for indoor use. For outdoors you need a lengthy cable with a waterproof jacket, such as the Smedz Cat 6 Full Solid Copper cable (www.snipca.com/39312), priced at £11 for 10m to £47 for 100m, with speeds of 10Gbps. For the most reliable results, run it along the garden fence or under the soil. For added peace of mind, feed it through a protective conduit such as a sturdy garden hose for added peace of mind. ca

DO YOU NEED CROSSOVER CABLES?

Most Ethernet cables are the 'patch cable' variety, used for standard network connections such as plugging a NAS drive into a router or a games console into a powerline adapter. However, you may come across 'crossover cables', which connect computers directly. These days there are lots of easy ways to move files from one PC to another, but for certain jobs, such as sharing your PC's internet connection without a router, a crossover cable is useful. This Belkin model (www.snipca.com/39316) costs from £2.66 for 5m to £7.65 for 15m. It's great value and comes in a range of lengths. It's Cat 5e-rated, too, so works at Gigabit speeds.



Primewire's cables are best for distances of under 10 metres

With a solid-copper core, Kenable's cable is our top choice for wiring your whole home

STOP USING PASSWORDS (use passphrases instead)

Passwords comprising letters, numbers and symbols can be hard to crack, but they're also hard to remember. A better option is to use a memorable phrase of unrelated words. **Daniel Booth** explains how

When is a password not a password? When it's a passphrase. These are combinations of words that, if chosen correctly, are a much smarter way of staying safe than using passwords. At least, that's the advice from the UK's National Cyber Security Centre (NCSC). It recently recommended using three-word phrases because they're easier to remember than a random string of numbers, letters and characters.

The NCSC also said that complicating your password with symbols is flawed because hackers use algorithms to spot them. So while 'P@$$w0rd' is more secure than 'Password', it's still easy to crack. But that doesn't mean you should pick any three-word phrase. Using 'I love you' is about as safe as posting a set of your home keys to every known burglar in the country.

On page 13 you'll find some ideas from readers, but here we'll explain how the web can help you pick a passphrase that would have foxed even Alan Turing.

Generate a four-word passphrase

Start at www.useapassphrase.com, which is almost evangelical in its support of passphrases. It explains why they're necessary ("because humans are terrible at creating secure passwords"), and has a phrase-generator at the top of the page. This churns out a new four-word phrase every time you click 'Generate New Passphrase', and tells you how many centuries it would take to crack based on 10,000 guesses every second.

For example, 'untaxed overbite famine blush' (1 in our screenshot below) would remain uncracked for 731 billion centuries 2 (though we've now rendered it useless by publishing it). You can make your passphrases even harder to guess by making them longer – just click the dropdown menu and select five words or 12 3.

You can use the site's passphrase generator to test the security of any existing passwords. It told us that 'I love you' would be cracked in 13 seconds, and 'P@$$w0rd' in a mere 29 milliseconds.

It would take hackers 731 billion centuries to crack 'untaxed overbite famine blush'

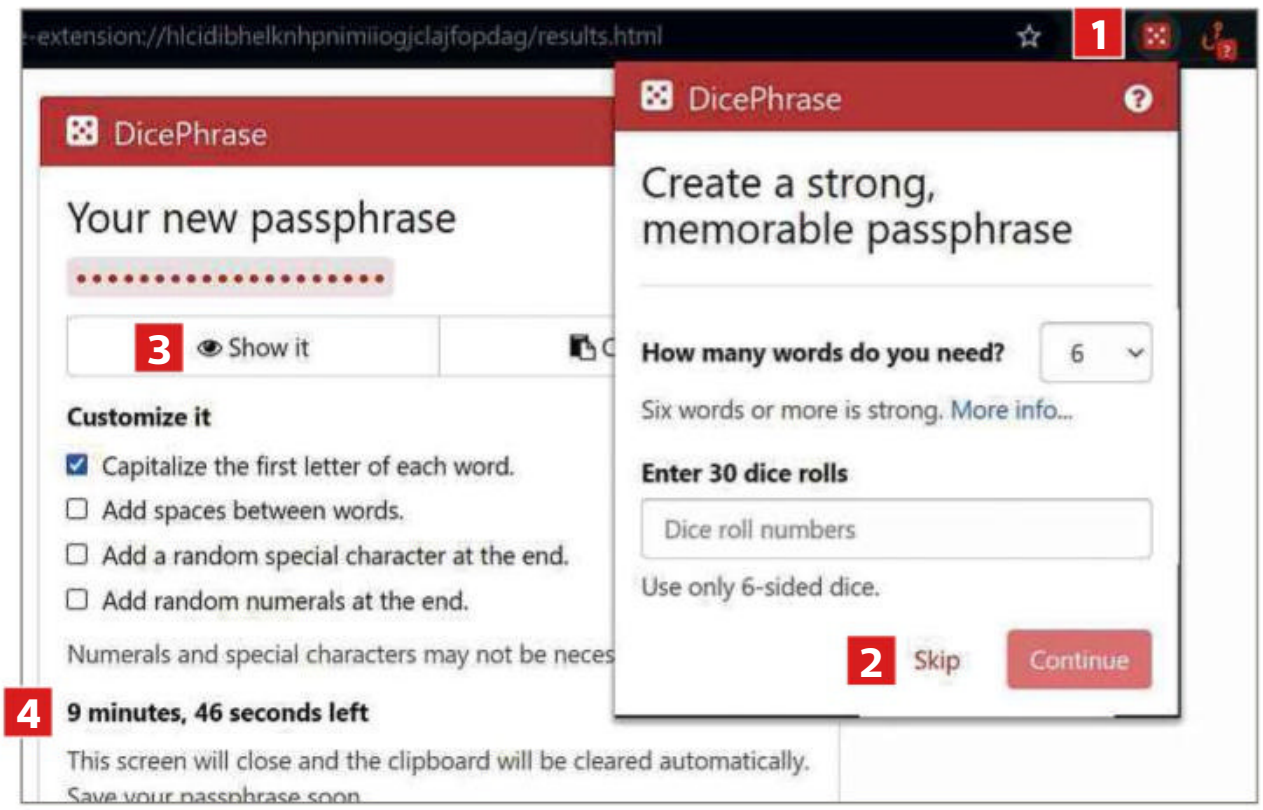
Create a passphrase by 'rolling' virtual dice

Roll virtual dice to create a passphrase

Another way to create an iron-clad passphrase is not to use software, but *dice*ware. This term is used to describe hardware random number generators, which are physical methods for creating security details – for example, creating a passphrase by rolling dice, where the numbers correspond to words.

Doing this yourself is neither quick nor secure, so instead try the site https://diceware.dmuth.org, which replicates the physical aspect of rolling dice (see screenshot above). Choose how many dice to roll (three dice means three words in your phrase), then click Roll Dice. Your phrase will appear below.

For rolls with up to five dice, the site gets its words from a list compiled by digital-rights campaigners Electronic Frontier Foundation (www.snipca.com/39396). It contains 7,776 words, equal to the number of possible combinations when rolling five six-sided dice. So, five dice landing 11111 equals Abacus, 66666 equals Zoom, and there are 7,774 words in between. That's a lot of numbers, but the site needs even more



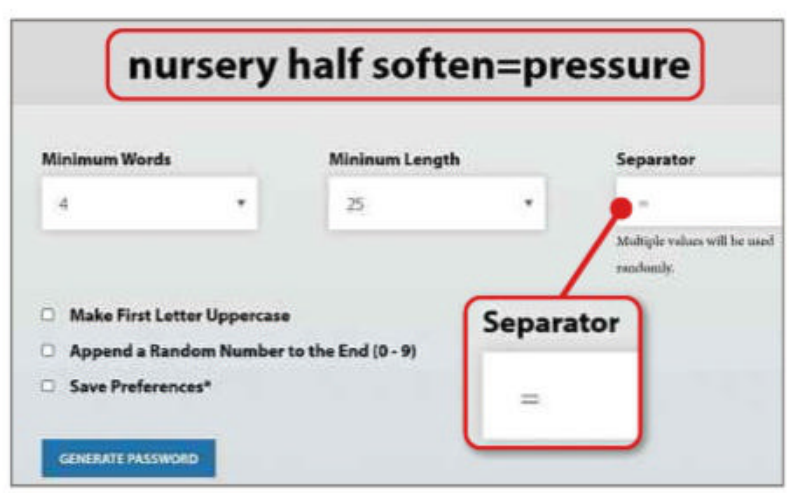
Install DicePhrase in your browser to create passphrases as you browse the web

when rolling six, seven and eight dice, so it uses a list from US computer scientist Peter Norvig, comprising the third-of-a-million most frequently used words (www.snipca.com/39397).

Also consider using the browser extension DicePhrase (www.snipca.com/39401), which is handy for creating instant phrases as you browse. Once installed, click the dice icon in your browser toolbar (1 in our screenshot above), select how many words you want, then click Skip 2. On the next page click 'Show it' 3 to reveal your phrase, and tick the boxes below to add characters. You'll see a 10-minute timer 4 counting down how long you've got to make a note of the phrase, before it disappears.

Add numbers and separators

Hopefully by now we've persuaded you not to use 'P@$$w0rd'. But that doesn't mean you can't tweak your passphrase using non-alphabetic characters. For examples, visit www.snipca.com/39398, then click 'Create a Passphrase'. You'll see three dropdown menus: one to choose the number of words, one to set the minimum number of letters, and one to add a separator. It's this last option that adds real complexity to your passphrase. Type a symbol into it, such as a dash, * (asterisk) or @, then click Generate Password, and a phrase will be suggested with that symbol inserted between the words. We chose the equals sign to produce 'nursery half soften=pressure' (see screenshot right). As well as a separator, you can tick the boxes to add an upper-case letter at the start, and a number at the end.



Add a separator such as the equals sign (=) to make your passphrase harder to crack

Get a second opinion

Most passphrase-generating sites tell you how secure a phrase is by estimating how long it would take to crack. For a second opinion paste your passphrase into https://howsecureismypassword.net. We pasted a 12-word phrase created by www.useapassphrase.com, and it claimed it would take eight hundred quintillion quadragintillion years to crack. That's so long as to be meaningless in human terms (quadragintillion is a 1 followed by 123 zeroes!).

Incidentally, click the accessibility icon (stick man) at the bottom right of https://howsecureismy password.net for an impressive menu of options to make the site easier to read. These include changing colours, contrast, font size and letter spacing.

Should you trust a website to generate your password?

It's a fair question. The creators of www.useapassphrase.com answer it this way: "Honestly? Probably not". They go on to say that all the passwords it suggests are generated in your browser, and therefore not saved nor sent anywhere. Similar claims are made by all the sites we recommend here, and we have no reason to doubt them.

But you may also ask why you need a website to give you a random phrase. The answer is that randomness doesn't come easily to humans. We can't help but look for patterns in life. That doesn't mean humans can't devise suitably obscure phrases, and to prove it we just came up with 'tusk banana alabaster cottage', which https://howsecureismypassword.net says would take six thousand trillion trillion years to crack. But some bias in our neural circuitry would've helped to produce that phrase: we did eat a banana earlier, for instance, and we've just booked a holiday cottage in Devon.

Probably the best option is to combine human brains with computer brawn – so ask one of these sites for phrases, choose one you're likely to remember, then personalise it to make it harder to crack. ca

HOW HACKERS CRACK PASSWORDS

First, they start by checking lists of the most popular passwords. There are loads of databases on sale on criminal forums, but finding the world's most common 10,000 passwords is as easy as visiting Wikipedia. If yours is listed at www.snipca.com/39392 (warning: some are rather rude) then it's almost definitely been hacked at some point.

If that doesn't work, hackers will try variations of common passwords – capitalising letters, swapping letters for numbers and symbols, and so on. This is why 'P@$$w0rd' is so useless. Next, they'll combine passwords from different lists, such as a name and a number.

Should all that fail, they'll bring out their ultimate weapon: a brute-force attack. These use software to go through the dictionary, methodically testing different combinations of letters, numbers and symbols. It's crude but effective. The best software takes less than one second to try every word in a dictionary. It's the cyber equivalent of trying every key on a keyring. Your defence is to create a passphrase so obscure that the keyring contains trillions upon trillions of keys.

Problems Solved

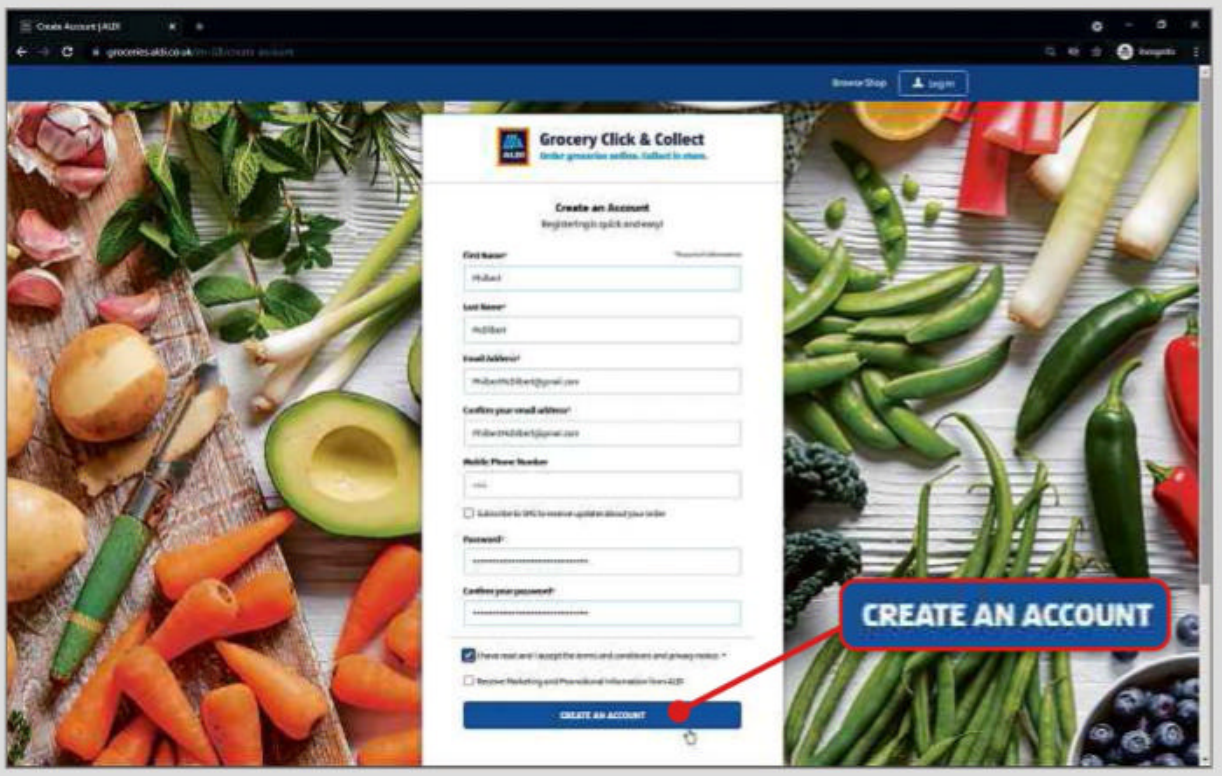
Our experts solve all your tech problems

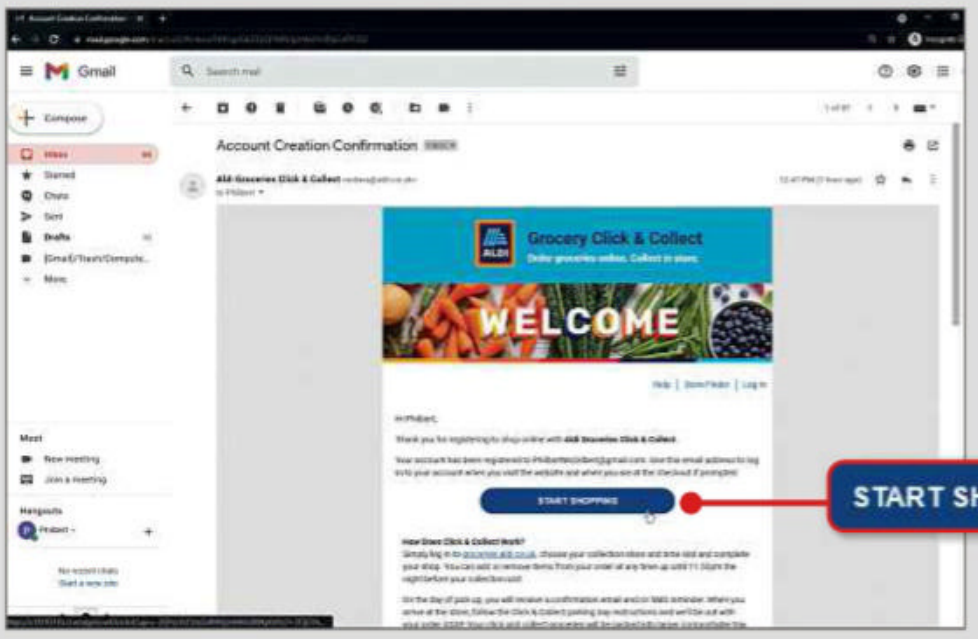
PROBLEM OF THE FORTNIGHT

Who is this Apple iCloud impostor?

Q I received a message in my Apple iCloud inbox, thanking me for signing up for an Aldi account, Bristol branch. Since I live in Kent this surprised and concerned me, although the credit card wasn't mine. A later email listed all the items I'd supposedly ordered. I contacted Aldi customer support, but they blanked me. I also contacted Apple, who said it was impossible for two iCloud accounts to have the same email address. Clearly it isn't! By using the 'forgotten password' link I logged into the Aldi account and discovered the personal details of the person with the same name and email address as me. I left her a voicemail but she hasn't responded. I don't get any other messages intended for my namesake but I'd like the situation resolved. Do you have any suggestions?

Mary Donaldson





The Aldi website allows an account to be set up with no email verification (above), after which you can start shopping (left)

A We've changed your surname to protect both you and the other Mary.

What Apple said is correct: it's impossible for two iCloud accounts to have the same email address. Your real surname is short, and actually relatively easy to misspell. Thousands of people share this surname, and thousands more share your first name, so there are likely to be hundreds of people in the UK who share your full real name – and thousands with names that are very similar.

So, while we wouldn't completely discount some broader devious scam, we suspect what's actually happened here is that the other Mary has simply mistyped her email address when setting up her Aldi account.

Consider it this way. You have told us your real iCloud and Gmail email addresses. We could set up any number of accounts using either of these addresses, or just type them into online forms. You'd then receive all the related emails. That doesn't mean you've been hacked or that there are two people with the same email address or Apple account.

The Aldi website in particular allows customers to set up an account without email verification. That's a bit stupid, certainly, but it's not itself malicious: it simply means that, in effect, the Aldi account-registration website at www.snipca.com/39263 lets people set up an account using any old email address – real, fake or simply mistyped or misspelled (see screenshots above).

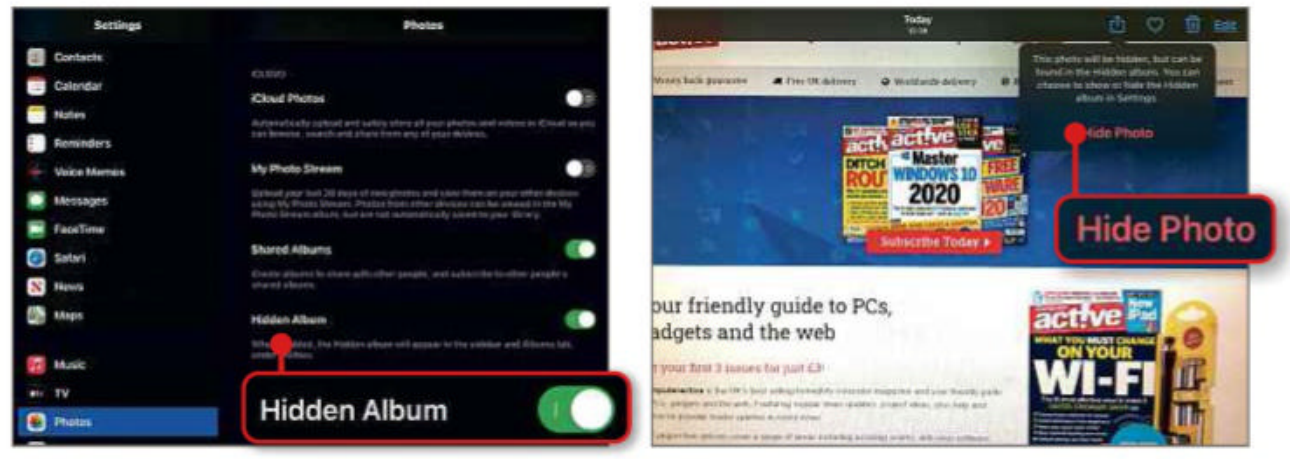
We think the other Mary did the latter, then placed an order in good faith. You received her order email and were understandably concerned, but you were able to recover the password because Mary inadvertently typed in your email address rather than hers. As such, you're now in control of 'her' Aldi account – so it's actually the other Mary who should be worrying, not you!

You've tried contacting her, but as she hasn't responded, there's little more you can do – although as you have the other Mary's postal address perhaps you could send her a copy of this article with a covering letter?

Where's my iPad's Hidden folder?

Q In Issue 612's Problems Solved, you answered Michael Duffy's question about restricting photo access to apps installed on his iPad. His question and your reply both mentioned an iPad Photos folder called Hidden. There was no more detail about this folder, which is fair enough because Michael already knew about it. However, I'm wondering if you could tell me how to enable this feature?

Len Wentworth



Once you've activated the Hidden Album in Settings, send photos to it using the Share button

A You're right – the reason we didn't go into the detail about the Hidden folder is because Michael already knew about it – but we're happy to explain here. It may seem confusing given its name and purpose, but the Hidden folder doesn't actually need to be enabled because it's enabled by default. What's more, it's not really hidden. Instead, photos in the Hidden folder won't appear in an iPhone or iPad's normal photo library, photo widgets and so on. The folder itself is easy to find for anyone who has physical access to your device – unless you hide the folder itself – but we'll explain all as we go.

First, to check that your Hidden folder is enabled as it should be, launch Settings and then, on the left, tap Photos. Next, on the right, find the Hidden Album switch. If necessary, tap to switch it to its On position (see screenshot above).

Even when you have enabled the Hidden folder, it won't reveal itself until you send one or more photos its way. To do this, launch the Photos app. Tap to select a photo or, if you want to send several to the Hidden folder, choose Select then tap to tick all those you wish to hide. Next, tap the Share icon – the little box with an up arrow – then Hide, followed by Hide Photo or Photos (see screenshot above).

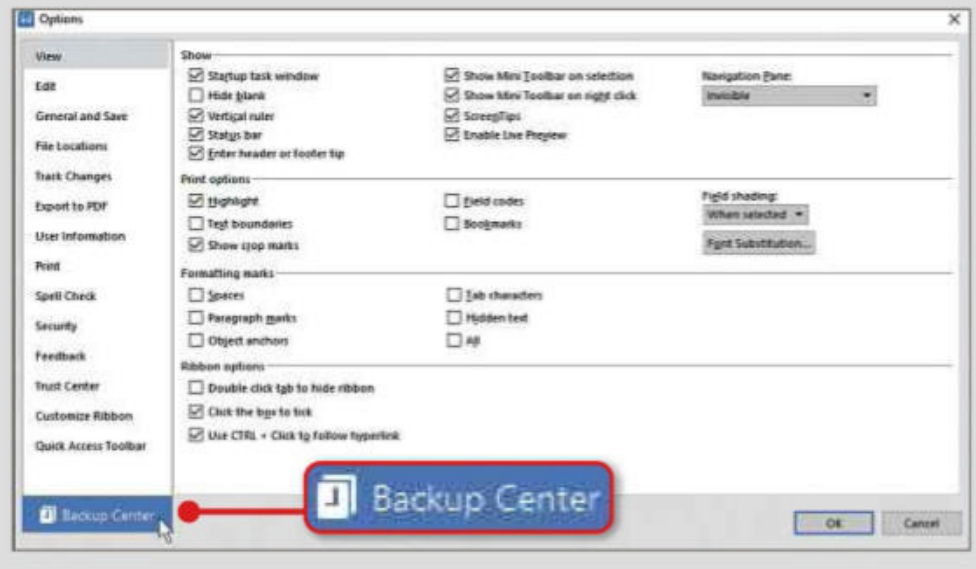
Now the Hidden folder will appear in the left-hand pane of the Photos app's home screen (you might need to tap the Utilities heading to see it). Tap it to see the photos you've 'hidden'.

Bear in mind that these photos are not really hidden – they simply won't appear in some places the iPad (or iPhone) would normally show them. If you want to hide the Hidden folder itself, return to Settings and flip the Hidden Album switch to Off (while remembering that anyone who has physical access to your device and knows how to do it could simply switch it back on!).

How do I stop these duplicate files in WPS Office?

Q As I'm careful with my money, I like WPS Offic (www.wps.com) – because why pay Microsoft when you can get similar tools for free? However, after an update it now makes backups of my files. As a result, even though I take care to save documents with my own choice of name and folder, I find I have a second copy saved elsewhere. It's not always clear to me which version is the most up to date. Is there a way to turn this off, and how can I delete older files when they seem to be protected?

Alan Jones



Open the Backup Center and switch off local backups to stop WPS duplicating your files

A You asked us not to publish your real name, so we've changed it.

The option you need is hidden in what used to be called the Backup Center but is now called 'Auto backup'. To access this from the WPS opening screen, click Apps followed by 'Auto backup'. To reach it while editing a document, click Menu followed by Options, then Backup Center (see screenshot). Click the Setup button, then flip the 'Backup to Local' switch to its Off position. A slightly scaremongering warning message will appear, but ignore it and click the 'take risks and confirm closure' button.

WPS will delete all your existing backup files automatically, so there's nothing else for you to do.

Problems **Solved**

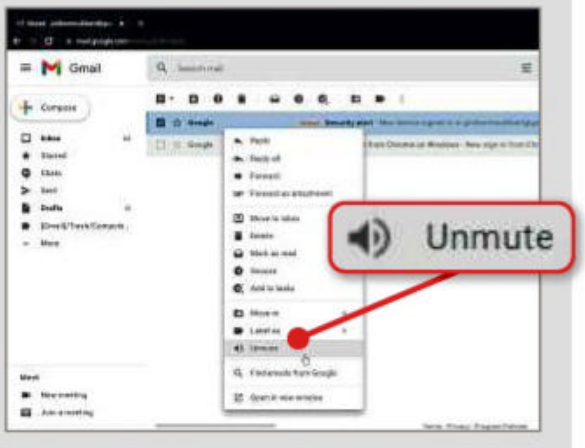
How do I restore a muted message?

Q I was looking through my Gmail inbox recently when I dropped my cup on the keyboard. This made the message I was reading disappear, followed by a pop-up message saying something about the conversation being muted. I did see an Undo option but it all happened too quickly, and the pop-up disappeared before I could get to it. I don't really know what this means, but I do know that I can't find the message! Clearly, my cup hit a key combination but I don't know which, and nor do I know how to retrieve the lost message. Can you help?

William Murton

A It sounds as if your mug landed on the M key, because that's the keyboard shortcut for Gmail's Mute feature. This removes the message from the Inbox (and any related threads, if you use Conversation View), in effect hiding it from view. Muted messages still appear in the All Mail folder, so look there for it.

That's fine for rescuing a single, recently muted message like yours. However, if you want to see *all* muted messages, a better way is to click in the 'Search mail' bar near the top, then type is:muted and press Enter. To ensure a muted message reappears in your Inbox, simply right-click it and then choose Unmute from the pop-up menu (see screenshot).



Right-click a muted message and select Unmute to return it to your Gmail Inbox

Will my iPad become obsolete?

Q In Issue 612's Reader Support section, you explained to Mike Hearn why he couldn't upgrade his original iPad Mini's operating system beyond 9.3.5. I have an iPad Mini 2 (pictured right) that currently runs version 12.5.4 and can't be upgraded to version 13. John Lewis recently updated its app, and because it now requires iPadOS 13, it longer works on my iPad Mini 2. What's the chance that other apps will follow?

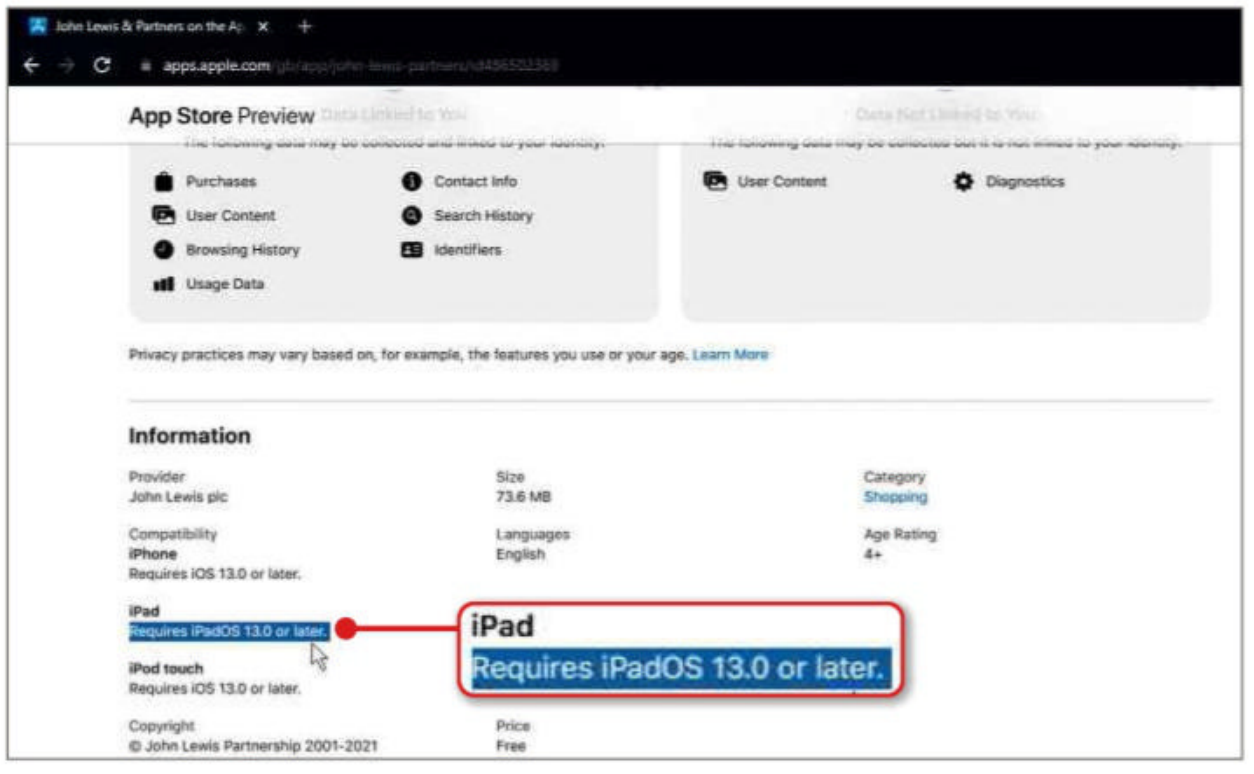
Martin Wilkins

When an iPad is too old for updates, obsolescence sets in – but it won't stop working overnight

A It's certain that over time all new apps will require more recent versions of iPadOS, so eventually your iPad Mini 2 will be unable to run the latest versions of apps. Sadly, that's the inevitable march of time, and there is no fix – just as it would be unrealistic to expect an ancient Windows XP computer to run the latest Windows 10 software.

However, many older versions of these apps will continue to work on your iPad unless the developers decide for their own reasons to disable them.

As we said to Mike, your iPad Mini 2 isn't at any immediate risk of becoming unusable. The pre-installed apps will continue to work indefinitely, unless Apple switches off any 'back-end' services that drive them. What's more, iOS 12 was released in 2018, so it's not exactly archaic. We imagine it'll be several years before all new apps demand a later version of the operating system.



The App Store won't let you install apps on your iPad if its operating system is incompatible

Q: Can I make my old laptop work with Windows 7?

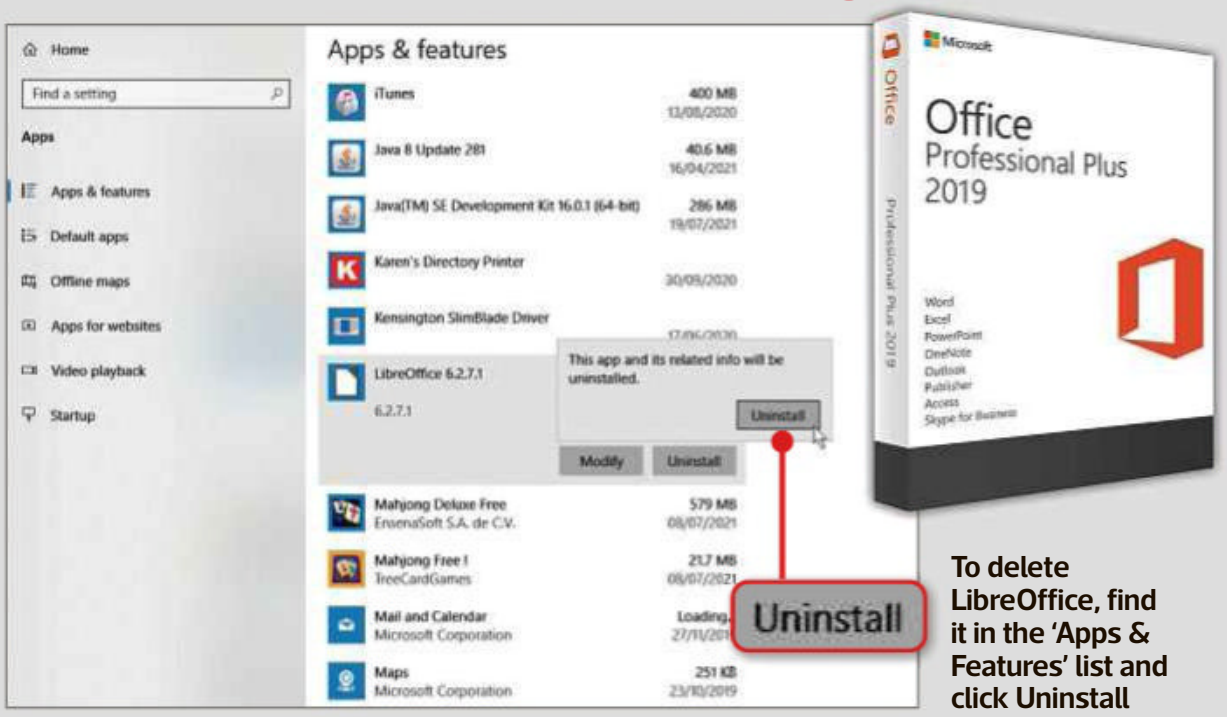
A: Issue 590, page 66 – find it on our 2020 Back Issue CD

Buy it from www.snipca.com/38164

Do I need to delete LibreOffice before switching to MS Office?

Q When Windows 10 arrived, I gave up Microsoft Office for LibreOffice. However, now that I'm in my 90s, I feel I'm too old to learn a different system. I think Microsoft Office 2019 would be a better choice for me. Would it be necessary to delete LibreOffice before I change over?

James Smith



To delete LibreOffice, find it in the 'Apps & Features' list and click Uninstall

A You asked us to keep your name private, so we have changed it.

Windows 10 has been around for six years now, and Windows 11 is just around the corner. As such, we're not sure if you've been struggling with LibreOffice for all that time or have only recently switched to a new computer with Windows 10.

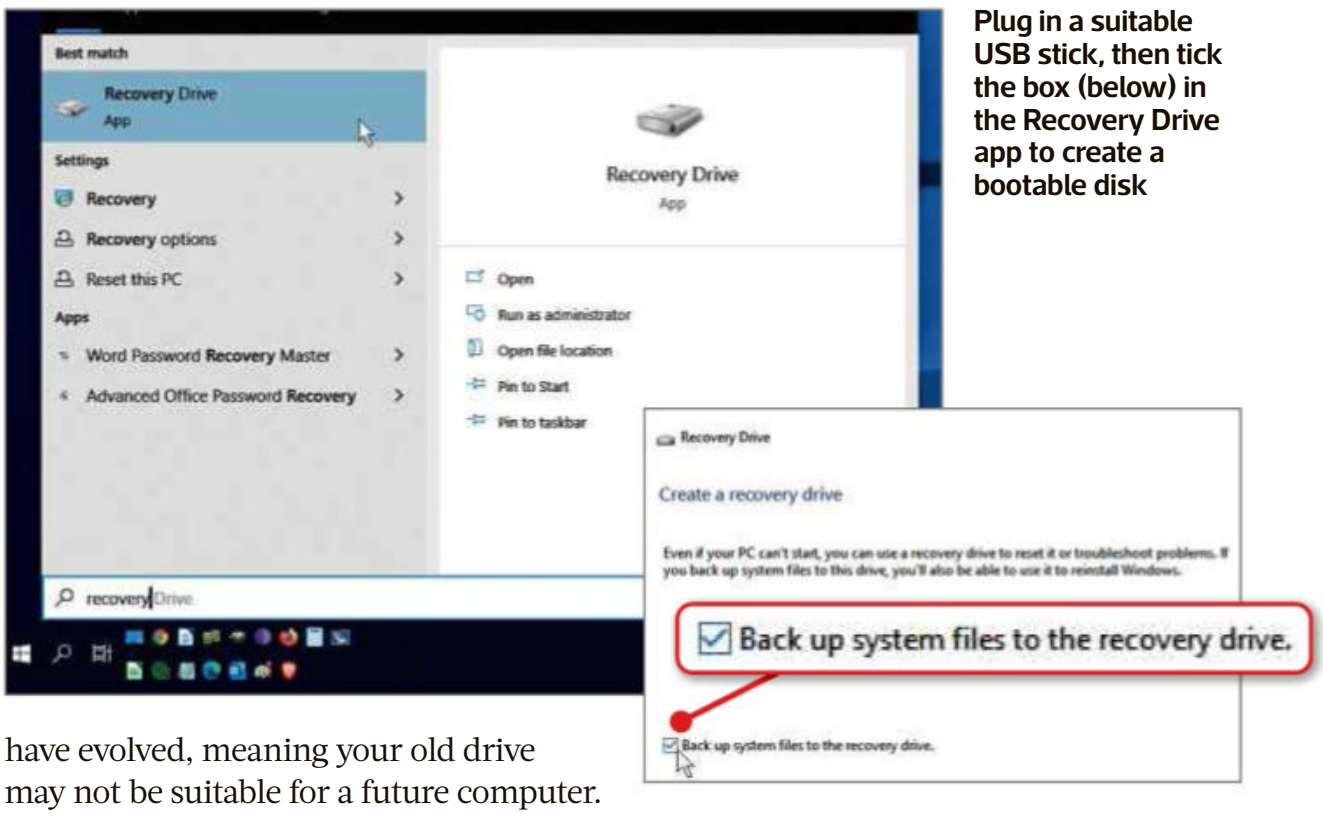
Either way, you can install Microsoft Office without removing LibreOffice, and the two will happily coexist. Equally, it's straightforward to remove LibreOffice before (or after) installing Microsoft Office. To do this, click Start followed by the Settings cog, then Apps. Scroll through the 'Apps & features' list on the right-hand side to find LibreOffice. Click the adjacent Uninstall button (see screenshot), then confirm your decision by clicking Uninstall again.

We should warn you that while Office 2019 is currently the latest version of the suite that you can buy as a one-time purchase, Microsoft has announced that Office 2021 is on its way. Given its name, we'd expect it to be released very soon. For your purposes, however, we doubt there's any great advantage in waiting – we think it unlikely that you'd want or need any new features it might contain. What's more, the imminent arrival of a 2021 edition means you'll probably be able to pick up Office 2019 for a bargain price.

Should I update my recovery drive?

Q Back in Issue 611, you helpfully answered my question about whether my Paragon Backup & Recovery backups would be bootable if my main C drive failed. I've taken your advice and created a Windows 10 recovery drive using a 32GB USB stick. However, I'm now wondering whether this boot drive changes as time goes by and Windows receives updates. In other words, should I create a new recovery drive from time to time, or is it something I have to do only once?

Morley Pecker



Plug in a suitable USB stick, then tick the box (below) in the Recovery Drive app to create a bootable disk

A In theory, any recovery drive you create today will still be able to get a sickly PC up and running in a basic form in 10 years' time. However, during that period the recovery tools and technologies will undoubtedly have evolved, meaning your old drive may not be suitable for a future computer.

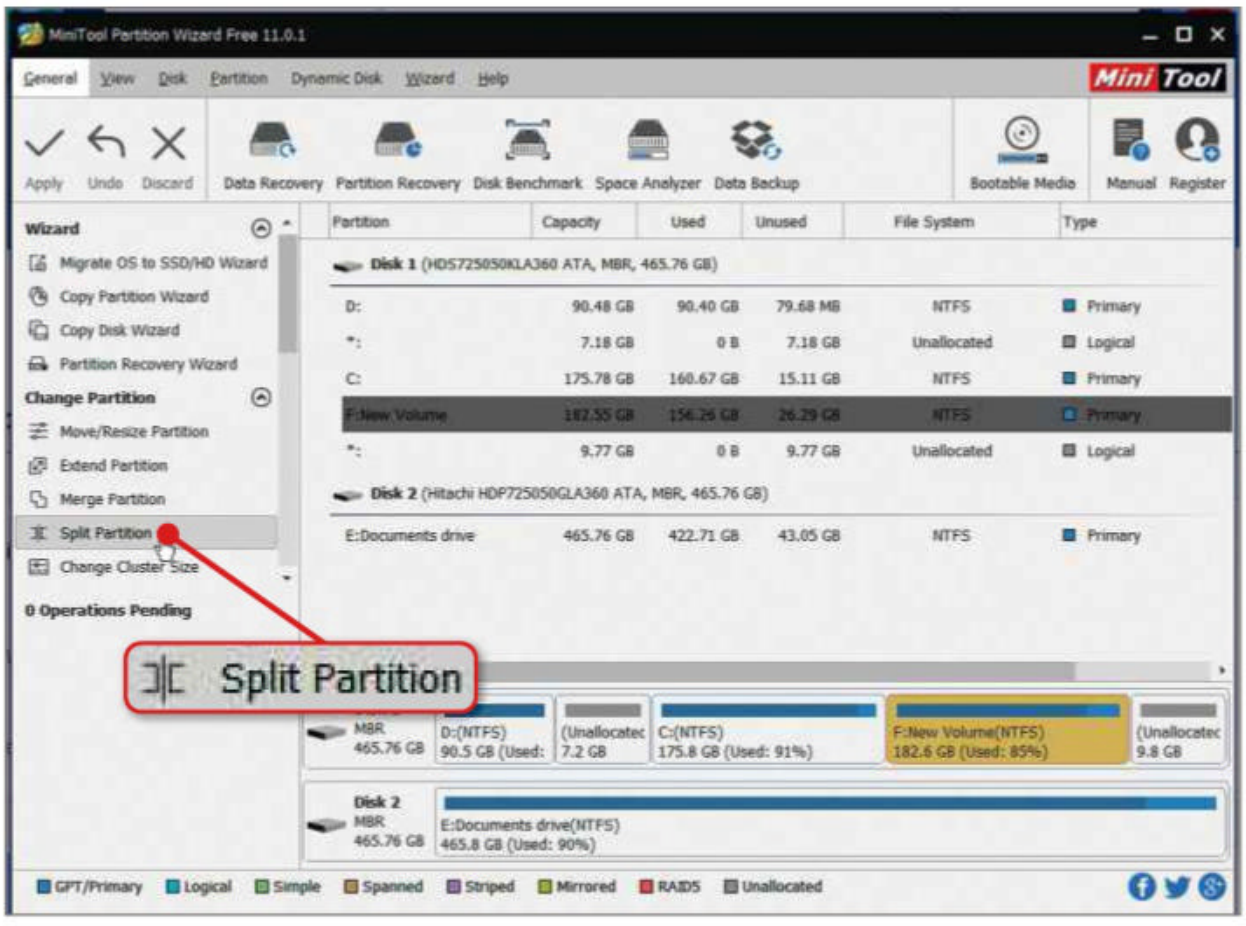
That's why it's a good idea to create a new recovery drive every now and then. There's no specific timescale for this, but we'd suggest at least once a year – right after each major Windows update, for example.

For the benefit of readers who missed our original reply, creating a recovery drive is straightforward. First, click Start, then type recovery and click Recovery Drive (see screenshot above left). Now tick 'Back up system files to the recovery drive' (see screenshot above) and follow the prompts. The process requires a USB stick or drive with at least a 16GB capacity.

Do I need to move files before partitioning?

Q I found your 'Partition an external hard drive' Workshop in Issue 609 very interesting, and it made me want to give it a try. I'd like to create three partitions on my external hard drive, but it already has a number of files on it, so I'm wondering if this will be a problem. Do I have to remove my files from the drive before I start, or would they simply move into a partition, so I could copy and paste them elsewhere later?

Graham Adshead



MiniTool Partition Wizard is a simple way to divide your hard drive into separate 'logical' drives

A It's always a good idea to back up any important files and folders before you embark on something like partitioning. The risk of failure is small, but it isn't zero. So, at the very least, we'd recommend making copies of the files on that drive.

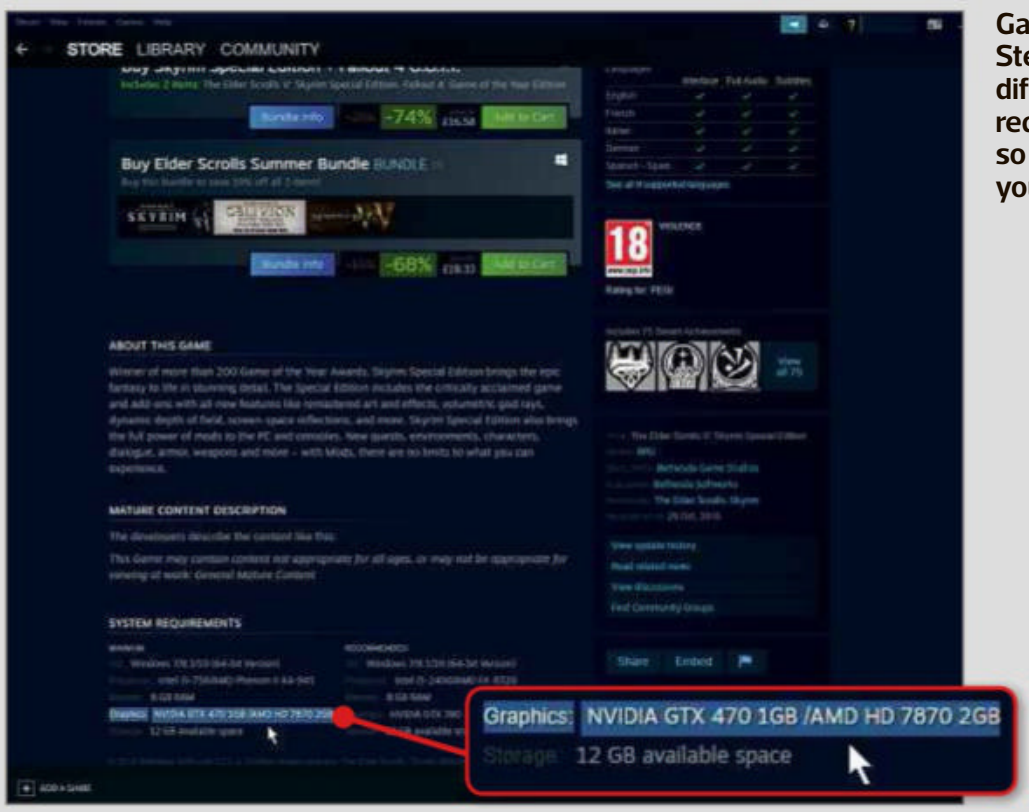
Partitioning is quick, easy and pretty safe. While every situation is obviously different, if you're simply splitting one large partition into two or more – as we described in our Workshop – there's certainly no need to move files or clear the drive. Any files you have on the drive before partitioning will remain on the first partition. This is because drive partitions aren't physical divides. They're simply 'logical' markers that tell Windows to treat particular files as if they were grouped together on separate drives.

In our Workshop, we used MiniTool Partition Wizard(www.snipca.com/38685). To use it, simply select your hard-drive's main partition and click Split Partition (see screenshot).

Can my PC play Steam games?

Q I have an older PC that I mostly use to browse the web and do a bit of word processing. However, now that I'm retired I wouldn't mind exploring the gaming world. A friend told me I should get on Steam (https://store.steampowered.com), but would my computer be able to run these games?

David Mason



Games on Steam have different system requirements, so check before you buy

A There's no simple answer to this, because different games have different system requirements. However, an older computer is unlikely to be powerful enough to run the very latest games with satisfactory levels of speed and graphical finesse.

We don't know the specification of your computer, but if it's running Windows 10, you should at least be able to install the Steam platform. From there, you can click through games in the store, then scroll down to the System Requirements section to see what each game needs. Pay particular attention to the graphics requirements (see screenshot). If your PC's graphics card is older than the one stated, we wouldn't risk wasting money on that particular game.

WHAT'S THE DIFFERENCE BETWEEN...

Surround sound and spatial audio?

Q I read that Netflix is introducing spatial audio. However, when I tried to find out what this means, I just ended up getting confused. Everyone seems to have a different idea of what it is. Can you help me understand it in your usual clear way? How does it differ from surround sound?

Tony Barclay

If you want to experience spacial audio, you'll need a set of Apple AirPod Pro earbuds (right) or Max headphones (left)

A Any answer to this question is likely to be a bit of a head-spinner – in more ways than one – but we'll try to keep things as simple as possible!

Originally, surround sound placed you in the middle of a circle of sound, so that audio seemed to be coming at you on a two-dimensional plane – from the front, the sides and behind you. Later, with the introduction of standards such as Dolby Atmos, surround sound entered the third dimension. With a compatible setup – typically a set-top box to serve up the TV pictures, and a set of speakers – audio can hit you from all directions. This means not just from the front, sides and rear but also from above and below. Conceptually, you're in the centre of a sphere of sound.

Spatial audio takes the idea of 3D audio even further by changing what you hear as you move your head. With the right equipment – which for Netflix means a newer iPhone or iPad running iOS 14 or iPadOS 14 and a pair of Apple's AirPods Pro or AirPods Max headphones (pictured) – the technology allows audio to respond to the position of your head in 3D space and the direction you're facing.

Imagine you're watching a movie scene where a car is in the centre screen, revving its engine. With spatial audio, if you move or turn your head left or right, even though the image remains in the centre of the screen, the direction of the engine's sound will appear to shift a little – as if you were moving your head in front of a real car.

Want to know the difference between technical terms? Email noproblem@computeractive.co.uk

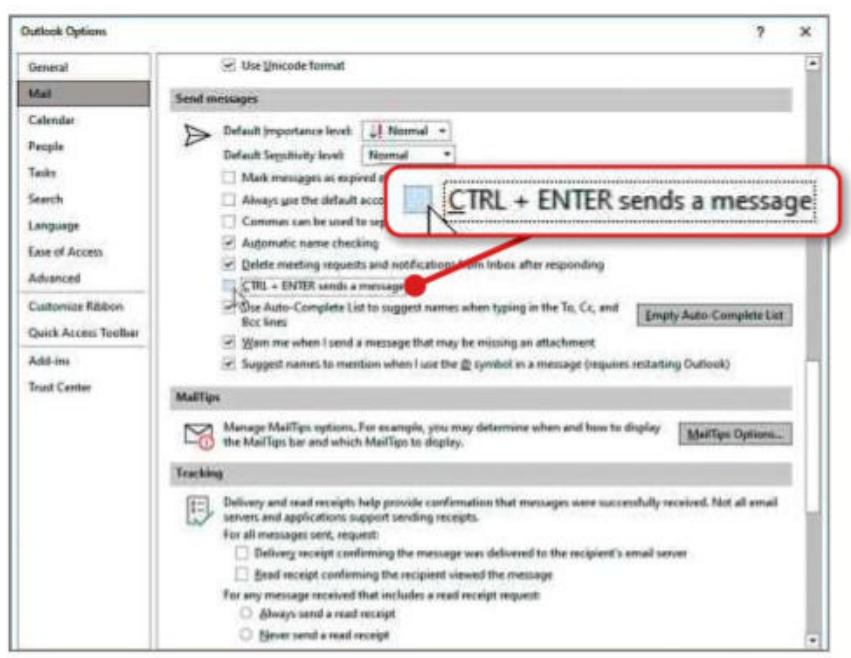
How do I stop Outlook sending unfinished emails?

Q Is there a way to stop Outlook sending an email as soon as I press Control (Ctrl)+Enter? When I type, I sometimes find that my left hand is resting on the Ctrl key. If I then press Enter to start a new line in an email, Outlook fires off my message before I've finished writing it! It's really frustrating.

Jane Marshall

A We know exactly what you mean! This particular shortcut has caught out *Computeractive* staff plenty of times, too, so many of us are quick to disable it as soon as we upgrade to a new PC.

This is easy to do when you know how, but the relevant option is well hidden. First, in Outlook, click File followed by Options. Then, in the Outlook Options box that appears, click Mail on the left and then, in the right-hand pane, scroll down to find the 'Send messages' section. Finally, click to remove the tick from the 'CTRL + ENTER sends a message' box (see screenshot), then click OK.



To avoid sending emails prematurely in Outlook, open the Mail settings and disable the Ctrl + Enter keyboard shortcut

Next Issue

ON SALE Weds 6 Oct

- How do I stop my icons going small?
- Can I add an M.2 drive to my desktop PC?
- Why won't Edge download?
...And many more

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Problems **Solved**

Reader Support

Having a problem with our recommended software or expert tips? Email **editor@computeractive.co.uk** and we'll do our best to help

Was your USB capacity advice wrong?

Q I was interested to read your advice to Murray Sinclair about why he was unable to copy a small file to his USB stick (Problems Solved, Issue 612). In fact, I think the error-message screenshot reveals a different solution. It says: "There is not enough space on USB2. You need an additional 63.9MB to copy these files". The files Murray is trying to copy are 63.9MB bigger in total than the available 3.06GB of free space. I think he inadvertently misled you by stating that he was trying to copy a 63.9MB file. What do you think?

Paul Hickman

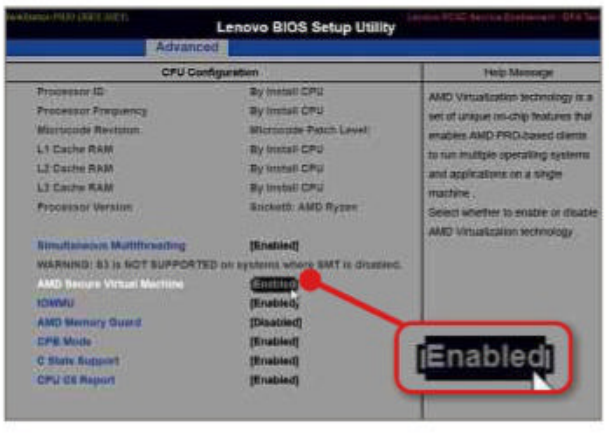
A We think you spotted a tiny detail that we missed! And yes, this happened precisely because we focused on what Murray said in his question, rather than on the error message. That was our mistake, and we're happy to publish your helpful insight.

Why can't I run System Diagnostics?

Q Following your suggestion in Issue 612's Cover Feature, 'Make Windows 10 Last Longer', I tried running System Diagnostics, but both laptops I tried it on displayed an error message saying the Data Collector Set or one of its dependencies was already in use. I'd be interested to know if there is a way of getting it to work.

Ian Tucker

A It's not easy to pinpoint the exact cause, because that error message doesn't give us many clues, but security software is often near the top of the list of culprits. In particular, any live-scanning elements of your antivirus program could be responsible. If you use the same security software on both laptops, that would add weight to our hunch.



To use virtual PC's on your computer you need to enable this BIOS setting

While we wouldn't advise disabling your security software just to run this tool, you could check the settings and temporarily disable any non-essential elements to see if that works. AVG, for example, lets you switch off selected features for just a few minutes, which should be more than enough to try System Diagnostics again.

What's this VirtualBox error?

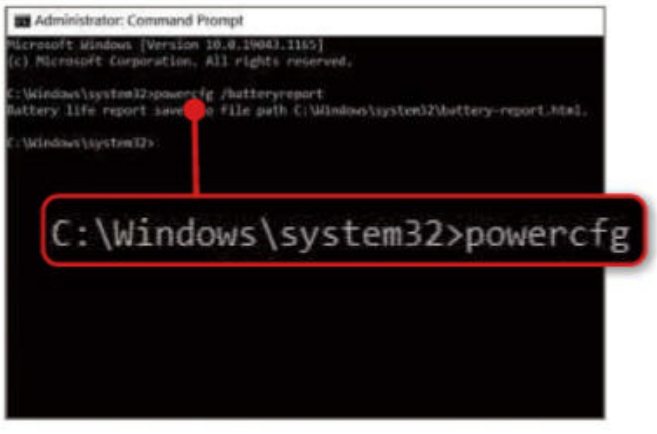
Q After reading your Cover Feature on Windows 11 tools (Issue 610, page 55), I thought I'd try creating a virtual PC. Despite following your advice to the letter, I can't get it to run. All I see is an error message, but I don't know what it means. Can you help?

Rod Turner

A Yes, the error message is telling you that the AMD-V technology your computer needs to run virtual PCs is not enabled in the BIOS.

Without knowing your PC's make and model, we can't tell you precisely how to remedy this. However, accessing the BIOS usually involves pressing a key soon after the PC is switched on – typically F2 or Delete (Del). Look for a message along these lines, then press the relevant key.

Once you're in the BIOS, use the cursor (arrow) keys and Enter to navigate the pages. Look for an option called 'AMD Secure Virtual Machine' (or similar). Again, use the cursor keys to navigate to this, then press Enter to change it from Disabled to Enabled (see screenshot above left). Finally, press F10 or Escape (Esc) to exit the BIOS, being sure to select Yes to save your changes.



Type this command into Command Prompt to check your laptop's battery capacity

Why does my battery report instantly disappear?

Q I'm an avid *Computeractive* reader, so I enjoyed Issue 612's 'Make Windows 10 Last Longer' Cover Feature. However, when I tried to check my Windows 10 laptop's battery capacity by typing the command you published, the response flashed on and off the screen quicker than a blink of the eye! Is there any way to make it stay on the screen so that I can actually read it?

Len Jones

A We're pretty sure you accidentally typed the powercfg /batteryreport command into the Windows 10 Start menu or Taskbar search box, rather than into a Command Prompt window – which is what we actually advised. Doing this would result in exactly the effect you describe.

We explained how to open a Command Prompt window in the preceding section, but as this part related to hard drives, you may not have read it. So, to recap, click Start then type cmd and press Enter. Next, in the Command Prompt window, type powercfg /batteryreport (see screenshot above) and press Enter – and that should be that.

Jargon **Buster**

1080p Of the common types of high-definition video, this is the best quality: 1920x1080 pixels.

32bit/64bit A measure of how much data a PC can process at once. Most older computers are 32bit, more modern ones are 64bit.

720p A common resolution of high-definition video: 1280x720 pixels.

AAC Advanced Audio Coding. A type of music file.

Administrator Someone who can make changes to a computer that will affect others who also use it.

AI Artificial Intelligence. A computer program designed to mimic the behaviour of humans or animals.

APK Android Package Kit. The file format Android uses to install apps.

Aspect ratio A measurement of the shape of a display. Traditional computer screens are 4:3. Widescreen displays are 16:9 or 16:10.

Bandwidth A measure of how much data can be transferred through a connection at one time.

Batch file Commands that are processed in sequence, often without requiring input from the user.

Benchmarking Comparing software and products with an accepted standard.

Beta A version of software that's being tested. Beta versions are often released so problems can be ironed out.

BIOS Basic Input-Output System. Software built into every PC that connects the vital components. It's visible for a few seconds when the PC starts.

Boot The process of starting up a PC after it's been turned off.

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. Can be memory used on a computer processor, or space on a hard drive used by a web browser.

CAPTCHA Distorted text you have to type to prove you're a human.

cd/m² Candela per square metre. Standard unit of brightness.

Cookie A small text file stored on your computer by a website. Used to store browsing preferences, website log-in details and so on.

CSV Comma Separated Value. A standard file format, used for storing tabulated information, that can be opened by most spreadsheet programs.

DisplayPort A new socket for connecting monitors.

DLNA Digital Living Network Alliance. A technology that enables devices such as TVs, network media players and NAS devices to communicate with each other and display media files.

DRAM Dynamic RAM. Type of memory that can store more data than Static RAM (SRAM). It's cheaper, but slower.

Driver A file that tells Windows how to work with an external device.

Emulator A program that makes one computer act like another, allowing it to run that computer's software.

EXIF Exchangable Image File Format. A method for storing extra information, such as the date, time and camera model, inside digital photo files.

Fps Frames per second,. Normally used to indicate gaming performance.

Frame rate The number of still images, or frames, shown per second to create a moving image. Higher frame rates make games appear smoother and more realistic.

GIF Graphics Interchange Format. A type of image file often used on the web, but now largely superseded by PNG.

Gigabit Ethernet A very fast networking standard that can transfer data at up to 1,000Mbps.

HDMI High-definition media interface. A type of connection that transmits high-definition video and audio signals.

HTTPS Hyper Text Transfer Protocol Secure. The secure version of HTTP, the technology that sends data between your browser and the web.

Hyper-fast Loose term for broadband speeds up to 1Gbps (1,000Mbps) and beyond.

Hz Hertz. Measures the frequency something happens: 1Hz equals once a second.

Image stabilisation A mechanism built into digital cameras that compensates for any shaking or vibrations that occur during shooting.

IMEI Integrated Mobile Equipment Identity. A unique number used to identify each mobile phone.

IP address Internet Protocol address. A unique set of numbers used to identify computers and websites on the internet.

IPS A screen technology. Monitors that use it have wider viewing angles and better, more accurate-looking colours compared with monitors that do not use it.

IPX8 An official industry rating classifying the level of protection in a product against outside intrusion. IPX8 means a device is suitable for continual submersion in water.

ISO file A type of image file that contains all the data from a disc.

JPEG Joint Photograph Experts Group. A common type of image file created by most digital cameras. Some image quality is lost with each save.

MicroSD card A small type of memory card. Can be converted to SD size using an adapter.

MicroUSB A miniature version of USB, often found on smartphones, tablets and portable hard drives.

Mirror To display on your TV what's on your PC or tablet screen.

Moulded boot Attached to RJ45 Ethernet cables to join the connector to the cable. Doesn't protect the clip, so designed for cables that aren't plugged in very often.

NAS Network-attached storage. A hard drive attached to a network that can be shared with other PCs.

OLED Organic light-emitting diode. A thin-film organic light-emitting diode used in computer and TV screens.

Open source Software that can be modified by anyone, rather than just by the employees of the company that created it.

Partition A large hard drive can be split into two or more partitions or 'virtual' drives. Once partitioned, each section is treated by Windows as though it were a completely separate, smaller hard drive.

Phishing A form of internet fraud that tries to trick you into revealing personal details.

Pixel-binning The process of combining data from four pixels into one. Increases image quality in phone cameras without forcing manufacturers to use larger sensors.

Plug-in A small program that adds extra features to software or to your web browser.

Progressive web app A website that looks and works like an app, which can be opened on both desktop and mobile devices. PWAs don't need to be installed and are supported by Chrome, Safari and Edge.

RAM Random-access memory. The computer's working area, used for data storage while the PC is switched on. Its capacity is measured in megabytes (MB): the more memory your PC has, the more things it can process simultaneously and the faster it will seem. Any information in RAM will be lost when the power is switched off.

Read speed How long it takes a hard drive to 'read' data, and respond to it.

Refresh rate Measured in Hertz (Hz), the number of times per second that the image on your monitor is redrawn. Slight changes in the image each time it is updated combine to give the illusion of movement. For a steady image, the higher the refresh rate, the less flicker you will see.

ROM Read-only memory. Any memory that can be read but not written to. A PC's BIOS uses ROM to store basic system information and instructions that cannot be changed.

RTF Rich Text Format. A file format used to transfer files between different types of word-processing programs. It preserves most of the formatting of a document.

Sideload To install apps without using the official Android or iOS stores.

Skill Apps for Amazon's Echo that perform voice-activated tasks

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, unlike a hard drive, uses no moving parts. Faster but more expensive than conventional hard drives.

Tag A keyword used to describe a file or web page. Many programs use tags to organise related information quickly.

Tweeter A speaker designed to produce high audio frequencies. Named after the noise made by birds.

Two-factor authentication A system that uses two different means to identify the user. For example, a code sent to your phone in addition to a password.

.TXT A basic file format that contains nothing but text.

UEFI Unified Extensible Firmware Interface. A modern replacement for the BIOS, designed to get a PC into a state where it can launch an operating system.

USB 2.0/3.0/3.1/3.2 Faster successors to USB.

USB-C A new connector that's reversible, letting you plug it in upside down.

Virtual PC A Windows tool that enables you to run a second 'virtual' operating system on a PC, such as running a version of Windows 7 in a Windows 10 computer to use older programs.

VPN Virtual private network. Keeps all internet communication safe and private.

Wi-Fi 5 Also called 802.11ac. A standard for wireless networks that allows for much higher transfer speeds than 802.11n.

Wi-Fi 6 Wi-Fi standard with speeds up to 10 times faster than 802.11ac. Also called 802.11ax.

Widget A small program such as a calendar that runs on the Windows desktop.

Woofer A speaker designed to produce low-frequency bass sounds. Named after the noise made by dogs.

WPA Wi-Fi Protected Access. A secure form of protection for wireless networks.

WPS Wifi Protected Setup. An easy way to make a wireless connection between a device and your router by pressing the WPS button on both. The device and your router must both support WPS.

Write speed How long it takes a hard drive to save data.

XML Extensible Markup Language. A versatile type of document that can store various types of information.

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3	sky	Sky: Superfast Talk + Line Rental	£28.00	18 months	59Mbps avg. speed	∞ unlimited *	£336.00
4	Virgin media	Virgin Media: Big Bundle + Fibre Broadband + Weekend Calls	£29.99 (£62 after 18 months)	18 months	108Mbps avg. speed	∞ unlimited	£359.88

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Broadband GENIE

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Easy when you

Know How

Worried about coping with the daily demands of his new Deputy Editor role, **Robert Irvine** tries to...

Simplify his workflow using Vivaldi

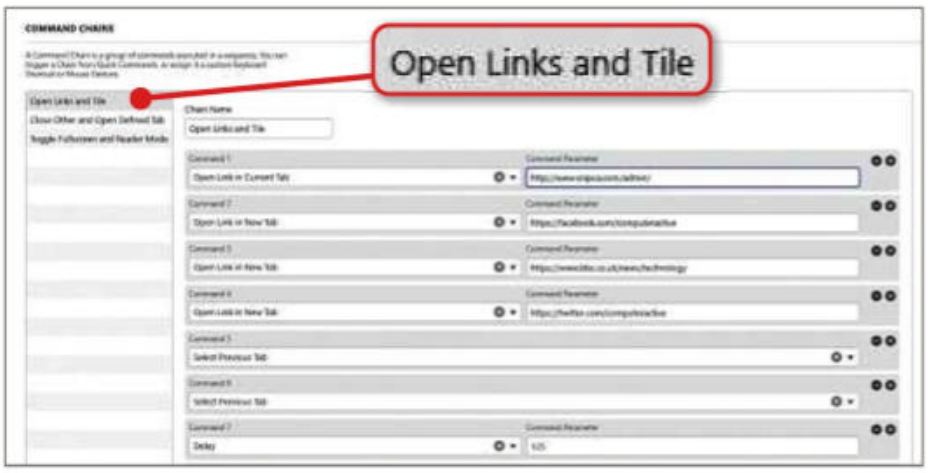
One of my favourite geeky web resources is Google Books Ngram Viewer (www.snipca.com/39331), which helps you pinpoint when a specific word, name or phrase first appeared in print, and track its prevalence over time. The word "codswallop", for example, traces back to the 1870s and crops up frequently in reports of parliamentary debates.

> Command Chains gives you more time to stare out the window, eating crisps

I thought of Ngram – and codswallop, incidentally – while waiting to be inducted into my new job. While I'm delighted to have joined *Computeractive*, and rejoined its parent company, I'd forgotten that starting employment invariably involves sitting through a tedious introductory presentation, full of corporate jargon about "synergy", being "results driven" and "optimising workflow".

When did the word "workflow" become common parlance, I wondered? Ngram suggests it's been around since the 1960s, but significantly took off in the early 1990s, following the rise of the systems analyst. More importantly, how was I supposed to optimise my own workflow, to avoid letting down my team and employer?

I found a potential answer in the brilliant Vivaldi (https://vivaldi.com), which we described in Issue 611 as a "much more innovative browser than Chrome or Edge". Vivaldi has just added a clever new feature called Command Chains, which lets you perform a sequence of everyday tasks using a single shortcut. This helps you simplify your workflow, giving you more time to stare out of the window, while eating crisps.



Robert chose the 'Open Links and Tile' option in Vivaldi's new Command Chains...

Excited by this results-driven approach, I launched Vivaldi, updated it to its latest version (4.1, at the time of writing) and looked for Command Chains. Now, I love Vivaldi, but it can be a bit confusing and the new feature wasn't clearly flagged. I found it by clicking the Vivaldi button in the top-left corner, then choosing Settings and picking the most likely location, which was Quick Commands. I scrolled down and – lo and behold – there was the Command Chains section, with three options to choose from.

The best of these was called 'Open Links and Tile' (see screenshot above), which launches a predetermined set of web pages, stacks their tabs for easy access and tiles the pages vertically, so you can see all their content at once (see screenshot above right). This sounded like a great way to start my day, rather than wasting time manually opening multiple tabs, so I changed the default tabs (which are all Vivaldi pages) to *Computeractive*-relevant sites, including our Facebook and Twitter accounts, as well as BBC Technology News. I then clicked the button to 'Test Chain' and watched the magic happen, as my preferred tabs opened, stacked and tiled before my eyes.

The next step was to work out how to create a shortcut to run this command chain, as this option was also far from obvious. I eventually located it in the Keyboard section of Vivaldi's Settings,

...and was able to open and tile multiple web pages using one keyboard shortcut

where it was typically right at the bottom. I clicked the plus sign next to Chains and there was my 'Open Links and Tile' chain. I then clicked in the shortcut box and pressed the keys for my desired keyboard shortcut: Shift+C, since you ask – simple but effective! I tested the shortcut and it worked like a dream.

Vivaldi's other default Command Chains weren't as useful, but I was intrigued to discover that you can create your own. I clicked the plus sign in the bottom-left corner of the Command Chains section (in Settings then Quick Commands), and scrolled through the long list of available commands. By selecting one as my first command, and then clicking the plus sign to add further tasks, I was able to create a command chain that checks Vivaldi for updates, deletes the browsing data from my previous session, mutes all tabs in case any contain noisy video ads and moves my cursor to the browser's address bar. And if that isn't optimising my workflow, then I'd like to hear a better idea!

Need help improving your workflow? Let us know: noproblem@computeractive.co.uk

Next issue: Robert tries to password-protect a USB stick

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